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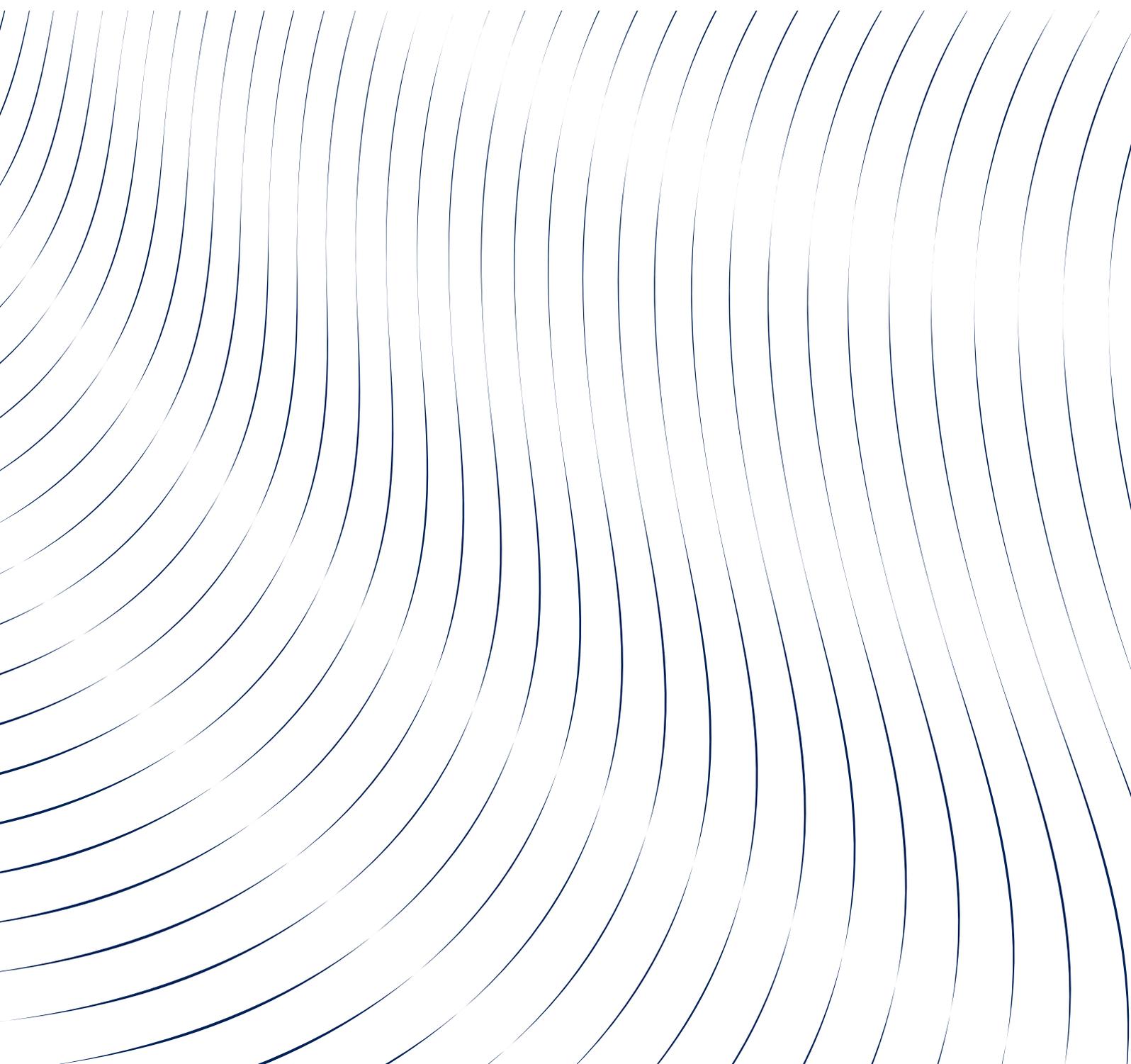
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DANISH BUILDING RESEARCH INSTITUTE
AALBORG UNIVERSITY COPENHAGEN

SUBURBS – TRANSFORMATION AND DEVELOPMENT

PAPERS FROM THE NSBB-CONFERENCE
17-19 SEPTEMBER 2013 IN DENMARK



Suburbs – transformation and development

Papers from the NSBB-conference 17-19 September 2013 in Denmark

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Foreword

The Nordic Urban and Housing Research Network (NSBB) was established in 1997 with the aim of hosting annual Nordic seminars on urban and housing research in the Nordic countries. The host in the 2013 conference was The Danish Building Research Institute, Aalborg University in cooperation with The Danish Centre of Housing Research. It was held from September 17th to 19th in Roskilde, Denmark. The theme of the conference was *Suburbs - transformation and development*.

The Scandinavian suburbs have existed for a while now, and there are currently numerous ongoing initiatives discussing the future development of suburbs. This happens in the recognition that suburbs represent a significant part of the overall townscape, combined with a new interest in suburban qualities. The conference aimed to discuss the ideas and ideals that form the basis of the current suburb development projects; projects which all intend to revitalize and develop the suburban everyday life.

It seems that the interest in the suburbs has occurred after several decades where they have been subjects to harsh criticism. The suburbs have been associated with environmental and social problems, and their settlements have been called poor on experiences and alienating. Efforts are therefore done among both scientists and practitioners, to elucidate the suburban issues and to developing the strategies that may be the solution to solve the very same problems.

Parallel to the keynotes in plenum three workshops was arranged. They were

- Architecture and everyday life
- Segregation, settlement patterns and the housing market
- Sustainable homes and cities

It is the papers from these workshops that are published in this proceeding. The papers present the interdisciplinary character of housing research in the Nordic Countries. The papers have all been peer-reviewed, and thus we intend to continue and develop Nordic housing research on a high scientific level in the framework of Nordic Urban and Housing Research Network.

Danish Building Research Institute, Aalborg University
Town, housing and property
November 2013

Hans Thor Andersen
Research Director

Workshop Session B

// Architecture and everyday life

Programs put forward in architectural projects frame a space with certain function and meaning – and thus seek to create places. But architecture and urban setting are constantly challenged through daily life – and thus even rigid defined spaces are used, altered, translated and rewritten through time. As humans we actively relate to and manage our surroundings. Individuals as well as groups produce and reproduce places and occasions – and thus renegotiate themselves and their lifescapes. This workshop session invites papers focusing on the interrelatedness between architectural space and social space.

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Suburban development in Denmark

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Danish Buildings Research Institute, Aalborg University.

Abstract

In this paper I focus on current projects and activities aiming at renewal and revitalisation of Danish suburban areas. In the last five years several activities have been initiated in order to discuss possibilities and strategies for the future development of the suburban areas in Denmark. A Think Tank has published a report, books and political statements have pointing to the suburban areas as important focal points for future developments, and a number of architectural competitions have been launched. The paper is based on review of these activities. It is pointed out, that 'cultural heritage', 'identity', 'densification', and "urban qualities" are important buss words in the ongoing activities. Subsequently it is pointed out, that the current renewal projects are often based on architecture and planning ideals which are diametrically opposed to those that formed the suburban areas when they were original developed. On this background the paper raise the question, if 'dynamic change' is in fact the primary goal.

I this paper will present some of the issues, that are currently dominating the debate on the development of Danish suburbs - and some of the buzzwords that are dominating this debate. The paper is based on a review on the Danish activities, that are currently taking place in Danish suburban areas. The activities that I look into are architectural competitions that are aiming for renewal and revitalisation of the suburbs.¹ As I am an architect, so I focus primarily on the renewal on physical structures, the suburban buildings and infrastructure.

Cultural heritage

In Denmark, the suburbs are increasingly being discussed as part of our *cultural heritage*. Books, reports and political statements are pointing to Post-War buildings and suburban areas as important architectural expressions of our welfare society. These buildings include schools, municipal town halls, sports facilities such as swimming pools - and finally various forms of housing; both private owned detached houses and social housing.

The focus on cultural-heritage indicates the possibility, that the suburbs holds qualities that are worth developing. And thus, that we don't once again have to start from scratch by establishing a mental and historical *tabula rasa* (Bech-Danielsen, 2013).

One fine example of this came from the Danish Architets firm called Vandkunsten a couple of years ago when they won a competition to transform an industrial area in the Copenhagen suburb, Bagsværd. The competition covered an area from the 1950s which was described in the programme as "a tired and worn out area with no outstanding qualities". As a result several of the

¹ Among these project are the six architectural competitions initiated by RealDania. They have taken place in Farum, Guldborgsund, Albertslund, Glostrup, Ålborg and Vejle. I have been jurymember in some of these competitions, and I have analysed the results of the competitions in two articles in the book, *Fremtidens Forstæder* (Dirckinck-Holmfelt, 2013).

firms taking part in the competition reacted by adding entirely new qualities to the area. For example, one proposal entailed building a town with interweaving canals, which clearly had roots in current trends rather than in the actual location in Bagsværd.

In contrast to this, Vandkunsten's winning project was based on careful mapping of the qualities on the location, as they insisted that the existing area did indeed hold qualities. Large trees and distinctive buildings were mapped and subsequently used as the starting point in the proposal for future development of the area.



Figure: Vandkunsten project in the Copenhagen suburb, Bagsværd. The competition covered an industrial area from the 1950s. Vandkunsten's winning project (left) was based on careful mapping of the qualities on the location – trees and distinctive buildings were mapped (right) and used as the starting point in the proposal to the area.

This meant that the project concerned itself with reuse; not just reuse of buildings, materials, plants and trees, but also, and more importantly, reuse of *identity*. Vandkunsten's project further-developed existing qualities; buildings were preserved, established narratives were interpreted, and new layers of meaning were laid on top of the existing layers. This in my point of view heralds a very interesting approach to development of suburban areas.

Densification and urban qualities

The project in Bagsværd is about cultural heritage, but it is also about *transformation*, another important buzzword in the current debate on developing Danish suburbs. Transformation in the meaning: transformation from one function into another. And when looking at this type of transformation, industrial areas become a crucial consideration. The Danish think-tank on the suburbs (*Forstædernes Tænketa*) was set up to indicate sustainable development of the Danish suburbs and it looked for possibilities to create a physical and social densification in the suburbs. (Here we find yet another important buzzword: *densification*. In this context the think-tank pointed out, that the industrial areas are the most realistic place to put in focus if we want to develop a suburban densification – as the large areas of detached houses are locked by private ownership (Kvorning, 2012).

Other important issue in the debate on the Danish suburbs are *urban qualities* and *urban life*.

A couple of weeks ago I took part in another panel in connection with the launch of an architecture competition about "sustainable social housing of the future" (Ministeriet for By, Bolig og Landdistrikter, 2013). After the Danish Housing Minister had presented the background for the

competition and explained that one of the developments in the competition was to be in the suburban area Lisbjerg outside Aarhus, one of the architects in the audience exclaimed: "How on earth do you imagine that you can get people to move to Lisbjerg when – in these years - new social housing are built right in the heart of Aarhus"?

The architect's question reveals how many architects and planners perceive the suburbs. City centres are exotic and interesting; full of meaning and experiences. Density, friction and chaos are exciting - at least in these decades - and urban life and urban qualities are therefore preferred to the calm and ordered suburban lifestyle.

This is also clearly expressed in the competitions which have taken place in six Danish suburban areas over the past couple of years. The competition programmes criticise the suburbs for their "lack of urban qualities". This is a somewhat curious way of putting it, given that the very existence of suburbs is based on escaping from the city – urban qualities were never intended. Things become even more curious when we consider that we are now establishing suburban qualities in town and city centres. New housing areas are being built in towns and cities with lawns on roofs, and views over recreational areas (both green and blue) - and the smell of barbecues provides a suburban atmosphere on a warm summer evening (Mechlenborg, 2011).

We make the suburbs more urban and at the same time make towns more suburban. We talk about *variety* and *diversity*, but are we in reality dissolving the existing distinctions?

There is great faith in densifying the suburbs, and associated development of urban qualities are to pave the way for suburban development. This also applies with regard to renewal of social housing. An obvious example is the current transformation of Gellerupplanen near Aarhus, one of the larger Danish housing areas from the 1970s. New roads will cut through the area and shops and cafés are meant to flourish in order to create new life – meaning urban life - in the area.

We have seen many plans like this in recent years. The housing estates that were originally developed in order to create landscape qualities are being transformed in a more urban direction. However, there are a few exceptions. For example the renovation of another of the large 1970s developments in Denmark - Ishøjplanen south of Copenhagen (Bech-Danielsen, 2008). When this development was first built in the 1970s, it was considered as something exceptional: in contrary to the trends of the time, it was built in the image of the city. In principle the development was built as an urban housing block, it was oriented around a street structure, it had green courtyards (very big), and with inspiration from contemporary city centres the streets were developed into pedestrian areas. Recent transformation of this area addressed the fact, that it has never been possible to create the desired urban life in the pedestrian streets, so instead the area was transformed into park housing.

So – what I'm trying to get at: In cases where the housing areas were originally established with the intention to create landscape qualities, the current renewal projects are making great efforts to transform these areas in order to create urban qualities. And vice versa, in the few cases where the housing area was originally built with the intention to create urban qualities, great efforts have been made to transform the area by developing landscape qualities.

Dynamic change – a goal in itself?

It seems as architects and planners often tend to seek solutions lying 180 degrees in the opposite direction from that which has proved not to work. This trend can be discovered analysing current renewal projects in postwar housing areas in the suburbs. The current renovation projects

challenge the existing structures, not by adjusting them, but rather by changing them fundamentally and by rejecting the ideals, that they were originally based on. For instance this applies to the ideal of traffic separation, which in the post-war settlements led to the construction of road systems that keep pedestrians away from vehicles etc. Today, these traffic systems are being phased out and one of the most striking innovations in this regard is the term shared space (Hamilton-Baillie, 2008), that by contrast aims to blend various road users. It applies likewise to the transformation of mono-functional residential areas, which in its original mind set was about the development of zoned cities (Le Corbusier, 1942), where residential life could unfold at a distance from production noise and pollution. Today's intentions are to mix residential and commercial use (Storgaard, 2004) - and to mix different types of ownership, for that matter. The ideal of equality, which in post-war building was developed into a 'form-giving principle' (Bech-Danielsen, 2004), is in the Danish renewal projects replaced by the desire for diversity and multiplicity (Andersen and Andersen, 2004). The original ideal of simplicity and harmony (Abrahamsen, 1994) has in recent years given way to complexity and the unforeseeable (Nielsen, 2001). And as described, the original dream of park estates, far from city noise and close to scenic landscapes, has been replaced by attempts to create urban qualities and urban life.

Thus the current renewal projects in suburban areas are often based on architecture and planning ideals which are diametrically opposed to those that formed the basis when the settlements were built in the 1960s and 1970s. You could be excused for thinking that transformation and a wish to create 'dynamic change' are goals in themselves.

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Bonjour tristesse in Swedish suburbia - les banlieues sur la barricade !

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Abstract

At the end of May 2013, Swedish suburbs became breaking news around the world with nocturnal newsflashes displaying burning car wrecks and aggressive, dark figures nearby – *les banlieues Suédoises étaient sur la barricade!* During two intense weeks, the car burnings spread to other suburbs around the country. Global news media paralleled the Swedish situation with previous incidents in Paris in 2007, Athens in 2008 and London in 2011. Foreign offices, among others the American, British, Danish, and Norwegian ones, advised their citizens not to travel to Sweden: the Swedish welfare model was on the verge of imploding.

National news media, along with the majority of Swedish citizens, residing both in the afflicted suburbs and elsewhere in the country, acclaimed the prime minister's call for law and order. The spark that ignited the incident of the turmoil was soon identified as a police action that had gone dramatically wrong, but living conditions in suburbia were brought forward in the public debate. The role of the suburbs as a transition zone for people with an immigrant background was re-discovered, characterised by a high dependency on public financial support, a poor level of education and a high unemployment rate. The young generation experienced a *Bonjour Tristesse!* existence going in and out of unemployment.

An existing dismay with architecture and physical planning of suburbia surfaced: The plausible responsibility of the body of architects was debated, since many esteemed profiles of the Swedish functionalist architecture had been involved in its realisation. One representative of the profession stated the need for upgrading the existing architecture to new user needs, while another one emphasised that the real group of inhabitants in suburbia is often not the group of users envisioned by the municipal real estate companies. This scholarly essay unravels the events that took place in the Swedish suburbia during two violent weeks in May 2013. In addition, it analyses the Swedish approach to coming to terms with suburban problems, without resorting to a French presidential high-pressure water cleansing methods suggested for the Parisian situation in 2007 – *nettoyer au Kärcher*.

Key words: Swedish suburbs, architecture, functionalism, rationalism, welfare goals

Introduction

During two intensive weeks at the end of May 2013, Swedish suburbia was breaking news in worldwide media. Suburbia was on fire. News media in Denmark, Norway, the UK and the

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US reported that the Swedish welfare model was on the verge of imploding, perhaps with a touch of malice. Foreign citizens were advised not to travel to Sweden, and not to visit the suburbs that were the focus of these events. The incidents in the Swedish suburbs were paralleled with the ones in the Parisian suburbs, which burst into flames in 2005 and 2007: *la société était assiégée et les banlieues étaient sur la barricade*².

In contrast to these dramatic overtones in foreign media, Swedish media assumed a cautious stance somewhere in between pure astonishment at the events taking place and a premonition of a latent crisis in suburbia, in particular, in the areas with a large proportion of inhabitants with an immigrant background. Regardless of political orientation, the national media supported the Swedish prime minister, who called for law and order while openly expressing his support for the police. Trying to look beyond the flaming car wrecks, a national discussion was initiated on the state of Swedish suburbia. The dependence on public financial support among people with immigrant background paired with a low level of education produced a high unemployment rate. As a consequence, the younger generation experienced a type of a *Bonjour tristesse!* situation.³ This short scholarly essay unravels the logics of the events that took place in the Swedish suburbia during two violent weeks in May 2013. The main sources for making this story telling has been national news media, and similar ones of American, British, Danish, French or Norwegian origin. Given, the accuracy of French media to depict the causalities of the events, as well as the author being Francophile, headlines and titles are in French, taken from such sources and integrated in the text.

Les banlieues et l'état – parias ou ghettos urbains?⁴

The igniting cause of the first car burnings in the suburb of Husby outside Stockholm was soon detected: Domestic violence in the Stockholm suburb of Husby perpetrated by an angry husband in his late sixties, who suddenly started to threaten his wife with a machete knife, in combination with a police apprehension that turned dramatically wrong: For unknown reasons, the normal rule of firing an initial round of warning shots at knee height was overlooked, and the ageing man was gunned down by two policemen in his own flat. Media had already reported the incident some weeks earlier, and the Swedish judicial system had initiated an investigation of the two involved policemen. This being the root of the ongoing riots in Husby was sensational. However, similar police actions had gone wrong, and although originating from a legal offence of any sort, it can be identified as the cause of the subsequent riots in Paris in 2005 and 2007, Athens in 2008 and London in 2011.⁵

Swedish morning television broadcasted a debate between a representative of the Swedish

² The society was besieged and the suburbs were revolting.

³ Although referring to the Parisian upper-class situation of an 18 year old woman with access to the comfortable living conditions at the French Riviera, the fictional character shares the existential problem of the younger generation in Swedish suburbia of not being included in the context of contributing to society and realising personal goals in life: all found in the revolutionising novel by Françoise Sagan in 1954, entitled *Bonjour Tristesse*, source: F. Sagan, *Bonjour Tristesse [Hello Sadness]* (Paris: Juillard, 1954).

⁴ The suburbs and the state, non-desired and urban ghettos or Wacquant, L., 2007: *Parias urbains, ghettos urbains, banlieues, état*. Paris : Découverte.

⁵ In Clichy-sur-Bois, Paris in 2005, the reason for the riots was an anonymous call to the police, which proved to be wrong, stating that five young men with immigrant background tried to break into a building site. The police apprehension turned wrong, since two of the men were electrocuted at a power plant nearby in an attempt to hide from the police (http://fr.wikipedia.org/wiki/%C3%89meutes_de_2005_dans_les_banlieues_fran%C3%A7aises). In Villiers-le-bel, Paris in 2007, the reason for the riots was a collision between two young motorcyclists and a police car in a roundabout, caused by the youngster who did not respect the car's priority in the intersection coming from the right (http://fr.wikipedia.org/wiki/%C3%89meutes_de_2007_%C3%A0_Villiers-le-Bel). In Athens, Greece, the riots in 2008 followed upon the shooting of a 15 year old boy by two policemen (http://en.wikipedia.org/wiki/2008_Greek_riots). In Tottenham, London, the riots in 2011 followed upon the shooting of a 29 year old local citizen, who was shot by the police since they suspected him for planning an attack and possessing a handgun (http://en.wikipedia.org/wiki/2011_England_riots).

Establishment and a spokesman for a local organisation in Husby, the association Megafon, which revealed a considerable discrepancy in the view on the hallmarks of a fair and legal process in a democratic society.⁶ In repressed anger, the Swedish minister of justice, Mrs Beatrice Ask, declared that the legal procedure to establish the policemen's innocence or guilt was part of the fundamentals of the Swedish society, and that the type of justice of the wild west, which was suggested by the spokesman, Mr Rami Al-Khamisi, would never be acceptable in a modern welfare state. The minister emphasised each citizen's responsibility to obey law and order, and help the police to stop the ongoing violence. In contrast, the spokesperson made vague allegations about brutality in relation to the domestic incident but also to the police's normal conduct in the suburbs. In addition, the spokesman denounced the political indifference when it came to suburbs with a large population with an immigrant background. All the same, the turmoil in Husby, Rinkeby, Tensta or any other suburbs touched by the nightly devastations was met with little local support. The dominant share of the population was appalled by the premeditated arsons in community, kindergarten and school buildings, the burning of hard working citizens' cars and the ostentatious violence among young men:

“Torching cars, cultural centres or schools are not signs of a population that prepare themselves for a revolt. Instead, the infrastructure, which is now turned into ashes, represents the means with which people of suburbia can free themselves. Someone is now removing these assets. Those, who want to contribute positively to reforming society, chose other ways to promote change: through interest organisations, congregations or sports clubs. [...] I had great visions for a better society, but none of them involved me carrying around a burning match in my hand.”⁷

Le modèle suédois ébranlé par les émeutes⁸

In foreign media coverage of the flaming car wrecks in the Stockholm suburbs, an essential factor was missing: the troubled suburbs are located close to or in the proximity of the Swedish counterpart of Silicon Valley in California, US, i.e. Kista on the northern outskirts of Stockholm. This melting pot of various disciplines and sources of knowledge has attracted the interest of several actors: the Royal Institute of Technology, KTH, the Stockholm University as well as several electronic companies, large or small, among others the Swedish multi-national technology company for telecommunication systems, Ericsson System. The community is a magnet for the creation of new jobs and innovative architecture. A large number of people commute on a daily basis to the suburb for work by means of private cars or the metro line. In this aspect, the events in Husby differ slightly from the incidents in Paris in 2007, Athens in 2008 and London in 2011; events that took place in predominantly residential areas with few or no workplaces. The suburbs of Akalla, Husby, Kista, Rinkeby and Tensta are connected to Stockholm by their own extension of the metro line, inaugurated in 1977.

The expansion of the five suburbs started with the southern realisation of Rinkeby and Tensta, and was finalised with the northern expansion of Akalla, Husby and Kista. The metro line was

⁶ See WWW.svtplay.se/klipp/1241062/hur-ska-fortroendet-for-polisen-atervinnas-i-husby, 22 May 2013

⁷ “Bränder av bilar, kulturhus eller skolor är inte ett tecken på att folket äntligen reser sig för att göra uppror. Denna infrastruktur som omvandlas till aska är medel för förortsbors frigörelse. Medel som någon nu vill ta ifrån dem. De som vill göra något gott för samhället engagerar sig på andra sätt. I föreningar, samfund och idrottsrörelser. När jag bodde i Vårberg hade jag stora drömmar om ett bättre samhälle, men ingen av dem tänkte jag bygga med en tändsticka i handen.” Inti Chavez Perez www.svd.se/ledarbloggen/2013/05/23/lasvardheter-om-oroligheterna and www.fib.se/inrikes/item/2899-brann-inte-vara-hem.

⁸ The Swedish model is shaken by the riots, in: tempsreel.nouvelobs.com/monde/20130523.REU4755/le-modele-suedois-ebbranle-par-les-emeutes.html.

put in a culvert underneath the built environment, and the concept of the sprawl city was introduced. The suburbs were realised during the period of 1966 to 1977 on farmland or in pinewood forests, which for more than 50 years had been used as a terrain for military manoeuvres by the Swedish army.⁹ Several farms and small villages with medieval churches still remain in the area, and are integrated in the present structure of the suburbs. The physical design for the five suburbs was made at the city planning office of Stockholm (Stockholms Stadsbyggnadskontor).¹⁰

The layout of the suburbs implied a segmentation of the built environment into various uses and different building heights. In addition, a strict separation between zones for cars and transportation and pedestrian districts were implemented: In Tensta, one of the characteristic features of the built environment is the presence of several bridges that span the traffic arteries. In the physical planning document for the area, this recurring spatial phenomenon was compared with *the bridges in Venice*.¹² However, the purist ideals of modern architecture that were professed by international architects like Le Corbusier were never fully implemented.¹¹

La neige grise dans les banlieues¹²

After a continued period of nightly aggressions in suburbs north of Stockholm between a group of angry young men and the police, in which the fire brigade and other assistive groups of the civil society were taken hostage, public discussion started to search for someone specific on whom to pin the blame for the collapse of Swedish suburbia. Once again, the media swiftly associated the sensation of anguish and despair in these areas with the particular type of architecture for these large-scale communities that were developed during the 1970s on the outskirts of regions like Greater Stockholm and other Swedish cities. A radio programme on the national radio, SR, *What's on in Culture*,¹³ decided that this blame could be attributed to the body of Swedish architects. At first, this might seem far-fetched, but, the programme revived the severe negative response that the new suburban environments elicited during the 1970s and onwards.

This decade was the ultimate peak for the influence of Swedish functionalist architecture, and the architects' close involvement as social engineers in the design and layout of these various suburbs is an established fact. In 1965, the Swedish parliament decided that one million new flats should be built from 1965 to 1975, in an attempt to upgrade the general standard in the stock of ordinary housing, and to supply appropriate housing for the growing number of persons, who moved from farming communities in the countryside to the large urban regions in search of work. After a national inquiry into the shortages of the existing built environment for housing, and necessary reform works of the Swedish building code, the Million Programme was put into action in 1967. The so-called Million Programme¹⁴ would implement the positive experiences gained from the construction of the more moderately sized, but overall fortunate suburbs of the 1940s, and 1950s.

⁹ Stockholms Stadsmuseum, www.stadsmuseum.stockholm.se/kma.php?kategori=43&sprak=svenska (2013-06-28)

¹⁰ At the time of the realization of the five suburbs, in particular, three architects influenced the work of the city planning office in Stockholm: Göran Sidenbladh, Igor Dergalin, Lars Brattberg and Thomas Atmer. These are all respected names in the body of architects, due to their work in the Swedish capital and, later, in other positions in the civil administration.

¹¹ Lilja, E, 1999: Den ifrågasatta förorten. Identitet och tillhörighet i moderna förorter. Stockholm: Bygghörsningsrådet/FORMAS forskningsstiftelse.

¹² Even the snow turns grey when it falls over the suburbs, from : Tagli, Philippe, 2004: *Même la neige devient grise quand elle tombe en banlieue*. Paris, Édition Seuil.

¹³ In Swedish *Kulturnytt*.

¹⁴ In Swedish *Miljonprogrammet*

The suburbs of Farsta and Vällingby, both situated in the Stockholm region are exponents of the so-called ABC city,¹⁵ in English approximately WHC, since the key words were workplaces, appropriate housing and central nodes with services and shopping. The main attributes of the ABC suburbs are “the inner city character with densely built areas in order to install a degree of townscape” with “concentration and order.”¹⁶ Another feature is “greenery, spaciousness, and freedom from annoyances” that were realised by a neat integration of the new built environment into the existing agricultural landscape or virgin forestland. The programme was headed by the national Board of Planning (Planverket in Swedish), the predecessor of the current Swedish Board of Housing, Building and Planning, NBHBP (in Swedish Boverket). By that time, the board was led by the influential architect and town planner Lennart Holm (1926-2009).¹⁷ In addition, Holm was an important front figure for the emerging research at the Swedish technical universities that focused on the correlation between the human being and his/ her needs for the design of the individual dwelling. The aim was to create ideal cities based on evidence-based findings, and implemented through a detailed decision-making and planning process.

En Suède, les violences urbaines révèlent le déclassement des banlieues¹⁸

In the radio programme, two influential representatives of the Swedish body of architects were interviewed on the possible and collective guilt of this profession for being the cause of the ongoing turmoil in suburbia due to poor architecture and a monotonous built environment.¹⁹ On the one hand, Mr Ola Andersson, Stockholm, a renowned architect and participant in the public debate on appropriate architecture and the built environments, aired his opinion about the conditions in the suburbs. On the other hand, Mr Erik Stenberg, architect and dean of the School of Architecture, Royal Institute of Technology, KTH, Stockholm, contributed with his insights from living in one of the afflicted suburbs, Tensta, but also working with different refurbishment actions in different suburbs realised during the 1970s. In an attempt to animate an interest for this type of architecture, Stenberg has promoted the opening of a local branch of the School of Architecture, KTH in Tensta.

In a typically impetuous tone, the radio journalist asked the architects to elaborate on the relation between the architecture of the suburbs and the ongoing riots. The architects disagreed on how to label the large-scale realisation of the suburbs from the 1970s on a continuum of something between a complete failure and an outstanding achievement. Andersson defended the view that given the present situation in suburbia, the expansion of during the 1970s had to be considered as a major planning error. In contrast, Stenberg argued that a fourth of the present stock of Swedish residential buildings was built during the period of 1965 to 1975, and, therefore, it was erroneous to maintain that this expansion was a failure and based on false assumptions. Stenberg claimed that the realisation of the Swedish suburbs was so innovative that even today no one could fully grasp the innovativeness of this large-scale architectural and social planning. All the same, the architects shared a common view on

¹⁵ In Swedish ABC städer, where A equals ARBETE (Work), B equals BOSTAD (Housing), and C refers to CENTRUM (Commercial centres).

¹⁶ Lilja, E, 1999: Den ifrågasatta förorten. Identitet och tillhörighet i moderna förorter. Stockholm: Byggnadsrådet/FORMAS forskningsstiftelse.

¹⁷ Mr Holm defended his thesis "Familj och bostad (Family and habitation) in 1955 at the Royal Institute of Technology, KTH, at Stockholm, and, then, became one of the first in the tradition of writing a thesis in architecture, a tradition begun in 1934, when Gustaf Birch-Lindgren defended his thesis on Swedish hospital planning: "Svenska lasarettbyggnader: modern lasarettbyggnadskonst i teori och praktik."

¹⁸ In Sweden, the violence in the suburbs reveals the downgrading of these environments. In:

www.lemonde.fr/europe/article/2013/05/23/en-suede-les-violences-urbaines-mettent-en-lumiere-le-declassement-des-banlieues_3415816_3214.html

¹⁹ www.sverigesradio.se/sida/artikel.aspx?programid=478&artikel=5546854

the responsibility of the municipal real estate companies.

In a refurbishment situation, these companies prefer to focus on a totally different group of tenants than the one that will occupy the flats in real life. Despite the fact that the most probable end user will be a person with an immigrant background and with some sort of financial support from the municipality, the municipal real estate companies presume that new tenants will be the standard 3-4 person family, where both parents are employed with stable economies. Stenberg argued for an updated and more closely attuned adjustment process of the real estate companies' stock of different flat sizes in order to meet the needs of the real inhabitants, often large families comprising of children and adults, sometimes two to three generations. According to Stenberg, one way of doing this would be to reconstruct the residential blocks with a variety of floor plans and flat sizes, and thus address the highly personalised family situation of their future residents.

La banlieue, l'épreuve de l'utopie²⁰

In the beginning of the 1970s, the public reaction to the architecture and the built environment of suburbs like the ones of Rinkeby and Tensta was fiercely negative. In an attempt to address the criticism, some adjustments were made that implied a more varied scale of residential buildings, going from high-rise buildings to two-storey terraced houses. In addition, the physical planning included large areas for commercial or industrial use in order to create workplaces. However, these adjustments were not followed through in the case of Husby, which has several similarities with the sister suburbs of Rinkeby and Tensta. The only noticeable adjustment to the public criticism was a closer attention to the natural setting, and trees and landscape impediments were integrated between the residential buildings. The pastoral landscape, which existed before 1966, continues even today as enclaves in the redeveloped land for suburbia: farm buildings, single houses, and historical remains from even earlier. In Husby, the 19th century farm buildings are used as community centre for the area, and for some odd reason, all the street names in Husby refer to Norway.

In the radio programme, Stenberg maintained that similar planning strategies like the ones of the Million Programme, but on a smaller scale are still in use, e.g. new expansions of residential areas on land previously used for industry or harbour activities close to central Stockholm: several contemporary instruments for physical planning, which are issued by the NBHBP, contain revised and reworked parts of the original document from 1968.²¹ The northern suburbs outside Stockholm still demonstrate the particular architecture of the 1970s, while the suburbs that were built south of Stockholm display various attempts to make this architecture more pleasing to the user groups and, perhaps, the eye. The refurbishment actions have been realised as part of social projects to upgrade the built environment and create user involvement. Some of the large pre-fabricated buildings have been demolished or converted into small-scale terraced houses. Part of the changes in the southern suburbs has been part of a maintenance programme for the buildings.

However, knowledge and strategies for realising a large-scale upgrade of the suburbs are disparate. In addition, a fundamental shift has occurred: what was then a major societal investment that united municipal and national investments has now fractioned into a multitude of individual maintenance programmes for different municipal real estate companies to

²⁰ The suburbs, a test for utopia, from : Leyval, D. 2009: *La banlieue, l'épreuve de l'utopie*. Paris : EPU Sciences Humaines et Sociales.

²¹ Hagson, A, 2004: *Stads- och trafikplaneringens paradig. En studie av SCAFT 1968, dess förebilder och efterföljare*. Göteborg: Chalmers Tekniska Högskola, CTH.

realise. Beside these measurable facts, public opinion still regards the realisation of Swedish suburbia to be the type of architecture and built environment that is a hostile and inhuman milieu, whereas architects and other design professions are more inclined to understand the realisation in terms of material, repetition, structure and new building techniques. The need to refurbish the residential buildings of the Million Programme is growing. Within the next decade, at least half this number will need to be upgraded, with an estimated cost of 250 billion SEK.²²

Les demi-vérités sur les émeutes de Stockholm²³

In early June, rain and reinforced police forces managed to curb the arsonist tendencies in Swedish suburbia. Persons, who were active in the events, were apprehended by the police, and judicial procedures were initiated. Swedish and international researchers, active in all of the various fields of housing research, ranging from sociology to architecture, called for a special parliamentary commission that would investigate the state of Swedish suburbia.²⁴ On the national radio, a series of documentaries from different suburbs around the country, entitled “The divided Sweden” and realised during 2012, gained an even greater relevance.¹⁷ The series confirmed the conformity and lethargy in this particular environment, with an unemployment rate that sometimes touches a level of 40 per cent.²⁵ The matter of integrating people with immigrant background in Swedish society has once again entered the political agenda. The right-wing Swedish government promotes its already on-going investments in special allocations to troubled suburban areas in Swedish municipalities,²⁶ and the topic was further dissected in depth during the yearly political discussion at Almedalen, Gotland, on 30 June to 7 July.

The worldwide reputation of the Swedish welfare model is slowly being restored to its past glory: In early June, one of the police men, involved in the shooting of the older man in May, was indicted.²⁷ Claims have been made that the Swedish police has to change its approach and methods in similar events in the future.²⁸ The cracks in the façade of the welfare model have been attributed to criminal persons, who are active in some suburbs. By late June, the first sentences for arson and extensive damage were passed in the case that is now termed as the *Husby riots*.²⁹ Things went back to what they used to be, as the whole of Sweden was preparing for Midsummer and the summer vacation period. There is little to suggest that the Husby riots will have a lasting effect on the Swedish suburbs. Instead, it is suggested that they can be ranged in a long historic tradition of other but similar riots with a communal root, inherent problems of the Swedish society when it comes to ethnicity and integration.³⁰ As such, the Husby riots can be seen as an exponent of the silence that surrounds such matters in the Swedish society, and the less glorious past of Swedish servility vis-à-vis Nazi-Germany.

²² <http://www.kth.se/forskning/pa-djupet/miljonprogrammets-styrkor-och-svagheter-1.329345>

²³ The half truths on the riots in Stockholm. In : www.courrierinternational.com/article/2013/05/24/les-demi-verites-sur-les-emeutes-de-stockholm.

²⁴ Husby-kommission krävs för djup analys. SvD, 2013-06-01. http://www.svd.se/opinion/brannpunkt/husby-kommission-kravs-for-djup-analys_8230682.svd

²⁵ Sveriges Radio, Studio ett, fördjupad nyhetsrapportering: Det delade Sverige. <http://sverigesradio.se/sida/gruppsida.aspx?programid=1637&grupp=8981> (2013-07-05).

²⁶ Regeringskansliet, 2013: Stimulansbidrag. Stockholm: Regeringskansliet

²⁷ [Ekot, 2013-05-28: Polis misstänkt efter dödsskjutningen i Husby](http://www.svt.se/nyheter/regionalt/abc/polis-misstankt-efter-dodsskjutning-i-husby). <http://www.svt.se/nyheter/regionalt/abc/polis-misstankt-efter-dodsskjutning-i-husby>

²⁸ Wiklander, D, 2013: Polisen måste bli öppnare efter skotten i Husby. 2013: Stockholm: Svt. debatt.svt.se/2013/05/.../polisen-maste-bli-oppnare-efter-skotten-i-husby/ (2013-07-03).

²⁹ SvD, 2013: Första domen efter Husbykravallerna. http://www.svd.se/nyheter/inrikes/forsta-domen-efter-husbykravaller_8320838.svd (2013-07-05).

³⁰ Priftis, M, 2013: Kravaller får näring uppifrån. I: Svenska Dagbladet, debattsidan, 2013-07-01, sid 20-21. Stockholm: Svenska Dagbladet.

Une banlieue perdue réinvente la vie³¹

In mid-June, the Stockholm Urban Planning Committee was supposed to decide on the long prepared new development plan for the Husby area.³² Given the recent turmoil, the matter was considered to be too inflammable and it was redirected to the Urban Planning administration for revision. Ironically, this time the contracted architects, the White Architect AB, Stockholm, had proposed the elimination of the elevated separation between pedestrians and cars, while the local interest organisation, The Network for the future of Järva,³³ has raised protests against both this and other ideas, in particular a further condensation of the built environment by new residential buildings. The local interest organisation, “the locals” considers the development plan as an exponent of what “the outsiders,” i.e. architects, planners, politicians and other actors on a regional and national level want for this particular suburb. The development plan has been prepared in a participatory design process that has involved both “the locals” and the “outsiders”. It dates back to 2008. Despite this long collaboration, the following four statements encapsulate a controversy that revolves around the sense of being at home in the suburbs.

The local representative says: - *Architects have too many fixed ideas. Today, everything is supposed to resemble the inner city, but what makes the environment more attractive by introducing the cars?*³⁴

While the architects say: - *Personally, I think that there has been a strong focus on what is considered to be negative in the architecture and the built environment that is found in Husby, and little attention paid to what can be gained by changing the environment. It is hard to imagine future changes, and this is a problem that is part of architecture. As architects, we supply an outside perspective to a familiar environment in order to demonstrate how things can be changed.*³⁵

The architects of the Urban Planning Administration conclude: - *We have to work with detailed plans for individual properties, instead, such as the conversion of existing buildings intended for garages and parking into residential buildings. There is no longer any structural analysis for the development of Husby.*³⁶

In the end, the development plan becomes a matter of politics: One of the politicians, currently in power, says: - *It became evident [during the presentation of the development plan] that the local population considered the suggested changes as being too invasive. Thus, I found it necessary not to go ahead with the present plan. We also initiated a discussion with other political parties that are not part of the current political majority, since a realisation of the plan would imply a long-term commitment by all parties.*³⁷

³¹ Pascalidou, A, 2013: Une banlieue perdue réinvente la vie. <http://www.sweden.se/fr/Accueil/Travailler-vivre/A-lire/Une-banlieue-perdue-reinvente-la-vie/>

³² Gunne, N, 2013: Husby utan PLAN.I: Arkitekten Juni/ Juli 2013. Sveriges Arkitekter. <http://www.arkitekt.se/s78123> (2013-07-04).

³³ In Swedish: Nätverket för Järvas framtid. Järva is often used as one designation for the geographical area in which the five suburbs of Akalla, Husby, Kista, Rinkeby, and Tensta are situated.

³⁴ In Swedish: - Det finns många fixa idéer bland arkitekter. Idag ska allt se ut som innerstan. Men hur blir miljön trevligare för att man för in bilar?

³⁵ - Jag kan tycka att man i Husby har fokuserat väldigt mycket på det man uppfattar som negativt, och för lite på vad man kan vinna. Men det är svårt att föreställa sig framtida förändringar. Det är ett problem vi alltid har som arkitekter. Vi kommer utifrån och ska visa hur andras hemmiljö kan förändras.

³⁶ - Istället får man arbeta med enskilda detaljplaner för varje projekt, såsom omvandling av parkeringshus till bostäder. Det finns inte längre någon strukturell plan för Husby.

³⁷ - Det framgick att husbyborna tyckte att detta var ett alltför genomgripande förslag och då var jag tydlig med att det inte

Conclusion: La Suède n'est plus étrangère aux émeutes³⁸

In the context of the Swedish suburbs, architecture must be understood as a collective endeavor in which the democratic, decision-making process is an integral element of the design process of the future built environment (Gerd Bloxham_Zettersten 2000; Dunin-Woyseth 2001). Hence, this creative work also depends on the contemporaneous cultural and social beliefs (Bourdieu 1972; Lundequist 1995). The events in Husby in May 2013 demonstrated that the architectural space is subject to a type of relational thinking that does not only refer to architectural design and town planning: Questions of identity, place and space influence the planning and realisation of architectural space (Darling 2009; Jackson 2006).

Given the complexity of Swedish suburbia, or for that matter any large-scale suburb realised during the period of 1960 to 1980 anywhere in the world, the methods for solving flaming riots like the one in Husby requires a much more delicate approach than the one suggested by the former French president, Mr Sarkozy, in 2007 – *nettoyer la cité au Kärcher*.³⁹ Not even the classical approach that the Italian architect Palladio suggested during the 16th century is sufficient – *before starting to build, one has to plan well*.⁴⁰ In that aspect, the problems of Swedish suburbia evoke an old tension about whether architecture is solely an artistic expression, a political manifestation or ultimately a living environment, in which the architecture and the town planning has become appropriated by the inhabitants (Lefebvre 1985).

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fanns anledning att gå vidare med det. Vi hade också diskussioner över partigränserna eftersom ett genomförande skulle sträcka sig över flera mandatperioder.

³⁸ Sweden is not longer unaware of riots. In: http://www.liberation.fr/monde/2013/05/23/la-suede-n-est-plus-etrangere-aux-emeutes_905240.

³⁹ Cleansing the city by use of high water pressure, as the president suggested in 2007, <http://www.ina.fr/video/I09086606>

⁴⁰ Author's translation into Swedish of the wording: Innan beginner bygga bör man planera väl
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Tools of change

- Unfolding the mediation of *the good life* in the renovation master plan of post-war social housing areas

Abstract

In the post-world war period the building boom of social housing areas was a keystone in the formation of the welfare state. The aim was to provide quality housing for the working class - the ideal to facilitate equality and a sense of community. Thus the purpose was pragmatic and the agenda political with deep roots in the socialistic notion of “the good life”.

Today the discourse of housing has changed radically. The original ideal of simplicity and harmony¹ has in recent years given way to complexity and the unforeseeable.² A growing individualization nourishes a predilection of diversity and multiplicity in architecture and urban planning.

In practice many post war social housing areas are worn down and the claim for retrofitting is urgent.

Renovation of social housing areas often starts with a physical (constructive) problem. But the renovation is as well an opportunity to generate transformation, which resonates in the daily life of the residents. In this context the overall question is how to renovate post-war social housing areas and foster genuine ground for the everyday life(s) of today.

The renovation master plan constitutes a tool of transformation that dictates margins as well as merits. In this paper I will explore the master plan as a liminal space, where the notion of good life is cloaked in various connotations and molded by different modes of power. Using the objective of actor-network-theory I will outline the various agents. Further I will dismantle the master plan as a form of social technology, and outline the professional competence and rationalities at play.

Keywords

Renovation master plans, post war social housing areas, actor-network-theory, social technology, Science and Technology Studies.

¹ Paul Abrahamsen, *Den danske enkelhed. Et samfund og dets arkitektur*, 1994

² Tom Nielsen, *Formløs*, 2005

Framing the field

In Denmark larger renovations of social housing areas are funded by Landsbyggefonden (LBF). In short LBF manages joint capital and public subsidizes for the physical and social benefit of social housing areas. Social housing units can apply for financial support when countered the claim of larger renovations.

LBF demands that the application is presented as *a master plan* – in Danish *helhedsplan*, which can be translated as “a plan of the whole”. The intention is that the specific need for renovation is put in perspective of the social housing area as a whole – in reference to the physical, economic, social as well as the urban context³.

Working with renovation master plans of social housing it is important to keep in mind that the concept has three implications: 1) the *process* of the renovation, which goes through several defined phases and can take up to 10 years 2) the *documents as a product* that constitutes the application for LBF, and 3) the *physical product* i.e. the totality of alterations and retrofitting of the buildings and open spaces, which constitute the final result.

The tenant democracy is a mainstay in the Danish social housing sector. This form of government renders decisive influence to the tenants – a power that applies to all aspects of the housing organization and the individual departments.⁴

Thus the involvement of the tenants constitutes a navel point in the product of a renovation master plan: Through the phases of the master plan the engagement of the tenants establish a space to gather information of the physical conditions of the area and to uncover concrete needs, claims and wishes.⁵ As well the ongoing dialogue with committees and board is a key to qualify the product.⁶ In the end it is only the approval of the majority of tenants which makes a master plan viable and gives mandate to perform the renovation.

The issues raised in the present paper, is to be seen in the context of the industrial PhD, which I recently started. The PhD is a joint venture between Statens Byggeforskningsinstitut as the academic partner, the Danish social housing organisation Lejerbo and Rambøll, which are a consultancy firm that offers technical as well as architectural competences inter alia. The main question raised by the PhD is how to how to renovate post-war social housing areas and foster genuine ground for the everyday life(s) of today.

The relevance of the question is put into perspective by the fact that approximately 20% of the households in Denmark are social housing which equals that about 1 million Danes (20%) are tenants of social housing. In the present years a wave of renovation of post war social housing are rolling over Denmark. In 2010 the government assigned a pool of Dkr. 25 billion to be used in a period of 4 years.⁷

³ www.lbf.dk

⁴ www.bl.dk

⁵ Interview TR - 2013

⁶ Interview LBC - 2013

⁷ www.mdbl.dk

The work is still in its infancy and the present paper constitutes the first steps of mapping the field before entering the wilderness.

Scratching the surface of the subject I have searched for schisms that can serve as entrances to the field. In the present paper I will present some of my first findings. I will draw on interviews with informants, analyses of master plans and theories that I considering to use in my thesis. Seen from a self-reflective STS approach the paper can be seen as an exploring sketch or as a logbook of the academic process.

Schism no. 1: the task of renovation

The first schism encountered is on the task of renovation.

The Danish social housing areas of the post war period have deep roots in the modernistic architectural tradition. The modernistic notion of architecture as timeless⁸ is challenged by the mere reality of time – when the building is worn out by wind and weather and marked by many years of usage. The original idea of tabula rasa⁹ – that is the architecture seen as a homogeneous self-referring unity – cannot hold stand when the building in practice – through the renovation process - is stripped to pieces, and the final result poses a bricolage of former and present materials, solutions, perceptions of space and place and ideals of *the good life*. As well the functionalistic high esteemed search for *the* utter most rational solutions of the home¹⁰ is shaken, when present ways of living claim changes in the organization of the rooms, the size of the kitchens and the separation of facilities in the outdoor areas.

Thus the task of the renovation stresses certain obstacles. As an architect informant said: *You can make countless initial investigations of the existing building – but you will never know the building 100 percent. To renovate is to cope with the risk of change.*¹¹ This notion is supported by Yavena when she describes the renovation of Alte Aula in Vienna “... as an unpredictable and non-linear process, guided by drifts and surprises and driven by ruptures and modifications of details.”¹²

The renovation process calls for numerous iterations. The work is an ongoing mediation between the physical structures of past times, the present scope of actions and the visions of *the good life* of the future. Thus the process can be seen as an ongoing dialogue between the architect and the building. Furthermore the renovation stresses the interaction between the building and the continuous usage through time. With the scope of ANT Yavena agitates to acknowledge the agency of the building-in-progress.

⁸ Alben Yavena, “How Buildings Surprise: The renovation of the Alte Aula in Vienna”, 2008

⁹ Claus Bech-Danielsen, “modern arkitektur – hvad er meningen?”, 2004

¹⁰ Brun Petersen 2010

¹¹ Interview TWB - 2013

¹² Yavena 2008; p. 13

In sum, the mere task of renovation challenges the architect as a master of material – molding the object as a mimesis of her imagination – a concept that stems with the modernistic idea of the architect. Karvonen *et al* outline this as a *context-free design thinking*. With the concept they frame the top-down, anonymous and formal approach to the architectural assignment: *“The chain of production involves significant spatial and social distancing between the designer, the builder and ultimate inhabitant.”*¹³

Complementary they present the concept of *context-rich design-thinking*, which refers to a dialogue-based approach to design. The attitude towards the architectural assignment is a situated uncertainty and the discourse accents place as socially constructed: *“The citizen practices a form of civic expertise that encourage discursive, inclusive and multifaceted approaches to problem solving that incorporate formal and tacit forms of knowledge.”*¹⁴

The concept emphasizes a democratization of the architectural process, which –in the context of social housing – frames the involvement of tenants.

In the reference to the renovation process this points to the necessity of sharing knowledge and competences though out the process: The sketched design solutions might show useless in practice when the building is stripped and uncovers an uneven fundament. Time and economy can be challenged when mold is detected and the project changes focus. A range of different disciplines must work side by side during the construction phase

In this matter an informant noted: *“When engaging in renovations you cannot have the ambition of being a soloist artist that sit in his room and create masterpieces. You have to be responsive to the project and agile to the process.”*¹⁵

. Thus the balance is not abstract - between the architect and the product, but indeed a practical relation between all the involved parties, the process as well as the product.¹⁶

Schism no. 2 – process vs. product

The second schism has to do with the Janus-face of the master plan which unveils itself in the dialectic between the process and the products (as a document).

The formal purpose of the master plan (as a document) is to serve as an application and ground for dialogue with the LBF. This focus defines the outcome. As an example the preliminary master plan for Tranemosegård present the following structure:

The introduction explains the background of the process and outlines the existing situation of the area according to social groups, image and attractiveness of the area (17 pages). The next three sections present an analysis of the area with focus on the characteristics, the challenges and qualities of the area (23 pages). The fourth section presents an overall concept for the renovation on a rather abstract level, and sketch possible actions and design solutions in more specific terms (42 pages). Section five covers intentions of communication and involvement of

¹³ Steven A. Moore and Andrew Karvonen, “Sustainable Architecture in Context: STS and Design Thinking, 2008

¹⁴ *ibid*

¹⁵ Interview AW - 2013

¹⁶ Hvidbog om bygningsrenovering 2011, Bygherreforeningen og Grundejernes Investeringsfond

the tenants (4 pages). And finally section six give a rough outline on the economy of the project (1 page).

The objective of master plan Tranemosegård is first and foremost the physical environment as a whole – from large to small scale, from the building structure and outdoor areas to the apartment plans and bathrooms.

But in practice the (bi-)products of the master plan are multiple. The outcome of the master plan is not limited to the physical changes, but has social implications as well: Besides constituting the application for funding, the master plan frames the cooperation between the involved parties – it presents a process plan and states the opportunity to create “something better”. Furthermore it serves as a tool to communicate the project to the tenants inter alia. The professional informants recon the various means and purposes, but the technical focus of the master plan is prioritized and the most explicated.

To give perspective the master plan can be agitated as a *social technology*. Leaning on the definition of Whyte *et al*: *Social technologies contain intentionality (...) – towards the notion of “the good life” and “the good society”*.¹⁷ The intention is to expose “*how the models not only “solve the problem”, but involves activation of certain perspectives, values and actors*”.¹⁸

The mere setting of the master plan fosters a split between the existing and the potentials of an area that might not be acknowledged beforehand. As stressed by an informant:

*“Many housing areas functions quit well. A lot of the tenants really love their neighborhood. Sometimes - when we initiate a master plan process - the tenants do not recon that there can be problems that need to be countered.”*¹⁹

Through the process of a master plan certain narratives and norms are fostered – as expressed in the master plan of Tranemosegård – the problems, the potentials of the existing area and the concepts of the future area. A negative spore is that the present housing area can be associated with problems, which is contrasted by the future utopia of the master plan. A more positive result can be that the professional attention can shake up frozen reputations and nourish a new and better image of the area. As such the master plan is as De Certeau states: *Each and every description is not just a determination, but a creative, cultural activity.*²⁰

The process of the master plan influences both the collective image and the individual perceptions of the area. This is illustrated by the following two examples:

During an interview an architect reflected: *On a tenant meeting I emphasized the aesthetic and cultural quality of the architecture: the red bricks, the masonry and the green open spaces. The positive reaction was very clear – they really listened, because the message came from a professional. I think it is an important part of the job - to put up that mirror.*²¹

On a board meeting an architect curious asked the tenants why they lived in the area and what they found good about the place. The responses had several outcomes: The architect got a

¹⁷ Hastrup, Kirsten, “Viden om verden”; 2004

¹⁸ ibid

¹⁹ Interview TR – 2013

²⁰ De Certeau, Michel; “The Practice of Everyday Life”; 1984

²¹ Interview SH - 2013

notion of the daily life and use, which complimented her more factual registrations of the area. Furthermore the tenants got the chance to reflect on a topic that in the daily life might seem obvious and they got an insight in various perceptions of the area, which became a subject of discussion after the committees meeting.

The two examples expose how the process of the master plan evokes a certain reflexivity of the involved parties. As such the social technology opens up perspectives, but also establishes certain rationalities, which the participants have to submit to. This is illustrated by a comment from an informant, who talks about the tenant involvement as an educating process:

*“As a starting point they don’t understand how the master plan works. A huge part of the job is to inform about the procedures (...) and teach them how one navigate within the system.”*²²

In this way the process serves as an inclusion of tenants into the rationality of the master plan - an inclusion which disciplines both the actions and the identity of the participants.²³

The results of the master plan are not limited to changes of the physical environment. It stirs social and emotional relations *to* and *within* the area. Furthermore it stages the transformations in a formalized system. This is why the setting of the master plan can be argued as a liminal space.

The master plan of Tranemosegård presents a coherent narrative of the housing area, which states an authority as an objective truth. From a phenomenological perspective a place is not equivalent with the physical location. Sense of place is weaved in the relation between physical locations, individual and collective use and perception. A living area denotes myriads of spaces - use and perceptions of the place²⁴. This heterogeneity of spaces (of the daily life of the tenants) and the homogeneous place (defined by the master plan) expose a certain power relation and can foster conflict. An example is given by a girl in Gyldenrisparken who mourned “the forest” that was cut down in the pursuit of safe neighborhood. To her the small formation of trees was a refuge where she could eat candy and listen to the birds.²⁵ De Certeau discusses the dialectics between the institutional framing of place and the individual use and perception of space through the concepts of *strategy* and *tactics*.²⁶ From this perspective the master plan constitutes a strategy of space that structures possible uses and perceptions.

De Certeau outlines the distinction between strategies and tactics as a battle of repression and expression. This distinction is also at play in Whyte *et al*’s analysis of social technologies.²⁷ But the master plan differs from other social technologies in the sense that the narratives are molded gradually, through the pending involvement of the tenants, and not applied (only) from an external authority. As well the current discourse of social housing cherishes multiplicity and the individual ability of the residents to influence their housing area. Thus the firm distinction between the producers and consumers of space are challenged throughout the process of the master plan.

²² Interview TR - 2013

²³ Hastrup, Kirsten, “Viden om verden”; 2004

²⁴ Vacher, Mark

²⁵ Fieldnotes – autumn 2012 - Gyldenrisparken

²⁶ De Certeau, Michel; “The Practice of Everyday Life”; 1984

²⁷ Hastrup, Kirsten red.; “Viden om verden”; 2004

Schism no. 3 – The agents and powers at play

The third schism springs from the numerous interests that have to be mediated through the master plan.

The gallery of parties covers the tenants, caretakers and the administrators of the housing area, the neighbors, the technical advisors, LBF, the municipality, the contractors, the potential residents inter alia.

But more factors than the human-actors influence the master plan. Taking the scope of ANT we have to acknowledge the agency of non-human actors: As described previously the physical *building* confine what, how and when the project can come into existence. Through interviews two other major agents are identified: *Money* play a main part in decision making throughout the process and set the frame of the final result.²⁸ *Time* reveal itself as force that fosters both break and continuity during the whole process²⁹. Furthermore a less explicit but yet powerful agent is the *sketches and illustrations* through which the project is developed and communicated.³⁰

Seen from an ANT perspective the various agents are not only mute players, who transport the project from idea to realization. The agents have constitutive powers over the project: The process is to be seen as repeated translations of negotiations, and the final product is a manifestation of the interests at play.

But the powers at play are not the possessions of specific actors, or as fixed relations. Rather power is to be defined “*as a mobile, circulating force which through the constant re-citation of practices produces self-similar outcomes, moment by moment*”³¹.

Leaning on Foucault power is to be understood as an impulse without determinate goal – as an abstract machine which stamps a particular form of conduct on a human multiplicity – in another word as *diagrams*.

On the verge to enter field of the master plan I will sketch the diagrams of power and identify their immanent modus operandi. It is a tentative attempt to map the various rationalities at play in reference to the master plan.

Economic power

Throughout the whole process the question of money is like a refrain. All partners have a firm focus: *Will the rent increase? Can the project get financial support from LBF? What does this specific solution cost? What is the price of technical advisors and contractors? Will the project hold the budget?*

²⁸ Interview SH, AKW, SG, MB - 2013

²⁹ Interview SW, TR - 2013

³⁰ Interview SH – 2013

³¹ Amin and Thrift, *Reimagining the city*; 2010

Thus this power constitutes itself as a binary force – either the money is there or it is not. Throughout a project the constant focus is the upcoming obstacles. In this matter the money is working – not as a concrete power – but through its potentiality. This is especially clear in the first phases where LBF hold the economical stake. The discussions on the project evolve around the interests of LBF (such as themes of accessibility and indoor climate). But the assessments of LBF are described almost as a black box, which unveil the economic power as unpredictable, lurking and cunning.

Power of time

Time is the immanent power of a project. Without time - no motion and no progress in the process. As noted above time can take the both frame continuity or constitute breakage. Thus the power involves both grades of simultaneity, and orders of causality i.e. some activities can advantageously take place parallel and others need certain linearity:

An illustration with very specific content can – if published too early in the process – give rise to expectations which might not be possible to honor. The ability to plan and perform the construction phase with overlapping activities can be the tip on economical balance. Yet again the *amount* of time can have an influence: Either because the conditions of project are altered or - as an informant explicated – because: *“Sometimes the project has to grow and mature by itself through time”*.

Technical power

To renovate a building requires certain technical expertise. The definition of this power draws on Habermas concept of instrumental rationality, which *“discloses reality from the viewpoint of possible technical control over objectified processes.”*³² This power is driven by a means-end rationality and presents itself as matter of fact: There is a problem – we find a solution. In reference to the services delivered by technical advisors and contractors, this competence is the most explicit and potent.

In the practice of the master plan this power is often monopolized by a single or few actors – the technical advisors know how to construct a new roof, the architects know how to frame a concept and design the solutions, the administrators know the social and physical conditions of the housing areas. Thus the power manifests a certain authority, and often claims the role as *prima causa*. An example given by following line of inferences:

A housing area consists of a large amount of two-room flats, and has social problems and a high rate of vacating. The assessed solution is to attract families and therefore aggregation of apartments is ordered. The administrators of a housing area are acknowledged for to have an insight in the needs of the area. Thus the rationales is not questioned, but taken as the agenda of the master plan.³³

Discursive power

³²

³³ Interview JMC - 2013

The democratic fundament of the Danish social housing sector founds the processes and products of the master plan. The common understanding is that the professionals have to facilitate dialogue and collective decisions. As an informant said: *"I work to mediate the interests of the tenants and to fit the project to their needs". I do not have any agendas of my own.*"³⁴

The question of *the good life* is relative and has to be answered according to the concrete context. The design of the master plan is not given beforehand, but is to be shaped through communication and mutual agreement. The definition of this diagram of power stems from Habermas concept of communicative reason. It frames the master plan as a cooperative action undertaken by individuals based upon mutual deliberation and argumentation.³⁵

The discursive power is normative and operates at the same time deductive and inductive. Deductive because it seeks to mediate differences and find common ground. Inductive because it is relative – defined by the specific situation and do not have the authority in other contexts.

Power of presence and persistence

In the ideal world (of Habermas) collective decisions is to be taken through dialogue and the most rational argument wins the dispute. In the practice of the master plan several informants tell anecdotes about a forceful chairman or a persistent group of tenants, who set the agenda of the project. As a system of governance the tenant democracy works through the decisions of the majority. But influence is also defined by the relation to the project – the closer to the process you are – the more power you have.

The same seems to be applicable to the professionals: A master plan often takes several years. A frequently encountered comment from my informants has been that they haven't been allocated on a project the whole way through and therefore don't have the insight and don't feel at ease with the decision making power. This power is either something one has to ear or take with brute force. I keep having the (caricatured) image of this power as equivalent to the powers of the elders in a tribe.

Power of imagination

The majority of renovations of social housing areas are aiming to make the housing standards up-to-date or even future-proof. To achieve this goal is to avoid repeating status quo, to grasp beyond the horizon of what already exists and evoke the potentialities of the area. It is to take a leap of reflexivity and to give sense to utopian ideas of *the good life*. This requires - with the words Amin & Thrift - *"the ability to imagine what is not there and to keep hold of that image."*³⁶ The power of imagination is in their terms an emancipating source. But where they explain it as individualized and as an almost revolutionary force, in the frame of the master plan it takes the role as a far more evolutionary and institutionalized competence:

Architects are trained in this competence - they master the means to synthesis ideas and create coherent narratives which are subsequently molded into physical form. Through the process of

³⁴ Interview SW - 2013

³⁵

³⁶ Amin & Thrift; reimagining the city", 2010

the master plan the imagination is cultivated and even allocated. As exemplified by an informant:

Several times I have said to the tenants "lets imagine that we can hang the buildings from huge balloons – let's think every is possible before we get to tight up with reality!"... But it is always very hard... Very fast the discussion turns toward the question of new kitchens and broken door knobs."³⁷

Thus the power of imagination is not to be taken for granted, which might be the reason why images of the future can prevail as seductive and totalizing.

Schism no. 4 – Architectural competences – translating the good life

The further work will contain a discussion of how the notions of the good life are translated into physical design. The objective will be an STS approach to the competences in need to facilitate a master plan.

³⁷

Interview Lejerbo 2013

Housing needs for homeless – Architecture and homeliness

Presentation of an industrial PhD project

Paper NSBB 13

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Abstract

This paper describes the content of a new PhD study which investigates the architecture of the dwellings of former homeless persons and how it influences their ability to feel at home. The project's idea originates from the problem that former homeless persons in some cases don't thrive in the apartment they are offered and because of this risk ending up living back on the streets. Reasons are numerous but this study focuses on the theory that the design and quality of the physical surroundings can contribute to the process of settling down in either a positive or negative way.

The project is based in the research fields of architecture and housing studies. This approach will be supplemented by studies of the social and behavioural patterns connected to settlement and homeliness. These studies will be carried out with emphasis on former homeless persons, who are currently living in an apartment or other type of housing for homeless.

The expected outcome of the studies is knowledge on the suitability of different housing types and a number of criteria for good housing solutions in relation to persons, who have experienced homelessness. On a theoretical level the project can add nuances to the existing knowledge on the concepts of home and homeliness through studies of homeless and former homeless persons.

Keywords: Homeless, housing needs, homeliness, architectural quality.

Introduction

The PhD project was recently started. Thus this paper will describe the objects and design of the project and not scientific results.

My past experiences from working with housing and city planning in relation to homeless and marginalized groups has been the base of the project design. This work has emphasised a need for a deeper understanding of how the physical surroundings influence the process of settling down in a dwelling for formerly homeless persons. The support which is offered to homeless persons today does not focus on this aspect of housing. Architectural properties of the dwellings which are offered are more or less random and can have a more or less positive effect on the inhabitant. Through more knowledge on the impact of certain architectural qualities we will be able to provide more suitable housing offers in the future.

Based on a wish to focus on the practical usability of the project result in the future development of housing for homeless, and because of this a wish to keep a close contact to the people who work in this field, the project has been organised as an industrial PhD. An Industrial PhD project is an industrially focused PhD education, which focuses on the business aspects of the topic as well as the scientific results. The project is carried out in collaboration between three parties. The University of Aalborg (at The Danish Building Research Institute), the private company Kuben Management A/S, who specializes in social housing, and the private foundation of Project OUTSIDE, who works with homelessness and social marginalization on different levels.

In the following I will describe the background and relevance of the project, and the challenges that will be addressed. The theoretical framework will be presented with emphasis on how it relates to the issues connected to homelessness. I will draw out the intentions behind the design of methodology and the expected results.

The objective

The objective of the project is to investigate the role and significance of the physical surroundings in connection with the settling of homeless and formerly homeless persons in a dwelling. The project investigates homeless persons' own conceptions of a home, of feeling at home, and compares these with the qualities of the different types of housing which they are being offered (e.g. shelters, social housing). These analyses are expected to result in an evaluation of the suitability of different housing types. Furthermore, the results are expected to come up with a number of criteria for good housing, related to persons who have experienced homelessness.

Problems connected to housing

This project deals with persons for whom the lack of a dwelling is only a part of their problem. There can be a number of reasons why they have difficulties in settling when moving into a dwelling. In reality this means that they risk ending up living back on the streets again, either because they are evicted or because they chose to move out. The theory that this project rests upon is the necessity to have a feeling of the dwelling as being your home, not just a place where you live, before you can really get out of homelessness. The

home is distinguished from a house through the relationship and experienced meanings between people and their environment, as Dovey describes it (Dovey, 1985).

There can be numerous reasons why a former homeless person doesn't feel at home in the dwelling he or she is offered. Many of these problems are related to practical problems such as being able to pay rent in time or just in general to fulfil the obligations that are connected to living in a dwelling. Other problems can be connected to social issues, mental illness, addictions, or other problems that a homeless person can be struggling with. Many of these challenges are overcome, or diminished by the help of supportive personnel, which the homeless person is offered in connection to moving into their own apartment. As an addition to the personal and socially orientated support, this project will investigate what role the actual physical properties of the dwellings can play in supporting the transformation which former homeless person's need to go through, before they are able to feel at home.

The physical surroundings can either support the process of transformation from being homeless to being a resident or be counterproductive and make the process even harder. Therefore the project is based on a number of hypotheses:

- When you live on the street your first goal is to get a roof over your head and the quality of the dwelling you move into is irrelevant. After living in a dwelling for a while and getting more use to this way of living, you get more conscious of the qualities of the physical surroundings, thus the physical properties the homeless persons are being offered is important.
- People, who have been living on the streets for periods of their lives may have different needs and desires in relation to their housing situation compared to the general population. This should be reflected in the housing they are offered
- The more influence a person has on the surroundings, the bigger sense of connection this person will feel and the more ownership he or she will take. These are important feelings when working towards building a home.
- Rundown or unattractive buildings maintain people in a self-understanding of being less worthy than others, which has a negative influence on people who are struggling to get out of homelessness.
- Aesthetic quality has an important impact on our well-being and health in general. For former homeless persons, who might suffer from physical or mental illness the appearance of the surroundings can have a big influence.

The theoretical background

Distinction between house and home

When working with the concepts of housing, home, homeliness and homelessness it is necessary to identify and distinguish the different meanings of these words. In common language and mainly driven by the American real-estate industry, the word 'home' has been used as an euphemism for 'house' and thereby confused the differences between the two (Hollander, 1991; Dovey, 1985). In relations to homelessness, this can be seen through confusions about whether a homeless person is actually 'just' 'houseless', in the sense that if you offer a house to this person it will solve the problem, or if the person is homeless in a

more abstract sense (Hollander, 1991). As Dovey describes it, being homeless can be understood in two ways; A person lacks access to a dwelling place or the dwelling place does not carry the meaning and experience of 'home' (Dovey 1985). One can add to these definitions of being homeless that it can also be a matter of feeling at home in different places than a dwelling. When you do not have a home of your own, you often have to settle in more temporary constellations. This can be at friends or families places, at work, in your car, in shelters, in public space, or other places where you then find some degree of homeliness (Høgsbro et al., 2003; Thau, 2001). For homeless persons there is also the possibility that you do not feel at home anywhere.

Adding a qualitative focus

The international research on housing has been criticised for having focused too much on rationality and functionality and thereby ignoring important aspects connected to housing quality. Clapham criticises the housing research of mainly developing rational models to explain our housing choices. He also criticises the unilateral focus on quantitative methods and objective categories such as size, number of installations, economy etc. in the discussion of housing qualities (Clapham, 2005).

To obtain a basic understanding of what the dwelling means to us, or what it can mean not to have one, there is a need for a more qualitative approach. In the 20s Le Corbusier described the dwelling as "a machine for living" (Le Corbusier, 1923). His look at the dwelling as a physical object corresponded to the industrial eras focus on functionalism. A retrospective look at the 20th century's history of housing development shows that the industrial development and the rise of the working class caused a massive expansion of the housing market. The need for a large number of new dwellings naturally led to a focus on quantity and the need to provide people a roof over the head (Bech-Danielsen, 2004). Through the last decades this focus has changed and the housing research now also looks at the dwelling as 'a home', a place which is closely connected to our feelings and filled with mental meanings. Lewin points out that we understand the dwelling as a home because it becomes a condensed symbol of the resident's ideals, dreams and values (Lewin, 2001).

Today, the approach towards housing for homeless is aiming at providing as many people as possible a roof over their heads and in this way mimicking the housing history of the last century. In recent years there has been a shift in the housing support that homeless persons are offered; From moving people through a number of "stages" before they are considered "housing-ready", to the new approach, Housing First where the homeless person is moved directly from the street into his or her own dwelling and provided the necessary individual social support.. This method was developed in the US, where it has proven successful (Tsemberis, 2004) and has subsequently been adapted in a number of other countries. Even though the method is new, recent evaluations shows positive results in a number of local test sites in Amsterdam, Budapest, Copenhagen, Glasgow and Lisbon (Busch-Geertsema, 2013).

As mentioned earlier, this project emanates from a hypothesis which states that the quality of the houses that are offered to homeless persons have influence on their ability to connect to and feel at home. This hypothesis raises a wish to provide knowledge that can contribute to a shift in the approach from today's primary focus on quantity, to include a focus on the qualitative aspects of the dwellings that are offered.

The meaning of home

In an often cited article by Després, she provides an overview on a number of significant phenomenological housing studies. She summarizes the different meanings that are imposed on the concept of home. The meaning of home as security and control, as reflections of one's ideas and values, as acting upon and modifying one's dwelling, as indicator of personal status, as refuge from the outside world, as relationship with friends and family etc. (Després, 1991). The article has been criticised among others by Somerville for describing socially constructed values as being universal (Somerville, 1997). The critics however, use some of the same categories to describe the significance of the dwelling. For example the concepts of privacy and identity are reoccurring in Peter Somervilles own understanding of what a dwelling means (Somerville, 1997; Somerville 2000).

The Norwegian anthropologist Marianne Gullestad looks at the dwelling as the focal point of our everyday life (Gullestad, 1989). It might not be the place that we spend the most hours in the day, but it's the place that we leave from and returns to. This means that the dwelling is not only important in the organization of our daily life, but it also has a significant role in the way we perceive our surroundings. By references to Bordieu she points out that the spatial organization and design of our dwellings reflects cultural and social values that over time will embed themselves with the user (Gullestad, 1989). In connection to this the physical properties of the dwelling can have significant meaning for persons who are or have been living on the edge of society.

Methods

The research methods are chosen to enable the study of the influence of the physical surroundings on homeless' and former homeless' ability to connect to and feel at home in the different types of dwellings they are offered. The studies will be carried out in a number of case studies and in the form of architectural analysis combined with a more phenomenological and ethnographic inspired approach. The combination of methods should provide the possibility to compare knowledge on the way the residents use and live in the dwellings and their experiences and feelings in relation to this, with the dwellings actual physical properties.

A selection of cases found in a Danish context will form the basis for the studies and are supplemented by a number of international examples for reference and inspiration.

The methods should provide answers on the following questions:

Main research question: Which architectural parameters influence and support a feeling of homeliness and relation to a home for people who have experienced homelessness, and how?

Sub-questions related to architecture: How do the physical surroundings affect the daily life? Which elements or experiences related to the physical surroundings can affect the residents' feeling of homeliness in a positive or negative way?

Sub-questions related to personal experiences: How does the homeless own conceptions of a home and of feeling at home correspond with what they experience when moving into a dwelling? How does the former life on the street affect the life they live in a dwelling?

Case studies

The above mentioned questions will be investigated through a number of cases. The cases will be chosen in order to represent the different housing types that are offered to homeless persons in Denmark. The cases will be chosen based on the following criteria:

- More or less people living together
- Length of residency (short term or permanent housing)
- If the buildings look similar to the surrounding buildings or stand out from them
- The degree of influence that the residents have on the appearance of the physical surroundings
- The distribution of private and public space in the buildings

I expect to choose cases that represent shelters for homeless, different examples of supportive housing, cohabitations and houses build by the homeless themselves.

International examples

The Danish cases will be supplemented by examples of foreign strategies on solving housing needs for homeless. These examples will be chosen based on their ability to provide new and different approaches to helping homeless away from homelessness. This may for example be done by involving the future residents in the building process, by providing houses with extraordinary architectonic properties or by providing physical surroundings that have been designed especially to meet with the needs of the homeless.

International housing examples can be:

- The Meland “DIY project”, Meland Municipality, Norway (Bjordal et al, 2009)
- Houses build by the homeless themselves in Japan, (Sakaguchi, 2004)
- The Joan Kroc Centre, San Diego (Davis, 2004)
- Assisted Care and After Care Facility Larkin Street Youth Services, San Francisco (Davis, 2004)
- The Prince George Hotel, New York (www.commonground.dk)
- The Schermerhorn, New York (www.commonground.dk)

Architectural analysis

The architectural analysis will take an overall look at the social and technical properties of the buildings in the selected cases. The buildings will be analysed from outwards and in by looking at the location and the surrounding context and moving inwards to the specific functions and designs of details in the dwellings.

The architectural analysis will look at the buildings from three different perspectives:

The functionality is investigated through looking at the overall design and layout of the buildings. In addition to this I will focus on conditions such as location, infrastructure, accessibility, common areas, materials, maintenance, lighting, heating, proximity to neighbours, facilities, size, organisation, furniture etc.

The social qualities of the dwellings relates to the way the design of the buildings allow for the residents to interact. This can be of importance in relation to avoid isolation and loneliness among the residents or to promote people to involve themselves in or initiate activities. In connection to this it will be interesting to

look at the way the buildings facilitates meetings of formal or informal character outside of the individual dwellings. The residents influence on the appearance and organisation of the buildings can play a role in their desires to get involved and commit to the place. The location and context of the buildings can determine the resident's opportunities to find social networks in their neighbourhood. The social qualities can also involve very pragmatic issues such as the possibility to keep a pet.

The aesthetic qualities are related to the sensory and emotional experiences of the dwelling. In this perspective the analysis will focus on those physical elements which influence the wellbeing of the residents. These are expected to be qualities such as a nice view, access to a garden, a special architectural feature, the successful DIY projects etc. In housing research in general these types of qualities are characterized as contributing to our sense of home feeling. It will be interesting to see whether these qualities will be different when experienced by persons who are formerly homeless.

Information from residents

The informants will be chosen among residents in the selected cases and should represent the most possible variation in types and length of housing experience and sociocultural background. When relevant the residents will be supplemented by interviews with support personnel, architects and other persons who can contribute with information on the use of the buildings or the intentions behind specific choices connected to the physical properties.

The information will be collected through qualitative interviews. The expected knowledge gained from the informants should consist of their own accounts of how they experience and use their current dwelling and their thoughts about and experiences with homemaking in general. This should be supplemented by information on their actual everyday behaviour and routines, as perceived through i.e. observations and photography.

The use of photography as a visual means of communication will have two purposes during the interviews. The photographs should help to not only extract more information, but maybe also a different kind of information than achievable through verbal communication on its own (Harper, 2002). At the same time photographs of different types of housing will be used to inspire the informants in their reflections on the meaning of home, and to reflect on their current housing situation in relation to other ways of living.

Using photography, as a means of collecting information will also provide material for a direct dissemination of the project findings by giving the viewers an opportunity to make their own readings and interpretations of the .

Results and perspectives

The results of the project are thought to add new aspects to the current support and help that is offered to homeless persons. By adding focus on the significance of the physical qualities of the dwellings that the homeless inhabit the project will enable a more determined effort to end homelessness.

Theoretical

Through looking at both different types of housing and on the expectations and preconditions that the homeless have when moving into a dwelling, the project will search to provide new insight into the

parameters that influence the relation between homeless and housing. This knowledge can be of novel character in the field of architectural research in general and have specific importance in solving problems related to homelessness. In addition to this the project can add nuances to the existing research on the concepts of home and homeliness by looking at them based on the experiences of homeless and former homeless individuals.

Practical

As mentioned in the beginning of the paper the project is expected to result in an evaluation of the suitability of different housing types, which can lead to a number of criteria for good housing related to persons, who have experienced homelessness. In practice this means that the results can be used to prioritize when building, renovating and choosing suitable dwellings that can meet with the needs and desires of the homeless. Being able to prioritize the use of the often limited financial means should make it possible to get more value for the money that we spend. This can be done by focusing on the important aspects of the dwellings and deselecting the elements that are less important.

A further perspective is to use the results as a catalyst to inspire and promote new types of housing for homeless.

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Common Ground. www.commonground.org

Paper for NSBB 2013: Workshop Session B // Architecture and everyday life

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Key words: Designed communities, ethnography, everyday life

Designed communities? An ethnographic exploration of architecture and social life in three new residential spaces

ABSTRACT

In current residential spaces there seem to be an increasing emphasis on small-scale communities. A number of new, high profiled residential complexes thus seek to promote new ways of social living by rethinking architectural design, typologies and concepts. In this paper I explore the emergence of these *designed communities*: What social life is promoted in such recent architectural visions? And to what extent can the social life and identity of a place actually be designed?

The paper discusses these questions based on a fieldwork in three new housing complexes in the Copenhagen Region: The A-house by architect Carsten Holgaard, the 8-house by BIG, and Lange Eng (The Long Meadow) by Dorte Mandrup. Rather than taking the perspective of either architect or user, the fieldwork has ethnographically traced the entire process from design to occupancy. The aim is to explore how the social life and identity of a place is initially formed through the hands of architects, developers and estate agents, and further shaped and realized by residents, when taken into use.

I suggest that by way of branding and iconic architecture these thoroughly designed environments reinforce the notion of residential space as an identity unit. In Ørestad residents thus tend to identify by the name of the house they live in, rather than by the street name. These residential spaces may thus be seen as promoting micro-urban entities, as social and urban life is designed and staged within the residential complex, and activities and virtual communities are provided for residents exclusively.

INTRODUCTION

The three cases differ in size, architecture and concept: The 8-house in Ørestad is designed and branded as a 'modern mountain village' around a common path and with a community room in the centre. The A-house is a refurbished industrial building located on Islands Brygge, now functioning as a serviced complex, where residents share common facilities in much the same way as a hotel. The Long Meadow in Albertslund is a cohousing scheme, where the residents have themselves been deeply involved in translating their visions of community into architectural form.

All of the three cases have however been promoted for their visionary architecture and have been subject of considerable attention, hence might be seen as expressing contemporary trends and dreams worthwhile examining. The three cases can also be seen as somewhat over-designed spaces, as not only their built environment, but also their identity and social life have been carefully planned for. Following French philosopher Michel de Certeau's

distinction between the urban designer's view of the city form above and the pedestrian's everyday appropriation of urban space, I understand the meaning of places as something that is created and altered over time and through everyday use (de Certeau 1990: 97). As these three cases bear witness to, also the meaning of the place is however increasingly considered as something that can be designed by way of branding, communication and various strategies to promote social life. I suggest that we therefore have to take into account the material as well as immaterial design of these new residential spaces as the lay out of the physical environment is related to the representations of the place in branding and virtual communication. In this paper I explore the relationship between architecture and social life in these place-making processes, and reflect on the (over)design of new residential spaces.

SOCIAL LIVING – FOR CONVENIENCE

The idea of designing for a more social way of living exists in all three cases, though in rather different ways: The A-house is a refurbished industrial building located on Islands Brygge, now functioning as a serviced complex, where residents share common facilities in much the same way as a hotel. The 8-house in Ørestad is designed and branded as a 'modern mountain village' with a common path winding up along the façade and with a large community room in the centre of the complex. The Long Meadow in Albertslund is a cohousing scheme, where the residents have themselves been deeply involved in translating their visions of community into architectural form.

Common for the three cases is the idea of common facilities forming the base for a community that is practical and convenient rather than ideological. As architect Carsten Holgaard explains, in developing the concept of the A-house, they were inspired by the collectives of the 70's: *"We thought there was something socially right about it, of course we did not want a collective of the same kind as in the 70's, but there are some practical advantages of living together. We may all dream about a ten-room apartment that we cannot afford, but if 200 people live together then they might actually be able to pay for a reception room with a fireplace and a smiling butler, a library, a fitness centre or a wine cellar. But also simple services like cleaning, laundry and catering can become more sustainable and affordable by sharing"*

The A-house offers serviced apartments aimed at an international group of mainly international residents, staying temporarily in Copenhagen, thus hosting a more exclusive group of residents than the two other cases. However, also in the Long Meadow the residents stress that the community is based on the practical advantages of living together rather than the ideologies of the earlier cohabitation schemes. The residents take turns in the communal kitchen and offer communal dining 6 days a week. One is not obliged to eat in the dining hall, but can bring the food to the private home as take away, which is preferred by many of the families. The majority of them have small children and two careers, and say they have chosen the cohabitation scheme first and foremost to make life easier: To save time buying groceries and cooking, and to have playmates for the children next-door as well as activities like soccer and yoga for grown-ups after the kids have been put to sleep.

FREE FLOATING COMMUNITIES

In coordinating the common activities, the virtual spaces seem to be almost as important as the common rooms and facilities of the physical spaces. The headline above "Social living" is thus also the name of a small IT-company that has designed the virtual social platform for the

residents of the 8-house, called 8-book. Here – as well as on the intranet of the Long Meadow – the residents exchange practical information and announce social activities. But the virtual spaces are much more than electronic notice boards. Much grumbling and agitated discussions take place here, as many residents apparently find it easier to give vent to their frustration with noisy or otherwise annoying neighbours in the virtual fora, than knocking on the door and confronting the presumptuous. Nevertheless the virtual fora reinforce the social identification within the complex: Though a neighbour across the street might be physically closer than the residents in the other end of the 8-house, they do not have access to 8book, and consequently neither to the social activities taking place here.

The virtual space is also used as a village pond and a window mirror. Here residents size up each other, and stage themselves with personal profile pages, much like on facebook, with photos and informal descriptions of their background, jobs, hobbies, family members etc. In combination with the prevalence of smartphones that allow people to update themselves continuously, the virtual space extends the social space of the built complex to a free floating community where neighbours can constantly be in touch. Though emails are not always read carefully, the subject lines in the inbox alone - "*Coconut milk wanted – now*" or "*Dandelions – anyone who has a hungry rabbit?*" – provide residents with constant impressions of each other's doings. Though conceived as primarily a practical tool, the virtual fora are also where the social identity of the place and its residents is negotiated. A common lingo thus gradually develops, and here the name and architectural shape of the built complex blends into the way residents address one another and name social activities, by referring to "the village" or "the meadow" or by integrating the number "8", the name or "The Long Meadow" in various linguistic inventions. In the basement of the 8-house, one resident has installed a workshop, and now calls himself "the village smith". The residents appropriate the brand and move into a story just as much as they move into a house.

LIVING IN A BRANDSCAPE

The architecture naturally plays a key role in giving shape to the social life within the built complex. Most strikingly in the Long Meadow, where the building shapes a large block around a shared green courtyard. Towards the inside the façade is open and transparent, towards the outside black and closed, clearly delimiting the borders of the community. In all three cases the architecture distinguishes itself remarkably from the surroundings. Seen from above the buildings constitute simple, logo-like characters – the 8, the A – that are also integrated in their names. They seem to be architectural icons designed to be seen from Google Earth or architectural magazines as much as from the other side of the street. Even though The Long Meadow does not form a figure or a character, it is due to the block's square shape, likewise humorously nicknamed "the black hippie square" by residents and neighbours. The square block-typology is thus classic for Copenhagen, where most of the residents moved from, but foreign to the surrounding Albertslund. Much effort is invested in creating the place's identity, but these efforts seem to relate to other places than the near surroundings.

As Anna Klingman argues under the notion of brandscapes (Klingman 2007) the focus of architecture in the experience economy has evolved from an emphasis on "what it has" and "what it does", to "what you feel" and "who you are". The architecture of these three cases is not only frequently photographed for architectural magazines; the residents themselves also decorate both their private homes and communal rooms with photographs of the building.

The iconic architecture seem to hold a lot of identity for them, and in Ørestad where the 8-house is located, residents tend to refer to the place they live by the building names – the 8-house, the Gate-house etc. – rather than by the street names (Skovmand 2011). The architecture of these designed communities thus does not just provide space for the social; it also provides an important icon for a community that is located in the complex rather than the neighbourhood as such.

DIVERSITY IN DESIGNED COMMUNITIES

The high profiled architecture also serves as a vehicle of social distinction. The polycarbonate inner façade, double-high living rooms and small rooms of the Long Meadow have undoubtedly more appeal among some segments than others. Not to mention the whole concept of not having one's own garden, but sharing green spaces as well as other communal facilities. Even the ideal of social diversity itself is a characteristic of the creative class, as demonstrated by Richard Florida (Florida 2002). The paradoxical result is thus a rather homogenous group of residents who all value diversity. In the Long Meadow most are young academics with small children, even though they actively tried to recruit residents of various ages and social backgrounds. Several express regrets that in this they did not succeed, and the few who are middle-aged and has no kids, now see themselves as a minority, as one woman explained: *"When my husband and I first heard about the place, we were attracted by the fact that diversity was stated as a core value... Only later did we realise that we were to be the diverse ones"*.

Whereas they in The Long Meadow thus ended up with a more homogenous group than intended, the opposite is actually the case in both the 8-house and the A-house. Both places were designed and branded with a strong notion of the creative class at sight. However, as the financial crisis occurred in the middle of the building process, prices were dropped in the 8-house and in the A-house apartments were let to a much more diverse crowd. During my fieldwork in the A-house, my neighbour thus turned out to be a war-veteran from Libya on rehabilitation organised by the Danish Aid Organisation. The place has become cosmopolitan in a very different way than anticipated. Also in the 8-house some of the residents tell me, they have the feeling, that the place was designed aimed at a different group of residents. The small ecological delicacy-shop, that the developer actively recruited to give the place a feel of urban life, is not popular among all residents. One went there at Christmas to buy flour for the gravy, but all they had was durum and spelt flour.

As these anecdotes bear witness to, communities are not easily designed – even if they are over-designed. I agree with Swedish ethnologist Orvar Löfgren, who problematizes the idea of designing a place's meaning as inherent in notions of citybranding and placemaking. Löfgren writes: "As a person starts using the city by moving into Västra Hamnen or Ørestad, the setting will gradually turn into a soft experience which may also create shared experiences, routines, rhythms and perceptions. But a soft city cannot be prefabricated. An experiencescape can only be created by those who use a certain setting and these patterns of usage may often conflict to produce bad, good, trivial or indifferent experiences" (Löfgren 2007: 96). However, as my account of the three cases have illustrated, residents do move into stories and brandscapes as much as built environments. Through everyday life they appropriate the designed spaces as well as its stories, but many other factors than users alter and challenge the process of designing the place; among them are the market forces and their

uncontrollable vicissitudes. In relation to them, even architects, planners and powerful developers are not in control, but more like de Certeau's pedestrians: "whose bodies follow the thick and thin of an urban text write without being able to read it" (de Certeau 1990: 93).

CONCLUSION

All three cases are attempts to create residential spaces out of the ordinary, representing architectural visions of a new kind of social living. The social living is characterized by an emphasis on convenience rather than ideology, and by residential space as providing identity. Though architectural space constitutes the framework of these designed communities, virtual fora extend them to free-floating communities that follow the residents wherever they are. The iconic architecture and its brand blends into residents' language and way of orientating themselves, they move into a story and a brand, rather than just a space where a community might evolve over time among people living together.

The ideal of social diversity is strong in these cases as in the Danish welfare society in general. We do not have – and probably will not have - gated communities as in other parts of the world. However, I suggest that the three cases might be seen as representing the emergence of a new type of designed communities. In this type of complexes social life does not just evolve among people who happen to share space. Rather we currently seem to design spaces, brands and identities that cater for certain types of communities, not unlike on the Internet and social media where users increasingly do not meet the same interface, but receive only information and communication tailored for them. By way of architecture – as well as the design of social life and identity – these new residential spaces reflects but also recreates such notions of social living. However, I have also argued that the social life and identity of places can only to a certain extent be designed. As residents move in, they appropriate and alter the built environment as well as its stories and brands. But also market forces – in my fieldwork especially the form of the 2008 financial crisis – leave significant traces in the material as well as the social fabric of our everyday places and spaces.

NB: The perspectives presented in this paper has also been published in relation with the Forming Welfare Conference at The Royal Danish Academy of Arts, School of Architecture, 26-27 September 2013 and will be included in the forthcoming publication Forming Welfare

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PhD title:

LIVING EDGE - The Prospect of Urban Dimensions of Ecological Domesticity

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Workshop Session B // Architecture and everyday life

Abstract

When separating the meaning of dwelling to 'home' and 'house', 'home' has no clear boundaries, organizational types, physical features, and experiences (Chapman, 1999) - while 'house' does. The house is a physical container of dwelling activities. Since early days, the essential purpose of this container is to separate inside from outside and to protect and provide privacy, psychological as well as physical (Venturi, 1966). But, if dwelling phenomenon takes place both inside and outside the private house – why is the urban house an enclosed box? What is the differentiation between inside and outside the contemporary urban house? And what is the interplay between them?

The research argues for re-thinking the edge zone between inside and outside the urban house. Therefore, although, residential buildings in the city are the objects of study, the focal point here is the edge zone along the building. The research explores and develops the architectural characteristics of correlations between the resident, the singular unit, the building and the given location at the edge zone. It approaches the edge zone of the urban house as a platform for dynamic interactions between these behaviours.

The following text includes the first draft of the first two chapters: introduction and theory. The chapters are not written completely, and some parts are written only as headlines. These headlines and other comments are marked in red. The text is on working progress and far from being finished, but it will be wonderful to get your comments on it during the conference.

1. INTRODUCTION

1.1. Filed of study

This PhD study is a qualitative architectural study on the edge zone between the urban apartment and its surroundings. The edge zone, as an in-between place, resists and admits interactions between inside and outside, private and public, individual and collective, built and unbuilt, indoor and outdoor climate, architectural and urban scale.

The study explores and develops the architectural characteristics and values of an edge zone. The adjective 'Living', of Living Edge, gives the edge zone a double meaning: to live at the edge and an edge that is living. The first meaning is about the people and their living patterns. The second meaning, an edge that is living, reads the building as a living entity changing through seasons, daylight, usage and urban context.

The object of study is the edge zone of a multi-family house in the city. The scale of investigation grows out from the apartment to the two other ingredients of the edge zone - the building envelope, and the urban space adjacent to the building. The edge zone is studied from inside out and from outside in, through the three ingredients of the edge zone.

The research aims to gather in-depth understanding of the topic, to explore its architectural and urban characteristics and to demonstrate implications of it in theory and practice.

1.2. Problem analysis and research question

The urban environment in Copenhagen has become softer in the last two decades. Industry has moved out, criminality rates have been reduced, car roads and parking areas have been transformed to walking streets and squares, bicycle paths have been paved, and more green areas have been realized.

What is the effect of a friendlier urban environment on the architecture of the apartment? Or to be more precise - What architectural edge conditions does a friendlier urban environment generate in urban dwelling?

"Dwelling consists of human activities that take place inside as well as outside, in the spaces of dwellings, the spaces of residential buildings, the spaces of the street and neighbourhood, and the spaces of the city and its broader environs."

"While the dwelling – the place – effects a separation between inside and outside, dwelling – the phenomenon – takes place on both side of this line of separation."

(Bernard Leupen and Harald Mooij, 2011)

When separating the meaning of dwelling to 'home' and 'house', 'home' has no clear boundaries, organizational types, physical features, and experiences (Chapman, 1999) - while 'house' does. The house is a physical container of dwelling activities. Since early days, the essential purpose of this container is to separate inside from outside and to protect and provide privacy, psychological as well as physical (Venturi, 1966). But, if dwelling phenomenon takes place both inside and outside the private house, and if the inside does not need to be as protected from the outside as it used to be – why is the urban house an enclosed box?

“My sense of ‘wall’ was no longer the side of a box. It was enclosure of space affording protection against storm and heat only when needed. But it was also to bring the outside world into the house and let the inside of the house go outside”¹.

Explain about modern architecture. As a continuation to the search for communicative borders in modern architecture, re-questioning the enclosed box and re-thinking the interactions between inside and outside are relevant today more than ever before.

Looking into Danish culture, three paintings from the end of 19th century illustrate the long tradition of life at the edge.

The first painting is by Vilhelm Hammershøi titled ‘interiør Åhuset, åboulevarden’ (1898) is an interior depiction of a room (Fig.1). It illustrates the edge zone from the inside. A woman is sitting on the chair by the table looking outside of the window. It is a summer day, the window and curtain are open and fresh air is coming into the room. It might be that the woman moved the table by the window, as the warm weather. (Hammershøi has other interior paintings, where the woman is standing by the window and the table is the centre of the room. These paintings might be painted in days, when sitting by the window is too cold)

The painting shows how the particular circumstances of the open window, the open curtain, the fresh air, the light, the table, the chair and the sitting woman create a fleeting edge zone. Another day, time, weather, group of residents or arrangement of furniture will determine other character of edge. The edge zone changes by interactions of habitual practice, urban events and climate.

Second painting ‘Stemning fra Nyboderhus’ by Edvard Petersen (1860) captures this situational circumstances at the edge zone (Fig.2). In Nyborders (address: Øster Voldgade 44), a man and a child are at an entrance hall; the entrance door is open to the street. The man is sitting on the doorframe with one leg inside and the other outside, enjoying being at home and at the street simultaneously. The child is standing inside the space, lining on the wall, holding a little chair and thinking whether to play inside or outside. These inhabitation patterns are common for an edge zone – occupying both sides of the edge at the same time, and weighing up the next activity whether it should be indoors or outdoors.

The painting ‘Udsigt fra kunstnerens altan over det gamle banegårdsterræn og Peblingsøen’ by Paul Fischer (1887) shows the life at the edge from the outdoors (Fig.3). It is a depiction from a balcony viewing at Copenhagen lakes (address: Vodroffsvej 58). A man and a woman are on the balcony on a summer day. The man is sitting on a chair, and the woman is standing and lining on the fence. Each one looks to a different direction. She is about to leave, as she has a hat on and an umbrella in her hand.

These man and woman inhabit the exterior edge of the domestic space. They perform their life to the street, and by doing so they stage domesticity to the sidewalk. This exposed inhabitation is important to the atmosphere of the street. It gives human face to the building, and creates a stronger communication between them at home and the people out at the street.

In Copenhagen today, more than hundred years after these illustrations, the differentiation between inside and outside the urban house has radically changed. Interior and exterior are not necessarily an opposition. Although the living unit and the urban space around it are essentially different, by form, use, scale and

ownership, they share characteristics, especially along the borderline between them. Meaning that, the culture presented in these nostalgic images is still exceptionally up-to-date.

What is the interplay between the two sides of the edge zone? To answer this question, I would like to move out from Copenhagen, to the countryside, and look into the Danish summerhouse tradition. The architecture of Danish summerhouse often searches for connective characteristics. The summerhouse allows a penetration of the outdoors to the indoors and visa versa. It welcomes light and fresh air, as well as sand, mud, beetles and mosquitoes. It also expands the indoor space to the outdoors, by programming areas at the garden, like an open-air shower, living room, kitchen, and laundry.

The envelope of the summerhouse functions as a dynamic filter over time. The filter connects and disconnects inside and outside, mainly in relation to weather conditions. On a beautiful summer day, the walls of the summerhouse open up so that the inner and outer become one. On a wet day, the house gives the option to stay dry. On a cold summer day, the building envelope including walls, windows and doors offers thermal isolation.

The summerhouse is a good example for the interplay between indoors and outdoors, but with a critical limitation. The indoor provides a roof and programmatic spaces to meet the residents' needs, including sleeping places, kitchen, and toilet. The outdoors provides an extension to the indoor space and the ability to be in contact with the outside. Actually, inside and outside at the summerhouse play together one role – offering an experience of living at the outdoors. Following this line of thought, the communication between inside and outside is not mutual. Although, the house reaches out to the outdoors and the outside enters the interior space, the motive is one-sided – creating a physical frame for an outdoor/ extraverted experience. There is no feedback, no will or need to reflect the house, the interior space or the life in it at the outdoor space.

The urban context is essentially different from the summerhouse. The edge zone of the urban apartment offers open conditions. In contrast to the summerhouse, here the two sides play a different role and are equally involved. The inside is private, enclosed, intimate, indoor climate. The outside is public, open, anonym, and outdoor climate. Connection and disconnection of inside and outside has implications from inside out and from outside in. from the inside – light, fresh air, urban outlooks and atmospheres are coming in. from the outside – domestication, intimacy and picture of private life is being exposed. Consequently, edge conditions strengthen home identity, by creating a continuation of being 'at home' (=private home) and being a part of community (=collective home). And architecturally, they stimulate creative solutions for building envelopes with conjugative characters.

The problem is that we, architects, do not commonly develop the relationship between inside and outside in the context of the urban dwelling. We are more used to approach them separately. In this light, the architecture of the summerhouse can be used as a conceptual model to show how to open up, how to allow a dialogue between inside and outside, and how to break the dialogue when the circumstance changes. It can also demonstrate how to communicate with natural elements such as light, temperature, and greenery.

The summerhouse phenomenon also reveals a schism in the Danes' behaviour. During summer time, the man of culture turns into a man of nature, by travelling to the summerhouse and enjoying a break from

everyday life. “The man of nature and a man of culture are permanently combined in one person. The scientist-professor turns into an old-time fisherman and leaves all traces of the lecture hall atmosphere behind in the city”². The man of culture is the man/woman, who works in the city and live in it or nearby. The man of nature is in fact the man of culture, in a moment of longing for being out in the nature.

Regarding this schism, in contrast to the summerhouse, the urban context is about containment. Therefore, the urban house must find solutions to inhabit the man of culture and nature at the same time. The edge zone might be the spatial area to dwell the man of nature, since it characterized by a relationship with the outside world.

In order to expand our knowledge of edge zone and edge conditions in architecture, the research looks into Richard Forman’s profound analysis of edge zones in landscape ecology. From Forman, three concepts are raised: edge zone, interaction and change. Edge zone is the main concept, while interaction and change are the behaviours of the edge zone. These three concepts grow to be the common thread along the research process.

To return to the field of architecture, the concepts are discussed and developed by the means of three bodies of theory: (1) the work of Richard Sennett on the distinction between borders and boundaries in the city and the significance of cooperation (2) David Leatherbarrow’s work on architectural behaviour (3) Aldo van Eyck’s work on an in-between place and twin phenomenon.

The first concept, *Edge zone*, is developed by the substance, dimension and function of an edge zone. The second concept, *Interaction*, is initially developed by searching after the objects to be moved in/out, the vectors of transport, the rate of exchange and possible types of interaction - resistance, continuity and exchange. The third concept, *Change*, is developed by discussing how the edge zone change over time, whether it shrinks and expands, appears and disappears, opens and closes, or changes from static to dynamic, and by types of change - no change, adjustment, changing thickness, natural performance and growth.

(later I will add in short how each body of the theory contributes to the discussion, which is initially inspired by Forman)

Toward research questions:

1. What are the architectural and urban dimensions of the edge zone between the apartment and the adjacent urban space?
2. What are the architectural edge conditions in multi-family housing in Copenhagen?
3. What are the architectural implications of such an edge zone in future housing?

1.3. Justification

The research participates in and contributes to the discussion on improvement of the life quality in Copenhagen, and enhancement Copenhagen as a living place.

The current research extends an ongoing urban strategy titled 'Kantzone' (= edge zone), promoted by the city architect, Tina Saaby. 'Kantzone' is about the interaction between people walking at the street and building on the ground floor, by for instance shops, cafés or ground level housing. The idea is to avoid a blind boundary to the street, and to create a dialogue between the different urban entities on the ground level.

The current research examines the edge zone between the apartment and urban environment. Here, the focus is on higher-level apartment, as they generate the biggest part of the borderline (= building envelope).

Another urban strategy in Copenhagen, relating to research topic, is about the nearness to natural elements. Normally, living in a multi-family house in the city limits the opportunity to see or experience nature. Therefore Copenhagen invests effort in improving nearness to green areas. The city set two aims for 2015. First: "90% of Copenhageners must be able to walk to a park, a beach or a sea swimming pool in less than 15 minutes"³ (60% in 2007). Second, Copenhageners will visit the city's parks, natural areas, sea, swimming pools and beaches twice as often as they do today"⁴ – which was an average of one hour every other day (2007).

The current research contributes to this effort by investigating the edge zone as a generator for performance of natural elements in the interior space, as light, heat, water, wind or plants. In this way, the city people attain a connection with natural elements without leaving their home. This performance changes over time and might influence on spatial experience and usage.

More than that, Copenhagen is facing a housing boom. A document by Koncern Service shows that by 2027 the population of Copenhagen will grow by 116.000 new inhabitants (118.5%)⁵. The urban density will rise in average of 1.344 inhabitants per squared kilometre. With this expected population growth the city of Copenhagen will need 45.000 new dwellings until 2025. (Ref?)

This information strengthens the need to study the current movement in urban housing and to distribute the outcomes among architects and planners involved in the planning process of coming housing developments. In this way, the research outcome can directly contribute to the architectural characteristics of the future housing. With a similar reason, the research process and outcomes are valuable to the planning process of housing projects at Holscher Architects.

Copenhagen is not the limit. The research ends by a general discussion on Living Edge as architectural phenomenon. This discussion shows that Living Edge, by its nature, supports conflicting forces and atmospheres. Living dense but spacious. Living big but small. Living alone but together. Living urban but green. Living inside but outside. These characteristics of diversity, synthesis and cooperation are of important to the architecture of urban housing as well as of housing in general. In this way the research contributes to the discussion on architectural qualities of housing today and tomorrow.

Starting with landscape ecology as inspiration, this study of interactions among living units and their environment ends with ecological reflections. Ecology is discussed not in terms of environmental friendly solutions, but as relationships between different urban entities for a creation of a pleasant city.

All in all, the research findings are valuable to three levels of discussion: housing in Copenhagen, architectural qualities of housing today, and ecological reflections on urban housing.

1.4. Method

1.5. Outline

The research design (=structure and method) is a combined strategy of a two-phase structure. (Table 1)

It starts with a theoretical study, as a formation of the theoretical position. The theoretical body of work by Forman, Sennett, Leatherbarrow and van Eyck is used to mold theoretical content in to the research concepts. Exploratory examination of best examples, as a basic illustration, supports the theoretical discussion on the concepts.

The second part is an explanatory study of one particular form of Living Edge, which is a common architectural element in Copenhagen – the bay-balcony. Grounded by the three research concepts, the study employs a case analysis with two polar cases of a multi-family house. One case is contemporary, designed by Holscher Architects, the other is older built as a post war urban extension in the forties. The cases are dissimilar, and yet they show a continuation of Danish architectural tradition. This study ends by an evaluation of the findings by the means the theoretical concepts.

The third part of the research is a discussion on the values and barriers of the research topic. The aim here is to broadly develop the characteristics of each concept, based on theory and practice, local and global. The discussion includes theory-driven generalization of the research concepts, and a practical reflection on possible architectural employment of Living Edge in the future.

Following this structure, the research design goes from a general study on the topic, to a study of a detail, back to the general topic of Living Edge – using the research concepts as a common thread. The research design steers the study process from initial research questions to a widespread set of answers, through following themes: introduction to Living Edge, Forman as an inspiration for theoretical position, a theoretical study of the three concepts, an explanatory study of bay-balcony in Copenhagen, reflections and finally conclusion. (Fig. 4)

1.6. Definitions

1.7. Delimitation of scope

1.8. Prolong

2. THEORETICAL STUDY

The most important sub-chapter here is the third one, which is about the research concepts as a theoretical proposition. It is still missing in this draft. β

2.1. Edge matters - landscape ecology as inspiration

“What is an edge? We can think about an edge as having been of two sorts. In one, it is a border. In the other, it is a boundary. A border is a zone of interaction where things meet and intersect. A boundary is a place where something ends”⁶ (Fig.5). In his work, Sennett develops the difference between border and boundary by an analogy to the biological world – the world of living. As well architects and urban planners often use this analogy as a reference for living architecture. This sub-chapter looks into this metaphor and asks - what can we, architects and planners, actually learn from natural ecologies in the matter of edge.

In the book, Land Mosaics, Richard Forman describes boundary and edges between two-landscape elements. This profound analysis is used as an agent to dive into the natural world.

The coming text goes back and forward from the natural world, represented by Forman, and the urban context of the Living Edge. This reflection process poses important questions, which are left open, for now, and used to point out significances and challenges. A set of answers is developed later in the body of the research.

According to Forman, the meeting point between landscape A and B (for example forest and field) creates dynamic boundary conditions. Forman explains that each landscape element has an interior zone in the centre of it and an edge zone along the borderline, as he writes: “Each landscape element contains an edge, the outer area exhibiting the edge effect, i.e., dominated by species found only or predominantly near the border. The inner area of a landscape element is considered the interior or core, and is dominated by species that are only predominantly live away from the border. A border is the line separating the edge of adjacent landscape elements. Two edges combined compose the boundary zone.”⁷ (Fig.6)

Forman underlines that the edge zone has distinctive characteristics, which are not a combination of the two neighbouring landscapes, but a system by itself, characterised by higher population density and diversity of species.

This distinction between an interior and an edge zone, and recognition of the unique characteristics generated by the nearness to the borderline are of interest for the context of the urban house. What is the edge zone between the home and the city? And, what are the distinctive characteristics of this zone?

To distinguish the edge zone from the interior zone, Forman explains three characters of it: dimensions, function, and action. The first two terms are actually used by Forman, and the third is my term.

Dimension. Forman identifies three dimensions of the edge: ‘width’ between the borderline and each interior zone, ‘vertical’ including its height, and ‘length’ along the boundary. According to Forman, these

dimensions are important for the understanding of the structure and functionality of the edge zone. Together, they provide a three-dimensional anatomy of it.

Similarly, in the urban context, looking into the dimensions of an edge zone is a tool to articulate the characteristics of it. In this regard, important questions are – How to measure the edge zone? What are the measurements? What are the characteristics of the three-dimensional anatomy of it?

Function. To express the function of a landscape boundary, Forman uses the cellular membrane as an analogy. The key function of such a membrane is “being a differentially permeable filter, that is, letting some materials cross but not others. Different materials cross in different places, time and via different mechanisms...”⁸ He mentions three mechanisms of material crossing: passive diffusion, active transport (using energy) drives, and large particles cross in ‘bulk transfers’. Back to his topic of landscape ecology, Forman states that landscape boundary exhibit these functions and more. He writes that five functions of landscape boundary are commonly recognized: habitat, filter, conduit, source and sink. As he explains each of them: habitat – “Edges are often biological cornucopias”⁹; filter – “objects are inhibited from crossing between patches on opposite sides”¹⁰; conduit – “when objects move along it (=corridor)”¹¹; source – “an area or reservoir that gives of objects”¹²; sink - “an area or reservoir that absorbs objects”¹³.

Learning from the functions of both cellular membrane and landscape boundary - what could be the functions of the edge zone between inside and outside the urban house? In other words, what is the role of the edge zone?

Forman’s statement: “No absolute barriers or boundaries exist in nature, only filters”¹⁴ underlines the filter function of a boundary. This emphasis on filters brings up another interesting reflection to the urban context – what if architecture of domestic spaces had only filters and no absolute barriers? What are these filters and what do they do?

Action. The different between function and action is that function is the role; action is about how this role is actually done. This character gathers three themes from Forman’s work. The first is rates of exchange, according to Forman, the filter function determines the tempo of interaction, which changes constantly, seasonally, or successional (by development). Second – vectors of transport, Forman mentions that interactions occur through vectors that transport objects in and out the particular landscape. He identifies six vectors: wind, water, flying animals, terrestrial animals, human and machines. And third, moving boundaries, Forman examines the changes in boundary patterns and their mechanisms (Fig.7,8). He explains the tendency to move and change, by the opposing forces are never exerted evenly along a boundary. “Lobes, coves, and other boundary surfaces appear and disappear”¹⁵.

Rates of exchange, vectors of transport and moving boundaries express possible behaviour of an edge zone. in fact, all three behaviours are performances of interaction and change.

In the urban context regarding the edge zone around the house, the notions of interaction and change advocate interesting questions. Concerning interaction - What are the objects to be moved in and out the urban house? What are the vectors of transport to cross the physical barrier? What is the rate of exchange? Concerning change - How does the edge zone change and move over time? Which lobes, coves, and other boundary surfaces appear and disappear?

Although employing Forman's work as a conceptual agent illustrates significant issues concerning an edge zone between in and out the urban house, it also has two major limitations.

Firstly, a boundary zone in landscape does not necessarily embrace a physical barrier, while an architectural edge zone encompasses one nearly always.

Georges Perec beautifully describes an uncommon transition between inside and outside of a house without a physical barrier, as he writes: "It's hard to imagine a house which doesn't have a door. I saw one day, several years ago, in Lansing, Michigan. It had been built by Frank Lloyd Wright... Bit by bit, as if by chance, without thinking, without your having any right at any given moment to declare that you had remarked anything like a transition, an interruption, a passage, a break in continuity, the path became stony, that's to say that at first there was only grass, then there began to be stones in the middles of the grass, then there were a few stones and it became like a paved, grassy walkway, while on your left, the slope of the ground began to resample very vaguely something like an open-work roof that was practically indissociable from the vegetation that had invaded it. In actual fact, it was already too late to know whether you were indoors or out"¹⁶. This house is located in a private protected golf club. Therefore the open transition between inside and outside is possible. The urban fabric is not an appropriate environment for a house without a physical barrier between inside and outside (Fig.9).

The dependency on a physical barrier in the urban context adds the architectural edge zone a forth character to the three of landscape (dimension, function and action), which is the matter and materiality - the substance.

Secondly, the application of Forman's theory is restricted because of the disconnection from urban context and complexity. As Sennett ends the essay *Borders and Boundaries* by limiting the analogy between natural ecologies and built environment: "At this point, I need to make a break in this procedure (of comparison)-- at least, I can find no simple natural analogy to hand to explain a great paradox of urban experience, a very sensate, physical experience which smudges the distinction between "closed" and "open.""¹⁷. Meaning that although the natural ecologies assist to articulate edge conditions, it cannot be used to express the sensual and physical urban experience of these conditions. After all, people, buildings and cities are fundamentally different from natural ecosystems.

To gap this insufficiency, in the theory chapter, I search for theory from the field of architecture and urbanity, which discusses and develops similar issues as rose here. In this way, Forman is used as an inspirational staring point, which grows and returns to our filed of architecture.

Through the selected theory, the theoretical formation of the research concepts is initiated by the questions:

Edge zone. What are the substance, dimension and function of an edge zone?

Interaction. What is the action of interaction at edge zone? What are the objects to be moved in/out? What are the vectors of transport? What is the rate of exchange? How does the edge zone embrace each type of interaction - resistance, continuity and exchange?

Change. What is the action of change at edge zone? How does the edge zone change over time? Does it shirk and expand, appear and disappear, open and close, or change from static to dynamic? How does the edge zone embrace each type of change - no change, adjustment, changing thickness, natural performance and growth?

2.2. Intermezzo - architectural behaviour of an edge zone

What does the edge zone actually do? Behaviour of an edge zone is not restricted to landscape ecology. In his work, David Leatherbarrow develops the idea of architectural behaviour. He calls for a shift in orientation from the type of architectural work (useful or beautiful) to the way the architectural work behaves. As he clearly explains: “from what the building is to what it does”¹⁸. Leatherbarrow considers the building as autonomous or independent from constructional and perceptual intentionalities, and searches for its actions and operations – “not performances in architecture, but performances of architecture”¹⁹. These performances are not an outcome the design or technology, but unscripted events dependent on several incidents: “those of the inhabitants’ interest and habitual practice, or of the climate, the seasons, and the time.”²⁰

In search of the performance of an edge zone, I collected a list of verbs describing possible architectural behaviours of it. Here is the list organized from A to Z.

to absorb // to act // to adapt // to allow // to anticipate change // to balance // to be // to be dynamic // to be ecologically friendly // to be in concert with // to be natural // to be outside // to be restorative // to be wild // to become // to benefit // to bind // to blend // to blossom // to breath // to bridge // to camouflage // to care // to change // to circulate // to climatize // to coexist // to communicate // to connect // to disconnect // to contain // to contextualize // to contribute // to control // to uncontrol // to cool // to correct // to cultivate // to decorate // to delight // to depend // to desire // to develop // to discover // to discuss // to dissolve // to equal // to embrace // to emerge // to enclose // to encourage // to enhance // to enjoy // to enlighten // to equal // to escape // to evolve // to excite // to expand // to experience // to explore // to feel // to flow // to flow out // to frame // to fuse // to gather // to generate // to green // to grow // to habitat // to harmonize // to hybrid // to identify // to improvise // to increase // to inform // to informalize // to initiate // to inspire // to integrate // to interact // to interfere // to invite // to isolate // to keep // to lay on the grass // to liberate // to light // to live // to liven // to love // to maintain // to mediate // to meditate // to meet // to move around // to negotiate // to network // to open // to organize // to orient // to penetrate // to perceive // to permeate // to place // to plant // to play // to preserve // to process // to promote // to protect // to qualify // to react // to rebuild // to reconcile // to recreate // to recycle // to reduce // to refer // to refresh // to relate // to relax // to remember // to renew // to respond // to reterritorialize // to reuse // to reveal // to seasonally use // to see // to self-sow // to sense // to shelter // to shift // to socialize, // to solve, // to stay // to stimulate // to

surround // to sustain // to sweat // to synthesize // to systemize // to thematize // to theorize // to touch // to trace // to uncultivate // to understand // to unfold // to unpredict // to view

Out of this long list, and influenced by Forman, two architectural behaviours of an edge zone are developed along the research process: interaction and change.

These architectural behaviours are sensitively described by this quote of Venturi: “Designing from the outside in as well as the inside out, creates necessary tensions, which help make architecture. Since the inside is different from the outside, the wall – the point of change – becomes an architectural event. Architecture occurs at the meeting of interior and exterior forces of use and space. These interior and environmental forces are both general and particular, generic and circumstantial. Architecture as the wall between the inside and the outside becomes the spatial record of this resolution and its drama. And by recognizing the difference between the inside and the outside, architecture opens the door once again to an urbanistic point of view.”²¹ In view of that, through interactions of interior and exterior vocabulary, architecture actually appears, and change is the spatial record of the resolution and drama of interactions.

2.3. Theoretical proposition – edge, interaction and change

Here I am discussing about each concept through the selected theory and using best examples as a basic illustration of them. The research concepts are the theoretical proposition of the study.

2.4. From theory to methodology

This is the last sub-chapter before the theory chapter. Here I am connecting chapter two (theory) with chapter three (method) by describing in short how the theoretical discussion on the three concepts construct the research method.

Footnote:

- ¹ Wright, F. L., 1943. Frank Lloyd Wright: An Autobiography. Ed?. Portland: Pomegranate Communications Inc.
- ² Schunck, E., 2003.
- ³ The Technical and Environmental Administration, City of Copenhagen, 2007. *Eco-Metropolis: Our Vision for Copenhagen 2015*.
- ⁴ The Technical and Environmental Administration, City of Copenhagen, 2007. *Eco-Metropolis: Our Vision for Copenhagen 2015*.
- ⁵ 2012, Befolkningsfremskrivning for København 2013-2027
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- ⁷ Forman, R., 2006. Land Mosaics, The ecology of landscapes and regions. 9th ed. Cambridge: Cambridge Univesity Press. pp.85
- ⁸ Forman, R., 2006. Land Mosaics, The ecology of landscapes and regions. 9th ed. Cambridge: Cambridge Univesity Press. pp.96
- ⁹ Forman, R., 2006. Land Mosaics, The ecology of landscapes and regions. 9th ed. Cambridge: Cambridge Univesity Press. pp.96
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- ¹² Forman, R., 2006. Land Mosaics, The ecology of landscapes and regions. 9th ed. Cambridge: Cambridge Univesity Press. pp.149
- ¹³ Forman, R., 2006. Land Mosaics, The ecology of landscapes and regions. 9th ed. Cambridge: Cambridge Univesity Press. pp.149
- ¹⁴ Forman, R., 2006. Land Mosaics, The ecology of landscapes and regions. 9th ed. Cambridge: Cambridge Univesity Press. pp.100
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- ¹⁹ Leatherbarrow, D., 2009. Architecture Oriented Otherwise. New York: Princeton Architectural Press. pp.49
- ²⁰ Leatherbarrow, D., 2009. Architecture Oriented Otherwise. New York: Princeton Architectural Press. pp.58
- ²¹ Venturi, R., 1966. Complexity and Contradiction in Architecture. London: The Architectural Press Ltd. pp.86

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http://esteticartografias07.files.wordpress.com/2008/07/berlin_richard_sennett_2006-the_open_city1.pdf> [Accessed 26 July 2013].

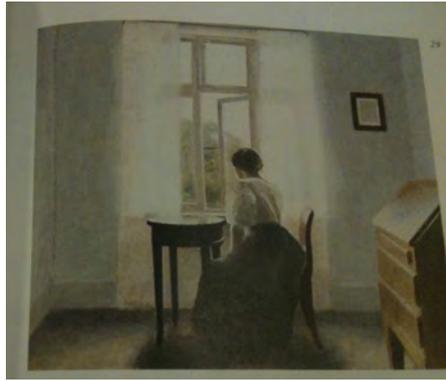


Figure 1: interiør Åhuset, åboulevarden
Vilhelm Hammershøi, 1898



Figure 2: Stemning fra Nyboderhus
Edvard Petersen, 1860



Figure 3: Udsigt fra kunstnerens altan over det gamle banegårdsterræn og Peblingesøen
Paul Fischer, 1887

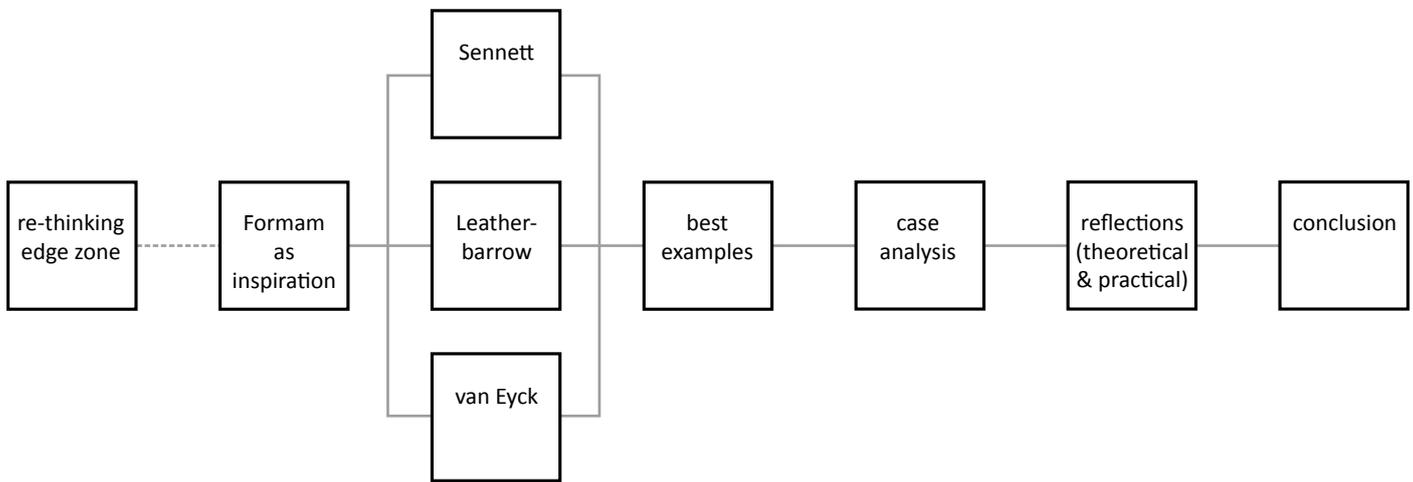


Figure 4: research process

	Theoretical study	Explanatory study
Level of discussion	Living Edge as an architectural phenomenon in urban housing	Bay-balcony as a detail of Living Edge
Strategy	Formation of the research theoretical position supported by physical examples	Analysis of the bay-balcony element as a Danish contribution to the idea of Living Edge
Source of data	Theoretical body of work and best examples	Two case of multi-family house with bay-balcony
Research activity	Theoretical study: To mold theoretical content in to the research concepts Study of best examples: to illustrate the theoretical concepts (basic illustration)	Case-analysis: To examine the bay-balcony as a vertical edge To evaluate the bay-balcony in relation to other vertical zones
Criteria of examination	Research concepts	Research concepts

Table 1: two-phase structure

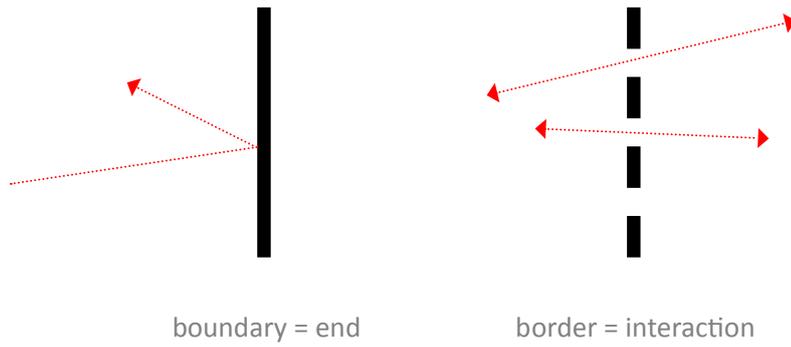


Figure 5: Sennett's distinction between border and boundary (opposite to Forman)

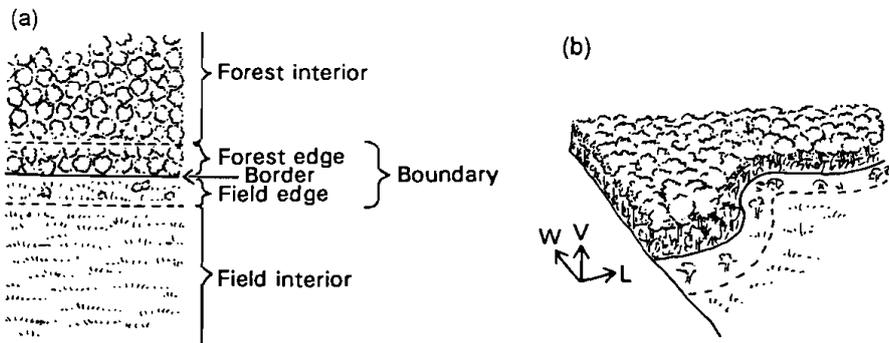


Figure 6: Boundary, border and edge - drawn by Richard Forman



Figure 7: Expanding and contracting boundaries - drawn by Richard Forman

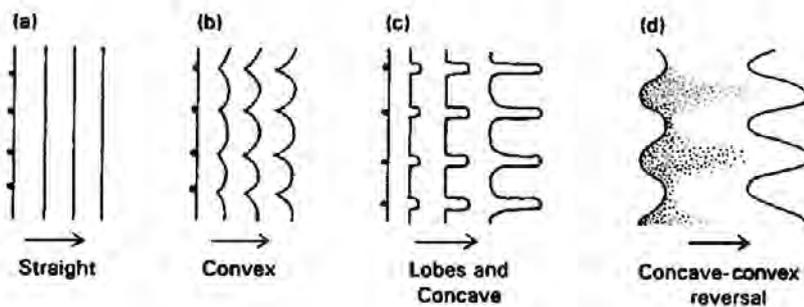


Figure 8: Patterns of advancing and expending boundaries - drawn by Richard Forman

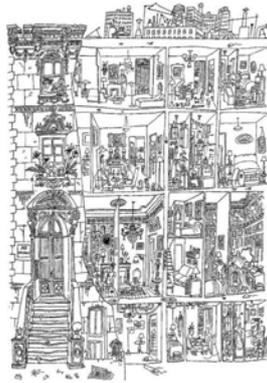
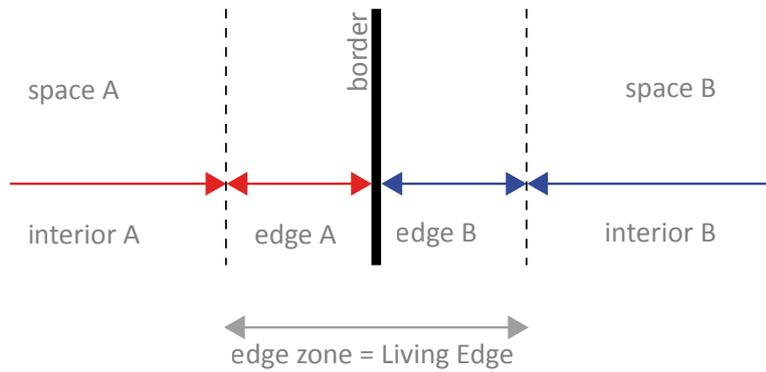


Figure 9: illustration of urban house without a physical barrier
Saul Steinberg, published in The Art of Living, 1952



additional illustration: Architectural interpretation of Forman's scheme for edge, border and boundary



additional illustration: Three ingredients to Living Edge

Longevity of landscape architectural qualities

- How can we underpin landscape designs in order to improve longevity?

Key words: landscape architecture, design, quality, longevity, time

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Abstract

This paper presents the reader with some considerations in relation to landscape design practice. Based on the teachings of Vitruvius we will discuss a quality perspective which factor in time's influences on central quality aspects of landscape architecture. It is suggested that the Vitruvian Virtues (firmness, functionality and aesthetics) each sees different types of challenges over time. It has been put forth in the Ph.D. thesis (which is basis of this paper) that designing landscapes with focus on respectively *robustness, flexibility and clarity* might be 'key' to an improved longevity of the landscape qualities. This perspective is explored within this working paper with an examination of six landscapes (based on topographical diagrams). In the analysis it proves to be a through-going challenge to determine how the three key factors can be reflected on various aspects of the landscape designs. However summing up reflections from the walk-through, it becomes clear that a focus on the three key factors presents the landscape architect with important considerations about his or her design. Furthermore it appears that some design choices can be contradictive as they may appear to improve the longevity outlooks for some qualities while impacting others in a negative way. This 'optic' can be a useful tool for the landscape architect, yet in order to make a more solid evaluation of the durability of his design, he would have to widen the analysis as to involve a wider range of design aspects than illustrated in this paper.

Introduction

When the visions of architects are handed to the users, they are tested by reality and both 'time' and diverse human actors will influence the landscape's future direction. A study of six landscapes found in the Danish social housing sector reveals interesting knowledge on the visions and quality of landscape architectural works and on how *quality is changed and practiced* after the architects left. In Danish social housing neighbourhoods these tenants' opinions count as resident democracies are the primary source of decision makingⁱ. Great amounts of resources are each year spent on renovations and reshaping of landscapes that were once considered to be state of the art from an architectural perspectiveⁱⁱ. Certainly the longevity of landscape architecture is of relevance for future generations. In 2012's 6th edition of the Danish Journal 'Landscape' Riesto (2012) formulates this simple - and maybe classic - yet pivotal dilemma within our field: "How can such a inconstant subject as landscapes be preserved?"ⁱⁱⁱ. This question seems more relevant than ever today where 'quality' has become a higher goal in a "*society of evaluation*"^{iv}. What is it we want to last? And how is it possible? These questions cannot be answered without considerations on the term 'quality'.

This working paper seeks to present perspectives of relevance for the landscape architect who is concerned with the longevity of qualities in his architectural works. Just by examining diagrams based on the original landscape plans, we will be discussing the strengths and weaknesses of different landscape designs.

Background

Basis for being able to suggest the three evaluation criteria (*robustness, flexibility and clarity*) of landscape architectural longevity is obtained from 6 comprehensive case studies – being the foundation of the Ph.D. project:

*With a ‘work-analysis’ approach six original landscape works^v (1930s – 1960s) have been analysed with focus on their intended qualities within the dimensions of the Vitruvian Triad: Functionality (*utilitas*), durability (*firmitas*) and aesthetics (*venustas*)^{vi}.*

The landscapes were subsequently traced and analysed in a timeline perspective from origin till today in order to determine what has been influencing the landscapes given qualities and how new quality has been applied.

The intentions with the thesis approach were to gather information on how each of the 3 quality ‘aspects’ (suggested by Vitruvius) were influenced, treated and developed over time. In order to make a contribution to planning practice it seemed important to understand how different types of qualities are changed or exchanged for each other on request by the resident democracies, or due to maintenance approach, lack of replacement, or by other means changed. Many insights has been gained, but most importantly for this paper, it was recognized, that each of the 3 quality dimensions saw absolute diverse types of ‘impacts’ and were challenged in different ways. Attempts to plan for long lasting qualities within each aspect thus require varied approaches.

Presented below are selected notions from the thesis. For each quality aspect there has been made assertions relating to their potential longevity. *These assertions will be basis for this paper*, as the paper will review how they may be feasible evaluation criteria in on-going planning practice:

- Firmness (*firmitas*): This quality aspect is concerned with the state/strength of materiality and components and structures are in focus. Both living (plants) and hard materials are the primary objects of interest. Several conditions play a role in regard to the development of this quality aspect: species/materials chosen, species diversity, structure types, local physical conditions, maintenance requirements etc. The thesis suggests that the pivotal design factor in sustaining qualities of the *firmitas*-aspect can be named **robustness (elemental and structural)**.
- Functionality (*utilitas*): Within this aspect it is the usability and attributes (for people) of the landscape, which is considered as a quality. Concrete functions such as playgrounds, places for relaxation, parking lots, local infrastructure etc. are relevant, but also the arrangement of the areal structures and the spaces that are created is of importance. Spatiality plays a major role in regard to people’s activities and use^{vii}. *Utilitas’* development brings into play a difficult factor: human beings. While certain functions such as shelter or privacy may be equally important over time, many other functions have relative importance in relation to societal trends. Rug beating, drying racks, asphalt playgrounds, mass parking, limited-trafficked roads, petanque, parkour tracks etc. – all of these activities belong to a certain period of time. As these functions are constantly changed it is important that the landscape can provide frames and space for this. Therefore a key factor is order to uphold the quality of the *utilitas*-aspect is **flexibility (spatial)**.

- Aesthetics (*venustas*): This aspect of quality is not to be treated subjectively by defining whether a design is 'beautiful' or not. Instead the aesthetics is to be construed as the 'story' that the area speaks about – we call it the aesthetic language or the character of the landscape^{viii}. Choice of characterful components – like flowering plants – may be part of what is considered 'aesthetic' but the character is much more than that. It involves all design levels: components, structures and syntaxes and it relates to the physical context and sometimes even historical elements of the site. A deliberate design draws on specific choices in order to adopt an identity and create and thoroughgoing character^{ix}. Sustaining aesthetic qualities seems to require the appreciation by the maintaining staff as to deliver 'intentional' care and to make well considered plant replacements and so forth. Furthermore appreciation and respect given by the residents seem important as well so as to prevent unfortunate changes regarding the landscape's future development. To help this identification and appreciation of the character a pivotal design factor is ***clarity (idiom)***.

Methodology

In the following we will be looking at selected thematizations of the designs of 6 landscapes of housing areas. Thematic diagrams illustrate only the information which is typically to be found in a '*landscape master plan*'. Design choices and conditions of the 6 areas will be compared and discussed based on three key factors presented above. ***Robustness, flexibility*** and ***clarity*** will be put into trial and finally assessed as applicable 'optic' for considering longevity of landscape architectural designs.

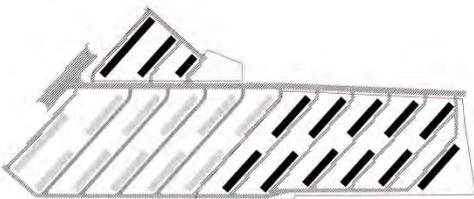
The initial approach is to define only what can be seen when comparing the landscapes diagrammatically^x. Yet when introducing considerations regarding the three key factors we will rely on a wider scientific background relating to existing knowledge about e.g. plants, spatiality, human behavior and preceding societal changes. Different sources will be drawn upon in order to examine the themes in the light of our three key factors. The approach in this regard takes on a hermeneutic scientific worldview when involving the knowledge and subjectivity of the conductor^{xi}.

Samples and diagrams

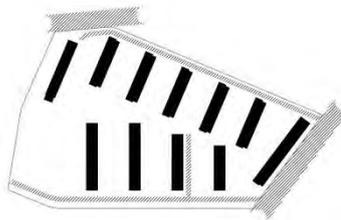
The landscapes used as samples in this paper are the same as those used as cases^{xii} in analyses of the Ph.D. project. The samples used could however have been exchanged for other (none familiar) areas, and this would probably render the conclusions more reliable. Yet lack of resources and access to relevant material has led to the 'reuse' of the case samples. Each case is a social housing area in Copenhagen and its suburbs. The housing areas are established in the period between 1934 and 1968. Conditions relating to the case areas' designs will be presented further in the following analysis. Underneath, the preliminary set of diagrams is illustrated (*Internal Physical Barriers*) where name and year for each housing area can be seen. Hereafter the cases will be referred to numerically.

A. Internal Physical Barriers

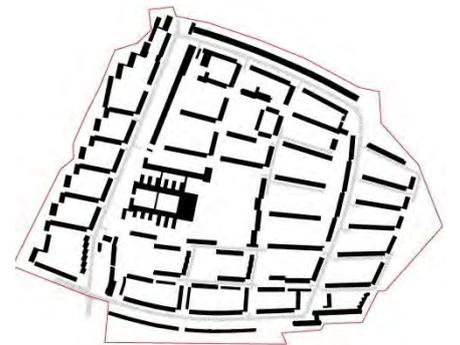
1. Lundevangenget (1934-35)



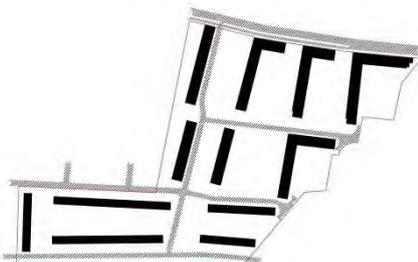
3. Skolevangen (1944-45)



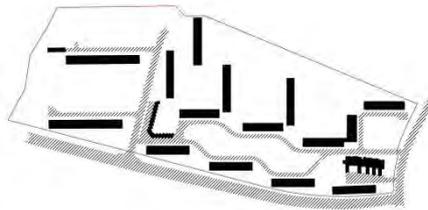
5. Tingbjerg (1955-58 and 1964-71)



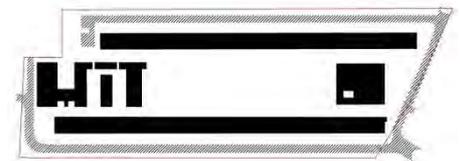
2. Kantorparken (1939-40)



4. Voldparken (1946-48)



6. Rymarksvænget (1968-70)



In this diagram layout only the buildings on site and paved roads with car traffic has been emphasized. From a cursory review some of the following observations can be made:

- Roads has been placed away from free spaces in area 3 and 6.
- In area 1, 2 & 4 major roads runs through the area.
- In area 5 major roads can be found internally as well, but due to the size of the area, each three or four blocks has its own courtyard, which is shielded away from roads.
- Buildings are equally scaled and have consequent orientations in area 1, 3 & 6.
- In 2, 4 & 5 buildings are rather diversified in size and have several orientations.
- Area 6 is unique as it consists of only two blocks with a length of more than 300 meters.
- Area 5 is unique as well due to its size (it holds around 2250 households).

The elements seen in this diagram layout do *not include the actual landscape components* and thus do not reveal anything about the materiality of components and structures in the landscape design (firmness). Instead the conditions described next may concern the flexibility (functionality) and clarity (aesthetics) of the landscapes.

Firstly, to draw on historical knowledge (in a Danish context) there has been quite a few major changes in use and attitude towards cars during last century. Starting around 1950 we saw an almost exponential growth in the number of cars lasting for 3 decades. This necessitated a substantial addition in bay numbers taking up rather large areas. Later on – mainly in the 80's and 90's – car traffic had grown so heavily that many steps were taken to slow down traffic and push it away from living areas^{xiii}. This learning shows that people is not the sole actor of the city. Latour (1988)^{xiv} would suggest that an ambiguous perspective on



Placement of roads dictate where solutions to infrastructure can take place, area 1

'actors' and their 'needs' is necessary. The cars (or transportation means in general) as autonomous actor did require, and will very likely in the future require, changes in relation to infrastructure. This calls for a focus on infrastructure's placement in relation to other functions of the landscape project. Having only internal roads in the area therefore renders the design *inflexible* towards development of the infrastructure without causing changes of landscape elements and their added qualities (e.g. other functions or landscape character). Areas 2 and 4 are such examples whereas areas 3 and 6 have a clearly functional division between infrastructure and green spaces 'for people'.

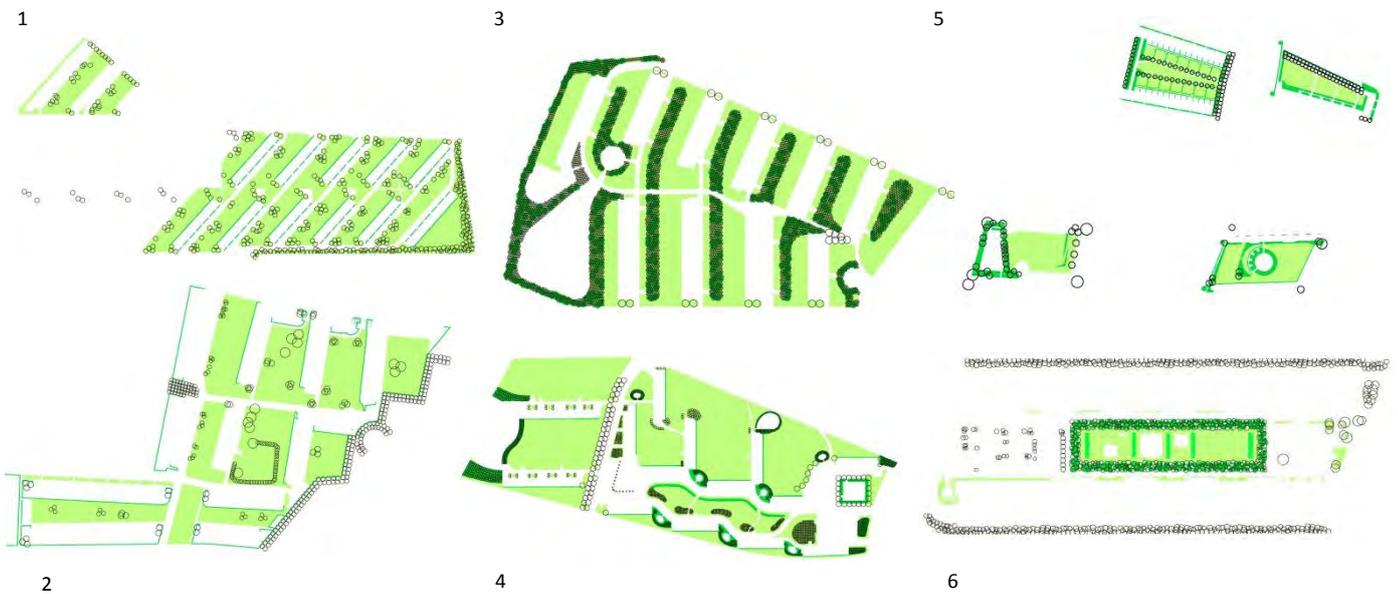
The roads are also interesting as they may separate landscape into units – and thus could potentially have impact on the architectural *clarity*. It is the same case regarding placement of building structures which also represent visual barriers. Looking at area 6 one can notice that there are no structures dividing the one central open space. In area 3 the building structures partly shield of the open spaces, however these areas are clearly connected centrally throughout the area. Areas 2 and 4 have rather different setups. In both cases one has to move across more than one road to walk through the landscape and furthermore many



Roads as well as buildings can produce subdivision of an area, area 2

building structures seem to shield of green spaces due to placements and orientation. The open spaces can therefore to a lesser extend be perceived as a whole and this can potentially weaken the landscape character if the area is to appear as a unity. In area 5 the situation is partly the same as the last mentioned, however here we see a distinct and intentional separation between the green spaces as they are consequently appearing in the courtyards behind the building structures.

B. Green Components and Structures



Proceeding to the green components and structures, just a quick review of the diagrams illustrate a notable diversity in design layouts which occasions many considerations on the landscapes' longevity.

In this diagram layout we do not receive information about plants on a species level and thus cannot say anything about specific choice of components. What we see instead is how components together enter into different structures and that these structures are dictated by different systems (syntaxes). These design choices actually do say a lot about the plants' *robustness* over time. One quick (and classic) consideration is that linear and rigid plant structures such as alleys and tree rows are harder to renew continuously as it is difficult to plant in new components as they are then to compete alongside the well-established trees^{xv}. This often necessitate complete replacement of the structure when it ages – often resulting in loss of character for years to follow. Area 4 and 5 contain a substantial amount of rigid structures. Other plant



Rigid plant structures can be difficult to sustain continually when trees ages, area 5

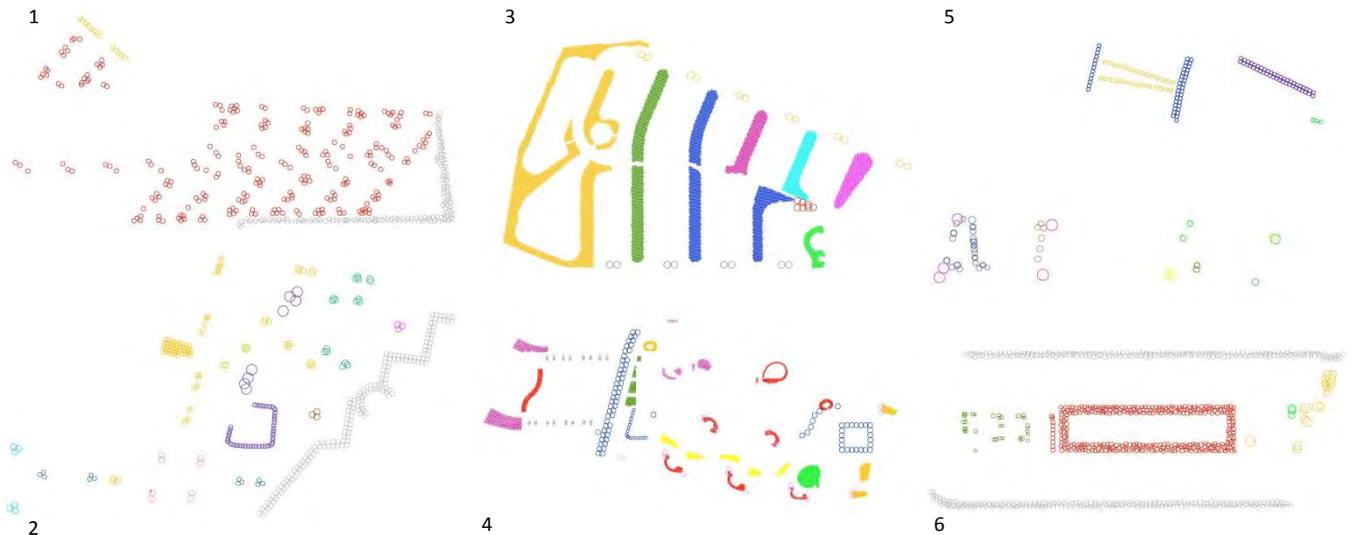
structures such as tree groups are on the other hand often easier to renew and loss of single components in a group will often not be that visible. Again it may be difficult to establish new components in existing tree groups. However quite often the individual tree group has a rather 'loose' relation to its surroundings making it easier to establish new plant components in the periphery of the structure or in surrounding free sites – ready to make a replacement when the existing trees ages. Area 1 and 2 illustrate this plant system well. Finally we see plant systems which are rather similar to a 'forest production approach'. Here numerous components are established together with little distance. This sort of approach needs continuously thinning over time, and after many years the result could potentially be everything from dense 'forest', tree groups or solitary trees^{xvi}. Renewing these plantings could involve the same challenges as described in the other approaches. Yet what is interesting about the approach is that it enables the

caretaker to keep selecting the healthiest and most beautiful components in the thinning process. This could potentially improve *robustness* and extend the lifetime of the structure. Area 3 and 6 illustrates this approach well and to a lesser extent does structures in area 4. It should also be noted that such an approach would entail a more forest like character, as the competition means taller trees and a higher canopy. This can be a deliberate choice in relation to the aesthetic visions of the design. There are many other types of structures worth of mentioning, however the examples brought up are those best illustrated by the cases.

Moving to longevity of landscape functionality we are interested in the structures as ‘frames’ for existing and new functions – *flexibility* is a keyword. We are to discuss *spatiality* in relation to a forthcoming diagram, so in this turn we will not look at the areas ability to frame activities. Instead what can be studied here is the landscapes’ capacity of adding new or removing existing green structures (frames). There are several factors influencing this. Available space is a prerequisite. Also in the section above it was stated that those components and structures with a loose relations to its surroundings can more easily be ‘moved’ elsewhere. The case is the same in regards to new or removal of existing elements. In area 1 and 2 it is possible to place or remove components and structures with limited effect on the overall design (this is only the case, as long as the new structures match the existing). In both of these areas only trees can be found, and therefore placement of new structures giving shelter in eye height to fit into the existing design is more complicated. In the remaining four landscapes, the structures are generally so well defined, and the contrast between open space and tree volumes is so clear, that it would be difficult to remove them or just parts of these without loss of character. In these four areas it could also appear difficult to add new structures, as the existing once are so well defined. However in those sites where the existing structures are strongly defined, new layers in a smaller scale should be possible to fit in with only limited effect on the overall character.

Finally we can review the green structures as basis for the landscape character and try to consider the *clarity* of the different approaches. Again it is not only the structures but certainly also the choice of components, that counts for this. Still, looking at the diagrams one might recognize that the structural compositions of area 1, 3 and 6 seems rather consequent. This will be recognizable on site. Area 2 is also somewhat simply composed, based mainly on tree groups with few exceptions. Contrary to this we see that area 4 and 5 consists of a variety of structures – also with different relations to each other and their surroundings. Whereas area 4 seems to still work with the whole area as a unity, area 5 on the other hand has treated each courtyard as unique spaces with limited relation to each other. Having taken the consequence of the separated green spaces area 5 illustrates that the concept of *unity* is not obligatory. Also, the landscape itself is not the only way to assure unity – buildings and streets as well can contribute to this as well. Taking such approach in area 5 the landscape architect enables himself to give each courtyard its own strong identity which the diagram shows well.

C. Plant (tree) Diversity



What we get here is a small insight into conditions regarding the plant components. This is not a detailed view on plant species' attributes and requirements (which is also of high relevance), instead we are to look at the overall degree of plant diversity and consider what this might mean to the landscapes' longevity. Each color marks a unique genus (e.g. willow, birch, larch, broad leaf).

Again - to start with the *robustness* of components and structures, one central concern related to monocultures are their resistance towards plant diseases. Bio-cultures with limited diversity are often more likely to attract and transmit different diseases. Also from a structural perspective, plant structures are often more resilient towards weather effects, when they are diversified in shape and layer. From this perspective area 1 and 6 might look more exposed than the others. Some of the courtyards in area 5 also only consist of few component types. Area 2, 3 and 4 are more diversified, however this is only the case overall and not within each plant structure, as these each structure in general builds only on just one species. So with few exceptions (e.g. one courtyard in area 5) there is a tendency towards homogenous plant use within the structures of these landscapes whereas the number of species used in the overall designs differs substantially.



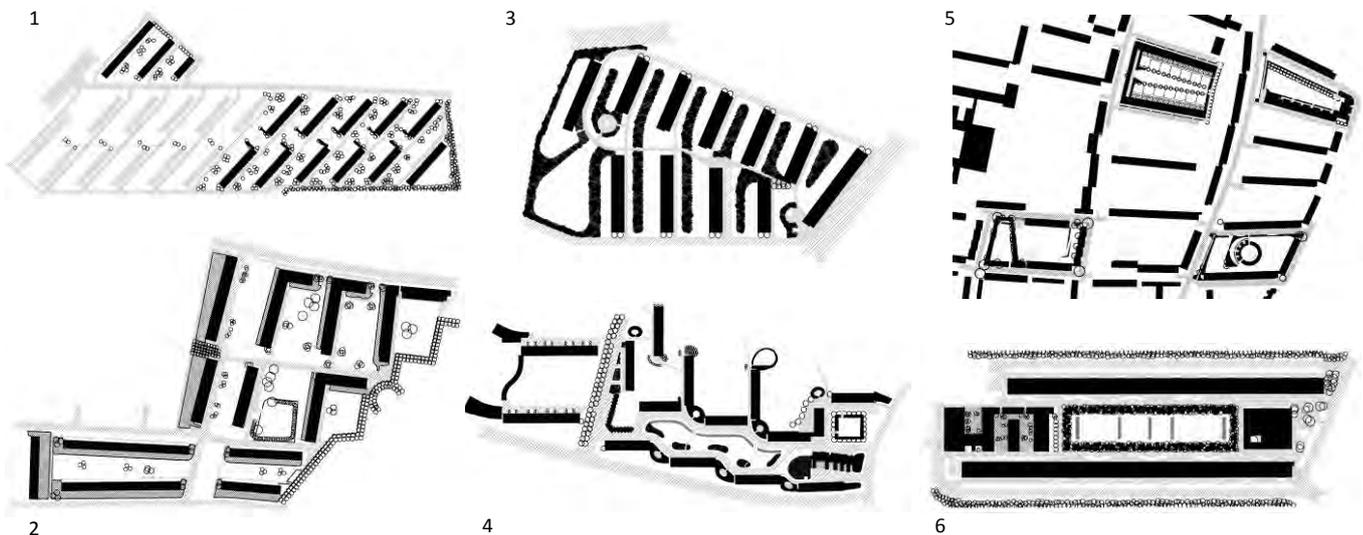
Homogeneous plant use can be characterful but may also reduce robustness, area 3

Looking at *flexibility* in relation to tree species has to a lesser extent to do with diversity. Instead the specific species choice plays a more important role, as the different plant species will be suitable as 'frames' to a varied extent. This information is however not visible on the current diagram. Yet in general one might suggest that different species will contain different attributes in relation to e.g. casting shadow, wind cover, visual shelter, which is why a variety may again be preferred as to be able to meet different future needs.

Meeting the needs for '*clarity*', when it comes to strengthening the aesthetic qualities, puts forward contradictive responses in relation to the points above. This is because it is more likely for people to

appreciate a landscape character when it is composed by fewer consistent components than a multitude in order for the character not to become too complex. There are, as seen earlier, other ways to ensure thoroughgoing design choices – one is structural consistency – however the choice of components play a central role in this regard. Looking at area 2 and 4, one will recognize a great variety of components (species) however the structural variety is lesser in area 2 as seen earlier. This leaves area 4 with an overall great diversity when it comes to both components and structures – and furthermore the area contains substantial barriers as well as mentioned earlier. In area 1 and 6 we see designs based almost on 1 species and the character of this design will undoubtedly be linked strongly to characteristics of this particular species. Area 3 is different as it contains a moderate amount of different species, yet as they are individually found in major structures, each of these structures will appear with a strong individual character while it is the structural consistency that binds the landscape together. Again area 5 is different, as we see different solutions in each courtyard. The landscape architect has clearly chosen to limit the diversity within each courtyard so as to ensure distinct identities.

D. Spatiality



In this diagram layout focus is on the overall spatial compositions in the landscape designs. The diagrams illustrate some spatial attributes of the components and structures. The hatches suggests whether they present themselves as both physical and visual barriers (black solid) or if they are to be found above (empty circle) or under eye height (dark grey solid). Infrastructure is marked as well.

Spatial composition of the landscapes has limited influence on the *robustness* of components and structures. Vice versa it could be stated, that the spatial composition is often very dependent on the health of components and structures, as these will be defining the spaces.

When it comes to longevity of the functionality then spatiality represent an important factor. This is because a diversified spatial composition with enclosures as well as open spaces will be offering an extended *flexibility* towards contemporary landscape functions. New ‘installments’ will require available square meters, however if the framing is not right and the site is exposed (visually and to weather), chances are that people will not be using it at all^{xvii, xviii}. Furthermore it should be noted, that the lack of frames could necessitate new ones and this could potentially weaken the character of the existing landscape. Looking at



Openness renders the area inflexible, area 2

the diagrams one will note that area 1 and 2 both have very limited components that act as visual barriers (when excluding building structures). New installments in these areas will in many cases appear exposed and they will be quite visible from around, which renders these areas rather *inflexible*. This illustrates that the quality aspects are quite interrelated, as the lack of framing structures also can affect the aesthetic qualities at a later stage if changes are necessary. In area 4 there seems to be a sharp contrast between large open spaces and small intimate spaces. The intimate spaces in particular hold potential for changed

uses but will be very dependent on sustaining the surrounding plant components, whereas the open spaces do not invite to stays and can be considered quite inflexible. Area 3 and 6 both contain plant belts which are composed by several layers of planting. This will divide the green spaces and provide frames for potential changes. Area 6 however suffers from missing spatial diversity within the central area, which reduces *flexibility* substantially as the whole area is exposed. In area 3 the situation is quite different, as the massive tree belts would work well as shelter for new activities. Additionally underneath these trees, shrubbery has been scattered, which adds additional shelter in eye height. Here one could potentially place new functions such as a playground within the plant structures with limited effect on landscape character from an outside perspective. In area 5 we again see rather varied situations. Overall we recognize several compositions of spaces, but within some courtyards we see limited diversity. In the upper central courtyard it can be noted, that there has been an attempt to foster several smaller 'gardens' as well as a larger central space. This is interesting from a flexibility point of view.

Moving to the latter factor; *clarity* of the aesthetic qualities, spatiality again appears as an interesting factor. As was the case with components and structures, the spatial composition can be a means in the attempt to apply identity and potentially give character to the area. This however requires calculated use of components and structures as e.g. different tree species will affect spaces differently. So, in order to apply



Character from spatial composition, area 1

spatiality as a general aesthetic factor, the landscape architect needs to be very controlled with his other instruments. To mention those with distinctive spatial attributes, it seems very likely that area 1, 3 and 6 will be appreciated partly because of their spatiality. Area 1 has almost no elements in eye height but instead it has thoroughgoing components (one tree species) all contributing to creating a homogeneous roof in the green spaces. Area 3 consists of several component types however they are all placed similarly in belts creating a sequential relation between buildings and plants along the central

pathway. Area 6 has only one significant central room composed by the oblong tree belt and beneath, shrubbery in eye height. The scale of the planting belt seems to match that of the buildings and between the belt and building one can identify long alleys created between the façade and stems. The planting belt as definer of the space obviously has quite an impact.

Sum up

Does new insight arise when approaching these 6 landscapes of Copenhagen social housing areas with a focus on *robustness, flexibility and clarity*?

Perhaps – but there is no doubt, that extended studies of additional design choices and conditions of each site would be preferable. There would be several other themes to include if one were to get a more solid evaluation on the qualities' longevity. Many of these however could likely be performed in diagrams as the suggested but other approaches could supplement this. Essential themes could be e.g. components estimated age, species' individual requirements, component's character and color patterns, soil conditions, mobility in the area, areas' coherence. The suggested 'set of glasses' presented here is an approach to reflect on potential weaknesses and strengths regarding the 3 quality aspects defined by Vitruvius. It requires a profession based background knowledge and preferably experience with landscape development. Nonetheless, if chosen to perform this exercise the architect might find that maybe too little attention has been given to one of these quality aspects. Upon this he could look for ways to strengthen his design.

Reflecting on the 6 landscape designs presented the landscape architects would maybe have benefitted from questions as these: Could the aesthetic clarity in area 2 and 4 be strengthened by simplification of component choice or structures? Or now that green spaces in area 2 and 4 are rather separated by infrastructure and building structures, would it perhaps be sensible to apply different identities to each sub area – as done in area 5? How can the rigid structures of area 4 be replaced without loss of spatiality and aesthetic clarity? Are we running to big a risk when only betting on one species in area 1 and 6? Is the lack of space defining elements in area 1 and 2 rendering these areas to inflexible towards future development needs? And is the case similar in the central green space in area 6? And so forth. Maybe some of these questions are not relevant or the architect has already made those considerations. If not, it might be worthwhile.

Another observation to mention is the apparent contradictive influences that some design choices may have on the longevity of different qualities. E.g. diversity of plant species could prove beneficial for structures' robustness while the clarity of the landscape character may benefit from a more consequent use of components. In situations like these, it seems that the architect would have to prioritize which quality aspect to strengthen. Vitruvius argues that in good architecture the quality aspects are well balanced^{xix}. This might as well be the case with the choices made with future proofing in mind.

Robustness, Flexibility and Clarity – usable, suitable?

The assertion that *robustness, flexibility and clarity* are key factors in relation to determine the longevity of the classic Vitruvian Virtues was basis for this working paper. This paper did not try to account for this assertion as this is done in the extended Ph.D. thesis. Instead it was tested whether the perspective could give rise to relevant considerations and discussion regarding the qualities' longevity. It did supply interesting perspectives, yes – and it may well be usable in a wider scale. Is it suitable as a tool for prolonging the overall life time of landscape architectural works? – well only time can tell.

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Landscape Architecture in Contemporary Danish Suburban Development

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ABSTRACT

This paper focuses on landscape urbanism theory in relation to practical urban design experiences so as to discuss the potentials of approaching contemporary Danish suburban development by means of landscape and ecology. The theory described is predicated on the assumption that even before it became a theory, landscape urbanism has been common practice in European design projects. This implies that the urban challenges have been in the centre of landscape thought and practice for so long that Danish landscape architecture already includes urbanism. In order to recover momentum in Danish urban design, it is argued that the current discourse of landscape urbanism needs to define itself more clearly in relation to the Danish landscape architecture tradition and more actively consider amenity and aesthetics. Via the discourse of landscape urbanism, landscape architecture in Danish suburban development can shift from one of relatively superficiality to one of more structural influence. The paper first positions landscape urbanism in the context of urban landscapes; then it introduces the current Danish debate on suburbia and sustainability; Finally, the paper reflects upon two urban design projects of suburban residential development in Hillerød (Ullerødbyen) and Odense (Bellinge Fælled) by introducing yet unpublished interview material from conversations with the respective architects behind the projects: Stig L. Andersson (SLA) and Nina Jensen (Schønherre a/s). Facing today's effort to evaluate and re-think the both loved and criticised suburbia and its incompatibility in relation to the current environmental and climate prospects, these projects suggest that a landscape orientated approach to (sub)urban development can provide more adaptive and flexible frameworks to meet the indeterminacy of the future.

KEYWORDS

Suburban development, landscape urbanism, landscape architecture, sustainability

Introduction

'There was a time when the suburb was a land flowing with milk and honey. Here one could realize his dreams and find the physical and social environment that made life good. A private house or larger apartment, own toilet and bath, washing machines that were brand new, green areas where children could play, and good institutions'.¹

For many Danes, the post-war suburb located in the fringe of the old cities is still associated with the good life. From the 1950s up till now more than 700.000 single-family houses have been constructed in Denmark (www.statistikbanken.dk) and today, more than half of the Danish population live, work, and move about in the suburbs on a daily basis (Miljøministeriet, 2012). The suburban areas have experienced a constant demand for new homes and according to Realdania (2012), more than 65% of the Danes would prefer to live in a freestanding single-family house with private garden. So far, the suburb is here to stay. Down through the ages, the suburb had its ups and downs; like no other urban typology, the suburb has constituted the physical scene for various housing policies and ideals. From the housing policy as concrete socio-political instrument to the vision of the future Denmark, the suburb has constituted the political battlefield. This long and still ongoing history has defined today's suburban landscape; as Sverrild (2008) says, 'here, the speculator, the social reformer, the urban planner, the politician, and the individual resident have left their respective marks'.

¹ Mortensen (2012). Translated from Danish by author

Today, the suburb faces new challenges. Many will be familiar with the suburbia debates, but they are worth briefly staking out. In Denmark, the case against the suburbia is that it represents an excessive consumption of energy, it is predominantly social and functional segregated, and it is associated with environmental degradation (Kvorning et al. (eds.), 2012, pp. 10-19). The suburb represents an obvious contradiction to the societal vision for sustainable development. The suburb has been on the agenda for quite some time in Denmark. In the spring of 2011, Naturstyrelsen (Danish Nature Agency) and Realdania appointed an independent “think-tank” in order to verbalize the problems and potentials of the both loved and criticised Danish post-war suburbia². By changing the focus from the city centres to the suburban areas, the think-tank was to investigate and discuss the possibilities for developing sustainable suburbs in relation to the altered environmental and climatic prospects (Ibid.). The result of the think-tank’s work was presented in 2012 as a series of recommendations regarding environmental, social, and economic sustainability³. From a viewpoint of sustainability, it seems reasonable to focus on transforming the existing suburban areas, which also was the primary focus of the think-tank’s work. Ironically, it is the demand for detached single-family homes, especially in relation to the urban growth centres, that still challenges the municipal regulation of the local housing markets. Here, the desire to live in relation to nature and green surroundings combined with good job supply is still the main reason for settling in the suburb and why the demand for new single-family houses and new suburban areas is persistent (Vestergaard, n.d.).

In the think-tank’s report (cf. Kvorning et al. (eds.), 2012), the green structures and public open spaces play an important role. The green structures have been central issues in urban planning since the beginning of the Twentieth-century. From the iconic projects in the 1930s and 1940s (e.g., London’s Green Belt (1935)) and Copenhagen’s Finger Plan (1947)), to the central greens as organizing trait in the inter-war period’s building structures, and the subordinate and hierarchical classified open spaces in rational modernist urban planning (e.g., Tingbjerg, 1950s-1970s)⁴. In the 1990s, the local woods became part of the understanding of urban green areas and green area management became more engaged in nature protection and biodiversity (Ibid, p. 111).

*‘Open spaces and natural areas link directly to the environmental sustainability [...] Both the large, continuous natural areas and the smaller open green space play an important role in the management of rainwater and temperature regulation during the warm periods. Well chosen planting can help to moderate the wind and as such reduce both cooling in winter and prolong the outdoor season during the transitional periods. Forest planting binds CO₂, increase biodiversity, and increase the recreational options. Also, the system of recreational areas plays a major role in social sustainability and health, as well as a venue for meetings, silence, recreation and aesthetic enjoyment, and as places that provide space for health improving activities’.*⁵

It seems that the potentials of green open spaces in suburban areas are numerous; on one hand, they offer a wide range of possibilities for leisure activities and aesthetic experiences; on the other hand, they can be utilized in relation to water resources, drainage, water storage, wildlife corridors etc. as such, the green areas, large and small in suburban developments represent both a recreational value as well as a functional value

² Bæredygtige Forstæder: udredning og anbefalinger (Kvorning et al. (eds.), 2012) [Sustainable Suburbs: investigation and recommendations]. Forstædernes Tænketank [Suburbia’s Think Tank] was appointed by Naturstyrelsen [Danish Nature Agency] and Realdania in 2011 to investigate the perspectives for transforming and developing the existing Danish post-war suburban areas in relation to sustainability. The results of the investigation and the think tank’s recommendations were published in 2012.

³ In Kvorning et al. (eds.), 2012, p. 18, the goals for social, environmental, and financial sustainability in relation to the altered climatic prospects are summarized: reduce urban spreading and reduce car-dependency; increase bike and walking traffic and support sustainable mobility through urban structure and investments in public transportation; create multiple accumulation points in the urban fabric and create function mix and overlaps between area types; activate the transformation potential of the industrial areas and use the transformation potential in relation to new energy infrastructure; focus on water treatment and waste management; use the potential in relation to changes in institutional structures; apply more housing types and forms of ownership in order to reduce (the effects of) social segregation; create meeting places for people and work with the suburban green spaces; beautify and intensify the suburbs; activate local resources and insist on long-term economic assessments of construction and conversion projects.

⁴ In the 1940s a massive redevelopment of the inner city of Copenhagen was initiated by the municipality. This resulted in a massive need for rehousing and in the 1950s Steen Eiler Rasmussen and C.Th. Sørensen was hired to design the plan for Tingbjerg. The plan was very much inspired by the English garden city ideals and was thought to be a model city – a city within the city. It had a wide range of green open spaces of various scales and use (cf. Petersen, 2012).

⁵ Kvorning et al. (eds.) (2012, p. 113). Translated from Danish by author

(Kvorning et al. (eds.), 2012, p. 113). Where these structures will be sited, what form they will take, and how they can meet the social and environmental challenges within the suburban context, are questions landscape architects begin to address.

Many landscape architects already do a good job in contemporary suburbia; unfortunately, it often seems less structurally influential or ecological substantive and more as ornamental and apologetic (Weller, 2008, p. 247). In order to activate the full potential of the landscape architects' expertise, Weller (Ibid.) suggests that landscape architects engaged in suburban development should consider themselves more as landscape urbanists, 'in all likelihood they will argue for and develop design tactics to garner more significant structural influence over the whole suburban planning process'. As such, Reed (2006, p. 283) claims, the landscape architect 'is re-cast as urbanistic system-builders, whose interest now encompass the research, framing, design, and implementation of expansive new public works and civic infrastructures'.

Many Danish landscape architects, modernists in particular, would claim that they have always tried to do and be what Reeds and Weller portray. Even before it became a theory (landscape urbanism), this approach to landscape architecture that approaches the city by the landscape was common practice in Europe. The problems of contemporary urbanism have been at the centre of landscape thought and practice for so long that Danish and European landscape architecture already includes urbanism (Diedrich, 2008, pp. 9-10). Diedrich (Ibid.) refers to landscape architects like Jean Claude Nicolas Forestier (France) and Leberecht Migge (Germany), and groups of professionals like those surrounding C. Th. Sørensen and Steen Eiler Rasmussen (Denmark): 'their ideas and their work were moving steadily away from the pleasure garden ideal toward green urban systems'. The question then is why landscape architects – despite their common professional heritage – are not currently fully recognised as leaders in the field of design and transformation of Danish suburban landscapes? Perhaps the suburban typology is simply is not compatible with landscape systems; perhaps designing suburbia with natural systems is not possible within the framework of the existing Danish planning system; perhaps the landscape architects fail to transmit their holistic world view and its creative potentials convincingly; perhaps there is a deep-rooted delusion (among non-specialists, at least) that only building architects and urban planners can solve urban problems⁶.

As an "ethos", landscape urbanism celebrates indeterminacy and systemic thinking (Corner, 2003, pp. 58-59); as a practice, landscape urbanism is concerned with surface strategies and the creation of 'vast organizing fields that establish new conditions for future development' (Ibid. p. 60). Landscape urbanism focuses on 'the continual need for cities and landscapes to be flexible, to be capable of responding quickly to changing needs and demands, while themselves projecting new sets of effect and potential' (Ibid, 63). It is now almost two decades since, the term "landscape urbanism" was coined by Charles Waldheim⁷, in the meantime, many professionals have begun calling themselves landscape urbanists, even though nobody quite know what landscape urbanism involves in practice - or who to consult about it. According to the editorial in the 2007 autumn issue of JoLa (Blanchon-Caillet et al. (eds.), 2007, p. 4), 'this is because Landscape Urbanism is still more theory than practice'.

Despite the fact, as Braae (2013, p. 5) claims, 'landscape in urban planning has become subject to considerable attention [...] and it has changed status from being 'background' to [...] 'foreground'⁸, the discourse surrounding landscape urbanism still maintains its academic and enigmatic allure to a certain extent.

This paper seeks to scrutinise and discuss landscape urbanist theory in relation to the landscape architects' current work in contemporary Danish suburban landscapes. Part one, overviews the current landscape

⁶ See: Braae (2013). Here Braae discusses the emergence and relevance of landscape-based (sub)urban development in relation to the Søndermarken (Vejle) competition (2012).

⁷ According to Waldheim & Santos-Munné (2001, p. 110), Charles Waldheim coined the term "landscape urbanism" in 1996 to describe the emergence of landscape as the most relevant medium for the production and representation of contemporary urbanism. The phrase was used as a reference to the re-organisation of the declining post-industrial city (e.g., *Stalking Detroit* by Daskalakis, Waldheim, and Young (eds.), 2001). Others would agree that since Waldheim's introduction of the phrase in 1996, landscape urbanism has taken various forms. This makes it difficult to characterise exact. Peter Connolly (2004, p. 77 cited in Boris, 2010, p. 59) claims that landscape urbanism generally "was in the air" in the mid-1990s, and he himself 'coined the term [...] two years earlier, in 1994'.

⁸ Translated from Danish by author

urbanist discourse and its theoretical and practical aspects. It also situates the Danish urban landscape within the concept of Thomas Sievert's "Zwischenstadt"⁹. Part two then presents two projects for suburban residential development: Ullerødbyen (2002/3) in Hillerød for 1500-1700 homes and Bellinge Fælled (2010) in Odense for 500 homes. Part two also exclusively presents yet unpublished interview material from conversations with Stig L. Andersson (SLA) on the Ullerødbyen project, and Nina Jensen (Schönherr a/s) on the Bellinge Fælled project. By focusing on the utilization and optimization of public green spaces and ecological structures, this discussion enables the reader to superimpose landscape urbanism's loftier theoretical ambitions onto the practical complexities of working in suburban landscapes, and the Danish landscape architect's endeavour to combine systemic thought and ecology with design and amenity values.

PART ONE: THE LANDSCAPE REVEALS THE CITY

Urban landscapes

Driven by renewed optimism and a strong belief in progress, the post-war period in Denmark featured an urban expansion as never seen before. The population grew, people migrated from the countryside to the cities, and the need for new housing escalated. The post-war urban expansions were based upon a more open and segregated structure than the one of the central city and extended (auto)mobility became necessary in order to maintain the everyday life in the fringe. The post-war suburban area in Denmark is a historical framework as much as a typological framework. Relatively low density, many single-family houses, and large areas of apartment buildings characterises the suburban typology; a clear segregation between different housing types, distinction between functions, physical division between different zones, and infrastructure are highly prioritized. This distinct physical structure combined with the daily commuting between home and work, between suburb and city centre defines the typical everyday life in the Danish post-war suburban areas (Jensen & Partoft, 2010; Kvorning et al. (eds.), 2012).

The concept of suburbia defines the suburb as inferior to the central city. The suburb depends on the central city since the central city contains the primary urban functions. Traditionally, the entire urban area is identified by its historical central city with its history and symbolic authority (Kvorning et al., 2012, pp. 10-11). Seen in the light of today's recognition that modernist and post-modernist urban planning do not meet the global environmental and climate imbalances¹⁰, it can be questioned if this understanding is still valid? Built environments are no longer simply a "city" but increasingly larger urban conurbations made up of development clusters linked by a continuous network of transportation routes. Its inhabitants are conducted to a more dynamic life, moving around, live in one place, eat in another, and look for entertainment and recreation in the entirety of the urban conurbation; there are only few overlaps (Sieverts and Frey, 2003, pp. vii-x; Kvorning et al. (eds.), 2012, p. 11).

Introducing *Cities without cities: an interpretation of the Zwischenstadt*, Sieverts (2003, p. xiii) writes, 'In the context of a globalisation which can no longer be held back, thinking through these changes confronts us with the task of finding and developing, in the course of its transformation, new forms of the European city?.'

According to Sieverts (Ibid., p. xi), it seems more relevant to understand the city with its suburbs and built-up areas between old historical centres and the open countryside as a new form of urbanity that spreads across the world as an "urbanised landscape". In combination, he (Ibid., p. xiii) says, 'these changes and forces are leading to a profound transformation of the city which could destroy the European city but which [...] is also opening up the possibility of new design perspectives'.

Landscape as urbanism

*'The open space of landscape will become the actual creative field, which must preserve and restore the identity, the unique character of the Zwischenstadt. Developing the built fabric in its fixed typology can make only limited contribution to this.'*¹¹

⁹ 'The term "Zwischenstadt" signifies that today's city is in an 'inbetween' state, a state between place and world, space and time, city and country' (Sieverts & Frey, 2003, p. x).

¹⁰ E.g. David Harvey, *The Condition of Post-Modernity* (1990); Sieverts, 2003 and others

¹¹ Sieverts (2003, pp. 121-122)

As the current urban premises for urban design and landscape architecture changes, the urban and landscape practices must look for new concepts. According to Sieverts (2003, pp. 121-122), the tradition of urban design must be united with the tradition of garden and landscape architecture and 'both traditions must be combined with the traditions of forestry and agriculture which have always been oriented towards 'sustainability' and long-term thinking and acting'.

Landscape architecture is witnessing a revival. Landscape architecture is no longer a product of art history or horticulture; According to Reed (2006, p. 269) 'landscape is re-engaging issues of site and ecological succession and is playing a part in the formative roles of projects, rather than simply giving form to already defined projects'. Landscape architecture represents a discipline capable of resolving the current lack of direction of contemporary urbanism, while offering structure and materiality to the dispersed city (Diedrich, 2009, p. 9). In this context, "landscape urbanism" (as a combination of landscape design and urban design) 'can be read as a disciplinary realignment in which landscape supplants architecture's role as the basic building block of urban design' (Waldheim, 2006, p. 37). Landscape urbanism shifts the landscape architectural project from an art of making beautiful places to one of interdisciplinary negotiation; it compresses the polarisation between design and planning in an effort to combine the strengths of each, and it exceeds the professional boundaries between architecture, landscape architecture, urban design, and planning towards a shared form of practice (Weller, 2008, p. 248; Corner, 2006, p. 23).

Landscape's conceptual scope holds a capacity 'to theorize sites, territories, ecosystems, networks, and infrastructures, and to organize large urban fields' (Corner, 2006, p. 23). The scope of landscape as a model for urbanism, as described through the formulation of landscape urbanism, is 'more akin to the real complexity of the cities' and it offers an alternative to traditional urban design and centralist urban planning (Ibid.). As such, landscape urbanism suggests a more promising practice in meeting the complexity of contemporary urban processes (Corner, 2006, p. 28). We need to consider how things work in space and time.

'[The] structuring of the horizontal surface becomes a predominant concern for landscape urbanism, for the surface is the organizational substrate that collects, distributes and condenses all the forces operating upon it. Land division, allocation, demarcation and the construction of surfaces constitute the first act in staking out ground; the second is to establish services and pathways across the surface to support future programmes; and the third is ensuring sufficient permeability to allow for future permutation, affiliation and adaptation'.¹²

Landscape urbanism seems to be as much an ideology as it is a mode of practice. In ideological terms, it claims that the city might be conceived and designed as if it is a landscape; in practical terms landscape urbanism enhances landscape as the basic "building block" in urban development and reorganization, as Weller (2008, p. 263) summarizes, 'landscape urbanism conjoins the methods and scales of planning and design; it focuses on the landscape as an infrastructural system; it appreciates the contemporary city as a hybridized, denatured ecology; and it aims for structural influence over contemporary urbanism'.

As landscape urbanism elevates the role of the landscape architect and suggests that the practice of landscape architecture can inject the current troubled urban design and planning practices with new and promising perspectives, it appears relevant to closer investigate this cross-disciplinary approach and discuss if landscape urbanism by positioning the importance of ecological thinking in designing the city offers a more promising framework for coping with the current environmental and climatic prospects.

Suburbia: an environmental self-contradiction?

In conflating nature with culture and landscape with city, 'landscape urbanism naturalises the city, a major and not unproblematic theoretical shift with regard to urban history [...] That the city is natural is, in a material if not philosophical sense correct, but it is also a dangerous piece of sophistry in the midst of a global environmental crisis that has the sprawling landscapes of the first world as its root' (Weller, 2008, p. 249). In the *Landscape Urbanism Reader*, editor Charles Waldheim (2006, p. 37) declares that 'over the past

¹² Corner (2003, p. 60)

decades landscape has emerged as a model for contemporary urbanism, one uniquely capable of describing the conditions for radically decentralized urbanization'. Instead of traditional urban design, which according to Waldheim (Ibid.), 'proves costly, slow, and inflexible in relation to the rapidly transforming conditions of contemporary urban culture', he (Ibid.) recommends 'the landscape medium for use in contemporary urban conditions increasingly characterized by horizontal sprawl and rapid change'. Unfortunately, the *Reader* itself presents scant theoretical or applied work on "how" to design suburbs or re-structuring the existing suburban areas by the means of landscape. In practice, by primarily focusing on disappearance, erasure, and conversion¹³, landscape urbanism fails to address the environmental controversies related to the contemporary urbanised landscapes.

On the one hand landscape urbanism can be traced to the postmodern critique of modernism by facing the social and environmental disasters of industrialization (Waldheim, 2006) but on the other hand, as Graham Shane (2006, p. 63) points out, 'the recent discourse surrounding landscape urbanism does not yet begin to address the issue of urban morphologies or the settlement patterns over time'. As such, landscape urbanism seems to fall between two stools – between theory and applied work. The *Reader* ending with an image of sprawl is somewhat portentous, since landscape urbanism actually has the potentials to engage itself more seriously with the problematic issues of suburban landscapes (Weller, 2008, p. 249).

Eventhough, the dispersed settlement of suburbia is extremely popular in Denmark, it is clear that it represents a contradiction to the societal visions of preserving natural resources and limit environmental degradation. Facing the post-war suburbs in the light of today's environmental and climatic prospects, the suburban areas appear problematic in many ways, they are energy inefficient, unambiguously car-dependent, and compounds global warming (Kvorning et al., 2012, pp. 11-18). Hence, it is necessary to reconsider the suburban typology and life style in order to reduce the use of non-renewable energy resources, lessen CO₂ emission, and prepare the areas for future climate changes (e.g., heavy rainfall).

PART TWO: PRACTICAL CHALLENGES

Working the suburban landscape

In practice it is hard to reconcile land's ecological systems with suburban systems. Ecological systems are organic and infinite whereas suburban systems are mechanistic; in designing with ecological systems, every site has to be carefully scrutinised and analysed in order to produce a highly nuanced and flexible response. In opposition to suburban systems, which often are standardised and generic, ecological systems are indisputable site specific. In this coherence, the suburban typologies are "inflexible" and governed by regulations that determine the layout of housing and its related infrastructure (Ben-Joseph, 2005, pp. 117-130). This inflexibility of suburbia derives from its complex integration of many products and the fact that developer, municipal authorities, service providers, and ultimately the consumers all operate within a narrow financial scope. Eventhough, landscape architects (and landscape urbanists) claim to have a holistic perspective, the suburban landscape represents a complexity where much is beyond their control and outside their expertise (Weller, 2008, pp. 254-255).

Traditionally, in regard to suburban development, the landscape architect's purview is related to a project's open and green spaces (e.g., gardens, parks, planting plans, wind mantles etc.); these spaces are traditionally designed subsequent to the overall scheme. If landscape is the key in developing more efficient urban structures, this tradition must be reversed. Weller (Ibid.) claims, 'the degree to which existing site conditions inform a development and the form that the public open space will take largely depend, in turn, upon the point at which the landscape enters the design process'. Thus, it seems relevant to involve the landscape architect's perspectives already in the initiating phases of the design project since 'it is possible to design better developments only if strategically situated, interdependent networks of open space, streets, utilities and land use can be planned and designed together from the outset' (Girling and Kellet, 2005, p. xiv in Weller, 2008, pp. 255-254). Here, the landscape architect's ability to reconcile the logic of suburbia with the ecological processes of the land and his/hers ability to involve the stakeholders, the municipality, and the

¹³ Cf. Waldheim & Santos-Munné (2001)

other consultants seems crucial, and the mediation between parties becomes just as important as the design process itself. Thus, one might ask, is it really possible to protect and enhance natural features while converting unbuilt land to built and simultaneously reduce development and infrastructures costs, and increase the marketability of a project? According to Ben-Joseph (2005, pp. 116-117), the answer is yes, 'if one choose to integrate into the development process alternative planning solutions fitted to the site's unique features'.

In the two projects described below, the landscape architect teams were asked to design structure plans for suburban residential developments (Hillerød and Odense) with specifications for the built and unbuilt areas (e.g., landscape types, built structures, infrastructure, amenity values etc.). Although independent in time and ambitions, the two clients (Hillerød Municipality and Odense Municipality) had many shared visions and ideas for their respective projects, i.e., sustainability (various definitions and focus); respect for existing landscape structures, ecology, flora and fauna; utilize local resources (natural and social), and amenity values (cf. Hillerød Kommune, 2002; Odense Kommune, 2010; Rasmussen, 2013. personal communication).¹⁴ The following is a reflection upon the projects and the respective designer's own comments with an emphasis on the relationship between landscape urbanism theory and landscape architecture practice, and the overall theme of environmentally sustainable (suburban) development.

Ullerødbyen

The structural plan for Ullerødbyen is the result of an invited competition (2002). The main purpose of the competition was to design a plan that could serve as a structuralizing framework for the development and use of an area in relation to Ullerød (orig. village north from Hillerød). The project area is approximately 155 hectares and expected to house 1.500-1.700 homes of various types (freestanding single-family houses, row houses, and apartment buildings). The client, Hillerød Municipality, had a primary vision to re-think the suburban typology and to focus on sustainability, community spirit, amenity values, and long-term thinking in relation to alternative housing forms. In 2002, the term "sustainability"¹⁵ was not very elaborated in Danish planning context and today's technological solutions (e.g., zero houses, geothermal heat, local rainwater drainage etc.) did not appear in the program. As such, the idea and meaning of sustainable development was left to the design teams to interpret. Thus, the Ullerødbyen competition helped the municipality to start a dialogue on how to design environmental sound solutions and how to create more liveable urban forms in the urban fringe (Hillerød Kommune, 2002).

'It is important to create an attractive and well-functioning residential area where community spirit and the residents' individuality are equally respected in order to provide a meaningful and eventful every-day life, and to give the future residents/users of the area the best possible framework for their settlement and activities. Regarding the individual areas, it is essential to incorporate the possibility for various housing forms and individual and/or diverse characters of building structure while ensuring attractive coherent landscape elements, which both can tie the entire building structure together and constitute transitions to the neighbouring areas'.¹⁶

¹⁴ Interestingly, among the invited teams for the Ullerødbyen competition only one landscape architecture firm (as principal advisor) were invited (and won the commission). Almost a decade later, Odense Municipality exclusively invited Schønherh a/s to design the plan for Bellinge Fælled because of their expertise in thinking with landscape and natural processes (Rasmussen, 2013. personal communication).

¹⁵ It can be argued that the concept of "sustainability" has been considered for decades in Denmark as "common sense", profound respect to the local environment/terrain, or as environmental/social awareness when building and transforming the physical surroundings. E.g., Utzon's Kingo Houses (1950s-1960s); "tæt-lav-bevægelsen" (dense-low-movement) in the 1970s-1980s, e.g., Vandkunsten's proposal for the SBI competition in 1971; "eco-societies", e.g., Hjortshøj (1986) and Friland (2001) etc.

¹⁶ From the competition program (Hillerød Kommune, 2002, p. 17) Translated from Danish by author

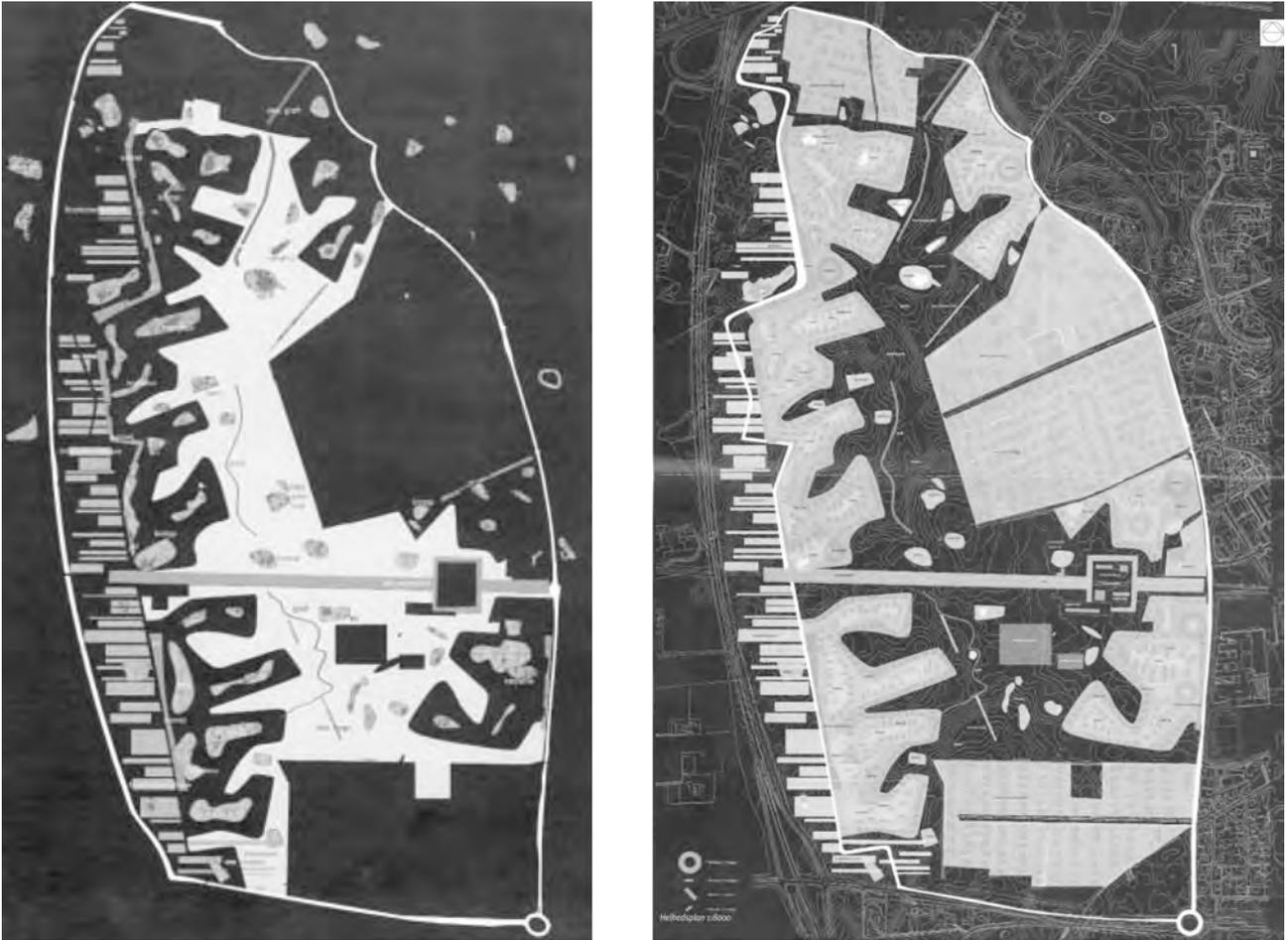


Figure 1: Ullerødbyen in Hillerød. Landscapes (left) and structure plan (right). Illustrations by SLA in DAL's Competition Secretariat (ed.), 2003, pp. 6-7

SLA's winning entry organized the urban area around an inner green landscape and the existing terrain and biotopes constituted tie points for a winded, inter-connected mesh of built-up areas. It was the intention that this pattern should provide an extended surface where the built-up areas could exchange freely with the landscape (SLA, 2003). As something new (and quite unusual), the use of the area was described thoroughly. SLA (2003) suggested a "process" where the inhabitants' use of their local area defined the physical appearance and design of the development in the dynamic field between freedom and control, between built-up and open/green. In the plan's organisation between city and nature, SLA defined a new type of space: a close, organic intertwine between the life in the homes and the life in nature. SLA's plan sought to involve the landscape and the nature as a strong identity-giving trait for the urban development (DAL's Competition Secretariat (ed.), 2003, p. 5). The entire project is based upon the landscape values of the area; it challenges the traditional hierarchy between built and unbuilt and as such, it utilizes the traditional, rigid dichotomy. The built-up areas frame the large landscape while in the same time, the landscape dictates the form of the urban frame. The landscape and built-up areas communicate into a negotiated form. Here, the contact surface between the residential areas and the landscape are essential, and it represents a strong amenity value for the residents. By adapting the buildings to the terrain and not reverse, it was the intention that the terrain should dictate the topography of the area (SLA, 2003). Organizational, the built and the unbuilt are equalized; the built and the unbuilt weave untroubled together and appear as equal design elements. The spatial contrast between open and built, between green and grey, causes the dynamic of the area.

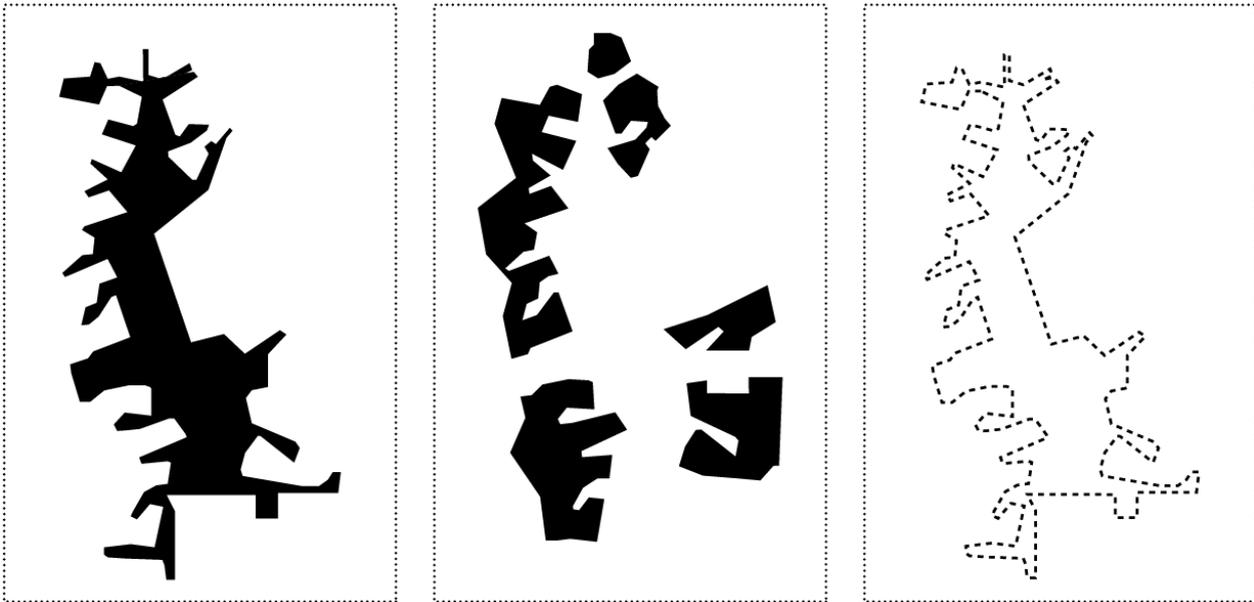


Figure 2: Ullerødbyen. Unbuilt (left); built (middle); contact surface (right). The meeting between built and unbuilt dictates the design and dynamic of the proposed plan for Ullerødbyen.

Conversation with Stig L. Andersson

This section reports some of the crucial points and summarised notes from my personal interview with Stig L. Andersson¹⁷ on the 11. June 2013 (Copenhagen)¹⁸. The interview focused on SLA's work on Ullerødbyen (2002) in relation to landscape urbanism, "process urbanism"¹⁹, and sustainability.

SLA's Ullerødbyen project emerged as an important milestone in the incipient discourse change in urban design and planning in Denmark. Firstly, the project proposal redefines the relationship between built and unbuilt, between landscape and built-up areas and landscape and terrain replace buildings and housing structures as organizing principle. Ullerødbyen represented something "new" in opposition to the traditional projects of the 1990s-2000s in Danish urban design, which often were designed by building architects or urban planners²⁰. Secondly, as something entirely different, SLA's winning entry was not processed into a formal master plan after the competition. Instead, SLA proposed to make a "quality program" that could serve as a guideline for the following municipal administration of the development of Ullerødbyen.

Andersson: 'What is interesting in this [quality program] is that it is not a "design manual". It is a "quality program". A design manual describes what to do in order to obtain a certain [architectural] expression. In particular, it is strictly formulated in Ørestaden. Right down to the smallest detail, it is described what to do in order to achieve a certain pre-determined aesthetic expression of the late-modern city. My idea of making a quality program is that we care not so much about what it is going to look like. We care about which values you create when you do certain things. So, we would like to control the actions that everyone should do in the area in order to optimize the qualities that everyone would like to have in an area [...] Hence, the word "quality program". As such, a program of how to create quality - and not a program for how to make designs'.

¹⁷ Stig Lennart Andersson, Professor (KULife), Landscape Architect maa, mdl., and founder and Creative Director of SLA.

¹⁸ Interview material is translated from Danish by author.

¹⁹ According to SLA (2010, p. 1), 'process urbanism is a method, a method that shows us how to design tomorrow's cities based on natural processes [...] process urbanism is an urban planning model that is self-regulating and procedural like the circulation of an eco system and in balance with the development of society'.

Ullerødbyen was designed almost a decade before SLA formulated "process urbanism".

²⁰ Built structures and infrastructure were often enhanced as the most important features of the plans e.g., ARKKI's master plan for Ørestaden (1994), JWH's plan for Lisbjerg (2003), and many minor suburban developments all over Denmark.

The intentions of the quality program was to define a common set of goals for the development of Ullerødbyen by describing which functions and qualities the area should contain - instead of describing how it should look like. The quality program informs the local plans and the local plans contain the formal directions for the area (cf. Hillerød Kommune and SLA, 2006). During the last decade, SLA has, according to Andersson (2013. personal communication), produced a number of quality programmes in relation to other projects and Andersson (Ibid.) has registered 'a change in position when it comes to the landscape architecture practice'. Today, the landscape architects get more influence than previous, and the landscape architects are involved with the development of the big schemes; previously, the building architects and urban planners defined the big schemes (Ibid.). According to Andersson (Ibid.), there has been a discussion on landscape in urban planning and urban design for quite some years - without any redemption and lately, 'landscape urbanism has been the centre of attention'.

Andersson: 'Focus has been the so-called landscape urbanism and many architectural firms have embraced it. What is interesting by landscape urbanism is that it is not interested in design. It is a method to solve some technical problems. It identifies that the city has various problems - including pollution - and nature possesses a way to handle this problem. Therefore, extremely many landscape urbanism projects are about how to get plant material into the city. Here, it is the idea to regenerate the city in a more positive and better way [...]'

For many years Stig L. Andersson and SLA have worked intensely in the field between landscape architecture and urbanism and what often characterizes the work of SLA is the delicate relationship between inside and outside; nature and culture; landscape and urban. Because landscape urbanism, according to Andersson (2013. personal communication), is not oriented towards design but towards the utility value of landscape, it seems that the amenity values of a project become coincidental. In connection with the touring exhibition "Man Made Environment"²¹ and as part of "New Nordic Landscapes"²², SLA and his team formulated a "manifesto" in which a new planning method called "process urbanism" was defined (cf. SLA, 2010). According to Andersson (2013. personal communication), the unfortunate orientation of landscape urbanism away from design made him formulate "process urbanism". In Ullerødbyen the deliberations on design were integrated in the quality program but the current unfortunate orientation of landscape urbanism made Andersson re-consider SLA's design approach in general (2013. personal communication).

Andersson: 'We formulate process urbanism in opposition to landscape urbanism because we are now starting to take an interest in design [...] We realize that while doing landscape urbanism - or organic planning - or whatever name you use, then it is essential to have a design profile [...] Process urbanism is about how to design processes and how to consciously work towards an expression that can generate a new value in the city. On the one hand a utility value (that is landscape urbanism) on the other hand an amenity value. This amenity is not accidental - it should be designed. So, process urbanism is about adding value and provide amenity. Here, amenity is to be understood as both something that "we" think is great, when we walk around in the city and enriches us in our daily lives, and something that enriches the people who have a financial interest in the area'.

From this, it is not enough to focus on phytoremediation or to solve a specific ecological or technical problem. It is just as important to create financial value as well as amenity value. As Andersson (Ibid.) sees it, landscape urbanism is characterised by a total lack of design decisions. As such, the landscape urbanists manage to solve extremely complicated issues; something comes out of their efforts – but what comes out does not reflect a deliberate architectural, design, or artistic position. The landscape urbanism project does not deliberately add the desired value when solving the specific problem (Andersson, 2013. personal communication). This is the background for process urbanism. It is about creating poetry, sensuousness, and amenity, too, Andersson (Ibid.) says.

When asking Andersson about scale and the efficiency of process urbanism, he (Ibid.) replies that 'methodically, process urbanism works from the design of a cup to design of a city'. But 'if you really want

²¹ See <http://www.dac.dk/da/dac-life/udstillinger/2011/manmade-environment/> for information about the "Man Made Environment" exhibition at DAC

²² See <http://www.norden.org/da/aktuelt/nyheder/new-nordic-landscapes-aabner-ved-expo-2010-i-shanghai> for further information about the EXPO 2010 exhibition

"New Nordic Landscapes" in Shanghai, China

to unfold its potentials and bring nature to really dominate the urban context, you have to consider a larger scale'. According to Andersson (Ibid.), this is the same as in landscape urbanism and, e.g., phytoremediation, 'it needs a certain extend of land, a certain amount to create effect; landscape urbanism utilizes the natures ability to regenerate and create new value'.

Andersson: 'Here, I also have a slightly different view. It is allowed to take a long time, but it should also be something that can be used from "day one". In process urbanism we constantly work with two time perspectives; it is not enough just to make phytoremediation and then await 50 to 100 years before the soil has been cleaned up'.

But how can this very dynamic and process orientated thinking be realized? According to Andersson (Ibid.), the largest barrier in Danish contemporary urban planning and design is the aversion towards the new and unknown. Conventional thinking, unwillingness against actually trying something different, and the general delusion that urban problems have something to do with buildings (and thus have to be solved by building architects) are, says Andersson (Ibid.), the main reasons why landscape architects still meet opposition from municipalities, investors, and politicians. 'But to understand the city as a kind of organism, a complex system in which all parts are connected, most [building] architects are quite poor at' (Ibid.). The same sorts of misunderstandings appear when discussing sustainability, Andersson (Ibid.) says. According to him (Ibid.), the municipalities do not know the exact meaning of the word and it becomes a pretext for doing nothing; if something is sustainable, then it must be okay? This, says Andersson (Ibid.), 'is not necessarily correct'.

Andersson: 'Maybe only 15 per cent knows what [sustainability] means. For sure, more than 15 per cent uses it all the time! [...] There are a lot of people using a term they do not know what is. They do not know what it is concretely nor do they know in which context to use it [...] Today, there is another word that we could have written into process urbanism [...]: resilience [...] it actually covers what we are trying to describe in the terminology of flexibility and robustness [...] Sustainability, it means that you are struggling to keep something in a particular state and that is exactly the opposite of what we are looking for. As you can see, we have a problem when we have to tell the client that we can not be sustainable when most developers believe that is the way to save the world'.

This is why, Andersson (Ibid.) says, 'we use the word "recilience" [...] 'resilience is the same as an ecosystem, a device's ability to adapt to unforeseen changes - and that is what we have as a goal. How can we create such a city?' According to Andersson (Ibid.), process urbanism is the culmination of a long and still ongoing process. It can be seen as SLA's (2010, pp. 0-2) professional response to the failed modernist and post-modernist urban planning and especially the production of structural master plans that organizes the urban areas in rigid, geometric structures, and segregated functions; '[t]his urban planning model generates more problems than it solves'.

As such, in the search for answers to questions like: what will happen to the suburbs? What to do about migration and climate change? How is urban planning affected by the repeated oil spill pollution of coastlines? And what about demands for the elimination of fossil fuels? SLA (2010) and their "process urbanism" might provide some answers?

Bellinge Fælled

Bellinge Fælled will be Odense's new sustainable area. Here people, community, environment, nature, and the good life meet. Bellinge Fælled is a community that has sustainability as a common denominator [...] Together, Odense Municipality, future residents, and stakeholders, who are passionate about sustainability test how we can develop an area that considers both the environment and ourselves.²³

The Bellinge Fælled project is the result of a vision formulated in Odense Municipality's Environmental Policy (2008). Through urban development or transformation, it is Odense Municipality's ambition to develop a sustainable urban area that can symbolize Odense as a visionary and sustainable city (Odense Kommune, 2008, p. 40).

²³ From sales/promotional material (Odense Kommune, n.d.)

Bellinge (village south from Odense) was selected for the experiment and the municipality bought land in relation to the village with the intention of developing a residential area of minimum 500 homes (freestanding single-family houses and row housing).



Figure 3: Bellinge Fælled, Odense Municipality. Structure plan by Schønherr a/s. In *Odense Kommune & Schønherr a/s* (2010, p. 9)

In the spring 2010, Schønherr a/s was given the assignment to design a “sustainable urban development”. The result, a structure plan, was developed in close corporation between the municipal administrations and the landscape architects from Schønherr a/s via a series of dialogue-based workshops. The first workshop focused on defining the parameters for what characterizes a sustainable urban development. These parameters were discussed during the following series of workshops that included Schønherr a/s, relevant experts, and employees from the various municipal administrations. According to Mie Rasmussen (2013, personal communication), who is urban planner in Odense Kommune, this process was very challenging since “sustainable development” is overwhelmingly complex and hard to obtain entirely. Thus, in order to make a slight difference, at least, Rasmussen says (Ibid.) the workshop participants agreed on focusing on five parameters in relation to designing the structure plan. First parameter was to minimize paved infrastructure; the second focused on local rainwater drainage; third parameter was to increase biodiversity and optimize ecological environments for plants and animals; fourth parameter dictated that the terrain must be preserved as intact as possible in order to avoid extensive transportation of soil away from the area. Finally, it was the intention to densify the built-up areas and intensify the green/blue areas though the overall density of the area would be identical to the neighbouring Bellinge village²⁴ (Rasmussen, 2013, personal communication). The Bellinge Fælled structure plan has been developed in close interaction with the municipality already from the early phases; it has throughout the entire design period been evaluated and

²⁴ Plot ratio = 22 (Odense Kommune & Schønherr a/s, 2010, p. 4)

discussed in the workshops towards a negotiated structure. From this, the workshops and the interdisciplinary collaboration has been an integrated part of the design process itself (Jensen, 2013. personal communication; Rasmussen, 2013. personal communication). According to Rasmussen (2013. personal communication), a considerable part of the process towards the final result, was to re-think how things could be done within the municipal administrations. In order to generate a more efficient administrative procedure and to make more efficient and sustainable solutions possible, it was necessary to ‘tear down walls’ between the various administrations and different budgets. The municipality managed this administrative process by inputs and discussions from the workshops (supervised by Schønherr a/s), and it seems clear that many of the planning and design initiatives in Bellinge Fælled would not have been possible to realize, if this optimization of the municipal management procedures did not take place (Jensen, 2013. personal communication; Rasmussen, 2013. personal communication).

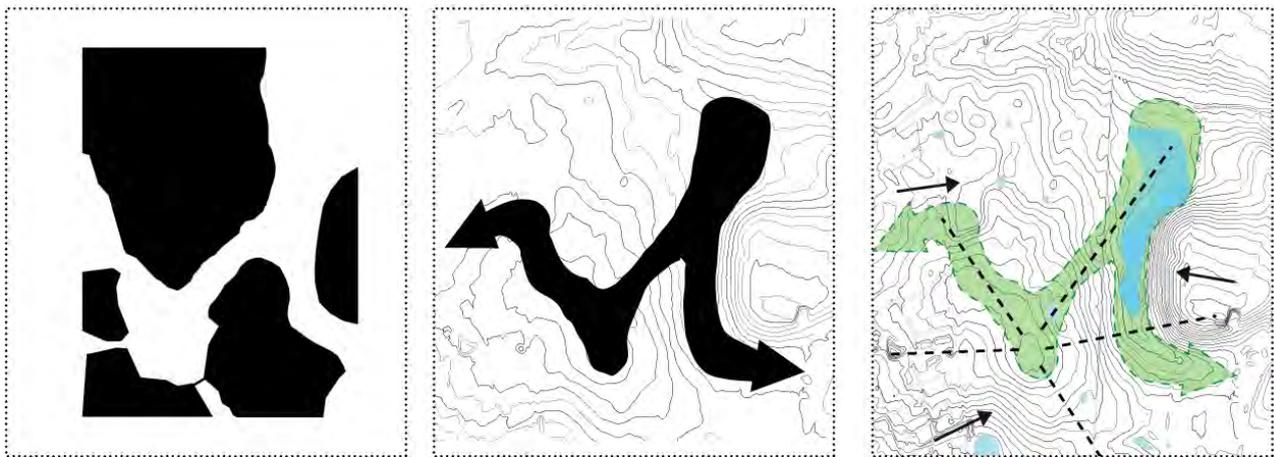


Figure 4: Bellinge Fælled. Built vs. unbuilt (left); terrain dynamic (middle); the unbuilt and the terrain define the overall structure of the plan. The green/blue areas, rises and hollows, draw the visual profile of the area (right).

The structure plan is primarily organized by the rises and hollows by the moraine terrain. According to Jensen (2013. personal communication), the “reading” of the terrain was the key to minimize infrastructure (lower construction cost and maintenance cost, and minimum paved surface) and to adapt the building structures to the most appropriate locations; also the local rainwater drainage had to be the result of natural flows and wet basins in the area. Here, Jensen (Ibid.) says, the idea of creating a lake and adjacent wetlands in the northern part of the area and to extend the existing rainwater basin in the southern corner of the area was also the result of a thorough reading of the landscape and by analysing old photos of the area showing ponds and wetlands before it was drained as farmland. According to Jensen (Ibid.), the natural hollows of the area will be maintained in order to create open water storage in the development and two ridges draw a valley separating the area in an eastern and western part. As Jensen (Ibid.) indicates, by keeping clear the western high point, the low areas, and a connecting area, a coherent landscape appears. This connecting landscape that defines the three sub-areas for housing will be kept clear of paved infrastructure and motorized traffic. The highest point in the connecting landscape will be designated as an urban park; between the lake and the urban park, the green common (fælled) will be established. These three green/blue types: lake, green common, and urban park, constitutes the defining “backbone” of the entire area (cf. Odense Kommune and Schønherr a/s, 2010). The built-up areas (east, north, and south) will be orientated to give as many homes as possible directly access to the green common. The densest housing forms (e.g., row houses) will be placed in relation to the green common and detached single-family houses, which also have the largest private gardens, will be placed second row to the green areas. This disposition is chosen in order to make it more attractive to live in the less popular housing types and to promote this type in relation to the (environmental) sustainability aspects (Odense Kommune and Schønherr a/s, 2010, pp. 4, 8-10).

Conversation with Nina Jensen

This section reports some of the crucial points and summarised notes from my personal interview with Nina Jensen²⁵ on the 8. January 2013 (Copenhagen)²⁶. The interview focused on Schønherr a/s' work on Bellinge Fælled (2010) in relation to thinking with landscape in urban design, working methods, and sustainability.

By way of introduction, Jensen (2013. personal communication) explained that part of the design process was about how to concretize the five (sustainability) parameters into actual spatial design. Here, Jensen (Ibid.) explicates that a considerable part of the design process was to observe, look, and to “read” the existing terrain. As she (Ibid.) says, ‘the parameters were about minimizing the infrastructure and minimize regulation of the land; it had to be the terrain that was determining [for the design]’. Further analysis of the area revealed existing wetlands and swampy areas and slowly the idea of constructing a lake took form (Jensen, Ibid.). According to Jensen (Ibid.), ‘it could be interesting to have a lake [in the area]’. Since, the team had already discussed the high priority of public spaces in the area and the local handling of rainwater; the lake would be a strong recreational as well as functional element. Further, it was an overall ambition to learn and to communicate knowledge on sustainability. As such, it would be educational to “display” the water infrastructure and its flows and mechanisms (Odense Kommune and Schønherr a/s, 2010, p. 12; Rasmussen, 2013. personal communication).

Jensen: ‘As such, [the water] has been very structuring for the development [...] There is a lake and there is a terrain, which we have taken into account because it makes sense in relation to both the handling of soil, and it makes sense in relation to drainage. As such, there is plenty of space that – seen in comparison to other developments – is not built’.

Since the green areas of various plantation types and wet areas take up a considerable part of the overall area, the built-up areas are proportionally smaller (cf. the structure plan). Here, Jensen (Ibid.) explains, some of the parcels are small in comparison to traditional parcels - but instead, the common green areas are equally larger and as such, Jensen (Ibid.) says, ‘we hope that nature and beauty will generate an attraction’.

In relation to the Bellinge Fælled plan it is important to maintain the idea of the common green and the water infrastructure as the green/blue structures bear the plan (Rasmussen, 2013. personal communication; Jensen, 2013. personal communication). As Jensen (2013. personal communication) says: ‘[In for a penny, in for a pound] on this, because [the entire plan] is so dependent on the landscape. The landscape has imposed the structure, so if you start sacrificing too many of these principles, I do not think the plan will be very different from all [...] other plans [...]’.

From the beginning it was the intention to establish the green common and the lakes (cf. Odense Kommune and Schønherr a/s, 2010), unfortunately, the municipal administration has hindered this procedure. Parcels must be sold to make profit for the construction work (Rasmussen, 2013. personal communication).

Roden: ‘Isn’t that a shame?’

Jensen: ‘I think so, too. It could have been very fine. It was the intention. [The idea] was to establish the large [green/blue] features in order to attract people. [Now] it has begun quite traditionally with site preparation for housing in the south[ern] part of the area...’

Originally, Schønherr a/s was a traditional landscape architect studio. How is it then to work in the field of urban design and urban planning as landscape architect? According to Jensen (2013. personal communication), ‘we still have things to learn but on the other hand, we have had a considerable amount of large-scale projects’. According to Jensen (Ibid.), it also has something to do with the societal demand for

²⁵ Nina Jensen, Landscape Architect maa, Building Economist MDB, and Partner in Schønherr a/s

²⁶ Interview material is translated from Danish by author.

specific projects; it becomes a way of survive on the marked conditions. As she (Ibid) enhances, today, the large-scale projects in public investments are many, and every business needs to adapt to survive. According to Jensen (Ibid.) this cross-disciplinary work has little to do with landscape urbanism. As Jensen (Ibid.) points out, ‘we [Schönherr a/s] consider the site, “what does it tell us” [...] [landscape urbanism] is not an aesthetic expression that necessarily is right everywhere’. Instead, Jensen (Ibid.) enhances the aesthetic and the sustainable solution seen in relation to the context as crucial themes. Sustainable solutions must be aesthetic and functional - also when the utility value is not required (e.g., water storage basins), she (Ibid.) says.

Jensen: ‘Sustainability is something we all have to consider. I think our [Schönherr a/s] approach [...] - in opposition to other landscape architects – is more about [...] the terrain. Especially the terrain, I guess. To consider the landscape values and the totalities [...]’

Roden: ‘Holistic thinking in some way?’

Jensen: ‘Yes, I have experienced that when we have participated in [architectural] competitions, where building architects design master plans. We are invited as sub-consultants. Then we design the green [afterwards]. So, in that way [...] we have a different approach. The fact that we are constantly thinking the terrain [...] into it, I think [...] is a huge difference. [...] We think [...] more holistically and thus also considering the aspects of sustainability [...] and has been doing so, slightly earlier [than many others].’

When asking Jensen if Bellinge Fælled is more sustainable than other plans, she (2013. personal communication) is quite clear, ‘it is in some aspects (at least), if the municipality manages to minimize the ground levelling and the transportation of soil, and fully implement the local rainwater drainage, it certainly is’. According to Jensen (Ibid.), the aspects, one cannot say much about now, are the social aspects in relation to, e.g., the private gardens and public accessible areas, which will buy the houses etc. but the more technical aspects are measurable; less transportation of soil is equal to less CO₂ emission and less money spent (Ibid.).

Discussion

The intention of this paper is to link landscape urbanist theory and Danish landscape architect practice from a viewpoint of environmental sustainability unfolded in the context of suburbia.

Ullerødbyen and Bellinge Fælled were selected among a wide range of possible projects since they somehow indicate “something new” in their structure plans - they leap to the eye; in particular it is the relatively large open spaces in relation to the minor extent of built-up areas, and the fact that both the Ullerødbyen and Bellinge Fælled projects seek to activate the ecological potentials of landscape in suburban development. As such, it appears that Ullerødbyen and Bellinge Fælled are representative for the emerging shift in discourse in contemporary Danish urban design by addressing the complexity of contemporary urbanism and the current environmental and climatic prospects via landscape and ecology. Reputable Danish landscape architects (not building architects or urban planners) have designed the Ullerødbyen and Bellinge Fælled projects. Even though, they work in the dynamic field between landscape architecture, urban planning, and urban design, neither of them considers themselves as landscape urbanists (cf. Andersson, 2013. personal communication; Jensen, 2013. personal communication).

When overviewing the two projects in relation to the described theory, it is clear that landscape as principal element in urban design holds a great potential and landscape constitute a common denominator to basic urban development design aspects, i.e., form, process, and practice (Braae, 2013, p. 4). In Ullerødbyen and Bellinge Fælled the landscape plays the role as “designer”, it forms the built-up areas, it helps create spatial coherences within the respective areas and it connects to the neighbouring areas. Especially the public green spaces are essential; in both projects, the unambiguous spatiality achieved through the large green areas defines the building structures to follow, and how to spatially connect the new development to the adjacent urban areas. The landscape as process (e.g., ecology and fluctuation) in Ullerødbyen and Bellinge Fælled appears to have two meanings; on the one hand, landscape as process represents the complexity and indeterminacy of contemporary urbanism (cf. SLA, 2003, 2010; Odense Kommune and Schönherr a/s, 2010) on the other hand, both projects seek to integrate nature’s processes and ecological systems into the

urban developments as ‘eco-system services’ (Braae, 2013, p. 4). Finally, landscape as practice appears in the projects as a profound respect to the local landscapes (e.g., terrain, existing biotopes, landscape types etc.). According to Braae (Ibid.) this tendency can be seen as an interest in the differences that have developed in the interplay between a specific (nature) ground and local cultivation forms. These differences help us position ourselves in a globalized world - and these differences are found in the landscape. In this way, the landscape architecture of these projects embodies an emerging landscape urbanist “ethos” (Corner, 2003, p. 58) where the landscape architects act as the “system builders” (Reed, 2006, p. 283).

If considering landscape urbanism as set out by Weller (2008, p. 263) on page 5, most of these characteristics can be found to a certain extent in both projects; as such, the two projects can be considered as partly landscape urbanism, partly traditional Danish suburban development (with additional landscape and “good intentions”), and maybe as the landscape architect’s idea of how to meet the indeterminacy of the future within a fixed yet flexible structure.

Also when asking Andersson and Jensen about environmental sustainability in relation to Ullerødbyen and Bellinge Fælled, they clearly have different opinions towards sustainability, how to use it, and the meaning of it (cf. Jensen, 2013. personal communication; Andersson, 2013. personal communication). In the early 00s when Ullerødbyen was designed, “sustainability” was only vaguely defined and integrated in the spatial design practices. Often, “sustainability” was only used as adjective in the description of the programs and proposal; as such it was not embodied into physical design solutions (cf. Hillerød Kommune, 2002; Andersson, 2013. personal communication). In contrast, Bellinge Fælled was the result of a deliberate process towards designing a sustainable urban area (environmentally as well as socially and economically). Nevertheless, it can be discussed if Bellinge Fælled is more representative for environmentally sustainable development than Ullerødbyen is. Where the development of Ullerødbyen had “sustainability” as a loosely defined parameter in the competition program, Odense Kommune has taken sustainability a step further in declaring:

*‘Bellinge Fælled is the first sustainable development in Odense. This means that the nature will be taken better care of during the construction of the area and the life to be lived in the community will be considered a little bit more’.*²⁷

These areas, being “more” or “less” sustainable, clearly pose a threat to the general recommendations regarding the environment in urban development and transformation, see p. 2, 6, and note 3 (cf. Kvorning et al. (eds.), 2012), and it seems clear that both Ullerødbyen and Bellinge Fælled reflect an obvious self-contradiction: the sustainable suburb. Most environmental advocates might well have argued against residential developments in the respective project sites in the first place. Furthermore, the developments can not claim to be denser than traditional developments; neither are they connected to sufficient public transportation networks (although public bus lines in the main streets), and it seems that footpaths and bike lanes are only present in the minds of the architects and the municipality (at least in Ullerødbyen, where both bike lanes and footpaths are sparse, Bellinge Fælled is not yet built). Nor do the projects accumulate dense urban activity points (Ibid.); They *do* seek to create an attraction by their unique landscape features – but it is somehow doubtful that these green spaces will attract that many people from Hillerød city and Odense city to the fringes, as hoped.

Naturally, the green/blue areas in both projects offer a wide range of ecological effects (deliberately or not), e.g., local climate control, rainwater drainage, biodiversity etc. Unfortunately, since the buildings were built in Ullerødbyen without the desired respect towards the terrain, and the parcels in Bellinge Fælled were sold before the landscape and lakes were constructed, these developments and the original intentions of the structure plans have met administrative and practical obstacles. Hence, Ullerødbyen and Bellinge Fælled have not reached the climax of their potentials. Aber dabei, it can be argued that Ullerødbyen and Bellinge Fælled are “more”²⁸ environmentally sustainable (in their plan proposals) than other traditional suburban

²⁷ Odense Kommune (n.d.)

²⁸ Samuelsen (2013) discusses the idea of superlative and comparative degrees of “sustainability” in his article “Fri os for mere bæredygtighed” (Free us from more sustainability) published in the Danish newspaper Information. Here, he points out that sustainability is not to be modified. He claims that using rhetorical tricks to

developments; Here, Odense Kommune have also sought in the development of the project to integrate new methods for site preparation and materials and also to integrate social sustainability as an aspect in relation to infrastructure (e.g., as “shared spaces”) (cf. Rasmussen, 2013, personal communication). But so far, the only thing that advocates for the continuous development of the suburban areas (in the traditional dispersed form) is the population majority in Denmark, who points out the free-standing single family home in the suburb as the preferred housing and urban form (Kvorning et al. (eds.), 2012, p. 18). This said, the Ullerødbyen and Bellinge Fælled projects propose potential alternatives to the traditional Danish suburban development patterns. By focusing on landscape and ecological systems they both, to various degree, seek to meet the current environmental and climatic prospects and to some extent, they also succeed to fulfil some of the recommendations for “sustainable suburbs”, which were described later in Kvorning et al. (eds.), 2012, although without concern to the problematics of the sprawl typology. In this context, as discussed in this work, the most successful features of the two development projects in relation to the structure plans are the public accessible (relatively extensive) green areas. In the case of Ullerødbyen, the public areas and especially the central green landscape, which holds the entire area together and (in)forms the built structures, appears to represent the greatest potential in relation to landscape as urbanism. Unfortunately, the full potential of this central landscape structure seems unfulfilled in the realized result (Ullerødbyen is partly built), and the important exchange and interaction between urban and nature, built and unbuilt (cf. pp. 7-8) has been neglected or simply disappeared during the plan implementation or ultimately during construction (cf. local plan 335, Hillerød Kommune). In the case of Bellinge Fælled, the strongest feature in relation to landscape as urbanism and ecological processes may be the ambitious local rainwater drainage with lakes, ponds, and open rainwater systems. This system in combination with the green common (fælled) and the curvatures of the terrain define the overall layout of the area. As the municipality administration failed to construct the green/blue systems prior to the building structures by selling parcels to generate income to the construction work, the project already have suffered a considerable loss seen in relation to landscape as urbanism. These and other problems in both the case of Ullerødbyen and Bellinge Fælled cannot be addressed to the landscape architects since residential area developments (in Denmark, at least), is the result of many factors, products, and interests; ultimately, the consumer decides to buy a house in the area – or not. As such, it is important to acknowledge that environmentally sustainable development contains many layers, interests, and complications and it is not the landscape architects alone that can promote more environmentally sound developments via their urban design proposals. The municipalities, the developers, and the buyers are all important players, as well.

Conclusion

This paper investigates landscape urbanism theory in relation to practical urban design experiences by focusing on two Danish suburban developments designed by reputable Danish landscape architects. By overviewing the project plans and analysing the interview material from conversations with the respective landscape architects behind the proposals, we conclude that landscape urbanist theory is not an integrated part of their respective practices, although they both utilize the potentials of landscape and ecology in their urban design projects. As they bring the open/green space networks to the centre of suburban design, it illustrates that landscape urbanism in Denmark is part of what could be called “good practice”, i.e., thorough site research, the cross scalar practice, the focus on interchanges and connections²⁹. It also implies that the urban challenges have been in the centre of landscape thought and practice for so long that Danish landscape architecture already includes urbanism. This probably also explains why Andersson and Jensen do not consider themselves as landscape urbanists – and even reject landscape urbanism as a qualified contribution to designing the contemporary city due to its lack in aesthetic and amenity considerations. However, it seems that the discourse of landscape urbanism has directed a renewed attention to integrating landscape and natural processes as vectors for design in contemporary urbanism and the difficulties of

modify sustainability is problematic. Either it is sustainable or not. The uncertain use of the word can only be solved if we once and for all defines what sustainability actually means.

²⁹ Sjöstedt, 2013, p. n.d.

realising the “good practice”. In this context, one of the primary qualities of landscape urbanism, as proposed here, lies in its ability to raise debate and address the current discussions on how to design our future cities viewed in the light of the current environmental and climate prospects.

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FIGURES

P. 8: Ullerødbyen. Illustrations by SLA. In *DAL's Competition Secretariat* (ed.) 2003, p. 5-7

P. 10: Ullerødbyen. Diagrams by author

P. 13: Bellinge Fælled. Illustration by Schønher a/s. In *Odense Kommune & Schønher a/s 2010, Bæredygtig bebyggelse i Bellinge*, Odense Kommune, p. 9

P. 14: Bellinge Fælled. Diagrams by author

Re-imagining the Danish Suburb

Tom Nielsen

In Denmark we have just been through a big campaign, sponsored by the Realdania foundation as well as a governmental agency and some municipalities. It involved a thinktank, and as the centerpiece 6 competitions in 6 different cities, with in total 29 architect-led but cross disciplinary teams delivering their visions of the future suburb (Dirkinck-Holmfeld, Rolandsen and Bruus Thomsen 2013).¹ With the think tank, the accompanying book, the advisoryboard, the jurymembers, the consultants for writing the competitions programs etc., a very large part of the professional community dealing with the suburbs.

This material can be used, or that is at least my small hypothesis in this paper, to describe the current Danish visions for the physical transformation of the suburbs. In other words: This series of competitions is such a big endeavor that it makes up a quite interesting empirical material to investigate how the Future of the Suburb is conceived right now.

The legacy of the modern suburb is closely related to the building of the modern Danish Welfare State. But the suburbs are not only that. Despite harsh professional criticism of them through long stretches of their existence, they have been developed continuously throughout the last 60years. They are defined as different layers of city-fragments related to different ideological versions of the good life, especially the good family life. But they are also related to different kinds of industrial logics and economical models. Therefore the problem of re-imagining the Suburb of the Future will constantly be relevant, as its core subjects will change over the years. It will constantly be the subject of political strategies, campaigns, of new ways of understanding and conceptual frameworks, and it will always reflect the society and its values, simply because to a large extent it *is* the society.

In the following I will - based in the Future Suburbs campaign - try to give an overview of the themes that have characterized the discussions and formulation of visions over the recent years in Denmark. My approach is to generalize some strategic themes for the Danish Suburbs as such from the competition material which presents solutions to specific competitions programs and specific local issues even though it is not without more general statements. To do that I put the statements found in the competitions in a historical context. Thus I am interested in what the 'Re' in Re-imagining signifies when the actual proposals are being analyzed. What is the relation to history here?

The generalization is discussed under the following seven themes:

1. Qualification as basic attitude to Re-imagination
2. Growth paradigm still prevailing
3. Suburban Public Space
4. Wet'n'Wild Suburbs
5. Rationality and aesthetics
6. Identity
7. Revisiting ideals of the collective in a privatized world

¹ See <http://www.forstaden.dk/fremtidensforstaeder/Pages/default.aspx>

Theme 1: Qualification as basic Attitude to Re-imagination

You can - with concepts borrowed from the German landscape architect and researcher Vera Vincenzotti and planner Thomas Sieverts (Sieverts 2007) - talk about different attitudes to the suburbs: A rejective, a euphoric and a qualifying.

Rejective

The rejective attitude primarily characterized the reaction of the 1970ies and early eighties towards the modern city and the classic suburban ideals both within planning as inherited by CIAM, and within the more popular version of the garden city as was realized with the vast single family housing developments. This approach was based in the criticism of the modernist planning ideals as they had unfolded in postwar Europe and America. Jane Jacobs *The Death and Life of the Great American Cities* (Jacobs 1961) was one of the insights, but more directly also the doubt and criticism developed within CIAM by the Team X group, (Smithson and Smithson 1967) and more radically formulated the so-called Neo-Rationalism of Aldo Rossi (Rossi 1982) and Rob and Leon Krier (Krier 1993) developed through the 1970ies.

In the Danish Suburbs this reaction led to two models of transformation, both based on the idea of returning to what was before the suburb. One was the traditional European city of blocks and space. The most significant example of this in Denmark is the Suburb of Høje Taastrup (1986).

The other was the village. As exemplified by projects like the suburban enclave of Tinggården (1977) close to Køge and the Low Dense model. It was all about getting away from something resembling the modernist suburb as fast as possible. The ideal was 'the real' city with its mixed use, finegrain spatial networks accommodating local communities. The task of rebuilding the suburbs to look like that very soon exhausted almost everybody.

Euphoric

The attitude which I myself professionally grew up with in the first part of the 1990ies could, if not be labelled euphoric, then at least basically accepting and positively interested in finding the qualities in the suburbs that I had actually grown up in. The approach of a at that time younger generation which to a large extent had grown up in the suburbs, and – it could be claimed – had internalized, bodily and to a large extent subconscious knowledge of suburban space, was not uncritical, but criticism was not the objective. The objective was rather a curious understanding of the phenomena which it at that time was more than obvious we had to live with and within. This attitude was heavily influenced of the writings of Rem Koolhaas in essays like "The Generic City" (Koolhaas 1994b) and "Whatever happened to Urbanism?" (Koolhaas 1994a), but more deeply owed its approach to books like *Leaning From Las Vegas*, (Venturi/Scott Brown/Izenour 1994) *The Signs of Life*, (Venturi/Scott Brown 1976) project and more locally *Monument and Niche* by Carsten Juel-Christiansen (Juel-Christiansen 1985).

The euphoric attitude was partly a reaction on the rejection of everything that did not have streets and squares, and the somewhat too narrow definition of 'the real city' of the 1980ies.

Qualifying

Now we have moved into a new paradigm mostly characterized by a qualifying attitude. The climate- and sustainability discussion has been a key factor in this development from rejection over euphoria to qualification and thus the move beyond the pro-or con discussion about the suburbs that dominated the 1970ies, 80ies and 90ies. Neither rejective or euphoric, the qualifying attitude can

be seen as driven by a series of insights developed through the preceding years and decades², going through the different attitudes just mentioned. They are:

1. A basic understanding and acceptance of the fact that the suburbs and the ideals of living attached to them are here to stay - it is impossible to get rid of them.
2. Suburbs are heritage and define who we are. Changing and upgrading towards a contemporary ideal of urbanity and sustainability must be based on their specific history, morphology and aesthetic qualities.
3. Sustainability is an overarching political ideal and commonly accepted ethical base. The wellknown series of practical and technical problems related to suburbs and sustainability means that we have to change them:
 - a. Renovating and retrofitting buildings and traffic-infrastructure to lower their energy-consumption
 - b. Dealing with large amounts of water coming from above as well as below.
 - c. Restructuring industrial areas representing capital that either has to be written of or reinvested.
 - d. That half of us has become too fat unhealthy and much of a strain on the public healthcare system
 - e. That increasing inequality and segregation tends to describe and redefine the idea of the solidaric welfare society.

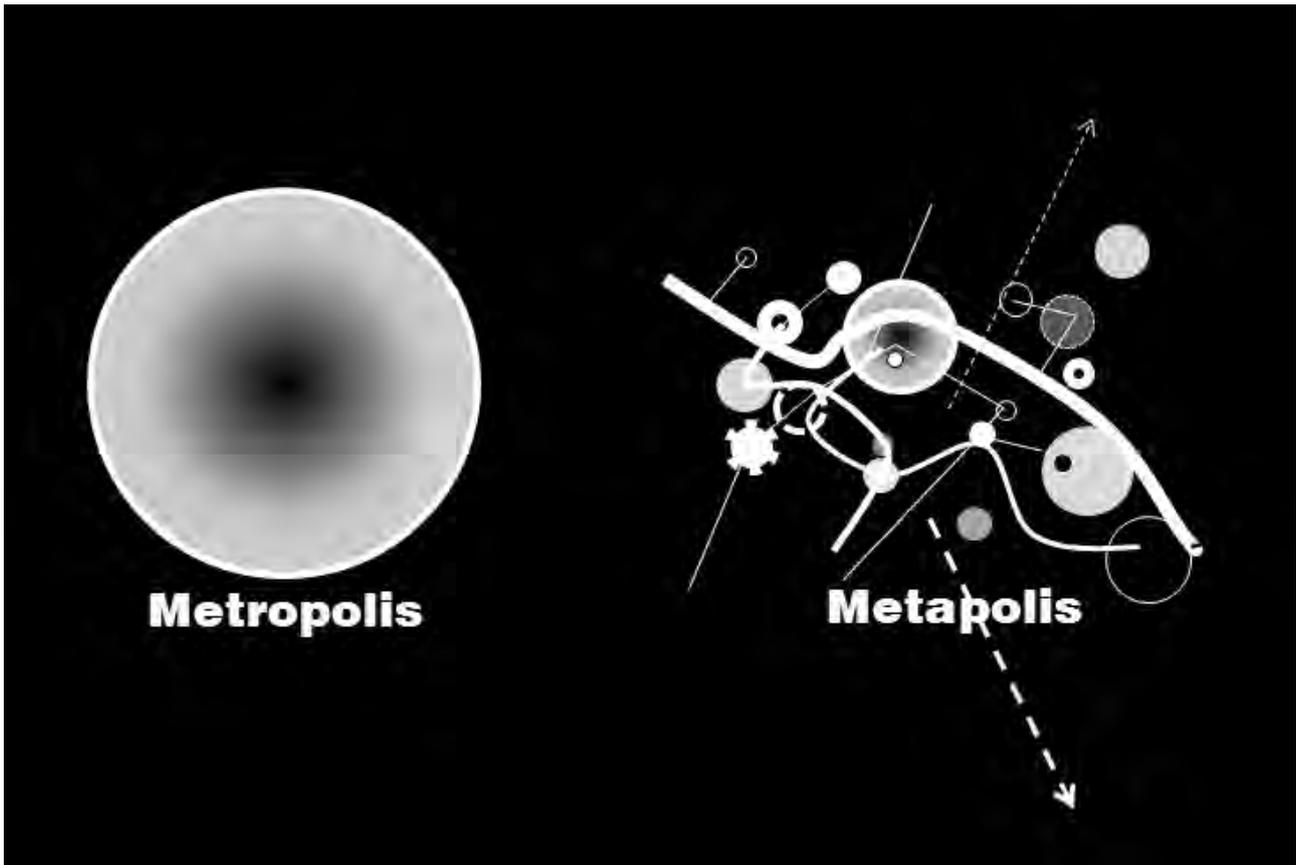
Theme 2: The growth paradigm of the suburb prevails

The modern suburb has been tied closely to the industrial growth paradigm that was the base for all modern planning as well as for the welfare state. What is interesting is that after decades of academic and cultural skepticism about this way of building the framework for the lives of people, we *still* see a quite radical growth-ideology attached to these areas. This obviously can be traced back to the fact that these are competitions, and as such answers to programs defined partly by municipalities: They want growth and development! But still it is interesting that this happens within the framework of a very strong emphasis on climate change and a financial crisis, which both are factors that could have led to more pessimistic ideals of the suburban development. So the kind of cultural skepticism about the suburb, which I think we still see outside of architectural competitions, have been translated into the densification ideals.

What clearly is seen from the competitions here is that a lot of densification means a lot of new suburb. Even in the competition in Nykøbing Falster³, a city situated in a region of Denmark struggling with the flight of the young and educated population towards the larger cities, we see optimism about urban growth and the need for new housing almost comparable to that of the 1960ies. So the ideal of densification goes hand in hand with an ideal that we should have *more* suburb. Maybe not at the expense of central city development as it is taking place at harboursites right now. But at the expense of the classic suburban greenfield development of single family houses. And at the expense of settling in small towns or communities that was one of the first answers to the criticism of the modern suburban ideal. And this is interesting because here they are actually to some extent going against the trends of settlement right now, which apart from settling in the central areas of the larger cities still is very much oriented to the single family house, as well as the ideal of living close to nature. The winning project in the Aalborg competition plan 6000 new dwelling, of which not a single one is a detached single family home.

² See: Dirkinck-Holmfeld and Rolandsen: "Suburbs of the Future - Lessons Learned" in (Dirkinck-Holmfeld, Rolandsen and Bruus Thomsen 2013) p 8-29.

³ <http://www.forstaden.dk/fremtidensforstaeder/Pages/nykoebingfalster.aspx>



This idea of expanding the suburbs through densification and without a further horizontal expansion of the city into the unbuilt ‘greenfields’ around it, relies very much of a Metropolitan concept of the city. In that way it aligns with the densification taking place at the center as well as ‘brownfield’ development in the former industrial areas of inner cities. The ambition is to create a city characterized by physical density and heterogeneity within a coherent built urban form and with a clearly physically marked edge towards the unbuilt landscape. This ambition is very clear for instance in both projects presented for the second phase of the competition in Aalborg. Another possible urban concept to base suburban visions in could be the metapolis or multicity-concept closely related to the ideals of the networksociety⁴ and the idea of a hybrid city-landscape with highly varying densities and typologies.⁵

Theme 3: Suburban Public Space

In almost all of the proposals there is a clear emphasis on the invention or reinvention of what could be called ‘Suburban public space’. This emphasis on the public space can be seen very much as a consequence of or embedded in the Metropolitan concept of the city that is employed. In other terms: The qualification effort is directed not so much towards the buildings and for instance housing quality, as it is towards what is between the buildings and how this space can work as a social space and as an identity-marker in what is seen as the close to identity-less suburb. This marks a shift from earlier work with the suburbs which to a much larger extend has had the emphasis on buildings and building-typologies: From the original modernist model of architectural machines in a floating space, to the rejective approach of for instance the Postmodern model of

⁴ For an extended discussion of this, see Nielsen 2009

⁵ For more on urban concepts and the metropolitan and metapolitan model see Shane 2001

reconstructing the European city...and the suburbs by implementing typologies like the urban block and the professional conviction that architecture understood as building could save the vaguely defined modern suburb and the failures of large scale urban planning. Even 10 years ago at the beginning of the qualification paradigm, there was a greater focus on how to build in the suburbs than what we have seen from this campaign.⁶ Then today it is very much the urban space 'in itself' that is seen as the key to reform - often understood as landscape architecture.

What we see is that the public space paradigm which was formulated in the 1980ies and developed in the 1990ies in the central areas of European cities like Barcelona, Lyon, Copenhagen (Gehl/Gemzøe 2001), now is being exported to the suburbs, but with very clear ideas that the suburbs are very different from the city centers. If the ideas of Suburban Public Space put forward in the competitions should be characterized broadly, the focus on public space as setting for an active life with individual sports and gardening would be the primary characteristic.

Theme 4: **Wet'n'wild** suburbs

The physical framework of this proposed suburban public space also bears a lot of common characteristics across the different competition proposals. There is large focus on integrating water and more wild natural elements within the suburban open space up until now characterized more by a much more clear and ordered aesthetics. The repetition of the same functionally defined elements like parking surfaces, lighted asphalt pathways, wellkept lawns, clearly delineated playgrounds of standard elements etc.

Not surprisingly, one can see at many of the illustrations that urban spaces in 'The FutureSuburbs' has become wet. In most competition proposals there is a desire to use the (at least in Denmark) newly occurred necessity of dealing with the water flow including the entire stormwater management, so that it becomes important and visible elements of suburban spaces. Managing more intense rainfall has become a major issue and a first priority task for many cities recent years. In Denmark this goes back to the fact that a lot of the suburbs was built on the lowest and - seen from a farming perspective - most unattractive areas around the historical city centres. This development and the economic aspects related to insurance money and flooding bears one of the biggest potentials of urban development right now. With the water and the climate issue, nature and ecological cycles is now imagined very integrated into the suburbs in a completely different way than before. At the same time - at least at the architects offices - there is a shift in the understanding of landscape aesthetics in the suburbs. Nature, understood as more wild or unkempt landscape, is conceived as an integrated part of the suburban urban spaces along with the almost ubiquitous vegetable gardens. It provides a more shimmering, less homogeneous unified architectural expression than what previously characterized the landscape and space between the buildings in the suburbs. We see a shift in ideals from the law and order of the lawnmower to the hunting grounds of enlightened hunter-gatherer.

Theme 5: Rationality and aesthetics

Reading through the proposals one finds out that all this nature, all these cracks in the pavement and the designed possibilities to exercise and play in the suburbs that is conceived, serve purposes which all more or less can be traced directly back to an economic rationale. The link between good, the useful and the beautiful are very close. The suburban public spaces are there to make us less stressed and more grounded so that we can survive our stressful and highly productive lives. They must invite, lure or force us to use our bodies so we do not put too much pressure on local health

⁶ See for instance the proposals for the competitions on The New Suburb from 2001. Especially PLOTs winning proposal, focusing on the buildings and leaving the outdoor urban spaces as they are. Ovesen 2011

budgets. And they are designed to keep the water from basements so insurance companies will not have problems there. Nature is invited into the suburbs to serve a purpose. Seen in this light, the current qualifying attitude as it unfolds in the 'Future Suburbs'-competitions can be said to be quite closely related to the original ideology of the suburb from the beginning of the last century, which was driven by rationality and what we call a functionalist approach. It can be seen as some sort of return to the original utilitarian welfare-ideology of the modern suburb, and with that the whole machine-metaphor and thinking which the modernist urbanism ideal developed in the first half of the 20th century was so tied to.⁷ The idea of making purposeful and 'good' architecture, and making the aesthetics serve that purpose and not some other representational or detached autonomous or self-referring aesthetic idea. This way of thinking, which was radically explored within the Kraft durch Freude-movement of the 1930ies surprisingly appears through association. **Illustration** Not only because of the 'money-shot'-genre belonging to architecture competitions, but because of the almost ruthless rationality coupled to the beauty. This kind of link between architecture and the ideal man, has not been on the agenda during neither the phases of urban imaginary dominated by the attitude of rejection or euphoria. It is significant to see how directly the realities of municipal economy and the focus on profiling, competition, optimization and bottom line within a competition-welfare state has translated so directly through competition-programs into the actual proposals.

Theme 6: Identity

The idea of working with the unique identity of a place has also very much become a part of the qualification paradigm. Historically the identity of suburbs almost exclusively was that they were suburbs. It was related to their character of being a special urban typology linked to a modern way of living characterized by a move away from the constraints of established cultural tradition, and by the promise of providing individual freedom within the anonymity of the large planned community. It was the universal and sameness that was the ideal both within the ethics of the welfare-suburb as well as in the aesthetics. The ideal was the same basic conditions for life across classes and ages. This ideal and promise was linked to this during decades still young or new kind of city. Not completely a city yet or something that was 'before' came to the city with a historically defined identity.

Apart from the fact that suburbs are now not only 'new' anymore, it is quite clear that the ambition displayed in the competition-proposals as well as the programs for the competitions is to seek and promote a privileged identity or character for each suburb. The suburbs have become important parts of municipal strategies to profile themselves and attract taxpayers, investments and profit. They have to be special and different from the suburbs in the neighboring municipality. This marks a notable shift from the situation just 20 years ago, where the idea of the euphoric attitude was employed as a counterposition to the general perception that most suburbs were a burden and a historical mistake of industrialism haunting the post-industrial 'New economy'. In these competitions the quest for describing and defining the unique identities of the suburbs does not mostly depart from the now more and more deep and layered history of the places, but is seen as something that can be produced artificially and inserted into the suburbs if enough money is invested. The energy-producing Transport Hub proposed for Vejle/Søndermarken by the COBE team is the clearest example of this. **Illustration**

The examples where the proposals is developed based on a historical analysis, it does not relate to the history of the suburb, but for example to the basic landscape morphology and how the

⁷ See for instance Amin/Thrift 2002.

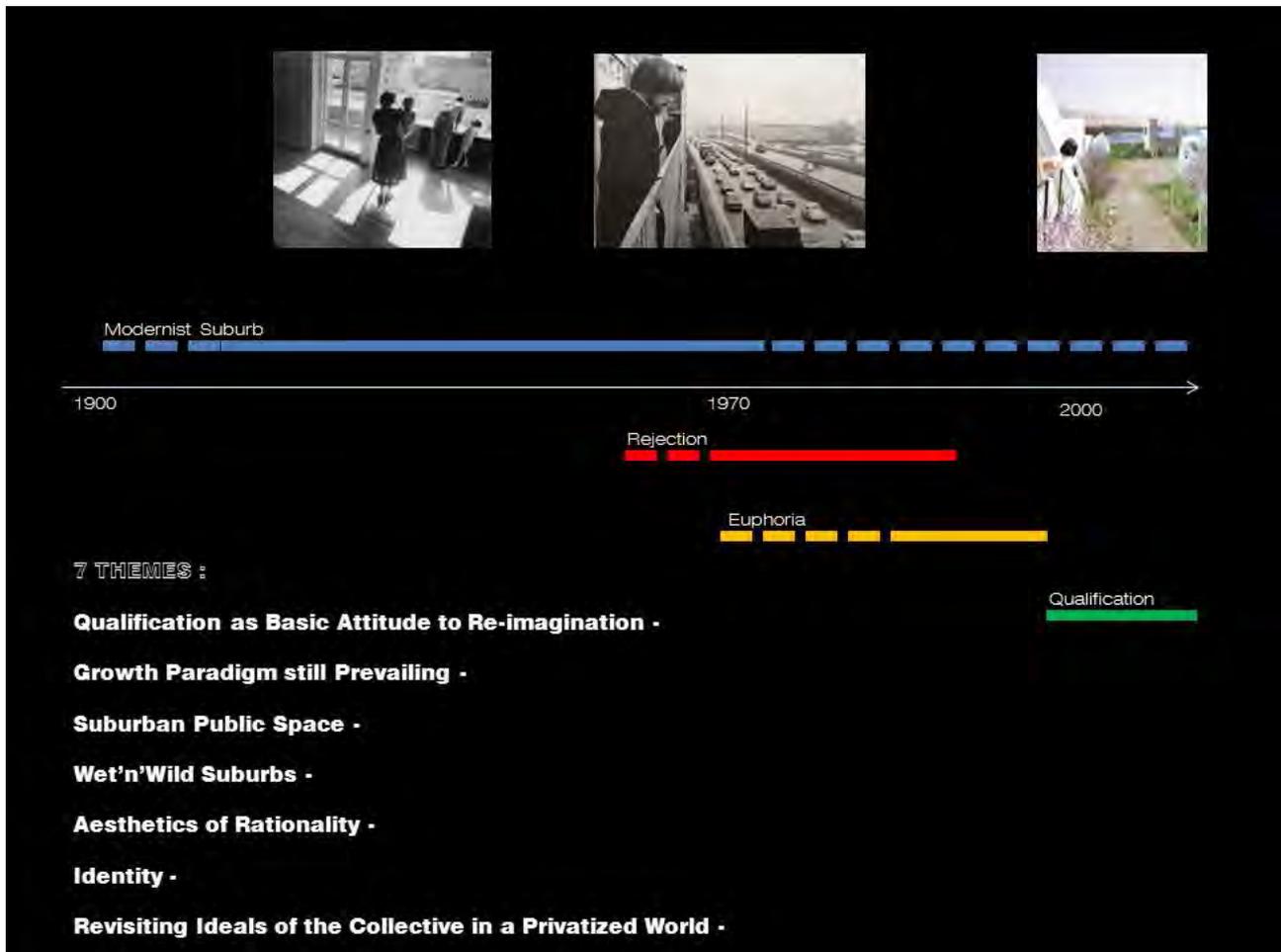
urbanization has responded to it during centuries as in Schønherr/BIGs proposal for Aalborg East. **Illustration** Or the way that the theme of farming or growing are used by the Elkier Ebbeskov team in the winning project from Nykøbing F, referring to the history of farming in this region.

Theme 7: Revisiting ideals of the collective in a privatized world

One definition of nostalgia is that it occurs when it dawns on us that something we have previously taken for granted are now disappearing from the world. So we embrace it. The more commonly it has been - the stronger the feeling. This applies to vinylrecords, spinlondresses, old trains...but also the idea of the collective living arrangements. The force of nostalgia sometimes is so strong that it can wake the dying to live. Looking at least at some of the competition proposals we see that collective living arrangements with community-oriented urban space are reintroduced in the suburbs. Resembling some of the most interesting experiments from the early 1970ies and the low dense typology with its reference to the village, this obviously does not only have to do with nostalgia, but with the longing for more possibilities of a physical and structural framework that fits the lives of inhabitants that are still less homogeneous.

But reading the description of the new village of Schønherr/BIG's proposal for the Aalborg competition there are strong references to past forms of community. **Illustration** But also in the winning proposal from Nykøbing and in Vejle BB, where the 'commons' also play an important role. The integration of the private and the collective is conceived through and integration of housing and landscape.

Conclusion



What we see in the Re-imagining of the suburbs in the Suburb of the Future-campaign is not a clear or unambiguous relationship with history and former ideals.

The growth paradigm and the marriage between rationality and aesthetics have to do with the original ideals of the modernist suburb developed in the first half of the 20th century.

The focus on identity as well as at least part of the ideals of doing new ways of collective living with roots in preindustrial culture but suited for contemporary urban life, goes back to the postmodern critique and the paradigms of rejection and euphoria.

Finally the idea of qualifying the suburbs based on what already is and the new wild and natural aesthetics could be said to be not completely but rather new.

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Workshop Session C

// Segregation, settlement patterns and the housing market

The structures of the housing market and housing policy constitute important contexts to the settlement patterns of individuals. These patterns are affected by the supply and demand on the housing market, the general economical situation and the access structures of the various housing sectors. These contexts for settlement differ between the Nordic countries causing different situations in terms of possibilities and restraints for different groups. Furthermore, the Nordic housing markets have to varying degrees been exposed to the financial crisis which has had consequences for the market as a whole as well as for specific groups of individuals within it. Nordic countries are increasingly experiencing segregation of different groups, especially ethnic segregation. These patterns are of interest within research as well as politically as they impact both individuals and society as a whole. A major area of research is the causes and effects of segregation as well as the political responses aiming at counteracting segregation. These differ between the Nordic countries. This session invites papers focusing on segregation, settlement patterns and the housing market. The papers can focus on general patterns and on specific groups as well as on the workings of the housing market and the changes within it.

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Jesper Rohr Hansen

Jonathan Fitzsimons

Lasse Andersson

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Rikke Skovgaard Nielsen

Tenure forms and social development in Norwegian suburban areas.

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Abstract: Riots in Swedish suburban housing areas in spring 2013 seems like a replica of what happened in Paris 2005. Does this mean that the 'Nordic welfare model' is losing its ability to sustain an egalitarian community? Politicians and researchers in the other Nordic countries have started to discuss whether the happenings in Sweden is a result of a particular Swedish housing and emigration policy, or if the same type of conflicts may easily spread to the other Nordic countries. A number of researchers have pointed out that, in spite of similar social aims of housing policies, the practical solutions chosen 1945-48 were quite different although the differences were not thought of as crucial at that time. The organizational and financial forms of social housing provisions chosen in each of the countries have been kept, but the role of the provisions have changed considerably (Bengtsson ed 2006, Holt-Jensen & Pollock ed 2009).

This contribution will analyse the role of the very market based Norwegian form of housing provision, compare it to the Swedish and Danish and base the further reflections on case studies of some housing districts in Drammen, Bergen, Oslo and Kristiansand. The analyses will reflect on the role of tenure forms, social and ethnic mix in the neighbourhoods. Equally important will be the role of the educational system, the role of private versus municipal neighbourhood schools, and the employment situation.

Key words: suburban estates, social mix, housing policies.

Introduction

The EU funded NEHOM project (2000-2004) analysed a number of housing based initiatives intended to improve the quality of life in deprived urban neighbourhoods in 8 European countries (Holt-Jensen et al 2004). 29 detailed neighbourhood case studies were carried out to elucidate the local effects of initiatives intended to combat social exclusion. The case studies in Sweden (3 cases) and Norway (5 cases) indicated that the *legacies of social mix* made social stigmatisation of neighbourhoods a smaller problem than in other European countries investigated. Within the Nordic region the NEHOM project only included studies in Sweden and Norway. To include also Denmark and Finland, plus Estonia, Latvia and Lithuania, we carried out analyses of housing policies in a Nordic-Baltic project 2004-2008 (Holt-Jensen & Pollock eds. 2009).

The housing estates both in the Nordic and the Baltic countries had been built as housing for the general public intending a *socially mixed population*. My focus in this contribution is the evolution of housing policies in Norway in comparison to Denmark and Sweden. The three countries have in many respects had a similar demographic, social and political development. The socially mixed housing estates have been regarded as effects of the dominantly social-democratic welfare policies in the Nordic countries. The housing policies chosen 1945-47 had seemingly the same intentions in the three countries, but the financial solutions and institutions chosen for provision of housing for 'everybody' were different. Since 1990 an increasing market liberalism in the Nordic countries has created new challenges threatening the institutional and financial frameworks of the housing policies. The increasing immigration

from third world and East European countries has created new challenges for housing policies in all three countries. Riots in Swedish suburban housing estates in spring 2013 seems like a replica of what happened in Paris 2005. Could the same occur in Denmark and Norway?

The aim of the present contribution is to try to answer the following questions:

- How have housing policies evolved and changed? In what ways are the Norwegian policy evolvment special and different from the Swedish and Danish?
- To what extent does the present housing policy development in Norwegian larger cities effect socio-spatial segregation in urban housing estates?

The *social mix* initially provided in the large housing estates may disappear. But it is also possible that the administrative cultures and housing institutions built up in preceding decades have a long-term subduing effect on the process of segregation.

The Nordic countries; common intentions, but different policies

The NEHOM project (Holt-Jensen et al 2004) documented that there were some relatively distinct phases in the European national housing policy evolution. These correspond with the three first of the four phases Bengtsson (ed. 2006) has used in analyses of Nordic housing policies: *establishment*, *construction*, *management* and *retrenchment*. It is possible to define an *establishment phase* starting around 1900 and ending just after World War II (WWII). This phase started earlier in Sweden and Denmark than in the other Nordic countries. After WWII large housing deficits, low standards and increased social ambitions set the agenda for the *construction phase*. Targets were set for the numbers of housing units to produce, most notably the Swedish ‘million home program’ of the 1960s. The massive production of new housing between 1950 and 1980 institutionalized and consolidated the Nordic housing regimes. During the 1970s the housing market seemed to reach saturation and criticism was raised against the social and environmental effects of the high-rise housing estates. All over Western Europe there was a change of focus from *quantity to environmental and social quality* (Holt-Jensen et al 2004). Typical for this third, or *management phase*, was refurbishing and social initiatives in the existing stock more than new production, and less high-rise block of flats were built. A fourth *retrenchment phase*, in which ‘the responsibility of housing the population is gradually relocated from the state to the market’ is identified by Bengtsson and Ruonavaara (2010, 197).

A policy of *social mix* is clearly linked to the *Nordic welfare model* (Esping Andersen 1990) which was considerably strengthened in the first decades after WWII. The aim was an egalitarian income structure and neighbourhoods in which all social groups would live close to each other. Additional objectives concerned *equity* and *social integration*. Both national and local governments have a basic responsibility for housing provisions. However, construction is done by private enterprises, while cooperative, municipal and other non-profit developers have had an important role as commissioners for the work and later as estate owners. Nordic *municipalities* have a strong role in *physical planning*, location of areas for housing development, and in the provision of infrastructure. Thus, the Nordic housing system consists of a mix and interplay between private and public actors. In the 1990s the general

financial support for housing was, however, cut back and to some extent compensated by increased *needs-related* support (social allowances) (Lujanen 2004 b). Nevertheless, Nordic housing policies are not selectively focused on social housing provision, and due to this are claimed as not providing social housing per se from the Anglo-Saxon and the Central-European perspective (Holt-Jensen et al 2004).

	Direkte eierskap	Indirekte eierskap (borettslag)	Offentlig og social utleie. Danske allmene boselskap	Private utleie	Andre	SUM
Danmark	51	6	20	19	5	100
Norge	63	14	5	18	-	100
Sverige	38	16	23	17	6	100

Kilde: Karlberg, B. and A. Victorin (2004)

Table 1 Tenure forms in Danish, Norwegian and Swedish housing in first years of 2nd Millennium. In the last decade direct ownership (Direkte eierskap) has increased, probably most in Sweden, Private renting (Privat utleie) has also increased particularly in Norway, but statistics are not good. Indirect ownership (Shareowning coops) and public and social renting including Danish ‘allmene boliger’ seems to have stable percentages, but privatisation of Swedish municipal housing is now taking place.

The social aims of the housing policies were more or less the same in the Nordic countries after WWII; to provide affordable housing for everybody. Still solutions chosen 1945-48 were quite different, although the differences were not thought of as crucial at that time (Lujanen 2004 a; Karlberg and Victorin 2004). We will here limit our discussions to the development of housing tenures in Denmark, Sweden and Norway (Table 1). This limitation is because the three countries provide very clear and different paths. 1945-48 was in path dependency terms a crucial period for housing policy formulation in Denmark, Sweden and Norway (On a theoretical discussion on path dependency and its role in housing policies see. Bengtsson & Ruonavaara 2010, Holt-Jensen & Pollock eds 2009). The political situation in the three countries was to a large extent the same. Social-democrat (labour) governments were ruling Sweden and Norway. In Denmark there were shifting coalition governments, but social democrats had in most cases a strong position.

Norway

In *Norway* the *cooperative housing model* was chosen, and the *State Housing Bank* (SHB) was established in 1946 to fund and subsidise home-building of a reasonable size and standard. This constituted an institutional framework facilitating citizens to become *home-owners*. One reason for selecting co-op housing and homeownership was that Norway was less urbanised than Sweden, and ruling social-democrats needed the support of voters in rural areas. Consequently the SHB also financed one- and two-family houses for private builders. Blocks of flats and large co-ops represented alternatives to privately owned rental blocks of flats and mainly became a feature in the larger towns. Many working class families preferred to get SHB-loans for two-family houses renting out the extra apartment as there were no income tax on rent revenues, provided the space rented out was not larger than your own. This is still the rule, and one effect is that neighbourhoods in small towns, and also parts of the

larger towns, have a mix of owners and renters and so a *socially mixed population* (Holt-Jensen 2009). In private rental apartment blocks built before WWII there was, however, strict rent control, and particularly after inner city refurbishment started in the 1980s, most of these were transformed to condominiums or co-ops. Even in capital Oslo only 29% of the population lived in rented apartments in 2001, compared to 90% in 1920.

The *cooperative housing model* is based on a system in which membership based house-building co-ops ('*mother co-ops*') build new housing estates financed by loans from SHB. Once a new estate is built a member can apply for an apartment, but when accepted has to buy a share, generally covering 1/3 of the building costs of the apartment. The new estate is formed as an independent co-op. The private share can be sold, but its price was strictly regulated until 1982. The system functioned socially well throughout the *construction phase* up to the end of the 1970s (Annaniassen 2006).

An important change in housing policy took place in 1982: the new conservative government formally allowed sale of co-op shares at market prices. Additionally, the control of rent levels in privately rented apartments was gradually abolished. The changes in the 1980s mark a deviation from the path-dependent evolution of housing policy, actually the start of a *retrenchment phase*. The institutions as such still continued to exist, but their roles changed. The interest rates on SHB loans differ now little from loans in other banks, but SHB is used for special housing policy tasks, such as giving extra funding to housing for special groups and administering the individual housing allowances to people in need. House-building co-ops are still active, but act more or less in the same way as private developers, building condominiums in addition to share-owning co-ops. A very market-oriented housing system has been created in Norway (Annaniassen 2006, Holt-Jensen 2013). The entry ticket to the housing market is very high, making it increasingly difficult for young people and people with low incomes to buy an apartment. This is connected to the booming oil economy of Norway from the 1990s, which has resulted in strong population growth connected to immigration and higher birth rates than in neighbouring countries. Except for a minor slack in the housing market in 2008, Norwegian house prices have increased faster than building costs. Compared to Denmark and Sweden a main problem in Norway is the lack of a non-profit renting sector available for the general public: students, young people and immigrant workers in the larger cities. Only 5 % of housing is in municipally owned renting and this is insufficient to cater for social clients and new immigrants. A result is that Norway has a larger homelessness problem than Sweden and Denmark, despite the economic boom (Dyb 2002; Dyb 2009). Another important effect of the policy chosen is the creation of a dominating '*property-owning electorate*'. Share-owners in co-ops are now owners on the same level as owners in condominiums. While property taxation is rather important in Sweden and Denmark, it is negligible in Norway, due to the dominating interests of homeowners in the electorate (Lujanen 2004 b; Holt-Jensen 2013).

Sweden

In 1945 *Sweden* had experiences both with cooperative housing and municipal public housing. In contrast to Norway the social democrats was mainly a party of urbanites and industrial

workers, and a special feature in Sweden is a very strong national *tenant association* established in the 1920s. The strong corporative tenant organisation was an important factor when housing policies were chosen after WWII (Bengtsson 2006). In 1945 both a cooperative option and a public ownership option were open. Co-op housing continued to play a role, but *in 1947 provision of housing became a municipal task* based on new legal frameworks and important priorities given to public, non-profit housing in state, so called, ‘tertiary’ loans. The ‘tertiary’ loans are in principle the additional financing required on top of what could be provided by credit institutions (Karlberg and Lujanen 2004). The municipal housing companies became responsible for a major part of the new homebuilding in Sweden in the *production phase*. Rent in public housing was not based on market rent. The rents became based on *utility value*, or cost-price basis in corporate negotiations between the housing companies and the *tenant association* (Cars 2009).

This system has proved to be rather stable despite recent non-socialist governments arguing for system shifts. The public, municipal housing companies are rather strong institutions providing affordable housing to an important segment of the electorate. Important criticism has, however, been raised in the last decades, mainly because the public housing companies are very top-down ruled. A major problem, particularly in some neighbourhoods in Malmö (Örtagården and Holma cases studies (Martinson 2005)) is the large concentration of Asian and African immigrants which have a quite high unemployment rate. They benefit from relatively low rents, but the Swedish top-down rule of municipal housing estates give little scope for initiatives from the renters (Martinson 2005). A negative reputation may trigger resource families to move out, and the *social mix* may dwindle. But as so much as 23% of Swedish housing is provided by public renting a *social mix* is still retained in most cases. This is also because renters that do not pay or behave badly can be thrown out, creating a problem for social authorities that have to provide housing for the ‘undeserving poor’ (Sahlin 2004) A serious threat to non-profit housing came in 2011 with a new law for municipal housing companies that required them to act more ‘businesslike’ (Elsinga and Lind 2012). Rents should adapt to the market and privatisation of public housing became possible, which has triggered privatisation of apartment areas in Stockholm. Increased segregation is a result. In May 2013 ethnic-based riots took place in some of the large sub-urban housing estates in Stockholm. There is definitely needs for social research to find some of the reasons for this development. One hypotheses is that the opening for private schools and ‘free choice of school’ has led to a disintegration of the former well established municipal schools districts and thus to a more class- or income-based education; the social glue of the egalitarian Swedish society is diminished. One other hypotheses is that privatisation of the best municipal housing has led to more spatial social segregation, as was definitely the case in UK after Thatcher introduced the ‘right to buy’. Further the high level of unemployment among 2nd generation immigrant youth in Sweden is gradually creating a ‘lost generation’.

Denmark

In *Denmark* the crucial housing policy decisions were also taken in the years 1946-48. Legacies from the inter-war period were influential; mainly a law passed in 1933 on housing associations defining them as collectively owned *non-profit housing* associations (almene

boligselskaber), in which it is forbidden to buy the apartments. Rents are based on real costs of running the individual housing estate. This system differs from the share-owning co-ops as there is no ownership share, and from the Swedish municipal housing in that the tenants collectively own the individual estates of the associations.

The housing associations were not initially intended to have a main role in the overall housing policies. The support for the associations came primarily from the parties in the political centre. The social democrats argued for municipal public housing. But they supported a pragmatic compromise between public and private housing, the non-profit housing associations were given a leading role and got economic support from the state (Jensen 2006).

The Danish housing associations (like Swedish and Norwegian co-ops) have a decentralised decision system based on local rule by the inhabitants in the individual estates. The bottom-up local governance functions relatively well in solving local problems. The main problem in Danish non-profit estates, analysed by Vestergaard (2009) in Hillerød case studies, is where the proportion of non-western immigrants, not familiar with bottom-up democracy, is large. The challenge lies in developing local governance systems that implies learning and integration of all groups.

Whether an *unwinding or retrenchment phase* have started in Denmark is discussed by Nielsen (2010). Reports from the Danish Economic Council (Det Økonomiske Råd 2001), Økonomi- og Erhvervsministeriet (2003) and the OECD (1999, 2006) questioned the costs of the present housing regime. In both Denmark and Sweden it has been pointed out that the third sector housing system subsidises a lot of families that are able to pay for private housing, people in need of assistance is a minority. In Denmark the attack became serious as the liberal-conservative government that came to power in 2001, presented a programme to privatise, by selling out single apartments in the non-profit housing estates. But by 2008 only 44 apartments had been sold. The housing associations have contested the judicial possibility of selling something that is owned collectively. And sales to 'sitting tenants' is of little interest to them as it just means higher housing costs, and of course they are already owners, albeit collectively (Vestergaard 2009). Radical changes have been difficult to carry out due to path dependency, but as Nielsen (2010) points out, a form of *retrenchment* in the non-profit housing sector has nevertheless taken place in the last decade. New construction has mainly been targeted against elderly and groups with special needs, diminishing the role of non-profit housing as 'allmene boliger' i.e. housing for 'all citizens'. Even now the municipalities have the right to use 20% of the apartments in the non-profit sector for social clients, including immigrants. Changing allocation policies and less financial support for new construction may gradually lead to more social segregation. Some estates, particularly in the Copenhagen district, have got a negative stigma. But the impression is in general positive; new development for instance in old harbour areas in Sydhavnen, Copenhagen, seem very attractive and a policy of 'mixing' private housing and 'almenne boliger' is a sign that this type of housing has an important role to play in Denmark.

Bengtsson (2006) state that three factors corroborate a *path-dependent evolution of housing policies* in the Nordic Countries. The *power explanation* of path dependency is rather crucial: institutions built up 1945-48 created a power base of actors, also due to a general support in the electorate that want long-term stability for their housing investments. The *utilitarian* argument that institutions are reproduced through the rational cost-benefit analyses of the actors is also present, as this is the main theme in most government white papers on housing. Finally *values and norms in society* are important: political choices should be considered morally just and appropriate. But values change over time. In broad terms there has been a shift from collective responsibilities and values for building the countries in the construction phase to a *retrenchment phase* much more based on market liberalism. Rather dramatic shifts occurred in Norway in the 1980s. The institutions in Sweden and Denmark have been more stable until quite recently. Gradual policy changes and concentrations of non-Nordic ethnic immigrants have in all three countries undermined some of the intentions of a social housing policy for everybody. This may lead to less social mix and more cleavages between rich and poor and between different ethnic groups than was intended in the Nordic welfare model.

Effects of the market based Norwegian housing system.

Deregulation of the Norwegian housing market.

The cooperative housing sector became gradually deregulated by the conservative government that came to power in 1982. In 1982 it became possible to sell the shares in freestanding co-ops at market price, and from 1988 this became the rule for all coops. Allotment of apartments in new projects based on length of membership in the ‘mother coop’ became of little importance. The coop housing became almost the same as private condominiums. The main difference is that subletting of an apartment needs to be approved by the board of the individual coop. It became possible to dissolve coops, and many were transformed to condominiums in which there is no restrictions on subletting. From being a mean to provide the general public with affordable housing, the coop housing is now primarily an asset for those already inside. The market based ‘entry ticket’ has become very high (Holt-Jensen 2013; 24). The coop housing organisations still exist and provide new housing, but act more or less as private companies, building condominium housing as well as share-owning coops. In relative terms their role is reduced as private house-building companies have become more important. This means that in the larger cities condominiums take over more and more of the market for apartments. In the 1990s the house-building coops ‘were transformed to ordinary market actors and in this role they are as much concerned with profit and market as the private actors’ (Orderud 2005).

Parallel to the market deregulation the rent subsidies of SHB and all general housing support measures, such as rent control, were abolished or considerable reduced. In line with the development in other West European countries there was a change from universal to selective housing policies. The State Housing Bank (SHB) continued as an institution, but its role changed considerably. *Housing allowances*, administered by SHB, were developed with the aim to support only those in special needs. A program with substantial state support to build municipal housing for handicapped and senior citizens was launched in 1998. This increased

the municipal, public housing, but there was at the same time little new housing provisions for social clients ('undeserving poor'). There is at present ca. 4 per cent municipal housing for social clients in Norway, the rent is set as 'gjengs leie' (general current rent on the private market), and there is often a limited rent period of three years. In spite of this there is in the larger cities a much larger demand than the housing available. For the social clients housing allowances covers the costs of 'gjengs leie', which means that the municipalities gets SHB (the state) to cover the costs. In Oslo and Bergen the social housing transfers from the SHB have given financial surplus which have been transferred to other municipal sectors.

The housing policies from 1945 till the 1980s rested on three legs: a financial policy with subsidised loans for building of housing, regulation of sale prices on the subsidised housing and *control by local public authorities of the allotment of building ground*. The larger towns established 'building ground companies' (tomteselskaper) under municipal control. As most new house building was as urban sprawl on suburban land these companies bought land from farmers and other landowners; the municipal planners developed land use plans and infrastructure, and the municipality could allot the land to housing developers. In most cases coop house-building companies were given a relative priority. In Norway this was similar to the priorities given in Sweden to municipal housing companies and in Denmark to 'almene boligselskaber'. But some major factors led to changes in these policies.

A major factor, which the present author analysed in his Ph.D dissertation (Holt-Jensen 1986) was that the Planning Law of 1965 triggered dispersal of housing and long distance commuting from municipalities *around* the larger cities 1970- 1990. Bergen was considerably enlarged through amalgamation with 4 surrounding municipalities in 1972 and got abundant space for new housing. But strangely enough the population of the new municipality did not grow! The municipalities even further out got the growth as they planned and were able to provide housing ground for one-family housing at a lower site cost than the city. This influenced the central urban municipalities to loosen their strict planning rules to attract taxpayers to stay.

My studies of the Kristiansand region (Holt-Jensen 1986) indicated, however, that urban sprawl and long distance commuting became less popular for young families in the end of the 1980s. A 'reurbanisation' was indicated already in the 1980s, but mainly increased from the 1990s.

Another factor influencing urban housing policies was recession in the housing market in the first years of the 1990s, due to some changes in tax reduction for interest paid, relatively high inflation and high bank interest rates. Reduced demand for new housing in the larger cities meant that municipal 'building ground companies' (tomteselskaper) lost money on land bought and developed with infrastructure. The national government did not any longer demand municipal house-building programmes and focus on municipal land reserves was lost for most larger urban areas except in the 'oil capital' Stavanger-Sandnes. (Kiøsterud 2005). 'The consequences of practically leaving all provision of housing to the market are difficult to

identify, and it is amazing that almost no investigations have been carried out to provide knowledge on this' (Nordahl 2013; 137)

Parallel to this was an increased environmental-political focus on *densification*, new housebuilding should increasingly take place on urban land already developed. The densification was a much more difficult planning task than development on suburban green areas. The most interesting densification areas were underused industrial land, transport and former harbour sites in which there are a patchwork private owners with very different interests. A 'municipal building ground company' (Tomteselskap) would be a valuable actor, but both risks and costs are much higher than in the dealing with suburban land.

The result became gradually that most Norwegian municipalities reduced their role in detailed planning. The municipalities develop master plans, but let private actors develop and promote detailed plans (regulation plans, building plans). As Brochmann (2012) points out 'private planners and the municipality sit in the same car. The private developer in the driver seat with two hands on the driving wheel, and the municipality as passenger with a hand on the hand brake. This provides the municipality with power to say no, but with minimal influence on the choice of direction'.

A consequence is that the public control and role in housing policies have been considerably reduced. Housing policies and provisions have been taken over by the market. What has been left of social housing provisions are *housing allowances* and *start loans* for individuals and families that lack means to buy. Whitepapers from the present government (NOU 2011:15, Stortingsmelding 17 2012-2013) do not suggest any substantial changes in the policy. The main message is that as many as possible should become owners (today ca. 80 %), and some provisions are suggested to make it possible for people with meagre means to become owners. It is quite clear that it does not pay to rent housing in Norway, there are definite an economic asset to be owner. The government whitepapers state that today (2013) Norway subsidises us that own and have loans for housing 55 billion NOK per year, whereas only 5 billion NOK is spent to provide housing for social clients and other weak groups! This is much less, as part of GDP, than in Denmark and Sweden. The Norwegian housing subsidies is mainly given as tax deductions for loan interest. (fig 1). In Denmark and Sweden there is also some tax deductions on loan interest, but this is 'balanced with real estate tax and in Denmark also imputed income taxation. Real estate tax and imputed income taxation does almost not exist in Norway. The Norwegian electorate are in majority home owners, and as Haga (2012) has pointed out it is politically impossible to suggest changes that are not beneficial for the property owners!

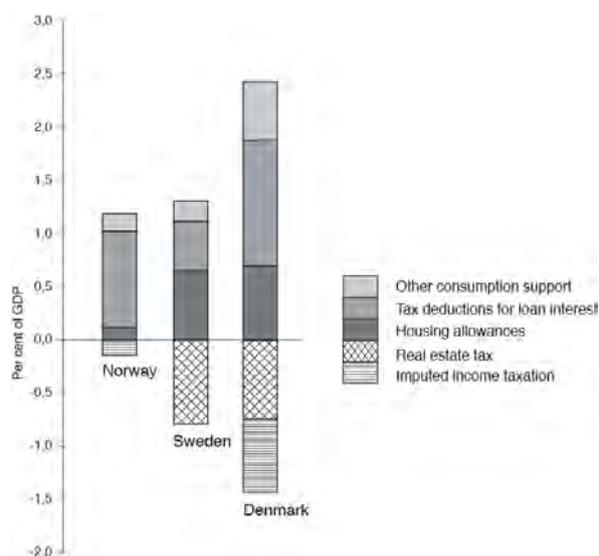


Fig. 1. Gross housing subsidies and taxation in per cent of GDP in 2000 Based on Lujanen 2004; 121

The ‘ownership line’ in Norwegian housing policies has some very positive aspects. As you own your own dwelling and live in it you will also take care of your home and the housing estate which it is part of. This is because the value of the property will increase when you invest in it, and you benefit from a nice neighbourhood. Norwegian housing standards are in international terms extremely good as property investment is very beneficiary; said to be the most secure investment in this country. It is quite clear that until the 1980s the social housing aims set up after WW2 were to a large extent fulfilled. A majority in all social classes became owners, a ‘social mix’ in both rural and urban settlements were obtained with quite high living standards for all, and the pre WW2 tenement blocks for the working classes were rehabilitated and transformed to coops or condominiums, i.e. ownership for those living there. But the deregulation since 1982 has had some consequences, particularly from the 1990s, which has not been properly understood and acted upon. The main factor seems to be the changing demands following the population growth and immigration to the larger Norwegian cities.

Population growth and immigration- demands for apartments in the larger cities.

Since 1990 the population has increased with 800 000 in Norway and the total population passed 5 millions in 2013. Life expectancy is increasing and Norwegian females give birth to in average almost 2 children. Norway still has higher natural increase than other European countries, but the large population increase in the last decades would not have been possible without a considerable *immigration*. The political debates have focused on the immigration from Muslim countries like Pakistan and refugees from Somalia, Iraq etc. as immigrants from these countries have become concentrated in certain urban neighbourhoods, particularly in Oslo. But the immigration of these groups, which was very important from 1970s, is now much smaller and strictly regulated, while the immigration of workforce from the Schengen area has increased. Poland, Lithuania and Sweden now are the leading providers of immigrants to Norway, but these immigrants have a much more spread out location of settlement, making the fear of particular ‘ghettos’ less prone.

Population is now growing in almost all parts of Norway, but the larger towns, Oslo, Bergen, Stavanger, Trondheim, Kristiansand, Drammen etc. have a much faster growth. Most interesting is that the central urban municipalities since 1990 have had faster population growth than the suburban municipalities. This is contrary to what happened 1970- 1990. Oslo municipality had faster population growth 2002- 2012 than any of the suburban districts around the capital. Bergen municipality that had stagnation 1970-1990 with ca. 215 000 inhabitants have now 265 000 inhabitants.

Nordahl (2013) documents that a dramatic shift in demands for new housing has taken place recently. Up till 2005 there was a relative balance between population growth 20+ and the provision of new housing, but since 2005 the population increase of those demanding housing (20+) has been very strong while production of new housing has dropped. (Fig 2).

This gap is much larger in the major cities. In Oslo it is calculated that 7 000 new apartments are needed each year to keep track with the demand, while only 4 000 are built per year. The demand is also reflected in the rising prices on new dwellings 2007 – 2012 which was 30% in Oslo and Trondheim, 50% in ‘oil capital’ Stavanger and 17% in Bergen. In Norway it was only a small ‘slack’ in house prices 2008-2009! During the two last decades (1992-2012) house prices in Norway increased 2-3 times more than the building costs, two times more than the rise in personal incomes and three times more than the consumption index (which did not include house prices)(data from www.dinepenger.no) .

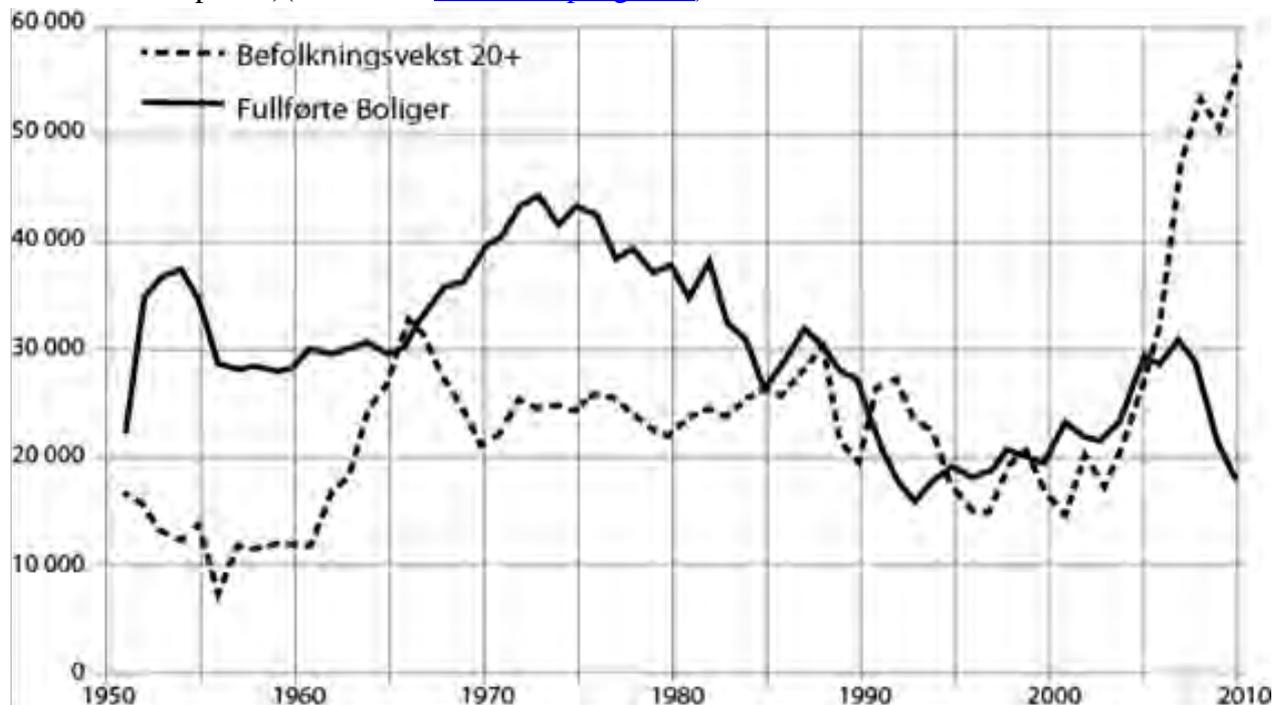


Fig 2. Yearly population growth of inhabitants older than 20 years (broken line) compared to yearly production of new dwellings 1950-2010 (Nordahl 2013)

Prognosesenteret (2011) maintains that there is a considerable difference between the structure of the present Norwegian housing supply and the needed adaptations to future demands. It is indicated that there will be a deficit of almost 237 000 apartments and a surplus

of ca. 340 000 one-family housing. The *deficit in number of apartments* is particularly serious in the larger cities.

In Norway 78% of the dwellings – housing ca. 80% of the population – is provided by detached, semidetached or terraced housing and only 22 % in blocks of flats. By contrast, in Sweden 54 % of the housing is in blocks of flats, in Denmark ca. 40 %. The Norwegian dream has been declared as one-family house with garden plus a hut in the countryside. The traditional dream must have changed making the prognoses above reasonable! We will list some factors in ‘bullpoints’:

- *The changing form of life in ‘core families’*. Females have got longer education and take part in the workforce almost to the same extent as men. Maternity leaves are well paid and is shared between father and mother for one year. Kindergartens can cater for kids from the age of one till they start school. The ‘time-space-budget’ in core families are, however, tight; this means that housing in a central urban location is better than suburban housing which means longer transportation time between home-work-school- kindergarten-leisure activities etc. Even if a green space is an asset, many will prefer not to have a large garden that needs tending in summer. It is more interesting to take vacations abroad or in a summer house.
- *The change from an industrial to a post-industrial employment structure*. The jobs in IT and services are only to some extent ‘foot-loose’, most are centrally located in the larger cities and it seems that face-to-face contact is more important than has been thought. Many, particularly the increasing number of one-person households, seek centrally located apartments in the major cities as basis for frequent travels and a broad contact network.
- *Immigrants* primarily want housing in the larger cities. The large new wave of immigrants from Schengen countries (particularly Poland, Sweden and the Baltic states) want to *hire apartments* as they often do not know if they will stay in Norway. And they take jobs that does not provide enough security to get bank loans for buying a dwelling..
- *The number of students* is increasing fast and as major educational institutions are located in the larger towns the market for renting rooms and apartments for student collectives is increasing fast and pressing prices in the rental market.
- *The age group 65+* is increasing fast and to an increasing degree are now leaving their one-family homes in the suburbs and buy what is on the market in the urban centres. In Norway the older people are able to pay quite high prices for buying condominium apartments in the city centres.
- *Social clients and homeless* are gathering in the centres of the larger cities. It is impossible to move them out by force and this result in an increasing demand for the limited supply of social housing.

The result is an increasing demand for housing in the central urban municipalities and mainly a demand for apartments. It is also quite clear that the *renting market is too limited*. Even though many young people get help to buy housing from parents, there is now an increasing split between an A-group of young people that can manage to become owners of their first

apartment and a B- group that do not have rich or supportive parents. The immigrants also definitely belong to the B-group. *For this reason there is a need for a non-commercial rental market in the larger towns and public financial support for building students dorms.* As this is a ‘political statement’ much linked to the recent parliamentary election I will let it just stay as that and rather look at how the suburban housing in Norway functions. Focus will be some case studies undertaken, mainly by my MA students. The focus will mainly be on share-owning coops, which have been most extensively studied (Fjell in Drammen, Slettheia in Kristiansand and Groruddalen in Oslo. The new development of subletting and the renting market for new European immigrants has not as yet been taken up in case studies. We have on the other hand had many case studies of municipal housing for social clients, with one example covered in the following (Løvstakksiden – Solheim North in Bergen). The case studies presented do not exemplify many of the very new trends in the Norwegian housing market, particularly how the housing situation is for the groups most relevant for the rental market. We know more about the A-group in the housing market, groups that has made for instance Inner Oslo East, which used to be poor, to the ‘upmarket East End’ (‘Grünerløkka, Oslo’s beste østkant’).

Trends in some urban housing estates.

‘Suburban’ in the context discussed in the following comprises housing estates built as co-op or condominium housing estates or as municipal social housing inside the borders of the larger urban municipalities.

Fjell in Drammen (studied by Røed 2004) 40 kms west of Oslo, may definitely be described as a suburban housing estate. It is located close to the southern border of Drammen and connects to the town centre with a public bus line. Fjell was built between 1966 and 1976 as 4 independent co-ops by Drammen and Surroundings (Mother) Housing Cooperation. The four individual share-owning co-ops are Fjelldalen, Fjellvang, Fjellheim and Fjellhagen. The housing consists of partly highrise, partly lowrise blocks of flats. For a long time the transport connections, shopping and service provisions lagged behind. The building of Fjell school only started when the first blocks of flats were finished.

However, it was possible for people to buy the apartment shares at a reasonable price and in the 1980s Fjell got a negative stigma as social problems including youth delinquencies became prone. Many ethnic Norwegians that had initially settled here sold their flat shares when they could be sold at market price from 1982, and moved to other parts of the city. Still the average price of a flat share was quite reasonable and to a large extent immigrants from Pakistan and other non-western countries that had employment in Drammen or Oslo moved in. In the 1990s immigrants from non-western countries made up 42 % of the population. In 2004 72% of the children in Fjell primary school were non-ethnic Norwegians, and they belonged to 35 different nationalities.

Fjell became stigmatised as ‘the migrant neighbourhood of Drammen’ and many ethnic Norwegians moved to other parts of the city. In spite of this Fjell at present seems to be socially sustainable, and we have to ask why? One reason seems to be that the neighbourhood is organised in share-owning co-ops. The immigrants have bought shares and live there on the same basis as ethnic Norwegians. The inhabitants are owners and very few are social clients although the municipality have the right to buy 10% of the apartments to accommodate social clients and immigrants on their social waiting list. But it is a fact that the unemployment rate

at Fjell is more or less as Drammen average. In addition Drammen municipality and the co-op organisation have taken a special responsibility for the area, due to the ethnic composition. A *community house* has been built, providing for a lot of activities and rooms for club meetings etc. And a lot of other, mainly 3rd sector initiatives have been launched. One of these is 'Masala', a handicraft workshop where Norwegian, often pensioner, ladies meet with immigrant women to teach each other handicraft skills in different cultures. The Fjell primary school has become nationally known for its ability to integrate different culture groups in working relationships. Fjell has even got its own community flag which is used for instance in the children's parade at the Norwegian national day (17th May). A sign that Fjell has managed integration well is the fact that the share prices of the apartments in the coops now are sold at market prices equivalent to other coops in the city.

The highest percentages of immigrants from Asia and Africa are living in Oslo East, Drammen, to some extent in Bergen and Trondheim. But some housing estates in other towns also have quite high concentrations. In Kristiansand the highrise estates Slettheia and Tinnheia (analysed by Ellingsen 2012) is gradually being dominated by immigrants in the younger age groups, and only ethnic Norwegians dominate among the pensioners. But there are few immigrants here from Muslim countries and most of the immigrants have bought their co-op apartments as at Fjell. The social problems are not great, also as there is very few social clients among the inhabitants. Kristiansand, like most other Norwegian municipalities, has as a general rule to *disperse social clients* to all parts of the municipality. Some clients can be given housing in co-op estates, but this is dependent on a screening and close cooperation between the social services in the municipality and the coops. Lonely mothers and some immigrant families can be located in coops, but drug addicts and alcoholics will not fit. The coops also have the right to throw out people that do not behave.

Oslo East, particularly larger housing estates in *Groruddalen*, has very high percentages of non-western immigrants of which Pakistanis make up the largest group. There seems to be two reasons for the high concentrations: a) the typical preferences in diaspora cultures to live in a community of equals, and b) the fact that the apartments in Groruddalen co-ops and condominiums have been reasonable in relation to other locations in Oslo. Particularly Pakistanis that came to Norway for work in the 1970-s and 80s are in general well integrated in the urban work force. Tamils from Sri Lanka are even better integrated, whereas Somalis that have come as refugees and not so long time ago, are not well integrated as a group. A major problem is the education in the primary schools when the percentage of ethnic Norwegians is small. Parents have the right to move their kids to other schools. The minority of ethnic Norwegian pupils are reduced and even some immigrant parents prefer to move their kids to schools with a high percentage of ethnic Norwegian pupils to give them better possibilities in future life. An increasing group of 2nd generation non-western immigrants are taking part in public life and politics; a small number was elected as members of parliament in the 2013 election 9th September. Some of these even argue for stricter rules of immigration and maintain it is better to provide better integration for those already settled in Norway. Norway has, however, signed international agreements to cater for asylum seekers, so to keep them outside the borders violates these agreements.

The Socialist government that has ruled Norway in 8 years (2005-2013) provided means for a large program for 'lifting' the social status and integration both in Groruddalen ('Groruddalssatsingen') and in Årstad in Bergen. In these programs 2007-2017 the focus is on education, programmes for youth, improving environment and living conditions, cultural activities and integration. Some of the means have been marked for free kindergarten

provisions for families with non-ethnic Norwegian background in order to provide the kids with language skills in Norwegian before they enter school.

Drangsholt, Fuglseth and Hidle (2009) have analysed the effects of 'Groruddalsatsingen' in a sociocultural place analyses of *Haugenstua* (a part of Stovner in Groruddalen). Haugenstua consists of co-op estates built by OBOS 'mother co-op' 1967 – 1979. Haugenstua mainly consist of 3 large coop estates plus a number of municipal homes for elderly people and a rehabilitation centre for drug addicts. There is a large number of one-room apartments and also 45% one-person households. But number of kids are also large and many one-room apartments are used for larger households. The population is ca 4000, of which a decreasing number are ethnic Norwegians (1600 in 2009), whereas people of non-western origin has increased to 2100. Immigrants from western countries make up the rest and is not increasing. So the fact is that Haugenstua is increasingly becoming a non-western immigrant settlement, and this is most clearly seen in the local schools. The immigrant population has background from 128 countries with Pakistanis as the largest group (28%), Sri Lankan as second (12%), Vietnam (6%) and Somalia (6%). 47% of the immigrants are 2nd generation, and these are mainly of Pakistani or Indian background. There is also a relatively high percentage (15%) with refugee background, many of these has come as asylum seekers.

Drangsholt et al (2009) analysed the attitudes of the inhabitants to 'Groruddalsatsingen' that was started in 2007. They found that the physical upgrading of the green areas between the blocks of housing, the market centre and the local railway station had a very positive effect. But most important was the establishment of areas for allotment gardens and a hall for 'skating'. The allotment gardens have proved to be very important for immigrant families that have got the possibility to produce own food and take part in a good social activity. The investigations showed that the new initiatives were improving the public opinions on the area. Still house prices in the area are among the lowest in Oslo. Further investments, for instance in *community house* and club for youth seems needed. The inhabitants feel that they are safe in the neighbourhood, but kids and youth feel unsecure close to the rehabilitation centre for drug addicts. The main problem still is the dominance of non-ethnic Norwegians in the local school. Some discussion has come up to enforce 'bussing' of pupils to provide a better ethnic mix in Oslo schools. This is, however, contrary to the political programs of the leading conservative parties in the coming new government. They suggest an increasing possibility to establish 'private schools' and aim at parents free choice of schools for their kids!

Frønsdal (2006) in an MA study at Melkeplassen in Bergen, where there is an area of public social housing in a middleclass housing district, found that it was very important that kids from 'social families' attends the same school classes as middle class kids. It was not possible to save 'drug addict' parents, but it was definitely a chance to save the next generation. This was also a major message in the international NEHOM project (Holt-Jensen et al. 2004)

Løvstakken (Solheim Nord) is located 2 kms south of Bergen town centre on the north-facing slope of Løvstakken mountain (fig.3). It has been the most stigmatised housing area in Bergen. It got lowest living standard scores on a number of indicators in detailed mapping of living conditions both in 1997 and 2008. But as pointed out by Germiso (2003) the area is not a uniform social housing area; 1/3 of the housing is in co-op housing in blocks of flats and terraced houses, 1/3 belongs to private individuals and companies. But the area have the highest concentration of public *council housing*, a bit less than 1/3 of the population live in public social housing (while the city average is 3%).

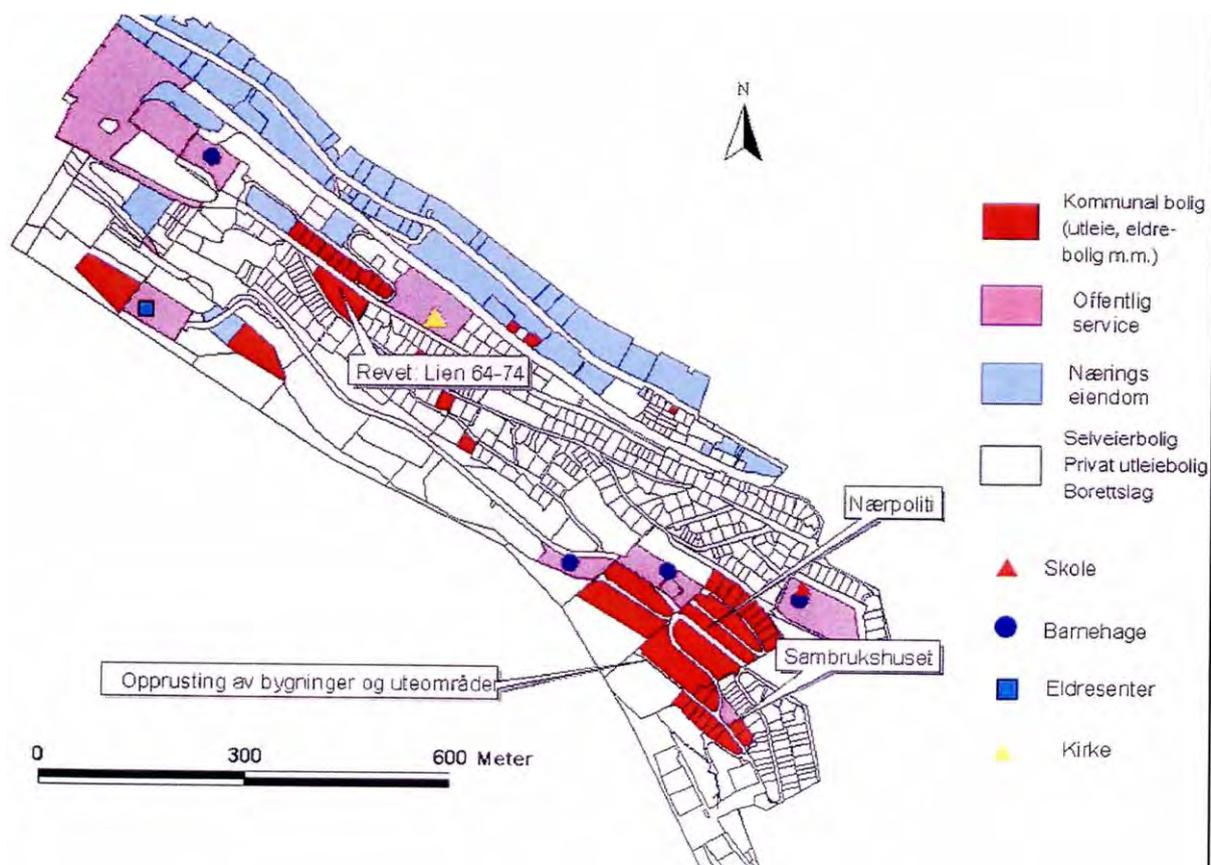


Fig. 3 Løvstakksiden in Bergen. South of the area is the forested Mount Løvstakken, and the ‘industrial area’ (Næringsareal) is located along the sea (Puddefjorden). The ‘industrial area’ is presently transformed to expensive apartments in condominium blocks of flats. Municipal council housing is marked in dark/red colour.

This is the most concentrated area of public social housing in Bergen, and it has been an aim to reduce this concentration and disperse the social clients that live here. Lien 64-74 that contained a lot of one-room social apartments, were torn down in 2002 and replaced by an old people’s home. The municipality has also tried to sell the concentrated social housing in the southern end of the area to be able to disperse this form of housing. But this has not been possible. Instead a rehabilitation of the area was carried out, a community house (Sambrukshuset) was established and the area got a special neighbourhood police office with two officers that have the contact with youth at risk and take care of local security. The local school got 2010-2011 a substantial upgrading with new gymnastic halls etc. A completely new housing process is presently going on as the industrial zone along the fjord (Puddefjorden) is being transformed to modern housing, mainly as expensive condominium blocks of flats. Many of those buying flats here are people of age 65+ that want living close to the centre in modern, serviced apartments. This district thus become an example of ‘splintering urbanism’ in which rich and poor live close to each other. This means that a new mapping of living conditions will show an upgrading in statistical terms, but in reality there will be striking contrasts within the area. In addition, as being close to the university, many of the private apartments have been transformed to ‘student collectives’. Local families that want to improve the area deplore this development as the basis for local initiatives is reduced. The area remains a problem area despite the positive initiatives that has been taken.

Conclusions

The first question this presentation aimed to answer was:

- How have housing policies evolved and changed? In what ways are the Norwegian housing policy involvement special and different from the Swedish and Danish?

The choice of housing finance through the State Housing Bank (SHB) and the aim to make most citizens owners of their housing, partly through share-owning cooperatives, has led to a dominating property-owning electorate in Norway in which it is politically impossible to tax property. Although there has been a gradual more market oriented housing development in Denmark and Sweden, Norway is completely dominated by the free market in providing both new housing ownership and in providing rented apartments. A non-profit rental market does not exist, whereas both Sweden with municipal housing estates and Denmark with 'almene boliger' still provide less market-dominated rental provisions. The substantial immigration of workers, fast growing housing demands in the larger cities and low interest rates, have spurred speculative housing investments and considerable growth in re-letting of apartments to rents high above the utility value. The present booming Norwegian economy with increasing demand of workers, now dominated by immigration from the rest of Europe, is different from the situations in Sweden and Denmark. There is also in Norway a high risk for a 'depth bubble' as many take up loans they will not be able to handle in case of a recession. Both for young people entering the housing market and immigrants with unsecure job contracts *a non-profit rental market is needed*, but the political awareness of the situation seems to be completely absent.

The second question we aimed to answer was:

- To what extent does the present housing policy development in Norwegian larger cities effect socio-spatial segregation in urban housing estates?

The co-op housing estates in the larger Norwegian cities still has a relatively good *social mix* (Røed 2004; Solend 2001), but the booming free market development is a threat. In the Eastern parts of Oslo, but also in some other towns, the least expensive share-owning co-ops have got a very high concentration of immigrants from Asia and Africa. Other co-ops have been transformed to condominiums in which owners are free to re-let their apartments. In some housing estates 30-40 % of the tenants have rented the apartments from the owners (Holt-Jensen 2013). This contributes to a gradual transition where ethnic and social segregation increase. Many ethnic Norwegian families move out of such neighbourhoods due to a majority of immigrant children in the local schools. On the other hand expensive condominium apartments for pensioners and rich people are built at the seafronts in former industrial or harbour areas (Løvstakken case). These tend to be established as 'gated communities'. Positive factors are, however, the employment situation which makes it possible for immigrants to get jobs, and municipal policies to disperse the small number of social housing for problematic clients to avoid stigmatisation of certain neighbourhoods. There is a need for more public social housing particularly in the larger towns, but the policy to disperse them and avoid concentrations leading to area stigmatisation seems to be well understood politically.

Summing up: Share-owning coops and condominiums are generally functioning well. The main problem is the concentration of non-western immigrants particularly in parts of Oslo and their integration particularly through the educational system. The coops and condominiums have not so far become social problem areas, but there is a fear that sub-letting of privately

owned apartments can lead to a gradual social degradation of some housing estates. The main problem in Norway is the lack of a controlled rental market, a situation quite different from Denmark and Sweden. And this problem is strongly accentuated with the large inflow of immigrants and the very fast population growth in the larger cities. The share-owning coops become in many cases fortresses of prosperity for those that has maintained to establish themselves as owners, while some areas with older private housing as well as new private developments with sub-letting are dominating as expensive housing for new immigrant workers. New detailed studies are needed to corroborate this.

Arild Holt-Jensen 2.10.2013

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Has it become more difficult for young households in rental housing to become homeowners?

Gintautas Bloze and Morten Skak

Abstract

It has been feared that the steep rise in house prices in the 0s would reduce ownership affordability for the young generations. In fact, homeownership among young Danish households has been falling. This development can be partly explained by postponement of family formation and partly by increased income inequality. In this paper we present calculations of the number of month it takes for an average young wage earner family that is presently in a tenant position to save 10 per cent of the average dwelling value. Our calculations show that it has become more difficult for young families to save the required amount to enter into homeownership during the 0s.

JEL Classification: xx

Keywords: xx

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1. Indledning

Papiret viser resultatet af beregninger for årene 1995 til 2010, der skal belyse, hvor vanskeligt det er for unge husholdninger i lejeboliger at komme ind på ejerboligmarkedet. Beregningerne baserer sig på data, som er udtrukket og samkørt fra en række registre hos Danmarks Statistik og omfatter unge lønmodtagerfamilier uden børn eller med et barn. Resultaterne viser, at det er blevet stadig vanskeligere for de unge husholdninger, der ønsker at flytte i ejerbolig, at etablere en tilfredsstillende forudgående opsparing. I gennemsnit for de inkluderede familietyper og boligformer tog det i 1995 godt 9 måneder at spare op til handelsomkostninger og udbetaling mv. til et boligkøb. I 2006 tog det to år, og i 2010 godt 19 måneder. Det stigende økonomiske krav til de unge husholdninger, der ønskede at etablere sig som boligejere op til 2006, forhindrede imidlertid ikke, at antallet af unge familier i udlejningsboliger faldt i denne periode. Forklaringen herpå skal formentlig søges i den rigelige kreditgivning, der fandt sted i årene frem til 2006, sammen med et intenst ønske blandt unge husholdninger om at komme med på "ejerskabsvognen". Det efterfølgende stærke prisfald på boligerne reducere tilsyneladende ønsket om at komme i ejerbolig samtidig med at kreditgivningen blev strammere. Således stiger andelen, der bliver i udlejningsboligerne efter 2006, på trods af, at det økonomisk bliver mere overkommeligt at spare op til ejerboligen.

Gennemsnitstallene for den tid, det tager at få en tilfredsstillende forudgående opsparing, dækker over store geografiske variationer. Således tog det i 2010 et ungt par med et barn, der bor i lejlighed i Nordjylland, ca. 15 måneder at spare op til et standardhus, mens det i Københavns omegn tog dobbelt så lang tid. Forskellene bliver også udtalte, såfremt der flyttes fra en udlejningslejlighed i én landsdel til en ejerbolig i en anden landsdel. Flytter et ungt par i udlejningsbolig med et barn eksempelvis fra Nordjylland til Københavns omegn for at købe hus, vil det kræve 2 år og 8 måneders forudgående opsparing. Flyttes der modsat, tager det kun et år og 3 måneders opsparing.

2. Data og metode

Beregningerne baserer sig på data, som er udtrukket og samkørt fra en række registre hos Danmarks Statistik. Der er desuden foretaget rensninger og afgrænsninger af de anvendte data for at få et billede, som er dækkende for det store flertal af husholdninger, og ikke for stærkt påvirket af ekstreme observationer.

Beregningerne tager sigte på at vise det antal måneder, det tager for førstegangskøbende husholdning at spare op til 10 procent af den gennemsnitlige værdi af en standardbolig.

Den gennemsnitlige boligværdi er beregnet for henholdsvis et enfamiliehus og en lejlighed/rækkehus. Enfamiliehusene (herunder stuehuse) er afgrænset til at have 4 til 6 værelser og et boligareal mellem 75 og 300 kvadratmeter. Ejerlejligheder/rækkehuse er afgrænset til have 3 eller 4 værelser og et boligareal på mellem 55 og 110 kvadratmeter.

De unge potentielt førstegangskøbende husholdninger er på samme måde udvalgt som en standard (median med hensyn til indkomst) husholdning, som bor til leje og består af to voksne og et eller intet barn. Ydermere skal breadwinner være mellem 20 og 40 år og have et lønmodtagerjob.

Husholdningsindkomst efter skat og rente er afgrænset ved 100.000 kroner nedad og ved 10 millioner kroner opad (i 2010 kroner, som indeksreguleres i andre år).

Tabel 1: Månedlige udgifter i kroner i Hovedstadsregionen, 2010

<i>Udgifter til boligbenyttelse</i>	8373
<hr/>	
<i>Andre faste udgifter</i>	
Et par	2604 ^{a)}
Ekstra hvis et barn	1718 ^{a)}
<hr/>	
<i>Løbende udgifter</i>	
En voksen	3515
Et par	6549
Ekstra for barn	1748

Note: a) Gennemsnitstal for husholdninger med bruttoindkomst mellem 300 000 og 499 999 kroner.

Kilde: Danmarks Statistik Forbrugerundersøgelsen, CASA 2004 og egne beregninger.

Til at beregne det beløb, der kan opspares hver måned (den månedlige økonomiske marginal) tages udgangspunkt i Casas¹ skrabede budget med den begrundelse, at man er villig til at spare på forbruget, når man ønsker at blive boligejer. Et reduceret forbrug vil da være mere realistisk. De faste udgifter er fastlagt ud fra Danmarks Statistiks forbrugsundersøgelser, der tager udgangspunkt i gennemsnitsbeløbene for husholdninger med en indkomst mellem 300.000 og 450.000 kroner. Beløbene herfra anvendes, da det er svært at spare på de faste udgifter. Hertil

¹ Se Hansen & Hansen (2004).

kommer boligudgifterne, som består af huslejen og udgifter til benyttelse. Huslejen er beregnet på regionsniveau.

De løbende udgifter (Casas tal fra 2001) er justerede for at tage hensyn til regionale forskelle: Landsgennemsnittet er for Hovedstaden og Sjælland ganget med 1,04, Syddanmark med 0,94, Midtjylland med 1,00 og Nordjylland med 0,95. Desuden er foretaget en korrektion af udgifterne på linje med udviklingen i realindkomsten for at tage hensyn til at også et reduceret forbrug påvirkes af den almindelige indkomstudvikling. Det antages, at de regionale forskelle i faste udgifter er fanget af Danmarks Statistiks forbrugerundersøgelser.

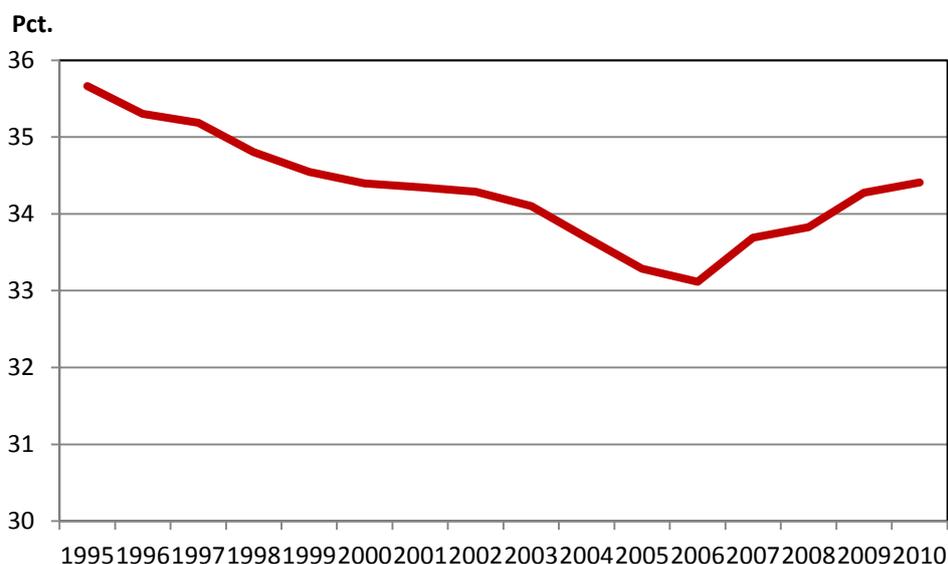
Tabel 1 viser det skrabede udgiftsbudget for en husholdning i en udlejningslejlighed i hovedstadsregionen i 2010.

3. Udviklingen 1995 til 2010

Som påvist af Nielsen og Jensen (2011), har der siden 1985 været en tendens til, at en faldende andel af de unge aldersgrupper etablerer sig som boligejere. Siden 1995 har tendensen dog været mindre udtalt. En stor del af udviklingen kan tilskrives, at flere unge tager længerevarende uddannelser og derfor senere får økonomisk mulighed for og ønske om at etableres sig i den mindre mobile boligform, som et ejerskab af boligen er. Men efter Nielsen og Jensen (2011) ligger en del af forklaringen også i større indkomstforskelle, som især har påvirket boligejerskabet negativt blandt de laveste indkomstgrupper.

Ifølge spørgeskemaundersøgelsen hos Kristensen og Skifter Andersen (2009) bor knap halvdelen af unge par under 30 år, der ikke har børn, i ejerbolig, mens så godt som alle ønsker at bo i ejerbolig. Som det fremgår af figur 1, er andelen af unge husholdninger med to voksne og ingen eller et barn, der bor i udlejningsbolig, svagt faldende frem til boligpristoppen i 2006 hvorefter andelen stiger. Umiddelbart synes de (stærkt) stigende huspriser ikke at have blokeret for ønskerne om at komme ud af udlejningsboligen for denne type af unge husholdninger. Snarere synes det at være den bristede prisboble og de stærke efterfølgende prisfald, der har fået dem til i højere grad at tøve med at realisere ønskerne til boligformen. Umiddelbart skulle man mene, at det blev vanskeligere, rent økonomisk for den typiske unge husholdning i en udlejningsbolig at komme ind på ejerboligmarkedet under de stærke prisstigninger, men det er måske ikke tilfældet? Vi forsøger at pejle os ind på spørgsmålet ved at se på, hvorledes opsparingskravet i forhold til det økonomiske råderum har udviklet sig for to typer af unge lønmodtagerhusholdninger siden 1995.

Figur 1: Andelen af unge husholdninger med to voksne og ingen eller et barn, der bor i udlejningsbolig 1995 – 2010.



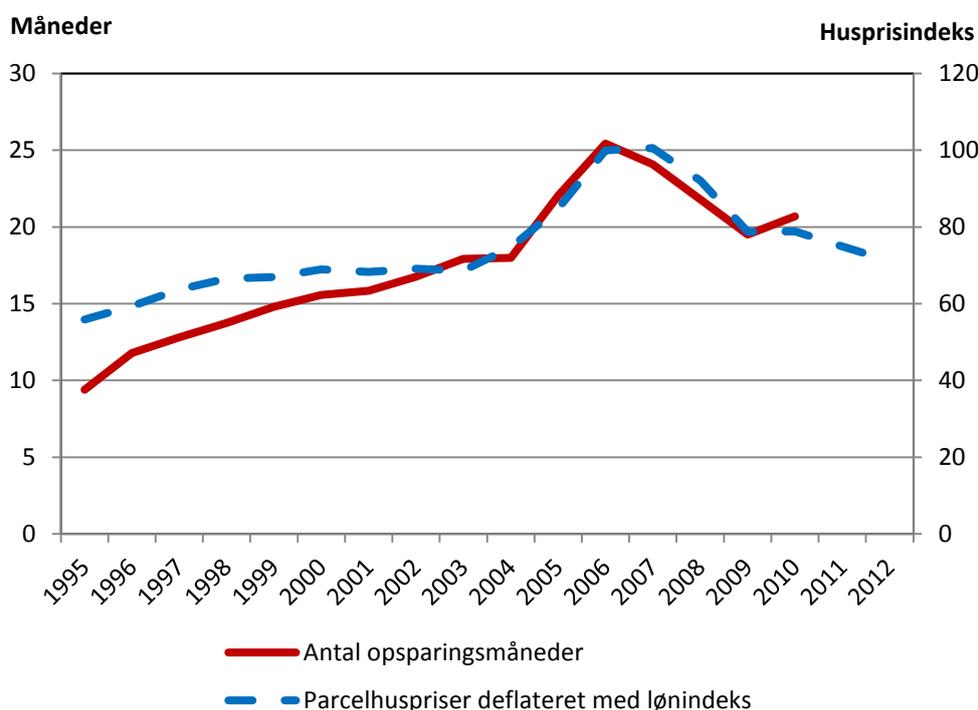
Note: Figuren viser andelen af unge husholdninger med to voksne og ingen eller et barn, der bor i udlejningsbolig. Se i øvrigt teksten og appendiks vedrørende afgrænsningen af ”unge husholdninger”.

Kilde: Egne beregninger ud fra registerdata.

Vi beregner et gennemsnit for, hvor mange måneder, det tager en ung husholdning i en lejebolig at spare op til 10 procent af værdien af en standardbolig. De 10 procent er valgt som et standardbeløb, der kræves af førstegangskøbere til dækning af sagsomkostninger og udbetaling². Beregningerne er foretaget for en husholdning bestående af to voksne med henholdsvis et barn og uden børn. Breadwinner er lønmodtager og husholdningerne har medianen af den disponible indkomst for husholdningstypen og et skrabet udgiftsbudget. Beregningerne er foretaget for køb af et enfamilieshus og for køb af en ejerlejlighed/rækkehus og desuden på landdelsniveauer.

² En begrundelse for de 10 procent kan findes på websiden <http://nyhederne.tv2.dk/article.php/id-66860485:s%C3%A5-meget-skal-du-spare-op-til-bolig%C3%B8b.html>

Figur 2: Antal opsparingsmåneder og prisen for et enfamiliehus deflateret med lønindeks 1995 - 2010



Note: Antal måneder er den tid, det tager at spare op til 10 procent af boligens værdi med et skrabet budget. Der er vist et gennemsnit for de to familietyper, de to boligtyper, og de 11 landsdele. Det deflaterede husprisindeks har 2006 = 100 på højre akse.

Kilde: Danmarks Statistik og egne beregninger ud fra registerdata.

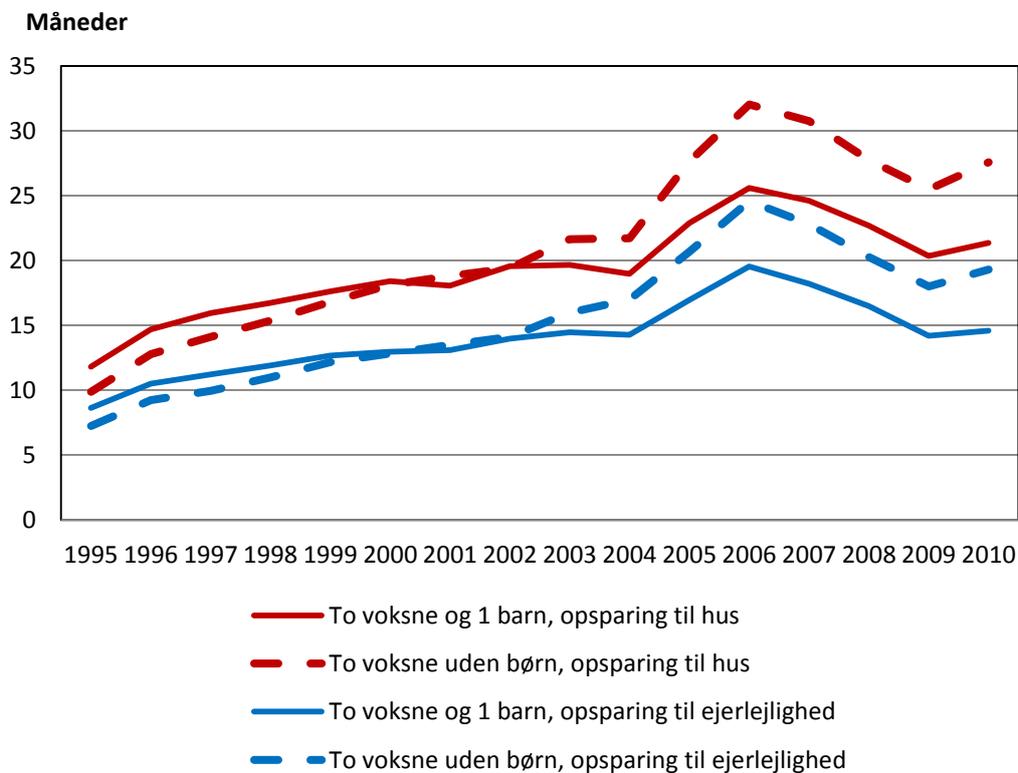
Som det fremgår af figur 2, følger det antal måneder, det tager at spare op til 10 procent af boligens værdi for unge husholdninger ganske pænt udviklingen i huspriserne, der i figuren er deflateret med industriens lønindeks. Stigningen i antal opsparingsmåneder har dog været noget større over årene 1995 til 2006. I 1995 tog det godt 9 måneder at spare op til 10 procent af boligens værdi, mens det på huspriserens top i 2006 tog godt 25 måneder eller over to år at spare op til de 10 procent. Det efterfølgende fald i den reale huspris har reduceret antallet af opsparingsmåneder, men dog kun til knap 21 måneder i 2010. De 21 måneder ligger godt 25 procent over gennemsnittet for perioden. Det stigende og i de senere år høje krav til opsparing kan ses som en medvirkende forklaring på den faldende ejerboligrate blandt de unge husholdninger.

4. To husholdningstyper og to boligtyper

Figur 3 viser forskellen i det beregnede antal opsparingsmåneder mellem de to husholdningstyper og de to boligtyper. Umiddelbart kan det undre, at husholdninger med et barn skal bru-

ge færre måneder til at spare op, end husholdninger uden børn, som har lavere udgifter. Forskellen skyldes indtægtssiden, idet husholdninger med et barn typisk er længere fremme i erhvervskarrieren og har højere indkomster. Kurverne viser desuden, at stigningen i det nødvendige antal måneder er mindre, såfremt man sigter på at købe en ejerlejlighed/rækkehus i stedet for et hus. Da ejerlejligheder/rækkehuse er billigere, tager det kortere tid at spare de 10 procent op. Forskellen var i 2010 ca. seks måneder.

Figur 3: Antal opsparingsmåneder for to husholdningstyper og to boligtyper 1995 - 2010



Note: Antal måneder er den tid, det tager at spare op til 10 procent af boligens værdi med et skrabet budget. Der er vist et gennemsnit for de 11 landsdele.

Kilde: Danmarks Statistik og egne beregninger ud fra registerdata.

Det må undre, at det stigende økonomiske krav til de unge husholdninger, der ønskede at etablere sig som boligejere op til 2006, ikke har holdt flere tilbage i udlejningslejlighederne, jfr. figur 1. Forklaringen skal formentlig søges i den rigelige kreditgivning, der fandt sted i årene frem til 2007, sammen med et intenst ønske blandt unge husholdninger om at komme med på "ejerskabsvognen", hvor der tilsyneladende var mange penge at tjene. Med det efterfølgende stærke prisfald på boligerne reduceres ønsket om at komme i ejerbolig samtidig

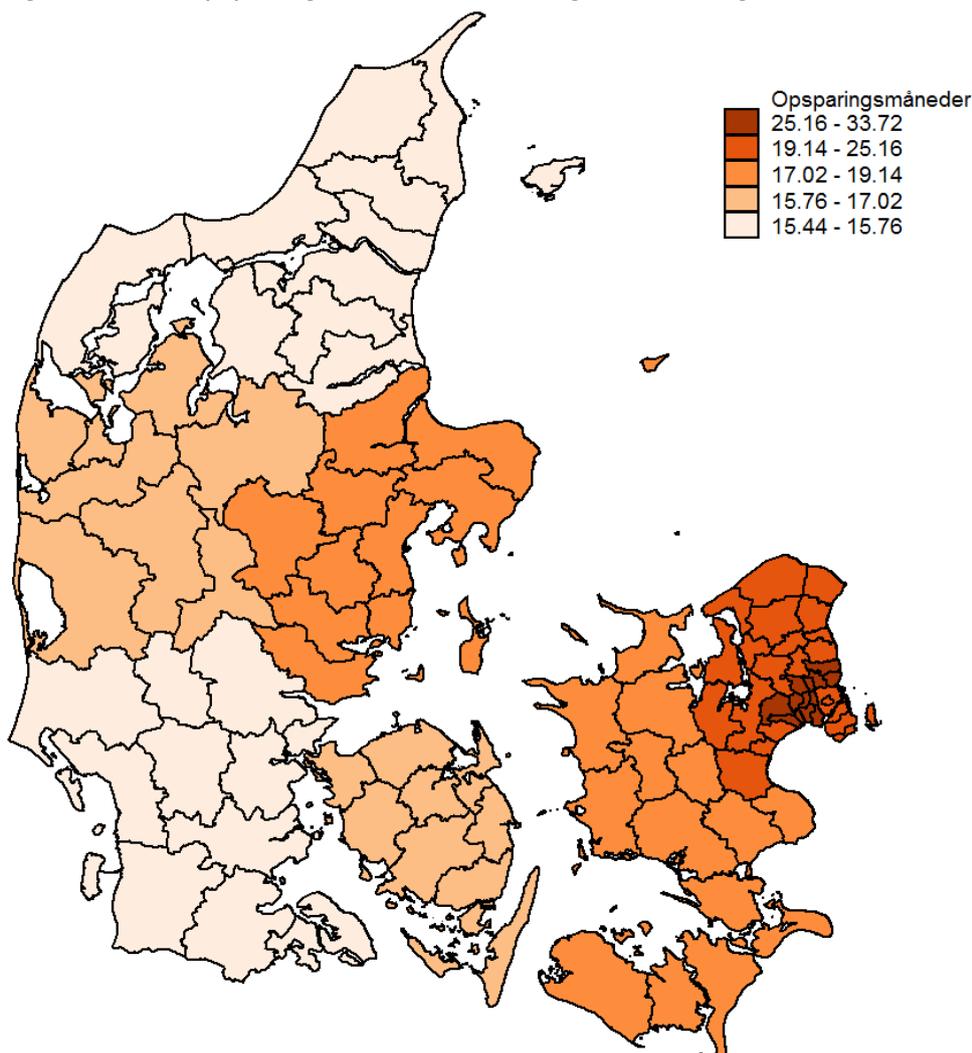
med, at kreditgivningen strammes, og en større andel af de unge husholdninger bliver i udlejningsboligerne på trods af, at det bliver økonomisk mere overkommeligt at spare op til ejerboligen.

5. Den geografiske dimension

Der er stor forskel mellem landsdelene med hensyn til, hvor lang tid, det tager for en ung husholdning i en lejlighed at spare op til de 10 procent af boligernes værdi i den pågældende landsdel. Antallet af opsparingsmåneder afspejler forholdet mellem boligpriserne i landsdelen og de gennemsnitlige disponible indkomster minus bolig- og forbrugsudgifter for de unge familier, som bor i lejlighed. Et højt antal opsparingsmåneder kan således både skyldes, at boligpriserne i landsdelen er høje, men kan også skyldes også at de disponible indkomster blandt unge husholdninger i landsdelen er lave. Omvendt viser et lavt antal opsparingsmåneder, at boligpriserne er lave i forhold til de disponible indkomster minus udgifter. Antal opsparingsmåneder viser noget om, hvor let eller svært det er for de unge husholdninger i en landsdel at etablere sig som boligejere i den samme landsdel. De i figurene 15 til 18 præsenterede beregninger belyser ikke, hvor økonomisk vanskeligt det er, når husholdningerne ønsker at flytte fra en landsdel til en anden og samtidig skifte status fra lejer til boligejer i den nye landsdel.

Som det ses af figur 4, der viser billedet for året 2010, tager det mellem 25 og 34 måneder for en husholdning med et barn at spare op til et hus Københavns omegn. Det skyldes først og fremmest, at huspriserne er relativt høje i dette område. I Byen København, Øst- og Nordsjælland tager det mellem 19 og 26 måneder for den unge familie med barn at spare op til et hus. I Østjylland, hvor Århus ligger tager det fra 17 til 20 måneder. Lettest er det at etablere sig som husejer i Nord- og Sydjylland. Her skal den unge familie blot spare op til et hus i ca. 16 måneder.

Figur 4: Antal opsparingsmåneder for en ung husholdning, der ønsker at bo i hus 2010

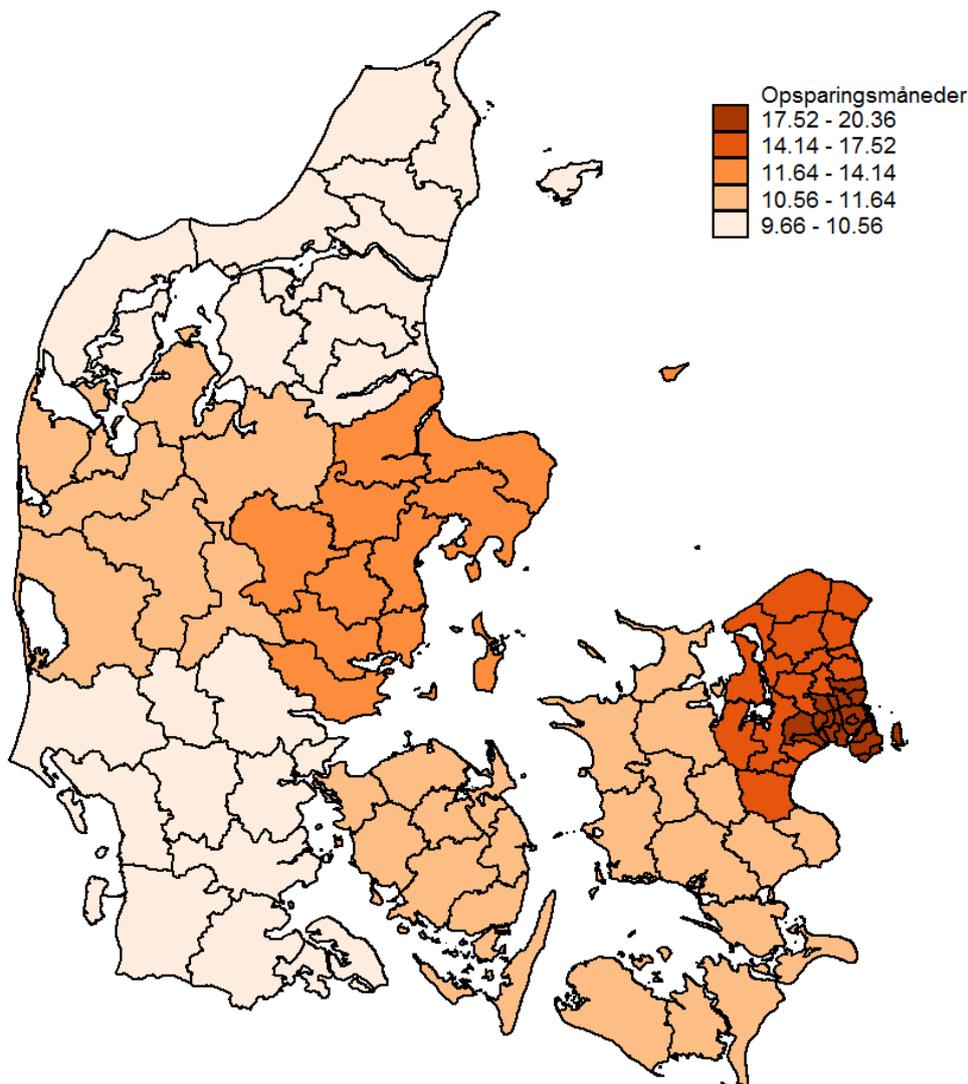


Note: Beregning af landsdelsgennemsnit for en ung husholdning med et barn i en udlejningsbolig. Opsparingsmåneder er det antal måneder, det tager at spare op til 10 procent af boligens værdi med et skrabet budget. Der er vist et gennemsnit for 10 landsdele. Bornholm er ikke medtaget på grund af for usikre data. Kortene viser en opdeling af landsdelene i kvintiler efter den tid, det tager at spare op til de 10 procent.
Kilde: Danmarks Statistik og egne beregninger ud fra registerdata.

I forhold til et hus, er det økonomisk mere overkommenligt at etablere sig som ejer af en ejerlejlighed eller et rækkehus. Antallet af opsparingsmåneder, såfremt det er ønsket, er vist i figur 5. Det kan ikke overraske, at landkortet i figur 5 minder stærkt om kortet i figur 4. Men antallet af opsparingsmåneder er betydeligt lavere, når målsætningen er at blive ejer af en ejerlejlighed eller et rækkehus. I Byen København og Københavns omegn skal den unge husholdning med barn spare op i 17 til 21 måneder, mod 25 til 34 måneder, såfremt et hus står på ønskesedlen. I Østjylland tager det mellem 11 og 15 måneder at spare op til en ejerlejlighed/rækkehus, mens det kan gøres på mellem 9 og 11 måneder i Nord- og Sydjylland.

Beregningerne af antal opsparingsmåneder bliver for usikre, når de foretages på de enkelte kommuner. Det skyldes først og fremmest at boligernes markedsværdi ikke kan beregnes med rimelig sikkerhed, når der er få handel i en kommune. Men det er naturligvis således, at forholdene i de enkelte kommuner kan adskille sig væsentligt fra det beregnede antal opsparingsmåneder på landsdelsplan. Således kan der være store forskelle mellem de større bykommuner og landdistriktskommunerne i en given landsdel.

Figur 5: Antal opsparingsmåneder for en ung husholdning, der ønsker at bo i lejlighed eller rækkehus 2010



Note: Beregning af landsdelsgennemsnit for en ung husholdning med et barn i en udlejningsbolig. Opsparingsmåneder er det antal måneder, det tager at spare op til 10 procent af boligens værdi med et skrabet budget. Der er vist et gennemsnit for 10 landsdele. Bornholm er ikke medtaget på grund af for usikre data. Kortene viser en opdeling af landsdelene i kvintiler efter den tid, det tager at spare op til de 10 procent.

Kilde: Danmarks Statistik og egne beregninger ud fra registerdata.

Som nævnt belyser tallene ikke, hvor økonomisk vanskeligt det er, når en ung husholdning i en lejebolig ønsker at flytte fra en landsdel til en anden og samtidig etablere sig som boligejer i den nye landsdel. Tabellerne 2 og 3 viser antal opsparingsmåneder for de 100 kombinationer af flytninger, der kan gøres, når landsdelen Bornholm udelades. Som eksempler på flytninger kan her nævnes, at det tager en ung familie med et barn, der bor i Syddjylland, 22½ måned at spare op til 10 procent af en lejlighed i Byen København, mens det tager knap 14 måneder for en tilsvarende familie boende i Byen København at spare op til et 10 procent af værdien af et hus i Syddjylland.

I tilknytning til den aktuelle debat om affolkning af landområderne i Danmark kan det konstateres, at det er betydeligt lettere rent økonomisk for den unge familie at etablere sig som boligejer i yderområderne. I gennemsnit tager det 15 måneder for den unge husholdning med et barn at spare op til et hus i Nordjylland, når udgangspunktet er en vilkårlig landsdel. Derefter kommer Vestjylland og Vest- og Sydsjælland. I Københavnsområdet nærmer den gennemsnitlige opsparingstid sig 30 måneder, når udgangspunktet er en vilkårlig landsdel, og for Østjylland er tallet 20 måneder.

Tabel 2: Antal opsparingsmåneder for en ung husholdning med et barn, der ønsker at bo i hus 2010

Fra\til	Byen København	Københavns omegn	Nordsjælland	Østsjælland	Vest- og Sydsjælland	Fyn	Syddjylland	Østjylland	Vestjylland	Nordjylland
Byen København	24,8	25,2	22,5	19,6	13,4	13,8	13,8	16,9	13,4	12,9
Københavns omegn	29,6	30,1	26,9	23,3	16,0	16,4	16,5	20,2	16,0	15,3
Nordsjælland	27,7	28,1	25,2	21,8	15,0	15,4	15,4	18,9	15,0	14,3
Østsjælland	24,9	25,3	22,7	19,7	13,5	13,8	13,9	17,0	13,5	12,9
Vest- og Sydsjælland	31,7	32,2	28,8	25,0	17,2	17,6	17,7	21,6	17,2	16,4
Fyn	30,5	31,0	27,8	24,1	16,6	17,0	17,0	20,8	16,6	15,8
Syddjylland	28,3	28,8	25,7	22,3	15,3	15,7	15,8	19,3	15,3	14,7
Østjylland	28,1	28,5	25,5	22,2	15,2	15,6	15,6	19,1	15,2	14,6
Vestjylland	31,4	31,9	28,5	24,8	17,0	17,4	17,5	21,4	17,0	16,3
Nordjylland	29,8	30,3	27,1	23,5	16,1	16,6	16,6	20,3	16,1	15,4

Note: Opsparingsmåneder er det antal måneder, det tager at spare op til 10 procent af boligens værdi med et skrabet budget.

Kilde: Danmarks Statistik og egne beregninger ud fra registerdata.

De samlede omkostninger ved at etablere sig i en ejerbolig i et område kendes imidlertid først, når ejendommen er solgt igen, ligesom mulighederne for beskæftigelse kan være afgø-

rende for, hvor det er økonomisk mest fordelagtigt at etablere sig. Andre forhold reducerer således attraktiviteten af en bosættelse i landdistrikterne, hvortil kommer, at der i mange tilfælde kan være problemer med at få de ønskede boliglån i landdistrikterne.

Tabel 3: Antal opsparingsmåneder for en ung husholdning med et barn, der ønsker at bo i lejlighed/rækkehus 2010

Fra\til	Byen København	Københavns omegn	Nordsjælland	Østsjælland	Vest- og Sydsjælland	Fyn	Syddjylland	Østjylland	Vestjylland	Nordjylland
Byen København	19,7	17,1	15,7	14,4	9,1	9,4	9,2	12,5	8,5	8,0
Københavns omegn	23,5	20,4	18,7	17,2	10,8	11,3	11,0	14,9	10,2	9,6
Nordsjælland	22,0	19,0	17,5	16,1	10,1	10,5	10,3	13,9	9,5	9,0
Østsjælland	19,8	17,2	15,8	14,5	9,1	9,5	9,3	12,5	8,6	8,1
Vest- og Sydsjælland	25,3	21,8	20,1	18,4	11,6	12,1	11,8	16,0	10,9	10,3
Fyn	24,3	21,0	19,3	17,7	11,2	11,6	11,4	15,4	10,5	9,9
Syddjylland	22,5	19,5	17,9	16,4	10,4	10,8	10,6	14,2	9,7	9,2
Østjylland	22,4	19,3	17,8	16,3	10,3	10,7	10,5	14,1	9,6	9,1
Vestjylland	25,0	21,6	19,9	18,2	11,5	12,0	11,7	15,8	10,8	10,2
Nordjylland	23,7	20,5	18,9	17,3	10,9	11,3	11,1	15,0	10,2	9,7

Note: Opsparingsmåneder er det antal måneder, det tager at spare op til 10 procent af boligens værdi med et skrabet budget.

Kilde: Danmarks Statistik og egne beregninger ud fra registerdata.

6. Afsluttende bemærkninger

Ønsket om at komme til at eje sin bolig er udbredt blandt unge husholdninger, men ikke alle får ønsket opfyldt. De beregninger, vi præsenterer for unge lønmodtagerfamilier, viser, at det er blevet stadig vanskeligere for dem at etablere en tilfredsstillende forudgående opsparing. I gennemsnit for de inkluderede familietyper og boligformer tog det i 1995 godt 9 måneder at spare op til handelsomkostninger og udbetaling mv. ved et boligkøb. I 2006 tog det to år, og i 2010 godt 19 måneder. Disse gennemsnitstal dækker over store geografiske forskelle. Således tog det i 2010 et ungt par med et barn, der bor i lejlighed i Nordjylland, ca. 15 måneder at spare op til et standardhus, mens det i Københavns omegn tog dobbelt så lang tid.

Det er således betydeligt lettere rent økonomisk for den unge familie at etablere sig som boligejer i yderområderne. De samlede omkostninger ved at etablere sig i en ejerbolig i et område kendes imidlertid først, når ejendommen er solgt igen, ligesom mulighederne for beskæftigelse også skal medregnes. Det vil i mange tilfælde reducere attraktiviteten af en bo-

sættelse i landdistrikterne, hvortil kommer, at der kan være problemer med at få de ønskede boliglån.

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'Strategic navigation' in collaborative innovation planning processes:

Analysing leadership emergence in the urban fringe

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Abstract

Today's planning dilemmas for the urban fringe in western cities can be perceived of as a dilemma between self-organization and control. This is pertinent in times of austerity. Public planning authorities are dependent on cross-sector collaboration for creating innovation in the development of urban fringes such as brown field and suburbs. Urban planning needs to develop practices of 'strategic navigation' (Jean Hillier) in order to come up with new type of responses for this type of dilemma. These practices of navigation may emerge in uncertain environments. The paper uses collaborative innovation leadership to inspire an analytical approach to leadership in planning for the urban fringe. The theoretical discussion in the paper leads to further specific analytical demands for how to combine 'navigation' and 'innovation leadership' consistently in an analytical model. By drawing on social constructive approaches to leadership these demands are met. The analytical model produces an understanding of leadership as something that necessarily has to be emerging by means of recognition, directing sensemaking and entrepreneurship, conditioned by a strategic navigation-behaviour. Concerning epistemological enhancement of the model the paper suggests applying post-structural analytical approaches of ANT and micro-discourse.

Key words: collaborative innovation leadership, social construction of leadership, planning dilemma, uncertainty, strategic navigation, recognition, directing sensemaking, entrepreneurship

Introduction

This article focuses on leadership of urban planning in the development of urban fringe areas. These areas located just outside the city core are typically suburban or brownfield in nature. They are city areas which are the focus of many contemporary transformation processes.

Urban planning in these areas is typically forced to collaborate on problem definition and problem solving in order to generate synergy in terms of growth, sustainability, public service provision, public facility construction, identity building and coupling these areas under development with the surrounding city. These transformations happen in network types of collaborations across sectors, provoking political aspects of redistribution, especially in the suburbs. (Klausen & Røe, 2012) As such, urban planning in the urban fringe faces dilemmas which some authors argue can be conceptualized as fundamentally a tension between self-regulation and control (Alexander, Mazza, & Moroni, 2012). This dilemma challenges the planning systems which rely on traditional, bureaucratic, public control, forcing these planning systems to adapt more flexible types of strategies and work with more uncertain process trajectories (Balducci, Boelens, Hillier, Nyseth, & Wilkinson, 2011). As such, we need to conceptualize this problem of navigating between these extremes in a new way.

This paper's main planning inspiration is a special issue of *Town Planning Review*. Here leading scholars of planning research review and develop approaches to strategic spatial planning in a context of uncertainty. This paper builds on this work, by drawing on Jean Hillier's notion on 'strategic navigation' (Hillier, 2011). It does so by means of exploring how leadership can be conceptualized within the conditions of the urban fringe.

The claim of the article is that the planning dilemma between self-organization and control in a collaborative setting to some extent has many similarities to the challenges of how public sector organizations can produce innovation by means of collaboration (Bommert, 2010; Sørensen & Torfing, 2011). As such, an analytical model is called for that draws upon lead motifs from theoretical fields. This article produces an original conceptual development of leadership. This conception of leadership is first and foremost based within a social constructive approach (Fairhurst & Grant, 2010). Second, the conception of leadership proposed in this paper is a synthesis of concepts from planning literature and collaborative innovation leadership. This import of collaborative innovation concepts and assumptions pushes the leadership concept further towards something which necessarily emerges in collaborative processes of strategy making. The leadership concept developed in this article thus is highly adapted to the type of dilemmas that urban planners and their (would be) collaborators face in the urban fringe.

The article is structured as follows. First I review planning literature that deals with the uncertainty that the dilemma between control and self-organization produces. Second, I review collaborative innovation literature. Thirdly I discuss the different takes that the two theoretical fields have to leadership. Fourthly, I propose an analytical model for studying leadership. Finally, I conclude, summarizing the argument.

Contextualization

The article focuses on the complex planning processes in the development of urban fringes. In these contested areas planning agencies, politicians, private companies, architects, citizen groups, regional, national and transnational bodies have to collaborate in order to generate value for all involved actors. This goes for areas such as South Harbour and Aalborg East in Denmark, IJburg and Overamstel in The Netherlands, and T3 in Finland (Hansen, Savini, & Wallin, 2013).

(fourthcoming)). The article focuses on how collaborative direction is generated in such a setting, and proposes to conceptualize this direction as leadership. In the EU there is awareness that new integrated answers are needed for planning with this complexity in the urban development areas¹. Urban areas need to be transformed into centres of innovation and technology². As such, we see an increasing demand not just for collaboration, but for collaboration that generates innovation. I argue that in planning for the urban fringe, these two agendas have to be merged in order to make the most out of scarce cross-sectorial resources.

The connection between planning and collaborative innovation in the public sector has to my knowledge been most forcefully addressed by (Sørensen & Torfing, 2011). Further, from the planning camp, leading scholars such as Hillier (Hillier, 2011), Balducci (Balducci, 2011) and Boelens (Boelens, 2011) likewise is focusing on ways to understand and deal with creativity and uncertainty in present planning practice. When perceiving of these two agendas of complex planning processes and the call for public sector innovation, it is to some extent striking that the research fields share some fundamental characteristics. In both fields there is an increasing awareness that working across organizational and sectorial boundaries is absolutely necessary in order to enhance both the quantity and quality of solutions. There is also the recognition that the involvement of public sector agencies in such change processes necessarily entails a redefinition of the roles of the involved stakeholders. There is further an acknowledgement that this redefinition of roles has to adapt to less predictability and control, and more to a perception of the uncontrollable as something which under some specific conditions can generate increased value for all involved actors.

To my knowledge, the theoretical combinations of the two emerging research agendas reveal some theoretical lacunae in which there is ample room for further development. First of all, in the planning literature, there is still a heavy reliance on the fact that it is the planning practice as such that is supposed to be the lead actor. This has the consequence that explanations of actors and their inter-relationship in truly collaborative, horizontal working configurations are under-theorized. In collaborative innovation literature, there is a heavy reliance on public administration literature, which operates on the meso-level of management and governance. As such, the collaborative innovation literature focuses heavily on the system-level, and has less focus on the subjective level of process- and the micro. Thus, across both fields, there is blind spot when it comes to linking micro-related change and action in processes riddled with uncertainty to the institutional and discursive level. Second of all, there is room for development concerning the interrelatedness between uncertainty and action. Across both these research fields the meso-level (institutional and system level) has consequences for the way that uncertainty and action is conceptualised. Uncertainty to some extent is perceived of as an empirical phenomenon, but it is not a concept that has been the centre of theoretical development. As such, the full consequences of uncertainty have not yet had its impact on the way that actors and their interests are perceived of, and how subject positions are generated and transformed in these innovative processes of uncertainty.

All in all, I argue that when comparing these fields, there is ample room for a theoretical development which focuses more on micro-initiated strategic action in environments of radical

¹ See the Leipzig Charter, May 2007, p. 2.

² 'Europe 2020 — A strategy for smart, sustainable and inclusive growth', ² <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:2020:FIN:EN:PDF>

uncertainty. This concept of action needs to provide direction in a collaborative configuration, while also taking into account the institutional and formal managerial structures of the involved organizations. As such, I argue that a middle-ground is possible between the planning literature focusing on 'navigation' and the collaborative innovation literature that deals with leadership. Insights and concepts from social constructive approaches to organizational change, discursive action and leadership is the platform for this middle-ground (Fairhurst & Grant, 2010; Griffin, 2002; Phillips, Lawrence, & Hardy, 2004; Stacey, 2007; Uhl-Bien, 2006).

In the section below, I review the relationship between planning and leadership, conceptualised within relational (or collaborative) configurations, and that recognizes uncertainty as a condition for these type of planning processes. I pay special attention to the concept of 'navigation'.

Planning and uncertainty

This paper's main planning inspiration is a special issue of *Town Planning Review* from 2011. Here leading scholars of planning review and develop approaches to strategic spatial planning in a context of uncertainty. (Balducci et al., 2011) argue that the present challenge for spatial planning is a shift in practitioner's attitudes: from one as planning practice as blueprint compliance to one of plans as providing a more strategic focus. This entails that planners somehow begin to cope with the irreducible uncertainties of planning (p. 484). The world in which strategic spatial planners attempt to plan is 'messy with potentialities, possibilities and uncertainties, mostly beyond their control'. This is a planning practice characterised by being a field of experimentation, involving tools of communication and involvement of actors, rather than top-down imposition of goals (p. 485). Referring to Patsy Healey (Healey, 2008), such work involves 'taking risks, the consequences of which can be thought about, but cannot be known' (p. 28, quoted from (Balducci et al., 2011)). The authors thus essentially claim that 'there is a demand for planning theory and practice that embrace incompleteness and uncertainty, multiple possible futures, that people's desires are likely to change over the life of a strategic spatial plan, and that many decisions need to be flexible, exploratory and experimental' ((Balducci et al., 2011).

The authors argue that a post-structural approach may be more suitable for dealing with the fluid and the unknown than hitherto dominant pragmatic approaches. Pragmatism may offer a democratic, action oriented direction for strategic planning, but have the limitations that it does not adequately acknowledge power relations and structural impediments to action (p. 486). Instead, the authors argue that a post-structural approach is more suitable, in that it is concerned with structuring processes and 'the undecidable relations or connections between structures and agencies, which could always be otherwise' (p. 487).

The authors suggest that several themes are important to avoid planning deficits. First of all reframing the discourse of strategic planning, working with multiple, interactive stakeholders. Second, to create networks of actors and actants, with the objective not of developing a certain project, but an association that works, distributing intelligence across stakeholders. Third a relational approach in order to enable broader and quicker feedback. Fourthly, finding and manipulating key leverage points in order to enable that a strategy become institutionalised, possibly conditioned on organizational legitimacy. Fifth, preparation of shorter-term plans to facilitate adaptiveness and flexibility, focusing more on the journey than the destination. Sixth, uncertainty can be dealt with by creating an open reading frame for the emergence of unprecedented events. Seventh, experiments can be regarded as 'speculative methods of knowing' (p. 493), suitable to work with doubt and uncertainty. Eighth, strategic conversations are

ways of creating communities of practice. Ninth, institutional power plays both provides opportunities and constraints, in that experiments represent critique of the existing planning practices; or it can distribute power unequally, excluding lay-people; or the institutional opportunities are not seized, and thus, ownership is not distributed, putting much responsibility for success and failure in the hands of champions with organizational authority. The authors conclude that in order for innovative practices to be adopted, there has to be motivated individuals who are in position to affect agency and organizational cultures. There furthermore has to be political and organizational environments open to change, and strategies that can lever support for, and ownership of, new ways of thinking (p. 490-497).

(Hillier, 2011) proposes a very specific method for strategic navigation, which is the method of cartography, inspired by Deleuze and Guattari. The four elements of this method are helpful in delineating the methodological demands for developing a leadership concept matching the collaborative and uncertain aspects of the urban fringe. First of all, Hillier provides us with a post-structural methodology of how to deploy discourse analysis through an ANT-approach. Second of all, the approach is tailored to explain past and future trajectories of change in circumstances of uncertainty. This approach thus enables planners with questions and methods of how to handle and exploit these uncertainties in order to open up creative trajectories.

In relation to the first step in the cartographic method, Hillier proposes 'tracing', which has as its key benefit of an understanding of how a unit (neighbourhood, policy, plan, etc.) got into its present situation, it identifies the main drivers. Hillier here proposes ANT (Latour) as a suitable analytical framework for tracing networks, identifying relations between entities. The first element in tracing is Foucault's concept of 'dispositif'. The concept of the dispositif is elaborated by drawing on Deleuze & Guattari's concept of assemblages, which Hillier propose as having two axes. Assemblage denotes the roles that the elements in the dispositif play. In an assemblage, both material and expressive components play are relevant: 'Material components include elements such as bodies, time, energy, buildings, technology, laws, each of which can be enforced/stabilised or challenged/destabilised. Expressive components include texts, such as petitions and decision notices and non-linguistic visibilities such as gestures, desires and charisma' (Hillier p. 512)

The second axis concerns the (de-)territorialisation, or (de-)stabilisation: Territorialisation acts to sharpen borders and homogenise components, whereas de-territorialisation free up relations. As such, an assemblage can have components working to stabilise it while at the same time other components work on destabilize. Hillier notes that this axis is concerned with process, i.e. how chaos is ordered through laying down a frame.

The second element in the cartographic method is mapping and diagramming. The purpose of mapping is to enhance actions of experimentations: Cartography thus involves both the deductive interpretation of trajectories, ruptures and transformations that led to an actual situation and the invention of new heterogeneous, experimental assemblages and pragmatic diagrams – 'a way of marking out the territory on the road' and 'a furtive glance sideways into an undecidable future' (both quotations Bosteels, 2001, 895). The issue is to raise questions of potential agency and institutional conditions of change. Hillier suggests that the dispositif-approach from Foucault combined with the two axes developed by Deleuze & Guattari allows the researcher with the third element: the diagrammatic element as a strong set of variables in order to 'map and to identify the main driving forces of what might take place.' (p. 513). These future trajectories do not guarantee success, but are useful tools for planners in order to initiate, for example, democratic negotiations concerning strategy, or pragmatic guidelines to future development. In this way the

sum of these actions made by planners may lead to mapping trajectories capable of creating desired situations or possibility structures. Diagrams thus create possibilities and pauses for planners in chaotic processes, thus being able to use diagrams creatively in order to cast aside habits.

The fourth element is the 'machinic' component, which entails an evaluative study of assemblages in order to intervene strategically. This entails attempts to select and to facilitate, or navigate towards, potentially desired outcomes. This may involve prospective or strategic foresighting techniques: They offer a way of attempting to make visible the potential forces that could lead the future in a range of desirable or undesirable directions. Prospectives are narratives about the future inclusively constructed by broad-ranging groups of actants.

Collaborative innovation in the public sector and leadership

Collaborative innovation is an emerging research field. One of the claims of collaborative innovation is that it is way of dealing with public sector problems in that you create a negotiated solution, involves relevant stakeholders in the implementation phase, and integrates divergent strategies. The main claim of collaborative innovation in the public sector is that it allows problem solving otherwise not possible for a single actor; collaborative innovation focuses our attention to the potential of innovation through relations of cooperation that penetrates the boundaries of the lead organization. Sørensen & Torfing (2011) argue that there is a growing demand for this specific type of public innovation, due to the fact that citizens and private firms have rising expectations about the quality of public services; that professionals and elected politicians have growing ambitions in term of solving social, economic and environmental problems; and that we witness a growing number of "wicked problems" that are ill-defined, requires specialized knowledge, involves a large number of stakeholders and carry a high potential for conflict. Several other influential authors in much the same vein argue that collaborative strategies such as inter-organizational collaboration and network governance can be used to meet these demands in ways that neither hierarchy or market are able to (Klijn & Koppenjan (2004); Osbourne (2009); Hartley (2005);(Huxham & Vangen, 2005);(Eggers, Singh, Goldsmith, & Ash Institute for Democratic Governance and Innovation, 2009).

Central in this way of thinking is that the role of public managers is not to create the innovations by themselves. Sørensen & Torfing (2011) and Hartley (2005) argue that we see a shift in management from New Public Management to network governance, what Osbourne (2009) calls 'New public governance'. What unites the authors is essentially that a networked type of governance is necessary in order to create innovation in the public sector. The challenge is to manage open and flexible, interorganizational arenas (Sørensen and Torfing 2011), in which trust, relational capital and relational contracts is one of the main governance mechanisms (Osbourne 2005), and where the networks are self-organizing, functioning both with and without government (Rhodes 1997); where the public manager act as a visionary 'explorer' that facilitates the creation of new networks (Hartley 2005). Relating these considerations to traditional innovation research in the private sector, Hartley argues that what characterize many innovations in the public sector in general are 'governance' innovations. That is, a radical change in the way that a certain policy field or service is provided. These governance innovations thus *'change the location and financing of social production, and the level and distribution of things that could reasonably be called social or public services'* (Hartley 2010: 63). Sørensen & Torfing (2011) describes the effect of collaborative innovation in terms of an 'enhancement' of innovation phases: idea generation is

spurred when many stakeholders are involved; idea selection is improved in that ideas are tested out critically amongst collaborators; implementation success is improved in that joint ownership is created; and dissemination is propelled by the involved collaborators.

The above review provides us with a somewhat other account of innovation than in traditional single-organization innovation research. Going back to Schumpeter, the role of the lone 'entrepreneur' is substituted by an 'explorative', (Hartley 2005) but nevertheless facilitative, leadership figure, that of the 'meta-governor', a well-known figure in network governance literature (Meuleman, 2008; Sørensen & Torfing, 2007), Not only the lead figure is changed in collaborative innovation; also the dynamics of the innovation processes in a collaborative setting seem to be different. For instance, a leading scholar of organizational innovation and organizational change, Andrew Van de Ven (1999), describe the process of innovation as a 'journey', characterized by uncertainty, unpredictability and novelty:

The journey is an exploration into the unknown process by which novelty emerges. The process is characterized as inherently uncertain and dynamic, and it seemingly follows a random process (...) To say that the process is open and dynamic implies that the timing and magnitude of events make the system of actions entrepreneurs take, outcomes they experience, and external context events that occur unpredictable, truly novel, and genuinely a "process of becoming".."(Van de Ven et al: 1999:3, my bold)

This is consistent with other leading scholars of organizational change and innovation processes in the complex responsive processes-camp (Stacey; Fonseca). Here, uncertainty is explicitly the main driver of change. Often leaders will seek to manage innovation and organizational change processes by use of systemic strategy-tools; however, novelty emerges in self-organizing, micro-interactionist areas of development, being outside the control of management. That uncertainty is an integral part of innovation is emphasized by Osbourne (Osborne & Brown, 2011), who argues that 'risk' of failure is a defining feature of innovation. Thus, whereas *uncertainty* concerning the innovation 'project' in single-organization innovation research is a dynamic that has to be accepted (Van de Ven, 1999) in order let new organizational themes emerge (Fonseca, 2002; Stacey, 2007)(Fonseca, Stacey), what is to be enhanced in collaborative innovation is the *interaction* among collaborators. This is consistent with the key theoretical underpinning of collaborative innovation, that of network governance (Bommert 2010); Klijn 2008 argues that the key focus for network governance is to focus on 'the complexity of decision making and the problems of reaching acceptable outcomes for societal problems because of the involvement of many actors' (ibid.: p 127). Collaborative innovation thus has its focus on the collaborative processes of facilitated interaction in an open search process (Sørensen & Torfing, 2011) – not on the uncertainty regarding the content of innovation.

The review of collaborative innovation is also in contrast to pure collaboration approaches to public management reviewed above, in that the collaboration literature is first of all concerned with how to deal with the strategic conflicts and 'the collaborative inertia' (Huxham & Vangen, 2005) that typically arises in collaborations or self-regulating networks. In this literature, management by hierarchy is by logic impossible, and the sector focus is mainly focused on public agencies, sometimes in collaboration with third sector or private sector. The focus here when

reading the literature is not so much a focus on ideas, but mainly how to create a collaborative platform for implementation.

Collaborative innovation thus seeks to strike a balance between stabilising the collaborative configuration, on the one hand, and de-stabilizing parts of the collaborative configuration, on the other hand. The solution for this research field has so far been to separate management and innovation: networked governance is the approach taken to a management perspective, whereas open innovation is supposed to deliver novelty (Bommert, 2010). I have elsewhere argued (Hansen, 2013 (forthcoming)), that at present, the concepts of collaborative innovation leadership can be divided along the distinction of top-down/bottom-up. The top down leadership can deploy the facilitative leadership approach of metagovernance, in that this leader acts on the basis of steady mandate provided by organizational decision makers, giving the meta-governor the ability to define the space to be collaboratively influenced by creative processes. In contrast, bottom up innovators in one of the collaborating organizations do not have a steady mandate provided to them in their respective organization, but instead a mandate that has to be negotiated on a continual basis. As such, these bottom up innovators are forced to develop an innovative solution to public problems themselves on the basis on their professional insights, and has fight for organizational attention by influencing their own organization and collaborators by means of directing sensemaking. Bottom up innovators thus face the dual challenge of both emerge as leaders and exercise non-hierarchical influence at the same time.

Another distinction relevant for the discussion of leadership of collaborative innovations is the role of public agencies. (Nambisan, 2008) importantly notes that the public agency/government in collaborative innovations not necessarily has the same role, or is able to take the leadership role. The author in a logical 2x2-table fashion distinguishes between two scenarios: first of all, whether the problem to be solved is well-defined or ill-defined; and whether or not it is the public agency or a community that leads the collaborative innovation process. As such, the roles for public agencies/government are innovation integrator (well-defined, government led), innovation seeker (ill-defined, government led), innovation champion (community-led, ill defined), or innovation catalyst (community-led, well-defined).

Discussion points for a leadership synthesis of planning and collaborative innovation

When reviewing the literature above, there are several similarities between strategic navigation and collaborative innovation leadership. The fulcrum for these similarities is how to engage in collaborations with the intention to generate innovative solutions, while at the same time avoiding that these collaborations do not end up in 'collaborative inertia' (Huxham & Vangen, 2005) or merely acceptable solutions. This is fundamentally a dilemma between self-organization and control: how to initiate processes of self-organization? Who has the legitimacy to do so? How to ensure that the processes of self-organization can contribute to the different strategic layers of the involved organizations? How to even understand and put words on such a self-organizing strategy? The similarities across the research fields increase the possibility of combining elements from both strands of literature into a synthesis for a leadership for the urban fringe. The approaches both focus on exploiting uncertainty, risk taking, experimentation, and the collaborative dimension. They also share, however, the ambivalent role towards leadership – what is the role of leadership in such constellations, is leadership legitimate? In the planning literature that deals with uncertainty, issues of leadership are not explicitly existent. Instead, it is implicitly

assumed that planners play the role of being the initiator for the change processes. In collaborative innovation literature, the responses mainly draw on managerial approaches from collaboration literature in terms of networked government. This move tends to either eliminate leadership as such, or to conceptualize it at the managerial, governance, level.

As such, we can say that in my ambition of combining planning literature and collaborative innovation literature in order to distil a leadership concept, there are several discussion points that are in need of being addressed. These discussion points are challenges that an analytical model for leadership in the urban fringe needs to give answers to.

1. How to reconcile managerial and institutional approaches versus leadership approaches in the context of collaboration and uncertainty?
2. Whether a priori to locate leadership in a collaborative configuration?
3. Whether a priori to define issues of identity and discursive positioning?

The first discussion point is essentially a question of level of analysis, and thus, whether distinguishing between levels makes any sense. Leadership for collaborations and networks is an ambivalent phenomenon, in that leadership by means of giving orders is impossible due to the absence of a unified hierarchical structure. As such, people collaborating remain in the collaboration due to experiences of interdependence. If one party has a too dominant position, people will abandon the network. In networked governance, the consequence of these circumstances has been that leadership takes on the position as a strategic facilitator. This also means, however, that providing direction can be difficult. In collaboration studies, thus, there is a collaborative expectation that the facilitating, coordinative leader is not in a position to point out the direction. However, in reality, collaborative thuggery, manipulation of the agenda, is often necessary in order to avoid collaborative inertia (Huxham & Vangen, 2000). As such the challenge for a leadership for the urban fringes is how to conceptualize this thuggery in a context of uncertainty?

The second discussion is concerned with the location of leadership. In both collaborative innovation and the planning literature reviewed it is to some extent assumed that it is the public agency actor that is the leader, either through direct involvement or by facilitating the interaction of collaborators. It is assumed that it is the 'planner' or the meta-governor that is the one that invites people into a place of public agency influence sphere, thus formulating short term/ long term plans (Hillier), through the involvement of stakeholders. Obviously, planners have a vital role in all planning due to legislation and being the public authority responsible. However, this does not in itself warrant a leadership role. And it does not more narrowly allow us to differentiate amongst the different positioning that such a planning authority could take. Is it necessarily a public planning agency (regional, municipal, national) that is able the driver of the processes across numerous stakeholders? It might as well be a central stakeholder or actor that is able to influence the planners. As other pieces of literature suggests, leadership in collaborations often is something that emerges ((Huxham & Vangen, 2005)). And not even that, one may even, as a public agency, deliberately refrain from one's claim of leadership in order to enable another leader to emerge with more legitimacy. As such, the challenge for a leadership for the urban fringe is to explain the leadership exercised outside of public sector agencies.

The third discussion point is related to the second point above. It entails to what extent the identities and subject positions should remain fixed in advance when analysing leadership for the urban fringe. Across the literature reviewed above, identities and the subject positioning to some extent remain fixed, whereas it is the planning project as such, and the process, that alters due to

the presence of unforeseen events, and the uncertainty related to both innovation and the involvement of many stakeholders. However, as micro-related research demonstrates, this is by no means the case. As I have found elsewhere, there is room for interpretation in collaborative innovation processes, in which emergent leaders and their collaborators are in need of taking decisions concerning how to position oneself in a landscape of multiple opportunities (Hansen 2013). This is highly relevant in innovation settings, in which the unforeseen twists and turns of the collaborative innovation process likewise forces the collaborators to redefine themselves and their level of engagement. For instance, an innovation project may start out at a modest level, but suddenly gain momentum and increased financial and political attention. As such, the number of stakeholders may increase, and the strategy may reach levels of organizational priority in which it clashes with other actor’s leadership. This necessarily forces collaborators to redefine themselves. Both project and actor’s identities may thus develop during. As such, the challenge for a leadership concept for the urban fringe is to allow for an analysis that is able to grasp these shifts in identities and subject positions as the innovation process unfolds.

I have summarized the challenges in the table below.

Table 1: Challenges for conceptualizing leadership for the urban fringe

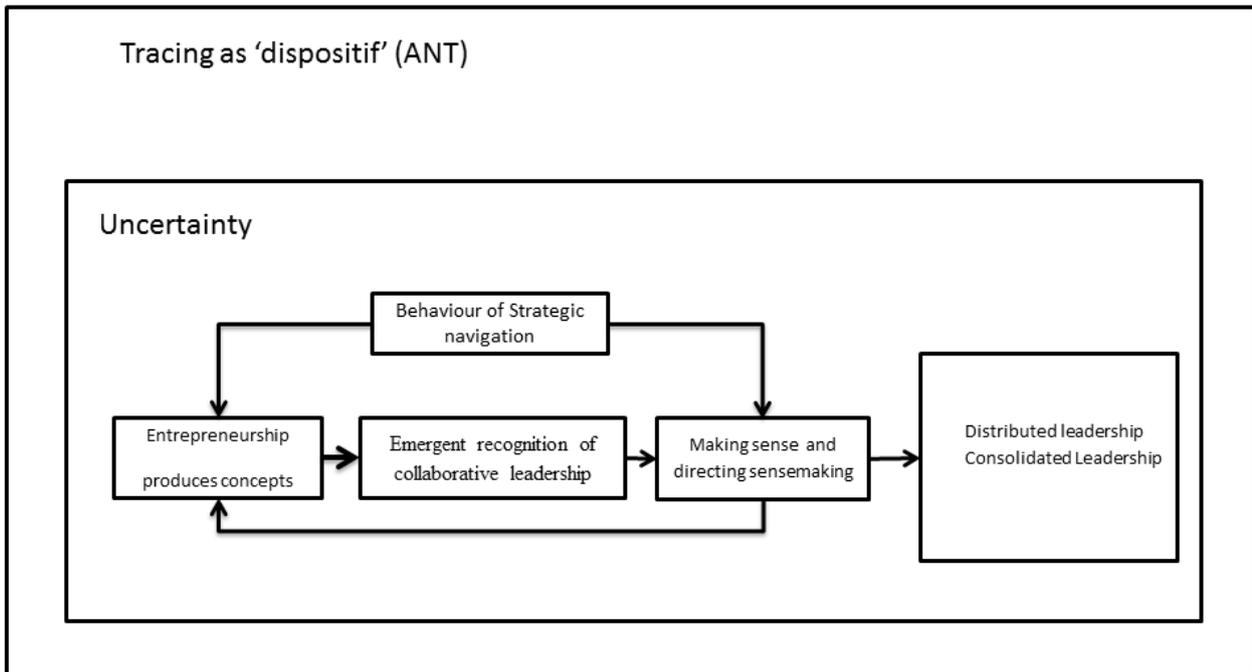
Challenges for conceptualizing leadership for the urban fringe
How to conceptualize collaborative leadership-thuggery as a type of influence in a context of uncertainty?
How to enable us to explain the leadership exercised outside of public sector agencies?
How to explain shifts in identities and subject positions as the innovation process unfolds?

In the next section I present an analytical model that addresses the above challenges.

A model for studying leadership for the urban fringe

The analytical model proposed below (figure 2) follows Hillier’s suggestion that ANT is an appropriate analytical tool for tracing previous and on-going processes of structuring. This is thus an post-structural analytical approach that is reconcilable with other approaches, such as discourse approaches. Further, I suggest that applying an action-oriented, micro-discursive analytical approach enhances the causal links of the model. Entrepreneurship in this respect has the role of introducing novel micro-discursive concepts that may have institutional consequences. (Phillips et al., 2004). Entrepreneurship is thus a type of discursive action which by means of introducing a new micro-discourse also produces a new discursive position – the collaborative innovation leader. The analytical model second of all assumes that uncertainty is present in the process studied, either currently or previously. Uncertainty is hypothesized as being the main enabling condition for what leadership is needed, for why there is a demand for new solutions, and for why making sense and directing sensemaking is possible at all.

Figure 1: Analytical model for studying leadership for the urban fringe



The model proposed is a hybrid: First of all, it is an iterative model, in which the lead actor constantly has to build leadership and acquire support for the project as the project is transformed and moved through different stages towards being fully implemented. Second, it has a causal structure in that the purpose of a leadership for the urban fringe basically is mobilised out of a need to formulate a project based on a performance gap in a fringe area. In order to get the innovation project implemented, leadership either remains consolidated or distributed across actors. Here I follow the literature review of collaborative leadership proposed by (Huxham & Vangen, 2000), in which leadership of collaboration can either be shared amongst stakeholders, in terms of distributed leadership, or in which there is a lead organization, i.e. in which leadership is consolidated within the lead organization. The first logical output option is that the lead actor ceases to be the main driver of change because leadership is distributed amongst collaborators. Leadership distribution is well known in the collaboration literature, in which collaboration is defined as a state in which organisations share resources, and, in this respect, also demand that leadership is imposed on each organization, in that sharing resources involves major changes in the operations of the organizations (Keast & Mandell, 2011). In such a scenario, the innovative planning project is embraced both vertically (up and down the lead unit's own hierarchy) and horizontally (across organisational hierarchies). The second logical option is that leadership is consolidated within the lead organisation: the project is embraced by powerful stakeholders higher up in the hierarchy, but not by collaborators. This scenario fits another option in inter-

organisational literature, namely that of coordination (Keast & Mandell, 2011). Here, the main organisation is now the driver of change, coordinating the collaborators activities. The collaborators do only make changes at the margin of the organization. Here one would expect that the lead actor would continue to play a vital role in having the project implemented. Finally, the journey of influence could be terminated in that neither collaborators nor powerful stakeholders in the rest of the lead organization embrace the innovation project as their own.

The output is dependent on two conditions. First of all, does the innovation unit manage to deliver the required collaborative leadership, despite the fact that this leadership is a leadership in the making? In analysing leadership emergence, I suggest that a social constructive approach to leadership is adapted (Fairhurst & Grant, 2010). As hypothesised by the relational leadership approaches (Uhl-Bien, 2006), in order to fulfil the process of leadership-making you have to demonstrate a behaviour that allows you to be *recognized* as a leader - despite the fact that your ability to exercise this required leadership is limited due to the low formal power position. This requires as a minimum to be able to act in conditions of uncertainty and provide the collaboration with direction. I here suggest following a complex responsive process approach (Stacey, 2007) to leadership, based Douglas Griffins concept of the emergence of leadership as happening in processes of 'recognition' (Griffin, 2002). This leadership concept has the advantage that it both allows us to perceive of leadership as something that evolves in power-ridden, conflictive, enabling-constraining social processes of interactions (Elias, ; Mead, 1934), thus being in accordance with Hilliers post-structural approach – but also as something that evolves in conditions of uncertainty. In these conditions leadership is possible and appreciated insofar as an actor is able to provide direction through bold actions(Griffin, 2002). In Griffins conception of recognition, we see how an assumption of uncertainty allows us to perceive of leadership as something that is demanded of by collaborators, thus being not just a conflictive struggle between actors.

Secondly, and as a consequence of the leadership emergence, the implementation outcome is dependent on the influence that the lead actor is able to exercise on the collaborative processes of sense-making. Here, ideas, rhetoric, and skilful positioning within prevailing discourses, all in some accordance with the innovation project, can be used as a way to gather collaborative and hierarchical support for the innovation project. This influence channel could be criticised for being a very soft tool, but as O'Toole (1996) notes, the strategic complexity in networks makes it impossible to 'play the game' as hypothesised in rational choice literature. Indeed, introducing new texts is in the model understood as a type of discursive action, in which a micro-discourse (Alvesson & Karreman, 2000) is being introduced, with the potential of resulting in institutionalization (Phillips et al., 2004). Thus the complexity creates an environment of uncertainty that managers can exploit, thus navigating while collaborators are busy making sense of the situation. A key challenge for the lead actor is to influence collaborators processes of sense-making in order to enable the collaboration to overcome collaborative inertia. This hypothesis is much in accordance with (Vangen & Huxham, 2003) research findings, in which strategies of both collaborative 'ideology' (facilitation for short) and 'thuggery' (manipulation for short) is deployed by partnership coordinators in order to move the collaborative process forward.

Thirdly, the outcome of such a leadership process is dependent on abilities of entrepreneurship: the ability to first of all navigate in uncertainty by make new connections in order to bridge a performance gap (Hagedoorn, 1996; Klein, 2010). This enables the introduction of new concepts. These concepts are the bricks and mortar in constructing a micro-discourse, intended to influence

collaborators. Being able to constantly make sense of the uncertain process is important for the emergent leader. As such, making sense and directing sensemaking will meet face both resistance and support that will have to feed back to the lead actor's behaviour of entrepreneurship. This iterative process can lead to the re-development of previous conceptual approaches, leading to a re-definition of the planning project.

Fourthly, in the setting of the urban fringe, I suggest that Hillier's concept of strategic navigation is a specific means of reflecting, adapting and build strategy in a context of uncertainty. As such, I hypothesize in the model that the cartographic components of diagramming and mapping is a sort of behaviour that in planning processes of the urban fringe will provide the lead actor, public or not, with the ability to formulate a starting point for a project (i.e. entrepreneurship), and to forecast which possible future trajectories that is to be pursued, and how they should be pursued.

Conclusion

This article focuses on leadership of urban planning in the development of urban fringe areas. These areas located just outside the city core are typically suburban or brownfield in nature. They are city areas which are the focus of many contemporary transformation processes. The paper raises the research question of how leadership can be conceptualized within the conditions of the urban fringe. The article answers this question by first of all building on the assumption that the main planning challenge in the urban fringe is to manage the tension between control and self-organization in a collaborative power configuration. Such a planning challenge can be conceptualized as a leadership challenge of dealing with uncertainty. Several planning scholars argue that there is a demand for planning theory and practice that embrace incompleteness and uncertainty. This article argues that the research field of collaborative innovation builds on the same theoretical assumptions of control vs. self-organization as the urban fringe and the reviewed planning literature.

The combination of this literature allows me to raise a discussion of several caveats in relation to a collaborative innovation configuration. First of all too much emphasis is placed on the public agency as the leader. Second, the type of power exercised also warrant some further reflections. As such the paper thus highlights several demands to an analytical model for the urban fringe:

- How to conceptualize collaborative leadership-thuggery as a type of influence in a context of uncertainty?
- How to enable us to explain the leadership exercised outside of public sector agencies?
- How to explain shifts in identities and subject positions as the innovation process unfolds?

I argue that an answer to these demands is an analytical model that has the categories of entrepreneurship, leadership emergence, making sense and the direction of sense making. The connection between the concepts can be enhanced by using an epistemological understanding that draws first of all on a micro-discursive approach to novelty and as well as a social constructivist approach to leadership. Hillier's post-structural methodological approach will be used in order trace trajectories of the planning process, in order to explain the conditions for leadership emergence, hypothesizing that a leadership behaviour is required that resembles on of 'strategic navigation'. 'Diagramming' and 'mapping' in the analysis of leadership for the urban fringe is thus hypothesized as the set of analytical variables that enables us to understand how

leadership act and influence in a process of collaborative innovation. This article thus produces an original conceptual development of leadership. This conception of leadership is first and foremost based within a social constructive leadership approach (Fairhurst & Grant, 2010), providing the concept with the ability to describe and explain the leadership as something which emerges in collaborative processes in conditions of uncertainty. The social constructive approach to leadership enables the leadership concept to construct an analytical unit as something that develops across analytical levels, such as micro-discourse, discursive embeddedness and institutionalization (Phillips et al., 2004). Second, the conception of leadership proposed in this paper is a synthesis of concepts from planning literature and collaborative innovation leadership. This import of collaborative innovation concepts and assumptions pushes the leadership concept further towards something which necessarily emerges in collaborative processes of strategy making. In environments of radical uncertainty leadership is called for in order to set a direction. As such, the leadership concept developed in this article is highly adapted to the type of dilemmas that urban planners and their (would be) collaborators face in the urban fringe.

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THE MYTH OF THE MIETSPIEGEL: RENT REGULATION IN GERMANY

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It is argued that in Germany, the high level of rent regulation has kept the rent prices low, which has stabilized the German property market by offering a financially viable alternative to mortgage financed home-ownership. The main instrument of rent regulation in Germany is the Mietspiegel, which is a table produced by each local government showing what the rent levels is in each area for each type of dwelling. The landlord is thus restricted in charging a rent in accordance to the Mietspiegel. This paper will show how the Mietspiegel operates in practice, whereby rather than controlling rent prices, it ensures that the market rent for each dwelling can be easily asked for by the landlord. The paper will then briefly set out the essential reasons why the rent prices in Germany have been comparatively low and the housing market has not experienced volatility.

Key words: Rent Regulation; Germany; Tenancy Law; Social Market Economy; Coordinated Market Economy.

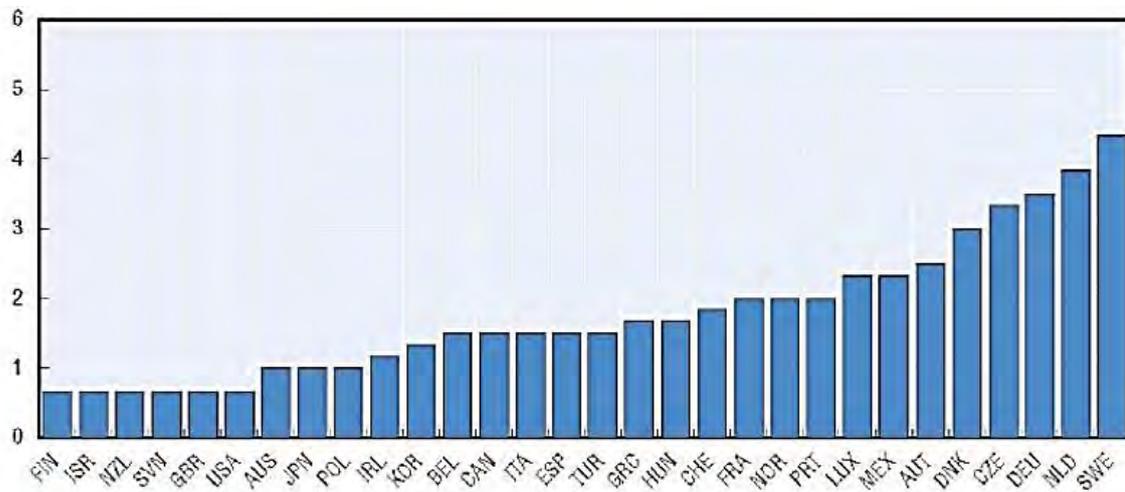
INTRODUCTION

It is argued that in Germany, the high level of rent regulation has kept the rent prices low, which has stabilized the German property market by offering a financially viable alternative to mortgage financed home-ownership.¹ The main instrument of rent regulation in Germany is the *Mietspiegel*, which is a table produced by each local government showing what the rent levels is in each area for each type of dwelling. The landlord is thus restricted in charging a rent in accordance to the *Mietspiegel*. This paper will show how the *Mietspiegel* operates in practice, whereby rather than controlling rent prices, it ensures that the market rent for each dwelling can be easily asked for by the landlord. The paper will then briefly set out the essential reasons why the rent prices in Germany have been comparatively low and the housing market has not experienced volatility.

RENT REGULATION AND TENANCY LAW IN GERMANY

The main argument of this paper is a critique of the OECD finding that the German rental market is highly regulated.² Figure 1 shows that German (DE) rent regulation controls the market only marginally less than the Dutch (NLD) rent regulations. This section will set out the main components of rent regulation and tenancy law in Germany, so that in the next section we can review what economic impact it has on the market.

FIGURE 1 RENT REGULATIONS COMPARED, RENT CONTROL IN THE PRIVATE SECTOR, SELECTED OECD COUNTRIES, 2009



Source: OECD (2011) *Economic Policy Reforms 2011. Going for Growth*. Paris: OECD Publishing.

¹ Caldera Sánchez, A. and D. Andrews (2011), "To Move or Not to Move: What Drives Residential Mobility Rates in the OECD?", *OECD Economics Department Working Papers*, No. 846, OECD, Paris.

² Johansson, Å. (2011) "Housing Policies in OECD Countries: Survey-based Data and Implications" *OECD Economics Department Working Papers*. OECD, Paris.

1. THE MIETSPIEGEL

The Mietspiegel is a document produced every two years by the local government in Germany showing the customary local reference rent for each type of dwelling in each area in the private market. Residual factors which affect the value of the dwelling are factored into the calculation, including the floor space, the energy efficiency, location, type of dwelling, quality and equipment. The data used to find the customary local reference rent is collected objectively, without political interference. In other words, the local authority asks the tenants and landlords, and their associations, for statistics on their dwellings and the rent prices. The local authority must make the Mietspiegel every two years. It uses data only from the previous four years, whereby it will adjust the time difference to the current year according to either inflation or the cost of living index.

There are two forms of Mietspiegel as set out in §558 BGB (*Bürgerliches Gesetzbuch*, German Civil Code). The first is the Simple Mietspiegel, which is where the Tenant and Landlord Associations supply their statistics to the local government *Mietdatenbank*, and without any complex statistical methods they produce an agreed customary local reference rent. This is the cheaper form, which offers less legal certainty, and thus is only used in areas with no substantial growth in the rent prices. The second form is the Qualified Mietspiegel, which uses more complex scientific methods to calculate the customary local reference rent, including hedonic regression. Usually the local government will employ consultancy firms to conduct the more extensive research and calculations, which means it comes at a much greater financial cost, thus meaning the qualified format is found only in areas with issues of increasing rent disputes. However, the qualified format prescribes a high level of legal certainty.

The practical use of the Mietspiegel is to enable an economically efficient rent setting negotiation between the landlord and the tenant. For existing rent contracts (*Bestandsmiete*), the **rent increase** request from the landlord will have a reference to the Mietspiegel. By referring to the customary local reference rent in the Mietspiegel, the landlord will be able to receive the market rent dividend and the tenant will be charged the same level of rent comparable dwellings would be charged. Where the landlord wants a rent level higher than the Mietspiegel, the burden of proof will be with him to show that the dwelling deserves more. This can either be done through a reference to three comparable dwellings in the local vicinity with similar characteristics or through a professional evaluation of the dwelling by an industry expert, both of which are costly exercises compared to the actual increase which the landlord would be asking for. The increased transparency of the market rent price increases the competitiveness of both tenants choosing which dwelling to rent and of households choosing whether to go into home-ownership. Kade states the neo-classical decision logic of the theory of perfect price information as the “economic agent [who] knows all the alternatives available to it, including all possible results of actions, leaving no uncertain elements in the decision-making process.”³ Although such perfect transparency is unattainable, it is a core objective of the Mietspiegel.

For the **price setting** of new rental contracts (*Neuvermietungsmiete*), the constitutional principle of free negotiation of new contracts ensures that new contracts are not strictly regulated. However, §5 WiStG (*Wirtschaftsstrafgesetz*, Economic Offenses Act) sets out that the landlord cannot charge a new rent which is over 20% above the customary local reference rent should this entail the landlord exerting undue influence or negligence over the tenant which has

³ Gerhard Kade (1962) *Die Grundannahmen der Preistheorie, Eine Kritik an den Ausgangssätzen der mikroökonomischen Modellbildung* [The basic assumptions of price theory, a critique of the output sets of microeconomic modeling]. Berlin: Vahlen.

resulted in unjust enrichment. The Federal Court clarified that there must be a “clearly disproportionate power” over the tenant, which furthermore is assumed when the rent is over 50% above the customary local reference rent.⁴ Therefore, legally the landlord can charge up to 50% above the Mietspiegel rent where the market supply and demand conditions makes it possible. Nonetheless, even a 20% increase above the market rent would prove too substantial a price for any landlord to try and ask for in the market, where for example in the “hot market” of Berlin rent has only increased by 4% in 2009 and 2010 and by 3% in 2011 and 2012.⁵

With the Mietspiegel being calculated using new rents in the last four years, the *Neuvermietungsmiete* will drive up the customary local reference rent, which will ensure that the rent increases to the *Bestandsmiete* will reflect current market rent. Where there is a high turnover of tenants, such as Berlin where 8% of tenants are moving per year, the increase of the market rent can cause the effect of gentrification, where rent will become unaffordable for the existing tenants in the area and thus force them to move out.⁶ Hence there are political calls for new contracts to be limited at a 10% increase on the Mietspiegel price, where the current system is regarded as the “New Contract Mietspiegel”.⁷ A substantial difference between the *Neuvermietungsmiete* and the *Bestandsmiete* encourages tenants to be locked in to their tenancy and landlords to try to get their tenants to move out through harassment or other such methods.

2. MAXIMUM OF 20% INCREASE OF RENT IN 3 YEARS (KAPPUNGSGRENZE)

§558(III) BGB sets out that rent cannot increase more than 20% in a three-year period, although this is due to be amended in certain cities with exceptional growth to a 15% limit in 3 years, such as Munich, Hamburg and Berlin. This would constrain market prices where there is growth of over 7% per year in rent prices, which is very large and would thus only affect the market price where there is large volatility in an over-heating market. The only cases where this rule can be waived is when there has been modernization of the dwelling or if a new contract has been made.

3. SECURITY OF TENANCY

Contracts for dwellings in the German private rented sector secure unlimited tenancy, except for the exceptional circumstances set out in §573(II) BGB, such as the landlord moving back into the dwelling. Security of tenancy is an essential aspect of attracting households into the private rental market for two reasons. The first is with regards to rent regulation. With the *Neuvermietungsmiete* being unregulated, the incentive is for the landlord to have a high turnover of tenants in order to raise the rent faster than the Mietspiegel would permit. Therefore, with a high level of tenancy security, this option is limited whereby the only way that the landlord can evict the tenant is where the rent has not been paid for a consistent time or

⁴ BGH, judgment of 25/1/2006 - VIII ZR 56/04, LG Berlin (Lexetius.com/2006, 128).

⁵ Berlin Department for Urban Development (2013) *Berliner Mietspiegel*. Found at <http://www.stadtentwicklung.berlin.de/wohnen/mietspiegel/de/download/Mietspiegel2013.pdf> (accessed 30/08/13).

⁶ Matthias Bernt and Andrej Holm. (2005) 'Gentrification of a particular type: the case of Prenzlauer Berg' *Gentrification in a Global Perspective*, 106-125.

⁷ Christine Ostrowski (2001) Rede der Abgeordneten Christine Ostrowski (PDS) zum Entwurf eines zur Neugliederung, Vereinfachung und Reforms des Mietrechts (Mietrechtsreformgesetz), Deutscher Bundestag, Stenographischer Bericht, 161. Sitzung, Plenarprotokoll 14/161 (29.3.2001), S. 15651-15688, at 15666.

when the tenant has acted very unreasonably. The second aspect that the security of tenancy is influential for the private rented sector, is that it offers the household a secure home for which they can live in for a sustained period where they can save up capital in order to enter the home-ownership market. In other words, households in Germany are afforded a considerable amount of leniency to make their dwelling a “home” in part of their tenure life-cycle, which they have the security and legal permission to commit to for as long as they need to save enough capital for a dwelling down-payment and mortgage.

The importance of tenure security in relation to rent regulation is essential in understanding the long term price expectations of households. Case and Shiller argue that “the notion of a bubble is really defined in terms of people’s thinking about future price increases”.⁸ With the rent regulation and security of tenure households could think of the private rented sector both in the long run (without eviction) and low rental expectations (regulated rent). Therefore, in theory bubbles should not occur in German residential rental private market, *ceteris paribus*.

The security of tenancy adheres to the principle of succession, whereby the tenancy agreement is inherited by either the new owner of the dwelling (new landlord) or the next in kin for the tenancy (such as a wife or child of the tenant).⁹ The security of tenancy is regarded by the landlords as a positive in Germany, where they value the long-term stability of rent income, which is easily kept at market rate due to the Mietspiegel rent increase procedure.¹⁰

4. MODERNISATION

The German housing stock exhibits a very large supply of dwellings, including issues of high vacancy rates in many areas of the East. Since the large construction phase of the mid 1990s, there has been a policy shift from supply side construction to the modernization of the existing buildings. This is in line with EU Energy Efficiency of Buildings legislation and a response to the growth in energy prices and the utilities bills being paid for by tenants.¹¹ The German approach to the private rental market has been to incentivize private investment into the modernization of the existing stock through seven policies, which can be regarded as the most pro-landlord provisions in German tenancy law:

1. the landlord can increase the annual rent by 11% of the modernisation construction costs, meaning that the construction costs can be passed onto the tenant over 10 years.¹²
2. the landlord no longer has to relocate the tenant or reduce the rent while the construction work is taking place.¹³
3. the tenant cannot reject the modernization work, unless it would cause severely undue economic or physical stress.¹⁴

⁸ Karl Case and Robert Shiller (2003) ‘Is there a bubble in the housing market?’ *Brookings Papers on Economic Activity* 1, 299-362.

⁹ §1922 BGB sets out the principle of succession; §566 BGB states that a buyers enters a lease contract and has the same rights and obligations as the landlord as the seller used to have; and §563(I) BGB states the spouse who maintained a joint household with the tenant becomes party to the contract *ipso iure*.

¹⁰ Stefan Kofner (2010) ‘Private Vermieter’ [Private Renter] *Wohnungswirtschaft und Mietrecht* 3, 123-131.

¹¹ Directive 2002/91/EC of the European Parliament and of the Council of 16 December 2002 on the Energy Performance of Buildings.

¹² §559 BGB

¹³ §554 BGB

¹⁴ *Ibid*

4. the landlord can deduct the construction costs against his income for income tax reasons, where income tax is only charged on the profit which was made in that year.
5. the state-owned KfW Bankengruppe gives loans and grants for energy efficient rehabilitation on dwellings which are below market interest rates and with significant repayment discounts.
6. the capital gains on the dwelling is considerable, where purchasers will value energy efficiency as gas and oil prices have increased for consumers 98% since 2000.
7. the government finances energy efficiency consultation for dwellings.

ECONOMIC IMPACT OF THE RENT REGULATION

As a caveat for the following economic analysis of the rent regulations in Germany, Arnott shows that how economists assess rent control depends on whether they see the market as competitive, monopolistic, with asymmetric information or some other market failure.¹⁵ He argues that simple competitive models are useful abstractions, but the choice should be pragmatic of its empirical application. In a competitive market with no rising supply prices of important inputs, the price elasticity of supply should be large, at least in the long run. However, in reality supply elasticity differs among countries reflecting the different inefficiencies in the supply sides for each country. Nonetheless, using an orthodox approach, we can see the effect of both rent increase control and of price setting control.

CONTROL ON RENT INCREASES

Where the rent regulation allows landlords to freely choose a nominal rent when taking on a new tenant, but places restrictions on both raising the rent and evicting the tenant, there is an erosion in the real value of rent if the tenant stays on too long where there is positive inflation.¹⁶ Therefore, the presence of a strict rent control will be a Pareto sub-optimal equilibrium for the investor. This will lead to landlords' discrimination in selecting tenants on the basis of short-term tenancies or tenants changing their preferences (such as moving to work in another city) to stay put. Nonetheless, housing policy in (West) Germany learnt from the mistakes of the Third Reich, which installed a nationalist socialist philosophy by prohibiting rent increases from 1936 that had led to severe under-investment from the private sector.

The current rent regulation offers to means to ensure this Pareto sub-optimal equilibrium for the investor would be avoided. First is that rental contracts can have a clause which ensures that the rent is inflation-linked.¹⁷ This has been very unpopular with the landlords given there has been very low inflation in Germany over the past several decades. The second is to effectively allow the Mietspiegel to accurately reflect the inflation rate through the market price increases in the rental market. With the Mietspiegel customary local reference rent reflecting new contracts which represent the market price for rent and the existing rental contracts being adjusted according to the market price, there is no erosion in the real value of the rent.

¹⁵ Richard Arnott (2003) 'Tenancy Rent Control' *Swedish Economic Policy Review* 10, 89-121.

¹⁶ Kaushik Basu (2000) 'The Economics of Tenancy Rent Control' *Economic Journal* 110(466), 939-62.

¹⁷ §557b BGB: *Indexmiete* – also connecting the rent to an official cost-of-living index issued by the Federal Statistics Office.

The practical effects of these measures are debatable when the market is not moving drastically. They would possibly be constraining where the rent price increase be at over 7% per year on a sustained basis with the economy on low inflation. The qualified Mietspiegel uses scientific market data on a more complex basis to ensure that it effectively finds the market price for each form of apartment in each area adjusting for time and market changes. It does not factor in any social or political considerations, which are argued politically for the direct effect on rent economics. Many professionals have argued that the market price for rent in the vast majority of cases would not be as large as to be restricted by the 20% increase over 3 years limitation. However, it can be argued that the German property market might be entering into a boom period, where international investment is increasing into what is regarded as a highly undervalued market. Especially with the very high proportion of the private rental dwellings compared to social rented dwellings, market volatility could be larger where the prices of dwellings move in concomitant.

Text Box 1: Where the rent regulation might slow down rent increases:

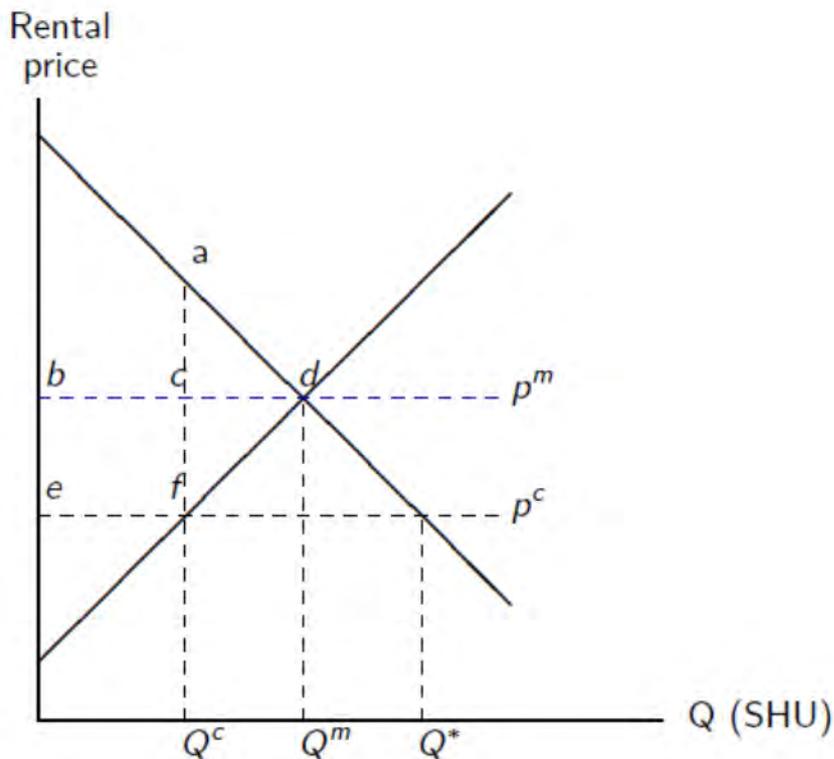
- I. The calculations for the Mietspiegel include new leases for the previous 4 years, which will inevitably make the reference rents lag.
- II. The correction undertaken after 2 years uses inflation rates, which might actually be lower than rent increases on the market.
- III. There is the limit of 20% increase over 3 years.

RENT PRICE SETTING

To evaluate how the rent regulation might impact the rent price setting, Turner and Malpezzi offer an interesting analysis on the costs and benefits of rent control.¹⁸ They illustrate it using a simple supply and demand graph (figure 2), where the y-axis show the rental price (p) for the x-axis quantity (Q) of a standard unit of rented housing. The effect of rent control (p^c) lowers the price of the standard unit of dwelling below the market price (p^m). The surplus shifts from the landlord to the tenant ($bcef$) and excess demand is created ($Q^* - Q^c$). A deadweight loss is created to the landlord (cdf) and the tenant (acd).

¹⁸ Bengt Turner and Stephen Malpezzi (2003) 'A review of the empirical evidence on the costs and benefits of rent control' *Swedish Economic Policy Review* 10, 11-56.

FIGURE 2: THE EFFECT OF RENT CONTROL ON SUPPLY AND DEMAND IN THE PRIVATE RENTED SECTOR



The core assumption made here is that p^m will be reduced to p^c due to the rent control. However, the Mietspiegel is an instrument which is designed to reflect the customary local reference rent, and thus ensure that the supply and demand in the market meet at d . The landlord is always allowed to charge up to 20% above the market price, and is allowed to charge up to 50% above the market price when the local property market conditions are appropriate. In other words, *Neuvermietungsmiete* do not have a price setting limitation, except when p^m is higher due to unjust enrichment resulting from the undue influence or negligence of the landlord.

For the Dutch rental market, the government regulates dwellings which have rent prices below €372, where in the past few years they have kept the rent increase at the level of inflation for political reasons. Therefore, with an artificially low rent level the private sector investment has severely decreased, leading to an increased reliance on the need for the social Housing Associations to supply a large number of new dwellings.

Text Box 2: Where the Mietspiegel might affect the price setting of rent:

- IV. §5 WiStG provides a 50% ceiling for vastly increasing rents.
- V. §5 WiStG ensures that unjust enrichment of the landlord can be easily ascertained through reference to the Mietspiegel.

EXPLAINING THE LOW RENTAL PRICES: SUPPLY AND DEMAND

Rather than the rent regulation, this paper argues that the supply and demand features of both the private rental sector and the home-ownership market in Germany explains the low rent prices and the limited rent price increases. This section briefly summarises these characteristics.

Demand
High range of different quality dwellings in the rented sector
Private rented sector provides a household with job mobility
Security of Tenancy (as above)
The highly regulated mortgage market is difficult to access for low income households: for example low Loan-to-Value Ratios and fixed interest.
<i>Bauspar</i> Savings Scheme – household must save capital before home-ownership
Highly regulated low risk covered bond (<i>Pfandbrief</i>) market means that mortgages are more expensive and have high requirements for eligibility
No expectation of capital gains from home-ownership property, with no nominal increase in house prices over the past 15 years
Real wages have decreased over the past 10 years, suppressing mortgage credit demand
Demographics of a smaller and aging population

Supply
Degrassive depreciation allowance (until 2005, now linear) reducing rents by 20% ¹⁹
Deduction of acquisition expenses: usually 15% deduction from taxable income
Losses from renting a dwelling can be deducted against taxable income
Real estate tax deduction against income tax
Utilities fees are paid for by the tenant
The 7 energy efficiency modernization supply incentives, which are used with a primary motive by the landlord to increase the rent and profitability of the dwelling.
Conditional object subsidies in publically subsidized housing, where the landlord is paid to provide affordable rented housing
The private rented sector is regarded as a stable and safe investment class for institutional investors
Small providers of dwellings constitute 62% of the rented sector, and 37% of the total German housing stock. They do so in order to supplement their income and pension income. These providers do not have the same corporate governance management pressure to drive up rent prices to increase profits.

¹⁹ Rainer Braun and Ulrich Pfeiffer (2004) *Mieter oder Eigentümer – wer wird starker gefördert? Eine analyse der Folgen des Subventionsabbaus zum Jahresbeginn 2004* [Tenants or homeowners: who is more highly subsidized? An analysis of the results of phasing out subsidies at the beginning of 2004]. Berlin: Empirica.

CONCLUSION

We have seen that the rent regulation in Germany does not have a large impact on controlling the market price. Rather, the Mietspiegel is a device which accurately ensures that the market price for rent of a particular dwelling in a particular area is easily found, and offers a practical role for negotiations between the landlord and the tenant in rent setting. The increased transparency of the market prices enhances the allocative efficiency of primarily the household decision of what rented dwelling to live in, secondly the household tenure decision between renting and owning, and finally for the investor to understand what dividend should be expected.

In summary we can conclude that the private rented market is structured to fulfill the following two core pillars of German society and economy. The first is the social market economy, which states that social welfare is best served by bringing about economic progress through the invisible hand of the market, where government intervention is designed to support the proper and efficient operation of the market.²⁰ By ensuring that market rent is given in the Mietspiegel and that rent increase is guarded against undue influence or extreme volatility, the market is largely unregulated and private investment is strongly encouraged. The second is that the Germany economy is regarded as a coordinated market economy (CME), which relies on formal institutions to regulate the market and coordinate the interaction of firms and firm relations with suppliers, customers, employees, and financiers.²¹ CMEs tend to be characterized by relatively long-term relations between economic actors that are also relatively cooperative. The Mietspiegel can thus be seen as the formal institution which enables the tenant and landlord to coordinate, while the security of tenancy can be seen as representing the long term approach of private rental tenures.

²⁰ Volker Busch-Geertsema (2004) 'The Changing Role of the State in German Housing and Social Policy' *European Journal of Housing Policy* 4(3), 303-321; Torben Iversen, Jonas Pontusson, and David Soskice (eds.) (2000) *Unions, employers, and central banks: Macroeconomic coordination and institutional change in social market economies*. Cambridge University Press.

²¹ Peter Hall and David Soskice (2004) *Varieties of Capitalism and Institutional Complementarities*. Oxford: Oxford University Press.

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Employing mobile media technologies as a participatory planning tool in the suburban housing estate

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Abstract

As a response to the NSSB 2013 conference call 'Suburbs-transformation and development', we want to look at new methods for creating citizen participation in urban development processes by drawing on practical experiences gathered through a collaborative planning project between researchers at Aalborg University, Denmark, an urban consultancy firm, and city planners in Vollsmose, Odense, Denmark in 2011-12. In this particular context, the practical challenge was to develop new facets to a master planning process at the Vollsmose housing estate, located in the outskirts of Odense. By evolving an on-going process, informed by mobile citizen generated information loops (open-source), the aim was to move beyond the master plan as a detached expert-driven product and towards an instant master planning process. In order to explore this iterative take on the planning process the research team and consulting firm employed mobile media technologies as a tool for creating new forms of citizen engagement. Based on the lessons learned from the research and development project we conclude by looking at what mobile media technologies afforded this planning process and what these experiences might add to a participatory planning process in more general terms.

Keywords: Participation, urban regeneration, urban design, housing, mobile media technologies,

Introduction

As outlined in the conference brief, there is an increased focus on suburban (life) qualities and how to strengthen these. The suburbs grew, in a Danish context, hand in hand as an entanglement of the modernist ideal and the establishment of the Danish welfare society. As Poul Bæk Pedersen (2004) puts it, then the welfare city and the 1960's and 1970's suburban development was the conception of man as an integrated part of the welfare society. Today, when looking at the big modernist plans from the 1960's and 1970's, such as Vollsmose, this integration of man in the development of the city perhaps need a revitalization or reconceptualization as there is clearly a gap between the majority of citizens living in neighbourhoods like Vollsmose and the ones actually taking part in the local housing boards or participating in local citizen involvement projects as the Multiby catalogue, amongst others, show (2012).

This need of user involvement or citizen participation is, to some extent, addressed by Giancarlo de Carlo (2005) who identifies a discrepancy between commitment and uncommitment in architecture as a consequence of the modernist movement. De Carlo was himself part of the CIAM movement but turned away and became a co-founder of 'International laboratory of Architecture and Urban Design' criticising the outcomes of the Modernist Movement and its lack of involvement by, particularly, the end-users of architecture.

In reality, architecture has become too important to be left to architects. A real metamorphosis is necessary to develop new characteristics in practice of architecture and new behaviour patterns in its authors: therefore all barriers between builders and users must be abolished, so that building and using become to different parts of the same planning process. Therefore the intrinsic aggressiveness of architecture and the forced passivity of the users must dissolve in a condition of creative decisional equivalence where each - with a different specific impact - is the architect, and every architectural event - regardless of who conceives it and carries it out - is considered architecture. (De Carlo 2005:13)

De Carlo's discussion is still relevant in relation to the 'le Corbusier' inspired masterplan of Vollsmose which we look at in greater detail later. Vollsmose has been subject to social and physical planning projects since the 1980's trying to cope with social segregation and social problems in the urban area (Andersson 2003). In a Danish context, user involvement is a widely recognised and used process in relation to planning and architecture, so the real problem is, perhaps, the lack of appropriate tools which involve especially the group of citizens in the age of 15-25 in the problem definition process in order to implement relevant regeneration strategies.

In order to develop new tools, which might enhance citizen involvement in planning processes, we have found it fruitful to look at a growing research field which marries mobile media studies with urban studies {{356 de Waal, M. 2012; 229 Evans-Cowley, J. 2010; 86 Gordon, E. 2008}}. Mobile media technologies are becoming widely disseminated and form a promising platform for engaging citizens in urban issues. In this article, we want to show how mobile media technologies were employed in order to include citizen input and, thus, challenge the top-down logic of the traditional master plan. The aim of the article is, therefore, to demonstrate how mobile media technologies might be employed as a tool in a participatory planning process and what the methodology affords the planning process. With an emphasis on the empirical aspects of the research project, the paper particularly aims at contributing to the field of urban planning and practice.

Theoretical perspectives on mobile technologies and urban planning

In this section we draw on an emerging research field which merges mobile media technologies and urban planning. The focus on the digital layer of the urban environment might seem surprising in the context of suburban regeneration projects, but we hope to clarify why this is a fruitful topic

to engage with and how this might assist increased levels of citizen involvement in regeneration processes.

Digital infrastructures are becoming increasingly important to how the physical and social fabric of cities function. Smartphones and social media orchestrate our everyday lives, and software makes everything from traffic lights to financial markets run (Jensen 2012, Kitchin, Dodge 2011, Kitchin 2011). Why is this relevant for urban planning and architecture? Because digital infrastructures enable new ways of engaging with spaces and places. Location aware devices mediate our surroundings and grounds what we used to term cyberspace.

Instead of pulling us through the looking glass into some sterile, luminous world, digital technology now pours out beyond the screen, into our messy places, under our laws of physics; it is built into our rooms, embedded in our props and devices-everywhere. (McCullough 2005)

When we carry our smart phones with us and mediate our everyday lives through these devices, digital networks become localized, grounded, and embodied. The embodied interaction, enabled by location aware technology between the physical environment, social context, and user, makes for a fruitful nexus where knowledge and information about how we use and perceive the urban environment emerge. Gordon and de Souza term this nexus net locality and look at what these particular developments mean for how we understand and engage with our cities (2011). Now, what then becomes interesting is how we can utilize this 'sentient' entanglement to learn more about our cities, as our engagement with technologies and localities tells a rich story about how cities are practiced. In other words, might these networked data we leave behind create an opening for enabling more engaging cities?

In order to circle in what these networked interactions afford a participatory planning context we draw on de Waals techno-urban imaginaries as a normative underlining of what kind of city we might want to enable with mobile media technologies. De Waal looks at how different strands within urban theory might help inform these affordances. In this context, we draw on two of these techno urban imaginaries: 'The city as an operating system' and 'The city as a public sphere'.

'The city as an operating system' looks at the networked affordances of digital technologies from a top-down point of view. When assembling data from the myriad of users who leave traces of data behind we are able to generate aggregated views of how the city is used. These aggregated, top-down views draw up spatio-temporal patterns of how people engage with the city and its infrastructures. By generating a real-time data loop – based on real-time location data – the city suddenly becomes responsive. In this perspective, the city is viewed as a sensing organism made up of interactions between human and non-human actors:

A sentient city, then, is one that is able to hear and see thing happening within it, yet doesn't necessarily know anything in particular about them. It feels you, but it doesn't necessarily know you. (Shepard, 2011:31)

The networked tracking technologies enable us to draw up patterns of mobility and connectivity, and thus, helping cities to become smarter and potentially more responsive to their citizens' actual use. This type of engagement we would call 'aggregated engagement'. The responsiveness, embedded in this approach, enable us to create 'smarter' cities because we learn from actual uses and practices.

The mobile body, accordingly, plays an important role in creating 'smarter' cities. Without movements of people there would be no networked interaction. So, while we are able to draw up large datasets on peoples' interactions with urban infrastructures, each data set also represents

a personal and individual narrative. The interaction between 'top down' practices and situated and embodied 'bottom up' experiences enables a new form of awareness of how our everyday lives are tangled up in complex networks. This potential taps into what de Waal labels 'The city as public sphere', and this techno-imaginary draws on an understanding of the city as a sphere where strangers come together and confront the heterogeneity and diversity a city is made up of. De Wall draws on Sennet's conceptualisation of the public sphere, but Hajer and Reijndorps understanding of the public domain as "those places where an exchange between different social groups is possible and also actually occurs" (Hajer 2001:11) is also instructive. By employing data as a shared, although not homogenous, resource it presents different perspectives of how we understand our cities and, in turn, it can enable a conversation about how we might want to see them develop. What is interesting about the affordances in mobile media technologies is that it allows these publics to come together in a networked fashion which bypasses the traditional top down/bottom up dichotomy in urban planning, an aspect we will explore further in the case study:

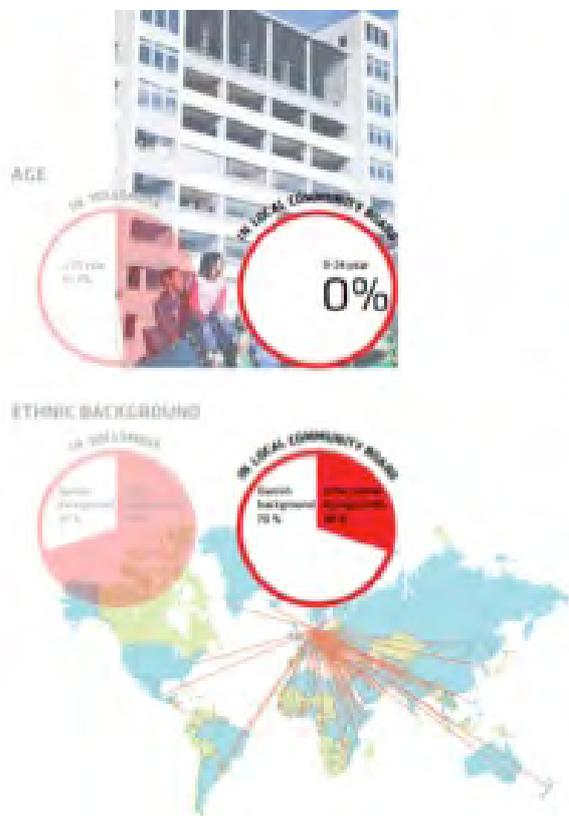
For decades policy makers, institutions and architects have tried to persuade people to actively participate in shaping their cities. Often these remain top-down trajectories. The bottom-up extreme is a community model rooted in proximity, shared interests and similar lifestyles. Yet this denies the nature of cities as places of heterogeneity and the fact that many urbanites shiver at the thought of village-like parochialism. With digital media new networked publics can be activated, beyond top-down or bottom-up but peer-to-peer and distributed (de Waal 2012, de Waal 2012)

The case and methods

The empirical backdrop of our case study is the housing estate Vollsmose, located at the outskirts of Odense, Denmark's third largest city. Roughly 10.000 people live in Vollsmose, representing over 70 nationalities, and almost 48 percent of its residents are under the age of 24. Vollsmose, thus, has an ethnically diverse and young population. Planned according to modernist planning ideals, Vollsmose has a distinctively mono-functional, residential character. The distinctive multi-storey tower blocks are surrounded by vast green recreational areas. Built on the outskirts of Odense, the housing estate remains physically segregated from the surrounding urban environment, which the main traffic thoroughfares enclosing the housing estate add to (illustration). As a part of a revitalization process, a new master plan is being developed which aims at transforming Vollsmose to a multifunctional neighbourhood under the title Vollsmose2020. With respect to citizen involvement, some illustrative statistics served to articulate a need to include, in particular, young peoples' perspectives on their neighbourhood (see illustration below).

Local community boards (afdelingsbestyrelser) are important democratic platforms in Danish social housing estates. The boards have a wide say on how their housing estates are run and they are influential partners in regeneration projects. When looking at the local community boards, only 30 percent of the representatives had other ethnic background than Danish. However, when looking at the overall ethnic composition of Vollsmose, 70 percent of the residents have an ethnic background other than Danish. When looking at how young people are represented, the statistics tell a story of striking democratic deficit; no representatives were under the age of 24. Yet, this age group represents almost half of the population! This obvious underrepresentation on the community boards spurred the question: How do we develop methods to engage young peoples' aspirations and experiences with their neighbourhood?

The fact that young people are left out of the planning process and democratic structures is hardly surprising. When browsing the literature on planning and teenagers, there is a general consensus that teenagers are often forgotten in planning processes. On the other hand, when looking at who



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Illustration Multifunktionel bydel – Bystrategisk Stab Odense Kommune

actually uses the urban environment and public spaces, teenagers are evident users. Travlou (Travlou 2003) identifies two major gaps in the research on teenagers and their use of urban public spaces. Firstly, research on “older” teenagers (the age of 15-18) studies tend to focus on teenage delinquency rather than their everyday experiences and practices of the urban environment, thus, generating an image of teenagers being trouble-makers rather than fellow-citizens going about their everyday business, or as a resource to the planning process. Schytte and Børresen’s (Børresen, Schytte 2008) research on young peoples’ use of outdoor public spaces in Danish housing estates equally confirm this tendency. They note that media often focus on criminal and violent behaviour and, thus, draw a picture of housing estates as problematic when, in practice, these issues are not a main concern in the everyday life of teenagers.

So, while young people are main ‘consumers’ of the urban environment, the formal participatory structures often fail to include them in planning processes. Therefore, the aim was also to challenge the master planning process as a detached, expert-driven process and instead create an instantaneous quality to the process which allowed for in-situ inputs from the under 24’s. Therefore, two methods were employed which allowed for this direct feedback from citizens. One method was GPS-tracking and another was a sms texting project. The point of applying digital media technologies as a participatory tool was also to tap into everyday technologies embraced by most young people and basically employ their own toolbox in their environment. In the following, we will briefly outline how the methods were applied before expanding on what their potentials were regarding creating new participatory tools for suburban development projects.

GPS tracking

In order to create an on-going information loop about how the participants actually use the urban environment, it was decided to apply GPS-tracking as a way of ‘uncovering’ these uses. In this instance, Odense Municipality contacted the Diverse Urban Spaces research team at Aalborg University and hired the research team to manage the tracking process. While GPS-tracking, by default, is a surveillance tool, it requires certain ethical deliberations before applying such methods. We will not elaborate on how the method was applied in order to ensure the ethical dimensions and the privacy of the participants, but please see Knudsen and Kahila (2012) and Knudsen (2011) for more details on the survey setup and deliberations.

On a practical level, 20 participants with predominantly Somali background agreed to take part in the GPS-survey. During a couple of weeks in May 2011 they each carried a smart phone with a tracking application which logged their movements. The tracks were then visualized online, allowing participants – and other stakeholders – to view their own as well as their friends’ tracks. A pronounced aim of this mapping exercise was to allow the participants ‘to map Vollsmose with their own feet’ in order to strengthen the participatory aspects to the master plan. Importantly, the immediate participatory focus was of a more indirect character as the participants’ uses of Vollsmose were articulated with their bodies rather than verbally. In other words, participation emerged through the participants in-situ everyday uses of their neighbourhood. The aggregated maps of their GPS-tracks were then presented to the participants in a more traditional set-up where the participants gave feed-back on their GPS-tracks and helped qualify a dialogue about how they use and value Vollsmose and its open public spaces.

SMS CITY – text your City

As mentioned earlier in the article, the representation and voices of the young population in the planning process and local democracy is lacking. So, as a second tool, a large interactive projection was employed, linking maps of Vollsmose to realtime sms text feeds from the citizens. The urban planning consultancy firm Nulkommafem was hired by Odense Kommune to manage this

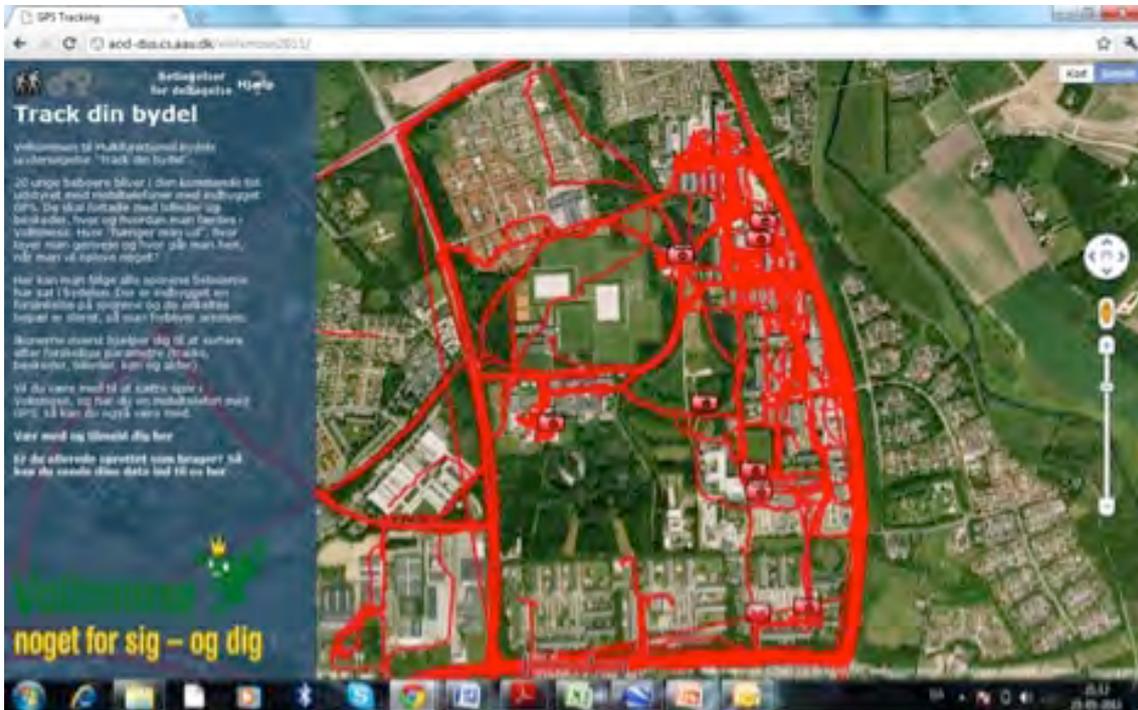


illustration DMB/DUS Knudsen and Harder, Track din bydel



Photo Lasse Andersson , First SMS CITY event during the City Festival 'Vollsmose Blomstrer' 2011

part of the participatory process. The main purpose and, hence, target group was to voice opinions and ideas from the 15-25 years old in Vollsmose. The sms tool with interactive projections called SMS CITY was deployed in three events in Vollsmose. The first two events took place in the fall 2011 and the last one in the summer 2012 all situated in the large local shopping mall Vollsmose Torv. Vollsmose Torv has a bazaar like character with its range of small shops, a supermarket, and public amenities such as a cultural house, library etc.

The purpose of the SMS CITY tool was to open the discussion of participation in architecture and city development. The first event using SMS CITY was a local festival in September 2011 '*Vollsmose blomstrer*' (Multiby 2011) with musical entertainment, market fair, sport for kids. At the central public square at Vollsmose Torv, a thirty square meter map of Vollsmose was projected onto a large wall overlooking cafes and restaurants. The interactive projection depicted Vollsmose divided into five neighbourhoods. By sending a sms text with a designated number, the citizens could activate their specific neighbourhood and geographically 'pin' their idea to the screen. In that sense, the interactive projections added a new layer to the gps tracking tool.

The second event was a Street Party with 500 youngsters from all over Danmark performing hip-hop, street dance etc. As part of their event, the SMS CITY tool was integrated in the VJ projections in the Live music performances. The question to the Street Party participants was – 'What would you like from your hood?' And suddenly a Street party with 500 participants turned into a participatory planning meeting.

The outcome of the two events was more than 300 sms text messages with ideas, concerns, and inputs to the development of Vollsmose. First of all, the amount of input was surprisingly high compared to the input you get from a traditional citizen meeting. But what was even more surprising, and not at least interesting, was that citizens started to comment on citizens' ideas in public space via the SMS CITY tool creating a peer-to-peer situation where the discussion is not controlled by the planners but evolve between 'strangers' in public space in joint co creation.

The sms texts, stored in a database from the two first events, were used in a third event during the summer 2012. Here, an exhibition was setup in a former bank office in Vollsmose Torv. The exhibition was the first take on the instant masterplan of Vollsmose with the title 'Visit Vollsmose'. The exhibition was the condensation of the long planning process between municipality and local housing associations. The project was summarized with an exhibition and an exhibition catalogue instead of a traditional report (Odense Municipality 2012).

The exhibition took into consideration the range of SMS CITY input, and a large interactive model was located in the center of the Exhibition Space. Like the two former events, the model and projections were interactive in the sense that visitors could send comments and suggestions to the instant masterplan via the SMS CITY tool creating an ongoing iterative planning process and communication platform peer-to-peer.

What did we learn?

Returning to de Waal's techno-urban imaginaries, we now want to look at what mobile media technologies afforded the participatory planning process carried out in Vollsmose.

Vollsmose as aggregated engagement

One very tangible output of the participation process was a large sum of data generated about the target group's mobility and perception of the neighbourhood. The GPS data created a bird's eye view of how the participants actually engage, not only with their neighbourhood but also with the surrounding city and beyond. In their own right, the GPS tracks provided useful insights into how the participants used their neighbourhood which, in turn, helped raise relevant questions to participants as to why they used their neighbourhood the way they did. Because the data was not delimited to local mobility in Vollsmose but drew a multifaceted picture of the participants' overall



Photo Lasse Andersson , First SMS CITY event during the City Festival ' Vollsmose Blomstrer' 2011



Photo Sune Petersen , Second SMS CITY event during the Street Festival 2011

mobility, the data also served to challenge the understanding of Vollsmose as an 'suburban island' and helped planners understand the neighbourhood in a wider urban context.

While GPS tracking, by default, is a quantitative tool it tells us where the participants were – SMS CITY supplemented and qualified this data. GPS data do not tell you what the participants actually think of their neighbourhood. Again, in a traditional set-up, when asking people to bring forward their views on a given topic, this information is often devoid of a geographical component. In this context, the SMS CITY data was 'pinned' to the interactive map, and thereby, views and perceptions became geographically contextualised and, thus, more applicable for planners.

Vollsmose as collective engagement

Another interesting aspect of the GPS tracks in particular was the embodied nature of this data. When looking at the traditional participatory process, the participants are often asked to, verbally or in written form, articulate their view on a specific topic. This may deter some citizens from taking part in such processes either because of language barriers or because they do not feel comfortable speaking up in a large forum. What was useful about the GPS tracks, in relation to inclusion, was that views on Vollsmose were articulated by moving bodies. In popular terms the participants "*drew Vollsmose with their feet.*" The indirect nature of this participation tool – the participants were simply asked to go about their daily routines – made for a straight-forward and accessible participation format. The moving feet left a very tangible footprint on the grand master plan which, in turn, helped make the process more relevant to the participants. Because the GPS tracks were created by themselves the participants were eager to speak about what it meant to them.

We would argue that, in particular, the networked aspects of the tools applied, helped form a different dialogue between citizens which circumvented the dichotomy between top-down and bottom-up planning approaches. This was particularly evident with the SMS CITY tool where discussions between citizens took shape on the interactive screens. A dialogue was spurred as text messages appeared on the screen. This dialogue bypassed the traditional chain of command between planner and citizens, and needs, visions and ideas concerning the neighbourhood formed instantly and collectively. This dialogue was, in turn, afforded by the instantaneity of the information loop which was generated. When looking at collective problem definition in urban regeneration processes, the SMS CITY formed a fruitful platform from which citizens in a straight-forward fashion had not only a say on a given topic but a collective voice which formed organically throughout the process.

Conclusions

This paper sought to address an explicit need for new participatory tools in suburban regeneration processes and looked at what mobile media technologies might add. Vollsmose is a characteristic Danish housing estate shaped by modernist planning principles. In order to move from a mono- to a multifunctional neighbourhood, a new master plan is being developed. Because a large number of residents in Vollsmose are under the age of 24 and they remain underrepresented in formal planning processes, there was a need to include this age group in the process. In order to diversify the methodological toolbox, we looked at what mobile media technologies might add to a participatory planning process as digital infrastructures have a growing impact on how our cities are shaped and how we engage with our cities and each other. GPS tracking and interactive SMS texting were, therefore, employed as participatory tools and by drawing on de Waal's techno-urban imaginaries, we identified two aspects which digital media technologies afford: aggregated and collective engagement. From an aggregated perspective the GPS data collected helped create an overview of the participants' overall uses and mobility in Vollsmose and beyond. This data could, in turn, be used to qualify a dialogue between planners and participants about their neighbourhood. SMS CITY, furthermore, helped qualify the quantitative, top-down character

Vollsmose - fordeling af punkter i 1000 m grid (hele kommunen)

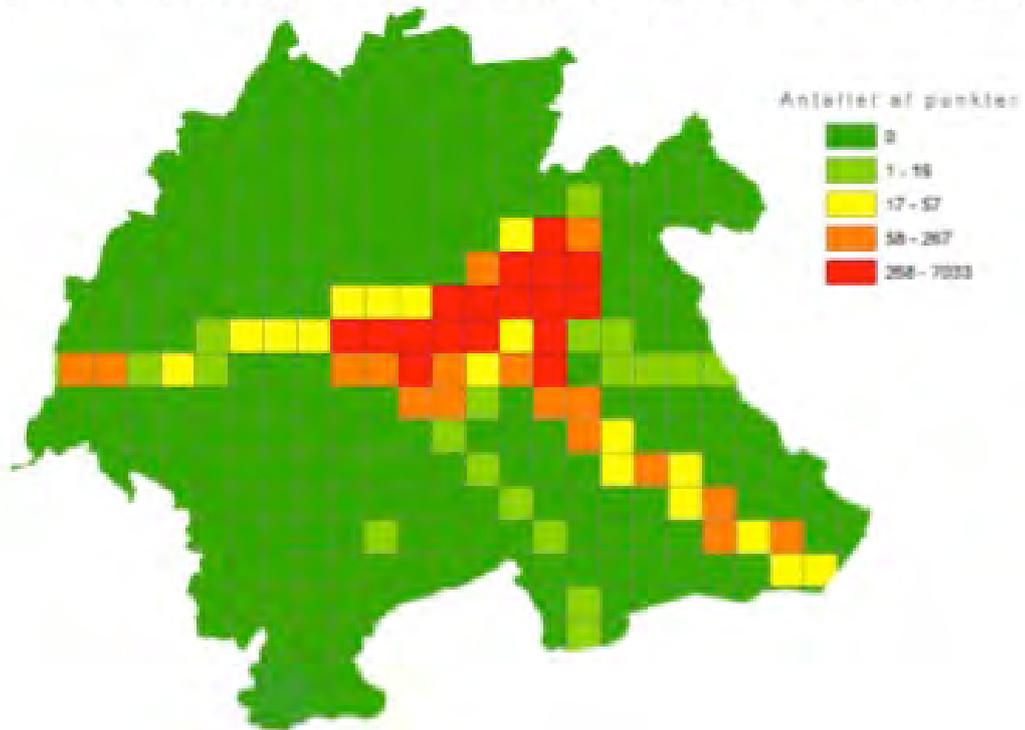


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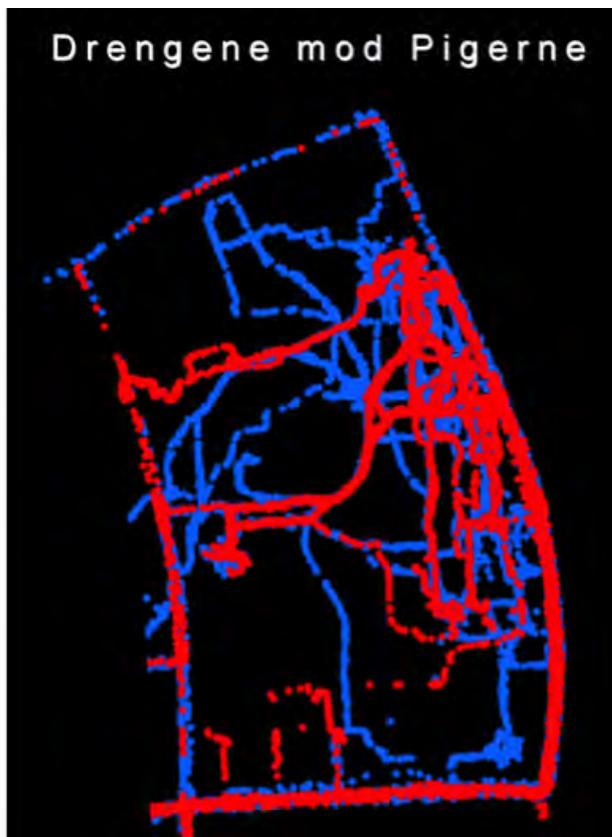


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of the GPS tracks. Secondly, the embodied nature of the GPS tracks helped articulate a personal and situated narrative on the participant's uses of his or her neighbourhood which, in turn, helped increase the sense of ownership towards the process. Thirdly, looking at the process as collective engagement, the networked nature of the texting tools enabled a horizontal dialogue between citizens rather than a vertical dialogue between planner and citizen. In this particular case, the focus was on how to increase inclusion of young people in the master planning process. By tapping in on an everyday technology, which the majority of young people use, participation was extended beyond traditional meetings and surveys. We would argue that this horizontal peer-to-peer planning perspective, as defined by de Waal, forms a particularly promising potential when looking at how to extend the participatory tool box. While a wide range of participatory tools already exist, the distributed and instant nature of the information gathered by employing mobile media technologies allow for new types of input which are situated and practice-oriented.



photo: Lasse Andersson , Mayor Anker Boye Municipality of Odense in front of the interactive SMS City model opening the exhibition on June 27th 2012.

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CONCRETE SUBURBIA: A SOCIO-ECONOMIC ANALYSIS OF SUBURBAN HOUSING ESTATES IN FINLAND

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ABSTRACT

Modernist mass housing, which was a central part of housing policy throughout Western Europe during the decades following WWII, has over time become increasingly associated with economic, physical and social decline. In Finland, suburban housing estates built during this time period have lately received considerable attention and many of the challenges faced by Finnish cities, such as increasing socio-economic polarization, are closely tied to suburban housing estates. Despite raised concern about these areas, there is currently no clear understanding of their development in Finland as a whole. This paper is part of a PhD study which seeks to overcome this shortage, by examining suburban housing estates in the whole of Finland from a socio-economic perspective. This paper focuses on housing estates built in Finland during the postwar period and examines their historical development as well as contemporary challenges. The paper also addresses issues related to the defining of housing estates and presents a method developed for identifying, locating and analyzing housing estates using GIS-coded statistical data.

Key words: housing estates, suburbs, segregation, socio-economic polarization, GIS

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PREFACE

This paper is a part of a currently ongoing PhD study in Urban Geography focusing on the socio-economic development of suburban housing estates in Finland during the last two decades. The research is part of the wider PREFARE project (New Urban Poverty and the Renovation of Prefabricated High-Rise Suburbs in Finland), which is financed by the Academy of Finland.

The first part of this paper focuses on the history of housing estates and postwar planning in Finland and seeks to shed light on why, when and how housing estates were built. This section also reflects on the prevailing planning ideals of the time and the societal conditions that influenced the building of these particular types of housing areas. The second part highlights some of the failures and contemporary challenges of postwar housing estates. The third section of the paper presents more specifically the context of the study as well as its objectives. This part is followed by an operationalization of concepts with a specific focus on ways of defining housing estates. Finally, the paper presents the data and methods used for conducting the study, and concludes with a discussion about a method developed for identifying, selecting and analyzing housing estates using GIS.

A HISTORICAL OUTLOOK ON HOUSING ESTATES AND POSTWAR PLANNING IN FINLAND

Throughout Europe, large numbers of people live in housing estates built during the latter half of the 20th century. The idea of building new housing apart from the existing urban structure dates from the inter-war period but it was not until after the Second World War that these planning ideals became widely applied (Tosics 2004: 79).

During the decades following the Second World War, the social situation in Western Europe called for a significant increase in housing production. Housing shortages were rampant due to devastations of war and there was a great need to rebuild the existing housing stock and to improve overall housing standards. Increased birth rates and migration from rural areas to cities also required a significant increase in housing production in order to provide adequate housing for the growing city populations (Musterd & van Kempen 2005: 15). The post-war period was the golden age for social housing, as issues related to housing became important on the policy agenda and government support was given for addressing housing shortages and other housing problems (Malpass 2008: 18).

The need to intensify housing production was answered by industrial mass housing. Housing construction became highly industrialized as a result of technological advances and the development of new building materials, particularly prefabricated components that allowed increasing productivity. Industrial construction became both the fundamental technology for mass housing as well as the main stylistic principle for modern city design internationally (Urban 2012: 8). Compared to traditional housing construction where buildings were constructed individually, industrialization meant that buildings were now assembled from prefabricated materials and in larger units according to a rationalized process (Urban 2012: 12). Industrialized production thus favored the building of large uniform housing areas and, as a result, housing estates consisting of medium- and high-rise multifamily dwellings were constructed throughout Europe, usually in peripheral locations on the urban fringes.

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In Finland, the post-war era was a time of great societal change. Finland became an industrialized society later than most other parts of Western Europe but underwent rapid transformation in the 1960s and 1970s. A late but rapid industrialization was followed by a quick growth in wealth (Vaattovaara et al. 2011: 49). In Finland this time period was also signified by rapid urbanization due to large-scale migration from rural areas to urban areas, which required a substantial increase in housing production. Industrialized housing production became widely adopted during the 1960s and 1970s and this period was marked by large-scale construction. Around a fourth of all residential buildings and over a third of all multi-story buildings were built during the time period (Asuminen 2012).

This era of intensive urbanization was also a period of suburbanization, as new residential areas were constructed on the outskirts of cities. Up until the 1940s, Finnish cities had gradually expanded from their fringes, but from the 1950s onwards urban growth began to occur further away from the existing town structure (Lähiöiden kehittämisen ongelmia 1985: 2). This type of urban growth reflected the prevailing planning ideals of the time which were well in-line with the wider societal development in Finland.

Finnish urban planners were greatly influenced by numerous internationally influential figures, whose ideas had a great impact on urban and suburban development during the decades following the Second World War. A central figure within post-war urban planning in Finland was Otto-Iivari Meurman who set the guidelines for planning in his book *Asemakaavaoppi (A Guide to Planning)* in 1947. Meurman promoted the idea of decentralization where housing areas were separated from each other by green areas (Lento 2006: 204). Meurman, who was the first professor of planning at the Helsinki Technical University, was able to spread his ideas through his teaching and writing, as well as through his own planning work, that included master plans for several Finnish cities (Hurme 1991: 175). Eventually, many of his planning principles became the main standards for planners. Besides Meurman, Heikki von Hertzen also greatly influenced post-war planning in Finland and shared many of his ideals. He was an advocate of suburban living and a severe critic of life in the city center, and published an influential pamphlet in 1947 entitled *Koti vaiko kasarmi lapsillemme? (A Home or a Barrack for our Children?)*, where he criticized urban living in central Helsinki and promoted healthier living environments further away from the congested central city. Meurman and von Hertzen would eventually collaborate and test their ideas in Tapiola, an internationally well-known example of suburban planning in Finland.

Hurme (1991: 69) has described the Finnish postwar housing estate as a synthesis of numerous international influences. These influences are to a high degree similar as the ones that influenced planning in Europe more generally. Meurman's guidelines for planning were based on the Neighborhood Unit Principle, developed by Clarence Perry in 1929 (Hurme 1991) This planning principle was presented as an alternative to unhealthy industrial cities and it was promoted as a way to provide the premises for a healthier family life and a more community orientated way of living. The English garden city movement and particularly Ebenezer Howard's ideas of decentralization and combining the best of town and country were also strong influences and clearly reflected in Meurman's planning principles. In

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addition to many other important thinkers of the time, the ideas of Le Corbusier also had great impact on planning and construction during the decades following the Second World War. He was an advocate of industrial housing production and regarded standardization and rationalization as central principles for future housing production. His influence can be detected visually as his futuristic ideas from the 1920s were to be widely applied in the planning and construction of housing estates in Finland several decades later.

The societal conditions in Finland as well as the planning ideals of the time were well suited for the use of industrial construction techniques. Industrialized housing construction based on standardization requires large scale production as building costs are high (Urban 2012: 9). Building on the urban fringes apart from the existing city structure was therefore well-adapted for such industrial construction, as planners and construction companies had more flexibility in planning and developing large and uniform housing areas. Land ownership issues also helped steer housing development away from the urban centers to locations where property values were lower (Lähiöiden kehittämisen ongelmia 1985: 3).

The first suburban housing estates in Finland were built during the 1950s mainly around Helsinki and other larger cities. The first developments were rather small with populations of less than 2000 and they were located relatively near the town center (Lähiöiden kehittämisen ongelmia 1985: 3). The first estates were typically planned with close regard to their natural conditions and are thus often referred to as *forest suburbs* (metsälähiö). Tapiola is as a well-known product of this type of suburban planning. These estates typically attracted middle class families when they were built and they have remained relatively attractive living environments even to this day (Lähiöiden kehittämisen ongelmia 1985: 4).

From the planners' perspective however, many of the early estates had a population too small for providing adequate services. Consequently, planning ideals started to change during the 1960s with planners seeking to develop more vibrant areas and to provide a sufficient level of services (Lähiöiden kehittämisen ongelmia 1985: 3). These objectives meant that the intensity and scale of building increased towards the 1970s. This development occurred parallel with the construction sector becoming more industrialized and increasingly concentrated and dominated by a few large companies. Furthermore, there was strong societal pressure to increase housing production in order to cope with accelerating migration from the countryside to cities. In order to ease planning, land use agreements were made between construction companies, banks and local government, thus enabling builders to development larger housing areas than before (Lähiöiden kehittämisen ongelmia 1985: 5).

These developments marked a change in the way that planning and construction was carried out in Finland during the 1970s. The size and intensity of construction grew along with the size of the estates. Some of the newly built estates had populations equivalent to many smaller Finnish towns and they were often also located further away from the center than previous estates. This marked a change from forest suburbs to the more dense *compact suburbs* (kompakttilähiö) (Hurme 1991). With more emphasis on production efficiency and the need to build as rapidly and cost-effectively as possible, architectural quality become

secondary (Hankonen 1994: 26–27). This meant that construction became increasingly stripped-down as housing units were assembled from prefabricated components in a rationalized manner. Whereas the early housing estates dating from the 1960s had mainly been built on the outskirts of larger Finnish cities, it was during the 1970s that the use of industrialized production techniques and the principle of constructing uniform housing areas on the outskirts of towns became a part of housing policy nationally (Lähiöiden kehittämisen ongelmia 1985: 7). Consequently, suburban housing estates were erected throughout Finland according to similar planning principles and relying on prefabricated materials. This type of construction persisted throughout the 1970s. Towards the end of the decade, housing policy and construction would however eventually change and the building of housing estates would decrease significantly during the 1980s. This was partly due to a change in societal development as migration from the countryside to cities slowed down. Living in detached housing also grew in popularity, leaving the massive and peripheral housing estates somewhat outdated (Lähiöiden kehittämisen ongelmia 1985: 10).

HOUSING ESTATES AND CONTEMPORARY CHALLENGES

Despite the optimism in modern architecture that prevailed when high-rise policy dominated the Western Countries and most large housing estates were built in Western Europe, many of these areas have later on been deemed as failures (Tosics 2004: 79). Although some positive features can be detected in most estates, such as large green spaces and relatively bright and sunny dwellings, this type of housing has over time largely become associated with economic, physical and social decline, and mass housing estates are now often regarded as problematic areas in cities all over Europe (e.g. Musterd & van Kempen 2005: 11, 21). Urban (2012: 1) has described industrially built mass housing as the most controversial urban form in history.

Hall (1997: 874) has divided typical problems of post-war housing estates into four closely connected types of problems: physical, social, amenity and economic problems. Though one should be careful when generalizing problems on estates, some common features can be detected. Physical problems are related to the planning and construction policies that were applied when these areas were built, such as their low level of urbanity, lack of variety in house types and sizes, physical isolation and decay, as well as separation of functions (Hall 1997: 874, Musterd & van Kempen 2005: 21). Social and economic problems are closely inter-connected such as high unemployment, concentrations of marginalized people, social stigmatization, high-population turnover, as well as safety issues. Furthermore, the peripheral location of the estates is often regarded as problematic as many estates have weak accessibility to services (Hall 1997: 874).

Even though estates in different parts of Europe dating from the same time period share many similar features both in terms of their physical layout and in the problems they are facing, many differences exist between countries, within countries and even within cities (Dekker et

al. 2005: 2). In Finland, housing estates are facing less severe problems and are less deprived than many similar areas elsewhere in Europe. Finnish estates have not been neglected nor are they witnessing serious decay. Nevertheless, Finnish cities are facing many challenges that are closely related to postwar housing estates, especially areas dating from the 1960s and 1970s. Issues related to suburban housing estates are currently highly topical in Finland and they have gained wide attention from researchers, policymakers and the media. These areas are currently facing a dual challenge related to both their physical state as well as to their socio-economic development.

Challenges concerning their physical conditions are related to the large share of the industrially built housing dating from the 1960s and 1970s, which is approaching the end of its technical life-span. Consequently, many of Finland's housing estates have either undergone or will need to undergo massive reconstruction during the years to come. Physical redevelopment of suburban housing estates is not a recent phenomenon as the first minor projects were initiated already in the 1980s (*Lähiöiden kehittämisen ongelmia* 1985: 21). In 1995 a more extensive program for suburban renewal was launched, targeting around a fourth of Finland's suburban housing estates (Seppänen 2001: 20). The program included a social dimension but the main focus remained on physical renewal. Until the current date, physical redevelopment of suburbs continues to be high on the urban policy agenda. In many housing estates large-scale renewal of the housing stock is currently under way or being considered.

In parallel with needs of physical redevelopment, there is also a growing concern regarding new types of social problems and increasing polarization within urban areas. In this respect, many suburban housing estates, particularly the ones built during the 1960s and 1970s, seem to be developing least favorably. Many of the areas in deepest need of physical redevelopment are also areas of social and socio-economic decline.

Problems related to Finnish suburban housing estates are however not a recent phenomenon, and in many cases the public opinion became negative already during the 1970s along with negative media coverage of the areas (Ilmonen 1994: 19). Initially, the first housing estates had been symbols of social progress and a modern society, and were in many cases built for the middle class (Salastie et al. 1987: 9). During the time of planning, suburban housing estates were seen as a way of combining the best aspects of urban and rural areas and as an alternative to the crowded and unhealthy cities (Ilmonen 1994: 25).

Suburban housing estates were, however, soon to become criticized for their lack of services and amenities and for their monotonous environments. Instead of being associated with progress and modernity, they became increasingly seen as problem-ridden areas housing rootless people who had recently migrated from the countryside (Saarikangas 2002: 50). In a report published by the Ministry of the Environment dating from 1985 (*Lähiöiden kehittämisen ongelmia* 1985: 21–23), the main problems of suburban housing estates were found to be linked to their peripheral location, poor level of services, unattractive built environment and social disturbances. Due to these problems, many estates were seen to suffer from social stigmatization and a weak position on the housing market. These observations are

well in-line with more contemporary results of housing satisfaction. Housing estates dating from the 1960s and 1970s are typically not held in high esteem and they are generally not considered attractive places to live (Koistinen & Tuorila 2008: 18).

Although many suburban housing estates have suffered from weak reputations and have been perceived as areas of decline, in some cases since the time when they were built, it is only until quite recently that they have been associated with deeper structural problems, a kind of new urban poverty. High structural unemployment rates, income inequality and ethnic minorities are unevenly distributed within urban areas and are to a high degree spatially concentrated in suburban housing estates (Vaattovaara & Kortteinen 2003).

An increasingly unbalanced socio-economic development of urban areas along with growing segregation are rather recent phenomena in Finland, where spatial differentiation has traditionally been low and unemployment was long almost inexistent. Unlike in most other Western Countries where income inequality began to increase during the late 1970s, in Finland, as well as in other Nordic countries, differences did not begin to grow until the 1990s (Vaattovaara et al. 2011: 51). In the early 1990s, Finland was hit hard by a recession that was the worst to occur in an OECD country after the Second World War (Vaattovaara et al. 2011: 52). Between the years 1990 and 1994 the unemployment rate rose from 4% to 21%. Following the recession, Finland recovered from the crisis fairly quickly largely due to a structural change of the economy, which transformed Finland into one of the world's leading information societies (Vaattovaara et al. 2011: 49). On the other hand, economic restructuring has also been accompanied by a shift in labor demand and consequently by structural unemployment (Vaattovaara et al. 2011: 53). Many suburban housing estates are areas that have suffered most in this respect. They have often become areas of high unemployment, and other socio-economic indicators as well, such as income and level of education also indicate that they have been developing unfavorably during the last two decades. Residential mobility has long been regarded as key factor affecting the socio-economic patterning of the city (Knox & Pinch 2000, 349–350, Burgess 1924). Also in the Finnish case, particularly in the Helsinki area, patterns of segregation appear to be strongly related to selective migration (Vilkama 2011).

RESEARCH CONTEXT AND AIMS

As the issues discussed in the previous section illustrate, suburban housing estates in Finland are currently facing a multitude of challenges. Nevertheless, there is no clear understanding of the current socio-economic position of suburban housing estates in Finland as a whole. This PhD research seeks to overcome this shortage.

Despite more concern being voiced about suburban housing estates and their position within Finnish cities, it is not entirely clear how these specific areas are performing in Finland as a whole, and what type of regional differences possibly exist. Studies on housing estates have mostly been carried out at local or regional level, usually with a specific focus on housing

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estates within a specific city area. In particular, much of the research has focused on the Helsinki metropolitan region, while estates in other parts of the country have been studied to a much lesser extent. This research examines suburban housing estates located in the whole of Finland using GIS-coded statistical data. Such an assessment of the socio-economic position of housing estates has previously not been conducted at national level, at least not in recent times. Extensive work on the topic has neither been carried out using GIS data and methods. Given the current situation where many Finnish suburban housing estates are witnessing both physical and social decline, analyzing the performance of these areas seems to be of high societal relevance.

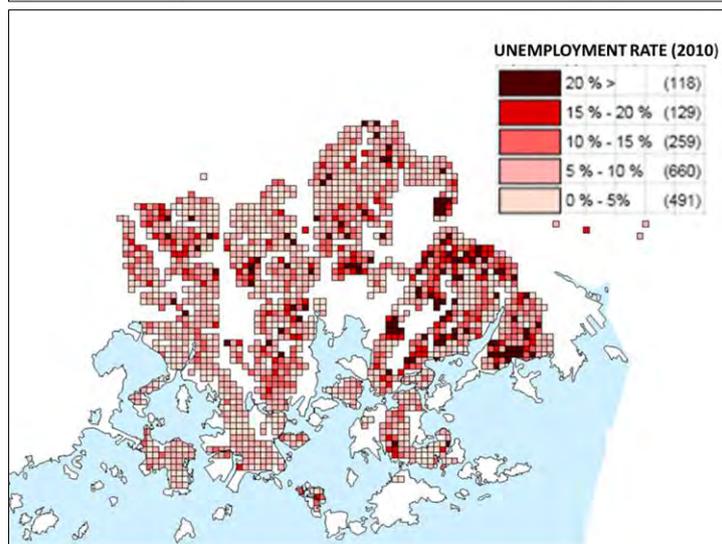
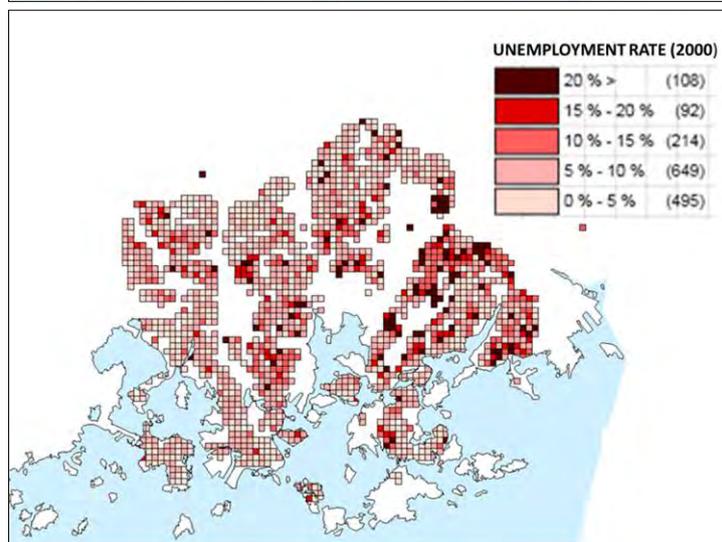
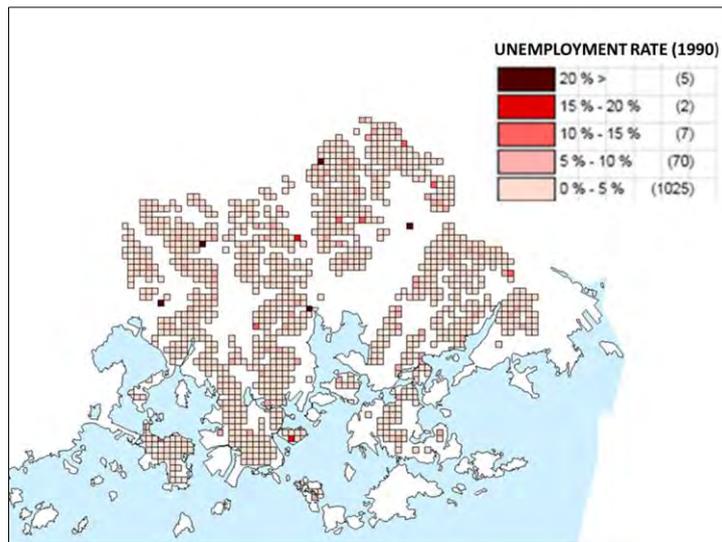
The PhD research is focused on suburban housing estates built between 1960 and 1979 in the whole of Finland. Areas dating from this time period are in the focus of the study, as the vast majority of postwar housing estates were built during these two decades. Furthermore, areas from this time period are the ones that are facing the greatest challenges. The main aims of the study are the following:

- Identifying the current position of suburban housing estates within their respective urban areas and regions
- Gaining understanding of their socio-economic development since 1990
- Developing a typology of suburban housing estates based on the analysis

Overall, the research is closely tied to a broader analysis of urban and regional development. Housing estates are studied in relation to the broader urban area and region where they are located. This is important as housing estates are highly context-dependent and urban areas are influenced by developments that take place at higher spatial levels (van Kempen 2007: 20). The problems of housing estates should be regarded as expressions of more general economic, demographic, and socio-cultural developments (Dekker et al 2005: 7). The causes of changes that occur locally can be traced to developments that take place at least regionally but also nationally or even at the world level (van Kempen 2007: 20). Therefore, in order to explain spatial changes on local level, it is necessary to take into account structures and developments on other spatial levels. The GIS data and methods used in the study are well-suited for both a detailed analysis of individual housing areas as well as for studying their relation to wider urban areas.

Studying the development of housing estates from 1990 until the current date is based on the fact that it is only during this time period that socio-economic differences within Finnish cities have been growing. Figures 1, 2 and 3 show the development of unemployment in the city of Helsinki during the years 1990, 2000 and 2010. In the year 1990, before the great recession, the unemployment rate was low throughout the city and a clear spatial division did not exist. In 2000 the effects of massive job loss were clearly visible. The overall unemployment rate throughout the city had increased and a clearer spatial divide within the city had arisen. Unemployment rates were particularly high on the eastern and northern fringes of the city, areas where most of Helsinki's housing estates dating from the 1960s and 1970s are located. In 2010 the spatial pattern had remained similar although concentration of high unemployment had grown to some extent.

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Figures 1, 2, 3 present the the unemployment rate in Helsinki in 1990, 2000, 2010 (YKR 2013).

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Based on the analyses, the aim is to develop a typology of suburban housing estates in Finland, and thus to identify housing estates with distinct socio-economic profiles. The intention is to gain understanding on what types of suburbs exist in Finland and what kind of regional differences can be detected.

In order to carry out the study, a few central questions must be addressed. Firstly, there is no clear consensus on how to define housing estates universally. It is therefore of high importance to define and specify what types of housing areas are in the focus of the study. Secondly, there are no ready-made data or tools, which allow identifying, locating, and selecting areas for the analysis. The following sections discuss questions concerning these specific issues in more detail.

DEFINING HOUSING ESTATES

A universal definition of housing estates does not exist (Wassenberg 2013: 27). According to Andersson & Musterd (2005: 10) housing estates are highly context-dependent due to differences in building styles, scales as well as density. In essence, housing estates vary greatly between cities and countries. A quantitative study on the subject therefore needs an operationalization of the concept.

Power (1997) has defined housing estates as a group of buildings that are recognized as distinct and discrete areas. In the European-wide RESTATE project large housing estates were defined as a group of buildings that form distinct geographical areas and have been developed by the state or with state support during the second half of the 20th century (Musterd & van Kempen 2005). According to Andersson & Musterd (2005: 130) housing estates can be identified through a combination of features such as production method, scale, location as well as housing and area design. However, not all of these features necessarily apply, for instance there is great variation in the share of high-rise buildings (Andersson & Musterd 2005: 130)

This study focuses on housing estates which were built in Finland during the 1960s and 1970s. In Finnish these areas would be defined as *lähiö*. The word *lähiö* is typically used when referring to residential areas located on the outskirts of cities and usually dominated by detached multi-family housing. Although the word is sometimes used as a synonym for suburb on a more general level in colloquial language, the word is typically used when addressing a certain type of suburban development, namely housing estates built during the 1960s and 1970s. *Lähiö* however does not merely refer to the physical form of specific residential areas, but is also charged with different meanings, which often are negative. According to Ilmonen (1994: 32) *lähiö* is not merely a word for describing certain types of residential areas, but also a symbolic category for categorizing certain types of environments and their residents. Consequently, *lähiö* is often used when referring to residential areas, which are witnessing social decline and are populated by lower social classes (Ilmonen 1994: 32). As *lähiö* refers to both a particular location within the urban area as well as to certain

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physical characteristics, a rather approximate English translation of the word would therefore be suburban housing estate. These particular housing estates could also be described as a type of concrete suburbia due to both their physical environment as well as location.

Similarly as there is no universal definition for the English word housing estate, the word *lähiö* is equally an ambiguous term. In a study by Hurme (1991: 177), they are defined as residential areas which are located outside of the immediate city structure and which are dependent on the main city and its jobs, services, and public transport. Hankonen (1994: 19) defines them as residential areas dominated by multi-story housing, which are located on the fringes of the city, and which have been planned, built and marketed according to certain specific ideals and principles prevalent within urban planning in Finland during the mid-Twentieth century. Seppälä et al. (1990: 9) define them as areas with populations of at least 700, constructed between the 1950s and the 1980s, which have been built mainly for residential purposes, and which are located outside of town centers. In their definition, these areas can consist either solely of attached multi-family housing or of a mix of both attached and detached housing.

In this research, suburban housing estates (*lähiö*) are defined as residential areas, which mainly consist of multi-story housing and which are located outside of the immediate city centers. More specifically, the research focuses on areas where at least half of the population lives in multi-story residential buildings dating from the 1960s and 1970s. This definition is the guiding principle for identifying and selecting areas for the analyses. The selection of areas is presented in greater detail in the following part of the paper.

An exact minimum population of the estates is yet to be finally decided, but this will be done with consideration to the city or municipality where they are located. Based on a pre-scanning of the data, the initial idea is to set the minimum population for estates located in larger cities to 700. In smaller towns, where the overall population is much lower, housing estates are generally of a smaller size than in more populous areas. In these cases a lower minimum population will therefore be applied.

This research focuses on housing estates which were built during the 1960s and 1970s, as this was the era when the construction of these types of areas was at its height. Although the first estates were built already during the 1950s, construction was still small scale and of a slightly different nature in terms of planning and realization than during the following decades. Construction of housing estates was also still only contained to the largest cities. It was not until later during the 1960s and particularly during the 1970s that construction became a heavily industrialized process and the building of suburban housing estates became a common practice in the whole of Finland (Hankonen 1994). Although this type of construction still persisted into the 1980s, at least to some extent, mass construction of housing estates had clearly decreased as planning ideals and practices were changing (Seppälä et al. 1990: 20, Osara 1985: 8).

The focus of the research is placed on areas dating from the 1960s and 1970s, due to the fact that the vast majority of Finnish housing estates were built during this time period. Estates

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from this time period are also in the highest need of physical redevelopment and are often witnessing socio-economic decline. The decision to focus on areas with a population of 700 or more is based on a pre-scanning of the data, and is also in-line with a study by Seppälä et al. (1990). Compared to similar housing areas elsewhere in Europe, Finnish estates, especially ones located in smaller towns, seem to be of a rather modest size. As a comparison, the European-wide Restate research project studied large housing estates with at least 2000 housing units (Musterd & van Kempen 2005). In Finland, estates of this caliber are rather scarce and can only be found in a few of the larger cities.

RESEARCH DATA

The research relies on the use of GIS data. However, housing estates are not clearly defined statistical units for which ready-made data exists. Carrying out the study requires a way to identify, locate and select areas for the analyses based on the criteria described in the previous section. The study is based on the following sets of GIS-coded statistical data, which have been combined and processed in order to meet the requirements of the research:

- 1) Data from the Building and Housing Register (Rakennus- ja huoneistorekisteri) maintained by the Population Register Centre (Väestörekisterikeskus)
- 2) YKR grid data (250m x 250m) maintained by the Finnish Environmental Institute (SYKE) and Statistics Finland
- 3) Data for identifying Finnish city centers developed by the Finnish Environmental Institute (SYKE)

The Building and Housing Register (Population Register Centre 2012) is a database containing a wide variety of building-specific statistical data. The database includes GIS-coded data related to all buildings in Finland. For the specific aims of the research, data on all multi-story buildings built in Finland between 1960 and 1979 has been acquired from the database. As this data is building specific, it allows locating individual residential buildings based on their coordinates, but does not as such allow identifying wider housing estates.

In order to locate and select areas for the analyses, this data has been combined with the YKR grid data. This database contains coordinate-based statistical data, which has been calculated based on a map grid covering the whole of Finland. The database contains a wide range of statistical data including population data, building and housing data, and data about workplace structure. The database contains data from several years, thus enabling to study the development of specific areas over a certain period of time, in this case from 1990 to the current date. The grid size of 250 m x 250 m allows a relatively detailed analysis. In Finland, and specifically in the case of Helsinki, areas of decline are often fine-grained pockets of poverty and can only be detected when using detailed spatial data (Vaattovaara 1998). When using more general aggregated spatial data, these specific cases might be lost. Neighbourhood level statistics are therefore needed for understanding segregation (Musterd et al. 1997: 183).

The purpose of the study requires that the building data and the grid data are combined in order to identify residential areas with a high concentration of multi-story housing from the 1960s and 1970s, i.e. postwar housing estates. Combining these datasets is also necessary for carrying out the analysis, as the grid data contains the data variables which are used in the empirical analyses.

As this study is focused on housing estates which are located outside of the central city, delimiting city centers is therefore necessary. The Finnish Environmental Institute (2012) has developed a tool for identifying the central areas of Finnish towns and municipalities. In this data city centers are recognized as densely populated areas with diverse services and with high concentrations of jobs within the service and retail industries. Based on these criteria, Finnish city centers have been classified according to their size and the diversity of their job market. The benefit of this dataset is that it is based on the grid data used in the analysis.

IDENTIFYING AND SELECTING AREAS FOR THE ANALYSES

In the following, the main work stages undertaken for identifying, locating and selecting specific housing areas for the analyses are presented. This work is carried out using the three sets of data presented in the previous section. As mentioned, the housing data allows locating all multi-story residential buildings built in Finland between 1960 and 1979 based on their coordinates. As the study is focused on housing estates which are located outside the city centers, buildings located within the urban centers are excluded from the analysis. In order to determine whether a particular building is located within our outside the center, the data provided by the Finnish Environmental Institute has been used.

In order to be able to identify wider housing areas, and to distinguish housing areas from each other, buffer zones were calculated around the individual buildings, thus allowing identifying building clusters. Buffer zones were calculated for all cases where there are at least five buildings which are located within 250 meters from each other. Figure 4 shows the areas calculated for the Capital Region (Helsinki, Espoo, Vantaa) using this method. The calculation of buffer zones based on the housing data is visualized in figure 5 (on the following page).



Figure 4. Buffer zones calculated for multi-story residential buildings in Helsinki, Espoo and Vantaa.



Figures 5 (buffer zones calculated for identifying housing areas), 6 (joining of the housing and the grid data) and 7 (combining of neighboring grids into wider areas).

However, as the housing data itself does not contain much statistical information that can be used for the analyses, this dataset was joined with the grid data (figure 6). Combining the two datasets and their data content is a precondition for selecting housing areas which fulfill the specific criteria for housing estates set out for the study. As the research focuses on housing estates dominated by multi-story housing built in the 1960s and 1970s, the main criterion is that at least 50% of the total population of each grid lives in this specific type of housing. Combining the housing data and grid data is also necessary as the grid data is the primary data source for the analyses.

In the following stage, neighboring grids which are part of the same building clusters were combined into wider spatial areas based on the buffer zones (figure 7). In order to be able to analyze housing areas as separate entities, neighboring grids and their data contents are combined into wider areas.

DISCUSSION

Developing a method for identifying certain types of housing areas with the use of GIS, and thus to be able to study these areas and their development over time, has been a pre-condition for the aims of the study. This method, presented briefly here in this paper, has been developed through a course of extensive experimentations with the data where the parameters and criteria for selecting areas have been varied. This has required several stages of intensive data processing. One of the main challenges of the work has been to develop a clear and consistent method for selecting areas for the analyses, especially since housing estates can differ greatly in terms of population and physical form. The areas identified through this method are ones where at least half of the total population lives in multi-story housing built during the 1960s and 1970s. In most cases the areas identified through this method correspond with listings of housing estates from previous reports and studies. Generally, these areas are also well in-line with general perceptions of 1960s and 1970s housing estates and where they are located.

In the following stages of the work, an analysis of the current position and the development of these specific areas will be carried out. In the analysis of their socio-economic development, the focus will be on assessing how the areas have development in relation to the wider urban area where they are located. Key statistical indicators currently available include employment and unemployment rate, income level, level of education as well as changes in the age structure of the population. Changes in the ethnic composition of the areas will also be studied, provided that data on the theme can be obtained. As part of studying the socio-economic development and current position of the estates, attention will also be paid to the physical characteristics and built environment of the areas. Specific focus will be placed on the housing stock of the areas, i.e. the share of high-rise housing and social housing as well as vacant apartments. In addition, the level of services and work places in the respective areas will be studied.

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Making choices or taking options: change in the housing careers of Turkish work migrants and Somali refugees

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Abstract

The aim of this paper is to understand what it is that leads to change in the housing careers of Turkish work migrants and Somali refugees. Is it possible for them to be active in creating desired change through making choices or do they simply have to take the options available to them? These questions will be answered through in-depth analysis of 28 interviews focusing on the interviewees' housing careers and change between situations within the career. The two groups have been chosen as they are two of the major immigrant groups in Denmark and as they have very different starting points. It is thus interesting whether these different starting points will lead to different options in terms of achieving appropriate housing through change between situations. Analysis shows that the housing careers of the interviewed Somalis and Turks are characterised by voluntary moves and the overall impression is of satisfaction with the careers they are looking back at and the options of the future. Their stories stand out compared to previous research as they are largely devoid of insecurity, instability and bad housing conditions. Most of the interviewees conduct their housing career within the public housing sector which seems to offer good housing options as well as possibilities to influence one's housing situation. Making choices and thus realising preferences is to a large degree possible even for the unemployed and those in temporary housing situations. The study highlights the relational nature of preferences and the need for studying needs, preferences, possibilities and restraints in relation to each other.

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Introduction

Housing is a crucial good. It protects the individual against nature through giving shelter. It can become a home: a place of refuge, a place of safety and comfort, a place for being secluded from the outside world (Gram-Hanssen & Bech-Danielsen 2012). For immigrants, it is also central in the integration process, both in itself and in relation to other spheres of life e.g. employment and network (Murdie 2002; Phillips 2006). Requiring suitable housing is for most people a process of trading up to get as close to the household's needs and wishes as possible given the available resources (Murdie 2002; Bolt & van Kempen 2002). It is thus through the change between situations that improvement becomes possible (Magnusson & Özüekren 2002; Clark & Huang 2003). This makes change and the driving force behind change crucial in understanding the position within the housing market of a group or an individual.

In many studies, the focus is on the result of the housing career process i.e. the housing situation at a given time and not on the process itself. In comparison, this study focusses on the driving forces of the housing career. For several reasons, a focus on these forces is vital for understanding the process leading to a given housing situation. As mentioned it is through change that improvement becomes possible. Consequently it is also in a situation of change that choices can be better or worse for the individual and thus it is where the individual can feel more or less restricted in choices, more or less in charge of the career. It is thus where the individual feels the restraints and becomes aware of its options in relation to housing. The extent to which the individual has been able to choose and to act according to own preferences is fundamental for the individual's own perception of its situation. The aim of the paper is thus to answer the following questions: What leads to change and what hinders change in the housing careers of Turkish work migrants and Somali refugees? Is it possible for them to be active in creating desired change through making choices or do they simply have to take the options available to them? Underlying these questions is the issue of whether there are differences between the two groups.

Many previous studies have identified the housing situation of immigrants and descendants as disadvantaged, both internationally and in a Danish context (Bolt & van Kempen 2002; Özüekren & van Kempen 2002; Fonseca et al. 2010; Kauppinen et al.: FORTHCOMING; Abramsson et al. 2002; Skifter Andersen 2010; Damm et al 2006; Bergqvist & Pedersen 2007; Børresen 2006). They are less likely to live in owner-occupied housing or co-operatives which constitute a financial disadvantage as owner-occupation offers the potential of a profit when selling and thus the option of trading up through a progressing housing career. Instead, immigrants are more likely to live in public housing¹ which makes them dependent on waiting lists and the availability within the sector. Nevertheless, it might be that what is deemed a disadvantaged position from the outside is not necessarily perceived so when seen from the inside. Thus, it is crucial to study whether immigrants themselves perceive their situation to be disadvantaged.

The paper will shed light on some of the key perceptions and unanswered questions in the existing literature on housing careers of immigrants and descendants. One aspect relates to the proportionally high share of immigrants in rental housing which persists when controlled for key factors such as income, family composition and education (REF – HANS, TIMO; LINA). Explanations for this are lacking. Another aspect is the impact of discrimination i.e. to what extent discrimination influence the housing careers of immigrants (REF). Furthermore, the study will input into the discussion on the disadvantagedness of the housing careers as perceived by the

¹ The term public housing covers housing which is provided at cost prices by non-profit associations and regulated by the state. It is synonymous to social or non-profit housing.

immigrants themselves and, linked to this, the discussion of difference in preferences or difference in ability to realise preference as the cause of the difference in housing attainment between immigrants and natives (REF). And finally, it will add to the discussion of the importance of constraints versus choice in the housing career of immigrants (REF).

The situation of different immigrant groups cannot be presumed to be identical as they have different country and migratory backgrounds and are in different positions in the country of migration (Gram-Hanssen & Bech-Danielsen 2012; Abramsson et. al. 2002; REF). This study focusses on two immigrant groups: Turkish work migrants and Somali refugees. These two groups of interviewees have been chosen as they are two of the major immigrant groups in Denmark and as they have very different starting points for their housing career in Denmark: they came at different times, originated from different countries, migrated for different reasons and were subject to different legislation when they arrived (due to their difference in migration reason and the time of arrival). By comparing the two groups it thus becomes possible to establish whether the different starting points will lead to different options in terms of achieving desired housing through change between situations. Furthermore, the two groups are in different socio-economic situations in Denmark, as will be shown later, and the comparison will thus enable an analysis of the possibilities in the housing market for groups in different situations. Overall, it will thus strengthen the explanatory power of the analysis.

The two migrant groups are studied in the context of Copenhagen, Denmark. On one hand, it will thus expand the knowledge on the specific context of Copenhagen which is crucial as it cannot be presupposed that international and even national research explains specific local situations (Bowes et. al. 2002). Similar patterns between countries might have different implications for the situation of the individuals living there. On the other hand, national studies can lead to a widened understanding of the different experiences of the same immigrant groups living in different countries. Furthermore, the Danish context is interesting as the public housing sector is of great importance. A comparative Nordic paper² shows that the public housing sector of Denmark offers comparatively good options for immigrants (Dhalmann et. al. FORTHCOMING). The paper by Dhalmann et. al highlights the importance for the individual of understanding its situation and the possibilities of the future as well as of being able to influence it. In comparison, this paper delves more into the subject by focusing on the individual's perceived possibilities for change. Especially in the tight housing market of the Copenhagen metropolitan region³ it is interesting whether owner-occupation and co-ops are seen as an option and whether public housing offers good alternatives to owner-occupation.

The paper takes its starting point in a description of the Copenhagen context and the Danish housing system. This is followed by a section on the two migrant groups in focus. Subsequently, the theoretical framework of the paper is outlined, followed by a presentation of data and methods, including a description of the interviewees. This leads to the analysis of the empirical material. Finally, the paper is concluded by discussion of the findings and their implications.

The Copenhagen metropolitan housing market and the Danish housing system

² The Nordic paper by Dhalmann et. al. is a comparison of the study behind this paper with parallel studies in Helsinki, Oslo and Stockholm, focusing on the interviews with Somalis specifically.

³ The capital housing market is in this case defined loosely as the greater region of Copenhagen. Where numbers of The Copenhagen region are presented, they refer to the region of Copenhagen, excluding the island Bornholm.

As in many other capital housing markets, the housing market of the Copenhagen metropolitan region is tight and not particularly favourable to immigrants due to price levels, waiting lists and the importance of networks. Housing policies in Denmark are based on an aim of securing good housing at affordable prices with the aid of housing allowances for those in need thereof.

Owner-occupied housing has been subject to rising prices, peaking in 2006 where the price in DKK per square meter had tripled for single family houses and quadrupled for flats (Skifter Andersen 2010). Subsequently, prices have fallen somewhat but at the same time it has become more difficult to obtain a loan. Policy measures aimed at augmenting owner-occupation are limited in Denmark: there are neither supported loans nor individual or supply subsidies for owner-occupied housing. Tax subsidies take the form of a 30 per cent capital costs deduction.

Co-ops used to be inexpensive as the price level was linked to the value of comparable rented property, the price of which in turn was kept low by rent control. The cheap prices resulted in long waiting lists where family and friends of the co-op-owners were given priority thus making co-ops available for only a limited group of people. Changes in regulation has led to parts of the co-ops now being prized at market value and sold through real-estate agents thus making the access to co-ops less based on social networks but much more expensive.

The private rental sector is subject to rent control in Denmark. This has led to prices that are below market value which again has resulted in a high demand and thus waiting lists. There are no general allocation rules. This makes social networks important in the search for a private rental unit. Furthermore, research has shown that some landlords are reluctant to let their units to immigrants and as waiting lists are long landlords can afford to be selective (Skifter Andersen & Skak 2008; REF).

Public housing in Denmark is owned by private non-profit housing organisations which are subject to strict regulation. As rent is calculated from the expenses on each individual estate, the rent varies between estates depending on the costs at the time of building and with no link with the quality of the dwelling and the location. Thus, some estates are much more coveted than others resulting in long waiting lists of more than 20 years. In general, public housing is accessible for everyone who enters their name on the waiting lists of the various housing associations. Internal waiting lists are also in place and are given preference, thus making it possible to conduct a housing career within a housing association. Within recent years, a political wish to change the social composition of socio-economically deprived areas has led to new allocation rules, called flex-rent, giving priority to people in employment or education. This affects immigrants disproportionately as they are overrepresented in the areas affected by flex-rent and as a higher share is unemployed (Skifter Andersen & Fridberg XXXX). While the oldest public estates in Copenhagen are from the early part of the 20th century, a large part of the stock was built during the 1950's and 1960's. The stock is of a relatively high standard as the older estates have been and still are subject to renovation. Deprived public areas in a Danish context thus primarily relates to the social composition of the residents in the areas.

Housing allowances are needs-based, tax-free and given only to residents within the private rental and public housing sector. The size of the allowance depends on the size of the flat, the rent level, the number of children and adults in the household as well as the income and assets of all household members. As an example, the highest level of allowance for people who are not disabled or pensioners is approx. 570 EUR for a family with more than three children. Single providers are entitled to a higher level of housing allowance.

Somali refugees and Turkish work migrants in a Danish context

The total population of immigrants and descendants in Denmark is around 600,000 people, constituting just below 11 per cent of the population. Approximately 400,000 are of non-western origin; equal to seven per cent of the population. Of these, 125,000 or two per cent of the population are descendants.

Present-day immigration to Denmark has taken place as four waves (Togeby 2003; Danmarks Statistik 1995; Skifter Andersen 2010a; REF). The first wave consisted of work migrants primarily from non-western countries who came during the labour shortage of the late 1960's and early 1970's. This is when Turks started to migrate to Denmark. When the labour shortage turned into a shortage in jobs, family-reunification started, thus forming the second wave of migration. A lot of these were Turks as well; the families of the work migrants who had originally stayed in the home country but started to migrate as well. Family reunification continued to take place with younger migrants and descendants marrying countrymen still living in Turkey and subsequently having them reunified. During the late 1980's and early 1990's the third wave of migration rose: refugees arriving from countries afflicted by war. While a smaller group of Somalis had come to work previously, this is when Somali migration primarily took place. Successively, this also led to some family reunification. The fourth and latest wave of migration is formed by the eastern European work migrants who have arrived following the expansion of EU.

Today, there are almost 18,000 individuals of Somali origin and just over 60,000 of Turkish origin living in Denmark, of which approx. 6,500 and 35,900 respectively live in the Copenhagen region. 41 and 47 per cent respectively are descendants⁴. Turks are by far the largest group of immigrants and descendants in Denmark. Each group represent a major group of the wave they originally came as part of, i.e. work migrants and refugees respectively. The two groups are very different precisely because of their different reasons for migration to Denmark. One aspect of this is that their return perspectives can differ as one group came voluntarily while the other was forced by war. Another is that Turks have been in Denmark longer and have not been hindered by war in returning, meaning that those who are still in Denmark are likely ones who have chosen to never move back. Moreover, the current socio-economic situations of the two groups differ: the employment rate of Turks is markedly higher than that of Somalis⁵ while divorces are much more common for Somalis than for Turks leading to more single-provider families amongst Somalis (Statistics Denmark 2010).

Of the residents of Copenhagen, 45 per cent live in owner-occupied housing and 15 per cent in co-ops. 13 per cent are in private rental and 23 per cent in public housing. Five per cent live in other kinds, e.g. student housing (StatBank Denmark BOL201 – www.statistikbanken.dk). Of the adult Turks in Copenhagen, 68 per cent live in public housing, 7 per cent in private rental, 5 per cent in co-ops and 19 per cent in owner-occupation. Of the adult Somalis in Copenhagen, 75 per cent live in public housing, 17 in private rental, 2 per cent in co-ops, 1 per cent in owner-occupation and 4 per cent in other kinds of housing⁶.

The theoretical framework

⁴ The age of the descendants differ between the two groups. As Somalis came later than Turks, the Somali descendants are on average younger than the Turkish.

⁵ In 2009 the employment frequency of Somalis was 39 per cent while it for Turks was 57 per cent.

⁶ Figures are from 2008 and covers all immigrants and descendants aged 16 and above. Source: SBI's database based on registers from Statistics Denmark.

Theoretically, the paper leans on the life course perspective as it tunes the analysis to crucial aspects of the housing career. Furthermore, previous studies highlight the importance of the interplay between needs, preferences, possibilities and restraints in shaping housing careers and housing choices.

Life course analysis

The focus of the study is the housing career which has been defined by Pickles and Davies as *“the sequence of dwellings that a household occupies during its history”* (Pickles & Davies 1991). Change happens through moves. The general aim of conducting a housing career is adjustment of housing to the changing needs of the household and it is through conducting a housing career that it is possible for the individual or household to improve its housing situation (Magnusson & Özüekren 2002). Nevertheless, the concept does not presuppose that all moves are upwards and constitute an improvement. Downwards and sideways moves also takes place (Murdie 2002; Clark & Huang 2003). Furthermore, judging whether a move constitutes an improvement or not is often not possible as a move can be evaluated on the basis of many different parameters which might not all point in the same direction (Abrahamsson et al. 2002).

Life course analysis underscores the crucial characteristics of the housing career. First, it draws attention to the interconnectedness of situations over time and between careers in different spheres of life. Housing situations are linked over time in that previous situations influence the ensuing options available to the individual and thus the change between situations. Furthermore the housing career is linked to other careers, especially family and work careers in that the individuals' situation in one career influence the needs and preferences as well as possibilities and restraints in other careers. It *“demonstrates the interdependency between the various life course trajectories or careers (...) that run parallel to each other”* (Mulder & Hooimeijer 1999). The other careers of life both provide motives for moving thus triggering change and determine the options available within the housing career (Clark & Huang 2003:324; Hedman & Magnusson Turner FORTHCOMING; Özüekren & van Kempen 2002).

Second, life course analysis highlights the importance of age and life phase as well as the links between life phase, age and the stages of life (Settersten 2009; Elder 1981; Espenshade & Eisenberg Braun 1982; Elder 1975). E.g. in relation to housing: few people live in owner-occupied single-family houses of their own when they are young, single and childless. Conversely, many strive for such a home when they get married and have children. Life course analysis emphasizes these relations but does so without presuming a specific order of the phases within the life course (Myers 1999). Third, to understand the life course and the different careers within it, one has to consider the context which it takes place within (Espenshade & Eisenberg Braun 1982; Dannefer 2011; Elder 1975; Uhlenberg 1996). Regarding housing a crucial part of this context is made up of housing policies, the situation in the housing market, supply and demand and housing prices. This makes timing important as the context at the time at which a move is made or desired influence on the opportunities on offer (Settersten 2009:75). Fourth and finally, while acknowledging the importance of structures, life course analysis also leaves room for agency (McAdams). Thus, while one can be restricted regarding housing choices, most individuals do have some choices to make. This point was highlighted by Peach in his influential study of the housing choices of South Asian and Caribbean ethnic minorities in Britain (Peach 1998). In line with this, life course analysis, as opposed to its predecessor life cycle analysis, underlines the importance of agency. In relation to studies of housing careers specifically, Clapham has criticised these for underestimating the

importance of preferences as well as for a limited understanding of the inter-relationship between preferences and constraints (Clapham 2002). Analysing preferences and perceptions of opportunities are crucial for understanding the housing careers of individuals.

Needs and preferences, possibilities and restraints

Change in the housing career for the most part takes place on the basis of the household's needs and preferences, except when forced due to e.g. divorce or eviction, (Özüekren & van Kempen 2002). As needs and preferences change, dissatisfaction with current housing grows and leads to a wish for change and, if possible, actions towards achieving it. Preferences and needs is where agency plays a major role; it is through these that the household exercises its own will within the options available.

Housing needs cannot be objectively defined but relate instead to the perceived needs of the household. These differ between times and between cultures. They relate to the general norms of society in relation to housing and the perceived needs of a household of a given size (i.e. number of rooms). Thus, difference in perceived housing needs can be caused by different housing norms of immigrants and natives. Furthermore, differences in family careers can lead to different housing needs as household characteristics are major determinants of needs in relation to housing (Murdie 2002; Bolt & van Kempen 2002).

As needs are subjectively defined they are closely linked to preferences. Preferences are based on the goals individuals or households have in life more generally; transformed into actual and more specific preferences regarding different spheres of life (Özüekren & van Kempen 2002). In the case of housing, such preferences relate both to the housing unit and to the housing area. A reason for difference between immigrants and natives in housing attainment can be that different preferences guide their housing careers. Such difference in preferences can be caused by several factors (Bolt & van Kempen 2003). First, a wish to return to home country can impact on preferences of immigrants by reducing the incentive to invest in housing in migration country (Abramsson et. al. 2002). Second, if the housing quality of the home country is inferior to that of the migration country, immigrants might accept poorer housing conditions than natives. Third, the perception of the housing sectors might differ leading to different wishes regarding which sector to conduct the housing career within. Fourth, the preference for living with co-ethnics likely differs for immigrants and natives (Dhalmann 2013). Furthermore, as most households are not able to realise all their preferences a prioritisation becomes necessary and this prioritisation of preference might differ between immigrants and natives (Bolt & van Kempen 2003).

Whether or not preferences and needs can be met, depends on the possibilities and restraints of the household in relation to housing i.e. the obstacles they are facing in realising needs and preferences (Abramsson 2008; Özüekren & van Kempen 2002). Thus, differences in housing attainment can be caused by differences in possibilities and restraints as opposed to different preferences. Possibilities and restraints form the choice set of the household. On a structural level, it relates to the situation on the housing market, the financial situation, the availability of housing (supply), the amount of competition in a given housing sector (demand), access rules of the different sectors, changes in the welfare system and the legislation in relation to housing to name some of the most crucial aspects (Bowes et.al. 2002; Murdie 2002). Also, discrimination can play a major role e.g. through landlords avoiding to let their units to immigrants (Skifter Andersen 2010; Bolt & van Kempen 2002). In the public housing sector discrimination on the part of social workers can be influential if access rules are not specified. Furthermore, mixing policies aiming at lowering

the share of minorities in given areas limits the choices of ethnic minority groups (Özüekren & van Kempen 2003). Within all the different housing sectors there are key gatekeepers who can function as a restraint in the housing careers of immigrants if they exert discriminatory practices (Dhalmann 2013).

On an individual level, possibilities and restraints relate to the cognitive, financial and social resources of the household (Bowes et. al. 2002; Skifter Andersen 2010; Özüekren & van Kempen 2002; Özüekren & van Kempen 2003). Financial resources in form of income and savings determine the strength of the household in the housing market, with greater financial resources leading to more options being available. Stability of income and thus of employment is paramount. Knowledge of the housing market is a key resource as the possibility for attaining a housing unit within a given sector requires knowledge of how to do so and how to be successful with it. Such knowledge can be limited by language barriers (Bolt & van Kempen 2002). Furthermore, education can lead to a better understanding of how the housing market works e.g. financially (Özüekren & van Kempen 2003). Finally, social resources in terms of networks can aid the progress of the housing career. Networks can create housing opportunities and offer further knowledge, thus supporting the housing search (Özüekren & van Kempen 2002). Through the local social ties within housing areas however, networks can also potentially bind the household to specific areas and thus the opportunities within them (Dhalmann 2013).

Some previous studies have focused on analysing housing situations and housing careers primarily through either a constraint oriented or a choice oriented approach (Magnusson & Özüekren 2002; Özüekren & van Kempen 2002). Those focused primarily on restraints are based on the notion of housing being a scarce resource making the resources of the household the determining factor in relation to housing attainment. Studies focused primarily on choice emphasise how the decision to move is based on the preferences of the household thus making choice the determining factor. This study aim to include both sides to the extent that it is relevant based on the interviews. The starting point is thus neither constraints nor choice alone; instead needs, preferences, possibilities and restraints are all taken into account to the extent that the interviewees do so.

Data and methods

Empirically, the paper is based on in-depth interviews⁷. The interviewees were recruited through network as well as through contact with gate-keepers within relevant associations, projects for unemployed migrant women and job centres. Recruitment through networks can constitute a bias as it will only lead to interviewees who have contact to with co-ethnics (Dhalmann 2013). This was sought prevented by recruiting through both networks and unemployment projects and through as many channels as possible such as housing associations, language schools, unemployment centres, projects for immigrant women and a Facebook group for descendants. Snowballing was used to some extent but limited to finding two or three interviewees through the same source in order to secure that interviewees were not all within the same networks; a risk one runs with snow-balling (Small FORTHCOMING).

⁷ The interviews were conducted based on a semi-structured interview guide focusing on the housing careers of the interviewees, their perception of their housing options and of the housing market in general. The interviews were conducted primarily in Danish but where necessary and possible supplemented with English. In one case, an interpreter took part: a friend of the interviewee who translated when necessary. The quotes have been translated to English by the author.

The interviews were conducted by researchers belonging to the majority. Some argue that this poses a problem, claiming that the researcher when being an outsider will produce less accurate research. However, as Tinker & Armstrong (2008) writes, ethnic belonging is only one of many characteristics of both researcher and research subjects thus making them both insiders and outsiders to each other. Furthermore, there can be advantages to the researcher having an outsider-status. First, it can lead to less fear of judgement when touching upon sensitive issues e.g. religious rules on paying interest. Second, a lack of cultural knowledge on the researcher's side can elicit more detailed responses as interviewees try to explain central issues to the interviewer. Third, it can allow the interviewee to be the expert thus adjusting the power relation of the interview situation.

The interviewees constitute a diverse group and the data material thus covers a wide range of life situations. Furthermore, some of the interviewees are in the later part of their housing career, making the interviews primarily retrospective, while others are in the early part of their career, thus primarily focusing on their expectations for their future career. The diversity means that it becomes possible to answer in great variation how change is experienced by the Somalis and Turks conducting a housing career in the Copenhagen housing market. Small (FORTHCOMING) employ Yins work on case-studies on in-depth qualitative interviewing in order to highlight the distinctive logic of qualitative work and to avoid a misguided quest for representativeness. Small suggests understanding in-depth interview studies as multiple-case studies as opposed to small-sample studies. Each interview represents a single case which can be explored in-depth and according to the specificity of that case. This logic is suitable when trying to answer how and why questions. By this logic it becomes crucial to cover a diversity of experiences in an in-depth study as the study at hand does. The interviewees' diverse housing situations means that questions of how and why can be answered in greater detail and with more nuances. It also means that the answers to the research questions will relate to a greater variance of experiences. The recruitment process in the study has thus had as a focus to achieve such diversity.

The interviewees and their situation

In total, 15 Turks and 13 Somalis residing within the Copenhagen capital housing market have been interviewed. Of the Turks, three are descendants. Of the Somalis, two came when they were children and have thus grown up in Denmark. The Turks all came as work migrants or were family-reunified with a work migrant while all the Somalis came as refugees or were family-reunified with a refugee. One interviewee has been in Denmark for three years, the rest at least ten years.

Family life cycle	Turks		Somalis	
	Male	Female	Male	Female
Single, no children, living in parental home*	1	1	-	-
Single, no children, living with peers	-	-	-	2
Married, no children, living with spouse	1	-	-	-
Married, children, living with spouse**	3	4	2	3
Married, children, living with spouse and with parents/parents-in-law	1	-	-	-
Married, children, living without spouse but with children**	-	-	-	1
Married, children, but living without spouse and children***	-	-	3	-
Married, children, living with spouse, children have left home	1	-	-	-
Divorced, living with children	-	2	-	2
Widowed, living with children	-	1	-	-
Age group				

Aged 19-34	2	2	-	2
Aged 35-50	2	3	4	6
Aged 51-	3	3	1	-
Employment				
In employment	5	2	3	3
Studying	-	1	-	3
Unemployed	1	5	2	2
Pensioner	1	-	-	-

*One was engaged and got married a few months later; afterwards moving together with spouse.

**Three Somalis had been married before current marriage. Two have children from previous marriage.

***For one of these, it was a temporary solution while searching for a suitable flat for the family.

Of the 28 interviewees, 13 are living with their spouse and one or more of their children (in one case in an extended household). There are more broken households within the Somali group than the Turkish. Two Somali women are divorced and living with their children on their own. One of them has been married twice. Three Somali men are married but live without their wives and children. For one of them it is temporary while he searches for suitable housing in Copenhagen. For the other two, their wives and children have moved to England and the separated household is a more permanent situation. One Somali woman is married for the second time but her husband lives in Sweden. Of the Turkish interviewees, two women are divorced and live alone with their children. Only one interviewee, a Turkish man, lives in an extended household with the mother and grandmother of his wife. This is only temporary while he is establishing himself in Denmark; having migrated only three years ago. Others have started their housing career in Denmark this way. Two of the young Turkish descendants are living at home. The young Somalis differ in this respect as they have both left home prior to marriage and are living with peers.

Seven of the Turks and 6 of the Somalis are in employment. One Turkish descendant is studying while three of the Somalis do so. They are all working alongside their studies. Six Turks and four Somalis are unemployed. One Turk is retired.

Housing type and tenure	Turks		Somalis	
	Male	Female	Male	Female
Owner-occupied house	-	-	-	1
Owner-occupied flat	3	2	-	-
Co-operative flat	2	1	-	-
Private rental flat	-	-	-	-
Public housing flat	2	4	3	4
Room in flat	-	-	1	2
Others (Open prison and women's home)	-	-	1	1

Of the 28 respondents, 25 live in a flat either one they own, rent or rent a room in. Of the Somali interviewees only one live in owner-occupied housing and none in co-operatives. In contrast, five of the Turkish interviewees live in owner-occupation and three in co-operatives. This mirrors the general situation of the two groups in Denmark as described above. The vast majority of the housing units that are part of the housing careers of the interviewed Somalis are public housing. This goes for half of the Turks as well. Five of the Somali interviewees are in temporary housing situations, but for very different reasons. Two are studying and rent a room on a temporary contract, thus living the same way as many other students in Copenhagen. The other three are on

waiting lists for public housing. Three of the Somali men have previously had experiences with homelessness.

Change in the housing careers of Somalis and Turks

On an overall level, the housing careers of the interviewed Somalis and Turks are for the most part characterised by voluntary moves and the overall impression is of satisfaction with the careers they are looking back at and the options of the future. Their stories stand out compared to previous research as they are largely devoid of insecurity, instability, bad housing conditions and limited progress (e.g. Murdie 2002 on Somalis in Canada; Dhalmann on Somalis in Finland; Sørholt 2007 on Somalis in Norway; Bolt & van Kempen on Turks in the Netherlands; Magnusson & Özüekren 2002 on Turks in Sweden). During the housing career thus far, a primary reason for change has for most of the interviewees of both groups been to move to bigger flats. For the Turkish work migrants, improving housing conditions was a driver for change in the early part of the career where bad housing conditions were widespread in Copenhagen. Due to the conditions of the early housing, moving more or less automatically meant an improvement and one thus had to take the options that presented themselves. Many of the Somalis were originally placed outside Copenhagen. A reason for change in their careers was thus relocation to the capital region. By and large, the interviewees have been able to realise the preferences through change between housing situations. As will be shown, change has come about in an intersection between choice and constraint.

The interconnectedness of life spheres and the implications for change in housing

The family career and the employment career of the household provide motives for change and determine the options available to choose between. Both careers are also related to the life phase of the individual, in that family and employment situation forms the life phase. Life phase in turn has a significant influence on housing needs and preferences and thus influence the desire for change in the housing career. Network and knowledge of the household are also crucial in shaping the available choices of the individual.

Adult life can be seen as consisting of three broad phases: young adulthood prior to family formation, the family phase and the years after the children have left home. During the early part of adulthood many young adults are studying and thus need to live close to educational centres. Often, family formation has not taken place yet meaning that the need for stability is lesser. To the three young Turkish descendants, housing is not relevant until family formation and the housing options of young single adults are thus irrelevant to the Turks. (Bolt & van Kempen 2002): *“For Muslims, young people generally very rarely leave home before marriage”* (Nev_T). In comparison, the young Somali interviewees do not see leaving home and family formation as coinciding and have both left home prior to marriage. This difference between Somalis and Turks is mirrored amongst the older interviewees when talking about their children leaving home. The two young Somalis have experienced a lot of change in housing during their young adult lives, having moved around on temporary contracts. They perceive this to be the general condition of students in Copenhagen and both feel they have been lucky regarding the options they have had thus far. They perceive the lack of stability as flexibility and mobility, offering the option of travelling without being tied to a place. Hence, age itself does not automatically translate into specific housing needs; it depends on family situation and cultural preferences.

The onset of the family life phase initiated by family formation leads to less flexibility and a greater need for stability. Dhalmann et al. have shown that stable contracts are one of the most basic needs in relation to housing and that it is what Somalis in especially Norway and Finland strive for. In Denmark, this seems not to pose an issue. Contracts are not time-limited within the public sector where most of the interviewees conduct their housing careers. Instead, the wish for stability becomes crucial in relation to the children, their school and their friends, leading to a preference for staying in proximity to the children's school. Some ended up rather coincidental in a specific neighbourhood in the early part of the housing career and now see themselves as tied to the neighbourhood until their children leave school. Housing situations are thus interconnected as the neighbourhood within which one is in when the children starts school can become the only area which a household is oriented towards in terms of conducting a housing career. This by definition limits the choices available to the household and thus the options for change.

In the family life phase, the growth and the size of the family influence housing needs in terms of size of dwelling. Many Somali and Turkish families are large (REF) and the larger public housing flats are sought-after and thus hard to get. A Somali man living with his wife in a four room flat with six children says: *it is not the flat that is small, [it is] the family that is too big* (Mu_S). Needs are not constant within life phases, amongst other things because of the children growing older. For those in public housing, this translates into a wish for a larger flat as their oldest child wants its own room. Here timing becomes crucial and can constitute a problem: one might not get the larger dwelling before the eldest child decides to leave home. This is one respect in which conducting a housing career within the public housing sector can limit one's options.

Another way in which the family career provides motives for change in the housing career is the break-up of households. This leads to changed housing needs and changed financial situations which in turn affects housing options. In this case, the social support system becomes crucial: *I am a single mother so I get quite a lot of help from the municipality. So it is not that expensive for me.* (Fa_S). Especially within the Somali group of interviewees, broken households are common⁸. For the male Somali interviewees, broken households were related to social or addictive problems which in turn lead to homelessness. All three received help from the system in finding new housing.

Later in life, housing needs change again as children start leaving home. For some this translates into a wish for moving to smaller units with more manageable rent levels. Such a change is easily achieved within the public housing sector due to internal waiting lists and the demand for bigger housing units. Those living in owner-occupation do not expect to move again unless it becomes necessary because of job changes or access in older age. As such, owner-occupation leads to more permanent settlement.

The employment career provides both motives for change and determines the options available in the housing career. Change in employment situation can be a motive for change in the housing career because of relocation either for a specific job or in order to improve general employment options when unemployed, the interviewees explain. As determining for options, employment situation is crucial for the financial options of the household. Students have fewer means and have to work alongside their studies in order to meet the costs of living in Copenhagen. Housing allowances aid the unemployed and single parents in managing the housing costs and are at a level where the rent level becomes affordable: *"If I didn't have the housing allowance I*

⁸ An aspect that seems relevant only for the Somalis is that broken households can lead to or is a consequence of the female part moving to England with the children. It does not necessarily entail a divorce.

wouldn't have been able to live like this" (Fa_S, Single mother, four children, four room flat). However, despite allowances unemployed can experience problems with paying their rent if they lose their benefits on account of not meeting the requirement of having worked at least 450 hours in total within the last 2 years. Apart from the financial aspects, the Danish system of flex-renting gives further importance to employment. The options in the housing market are better when in employment, thus leading to a greater possibility of realising preferences: "If I work I get quickly a flat, I am independent, I can pay myself. But us who do not work, we always hold the municipality's hand." (AmC_S).

Knowledge is crucial for understanding ones options for change in the housing market. Lack of knowledge limits the choices available and gaining knowledge can lead to change. "It was a good flat but the neighbour who lived above us she doesn't like us. She doesn't like foreigners; she had just started complaining about me. (...). So in the end she had won (...). She won because she knew the rules. But now I know everything." (AmC_S). For the Somali home-owner, research on the perception of Imams regarding paying interest was thus crucial for the decision to move to home-ownership. Furthermore, the networks of the interviewees have provided needed knowledge through aiding in understanding options and rights in the housing market. Network can also aid financially through providing loans for buying, which one of the Turkish descendants are expecting to rely on for buying a bigger co-op flat.

The context for change

The context is crucial when one wishes or needs change in housing as it impacts the possibilities and restraints of the household. One such point in time for immigrants is the context at arrival. This was different for Somalis and Turks. As the early Turkish migrants came years before the Somalis, the general conditions were worse and there were many more dwellings without central heating and bathroom. Some of the Turkish interviewees thus lived in bad housing conditions in the early part of their housing career and had limited choices: "We just took what came along first" (Su_T). A driving force in the early career was thus to acquire suitable housing of a reasonable condition. Many of the Somalis started their Danish housing career in temporary housing e.g. asylum centres or hotels, followed by placement in various parts of Denmark. Some have stayed where they were placed for long, others moved quickly to the Copenhagen region. For both the Somalis and Turks, requiring suitable housing has been possible through conducting a housing career.

Currently, the housing market of Copenhagen is tight. Prizes on owner-occupation and co-ops are high and have risen over time: "Co-ops were cheaper back then [when they bought their co-op 11 years ago]. Afterwards [it is expensive]. Prices are rising." (Em_T). Thus, the timing of buying is crucial. Furthermore, the central and sought-after public housing areas have long waiting lists of up to 20 years and the rent levels of Copenhagen are high according to the interviewees. Options in the public housing sector are perceived to be better in Jutland and on the outskirts of Copenhagen where units are accessible within a shorter time frame. The context thus differs both between and within regions.

The organisation of the public housing sector constitutes another crucial part of the housing context, as the majority of especially Somalis but also Turks conduct their housing career within this sector. To do so has implications for the options available and the choices that it is possible to make during the career. The key to the housing career becomes the internal waiting list and the access rules of the sector (Skifter Andersen 2004). In order to achieve change, you have to be

ready to take the options available when they present themselves: *“We have been saving money up. We waited five years. It takes time you see to get this new flat. We have been saving money so that we can move [when the opportunity arises].”* (Ay_S). The rent levels of public housing are perceived by some interviewees to be high but not to the extent that it hinders conducting a housing career within the public housing sector.

Relevant laws and regulations affect housing options as well, especially the access rules. A fairly recent change in context came with the introduction of flex-renting which, as described, influence the unemployed negatively and the employed and students positively. The interviewees are very aware of the consequences of flex-renting. Some of the interviewees are dependent on housing allowances which you can only get when living in private or public rental. This can provide a disincentive for buying a housing unit. The financial difference between buying and renting is thus expanded by the housing allowance (Skifter Andersen et. al. 2000).

The extent to which discrimination limits the choices available is yet another crucial aspect of the context which immigrants and descendants are navigating in. One Turkish interviewee talking about the early part of his housing career says: *“It was like this back in the 1970’s, that there weren’t any Danes who were willing to let a flat to us. The distance was too big”* (Nes_T). Interestingly, this is the only experience of discrimination in the housing market to be found in the interviews. And while some of the interviewees have experienced discrimination in other spheres of life and express discontent with the negative discourse on immigrants in the media, they have never felt that discrimination has influenced their housing careers. This is contrary to many other studies (REF). The flex-rent regulation is not perceived by the interviewees as discriminatory even if it does affect immigrants disproportionately. Both the Somalis and Turks feel that their options are the same as those of Danes.

“We [immigrants] are not alone. There are many Danes who also have a hard time finding a flat. There are also many students, I can see, who needs a place to live. It is just the system and the housing shortage that causes it.” (Haw_S)

Previous studies have found that private landlords are reluctant to let their units to immigrants and this is thus often seen as an obstacle to the rental sector (Skifter Andersen & Skak 2008; Aalbers 2002; Andersson 1998). Nevertheless, it seems that the picture is more nuanced than this: if immigrants do not try to gain access to the private rental sector, discrimination by landlords is never experienced. One reason for avoiding the rental sector could be that restraints are internalised by the household so that options that are out of reach of the household are not considered (Özüekren & van Kempen 2003). Nevertheless, the comparative study by Dhalmann et. al. shows that in the other Nordic countries, Somalis are very aware of the limitations they face compared to others. There is no good reason why this would differ between the countries; making immigrants in Denmark less able to identify the obstacles they face. An actual difference in obstacles is more plausible. Thus, it seems that if the options of the public housing sector are good, the private rental market becomes irrelevant.

Realising preferences and needs through making choices

The importance of agency is very evident in the interviews and thus supports the notion by Peach that the housing career cannot be understood independent of the choices of the individual or

household. It is in relation to choices that the differences between the two interviewed groups become apparent.

On an overall level the room for manoeuvre seems good as the interviewees have had the possibility to shape their own housing careers. The lack of private rental units in their housing careers is perceived as their own choice. Furthermore, few of the interviewees have experienced forced moves. Within the public housing sector, there are clearly choices to be made in terms of which areas one is interested in living in and the size of the flat one is looking for: *"I am searching [for housing] now and I actually get a lot of offers but I turn them down. Some are too small, others too big, yet others too expensive. It is hard to find exactly what you want."* (Su_T, widow, one child at home, four room flat). It is possible to have specific wishes and influence your career but the more specific your preferences are, the longer it takes for the right offer to come along. In general, the interviewees express satisfaction with the opportunities available to them within the public housing sector and feel that they have been and are able to make choices within the sector. A comparative study by Dhalmann et al. (together with the author) has shown that the Copenhagen housing market stands out in this way compared to the housing markets of Helsinki, Oslo and Stockholm (Forthcoming). An unemployed, single mother living in a women's home with her son after being evicted says that: *"They ask me at the women's home if I want to move to Helsingør [a town 45 km north of the Copenhagen city centre] or something; it is easier to get a flat. But I say no thanks!"* (AmC_S). One of the male interviewees, also unemployed, has recently moved to Copenhagen and is living with a friend while looking for a flat so that he can bring his family over from Jutland. When asked whether he has to accept a smaller flat initially he says: *Not at all. It depends on the information you give to the housing association office. You say four rooms, three rooms, two rooms, one room outside of [central] Copenhagen and, I think, then it is three to six months then you can have, then you probably have a flat.* (AbC_S). Thus, even for those who are in an immediate need of housing, it is possible to choose between options and thus to act according to their preferences regarding housing. While the unemployed feel too dependent on the municipality and their social worker, they do tell of being able to make choices regarding area and size of flat.

For some, buying a home has never been an option due to limited financial resources. For others, buying has been a choice they could make. Here, the differences between the two interviewed groups are evident. The Somalis perceive paying interest as against Islam. To some of the Somali interviewees, buying is financially possible or has been previously but for religious reasons they do not see it as an option available to them. Thus, the availability of the option of buying depends not only on financial situation. This is one of the reasons why the public housing sector becomes the primary setting for the housing career of Somalis. The social control is strong and enforces the unwillingness to buy (REF). The possibilities in the public housing make it less necessary to consider violating ones religious beliefs which other studies have found are necessary elsewhere (Dhalmann et. al. FORTHCOMING; REF). The solitary home-owner amongst the Somalis is an interesting case in relation to this. Her and her husband chose to buy as they wanted to live like the majority do in Denmark and didn't feel that they could have the life they wanted unless they bought a house. But it took careful consideration to reach the decision and it has cost them friendships. Religiously, she is still not sure whether they made the right choice. One of the young Somali interviewees would consider it an option in the future: *"I probably do not prioritise [the religious rules] on paying interest that much because who can pay two million kroner? But if the option of not paying interest was available I would probably choose that."* (So_S). The interviewed

Turks are markedly different in this respect. None mentions religious reasons for not buying housing and several have chosen to do so. The three Turkish descendants all see their future housing at some point being owner-occupied or co-op: *“I would like to own something. Both because it then is your own but also because I think that in the long term I will be able to get the resources for it, and it is just different to have your own. (...). I think it is important to invest in the life you have.”* (Nev_T).

The positive view of the past housing career is mirrored in the interviewees' perception of the possibilities for improving their housing situation in the future. For some, improvement is irrelevant as they are satisfied with what they have and do not expect that to change. Some of these imagine their next home to be in Somalia/Turkey at some point. Others describe potential room for improvement e.g. having a garden, but with no specific desire to move currently or in the near future. Yet others express a wish for moving to something smaller when the children leave home; a wish that is most likely easy to achieve as bigger flats are in short supply. And then there is a group of the interviewees who have a specific and thus far unfulfilled wish for change. Some see the desired change as possible within a foreseeable future as they have been told so by the municipality or the housing association. Others are unsure. One interviewee expresses discontent with the situation and the lack of choices available to him. He seems resigned to not having any ways of improving the situation himself. Compared to other studies, it is interesting that this is the story that stands out as being the exception from the rule in terms of choice as many other studies find exactly such stories being the norm (REF). Making choices and thus shaping one's housing career according to own preferences is thus for the vast majority possible within the Copenhagen housing market.

Concluding discussion: making choices or taking options?

This study has shown that while Turkish immigrants and Somali refugees face constraints in relation to housing, they still have choices to make. It is possible for them to be active in shaping their own housing career through making choices based on their preferences. The diversity of the interviewees underscores this point: while the choices might be better for the more resourceful interviewees, even the unemployed interviewees living in temporary housing situations have choices to make. Change thus comes about in an intersection between choice and constraint. Life course analysis aided the analysis by highlighting how age, life phase, context, the links between careers and agency all shape the housing career. The analysis showed how preferences, needs, possibilities and restraints are closely linked together in an intricate way. Many factors influence but without including agency, we cannot fully understand the housing careers as Peach has pointed out. Consequently, focusing too narrowly on constraints might lead research to miss crucial characteristics of housing careers.

The two interviewed groups differ in many respects. In migration background, in situation at and time of arrival, in resources and in family characteristics. Furthermore, the interviewees constitute a diverse group representing some of the differentiation within the two groups. However, despite the differences, both groups have been able to advance during their housing career and both groups express satisfaction with their careers thus far, with their current situation and with the prospects for the future, with one exception proving the rule. The Danish housing market seems to offer good options for people of diverse backgrounds and in diverse situations. Including the two diverse migrant groups in the study has made it possible to highlight this. One cannot deduct from this that all immigrant groups fare well in the Danish housing market but it

does suggest that this could be that case. The analysis also shows that the interpretation of religion and the weight given to religious beliefs differ between the two groups and that they therefore adapt differently to the housing market.

An on-going discussion in the literature relates to whether the differences between natives and immigrants are caused by ethnic-cultural differences in preferences regarding housing or by immigrants being less able to realise their preferences. Many studies find evidence supporting differences in realising preferences and not in preferences themselves (Abramsson et. al. 2002; REF). In this study, the interviewees by and large have been able to realise their preferences, thus lending support for the prior notion. Furthermore, the study highlights that ethnic-cultural differences exist between immigrant groups as well, even groups of same religious background. They interpret their religion in different ways thus leading to different preferences in relation to housing. The study thus warns against presuming similarity between minority groups both when conducting research and in policy measures. A common goal for the settlement of immigrant groups in a given country cannot be presumed to be reached by uniform measures.

Owner-occupation is in the literature often perceived as the highest rung in the housing ladder and as the ultimate housing attainment (Constant et. al. 2009; REF). Furthermore, becoming a home-owner is seen as a sign of integration for immigrants (HANS LINA TIMO; REF). But as Elsinga writes in a recent book: Home-ownership is not for all (REF). It is not everyone's dream and it is not the most suitable solution for everyone. The analysis in this paper lends support to Elsinga's argument. Furthermore, it shows that the Danish housing market allows for good alternatives in the public sector. Thus, home-ownership might not be a suitable measure for integration at least in a Danish context. Furthermore, to discuss home-ownership as the dream housing situation becomes irrelevant for the Somalis as they see it as against their religion. In some countries, Somalis can be forced to violate this belief due to the lack of suitable and stable alternatives to owner-occupation (Dhalmann XXX). In Denmark however, the good options of the public housing sector allows Somalis to uphold their religious beliefs. In this way, preferences are shaped by possibilities and restraints and adapted to existing housing stock (Søholt 2007). They are contextual. To the Somalis, promotion of home-ownership would have to go hand in hand with the possibility of choosing sharia-compliant mortgages. This is not the case for Turks.

The housing situations of immigrants are often presented as disadvantaged. As described in the introduction to this paper, there are good and valid reasons for this. However, the analysis shows that the interviewees do not perceive themselves to be disadvantaged. Hence, it warns against mistaking the objectively defined understanding of disadvantagedness for a subjectively perceived experience of it. Likewise for discrimination: while landlords might express discriminatory attitudes and mixing policies might have discriminatory outcomes, it does not follow that immigrants themselves feel discriminated against. In this study, discrimination is conspicuous by being absent as perceived by the interviewees. This begs for further research into the links between real and perceived discrimination.

A potentially problematic development in the possibility of realising preferences in the public housing sector is underscored by this study. While the introduction of flex-renting aids some individuals in gaining (quicker) access to housing, it hinders others in progressing in their career. And it does so for a group of people, the unemployed, who have the least possibility of conducting their career within other sectors of the housing market. This leads to bigger differences in the possibility of realising preferences as the share in employment differ greatly between the different immigrant groups and between immigrants and Danes. While there might be valid arguments for

the advantages of flex-renting in relation to the socio-economical composition of neighbourhoods, an awareness of the drawbacks is warranted. A risk could be further marginalisation of households with few resources. Flex-renting can hinder progress in the housing career of the unemployed, exacerbated by the attachment to a specific neighbourhood. Furthermore, the regulation on flex-renting can be expected to impact differently on the two groups under study here. As unemployment and broken households are more common for Somalis, they can be expected to be hit harder by flex-renting. Such aspects need to be taken into consideration as the downside of achieving social mix.

The study has been conducted within the context of the Copenhagen housing market. Its findings, however, go beyond the boundaries of the Copenhagen region. It highlights the importance of choice even within constraints. It brings to light ethnic-cultural differences between ethnic groups. It shows how a seemingly disadvantaged situation can be perceived differently by the individuals themselves. And it highlights the complexity of the housing career and the interconnectedness of possibilities and preferences, thus accentuating the need for studying housing careers in the context of the housing markets they take place in. Preferences are shaped by possibilities and restraints and should be studied as such.

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Workshop Session D

// Sustainable homes and cities

The home is increasingly becoming an object in political strategies and regulation towards sustainable cities. Especially the challenges of climate change receive much attention in these years, but also other important challenges are related to the goal of sustainable development within homes and cities (e.g. the overall increase in resource use). Also, it is important to keep the wider perspective of sustainable development in mind; i.e. the aim of developing solutions that addresses local and global environmental challenges without compromising sustainable development within other areas such as social relations on a local or global scale. This session invites papers that address different aspects of sustainable transition in relation to homes and cities. This can be papers focusing on specific consumption areas, papers discussing the politics and strategies for retrofitting existing homes, as well as broader papers on sustainable development of cities and everyday life.

Session leaders:

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Papers:

Anders Rhiger Hansen

Heitor García Lantarón

Jan Johansson

Jesper Ole Jensen

Peder Duelund Mortensen, Elisabeth Dalholm Hornyanszky,
Jacob Norvig Larsen, Claus Bech-Danielsen et. al.

The potential for quantitative sociological research on residential energy consumption in Denmark

This is a work in progress, so please do not quote.

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Abstract:

In this paper, I start by describing how energy consumption can be understood from a sociological perspective by taking into account that energy consumption is embedded in social practices. Next, I describe how the potential for quantitative sociological analysis on energy consumption has improved because of new available data that enables researchers in Denmark to use information on energy consumption that comes from the energy-supply companies. After that I present a preliminary research design that employs both a quantitative sociological perspective and the newly available data on actual energy consumption. The design contains a descriptive analysis of how energy demand differs between different types of households.

At last, I claim that there is a great potential for quantitative sociological research on energy consumption and that such a perspective can contribute with more generalizable results, extend the broadness of research questions, and give better opportunities for analysis concerning impacts on energy consumption over time.

Keywords: energy consumption, quantitative sociological research, register data

Introduction

The residential sector is a significant contributor to the total energy use in Denmark, thus in 2011, it accounted for 31 % of the total energy use (Energistyrelsen, 2012, p.35). Therefore the sector must be considered as a valuable focus for study, when the political goals of reducing the total energy use in Denmark is to be met (*Energiaftalen 22. marts 2012*, 2012).

Residential energy consumption varies largely as a result of building characteristics. However, studies have shown that the role of the occupants also play an essential role for residential energy consumption (Andersen et al., 2009; Guerra-Santin and Itard, 2010; Lutzenhiser, 1993). Therefore, it is important to investigate how occupants consume energy to fully understand how energy consumption for households differs.

In addition, it can be argued that as a result of more energy efficient buildings and techniques, research on occupant-related energy consumption become gradually more important (Guerra Santin, 2010), for example as a basis for designing policies to meet political goals of reducing energy use (Braun, 2010).

The precondition for this article is that sociological research plays a central role in investigating how households consume energy, and that sociological research can contribute more to the research on residential energy consumption by introducing more quantitative research projects. It is not that this kind of research has not been conducted in Denmark, but this field could be enlarged, especially as new quantitative data material is becoming available.

This paper is built up in three parts; first I present how energy consumption can be viewed from a sociological perspective. This includes both some sociological studies on energy consumption, and a theoretical frame on how to understand energy consumption. Next I present the extensive data material that it is possible for Danish researcher to acquire, and after that, I present an example of a preliminary research design that uses the quantitative data material. In the end, I give my opinion on what quantitative sociological research can contribute with in regard to analysis on residential energy consumption.

1. The role of sociology in regard to energy consumption

A central figure in sociological research on energy consumption is Loren Lutzenhiser. In one of his articles, his starting point is that human behaviour plays a central role for residential energy consumption (Lutzenhiser, 1993), and from this he outlines the role of sociology regarding analysis of energy consumption. His focus is on how a sociological view can contribute to understand the demand-side of energy consumption, and to do so he has formed a cultural model of energy consumption. The underlying basis for this cultural model is that energy consumption is embedded in cultural processes where cultures are organized in social structures, including what he calls “styles” of life. In other words, the basis is that energy consumption as an economic activity is embedded in social structures, situations, and statuses. Thereby, he focuses on groups rather than individuals, and according to himself, he thereby offers “[...] *an intellectually satisfying alternative to narrowly focused physical and individualistic approaches to the study*

of consumption" (Lutzenhiser, 1992, p.54). Together with Bruce Hackett he has conducted an empirical study where they employ the cultural model of energy consumption. Here, they among other things generate an empirical model to predict energy use in a California apartment complex, where they add a cultural aspect by including a variable of "home continent" groups. They found some differences between the cultural groups, which they explain by differences in cultural practices and norms in the homelands (Hackett and Lutzenhiser, 1991).

The perspective presented by Lutzenhiser focus on how energy demand differ for different social groups, whereas much of the more recent sociological research on energy consumption are more interested in the social practices that are interlinked with energy consumption. This perspective is referred to as practice theory.

In practice theory, the focus of attention is on social practices rather than individuals, social groups and so forth (Shove and Walker, 2010). According to Reckwitz social practices are "[...] *sets of routinized* bodily performances" (Reckwitz, 2002, p. 251), meaning that the individual is body and minds that carry out a practice according to previous experiences and embedded routines. Moreover, consumption can occur within a social practice or for the sake of social practices (Warde, 2005). To put it another way, consumption can be hidden in a social practice or consumption can be necessary to carry out a certain social practice.

Much energy consumption is embedded in routinized practices such as adjusting thermostats and turning the light on and off. It can therefore be argued that energy consumption is a product of social practices or inextricably linked with social practices. In other words, energy consumption is something you do, when you are carrying out other practices. Consequently, the focus of the consumer should be more on the routinized bodily actions than the actual consumption.

For these reasons, practice theory is suitable for interpreting energy consumption because practice theory enhances the value and meaning of social practices in consumption. For example practice theory has been used to argue that policies should not only be based on the idea of a rational consumer, but also on the idea that consumption is interlinked with certain social practices (Gram-Hanssen, 2010). A range of studies have focused on specific social practices to understand energy behaviour. This is social practices such as energy renovation practices (Bartiaux et al., 2011), cooling practices (Strengers, 2010), green practices (Bartiaux and Salmón, 2012), and heating practices (Peeters et al., 2008), to mention a few. More generally, these practices can be referred to as every-day practices (Shove and Walker, 2010), and according to Reckwitz the focus of practice "[...] *seems to be tied to an interest in the 'everyday' and 'life-world'*"

(Reckwitz, 2002, p.244). To sum up, Lutzenhisers perspective was more on the demand side, what types of households display differences in energy demand, whereas practice theory is more interested in how energy consumption happen as a part of the everyday life. To understand a general consumption pattern, more quantitative methods tend to be more useful, whereas, to understand every-day life practices, more qualitative methods tend to be more useful. Therefore, many of the abovementioned sociological studies are based on a qualitative methodological perspective. However, there seems to be an untapped potential for studies based on a more quantitative methodological perspective. Not only in relation to studies of demand, but also in studies of social practices. Quantitative research on social practices can thus contribute to understand how social practices also can be understood in relation to consumption patterns and social structures like it is the case of energy demand. As Reckwitz writes: "After all: 'practices' form structures of action" (Reckwitz, 2002, p.244), and to empirically investigate these structures quantitative analysis are suitable. The potential for quantitative research on energy consumption is especially prevalent in Denmark, because of an extensive data material on energy consumption and household characteristics. In the next part of the paper, I will present this data.

2. Information on energy consumption

It is a required task of the Ministry of Housing, Urban and Rural Affairs to collect information on residential energy consumption in Denmark. In June 2013, an amendment became effective that made this data available for research on energy consumption.

The law prescribe that all energy supply companies for heating have to report to the ministry how their customers consume. In addition, they need to report additional information such as heat supply.

Moreover, the law states that Energinet.dk, which is a company that collects information on electricity use in Denmark, also has to report the energy consumption of electricity to the ministry, which will become effective from 1th of December 2013.

The amendment enable researchers to conduct analysis on actual heating and electricity consumption for all Danish households, which forms a solid basis for quantitative analysis on residential energy consumption in Denmark. In other words, this information gives a unique possibility to do research on energy consumption, because this type of data must be considered more reliable than self-reported energy consumption. In addition, the data is much more extensive, and gives the possibility of conducting analysis on a total population at best.

The information on energy consumption will become a part of The Danish Building and Dwelling Register (BBR), which already contain extended information on buildings and dwellings in Denmark. Like the BBR, there is also registered information on family and individual level. This is information such as education, occupation, income, demographics and family composition.

One of the advantages with register data is that the researcher avoids problems with deficient questionnaires and reluctant respondents. Instead the researcher gets valid and detailed information on a total population of every individual, household or family in Denmark. Moreover, the register data contains information about previous occurrences as it is collected for each year. Such information about previous occurrences is often difficult to get information about otherwise (Hansen and Hjorth Andersen, 2009, p.96).

In contrast, it is a disadvantage that the data is collected for administration purposes and not for research purposes. This means that the researcher is restricted to use the administrative categories. However, I would argue that because of the magnitude of the data material and the level of details in each variable this problem can often be solved.

Another disadvantage is that the quality of the data can be questioned; who are responsible for reporting the information? Under which circumstances are the collecting of data taken place (Hansen and Hjorth Andersen, 2009, p. 97-98)? These questions are difficult to answer, and the transparency is lacking, which would have not been the same with self-conducted survey data.

Although there are some disadvantages by using register data, it is from a more general perspective an ideal way to get quite accurate information about individuals, households and families for a longer period of time. And together with information on energy consumption it forms a solid basis and an internationally unique possibility for analysis on residential energy consumption.

Survey data

However, the register data lacks information on practices, attitudes, norms and so on, as well as does not contain information on detailed equipment in dwellings.

Therefore, the data is suitable for investigating the relation between household types and energy consumption, but it has its limits concerning analysis of attitudes, preferences, values, and practices. However, this can be solved by combining the data material from the registers with for example survey data.

In Denmark a lot of survey data is accessible through the Danish State Archives¹, where many surveys conducted in Denmark are stored. It is possible to apply for using this data, which in some cases require accept from the researchers that conducted it. Another way to get useful information is to conduct the survey oneself, and thereby secure that the right questions can be asked. Here as well can the register data be useful to construct a sample that is representative for the population one wants to study. Likewise, the register data can be useful afterwards to weight the data so that the analysis becomes more valid and representative for the population.

3.An example of a research design

In this last part of the paper, I will present a preliminary research design with the use of quantitative methodology. The idea presented here will eventually form a paper that will become a part of my PhD. The overall research question is: *Which types of households display differences in energy consumption for heating?* It is thus a descriptive analysis of how energy demand differs between different types of households.

The best way to investigate the relation between household characteristics and energy consumption level is to construct a multiple regression model. Multiple regression models can be used for investigating the association between two or more variables or to explain variation in a certain continuous outcome, which in this case is energy consumption. To put it another way, a multiple regression model describes how the mean energy consumption changes according to the value of one or more explanatory variables when controlling for other variables (Agresti, 2008, p. 266). In other words, a regression model estimate a mean conditioned on the independent variables. Moreover, the model can include control variables, which can improve the model and thereby get a better prediction of the outcome (Wooldridge, 2003, p.68). The regression model is frequently used to analyse correlation with a continuous outcome, which is also the case with energy consumption (Andersen et al., 2009; Guerra Santin, 2010; Hackett and Lutzenhiser, 1991; Leth-Petersen, 2003; Steemers and Geun Young Yun, 2009).

Contrary to Yun and Steemers (2011), who also use a multiple regression model to predict energy consumption, which in their case is for cooling, I have a more extended data on households determinant as for example educational status and occupational status of the households. Therefore, I will have a better basis for investigating the relation between lifestyle and energy consumption because I consider education and occupation as better predictors for lifestyle (source missing). However, I lack information on occupants

¹ It can be found here: <http://www.sa.dk/dda/>

heating practices and behaviour like Steemers and Geun Young Yun (2009) and Guerra Santin et al. (2009) have.

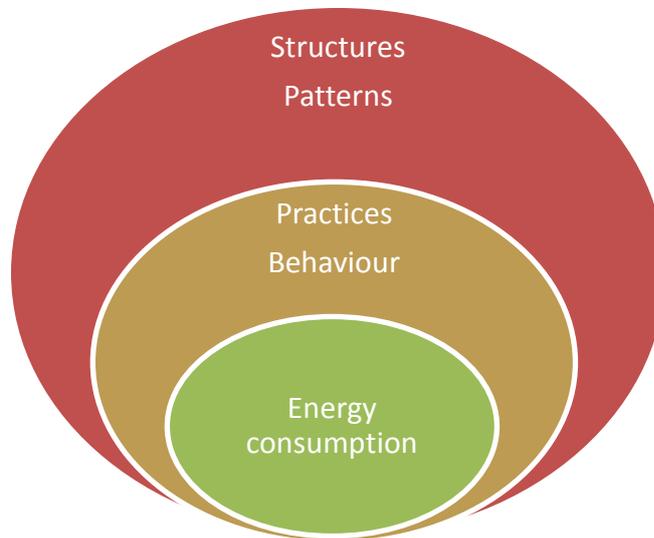
Theoretical background

I understand energy consumption as embedded in social practices. Like I described in the first part of the paper; energy consumption happens when carrying out practices. Therefore, changes in energy consumption should be understood as different practices. For example if a household consume less energy than another household, this is caused by differences in practices.

I have illustrated this in figure 1. In the inner circle I have placed the energy consumption. This is what the households in the analysis do; they consume energy. However, this energy consumption happen as a result of or for the sake of routinized bodily practices, which I have placed in the next circle surrounding the energy consumption. Moreover, I have described this as behaviour. The last, outer circle contains the structures and patterns that influence the practices or behaviour, and thereby also the energy consumption. The structures delineate the differences between household in various fields, and it is possible to observe these structures by examining empirical differences in household characteristics. For example social structures can be observed as differences in income, which indicate the possibilities of behaviour and actions that the occupants in the household have.

The structures and patterns are thus a way to describe differences between households, and afterwards to put in relation to energy consumption level.

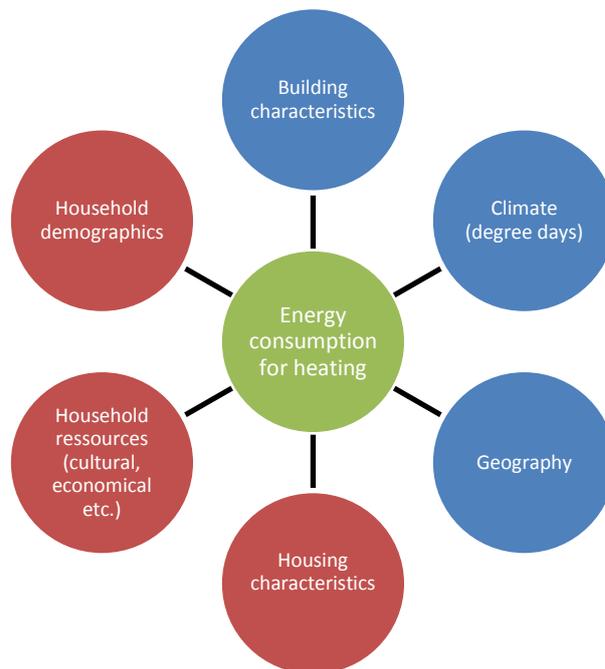
Figure 1. Energy consumption embedded in practices and structures.



This is not a full explanatory model; it is just a way to illustrate how different concepts can be used to understand the theoretical idea of this paper. What I do in the empirical model is to explain energy consumption by skipping the middle circle and go directly from household characteristics to actual energy consumption. I have illustrated this in figure 2, where I present some of the possible determinants for explaining energy consumption. I have focused on the determinants that I have information about in the data material described in part 2 of the paper in figure 2².

² It is important here to point out that I have made this model before I have the final data material; therefore it is certain that the variables will change when I know the exact possibilities and limitations of the data material.

Figure 1. Research model to explain variation in energy consumption.



The blue circles contain what I in a sociological analysis will use as control variables. At first it is the building characteristics such as dwelling type, ownership, size and so forth. Degree days are important to correct for heating degree-days, because it has an effect on the need for heating a dwelling. This is also used by Guerra-Santin and Itard (2010). The last group of control variables is geography, which has a diverse meaning. It can thus both express differences in lifestyle, differences in energy price level or maybe even differences in climate. Further analysis will show how geography can be used.

The red circles are the explanatory variables. The first group of variables are household demographics, by which I mean household composition according to age, ethnicity, gender and civil status. Many of these factors do not change during a life-time, whereas the next group containing variables on household resources can change every year, as for instance yearly income. These variables state the options that the household has. At last, I have put in a group named housing characteristics, which is information such as how long they have lived in the dwelling, and maybe what kind of dwelling they have lived in before.

The variables can easily explain the same variance. For example; years of living in the same dwelling will probably be correlated with age and income will probably be correlated with education to name some examples.

There will be two results from this analysis; one, which household characteristics have a significant relation to energy consumption level? And two, how much of the variance in residential energy consumption do the household characteristics explain all together?

What does a quantitative sociological perspective bring?

Overall, I think there is a great potential for quantitative sociological research on energy consumption. First, quantitative research can provide generalizable results that are representative for all households in Denmark, which can enhance the usage of the results. Second, quantitative research provides the possibility of asking some additional research questions. Where qualitative research questions can address questions like; how users carry out practices and what users think about the practices they carry out, a quantitative research design can address questions like; who carry out certain practices, to what extent do they carry out the practices and for how long do they carry out the practices. In addition a quantitative research can contribute to understand what drives occupants to consume more or less energy. Third, quantitative methodological research is suitable for putting social practices in relation to actual energy consumption, and thereby also putting the energy consumer in relation to actual energy consumption. Fourth, it would in time, with the use of quantitative research methodology and quantitative data, be possible to investigate changes in energy consumption for different types of households over time. In other words, it would be possible to do analysis on how residential energy demand evolves in relation to societal changes such as state of the market, energy discourses or specific energy policies.

In general, more quantitative sociological research could both strengthen and validate the evidence on the field of energy consumption research, and thereby also extent and use of knowledge about energy consumption. Moreover, quantitative research brings focus on patterns and structures of routines, practices, live-styles etc., which is an essential part in the studies of human action and behaviour, and thus also energy consumption.

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The Autistic Suburbia of Madrid

A constructive approach to recent Urban Developments

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Abstract:

The aim of this paper is to realise a critical analysis of the recent urban developments in the city of Madrid. Given the urban problems in one recent development, Sanchinarro, a case study was initiated at the UFV School of Architecture in Madrid. Seventy students were involved in the study. During a semester, they analyzed the urban setting of Sanchinarro by use of architectural design methods. The design task was to densify the urban structure in order to allow for a diversified demographic structure. This approach would allow for the inclusion of elderly people in the population. This way of working bears several resemblances with the concept of Urban Acupuncture defined by Brazilian architect and urban planner Jaime Lerner. In short, this concept can be explained as punctual incisions that improve the urban development, so that missing elements of the demographic pyramid can be included. The aim of the study was to establish the fundamentals of a new type of urban development that strategically includes care services network and a usability-oriented designed environment. This approach would generate a social coexistence between generations in the PAU developments. In conclusion, to plan for all stages in life: lifetime homes, lifetime neighbourhoods.

Key Words: Recent Urban Developments in Madrid, PAU, Urban Acupuncture, Lifetime neighbourhoods, strategic care services network, Usability, Social Coexistence.



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1. Introduction

“We know that planning is a process. As good as it could be, never gets immediate transformations. Almost always is a spark that initiates an action and the consequent spread of that action. It’s what I call good acupuncture. A true acupuncture”
Jaime Lerner, 2005



UAP Sanchinarro. Aerial view

Recent urban developments in the proximity of the city of Madrid have been realised by use of a physical planning tool called *Plan de Actuación Urbanística*, PAU. PAU can approximately be translated into Urban Action Plan, in the following UAP, whose main purpose is the promotion of completely new neighbourhoods in the outskirts of the city. The ultimate aim of the plan is to integrate these new UAP developments in the growing suburban landscape of Madrid. The UAP developments are also the first examples of a large-scale introduction of private initiatives in the urban planning of Madrid. This paper focuses on the realization of one particular UAP development, the one of Sanchinarro.

The study is partly based on the educational course “Coexistences: Tomorrow & Tomorrow” that was realised during 2011 and 2012 at the Architecture School at the UFV (University Francisco de Vitoria) in Madrid. This course involved 50 students training to become architects. In addition, a workshop with 20 additional students from the Architecture School at UCP (Universidade Católica Portuguesa) in Viseu, who performed an exchange student’s trip at the UFV. At the end of the course, the students’ different design proposals were presented in an exhibition at the Cultural Center of Sanchinarro. The project also resulted in a publication that contained both the students’ architectural designs and reflections on the course assignment. Given the urbanistic problem, the design task of “Coexistence: tomorrow & tomorrow” work was to *densify* the urban structure and allow for social *diversity*.

In this paper, density and diversity are proposed in order to improve the inclusion of elderly people in the population. Nowadays a type of pilgrimage is taking place in these UAP developments: grandparents, who have to care for their grandchildren while their parents are at work. They represent the so-called Kangaroo-Grandpas, who, in today’s Spain, are taking care of the whole family. Due to the crisis, many families depend on the pension of grandparents to live and many others have had to go back to their parent’s home because of the lack of jobs and opportunities.

SOCIAL CONTEXT

In Spain, in 2060, the proportion of people over 64 years will be around 32% of the whole population. This is trend in most developed countries that, despite decline in birth rates, life expectancy is increasing. This means more people in this group, but also they live more years (fig. 1 and 2). Therefore, this “Abundance of Life¹” must be understood as a great opportunity. It is important to highlight the potential of an aging population but as healthy, active and capable of choice and participation as never before. This “New User” in the urban regeneration process can be a solution as well as an encouragement for the development of these new neighbourhoods.

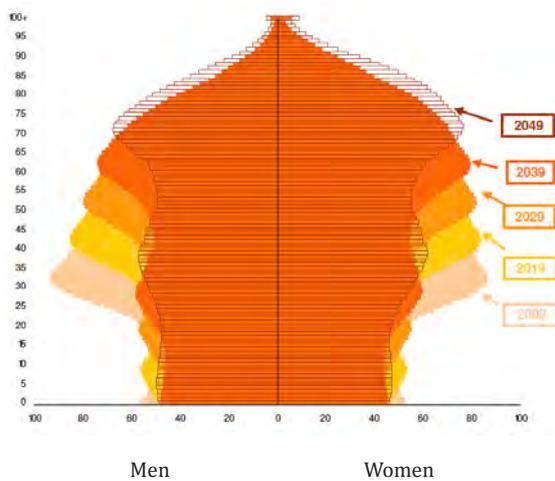
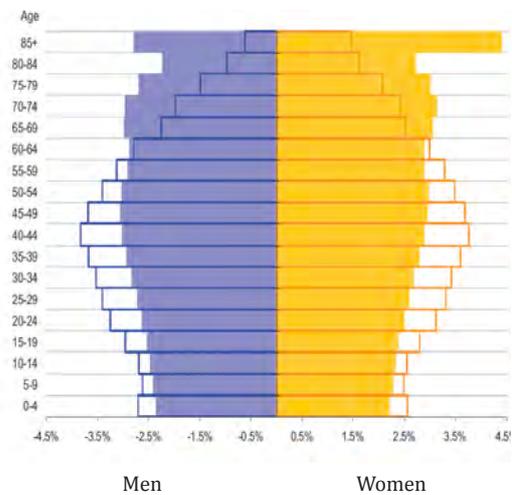


Fig.1. Spanish population pyramid evolution for the next 40 years. Source: INE (Instituto Nacional de Estadística)



Bordered colour: 2010 Solid colour: 2060

Fig.2. European-27 population pyramids 2010 and 2060. Source: EUROSTAT. Demography Report 2010

Herrad Schenk and François Höpflinger, both sociologists, state that old age is a stage of life that has much to contribute to our society. They highlight issues such as coexistence between generations, diversity and complexity that currently would imply a greater need for specific offers. This defines older people as a great resource. Schenk and Höpflinger oppose the stereotypes inherited from other times that, although they have evolved a lot in recent years, still consider this group as uniform, fragile, intolerant or inflexible. Nowadays, people age mentally and physically later than in other periods, i.e. they feel younger longer time, and so they are more active and participatory than ever. Moreover, this generation is the largest in history, the best educated and professionally most trained. They have things clear and know what they want and how they want it, and of course, know what they can, or cannot, afford. It is a complex collective and increasingly active and present in society, therefore the solutions that we bring should hold for all these options. The offer should be as varied as the demands.

(1) “The Demographic Revolution promises an Abundance of Life whose possibilities still remain largely unexplored” Harry R. Moody, 1988

The issue of aging has been, and now is becoming a priority for organizations such as the United Nations² or the World Health Organization. The latter organization has developed several initiatives that aim to improve quality of life in old age, such as the World Network Project of Cities Friendly with elderly people³, or the definition established for active aging: Active Ageing is the process of maximizing the opportunities to have a physical, mental and social welfare throughout life. The aim is to extend the quality and life expectancy at older ages. (WHO, 2002)

In the framework of the European Union, prosperous development and research are being made due to the picture presented in our environment. In this regard, Futurage⁴ project is noteworthy, since it has established a roadmap for research on aging and among whose main lines highlights “aging well at home and in community settings”, recommending that research should focus not only on homes, but also in the urban environment as a fundamental space for activity and participation, in this sense, defines the future research focusing on the physical-technical space such environments. Within these qualities, we must mention the accessibility, with which we are all now familiar and the usability⁵.

Additionally, it is important to highlight a concept developed at the University of North Carolina (USA) and linkable to the process of define new urban and architectural models: The Universal Design⁶. This approach is intended to lay the foundation for designing spaces that are more accessible and safer for a more diverse population.

Universal design does not mean that it serves all people, at all times, but rather refers to that can be used by anyone. If independence is the “What” Universal Design is the “How”.

The constructive approach is to enhance these urban developments by introducing elderly social group by an urban method based on the concept of Urban Acupuncture developed by Brazilian architect and urban planner Jaime Lerner. The objective is to transform them into “All Ages” neighbourhoods. This Urban concept was developed and implemented in the city of Curitiba (Brazil) by J. Lerner during the years he was the Mayor⁷.

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(2) The United Nations has addressed aging since 1948, when the General Assembly adopted resolution 213 (III) on the declaration of the rights of the elderly. In 1982 there was a World Assembly on the subject in Vienna, where he adopted the International Plan of Action on Ageing. 1999 was declared as the International Year of Older Persons under the theme “towards a society for all ages” and adopted the Plan of Action on Ageing Madrid International in the Second World Assembly in 2002. Source: IMSERSO (2003)

(3) Global Network Project Friendly Cities for seniors emerged in 2005 and combines two trends: the progressive aging of the world population and the process of urbanization. It is a multi-sectorial project that integrates multiple aspects affecting any city life: social, health, economic, urban and spatial accessibility, housing, transportation, open space, safety, employment, communication, access to information, social inclusion and respect for the rights of the citizens. All of this is addressed through the active participation of older people in the process, before making any decision affecting them, thus assuming full ownership of the necessary changes in the environment. Source: IMSERSO (2009).

(4) VVAA (2011), FUTURAGE, a road map for aging research.

(5) As defined in the study Enable-Age Project of the European Union, accessibility is based on two components: the personal (functional capacity) and the environment (e.g. architectural barriers) which are completely objective and even are regulated, as in the case of architectural barriers, by legislation. But we must also take into account usability, which is defined by the two previous components but also necessary to add a third of a subjective nature, as it is based on user perceptions: the activity, every senior should be able to use (action) any environment as any.
Iwarsson, S. (2003) The Enable-Age Project.

(6) Story, M., Mueller, J., Mace, R. (1998), The Universal Design File. Designing for people of all ages and abilities.

The most important thing in this urban instrument is that interventions that seeds may catalyse a process. It is an open system that allows future modifications and adaptations as they arise. Urban Acupuncture can be used as a tool to add urban complexity. By punctual actions, it has been demonstrated that the urban character can be improved.

As part of a long process and to make sure that to grow and get old in these neighbourhoods will be possible, these actions have to be planned and discussed with all the involved social parts. This paper, in short, deals a consideration about the city we actually have and the city we need.

RESEARCH CONTEXT

The origin behind the UAP can be found in the General Urban Development Plan of Madrid, here GUDPM, initially assembled in 1985. However, the plan became heavily debated by the public, specially architects, and politicians and not approved until 1995. Due to the 10-year delay in implementing the GUDPM, the development of new UAP areas was carried out during an expansive period in the city of Madrid. The financial growth was intensive mainly in the building construction market. This boom in economy created a giant bubble in the expectations of the future housing market. When it finally bursted in 2008, generated a drastic currency fluctuation, especially in the value of the Euro currency. The burst propelled Spanish economy into the on-going Euro Crisis.

Five different UAP developments have been realised in the outskirts of Madrid: Carabanchel, Las Tablas, Montecarmelo, Sanchinarro and Vallecas (fig 3). These are the first examples of suburbs that have entirely been developed by private initiatives and a minimal control of the Madrid municipality. In this aspect, they can be seen as the outcome of the neo-liberal political orientation that the government of Madrid have been implemented during the past thirty years. To a large extent, this realisation can be assembled under the concept of 'Unique City' (E. de Santiago, 2007). It is characterized by the primacy of economic competitiveness and financial efficiency over any other urbanistic aspects, as density, social diversity or sustainability. This type of city results in a territorial specialization and segmentation according to the perceived level of competitive advantages that can be associated with this development. In turn, this leads to new investments in infrastructures in order to create productive nodes in the urban structure. Moreover, the housing market speculation rises because housing goes beyond their use value and become an accrual of family wealth. This results in a polarization of social groups to ensure the stability of the investment and rates of return. Another feature of the "Unique City" is the change in the control strategy for the new urban development, in which the municipal control shifts from its regulatory role into becoming more a promotional role, prioritizing almost always the actions for private agents. Given this new role of the municipality, the municipal control goes from a direct action and influence on the realization to a mere participation in mixed business formulas.

As a result of this policies on prioritization of profitable development deals, in combination with the strong economic boom, which Madrid experienced in 2007, prices of housing real estate rocketed from an average level of 1,000 €/m² to an all time high record of 3,000 €/m². There was a huge creation of new works in the inner city region, which attracted a large number of immigrants, both from many other regions in Spain and from abroad. In addition, the banks promoted an easy loan activity with very low financial interests in order

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(7). Jaime Lerner has been mayor of Curitiba, capital of the State of Paraná, three times (1971-75, 1979-84 and 1989-92). In 1994, Lerner was elected governor of Paraná, and was re-elected in 1998.

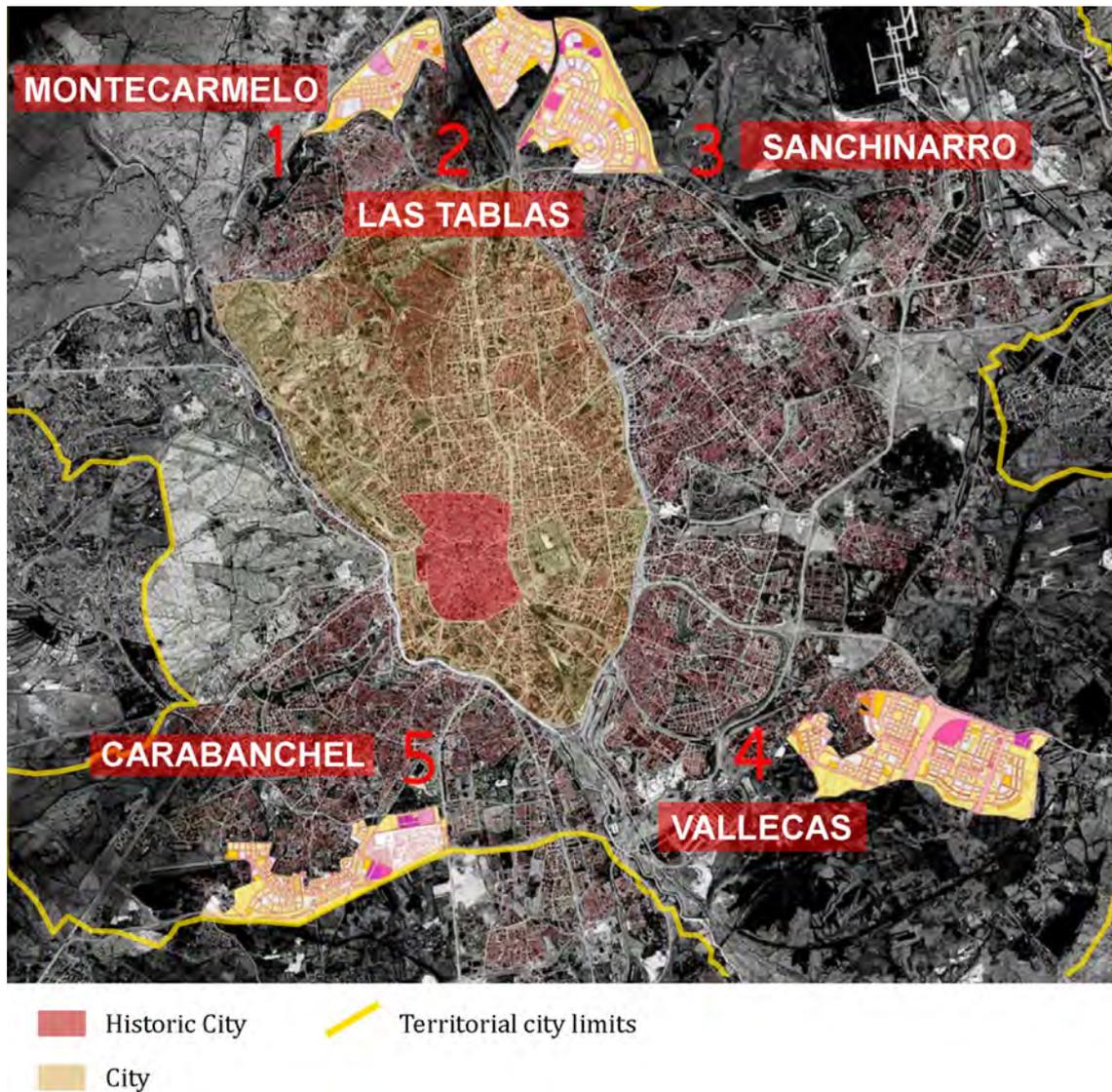


Fig.3. The five different UAP developments around the city of Madrid

to attract private investors. This situation produced an expansion of the build construction of new housing, approximately between 30,000 to 60,000 homes per year. In addition, it is important to stress that a type of compensation model⁸, instead of what the municipalities used earlier, the expropriation model, managed the PAU developments. In this new model, the urban development tool UAP leads in private hands so there is not a fixed land price defined by the Municipality. Therefore, land prices soared and became a great impact to the final price of housing. But, in recent years because of Euro crisis, extremely high price levels are decreasing. Nowadays the average price per square meter has decrease around 35% of its 2007 value (fig. 4).

(8) Characteristics of the Junta de Compensación model (Information edited by the Town Hall of Madrid, July, 1997): The urban development agents have to request the change of the management system. They have to be at least 60 % of the landowners. The agreement between private managers and public authorities should be signed by June 30, 199. If the private managers don't achieve the aims the pubic authorities will finish the implementation of the PAUs.

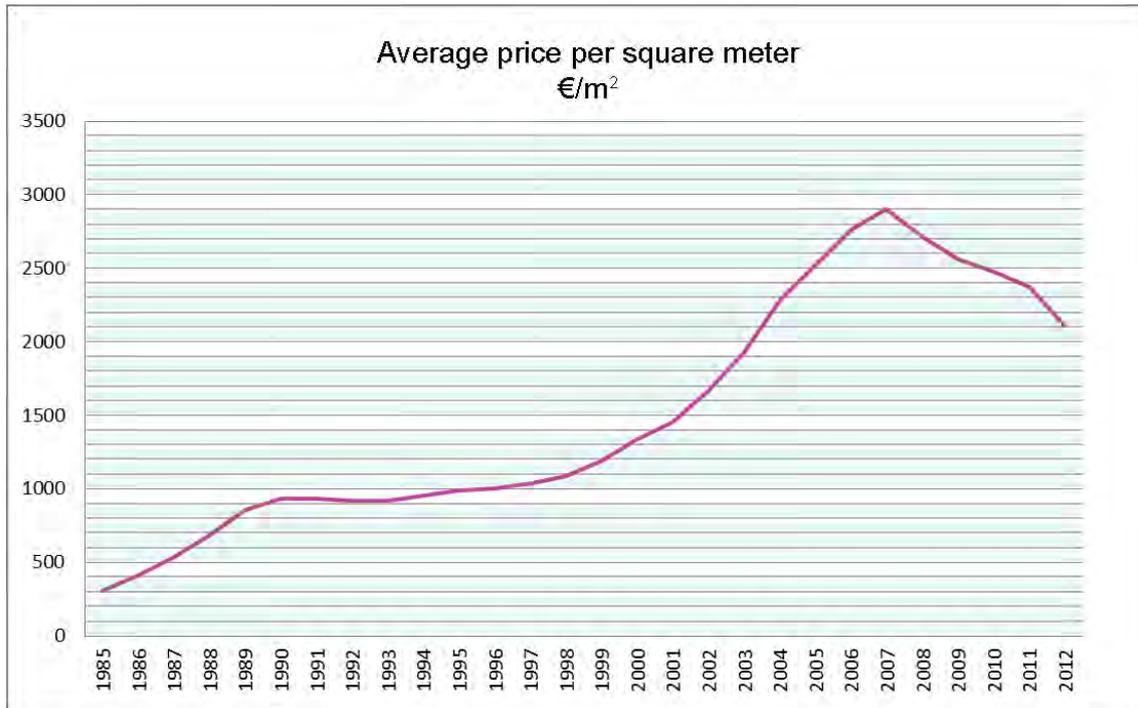


Fig. 4. Evolution of Housing Price in Spain 1985-2012. Source: INE (*Instituto Nacional de Estadística*)

The five UAP developments can be seen as the inheritors of the previous suburban developments of the 1990s. Thus, a main feature of these developments is the orthogonal grid⁹ and the closed housing block. Its density is around 30-35 dwellings/Ha and the building ratio is between 0,40 - 0,50 m²/m². Its important to highlight that the previous UAP generation has a density between 56-59 dwellings/Ha. The main building model is the closed housing block with 6-7 levels, so have brought about 74,000 new homes for some 200,000 inhabitants.

Due to the lack of a regional strategy to interconnect the new neighbourhoods, the new AUP developments occupy vast territories. Traffic arteries subdivide these territories in an illogical manner. (J. Palomero, 2009). The UAP developments of Vallecas and Carabanchel adhere partly to this characterisation, but Sanchinarro can be considered as poignant example of an isolated development.

(9) This orthogonal grid was, in Madrid urban practice, restored in first democratic town halls, as a result of post-modern theories of the city, as an opposition to open block urbanism. Modern urbanism and open block was associated to low quality neighbourhoods built during Franco's dictatorship. A new model was held. The new developments (and specially General Plan of Madrid, PGOUM, in 1985) proposed the utilization of the reticulated form and the closed residential block as the basic urban patterns. (J. Palomero, 2009)

2. Methodology

*“The home of our time doesn’t exist”
Mies Van der Rohe, Die Form n.7 1931*

*“The existing home is not of our time”
Josep Quetglas, CIRCO n.15 1994*

The educational course “Coexistence: tomorrow & tomorrow” encouraged the students to compile the available data for the UAP development of Sanchinarro. Multiple research tools were used in order to generate a substantial background on the origin of the architectural idea behind the realisation. The research methods involved key word searches at the Internet by use of the search engine Google. These searches assembled data found at the webpages of neighbour associations. In addition, document searches were realized. These searches generated mostly technical data that were founded in different municipal publications. In order to describe the spatial experience of the Sanchinarro development, the students were encouraged to video record their impression of the urban space. In addition, interviews to residents were realized to complement the students’ experiences of Sanchinarro.

Beside the explorative research methods, some conferences were organised with the architect who had designed the physical layout of the Sanchinarro development, Miguel Oliver. This keynote retraced the design process of the Sanchinarro development. Another architect and urban planner Jorge Palomero participated as a partner in the discussion, due to his research work about UAP developments. The idea was to compile as much information that the students could use in their analytic work of the urban reality. This particular analysis of Sanchinarro was focused in different subjects:

- Natural Means/Artificial Means
- Memory and Mutation
- Society and Governance
- Energy and Environment
- Infrastructure and Mobility
- Urban Structure and Productivity

The educational methodology used during this course is very usual in Spanish Universities. It is based on the discipline of analyse the reality to conform a diagnostic previously to the next step of proposing a solution. Therefore, the course was realized as a large-scale case study¹⁰ on the development of Sanchinarro. It was based principally on a comparison analysis between Sanchinarro and a pre-existing and consolidated urban area of the city centre of Madrid. All the solutions proposed by the students were related to the different subjects previously established. Using this case study methodology, the aim of the paper it is focused on a global solution for these UAP developments based on a global necessity of a specific social group.

(10) R. Johansson, 2003

RESEARCH OBJECT

The UAP development of Sanchinarro is located north of central Madrid, between the north-south bound highway A1, the second circulation ring for the Madrid infrastructure (M-40) and the north south bound railway. As a result of this complex situation, Sanchinarro can be seen as an island in the middle of three traffic arteries (fig 5). -The physical layout of Sanchinarro is an orthogonal grid, which has been adjusted to the abrupt borders due to the missing possibility to continue over the infrastructural perimeter. The green areas are placed in as a protection zone, sound and pollution, near these borderline infrastructures. Other areas for greenery Plots of green use, as well as educational and cultural use, subdivide the grid into separate neighbourhoods (fig. 6).



Fig.5. Traffic arteries around Sanchinarro



Fig.6. UAP Sanchinarro. Green areas.
Source: J. Palomero

The main street that borders the central grid structure of Sanchinarro is an eight-line wide artery with an interrupted central boulevard. There are other main axis with central boulevards and sidewalks, like the commercial axis, that regrettably is interrupted by some cultural equipment plots that don't let a real commercial continuity. The rest of the streets have a more domestic scale. There are closed housing blocks in all of Sanchinarro, except the linear blocks along the commercial axis and some occasional public buildings. (J. Palomero, 2009)- . The public space is clearly separated from the private one due to the gated limits of most of the plots (fig. 7, 8 and 9). This typology of residential blocks around a private free space decreases the vitality of the public space. The commercial axis and the Shopping Center are the places that concentrate day life activity. The following numbers supply comprehensive characteristics of Sanchinarro:

Density: 33 dwellings/Ha

Building Ratio: 0,50 m²/m²

Building Type: Closed Housing Block from an unique real state developer



Fig.7, 8 and 9. Relation between public and private space. Gated Communities

3. Results

Autism. *From greek: autos /αὐτός/ ("self") and -ismos ("denoting a condition")
A failure to develop social abilities, language, and other communication skills to the usual level.
Cambridge Dictionary. Cambridge University Press, 2013*

The UAP urban developments are characterized by a noticeable homogenous residential character, but with a little relation to the physical and historical environment. In addition, the physical planning promotes an oversized public space, which causes a distinct lack of vitality and urban activity. Given this outcome, this urban environment can be considered labelled as having the character of being autistic: there is a poor relation with the new built environment and the surrounding environment. This results in a lacking communication between the existing urban environments of earlier realizations. It can be said that the UAP promotes an urban discontinuity, in which infrastructural elements supply access, but where these new urban developments become isolated from an urban design point of view. Moreover, due to its homogenous character there is not variety of uses complementary to residential one. This results in a great lack of urban autonomy, which makes these new developments completely dependent on the city. Finally, due to its private initiative character, most of the homes are aimed for families, which causes a great social uniformity. One of the clearest examples is the UAP of Sanchinarro, in consequence, it was chosen for a deeper analysis to illustrate this situation.

This part of the paper contains two sections. The first section summarizes the conclusions of the urban analysis that the students realized of Sanchinarro. This analysis sharpened the students' understanding in the development of this UAP, focusing on:

Urban Context: Physical environment and Urban environment.

Social context.

Urban characteristics: Density, Identity, Public Space and Activity.

The second section presents the discussion and a theoretical proposal in order to tackle the discrepancies in density and diversity. This proposal is based on the Urban Acupuncture concept and the great social potential of the elderly people as a growing social group.

CONCLUSIONS

Urban Context

Physical environment

A possible approach for a more sustainable design would have been to make use of the physical environment, which originally consisted in cereal fields in a range of hills with small streams. It can be perceived how once the earth-works began, none of the existing physical environment was respected. (See aerial views from 1946, 1975, 1999, 2001 and 2007. fig 10)



Fig. 10. Physical environment alteration from 1946 till 2007. Source: *Coexistences: Tomorrow and Tomorrow*

Urban environment.

In this Urban Context, the task of designing an appropriate connection with the surrounding urban environment was a difficult challenge. The new UAP development is situated at the end of another new urban development of the late 19th century, called Ciudad Lineal, the Linear City (fig. 11 and 12). A feasible challenge for the new development would have been to consider the creation of a connection between the new environment and the old one. It's significant to highlight how in the original drawings of the project's architect, Miguel Oliver, the project is already floating in space with no relation to the urban scene of the pre-existent city (fig 13).

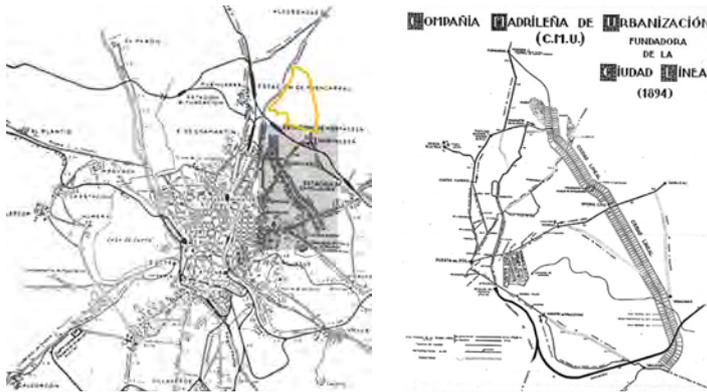


Fig. 11 & 12 “Ciudad Lineal” project by Arturo Soria (1894). Source: CMU (Compañía Madrileña de Urbanización)



Fig. 13. Drawing by Miguel Oliver (Architect author of Sanchinarro UAP) Source: www.estudio-oliver.com

Social Context

Another feature that defines the character of this PAU is its uniformity since most of the homes are aimed for families. The average age in Sanchinarro is about forty-one years (fig. 14 and 15). Due to the Spanish housing regulations, the 15-20% of the houses of new developments have to be social housing. But, as in the free market, most of the houses are designed for families. Therefore, this creates a low level of social diversity because another social groups like young people; singles or elderly people represent a low percentage of the total population.

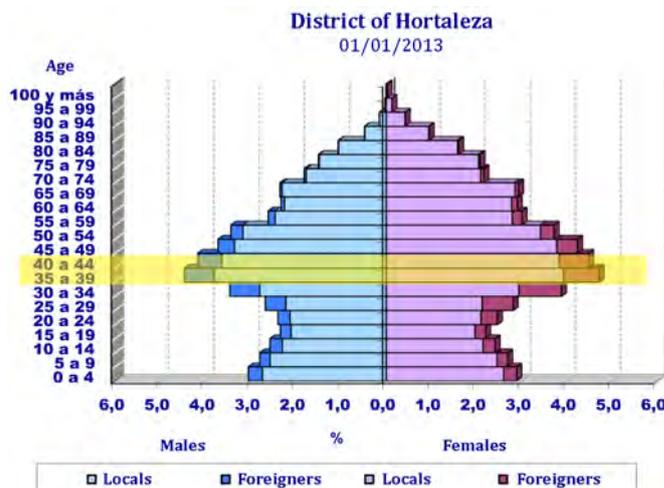


Fig.14 Demographic data. Source: Municipality of Madrid (2013)



Fig.15 Different Uses in Sanchinarro. Notice that red colour represents social housing. Orange colour is a limited price housing (considered in-between social and free housing). Yellow colour represents free market housing. The Blue colour represents the Shopping center. Pink and Violet represent all the sport, health, educational and cultural uses. *Source: J. Palomero*

Urban Characteristics

Density

Beside the emphasis on family dwellings, these are placed in disproportionately large public space. Therefore, there is a low density in the built environment, about 33 dwellings/Ha, which is unusual for whole of Madrid city centre with an average of 97 dwellings per Hectare (fig. 16 and 17). The effect of this physical planning is a significant lack of activities that deteriorates social life and vitality in the area.

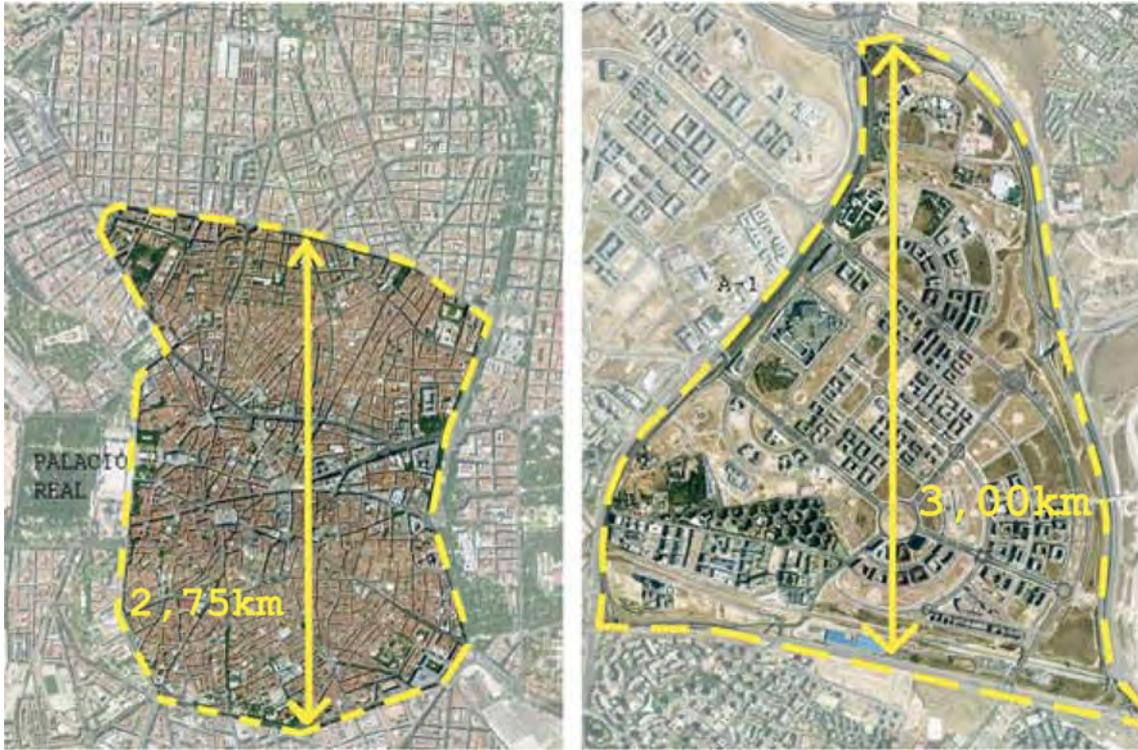


Fig.16 Comparison between the Historical City size and Sanchinarro. Source: *Coexistences: Tomorrow and Tomorrow*



fig.17 Comparison between the density in the City and Sanchinarro. In some areas can reach to five times Sanchinarro's density. Source: *Coexistences: Tomorrow and Tomorrow*

Identity

Moreover, there are not characteristic urban spaces. There is not a representative Square or another kind of reunion places, so public space has a great lack of identity (fig. 18). The residential buildings are designed as closed residential blocks with an interior private open space with poor relationship with the exterior public space. They are collective housing buildings with no mixed uses, so in this aspect, the physical layout of the area instils a feeling of being a type of a gated community.



fig.18. Comparison between the Plaza Mayor of Madrid and the housing blocks of Sanchinarro. *Source: Coexistences: Tomorrow and Tomorrow*

Public Space

The Public space is oversized because the design standards are in benefit of the car. Therefore, the avenues and streets are so wide for an urban context. Its significant the contrast between some Sanchinarro urban elements and another representative ones, like the Gran Via in Madrid or La Place de Létoile in Paris (fig 19 & 20). Due to the residual character of the green areas, these are dispersed filling the perimeter. Therefore, the total amount is really oversized becoming closer to the Retiro Park in Madrid, which is the most representative park of the City (fig. 21).



fig.19 Comparison between La Gran Via (one of the most representative streets in Madrid) and the main road of Sanchinarro. Source: *Coexistences: Tomorrow and Tomorrow*

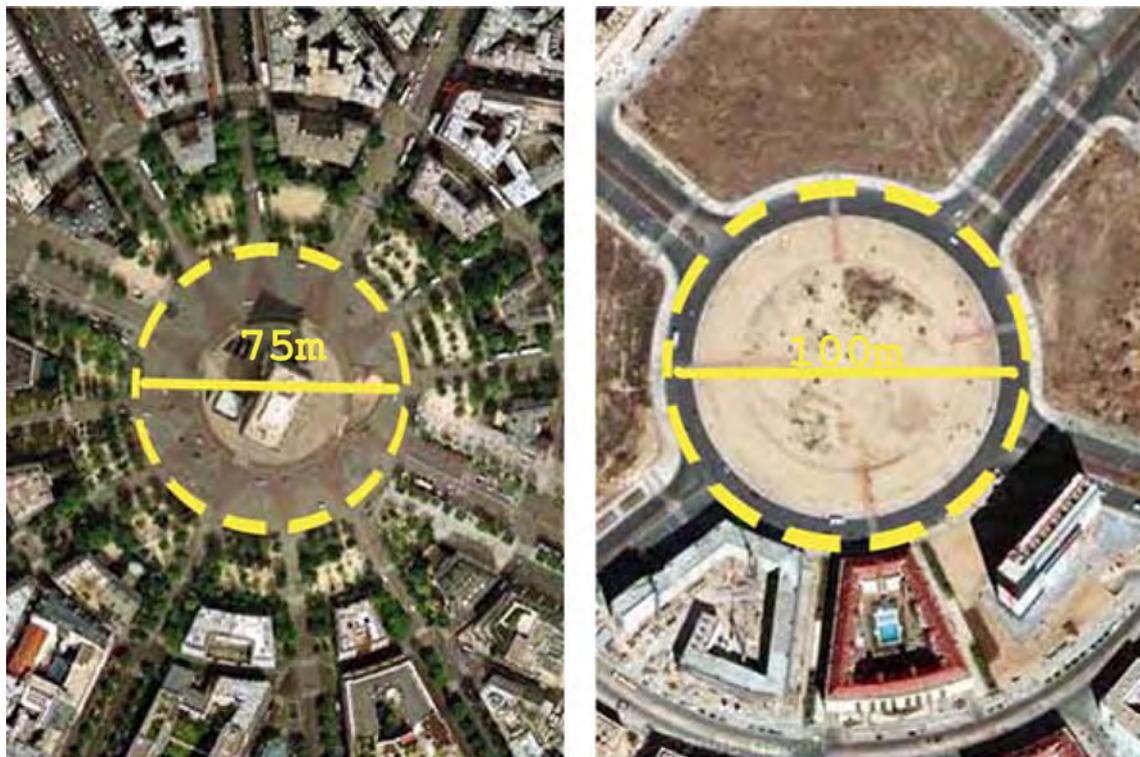


fig.20 Comparison between La Place de Létoile in Paris and one in Sanchinarro. Source: *Coexistences: Tomorrow and Tomorrow*



fig.21 Comparison between El Retiro park and the green areas of Sanchinarro. Source: *Coexistences: Tomorrow and Tomorrow*

Activity

Day-life activity is concentrated in the commercial axis and the Shopping center, and its very low during the week. Only in weekends, when parents can spend time with their children, the neighbourhood has a normal activity.

DISCUSSIONS

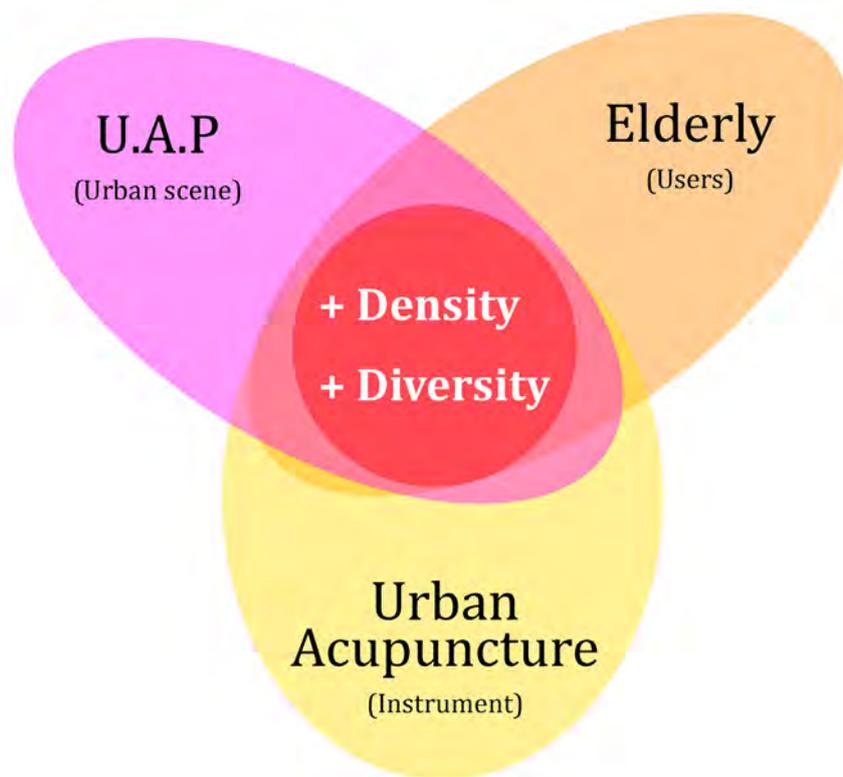


fig.22 Proposal Scheme.

The recent urban developments in Madrid occupy the available provision of territory owned by the city of Madrid. This constituted last chance to create a sustainable urban development with high quality architecture from the first beginning. The lack of urban life in the UAP neighbourhoods, suggests the need of **densifying** the built environment in order to promote urban sustainability. The developments also suggest the need of a more diversified built environment in order to minimize the monotony in the suburbs. Urban Acupuncture is the planning tool proposed for an urban renovation in terms of density and diversity. The aim is to create more social **diversity** to help revitalize the public space by continuous use. It is important to avoid temporalities linked to social groups that cause temporary gaps in the daily rhythm of neighbourhoods. It is necessary to correct the social homogeneity of these urban developments by the inclusion of new social groups.

Given the urban scenario (UAP) and after a comparative analysis, the diagnosis expresses the necessity of a global solution. On the other hand, given the demographic changes affecting social tendencies, the elderly people become an important subject on urban planning. Urban acupuncture is a valid and implemented instrument in urban renewal planning (fig 22).

The challenge is to accommodate older people with a range of assurances, find urban models that allow them to live with autonomy, independence and security as long as possible, but without neglecting one of the most important points, forgotten by previous models: social integration. The great challenge we face is the coexistence of generations to avoid social isolation. The solution is not specific but flexible. As Jane Jacobs¹¹ stated, we must avoid the creation of social ghettos linked to urban proposals. Therefore, to introduce new

housing models in certain strategic places of the existing urban developments can increase the density and diversity of these urban areas, and allow this collective to improve and participate in the day-life of the neighbourhood.

We have to realize that as one enters old age, the space near the house and the neighbourhood take on a primary dimension, as the psychic, physical and motor skills become more involved. The field of action, the scope of older people becomes reduced as they age. This feeds isolation. It is therefore essential to act from all scales comprising social behaviour, with particular emphasis on those that favour exchange and relationships.

The main unresolved issue is still to integrate new housing models in an urban environment and context that are connected to the user, that is related to where they were born or where they lived, a place they know, where they feel safe and have established social relations and family support. In certain European countries they have already identified the problem of designing adapted places within an urban scene, which is not at all, so they have opted for a deeper reflection and case level aspects such as urban public spaces, its relationship to public space and the accessibility to all kind of services (fig.23).

We should act right now establishing the fundamentals of this kind of urbanism based on, a strategic care services network, an usability designed environment and a social coexistence between generations as the main characteristics to reach the objective of the cities we actually need. This means lifetime homes, lifetime neighbourhoods.

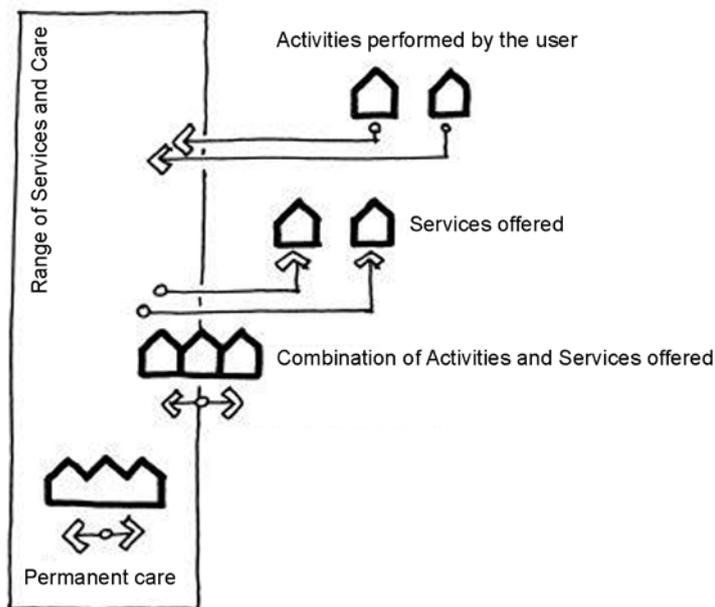


fig.23. Relation between the urban context and provided services. Source: (STAGG) Architects Building Health Research Foundation. Holland

(11) Jane Jacobs was an American-Canadian journalist, author, and activist best known for her influence on urban studies. Her influential book *The Death and Life of Great American Cities* argued that urban renewal did not respect the needs of most city-dwellers. The book introduced sociology concepts as well as innovative interdisciplinary scientific methods (from both social sciences and natural sciences) to improve urban planning.

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Sustainability in Danish Social Housing - The User Focus

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ABSTRACT: The idea with this multiple case study is to investigate the relation between man, sustainability and architecture. The focus is directed on the user dimension, behaviour and sustainable housing. A triangle can be set up between Architecture, Sustainability and the relationship to the User. Subsequently the project will have the interest of the mutual relations. How does the user relate to the architecture and sustainability, how is everyday life of the end-user in relation to architecture and at last, how do the user validate sustainability. The research should contribute to architects, so new knowledge can be used in upcoming architect design processes.

1 INTRODUCTION

1.1 *Ongoing PhD-research*

This ongoing PhD research project will attempt to illustrate the relation between architecture, sustainability and the relationship with users. The project focuses on sustainable social housing located in Denmark. A research project, in which multiple case studies and by interviews with different user group's experience of decision-making, living and using sustainable housing. A study of the everyday practices and valuation of the various users. How is the communication of information regarding the servicing of buildings? How is information for the end-users? Is there an understanding of all user groups around the sustainable initiatives?

This research project is interesting also to examine how resident's democracy works in relation to political decisions about sustainable approaches in settlements. Residents' democracy can reject the architect's proposal of new sustainable approach. What can we do to look more broadly at a sustainable solution?

This PhD project is also interested in the general principles of the learning and experience process between the different partners in a sustainable housing project. From the architect to manager department in the social housing association. From the facility manager department to the operation staff. Then from the operation staff to the end-user and back again to the architect. How is sustainable knowledge and experiences disseminated and taught in the specific buildings? What general lessons can be derived across all cases? In regards to the learning of the development of competence that must be done from the architect to the users. There will be addressed questions to the user groups with regard to the future. What experiences users have had with the homes they live in? Experience, as the architects can have a direct benefit in organizing future design processes.

This research project thesis is that if serving the users in the operational phase and end-users everyday practice does not take place with expected learning and appropriate behaviour in relation to the architects' intentions behind the sustainable initiatives; there can be raised questions

about how sustainable public housing is. In addition, if a resident democracy are opposed to sustainable solutions, how do the social housing association's future-proof their settlements?

The project's research question is: "Why are administrative users, operation staff, and residents relevant in relation to sustainability in Danish social housing, what will encourage and impede sustainability, and how can users narrative about their everyday life contribute with new knowledge to architects?"

The hypothesis is that if the administrative users, operations staff, and residents of Danish general housing does not have the expected consumption behavior, knowledge of, learning about, and handling of a positive valuation of the sustainable approach the architect has incorporated in its architecture, so I expect that it will be a barrier and have a negative impact in relation to the expectations for sustainability. There will be directed after qualitative empirics, which can confirm or deny the hypothesis, on the other hand, by recover specific knowledge of each settlement and derive general features across all the selected settlements.

Inspired by Elizabeth Shove's research (Shove, Watson, Hand and Ingram, 2007) on consumption among users, you can draw a triangle showing the three main points – the user (man), sustainability (theme), and architecture (artefact).

The user, the sustainability, the architect, the architecture and the everyday life is linked to ethical, political and an ideology dimension (value). So if the user has a specific position on sustainability, how will this position be true? Everyday life dealing with consumption patterns in which also the economic dimension is applicable. What everyday practice, does the user have in relation to the architecture in which he or she lives?

The research project is inspired by a multiple case study of recent sustainable building in Denmark, made by the Danish Building Research Institute at Aalborg University and the Technical University of Denmark (Jensen, Joergensen, Lauridsen, Quitzau, Clemmensen and Elle, 2010). The study reached the following conclusion as the authors writes: "When the building project indirectly implies that residents are not very ecologically minded, this also leads to the houses not asking too much of users; residents should live a "normal" life in the houses without having to show a particular interest in environmental technology and sustainable lifestyles. The question is whether this function smoothly, and if not, what types of problems it entails and how to address them".

In addition, the following statements from the same multiple case study in relation to the use and operation of housing: "With sustainable houses having a different design than ordinary construction; it involves these tenants having a different use of the property in relation to heating, ventilation, etc. In relation to this, it can be problematic if the residents are not aware of the functionality of the property. Therefore it can be a potential problem when the target group is so-called 'ordinary citizens' who do not necessarily have the required knowledge of any special conditions in a sustainable building. Choice of ordinary citizens as target implies a need to inform the residents, so that they can develop the expected use of the property" (Jensen, Joergensen, Lauridsen, Quitzau, Clemmensen and Elle, 2010).

2 USER GROUPS

2.1 User group 1

The central administrative facilities management departments handle the overall administration of the separate estates. The facilities management departments typically consist of employees with a large amount of construction expertise to ensure professional handling of technical building installations. The staffs are typical architect, engineer, installation engineer, energy consultants, etc. These technical administrative users undertake communication and dissemination of sustainable knowledge to the operation staff. A larger public housing associations usually have these types of professionals employed as an internal building consultancy. Not all social housing associations have this kind of building expertise in-house. They will typically enter into a business arrangement with a larger general housing unit of consulting firms.

2.2 *User group 2*

It is assumed that the operation staff can and will grasp the housing development's sustainable knowledge. It will be crucial that the operation staff have the necessary skills to serve users during the operational phase. If these skills are not present, it will be necessary to enhance skills. Many adults already in work are not necessarily interested in acquiring new learning. In particular, early school leavers have a certain reluctance "to go back to school" (Illeris, 2009).

The second aspect is whether the decentralized operation staff will. One must assume then that the key operation staff are interested in working professionally with the building operation. Alternatively, a personal valuation of the sustainability theme could affect the servicing during the operational phase. Both in the positive and negative sense, depending on the individual's values. This project will examine this user group's position on the concept of sustainability and its impact on everyday practice.

2.3 *User group 3*

This group is the so-called ordinary people living in dwellings - called end-users. They have as a starting point, not the necessary technical knowledge on sustainable construction. End-users will depend on getting information, learning and skills to have the desired behaviour for the sustainable construction works. This must happen through the administrative and the operation staff. In the end-user group there is politically elected board members called tenants board, which is covered by the Danish law on social housing. The tenants board, has the right to accept or reject ideas and proposals which relate to the settlement. For example, it may be proposals from a sustainable renovation of a building that will affect any possible rent increase to building improvements and increased costs for the operation. This project will examine the position of the tenants board on the concept of sustainability and its impact on everyday practice.

3 THE USERS AND SUSTAINABILITY

3.1 *Sustainability and the users*

In our time, is sustainability the prevailing paradigm? The technology leading the way takes its starting point in sustainability. Sustainability, Technology and lifestyle are closely related (Gram-Hanssen, 2012). Good sustainable design can be simple and is perhaps the best option when you consider that it is ordinary people with no special skills who shall live in it. By following the process of the creation of buildings and throughout the operational phase, it will help us to understand the users. You will understand what kind of sustainable initiatives work and which ones should be improved. It is equally important to understand the users' everyday practices around energy. "The users are just as important as technology" (Bennetts and Bordass, 2007).

Technological objects ultimately release time from operational tasks in the home and give us time for other purposes. When we will buy a new kitchen we construct a new lifestyle and so construct a new everyday practice. You could say that people are reflected in the things they own (Shove, Watson, Hand and Ingram, 2007). It might also be said that when we provide new sustainable housing designs we perhaps also construct another new everyday practice?

Residents focus on the costs and rarely on the saving. If you ask the general administrative in the social housing associations in Denmark, they respond that end-users either demand or have interest in environmental efforts. End-users are interested in a cheap administration. Sustainability initiatives in building operation do increase the administrative costs. There is a dilemma, as an operation department on the one hand, is responsible for the operation and on the other hand the end-users' economic resentment. Environmentally controlled building operation is all about hard technical knowledge and understanding of the residents housing culture and lifestyle - if one of these is missing, it would be difficult to implement (Jensen, Jensen, Elle, Hoffmann, Nielsen and Quitzau, 2008).

3.2 *End-users participation from planning phases to operational phase*

European Directives describe the decision-making processes concerning historic buildings and efficient energy including a report for Public hearing. The UNECE Convention (The Aarhus Convention) on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, recognizes that people have the right to take part in basic decisions affecting their lives. It recognizes that the quality of these decisions can be improved through the active involvement of public concerned (UNECE, 1998). The Charter of European Cities & Towns Towards Sustainability (The Aalborg Charter) I.13 says: "We, cities and towns pledge to meet the mandate given by Agenda 21, the key document approved at the Early Summit in Rio de Janeiro, to work all sectors of our communities - citizens, businesses, interest groups - when developing our Local Agenda 21 plans" (ESCTC, 1998). In the Aalborg Commitments concerning Planning and Design tell about, that there will be work to apply the requirements for sustainable design and construction, and promote high architecture and building technologies (ESCTC, 2004).

The most recent renewals are also on the operating side, where the housing association leaves the primary management of operation and maintenance to the residents. The caretaker's function is committed and the intention of social housing association is, that the residents themselves must take ownership for the maintenance of their common buildings, common areas and common usage. Again one can ask the question whether end-users can and will contribute to the individual housing profitability? If there is no economic incentive for the end-users, is a barrier to the environment-controlled building operation (Jensen, Jensen, Elle, Hoffmann, Nielsen and Quitzau, 2008). What is the motivation and driving force for the end-user?

When end-users are not directly involved in the development of the homes there might be a risk that the residents do not even take ownership of the building. The latest renewals to counteract any possible opposition from the residents' are that the social housing association leaves the running and maintenance of the buildings to the residents. In other words, the caretaker function is removed. This PhD project examines a case where end-users themselves are responsible for the running and maintenance.

3.3 *Sustainability and the end-user*

The administration of the social housing association must ensure the learning of embedded sustainable initiatives in the settlements. The sustainable intentions of the architect, is subsequently transferred to the end-users. It is creating a joint ownership (Jensen, Joergensen, Elle and Lauridsen, 2012). The facilities management department does have an information and education commitment regarding the relevant knowledge about the use of sustainable technology to end-users. When the architect and the rest of the consultant team, in collaboration with the construction company, has transferred its completed project to the housing association tenants, it is ready for occupancy. For the development's calculated operating accounts to be met, it will often require that end-users should act in a particular manner in relation to electricity, water and heat. The consultancy team has in the project planning phase allegedly stipulated an overall repayment period of construction costs for the sustainable initiatives.

Typically, the communication and learning of this knowledge are given to the end-user through the delivery of printed resident information. From then on it is up to the individual residents themselves to familiarize themselves with the material and create their own understanding. This could be possibly followed up with special information sessions for residents. General housing associations have also started to communicate via their websites, supplemented with video giving information on procedures for the operation and maintenance of residential buildings. It is interesting to examine, whether these presentation variants are affecting end-users' everyday practice.

Does the appropriate learning happen? Is it a learnt behaviour that the residents also use in their everyday practice? While you are using network-based communication for self-learning, it

will be essential that users have a considerable motivation and willingness to engage (Illeris, 2009).

This requires that end-users can and will take the required learning of the necessary sustainability initiatives and the consequent desirability of user behaviour. It is a requirement that the end-user will receive this more or less complex information. When there is a willingness to learn, it is because the end-users desire involvement, the acquisition of new knowledge may depend on personal valuations around the sustainability theme and habits, social activity, economy and consumption in everyday practice. There are "black holes" concerning advice to end-users (Jensen, Jensen, Elle, Hoffmann, Nielsen and Quitzau, 2008). This PhD project will examine whether the end-user can and will grasp the information. In a recent study of sustainable building in Denmark, the residents indicated that they were uncertain about the proper use of their property. As Jensen, Joergensen, Lauridsen, Quitzau, Clemmensen and Elle (2010) writes, the end-users could be in doubt over ventilation and regulation of floor heating: "Should we open the window or the door to ventilate the bedroom? Do you destroy process by airing out? What does it mean that the appliance is running?"

"The residents' behaviour affects the function and consumption in each house. Whether it just depends on knowledge can be discussed as aspects of the cases indicate that there may also be a de-selection from the residents', in relation to comply with the environmental requirements outlined in the projects" (Jensen, Joergensen, Lauridsen, Quitzau, Clemmensen and Elle, 2010).

3.4 *Sustainability from the administrative user to the operation staff*

Administrators emphasize the ongoing dialogue with the operating staff as very important for environmental performance. Organizing and anchorage is in general very closely connected to the building of resources and knowledge of environmental and resource conditions in a property. Further training of operating personnel is needed. Management refuses to even out the missing skills. In addition to the possible lack of knowledge of operating staff does not constitute a barrier to implementation of environment-controlled building operation. It is necessary to empower the caretaker better to engage in dialogue with the residents (Jensen, Jensen, Elle, Hoffmann, Nielsen and Quitzau, 2008).

3.5 *User behaviour and overall economy*

The relationship between the operating costs and the building construction are essential for the social housing associations. In this context it is interesting to examine the residents, caretakers and administrative operating everyday practice. Their everyday practice and attitude for universal sustainable buildings will have an impact on a profitable overall economy. The social housing associations must ensure a quality building at a reasonable cost, because they subsequently bear the additional operating and maintenance costs arising from any lack of quality.

In order to improve the quality of in the sector of the social housing association, the introduced a requirement for assessments of building the overall economy. By planning and project assessed the total construction costs relative to operating costs. In addition to the environmental and societal benefits, total economic assessments will be a key parameter in the municipalities own assessment of whether a construction project should be implemented.

Quality of construction is a parameter to be assessed and the second is the user's handling of the operation. Several environmental analyses examine energy consumption, water use and use of other natural resources, but not the experiences of maintenance (Shove, 2003).

The total economic considerations constitute a competitive advantage by public architectural competitions and tenders. The award criteria with total economy in focus mean that the bidders are forced to deal with the economic profitability throughout the Lifecycle of the building. The weighting of this ratio gets larger and larger influence on the winning projects. But if there is so much focus on the economic viability, it would also be interesting to investigate whether the

user also has the same focus. The Ministry of Social Affairs earmarked in 2011 funding to projects planning energy savings in relation to the user behaviour and the overall economy (ESCO model).

This research project will follow a pilot project in partnership with housing association KAB and Energy Fund. In this study, the project establishes three new townhouses with separate energy measurement devices in individual homes. A reference building and two measuring buildings. The advisors involved will examine building's energy consumption and the individual end-user energy consumption. In addition, how consumption is broken down, by month, etc. The idea is also that the measurements must be collected and sent to the server and displayed in the display in each home.

Several parameters can be crucial for the sustainable initiatives now for making accommodation in general, and also social housing associations sustainable. There is a tendency that the larger the income a family has, the more consumption they will have. However, it is the single person living alone who puts a bomb under sustainability. Power consumption is greatest on average, with fewer people living in the dwelling. Consumption is influenced by residents' learning habits and residents' comfort practices. The fact that you live with others is not necessarily sustainable (Gram-Hanssen 2012). Furthermore, the fact that there is an increased number of electronic devices in each home in Denmark should be considered (Gram-Hanssen 2013). The complexities of changes in practice seemingly in a way that moves by the established theories about consumption and technology (Shove, 2003).

3.6 *Visibility of sustainable initiatives for the user*

User motivation can be a value judgment, political or as a penalty or reward bracket (Thurén, 1994). The reward could be an economic incentive by reducing consumption. So that consumption in the home can be seen directly by residents - electricity, heat or water meters. Not just the meters located in the cupboards or under the sink, but the digital meters in a more "natural eye level" e.g. consumption could integrate on water fixtures with a direct visualization of consumption translated into costs. The rewards could also be at a visibility of consumption on the individual's behalf to supply firms. The penalty will of course be a larger bill if increased consumption. The Housing Association may assume that most end-users adjust their behaviour appropriately, but it would be interesting to identify if the users "adapt" their behaviour and consume appropriately.

There is also the aspect that deals with end-users receiving the necessary information. This requires specific skills and competencies; otherwise there is a risk that the housing association will not achieve the intended effect. The residents of public housing estates have different educational, cultural, linguistic and social backgrounds. This requires that the information be designed so that it meets these diverse criteria. A provision must be made that takes into account that it is from the non-skilled to highly educated people who should be able to understand the message. Also, it should be translated into the relevant languages which are spoken in buildings, etc. One can imagine that if the social housing associations administrative departments do not consider all these factors in the communication, then the messages may be received differently than expected.

4 RESEARCH METHODOLOGY

4.1 *Document analysis*

The architect's documents regarding their ideas and thoughts about sustainable initiatives will be analyzed. This analysis is crucial to understand the purpose, as all user groups subsequently get diverted when they take over the project. So these architectural documents as descriptive text, analyses, drawings, illustrations, etc. are very important. They serve a purpose for the sender, and then they may have a function for the different receivers (Groat and Wang, 2002).

Other documents such as, operation and maintenance manuals and user manuals are intended to provide guidelines for users' actions. Therefore, this kind of document is also interesting to analyze and compare in relation to users' own experiences. Do they even have knowledge that these documents exist? Do they know the importance of these documents in relation to user behaviour and consumption?

The way the analysis of the collected documents is performed depends on the research question. Document analysis can as Brinkmann and Tanggard (2010) writes, "identify trends and patterns in the material - the stability and change - happens over time".

4.2 *Interviews*

The interview has become a common way to gain knowledge about people's lives, opinions, attitudes and experiences. Brinkmann and Tanggard (2010) describe it as follows: "Life world is the world we know and meet in everyday life". By using the qualitative research method one achieves the narrative storytelling. The narrative research approach has been chosen because the individual stories must be told to get personal experience about how to ensure better interaction between user and sustainable housing. Narratives are interesting for scientists because they are assumed to guide and organize behaviour. Narratives are dynamic and therefore susceptible. Narratives are contextual or situational related. Only by changing his story about himself, can the subject change his behaviour. The collection of user stories will focus the spotlight on the uncultivated areas of user behaviour in social housing. The qualitative data will be used in user group's forward-looking behaviour, but the lessons learnt can also be used for project architect's upcoming designs of future social housing projects (Brinkmann and Tanggard, 2010; Groat and Wang, 2002).

The interviews will be conducted face-to-face and as a focus group in multiple case studies. The interviews will be conducted as semi-structured with a dictaphone as a tool used to record. The semi-structured interviews is conducted with an interview guide that ensures the conversation leads to the desired topics - everyday practice in relation to architecture and ethics in relation to sustainability. It is important that the interview appears openness to new unexpected phenomena - curious and responsive. The study of the "why" and "what" should be clarified before the "how" is reached (Kvale and Brinkmann, 2009).

All interviews will be transcribed and the written text and audio recording together constitute the material to be subject to the subsequent meaningful analysis. This PhD dissertation must be disseminated to the sector of the social housing association in Denmark, user groups and especially Danish architects and other consultants. It must therefore be a reader-friendly product and will be written in Danish, so all the Danish recipients will get the most out of the research. Research papers and conference presentations during the course will be in English and Danish.

A work journal will be kept as a record of the experience obtained during the study. Transcription will be carried out. A systematic analysis should provide an overview of a large transcribed text material. Narrative statements from the three user groups, from the specific housing projects will be grouped and analyzed (Groat and Wang, 2002).

4.3 *Photo documentation*

There will be carried out an ongoing photo documentation. There will be made by the current settlements, single buildings, sustainable solutions, process with the users, user meetings, focus group interviews. If there is a wish from the users, on the possible anonymity in the context of photo documenting, this will of course be respected. There will not be taken photos without users' consent.

5 CONCLUDING

5.1 *Concluding reflexions*

The intentions of this PhD project is to create new knowledge about the interaction between the user, sustainability and social housing. There will be an open and flexible approach to the methodology for the number of participants who can be interviewed, the number of interviews and the number of the case which is currently selected. Users' narrative stories of this interaction will be collected through interviews. Data will be analyzed to provide new qualitative knowledge of each settlement, and a general knowledge across all of the cases. This general knowledge, offers a broader understanding of users' ambitions and competence in relation the importance of managing sustainable settlements. General knowledge will be for the use of the architects in the design of future sustainable housing. In addition, this knowledge contributes to the users and to the sector of the social housing association in Denmark .

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Reducing energy use in private homes: Initiatives, actors and experiences

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Abstract

Reducing energy consumption in private homes represents an increasing dilemma for the worlds' cities in order to reduce climate changes; however, it also fosters a number of innovative policies and approaches on energy retrofitting in private homes. As traditional regulatory tools are insufficient when it comes to change of private property, other types of governance are needed.

The aim of the paper is to give examples on various local initiatives that have been launched by various actors (mainly municipalities) in recent years in order to motivate local home owners to take up energy retrofitting. Such initiatives, which typically combines national initiatives and local policies can be seen as examples on 'Urban Climate governance' (Kern & Alber, 2009; Bulkeley, 2009) that includes different governmental approaches for the local authorities. The challenge of local sustainability is that it is complex and defined on different levels (local, municipal, regional, national, and international), that requires a 'multilevel governance'-approach to succeed (Bulkeley & Betsill, 2005).

The paper will outline examples on different models being used in Danish cities, with the municipalities as primary actors, or facilitators, of local networks consisting of actors such as local financial institutions, craftsmen and SME's (Small and Mediumsized Enterprises), Energy suppliers, NGO's and others. Based on an on-going research project, it will discuss the different motivations from the actors involved, and the possibilities and challenges of such local initiatives.

Keywords: Home owners, buildings, energy retrofitting, municipalities, urban climate governance

Introduction

In recent years, local authorities have on an international scale increasingly seen themselves as responsible for pursuing climate goals for the entire municipality as a *geographical* area, and not just the municipality as an *organisational* unit. This raises a number of challenges for the municipalities, as these challenges calls for new modes for approaching, planning and implementing sustainable urban development. One of the main challenges for the local authorities is to reduce energy use in existing buildings, which typically represents 40% of the energy use and CO₂-emissions on a local scale. Traditionally, reductions of energy use in buildings have focused on new buildings, by implementing measures for energy use.

Generally, Denmark has a reputation for a strong regulatory framework towards energy efficiency in new buildings. As an example, a comparison between the Nordic countries leads to the conclusion on Denmark that “Denmark in particular is leading the way on implementing a combination of strong, strategic and innovative policy instruments and undertaking comprehensive evaluations” (McCormick & Neij, 2009; p. 45). When it comes to existing buildings, that represents the vast majority of buildings in general and on a local scale, similar regulation tools does not exist and the challenge is different as the public regulation is more limited, indirect and dispersed. Officially, the Energy labelling scheme for buildings and the building regulations (demands to implement energy measures when investment for renovation exceeds certain limits) have been main national tools for targeting energy measures in existing buildings. There is, however, a widespread recognition of these regulation tools as being insufficient to meet the challenges of massive energy reductions in existing buildings. This is documented in evaluations of these regulations, showing that the effects are limited (Ea energianalyse et al, 2008; Christensen, Jensen & Gram-Hanssen, 2012). Also, the ESCO-model is an oft-mentioned tool in national policies for energy improvements of existing buildings (Regeringen, 2005). Although the ESCO-model has shown a strong growth on the market for public buildings, attempts to take up the ESCO-model in private buildings have been limited. So far, only two ESCO-projects on housing are established in Denmark, and a number of barriers stand in the way for this model to be incorporated on a wider scale.

Instead, municipalities are increasingly looking for, and testing, new modes of governance to motivate local home-owners to increase energy efficiency of their homes. Initiatives for local climate change policies as well as initiatives for energy savings in existing buildings has been formulated in local climate plans and voluntary agreements, such as the “Climate Municipality” and “Curve Cracker” that demands annual energy savings on 2%. An important tool for these policies is the Energy Efficiency obligations for Energy Companies (introduced in 2006) which has made it mandatory for energy suppliers to contribute to energy savings amongst end-users, which has created opportunities for municipalities to establish partnerships with energy suppliers. The saving obligations have created a virtual market for energy savings, meaning that energy suppliers are willing to pay (however in various degree) for documented energy savings obtained amongst the end-users, can be used strategically by the municipalities.

Typical barriers for home-owners to take up energy retrofitting are:

- Limited knowledge about potential solutions, and how to prioritise and combine different solutions and technologies
- Other priorities for investments, typically that energy savings are not visible, in contrast to new kitchen og bathrooms
- Little trust that energy savings will actually be achieved, and thereby reducing the economic feasibility of the initiatives

- Limited time to investigate and plan such initiatives
- Limited time-horizon in home investments, compared to pay-back times, leading to focus on solutions with short pay-back times

Some of these barriers relate to lack of market-based solutions, e.g. limited knowledge on energy-saving solutions amongst SME's, no "packet-solutions" offered to the home-owner, limited support or knowledge from the financial part. The question is how the municipalities manage to overcome such challenges.

Theoretical perspectives

As in other countries, climate mitigation strategies are increasing being formulated on a local level, with a number of innovative frameworks and initiatives being implemented (Schreurs, 2008). In at theoretical perspective the municipalities promotion of energy savings can be seen as an example on 'Urban Climate governance' (Kern & Alber, 2009; Bulkeley, 2009), that includes different approaches to municipal intervention in sustainable urban development. The challenges regarding sustainable development is that the concept might be difficult to specify and operationalize, and that issues related to sustainable development is dealt with on different levels, locally, regionally, nationally and internationally. Instead of seeing the planning levels individually, and e.g. focus only on the local level, the challenge is to orchestrate the different levels into a 'multilevel governance' (Bulkeley & Betsill, 2005). This demands horizontal as well as vertical integration of actors and policies. Horizontal integration might include networked governance and collaboration between different local actors such as the municipality, local energy suppliers, local banks, real estate agents, SME's, industries, NGO's etc., whereas vertical integration might include for instance integration of goals and policies on municipal, regional and national level.

It is necessary to make a distinction between the different climate change initiatives that a city might foster. For this, we refer to Alber & Kerns (2009) categories of urban climate management (Alber & Kern, 2009; Bulkeley et al, 2009):

- *Self-governing*, where the municipality acts as a consumer, and initiates climate goals on own buildings, as for instance energy optimisation of schools and administration buildings, establish networks with other municipalities, formulate green procurement policies etc. A number of initiatives have been implemented by Danish municipalities, for instance through ESCO-contracting or in-house energy efficiency schemes, and networks such as "Green Cities" that allows cities to share knowledge and formulate binding goals on green municipal initiatives. As municipal buildings accounts only for a few percentages on the entire building stock in the municipality, these measures however have limited influence on the total energy consumption and climate mitigation in the municipal area, and the initiatives need to be followed by initiatives targeting other actors in the municipality as well.
- *Governing through enabling*, where the municipality acts as a facilitator for establishing and facilitating collaboration and networks between the municipality, local companies and institutions, citizens, industries etc. This includes a number of different arrangements on different levels (local, regional, and national), formal as well as informal, public-private as well as public-public partnerships etc.
- *Governing through provision*, where the municipality acts as a provider of energy, transport, waste, water etc., and thereby has an excellent position to formulate and steer climate policies. With the increasing liberalization and privatisation of such services, the direct municipal influence through these channels has however diminished in recent years. In

contrast, national and international saving obligation schemes has created demands and motivation for especially energy utilities to contribute to energy savings amongst end-users, opening an opportunity for municipalities to establish partnerships on this agenda.

- *Governing through authority*, where the municipality act as a regulator, exploiting its formal authorities in for instance by urban planning, land zone administration, building permissions etc. for instance, the municipality is able to decide through the local plans that new buildings (public as private) should be completed as low-energy buildings. It can also decide that subsidies to renovations under the urban regeneration scheme should include certain energy measures.

It can be discussed whether these categories are fulfilling to describe all possible municipal initiatives. For instance, the formulation of policies and strategic plans with little or no regulatory abilities (for instance climate policies stating that the municipality should become climate neutral in the year 2030) does not easily fit into these categories, as they are not regulation tools in a narrow understanding, but instead are important normative tools to indicate the direction of future municipal regulation, and thereby fulfils a goals as communication with other actors, for instance on formulating strategic partnerships. Nevertheless, these categories are useful as a starting point of understanding the different roles and challenges that the municipalities face.

As there is still limited research on local climate change strategies (Schreurs, 2008), the purpose of the study is to identify how climate policies directed towards private home-owners has been taken up by Danish municipalities, and discuss the outcomes in relation to future potentials for such policies.

The initiatives we study here will fall under the umbrella, "Governing by enabeling", where "enabling activities" according to Alber & Kern (2009) are primarily based on persuasion and arguments, seeking to persuade other actors to establish climate protection initiatives. These voluntary actions amongst other stakeholders can be supported by other public initiatives such as public education and awareness campaigns, facilitation of cooperation between stakeholders, and public-private-partnerships.

Methodology

The paper is based on a survey amongst Danish municipalities regarding their policies on motivating local home-owners to take up energy retrofitting of their homes, combined with case studies of five selected initiatives. The aim was to establish an overview of the municipal initiatives, what the initiatives consisted of, and what the experiences were.

The survey included interviews with 22 municipalities¹ on their initiatives to promote energy savings amongst local home owners. In the choice of municipalities, some were known for their initiatives, and other municipalities had no initiatives of which we had heard. These groups also included municipalities of which some had joined the voluntary agreement with the Danish Nature Conservation Association (Danmarks Naturfredningsforening) of becoming an "Climate Municipality", and some municipalities that had not joined this agreement. Finally, the

¹ Herlev, Rødovre, Hillerød, Furesø, Bornholm, Guldborgssund, Slagelse, Jammerbugt, Brønderslev, Hjørring, Lemvig, Horsens, Herning, Samsø, Haderslev, Aabenraa, Kolding, Sønderborg and Morsø.

municipalities were chosen to form a balanced geographical and regional composition. The interviews with the municipalities were completed using a semi-structured interview-guide.

Beside the survey, the initiatives in five municipalities², known from other sources, were studied in details. This included document studies as well as interviews with representatives from the municipalities and the energy consultants having the direct contact with the home-owners, in total eight interviews. In these cases we have collected information about the results from the initiatives, in terms of the amount of saved energy.

Findings from survey

In the survey we have asked the 22 municipalities whether they have any initiatives directed towards local home-owners, what type of houses they are targeting, how they contact the home-owners, whether an energy check is offered, and if the initiatives are coupled with education of local SME's. From the answers, the 22 municipalities can be separated in three almost equal parts:

- Eight municipalities who have (or have had) direct outreach to the local homeowners, typically offering an energy check, in combination with other initiatives such as energy messes, local seminars, education of local SME's etc. In two municipalities, the initiatives take place in selected villages ("Energy villages").
- Seven municipalities have established initiatives with general information and calls to the citizens on the possibilities for energy optimisation of their homes. Of these seven, three municipalities are specifically targeting holiday homes
- Seven municipalities have no efforts, but in one municipality initiatives are being planned.

As the municipalities have been selected somehow representatively, the answers indicates that about two thirds of the Danish municipalities have established initiatives towards home-owners, and one third of all municipalities have established different types of "Urban Climate Governance", that includes more ambitious efforts in terms of networks, partnerships with energy suppliers and efforts to educate local SME's.

Type of initiatives

The survey shows that the municipalities are addressing the homeowners in various ways. This includes dissemination of general information (flyers, internet pages etc.), energy-exhibitions (events on a central place in the city where home-owners can meet energy consultants, local SME's and craftsmen, energy consultants, representatives from the municipality, financing institutes etc., or local arrangements in selected neighbourhoods, e.g. in community houses, where local homeowners are invited to be told about the potentials and practical elements in energy optimization of their homes. Also, the types of houses and homeowners varies; some municipalities are focusing mainly on holiday homes, others mainly have their efforts in selected villages (often labelled "Energy Villages"), but the main part are addressing single family houses. Most of the

² Energiby (Frederikshavn), ESCO-light (Middelfart), Ringkøbing-Skjern, Project Zero (Sønderborg) and 2100.nu (Østerbro, Copenhagen).

municipalities are addressing the owners individually, others are focusing on collective forms of collaboration, for instance with local land-owner associations.

A central element in addressing the home-owners is offering an “Energy check” by an energy consultant. Several municipalities are collaborating with an “energy consultant”, who is typically financed by the local energy supplier. Due to the energy saving obligation all energy providers are obliged to save a certain amount of energy amongst end-users. According to an agreement from 2009 with the Climate-and Energy Ministry, the energy distribution companies in Denmark are obliged to save 5,4 PJ energy annually amongst end-users. There is a wide-spread freedom for choice of method, including the use of grants to pay for energy savings. Many suppliers are therefore willing to finance an energy consultant, who will work to achieve the savings. By collaborating with the local energy supplier, the municipality can get the energy consultant to work for motivating local home owners to implement energy saving solutions on their homes, e.g. improving the insulation of the building, improving the boiler system, changing the heat system, converting the energy supply to more sustainable sources (district heating, PV’s, heat pumps etc). The deal for the local energy supplier is that the energy consultant will be able to generate a certain amount of energy savings that can be attributed to the local energy supplier. In some municipalities, the energy check is free from the home-owner, in other municipalities the owners have to pay a (typically small) amount of money for the consultation. The energy check will typically consist of a screening of the house with the owner, a report about suggested energy optimizations and an estimation of the energy saving potentials, as well as estimated costs for the initiatives.

Another often-used element in the municipal strategies is the education of local SME’s and craftsmen in energy optimization of houses. There is a widespread accept of a need for such qualifications, which will enable the SME’s to suggest energy saving initiatives to the homeowners, for instance when they are carrying out more traditional maintenance assignments. Moreover, the energy consultants might use the local craftsmen with a “green certificate” to check the energy improvements, and send the necessary documentation to the energy consultant, who will report the improvements to the National Energy Agency. There are several examples on such green education networks being established, e.g. the Energiprofferne (Frederikshavn), Zero Bolig (Sønderborg), Grøn Erhvervsvekst (Kolding, Odense and Middelfart), energiforbedring.dk (Hjørring) and Passivhus Nordvest (Morsø). The networks are established and organized rather differently, for instance some are initiated in a regional network, where others exist only within the border of the municipality (Strandgaard, 2012). The energy consultant might also suggest the home-owners to look for local craftsmen with a “green certificate”, to complete the energy optimization.

As a part of the study, five spearheading initiatives on promoting energy savings amongst home-owners were studied more in detail. Table 1 summarises the main characteristics of these five initiatives.

	Collaboration	Background and	Targets	Types of
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	partners	ambitions		improvements
Energy City, Frederikshavn. Start 2011	The municipality of Frederikshavn, local energy supplier, "Energy Proffs"	Pursue climate goals, create local jobs, train local SME's, support settlement strategy	Single family houses	Insulation of building shell (25%), also conversion to new types of supply (district heating, PV's, heat pumps)
ESCO-light, Middelfart 1.1.2012-31.12.2012	The municipality of Middelfart, four local energy suppliers, network for "Grøn Erhvervsvekst", National Knowledge center for Energy savings	Establishing "Green growth", creating local jobs, upgrading skills amongst local SME's	Single family houses	Primary insulation of building shell, limited improvements of regulation, boilers etc.
2100.nu, Copehagen May 2010-May 2011	The Agenda Center for Østerbro, local energy supplier, Teknologisk Institut and local SME's	Part of larger campaign in 2010 to save 10 tons of CO ₂ , and to create innovative solutions to climate changes	Apartment buildings: Private co-ops, owner-occupied apartments, private rented accommodation	Technical insulation, energy management, adjustment of boilers, limited improvements of building shell
"Houseowner in focus", Municipality of Ringkøbing-Skjern. 2011-2012	Municipality of Ringkøbing-Skjern and Scanenergi (energy consultant)	Political ambition to become self-sufficient with energy by 2020	Single family houses	Improvements with payback time < 10 years, only limited improvements on building shell
Project Zero, Sønderborg. Start: Ultimo 2010	Project Zero fund, Futura South (Regional think tank), Syd-energi, Danfoss, Sønderborg Municipality, DONG Energy, Nordea Fund	Creating local growth Pursue in the region, based on climate neutral development. Create local jobs, upgrading skills amongst local SME's	Single family houses	N.A

Table 1. The characteristics of five Danish spearhead initiatives aiming at improving energy efficiency in private houses.

Case study: "Energy City", the municipality of Frederikshavn

To illustrate some of the general issues in the municipalities' initiatives to encourage private homeowners to energy optimize their homes, we will present a case-study on one of the frontrunners, the municipality of Frederikshavn. The municipality is located in the Northern part of Jutland. It has 60.000 inhabitants and 30.000 households, of which 18.000 are detached houses (and 16.000 with private ownership). Moreover, there are app. 4.000 empty dwellings in the municipality (Statistikbanken.dk). The municipality of Frederikshavn has since 2011 initiated efforts towards local home owners, urging them to complete energy retrofitting of their homes. It is framed by the organisational unit "The Energy City Frederikshavn", a municipal industrial development project about changing the energy supply in the municipality to 100% sustainable energy, established in 2007. The aim of the "Energy City" is to "...initiate, facilitate and coordinate projects that contributes to green growth and new local jobs in the energy sector" (www.energi byen.dk). The

efforts towards the private home-owners are composed of different elements, including an energy consultant offering free energy checks of the houses, education of local SME's and craftsmen as well as visibility and information towards home-owners. The efforts can be seen as an example on urban climate governance, where especially horizontal networks play an important role, but are also deeply dependent on regional and national frameworks. Moreover it illustrates how climate might be deeply intertwined with urban politics, in this case maintaining local settlements. Situated in a peripheral region, the city has over the recent decades experienced a massive loss of industrial jobs and residents. From this development, an urban strategy focusing on green growth was established in the late 1990ies, and from this "The Energy City" started in 2011. The concept of hiring an energy consultant in collaboration with the local energy supplier, with the purpose of improving the energy efficiency in private homes, in combination with establishing a network for upgrading the skills of local craftsmen, was fostered after a meeting between the municipality, home-owners, banks, real-estate dealers and SME's in order to discuss possible strategies for motivating home-owners to take up energy retrofitting. The input from this meeting was an eye-opener for the municipality, and was a main inspiration to start the initiative.

With a visit from the energy consultant, the home-owners receive a free consultancy on saving options, including an assessment of the building, assessment of the saving potential, a saving report, and suggestion from financing and pay-back times. In order to attract the attention from the local home-owners, different information activities are established, including a magazine (Energimagasinet e+) published three times annually, with local success-stories of energy retrofitting, with the aim of spreading inspiration to other home owners. Another initiative is a map in Google Maps (www.energiby.dk), showing the different retrofitting initiative. This information is linked to the annual energy bills are sent out. Home-owners with a high bill can in the e+ magazine read about the options to get assistance from the energy consultant. This is also disseminated on energy exhibitions, held on a regular basis, as well as meetings arranged locally in community houses etc., where local home-owners are invited to a meeting with the energy consultant.

Another part of the concept is education of local craftsmen, organised around the network "The Energy Proffs" (www.energiproffer.dk), with focus on energy optimisation of private homes, with different professions as members (carpenters, electricians, insulation, plumbers etc.). The companies leaders must go through training as an energy consultant, and the employees must complete different courses. The strength of the networks is that when the craftsmen visit home-owners they can refer to other "green" craftsmen, and thereby offering home-owners a package of the different professions needed for an energy renovation. The Energy Proffs is supported by two other professional education schools, specialized in respectively energy renovation of the building shell and energy-technical regulation HVAC, the latter has become the leading on the country.

The assessment from the municipality is that there is a large variation how much the SME's uses the education to get new jobs with home-owners; some does not see the possibilities, where others do. Some companies have promoted themselves as specialists in energy renovation. Moreover, the networks has gradually become independent from the municipality, e.g. by running the local energy exhibitions on own initiative. Also outside the network there are local companies having specialized in energy solutions (the company "Green Source", who has made their domicile self-sufficient with energy, www.greensource.dk/www.trigon.dk)

Results

The result of the efforts is documented from the reports from home-owners reporting to the energy-consultant on the completed initiatives. In 2012 energy saving initiatives were completed in 500 homes, saving 1 mill kWh (or 2.000 kWh per house in average). The savings comes mainly from after-insulation (25% of the retrofittings), and from change in energy supply, including PV's, heat-pumps, or conversion to district heating. The savings implies income to the energy supplier through the national implementation of the EU saving obligations. This income can largely pay the salary of the energy consultant, so that the expenses for the energy supplier and the municipality is almost cost neutral, but also puts a pressure on the energy consultant to reach a certain volume in energy savings. A central ambition of the initiative is to create local jobs, and the municipality has assessed that the projects have created a turnover amongst the local SME's on app. 10 mill. Dkr. (1.5 mill.€), corresponding to app. 10 jobs. If, however the whole value chain is included, the effect is rather creation of 18 jobs. The Energy City has in 2012 published their concept in "Handbook on energy retrofitting of private houses" in collaboration with Håndværksrådet og Region Nordjylland, and are also disseminating their concept and experiences with other municipalities in the region (through the regional network "Smart Cities Nordjylland").

Challenges

As a result of the location in a peripheral region, the housing prices in the city are generally low, and it can be a hard job selling your house. In several villages the number of residents is falling, leading to loss of services, closing of schools etc. With the low housing prices and low interest rates, the energy expenses takes up a high proportion of the monthly cost for the home-owners, making energy retrofitting attractive. For some home-owners, it may be decisive to reduce the energy costs, if they want to stay in the house. There are examples on families with children buying a house, where the energy label and the real estate dealer informs about low heating costs, but where the reason for the low costs is that the family having lived there "closed" down several rooms for heating, in order to save money for energy. When the new owner move in, they occupy and heats up all rooms, and therefore later will face a much higher energy bill than expected. Eventually, this might force them to leave the municipality, and look for a house with a higher standard and lower energy costs.

Another segment influenced by the possibilities for energy retrofitting is the 60+ home-owners, whose housing-strategy has been to sell the house when they got older, and find something closer to the city, with better services etc., and therefore have not been interested in improving their houses. As housing prices continues to fall and energy prices continue to rise, it becomes increasingly unrealistic to sell their houses at the prices they once expected, they may change their housing strategy in order to stay in their house some more years, and becomes interested in the possibilities to reduce energy costs. There is a large potential to reduce the energy costs, as many houses in Frederikshavn are built in the 1960-70ies, and little has been done to improve they energy efficiency.

The low housing prices and the uncertain future for peripheral regions however means that it can be difficult to borrow money to finance the energy retrofitting. According to the municipality, there are several villages and settlements where the local banks and finance institutions are not willing to lend money, as they see a large risk in continuous decreasing housing prices. Moreover, in peripheral regions many financial institutions denies to finance houses, or finances only up to 60% of the expenses with 30-years loans with a low interest rate (normally the limit is 80%). The remaining investments needs financing with traditional bank-loans with higher interest rates (or finance with equity), which makes it even more difficult or expensive for the home-owners to

finance energy retrofitting. The planner from the “Energy City Frederikshavn” estimates, that only houses located in the three largest cities in the municipality are able to finance energy improvements through the traditional channels. Part of this reluctance from the local financial institutions is a limited understanding about the “value” of energy reducing initiatives. The municipality, however, has established an informal collaboration with a couple of local banks who are willing to finance energy improvements. This illustrates the large influence that local finance institutions have on the local housing market, but it is also an example on the different alliances that the municipalities are able to establish in order to strengthen the conditions for the local house-owners.

In the near future the municipality expects to continue the efforts, but also have considerations on slight changes in the strategy. They will try to focus specifically on two villages as pilot projects, where they will use the energy initiatives to start “a positive social process”. They hope that the individual energy saving initiatives might impose a “neighbourhood effect”, where the residents mutually inspire each other to take up different initiatives, which will also improve the social capital in the village. It is, however, first time that the municipality collaborates with villages.

Lessons and discussion

The example from Frederikshavn, as well as the other initiatives listed in table 1, are all examples on the “Governing by enabling”-mode, outlined by Kern & Alber (2009). The perspective of ‘Multilevel Governance’ (Bulkeley & Betsill, 2005) is also obvious these cases, although less dominant. Obviously, these local initiatives are all based on national and international regulation concerning for instance the saving obligation amongst energy suppliers that enables financing of the energy consultants and the subsequent energy savings in private homes. However, these are structures that the municipalities have little chance of influencing. Instead, the municipalities have the opportunity to make partnerships with the local energy suppliers, and find arrangements of shared interest. The regional level has a larger impact on the initiatives, as several important actors for the initiatives, including energy suppliers, banks, SME’s, education institutions and others, operates on this level.

As indicated in table 1, initiatives as Energy City in Frederikshavn are relatively new, and not necessarily permanent. In order to assess their liveability we will discuss the challenges and possible future of such initiatives, based on a discussion of the outcomes and challenges.

The results in terms of energy savings obtained per household and in total for the five municipal initiatives are illustrated in figure 1. The figures are the based on the documented results that the energy consultants have reported to the national Energy Agency, by calculating the initiatives from the housing owners to expected energy savings by using the “standard-value catalogue” (http://svk.teknologisk.dk/Pages_open/Default.aspx).

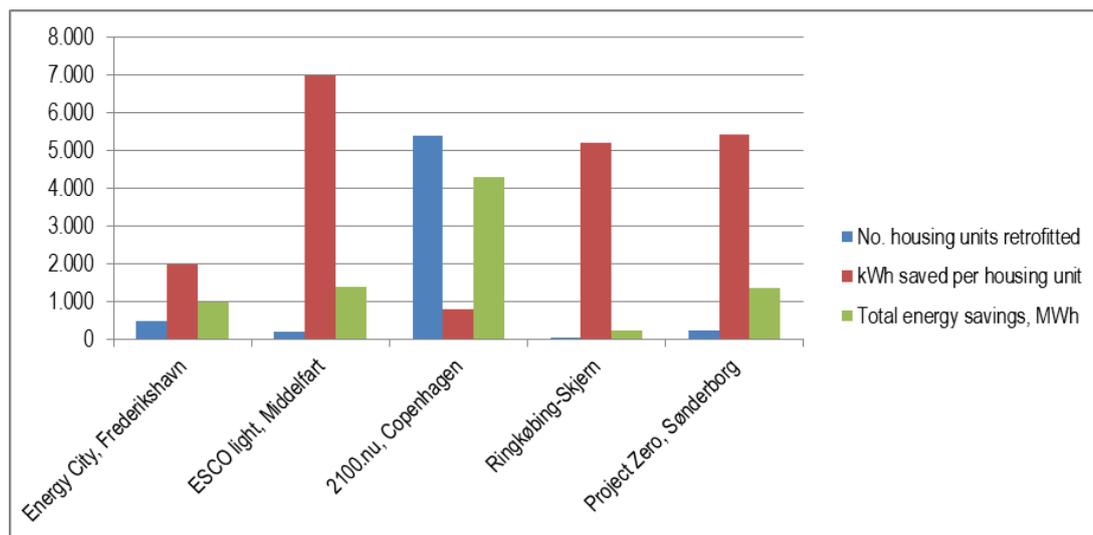


Figure 1. Results from the five different municipal initiatives towards home-owners. The figures for each municipality represents results obtained over a whole year (for 2100.nu in 2010, for the other municipalities in 2012). Note: The number for Sønderborg is the amount of finished renovations (249). According to the statistics, there are 492 ongoing projects (by the end of 2012). The number for Ringkøbing-Skjern (50 houses) will be larger, as the contract was on 100 houses, but at the time of the interview the energy consultant did not have an updated status.

Energy savings

As the figures show, there are large variations between the municipal initiatives, both on the number of housing units retrofitted, the obtained energy savings per unit and the total amount of energy saved. Amongst comparable municipalities with same type of houses (Fredrikshavn, Middelfart, Ringkøbing-Skjern and Sønderborg), the savings per house have rather different, ranging from 2,000 kWh per house in Frederikshavn, to 7,000 kWh in Middelfart. One reason for the relatively low savings per house in –Frederikshavn might be that many improvements include conversion of energy sources, which does not save energy, only CO₂.

Compared to the others, the initiative 2100.nu in Copenhagen stands out, as it has been able to include a far larger number of households (+5,000 compared to 100-500 for the other municipalities), and although the savings per household is remarkably smaller in 2100.nu (app. 700 kWh as compared to 2,000-7,000 kWh in other municipalities), the result is that 4,300 MWh has been saved through the initiative (as compared to 260-1,400 MWh in the other municipalities). It illustrates that in dense urban areas consisting of multi-storey buildings, such as the location of 2100.nu in Copenhagen, it's easier to reach many home-owners. Knocking on the doors of the home-owners can be a heavy job in areas with detached single-family houses.

Nevertheless, the challenge for the municipality, the energy consultant and the energy supplier is to create a business case based on the documented energy savings in the private households. The different cases suggest different answers to such a business case has been established:

In Frederikshavn and Sønderborg, the initiatives continue, but are increasingly focusing on villages, partly caused by the fact that approaching home owners individually is a relatively expensive process, and that collective initiatives including more homeowners at one time, might be less expensive, as measured by costs per saved kWh. Nevertheless, the energy consultant in Frederikshavn states that he is able to keep up his own salary through the obtained energy savings.

In Middelfart, the partnership between the municipality and the four local energy suppliers was established over a period of two years, and has now ended. The municipality argues that the arrangement now is able to work on market conditions, as all local craftsmen and SME's has been educated, and therefore the partnership does not need the municipal engagement. However, it is uncertain whether the four energy suppliers are willing to continue the efforts, as they may not be able to agree on a shared policy. The municipality is instead engaged in other initiatives towards home-owners. One is evening-courses for home-owners to be trained as an energy consultants, another initiative is developing Smart Energy-solutions using ICT technology, enabling remote steering and consultancy to the owners.

In the initiative 2100.nu at Østerbro in Copenhagen, the local energy supplier (formerly "Københavns Energi", today "HOFOR") has calculated that the expenses for each saved kWh has been 0.5-0.6 Dkr (0.7-0.8€), which is slightly higher than for their reference price for saving initiatives in general (the average prize for district heating). The reason is mainly that the 2100.nu was a broader campaign, including more themes that cannot all be measured and documented in terms of energy savings, but seen in this perspective the expenses were seen as acceptable. The project won the "Green Cities" prize in 2010, and was awarded by the European Environmental Agency because of its innovative model and large impact in an urban settlement. Because of the positive results, the municipality was considering to implement the model overall in the city. As the campaign was run by one of the ten local Agenda-21 centres in the city it could have easily been reproduced in the Agenda-centres in the city districts. For a number of different reasons this did not happen. One of the reasons was that the energy supplier applied for EU-funding to continue the project, but did not get it. They could have tried a second time, but decided to spend their resources on campaigns reaching a larger part of the population. Also the municipality could have funded a continuation, but instead decided to implement the experiences in their existing policies, e.g. to put a larger focus on energy savings when completing urban regeneration with public subsidies.

In spite of these variations, the results suggests that the direct contact between the energy consultant and the individual home-owner seems to have overcome some of the barriers for private energy-retrofitting, for instance increasing the knowledge about possible solutions, having them described and assessed in economic terms, and suggesting possible financing for them. Some energy consultants say that when they visit home-owners they often also discuss other technical and physical aspects of their houses with the owners, and give ideas on how to solve various problems. Such informal talks help to increase the trust and reliance of the energy consultant, and to pave the way for the home-owner to actually complete the suggestions. An evaluation of the Project Zero stated that the energy consultant's personal meetings with the home-owners had been the overall most important element so far for the achieved energy savings. The difference made by personal visits was also estimated in the project in Ringkøbing-Skjern, where the energy consultant company ScanEnergi (operating in several municipalities, including Ringkøbing-Skjern), stated that 77% of the homeowners they visit completes energy retrofitting projects. In houses where the same calculations on savings potentials and financing is communicated only through calculations on ScanEnergi's web-site "Husets Energi", 25% of the home-owners decides to implement the suggestions. The figures from the energy savings in figure 1 might be considerably larger, as several energy consultants argue that the documented energy savings represents only a limited part of the actual savings, partly as not all completed projects get their documentation send in, and partly because some home-owners, after the visit from the energy consultant, decides to carry out the projects as DIY-projects or as "black" labour. On the other hand, some of the documented savings could have happened without the visit from the energy consultant, and therefore the documented savings might exaggerate the meaning of the consultant.

Strategies and implementation of secondary benefits

There are, however, a number of other factors to consider in the discussion of the obtained results in the five initiatives. Firstly, as stated previously, the selected initiatives have all been part of overall politics and initiatives, often with broader aims that obtaining energy reductions in private homes, but also to create jobs, upgrade skills in the local labour force, and to give the municipality a green profile, which again is meant to attract potential residents. Therefore, the documentation of the job-creating from the initiatives is as important parameters to document (if not more) than the amount of energy savings completed – see also figure 2.

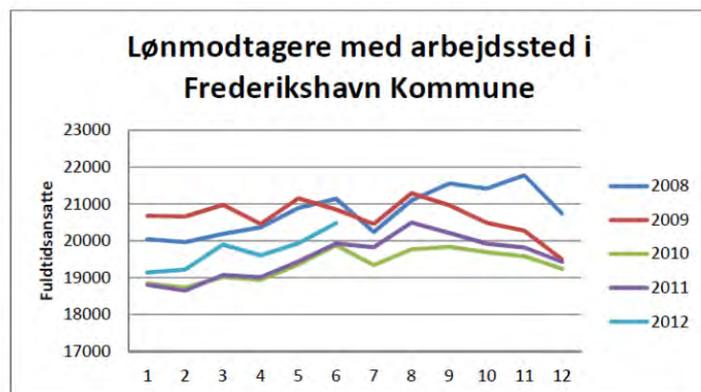


Figure 2. Development of jobs in the Frederikshavn municipality, used by the municipality as documentation for the effect of the initiatives towards home-owners. The initiatives towards local home-owners started by 2012.

Many of those aspects are related to the municipalities being located in peripheral regions, where the initiatives to improve energy performance of private homes fits well in a number of other strategies. Secondly, the initiatives have generated a number of “secondary effects” (Sharp et al, 2011; Bulkeley and Betsill, 2003) or spin-offs, that has generated benefit to the project and the partners involved. One example from Copenhagen is that the 2100.nu initiative resulted in a good collaboration with local housing organisations, where the energy supplier subsequently held courses about insulation of buildings and better management of the heating system for the housing organisations. According to the energy provider Københavns Energi (today HOFOR) this collaboration has been at least as valuable in a future perspective as the documented savings in 2100.nu, although the effects from the collaboration and courses are difficult to document.

As the cases illustrate, the municipality is able to influence energy suppliers on how much they will pay for energy savings, and how they will use these fees; either as direct subsidies to support the energy retrofitting, or as free help to the home owners to get an independent help on initial thoughts and plans, feasibility in terms of potential energy savings, choice of technologies, financing issues etc. As the regulation does not say anything about how the savings amongst end-users are reached, the Danish energy suppliers have very mixed strategies (CM analyse, 2010). This includes for instance the extent to which the focus on homeowners as a segment at all, as many suppliers prefer to focus on larger building owners in order to reduce transaction costs in relation to the persuasion and documentation process. Some energy suppliers have web-sites where home-owners can get information about possible improvements of their home, and the payment they can receive if they “sell” their energy saving initiatives to the energy supplier. Others suppliers have more active policies, for instance in relation to partnerships with municipalities. This opens room for the municipality to seek influence on the way the local or regional energy supplier fulfills his demands for energy savings.

Choosing between different ways to reach the home-owners therefore is not up to the municipalities alone, but needs to be orchestrated with other stakeholders, not only the energy suppliers, but also other actors such as financial institutions and local SME's.

To sum up the possible future of the initiatives towards private home-owners: The statements from the different initiatives seems to suggest three different development strategies: Firstly, the involved actors can remain on the track, and optimize their operations in order to maintain the arrangement as a business case (for instance by focusing on villages and more collective home-owner groups), as several municipalities are considering. Secondly, as an alternative, they can accept that that the business case is less obvious, and add municipal subsidies to the arrangement (for instance to pay the salary of the energy consultant), argued by the secondary benefits obtained by the arrangement. Finally and thirdly, they can decide to change the institutional arrangement in order to save costs, for instance to include similar initiatives in existing institutional arrangements. As argued by van Bueren & ten Heuvelhof (2005), the more the governance arrangements for sustainable cities respects the institutional context in which they are used, the better quality and the higher effect. The decision in the municipality of Copenhagen to integrate climate demands in the urban regeneration schemes is an example on such an institutional change. Finally, as a part of a multi-level governance, the municipalities and regional actors could engage in networks for sharing the experiences from these initiatives, such as Frederikshavn municipality's engagement in "SmartCityDK", where other municipalities in the region can learn from the experiences in Frederikshavn.

Conclusions

The initiatives for achieving energy-savings amongst private home-owners are often embedded in overall climate goals for the municipalities, as well as policies for sustainable urban development. However, an equally important framework and background for the initiatives are policies for the urban and regional development, including issues as developing local competences amongst the industries, creating more attractive settlements, attracting residents to the region and branding the city. Therefore, in contrast to perceptions of international climate networks as being drivers for local climate initiatives, we argue that the climate initiatives are to a much larger extent formulated as a part of local goals for urban and development, linked to the challenges of being a peripheral region. As the cases shows, the initiatives have had a number of other benefits besides the energy savings. This include creating local jobs, enabling people to stay in their homes in spite of increasing energy prices, and therefore improving the settlement strategy of the municipality, creating better relations between suppliers and home-owners, and empowering the local SME's to take up energy improvements as a service, as well as improving the networking across professional competences between craftsmen. We argue that the "back against the wall"-experience in many of the peripheral municipalities is a driver for innovative and ambitious climate initiatives, where however the national and international structures made available (regional funding from EU, saving obligations, carbon markets etc.) are exploited.

The initiatives studied are however fragile and therefore alternative ways to reach home-owners will probably be developed and tested, e.g. integrating initiatives in existing policies, or using strategies that reach a larger array of residents. Furthermore, the initiatives underline the potentials and importance for the municipalities to formulate ambitious climate policies, and to engage in new modes of climate governance.

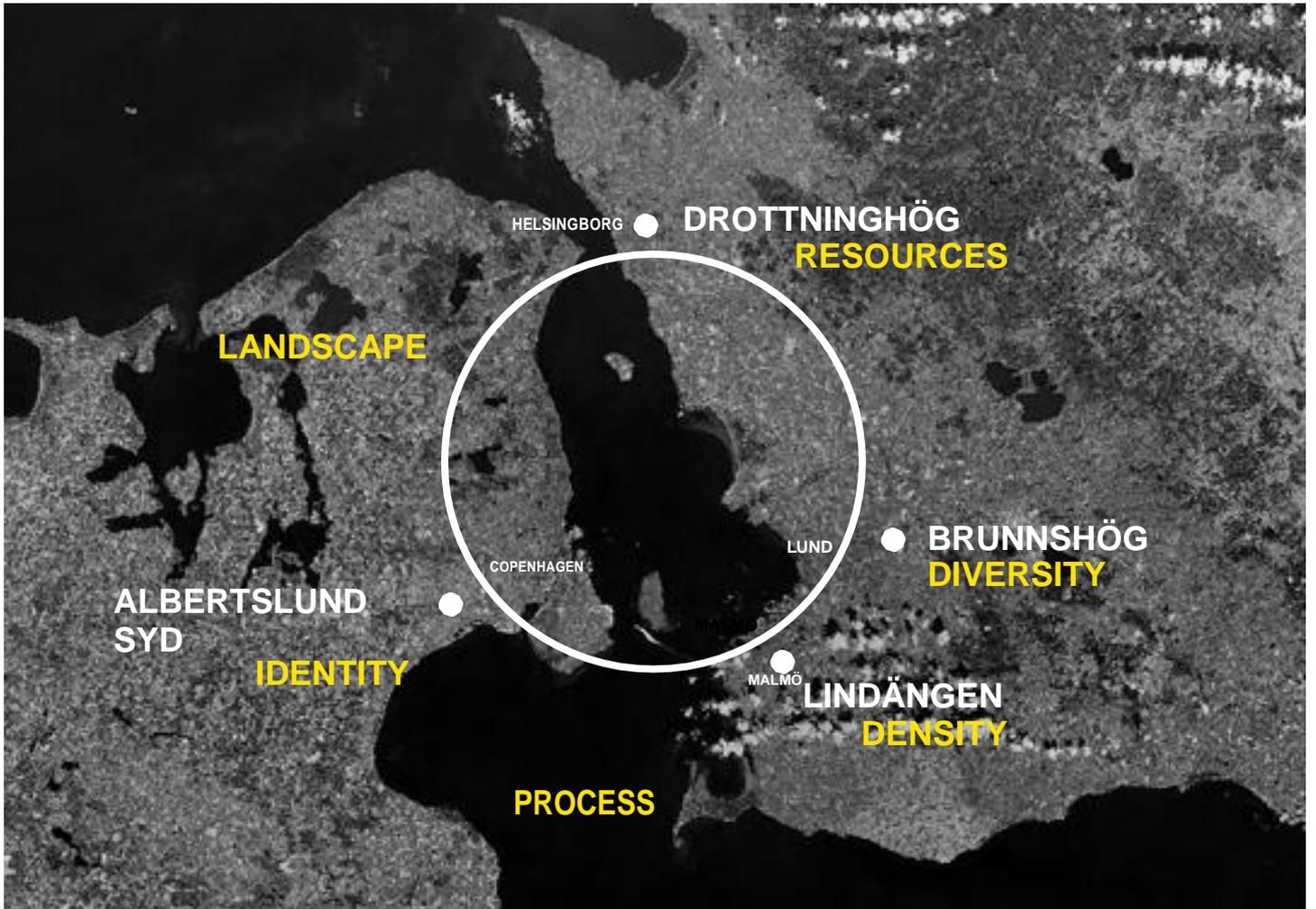
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SOUND SETTLEMENTS



SOUND SETTLEMENTS | AN INTERDISCIPLINARY AND TRANSNATIONAL APPROACH TO SUSTAINABLE HOUSING

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1. SOUND SETTLEMENTS

This paper presents the work of an interdisciplinary Danish-Swedish collaboration. The aim is to create new knowledge and ‘best practices’ for sustainable urban settlements, transportation, and decision making processes in the Oresund region. Researchers from Lund University, Institute of Sustainable Development on Malmo University, the Royal Danish Academy of Fine Arts, School of Architecture in Copenhagen and the National Building Research Center of Aalborg University formulates the findings. Associated communities in the region are Lund, Malmo, Helsingborg and Albertslund.

First, the project group with researchers from three universities and practitioners from four municipalities in the region studied and evaluated regional and European projects for sustainable new urban areas and urban transformation. The ambition was to identify various types of approach to sustainable urban development, which could be used as inspiration for the development of ‘best practices’ for the Oresund context. Then, four ‘case areas’ were investigated and analysed, all suburbs or on the edge of city centres in the region. Three of them are facing massive renewal while the fourth area is a city extension still in the planning stage. A survey and in-depth interviews were carried out in the three renewal areas to find out the residents’ opinions about local settlements and housing, the transportation situation, how they use the public space and green areas, their contacts with neighbours and their participation in the transformation processes. The researchers also made interviews with politicians and other stake holders responsible for the processes. Finally, the potential for the areas to be more sustainable was described in terms of scenarios, where the ambition was to combine ideas for future development of the built environment, transportation and governance.

Already from start, it was obvious that the project would not manage to work with all issues concerning sustainable urban development. It also turned out that the focus in the cases varied. Some prioritized the development of greenery and storm water solutions while others preferred to work with densification or energy saving. Therefore, the project group decided to focus on five criteria used in the case areas’ local programmes for change, criteria which are also essential in the general discourse of sustainable urban development: *identity, landscape, resources, density and diversity*. These were used in the analysis of the case areas’ potential to be more sustainable and to discuss the content of a sustainable urban environment in a more general perspective. Further, proposals developed in the case areas and other projects that were identified as ‘best practice’ were presented in a tool box. On www.soundsettlements.com we invite you to find the most important results of the project - information on the four cases, examples of best practice and a draft for tools.

Cases include surveys of the four cases: population, strategies, tools and scenarios for transformation and planning. *Best practice* includes examples of city districts and settlements designed or transformed for sustainability. *Tools* is developed to structure experiences from the process and to combine the five themes of sustainability - identity, landscape, resources, density and diversity with relevant scales in the urban landscape - district, settlement and building. This chapter also includes experiences from the planning processes: how is the process organized, and how are decisions taken? The examples are from Germany, Switzerland and France, and the chapter also include examples from Sweden and Denmark.

Peder Duelund Mortensen and Elisabeth Dalholm Hornyánszky

Project leaders

2. CASES

We have followed 4 cases. Three of these, Drottninghög in Helsingborg, Lindängen in Malmö and Albertslund Syd in Greater Copenhagen are ongoing urban planning and transformation. The aim is to increase the environmental, economic and social sustainability of settlements and housing. The fourth case, Brunnsjön in Lund is a new city district in the stage of planning.

DROTTNINGHÖG, HELSINGBORG

Drottninghög is facing massive transformations within the coming years. The settlement is pointed out to become a model for transformations of 8 housing districts all built in the municipality of Helsingborg from 1965 to 1975 as part of the big plans of the so-called Million Program. Drottninghög is situated in the extension zone outside the city center, built during the 1960's and 2,7 km from Helsingborg Central and near the public parks Frederiksdal and Barnens Skog. The architecture is not particular, but the settlement has good apartments and is situated in a recreative, hilly landscape with open air swimming pool, shops, church, school and cultural institutions.

The settlement needs maintenance and is not very attractive although close to the city center, fresh air and good daylight conditions. The flats are homogeneous, causing difficulties for a shift of generations in the population, which could raise new power and dynamics. The public square and shops can't manage the competition with new malls and low price shops in the neighborhood. The municipality faces pressure as owner of the settlement to renew and utilize potentials offered by the situation, recreational values, apartments and residents. The transformation is vital for a positive view on the future in the eastern Helsingborg.

BUILDING STRUCTURE

Drottninghög is a fairly homogeneous area where all the homes are rental apartments in 3 storey blocks built in the late 1960s. The area bounded by three roads that form strong physical barriers. First of all is Vasatorpsvägen perceived as a strong barrier in the area's southern edge. The road is long and wide and crossed only at a single point. Drottninghög is divided into three strands, Blå-, Grön- and Rökulla, all of which have their own entrances from the surrounding roads. Local roads are blind ends. Drottninghög is a green settlement with a car-free zone in the middle of the land. Here is a public swimming pool with users from all over Helsingborg. Central to Drottninghög is a public school with 0-6th class and a church belonging to the Church of Sweden. In the southern part up to Vasatorpsvägen is the area's center with a library, a small supermarket, a few restaurants, bakery etc. There is also a day care center and assisted living facilities in the development. In the neighboring area are a large ICA and a Lidl. A City Gross opens in the near future in the neighborhood. North and south of Drottninghög is Dalhem with housing in mixed scale and Fredriksdal with multi-storey buildings in approx. 4 floors.

POPULATION

About 3,000 people live in Drottninghög, of which nearly 43% are children and adolescents under 25 years. 70% of residents have a foreign background, a large proportion compared to the rest of Helsingborg. Unemployment in the settlement is large compared to Helsingborg as a whole, while the average income and educational attainment is low. Drottninghög have a disease index of 47 against Helsingborg's average of 27.5 - significantly higher among women than men. Studies and interviews carried out in recent years among residents of Drottninghög shows that people mostly thrive in the settlement. Community, diversity and the green highlighted as the best. However, there are many who are not proud of the public image, and media image of Drottninghög is negative. There is often reported about car fires and vandalism. This has contributed to a negative view from the outside, and the settlement is considered one of the least popular residential areas of Helsingborg's inhabitants.

STRATEGY

The plan has three key concepts: To open, to connect and to condense. The existing, large parking areas are proposed to be replaced by covered car parks. Parking areas are converted into building sites for new housing types and other functions around an urban and green street, and breakthrough are proposed for a new public transport line, a tram from the southwest up through the settlement to adjacent districts. New development is planned in connection with the breakthrough. The goal is to double the number of homes and creating good business premises without losing open spaces and recreational values; accessibility, the coupling to the environment and the green, child-friendly environment is planned to be improved. Opportunities for intervention are suggested in housing structure and center by demolition, conversion and extension. The challenge is to create organic links between new buildings in border zones and the existing. And to realize changes in stages which in the short term could provide a significant boost and confidence to the future of the neighborhood and the environment. Can buildings be split and made visible as neighborhoods, each with its own attractions and interaction with neighboring districts? And can the changes be made on the land released and then ad hoc in smaller units, with different objectives and expressions created in dialogue with residents?

TOOLS

Goal is to change the building's identity and enhance the reputation of the settlement by opening the area to the outside environment, by renewing the building structure and strengthening shops, enterprises and service facilities. The existing qualities of the landscape, sense of security and road safety will be maintained, developed and made visible. The settlements resource consumption must be reduced by reorientation of transportation towards public transport and by the inclusion of parking spaces for new purposes. New buildings can be scheduled less resource-intensive and followed up with energy savings in the existing building structure. Density and population is increased by the addition of new buildings within the site especially at the parking areas and the possibility of additions on existing roofs. At the same time the diversity is increased by new types of apartment, enterprises and renewal of the center, where the increased population and the opening to the surrounding neighborhoods can improve the background for shops and services.

SCENARIO: THE FUTURE DROTTNINGHÖG

One scenario could be a phased development and reinterpretation of the development's main features and individual neighborhoods potential characters and structures. Different neighborhoods and identities could occur around a single, active park and sports ground with a school, library, a stage, open-air bath and church; with paths connecting to the surrounding neighborhoods and parks, and with clear, public transport lines. In example can a neighborhood with balcony homes and roof gardens around the western Vasatorpsvägen be shaped with wide sidewalks, cafés, small shops and offices; to the east a creative neighborhood with flexible and temporary buildings and robust urban spaces around i.e. bazaar, offices and workshops. To the North a quiet garden district build along Drottninghögsvägen and Regementsvägen with terraced housing around the existing open-air bath interacting with potential future housing and urban spaces around the big stores. The existing building blocks can be extended with a floor for housing and roof gardening, and partially converted into new types of housing such as 2 floor apartments with balcony and lift access. Some of the blocks may be demolished and replaced with less dense, low-rise garden estates within the existing building pattern. The cost can be fully or partially covered by sale of land in a process that brings together existing dwellers and new in minor units.

BRUNNSHÖG, LUND

Lund municipality is planning an extension of the town and surrounding villages with 1,000-1,500 new homes per years coordinated to the development of new, large commercial areas and research centers. The area of Brunnshög is 225 ha. When the area is expanded, approx. 50,000 people will live, work and study in this new district northeast of Lund's old city center. The ambition is that the district must offer a good research and innovation environment while being a role model for sustainable urban planning. When fully developed, the area holds approx. 4,000 homes and 30,000 jobs. The currently known new companies are ESS, Science Village and MAX IV. The buildings are a mix of housing, workplaces and services built up in a street and block structure. The coupling to the central Lund is via the so-called street of Knowledge including a tram line from the Central Station, through the University Park and up to the ESS in the district's northern end. The tram line will be the backbone of the transport system and the new town.

STRATEGY

Aim of the plan is to create a dense and urban city where the green and water elements contribute to the identity. The district connects to surrounding neighborhoods, parks and open spaces. Brunnshög is planned in stages with different characters. Large companies located in the edge along the highway form together with the new urban district a complex city with homes, offices, service and trade. The public space consists of parks and green passages layered with an urban build structure with squares and streets. Larger open spaces are planned including a recreational park, cultivated land and Lund World Park. The goal is a city with different companies, different ages, social and cultural groups and various types of building. The ratio of utilization is set at min. 1.0, but housing density will vary from area to area. Property sizes vary with the density with smaller flats in the dense areas and larger apartments and households in the less dense areas: villas at 6-700 m² land, townhouses at 2-300 m² densely built in 2 floors in a mixture of urban villas, multi-storey buildings and house blocks of 5-6 floors with businesses at street level.

TOOLS

Brunnshög finds its identity through traditional urban patterns and high density in a street-block structure. The pattern detailed with green features: planted squares, public gardens and facilities for use of rainwater resource. Landscape elements closely integrated with surrounding parks are in focus of the area's character. Resources for private car transport are reduced with the construction of a backbone of public transport, but the area is also directly linked to the highway - with the big companies ESS Science Village and MAX IV closest to the highway surrounded by parking areas. Density in the first stage of Brunnshög in Solbjer is high, estimated 1.37. The new district's goal of diversity is to be realized through a mix of architectural forms, dwelling types and functions. The population is organized in relatively small units, in the first stage with 700 dwellings and a number of jobs. This provides probably only the basis for a single convenience store, café etc. The plan includes also two schools.

SCENARIO: THE FUTURE BRUUNSHÖG

The first stage is Solbjer of 12 hectares, building density 1.37 with 700 dwellings in residential houses and townhouses, 42,000 sqm of offices, 20,000 sqm parking garage and 10,000 sqm new park. The ground-floor along the main street is planned for two pre-schools for a total of approx. 100 children and 4,000 sqm of business and commerce. Solbjer will consist of 9 blocks of 2-6 storey street houses in an irregular network of streets with cars. The blocks have mixed content and form, perhaps even a 10 storey block with hotel or offices. The main street follows the hill with passages up in the district to a central garden square. The main street contains tram line, 2 car lanes, bike paths and sidewalks as well as one or two rows of trees with parking in between. Access is from the street by two major roads that define the neighborhood and inner streets. Parking is in 2 blocks at the edge of the neighborhood, and the plot is divided into private and communal gardens. The goal is a green settlement with urban identity, but the high building density, block shape and road restrictions might result in a tight, closed enclave. In the first years the buildings stand "on open field" presumably with windswept and shady streets. Perhaps the vision points more at a building concept fitting to the position on the city's edge; in a scenario where there is no distinction as sharply between urban and green layer.

LINDÄNGEN, MALMÖ

Fosie is one of 1970's major urban areas in Malmo characterized by the ideal of park settlements like machines with an ideal hierarchy, functional separation of residential and commercial and small local shopping centers, schools and institutions. The flats rise above the landscape with views, light and air. By the edge of Fosie at the landscape and highways is the district Lindängen. The building was built in the last stage of the Million Program with single-family neighborhoods as neighbors. The most enthusiastic citizens had already moved into new buildings, recession struck before the district was completed, and the homes were from the beginning difficult to rent out. Today the district has heavy social problems of insecurity, unemployment and a physical structure needing maintenance. Urban growth is facing Malmo municipality in the center districts, the harbor and the new station centers, while Lindängen is distressed. The building comprises 6,000 residents in blocks of 3, 8 and 16 floors. The apartments are good, although many viewed as family homes are small compared to today's standards, with small living spaces and traditional kitchens.

BUILDING STRUCTURE

Lindängen is dominated by high-rise buildings from the 1970s, a large scale and with blocks of 3 and 8 storeys. A block of 16 floors is landmark of the district. The settlement divides the urban landscape in a rectangular pattern around a single strait of open space that connects Fosie from north to south. Lindängen is bounded on the north by Inre Ringvagen and to the east, south and west by a 4-track street Munkhättegatan-Lindängsvägen forming a strong barrier around the district. At the edge of the park is a public open-air bath, Lindängen center and 2 schools, all with renewal needs. The park strait and the main pedestrian path leads from Augustenborg in the north to the recreational and valuable Lindängelund in the south. Lindängelund plans for the development of Malmo Botanical Garden. Car traffic is completely separated from pedestrian and bicycle traffic. From the main path leads smaller paths to the eastern and western settlements connecting to the shopping center and institutions. Parking is in garages between the blocks. The density is relatively low - 0.42.

POPULATION

6,000 people are living in Lindängen, nearly 30% are children and young up to 25 years. Compared to the rest of Malmo, the proportion of children, young people and older is slightly larger, and the proportion of inhabitants of foreign origin is high. Compared to Malmö as a whole the unemployment rate is high, the average income slightly lower and education significantly lower. Within Lindängen there are considerable differences between social and economic conditions in the area's rental housing to the east and owner occupancy to the west. The two types of housing form separate enclaves around a common stroke of open spaces, schools, institutions and shopping center. The annual emigration in Lindängen is above 20%, the highest in Malmö. The number of inhabitants per square kilometer pr. ha is estimated at 90 with higher average of owner occupancy than in the city as a whole. The district is characterized by insecurity and a lack of attractive public places that can create meetings between different age and ethnic groups both in terms of business houses and in public spaces. Particularly desolate recreational area, paths with poor lighting and hidden by vegetation, the car street barrier effect, unemployment and lack of activity in the center are highlighted as problems.

STRATEGY

Transformations in Lindängen is the first stage in Fosie south. Being part of the vision for Ökostaden Fosie, the goal is to increase security through urban transformation with greater activity in the open spaces and the center. To improve coordination with neighboring areas with new public spaces and to supplement with apartment and commercial types that are missing today. The strategy is by limited efforts

and step by step to complement with new construction on undeveloped land, street and parking spaces followed by smaller renewal efforts in existing buildings. The major road and parking areas around Munkhättegratan are planned into plots for residential and commercial buildings while Lindängen Center is renewed and condensed. This is estimated to 400,000 m² of new building structures, an additional 5,000 inhabitants, 3,000 jobs, 5 new pre-schools and a new elementary school. There is interest in supporting the small businesses to increase employment in the area i.e. jobs in music and media. The vision is to create a new, urban street profile with a tram line leading from the city center to Lindängen Center and further south to Lindängelund and possibly to Svågertorp.

TOOLS

Lindängen's identity can strengthen with the opening of the area to the outside world, the renewal of the city center and the construction of new residential and commercial buildings. Renewal of existing homes are not included in the plan, but a renovation with a focus on energy saving can be expected within a few years. The landscape and the connection to Lindängelund is a potential source to new qualities, but a plan for the renewal of open spaces and connections is not ready. Visibility and improvement of public transport with tram line from Malmö city center to Lindängen Center and closure of parking spaces can reduce resource consumption for passenger transport, and new settlements can be scheduled less resource-intensive. The plan is in this stage limited to Lindängen Center and the closest surrounding areas across Munkhättegratan. The area density can be increased and create a larger and more diverse base of operations. It is not clear how many residences and other features that can actually be financed, but there is potential to increase the social, functional and architectural diversity with new types of housing, commercial and public institutions that can increase the economy for shops and services. Existing institutions could be strengthened and renewed as part of the plan.

SCENARIO: THE FUTURE LINDÄNGEN

The program for the renewal of Lindängen Center seems like a good strategy - there is everything to win if trust and investment can be created. A coordinated movement of enthusiastic local persons and external resources could result in a strong master plan for transformation of the central Lindängen: an association of shop owners in collaboration with the school, gardening interests, sports and with the participation of the surrounding neighborhoods. Costs could likely fully or partly be covered by profits from the sale of land or right to build. The vision could be a live, local center with housing, bazaar and small enterprises around a new Munkhättegratan "avenue". Extension of block ends with new, large and bright, accessible family homes, student dormitories and townhouses along the avenue; and with tram line in the avenue within walking or biking distance from all apartments and direct access to common functions. The park can be converted into a revitalized and productive open space, crossing through ground level of the big apartment buildings, schools and institutions. Ground floors, some places in existing buildings and new building opened and adapted to communal areas, lobby and institutions with robust land in front of the body active, recreation and culture. Current underground car parks can be demolished and replaced or transformed into workshops and offices.

ALBERTSLUND SYD, ALBERTSLUND

Albertslund Syd is the largest and most complete new town in Denmark from 1960-70's and a recognized part of the Danish cultural heritage. Throughout the years a strong identity is created, a clear sense of *us and them*. The walls are around the district and the individual home, one image of the home and the family can do. A communal 'we' was consolidated through the struggle for non-profit day care institutions for the children, "we knew that we could, and we did it!" At the same time the buildings were part of a young and enthusiastic municipality, with its own blooming city center surrounded by public park, open land and culture. The settlement was active in politics, an alternative and icon among the large public housing of the time. But Albertslund Syd is also a large and very uniform settlement - monotone, need maintenance and with a lack of strength to do the necessary renewal. The idealistic guarantee of personal liberty "within the wall" limits individual and common expression of differences in culture and openness to the world. There are still people on the waiting list to rent an apartment, but there is a relatively high degree of emigration, and it is often less resourceful moving in. The shopping center has letting problems. The district is now undergoing a major renewal. Housing blocks along the canal is renewed, transforming of row houses is in progress and planning of the one family patio houses rebuilding is planned.

BUILDING STRUCTURE

Albertslund Syd was built in the late 1960s. The district is located south of the railroad by Albertslund S-Station and the main line to Jutland. Here is also the municipal center with town hall, public and cultural functions and shopping center. The settlement is crossed from east to west by a channel, a main path and bicycle route. Along the canal are some small shops, a café and communal areas. High school is located near the center, day care institutions partly by the school and partly edging a large open space in the middle of the settlement. There are approx. 3,000 apartments, most in one floor patio houses, some in 2 floor row houses and a few in 3 floor blocks. The 3 floor buildings are renovated and the terraced houses under renovation. Patio houses are angled around a small garden, closed by fences and sheds. The building structure was renovated in 1980's and is now facing a radical renewal due to lack of insulation, roof and floor damages. Concrete elements of the houses is planned to be preserved and insulated, while roof, facade, floor, interior walls, kitchen and bathroom is completely renewed. There are alternatives for redevelopment and to individuals to initiate. Parking norm is 2 parking spaces per house - relatively high and could be reduced. There is a plan coming up for transformation and expansion of the city center in connection with the release of the existing state prison just north of Albertslund Station.

POPULATION

6,000 people is living in Albertslund Syd. The average income is relatively low compared to the municipality as a whole and rate of unemployment is high. The proportion of residents of foreign descent is 25 %, slightly higher than the municipal average of 23%. The district image perceived by residents is well, they are happy to stay in the "South" and eager to explain why. They carry the district history and see Albertslund South as "the city". Seen from the outside however, Albertslund Syd is only an element of the metropolis suburb, "on the suburban edge". What happens in neighboring suburbs over the years become just as important for the perception of the district, its image and local life. The cooperation among municipalities in western Copenhagen is weak, the former focus at a joint municipal strategy is only alive, when it comes to business development. Emigration is relatively high, but there are households ready on the waiting list for an apartment.

STRATEGY

The winning entry to the competition for redevelopment of Albertslund Syd from the architect office Vandkunsten is seriously addressing the renewal of the patio houses. The proposal is in line of the row houses renewal, with clear opportunities and intentions to let go and take the full step to open for differences in lifestyle, form and expression. The walls can be broken and varied to the access side and to the small paths in the back. With loggias, small sheds and gardens that open and grow into common spaces. The private can extend, remain common ground but managed individually if the residents want. The patio houses entrance zone can be adapted and utilized individually from house to house depending on individual needs, the wishes and solar orientation: hall, shed, covered balcony or deck living space. A "new" link in the hierarchy between home and town is proposed, formed as a community house in each quarter of the settlement, each with different profiles and duties. It opens for exchange among the quarters, charity, services and "do it yourself". It could relate to landscape maintenance, greenery, water collection, cultivation, work, sports and recreation.

TOOLS

Identity of Albertslund Syd is renewed by the redevelopment plan, financed by funding from the National Building Fund and smaller rent increases partly covered by estimated lower heating costs. The boundaries of each house are fixed, but the interior is renewed and provides acquisitions and individuality in the interior, access spaces, facades and garden walls. A renovation in the future of sewer and storm water drainage can become a set off for renewal of surfaces and architecture of the landscape. The starting point is to insulate and renew building materials and techniques into less resource consumption. There is no direct plan to enhance the use of public transport, but some of the existing parking areas are proposed to be transformed into a common, and the access to the S-train station can be improved in relation to the urban development of the state prison.

The density increases only slightly with the present plan - from 0.4 to 0.5 within the settlement. The population density is expected to increase slowly with possible larger households moving in. The diversity can be increased by attracting new people to the renewed housing. And there are plans for the renewal of the city center possibly with relocation of the high school into center buildings, which can increase the center population and diversity.

SCENARIO: THE FUTURE ALBERTSLUND SYD

The transformation can build new bridges in the settlement hierarchy. With a fresh layer in the hierarchy in the form of a revitalized neighborhood concept and renewal of the great potentials such as the channel, the city center and the surrounding landscape can Albertslund Syd regain the position as an experimental platform for the "new public" and "new suburb" of the welfare state. The recipe is new connections, culture and rituals, to allow differences, individuals and cultures, renewed building types and neighborhoods. At the same time extended to the private sector to create new patterns of living and housing types such as units for age-integrated communities, collective facilities etc. The relatively low population density and character of the garden city is preserved. The social, cultural and functional diversity is after all relatively large. Competitiveness will still be limited, and the center draws already almost all activity out of the housing settlements. Renewal of the center depends primarily on urban development north of the station. The visibility of a change to a more sustainable environment depends on integrating a successful approach to the diversity of open spaces and landscapes.

3. BEST PRACTICE

Can a new paradigm for sustainability and the transformation of the suburban public housing settlements be formulated by learning from the holistic thinking, humble and architectural strength found in Nordic examples of *the functional tradition*; for example as found in buildings dating from the postwar period like Søndergaardsparken north of Copenhagen? Can observations here be used as a critical measure for the best new examples of sustainable neighborhoods and settlements in Europe i.e. in Freiburg or Nordic projects for the conversion of large prefabricated buildings from the 1960s-70s such as Gyldenrisparken in Copenhagen and Hovsjö in Stockholm?

In the spring of 2011, the 15 participants of the Sound Settlements project arranged a study trip to Freiburg in southern Germany and further on to Cité Manifeste in Mulhouse and Tours Bois le Prêtre in Paris. Freiburg became the primary destination because the city since the 1970's has worked with sustainable urban development, planning and construction resulting in the new neighborhoods Rieselfeld and Vauban, an effort and settlements perceived as best practice in Europe.

SØNDERGAARDSPARKEN NORTH OF COPENHAGEN

Søndergaardsparken from 1949-50 is structured of low-rise housing around a common green in contrast to the dominant form of post-war and in the 1970's industrialized and subsidized multi-storey settlements. Søndergaardsparken is inspired by the English garden cities from the early 1900's, but the simple building types and tectonics are associated with the functional tradition. The open space reinterprets the English village green in form of a Danish landscape: a hilly terrain with recreational areas and free standing trees in a "valley" and buildings on sides of the slopes. Private gardens with hedges frame and give shelter to the common space. The blooming and diverse gardens bring diversity in the use, expression and biology to the extensive and simple stroke of landscape. The houses are however minimal brick architecture with constructive and material expressivity. Pergolas, sheds and garages complement the houses archetype. The houses are small and informal, combine dining and sitting in a room, opening the living conventions and adapting to differences in lifestyle and need.

FREIBURG

Sustainable development in Freiburg has its roots in history. Freiburg was part of a major industrial development in the EU in the 1970's resulting in a rapidly growing need for energy. For the citizens of Freiburg the identity was closely connected to agricultural and architectural qualities of the area. The industrial development caused serious concern and environmental attention, most of all to the development of nuclear power. The environmental awareness in Freiburg has thus home in an engagement among citizens, and participation is still considered an important element of sustainable development. The city's position in the cultural landscape is important for the city's restrictive land policy that draws clear boundaries between the built and the surrounding open land. The urban growth is directed into relatively dense neighborhoods and focuses on public transport, cycling and walking. Zoning, isolation and segregation has been replaced by an idea of exchange between local identities, urban growth in the suburbs has been replaced by transformation of areas within the city's edge forming dense quarters, and construction of large centers outside the city center is prevented. The political pressure on municipal planners to allow low density

settlements with single family houses were particular in the 1990's counteracted by the construction of two new, denser neighborhoods Rieselfeld and Vauban.

RIESELFELD, FREIBURG

Rieselfeld in western Freiburg seeks its identity in a sustainability profile. The architecture of landscape and housing focusses on density, public and urban life. The various components linked by a main street with light rail, commercial and public institutions. The town plan is zoned, with large institutions, school and high school close to the urban spaces. Church and media center is located by the center square. Along the square is the main street with shops on the ground level and residential above. The light rail has several stops within the district loop. The rest of the district is dominated by housing - quiet, harmonious and with many children. The identity of Rieselfeld is connected to a clear distinction between public and private. The distinction is softened however, by a spacious and complex avenue profile with trees and front gardens. The individual touch is fold out on each house. The architecture is complex due to a relatively diverse program for housing and secondary functions, small owner units and a desire for visual expression of livability and openness. The complexity is dominating the view, but blurs at the same time differences in building construction, materiality and differences developed during lifetime. The expressiveness may therefore occur postulating.

VAUBAN, FREIBURG

Vauban in the south of Freiburg is built around a path and an avenue with light rail. Common functions such as shops, markets with local and regional agricultural products and institutions are located around the avenue, within walking distance of all apartments. Across the avenue are residential areas with common open areas and paths connecting the buildings to the surrounding open land. The settlement is reserved for pedestrian and with limited car access. The house ends are formed like short arcades and connected by secondary buildings like bazars along the avenue forming a continuous and accessible street space. The building form consists of simple blocks in the same height with apartments oriented to the east and west. Ground level and surfaces at entrances, passages and paths are designed for stay with personal expressions. The simple architectural concept of the building masses and the urban form is the basis of the urban area's diversity and diversity. There is thus a clear scale division in the architectural idea with simple and strong features in the larger scale, diversity in constructive structure and materiality. Secondary building structures complete the primary with special, simple and inexpensive buildings with shorter lifetime for particular purposes such as common rooms, studios, recycling, storages, maintenance and cultivation.

CITÉ MANIFESTE, MULHOUSE

In the central Mulhouse homes are renewed to reduce energy consumption and to get a more mixed population in age and economy. The existing facades and sections are preserved while spatial interventions are performed in the plan to get diverse apartment types. A new social housing district, Cité Manifeste from 2005 follows the surrounding urban fabric of the neighborhood from early in the 19th century: buildings located along roads of approx. 3 m in width with row houses on either side built back to back with front gardens, workshops and private parking on each parcel. Lacaton & Vassal designed the new building in Rue Lavoisier in an architecture creating continuity with the neighborhood street structure and dimensions. The buildings are dense with very small front gardens, even smaller than in the

old neighborhood. The functional division and form of the new dwelling break with the classic garden city forming types similar to townhouses in inner city and reminding of Le Corbusier's early townhouse projects: workshop, storage room and garage on ground floor with gate from the alley, lounge and rooms on the 1st floor and a large green house. The budget is low as well in basic constructions and adaptation. The new building in Rue Lavoisier can be seen as a reinterpretation of the Dolfuss neighborhood but organized within a "gross volume", a column-supported and flexible warehouse 20 m deep with facades of corrugated metal, PVC cladding and movable gates. Residents have the opportunity to equip as they wish, while the exterior is kept simple, uniformed.

TOUR BOIS LE PRÊTRE, PARIS

Tour Bois le Prêtre in Paris is an apartment building from the 1960's, renewed in 2005-11 by the architects Frederic Druot and Anne Lacaton & Jean-Philippe Vassal. The aim is to maintain and reinterpret the values of the modernism with light, air and comfort. In the transformation the primary structures are recycled, but the building are opened and complemented by new layers of balconies. The ground floor is transformed into lobby and common space. The old balconies are converted into a temperate zone for living, and new terraces are added outside. House depth increases, while allowing the facades to open completely with sliding glass windows, as well in the line between existing inner spaces and the new "winter garden" as in the line between the winter garden and balcony. Tour Bois le Prêtre show, that there is a potential for economy and energy saving by reuse of existing structure. The transformation separates the building from the area's contemporary buildings forming a landmark for the neighborhood.

GYLDENRISPARKEN, COPENHAGEN

Gyldenrisparken is one of Copenhagen's major public housing estates built in the middle of the 1960's. A park settlement with an open space in the middle, flats in 4 floor blocks built as prefabricated buildings and a small shopping center. The settlement has recently undergone a renovation and transformation into sustainable and social housing objectives. It is today regarded as one of Denmark's best examples of transformation of 1960'-70's subsidized housing. Architects are the offices Vandkunsten and Witraz. The settlement consisted of 432 apartments with approx. 900 residents. The residents had predominance of single people and one-parent families, while the proportion of young people was lower than average. 49 % of residents were immigrants or descendants of immigrants. Gross income per year was 179,000 DKK compared to the average 256,000 DKK in Copenhagen, and the proportion of unemployed was 40% - now reduced to 33%. Building construction had concrete damages and missing insulation. The buildings are after insulation outside on the original concrete elements covered with a new shell of white ferrocement with a corrugated surface. The balconies are renewed, extended in depth and protected by railings of glass. Windows are replaced with mahogany and glass bay windows. The typical horizontal architecture of the 70's is maintained and added new quality in detailing and materiality. Daylight and spaciousness is enhanced with simple interventions realized while the residents have continued their life in the apartments. The garden is renewed coordinated with additions of new nursing homes and day care institutions built as passive energy houses. The addition divides the free area into smaller, functional areas for play and stay and diversity in scale and materiality. Along the main path is a series of pavilions constructed as a secondary structure used as workshops, studios and common functions maintained in dialogue with residents. The cost of renewal has been about 1 million DKK per apartment, funded by the National Building Fund and rent increases at a level of 500-1,000 DKK per month.

HOVSJÖ IN SÖDERTÄLJE, STOCKHOLM

Hovsjö was built in the 1970's as part of the "Million program". There live about 6,000 persons in 2,200 apartments, 1,950 in three- and four-storey concrete blocks and the rest in 250 terraced houses. Four neighborhoods in total 1,450 homes have "bostadsrätt"- shared owner occupancy, the majority owned by TelgeHovsjö AB. The company is also owner of the terraced houses, schools, pre-schools, laundries and car parks. One neighborhood is rental housing owned by a private company. Many homes have been occupied by the same tenants for many years, some since the buildings were constructed. There is a super market, small shops, restaurants and care center, all owned by a local, private company. Apartment types are mostly 2- and 3-room apartments, while as well larger as smaller apartments are missing. Car and pedestrian traffic is completely separated. At the edge of Hovsjö is a recreational open space with lake Måsnaren. In the middle of the settlement is a park, and there are good open spaces in each neighborhood. Many of Hovsjö's problems can be recognized in other million program areas: High proportion of emigrants, about half of the adult population is unemployed including several with higher education. Average income is low and the proportion of transfer income high. The building structure need maintenance, it is rather isolated from the urban context, crime is high and many feel unsafe. The area has low status in the surroundings.

Hovsjö has the potential to be a good area due to proximity to recreational areas, the proportion of residents with higher education, a dominant and strong real estate company and political consensus: something radical must be done in the area. The company's ambition is to engage primarily the youth in changes "from bottom up". Instead of large, expensive and time-consuming projects, many small and visible improvements are realized in cooperation between local associations and young people i.e. in the public park and open spaces taking advantage of resident's skills and labor reserve, simultaneously with creating the conditions for local start-ups. 150 young people have participated in the restructuring of the park, more young people are employed in the housing company, income has increased and building cost decreased. The strategy is to break the negative spiral and increase the status and attraction of the settlement. To open for new populations, increase the basis for shops and services - to improve the investment climate in general, while the current residents can stay. Now 6 years after first steps the physical transformation process start with new home-building, school, cultural and commercial center building followed by demolition of some existing buildings and car park structures.

4. TOOLS

Sound Settlements questions: Can we get diversity into the project's four cases and inspire future transformations in the Oresund region in settlements from the 1960'-70's build in the light of postwar rationalism and industrialization without loss of qualities from the Nordic modernism, the functional tradition? When equality was a principle in architecture! We commit the current mistake, that social ideals of diversity can be translated directly to the architectural space. With Foucault one could point out, that there is a crucial difference between the architects produced space, and lived everyday spaces. The diversity comes to fulfillment in lived space, but can unfold in many architectural forms - perhaps it is most beautiful when diversity unfolds in a rigorous setting? Can a clarified architecture open to cultural and individual differences in everyday life – and to sustainability now and in the future?

THEME	SCALE	DISTRICT	SETTLEMENT	BUILDING
IDENTITY				 scenario Drottninghög
LANDSCAPE				
RESSOURCER			 scenario Brunshög	 scenario Lindängen
DENSITY				
DIVERSITY				 scenario Albertslund Syd
PROCESS				

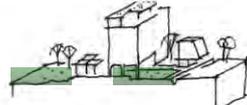
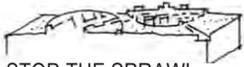
CONCEPTS AND MODEL

In Sound Settlements we have proposed a toolbox of concepts and a model for the project. A draft is used in the research and in the development and presentations of scenarios for each case examined through workshops in the settlements. The concepts arise of the discussions and individual programs for the planned transformations in the cases. The concepts are also inspired by the series of visits to European examples of best practice for new, sustainable housing and current building renewal practices. The model contains two approaches, a thematic and a scaled.

The thematic concepts are identity, landscape, resources, density and diversity. A separate layer is added for experiences and research related to planning and decision making processes. The themes are described in the scales of district, settlement and building.

The concepts structure a field for observations, discussions and suggestions. The concepts are illustrated with diagrams outlining a basis for the case studies in the Oresund region illuminated with observations from European settlements.

The tools are used in description of each of the four cases: Drottninghög, Brunnhög, Lindängen and Albertslund Syd.

	DISTRICT	SETTLEMENT	BUILDING
IDENTITY	 <p>THE NARRATIVE CITY</p>	 <p>WINDOWS TO LIFE</p>	 <p>OPEN, FLUENT, COMMON</p>
LANDSCAPE	 <p>BEACH, PLAIN, HILL</p>	 <p>STRAIT, GARDEN AND PLACES</p>	 <p>BUILDINGS IN LANDSCAPE</p>
RESOURCES	 <p>CITY OF SHORT DISTANCES</p>	 <p>RAINWATER FLOW TO THE GREEN</p>	 <p>OPEN TO SUN</p>
DENSITY	 <p>STOP THE SPRAWL</p>	 <p>HORISONTALITY</p>	 <p>GARDEN, BALCONY, ROOFING</p>
DIVERSITY	 <p>ON EDGE</p>	 <p>LIGHT, HEAVY, SPECIEL</p>	 <p>PRIMARY, SECONDARY, AD HOC</p>

IDENTITY

If identity is awareness of individuality, might identity then be promoted by opening to differences, acting upon them and making them visible? If views from within on characters of the settlements are questioned and more fundamental values identified and developed as alternative to not carefully reflected reproductions of external views on the settlements, could existing characters then be strengthened? What is it about and which kinds of “spaces” are required? Discussion on cultural heritage is now in Albertslund and municipalities west of Copenhagen tending to draw on local references. Characters depend on both tangible and intangible values such as do-it-yourself construction and collective decision-making, the establishment of independent day care centers in Albertslund, recycling etc. In Lindängen and Drottninghög examples like Styrkoteket, model railway, “nightwalking” and allotment garden initiatives. The relationship between these initiatives and the homogeneous uniformity reflected in the architecture provide a strong character in the settlements behind the surface. It shows that the buildings are open to the development of identity over time when administered with awareness of these options.

IDENTITY

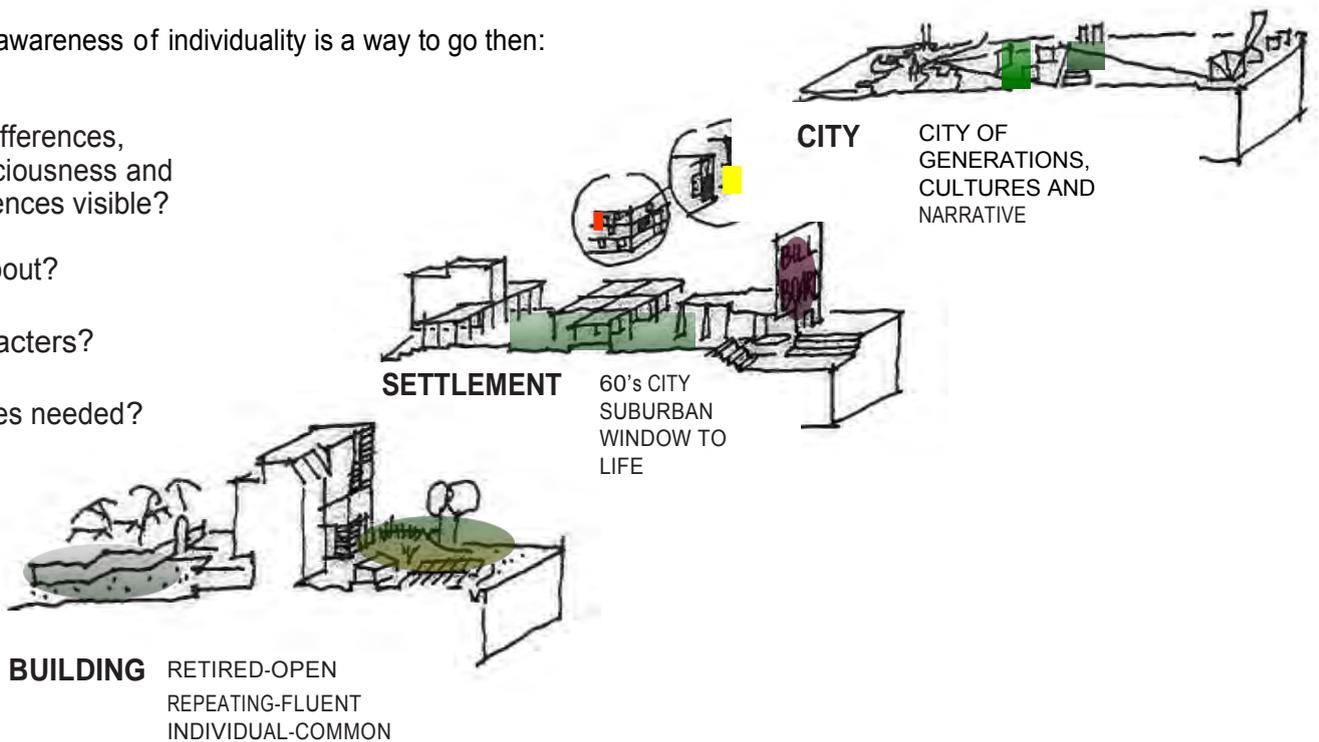
If identity is awareness of individuality is a way to go then:

To loosen differences, create consciousness and make differences visible?

What is it about?

Which characters?

Which spaces needed?



LANDSCAPE

Is the landscape identity in any way reflected in district parks, open spaces and courtyards? Can you see that you are in the south-west of Skaane or eastern Zealand by looking at the vegetation? Are there areas of water contributing to biodiversity? Is access from home and courtyard to larger green areas easy? The green structure of the district is a wonderful resource, especially for human well-being, health and as a meeting place. But also a source to sensitivity and conceptualizing of otherwise rather abstract goals of sustainability. Play, movement, pedagogy, body, re-use, change of seasons. The feeling of ownership increases if you take part in the care and development of the courtyard, green common or park. Having your own outdoor space in front of the apartment on the ground floor can create individual character and variety in everyday life and architecture. For urban ecology is green a resource for storm water management and cleaning, biodiversity, air purification and microclimate. When you want to reach residents to engage in dialectic and anchoring processes can a start with the outdoor environment be productive. The design and maintenance of the green is vital for the ecological value of the green.

LANDSCAPE

Green structure is a source to identity, sensitivity and conceptualization of rather abstract goals for sustainability:

Is landscape identity reflected in the district park, green common and courtyards? Is it possible to see from the vegetation if you are in Skaane or Zealand?

Does the settlement have wet land and biological diversity?

Are recreational and green spaces accessible from the apartments?



DISTRICT
BY THE BEACH, ON PLAIN OR HILL



SETTLEMENT

LANDSCAPE AND PLACES
HA-HA FENCE
STRAIT/AVENUE/GARDEN



BUILDING BUILDING IN LANDSCAPE

RESOURCES

Land is not a renewable resource. Therefore, the proportion of open space is an indicator of the city's sustainability. Land requirements for traffic and the division of the land contribute to the loss of life value and architectural quality in green area and recreational spaces. Traffic pressure, noise and barrier effects are a serious threat to biodiversity. Can improved public transport and frameworks that increase the use of collective and soft types of traffic be followed by reduction of road and parking areas? Can public transport such as trams built in existing greenways along with bike and walking paths reverse settlements introvert character into identity bearing elements for settlements? And can reduction of road and parking areas open to green connections to surrounding neighborhoods and features? Transport structure requirement grows when traffic increases, but the negative effect can be reduced with more efficient means of transport with planning for cycling, walking and public transport. A compact and mixed-use development can to some extent replace the need for physical mobility by providing shorter distance.

RESOURCE

Land is not a continuous resource, thus the share of open land become an indicator for urban sustainability.
 Can improvement of public transport be followed by reduction of street area and parking?
 Can public transport i.e. tram line be realised in existing, green straits and reverse covered surface into green - and connect to neighborhood?

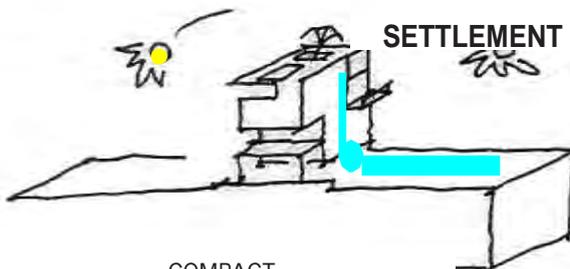


CITY OF SHORT DISTANCES



SETTLEMENT

SHORT STREETS
 A MINIMUM OF COVERED LAND
 RAINWATER COLLECTION



BUILDING

COMPACT
 EASY TO MAINTAIN
 OPEN TO SUN

DENSITY

When talking today about the "dense city" and "densification", what do we refer to - close compared to what, to inner city, to the 60's and 70's settlements or to garden cities? Today urban density often refers to density in the inner city as a kind of norm. Does density at the same time refer to quantity and to sensual experience? Low/dense and high/open can give the same figure for density, but are experienced differently. Should and can the city have same density everywhere? Density means ratio of built and open space, while the density of the built structure is about the relationship between street spaces and courtyard or open space, and the experienced visual density is linked to openness in the space you live in. Population density gives background for shopping economy, but trade and service is on the other hand also related to level of income etc. How does people live, are single people or large families dominant? Can you plan based on info from the home page: many single rather than mother, father and two children - and learn from the settlements' own experiences: as soon as the residents move in, preferences and needs change.

DENSITY

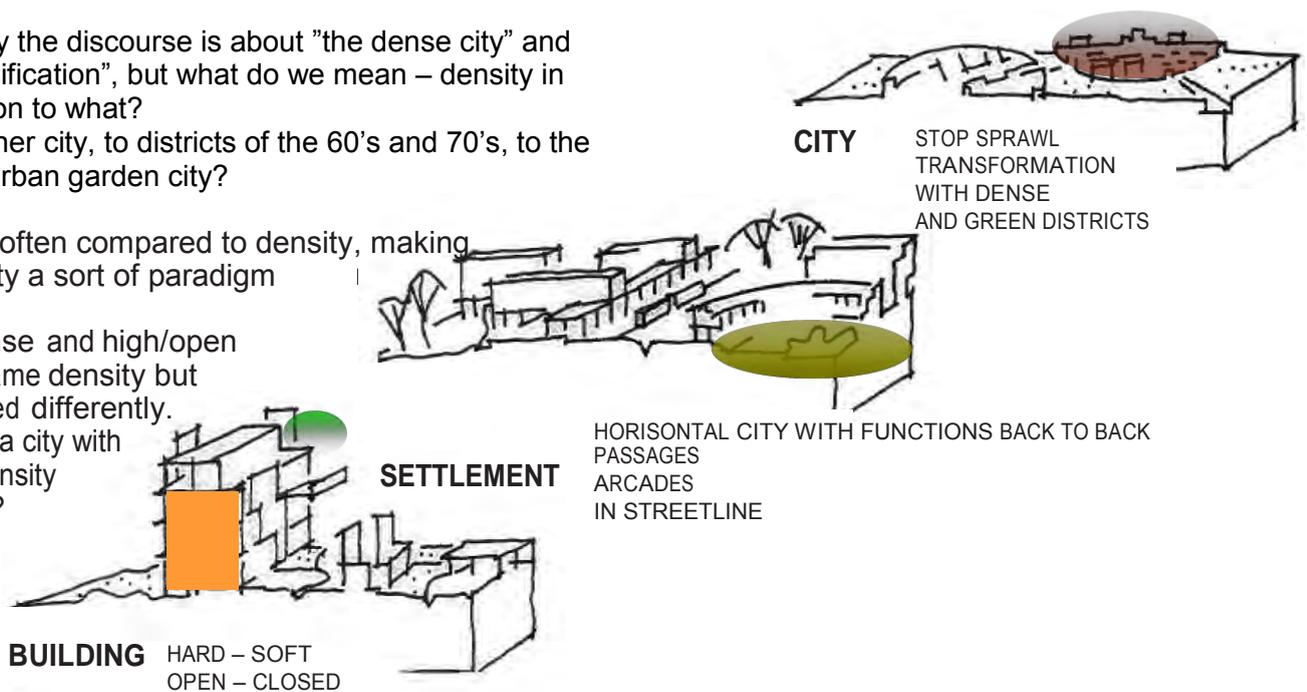
Today the discourse is about "the dense city" and "densification", but what do we mean – density in relation to what?

To inner city, to districts of the 60's and 70's, to the suburban garden city?

Urbanity is often compared to density, making the inner city a sort of paradigm

But low/dense and high/open can have same density but is experienced differently.

Do we want a city with the same density everywhere?



DIVERSITY

If current efforts to establish the abundance and diversity should be seen as a break with the postwar focus on average, functional needs with mass production of good housing as a goal, can we solve the problem of the new introduction of mass-produced building systems? Or can we organize renewal in ways better reflecting the ongoing development in the neighborhoods? Should we develop diversity by architectural expression - or is it other forms of diversity that must be reflected? And are we, sure that the 'uniform' is the problem? Or is the problem of spatial relationship and scale, and in the settlement the structural and material quality? Does the issue perhaps have more to do with post-war focus on functional qualities and contemporary focus on the average needs? And finally: is diversity not major in public housing, where residents from different ethnic backgrounds live next door, than elsewhere in the housing market? Do “we” in fact want diversity, or is it a trend among planners and architects?

DIVERSITY

Are we sure, the problem is in simplicity? Or in spatial diversity, in scale and in materiality and structure?
 Is diversity not major in social housing, where cultures live next to another?

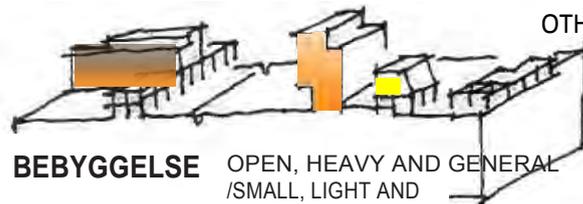
Is it possible to give space to existing differences in everyday life?

Do we really want diversity, or is it a trendy idea among architects and planners?

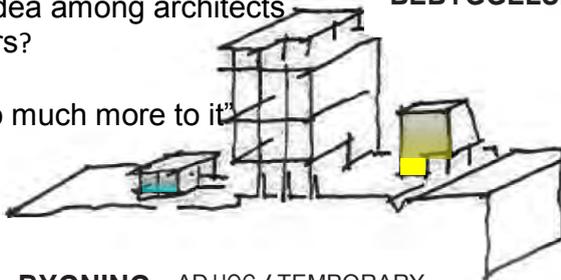
“There is so much more to it”



CITY ON THE EDGE, AROUND THE GARDEN OR BACK TO BACK WITH OTHER BUILDINGS



BEBYGGELSE OPEN, HEAVY AND GENERAL / SMALL, LIGHT AND SPECIAL



BYGNING AD HOC / TEMPORARY PRIMARY/SECONDARY

PROCESS

Sustainability is about environmental, economic and social conditions. Environmental sustainability means less resource consumption for energy, attention to public transport, cycling and walking. Economic sustainability means balance between income, living cost and maintenance. The economy includes homes, but also access to malls, institutions and recreational facilities - and to large open spaces, roads and paths. Social sustainability relates to households' ability to manage your life. There deployed because the municipal spending has grown over the municipal average, followed by crime, insecurity and social exclusion. Problems may be related to a lack of ethnic, social and economic integration. Sustainable transformation must be long-termed and have multiple simultaneous goals: to make settlements more diverse i.e. attractive to new, self-supporting residents, to improve density and integrate with the surrounding city. And finally: to improve housing and energy standards. Finance and processes are fundamentally different in the Swedish and Danish cases; the Swedish transformations are municipal and privately owned, financed by the sale of building rights and new homes, while the Danish are public non-profit housing companies and transformation partly financed by funding from the National Building Fund.

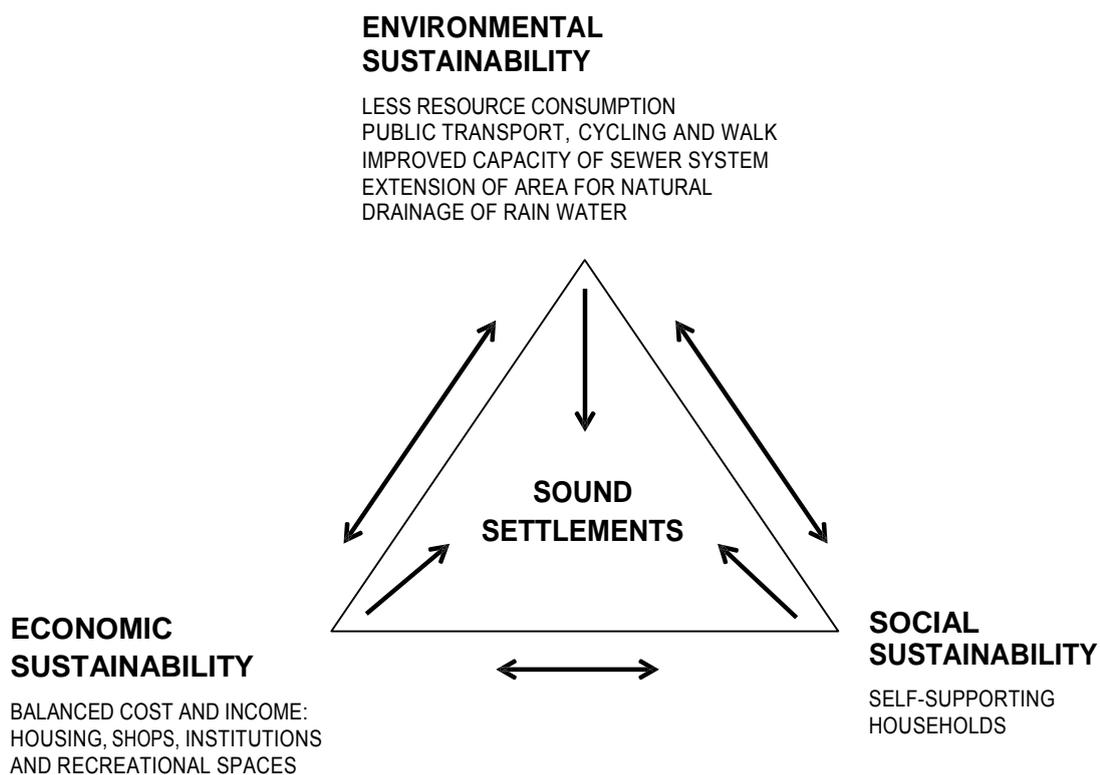
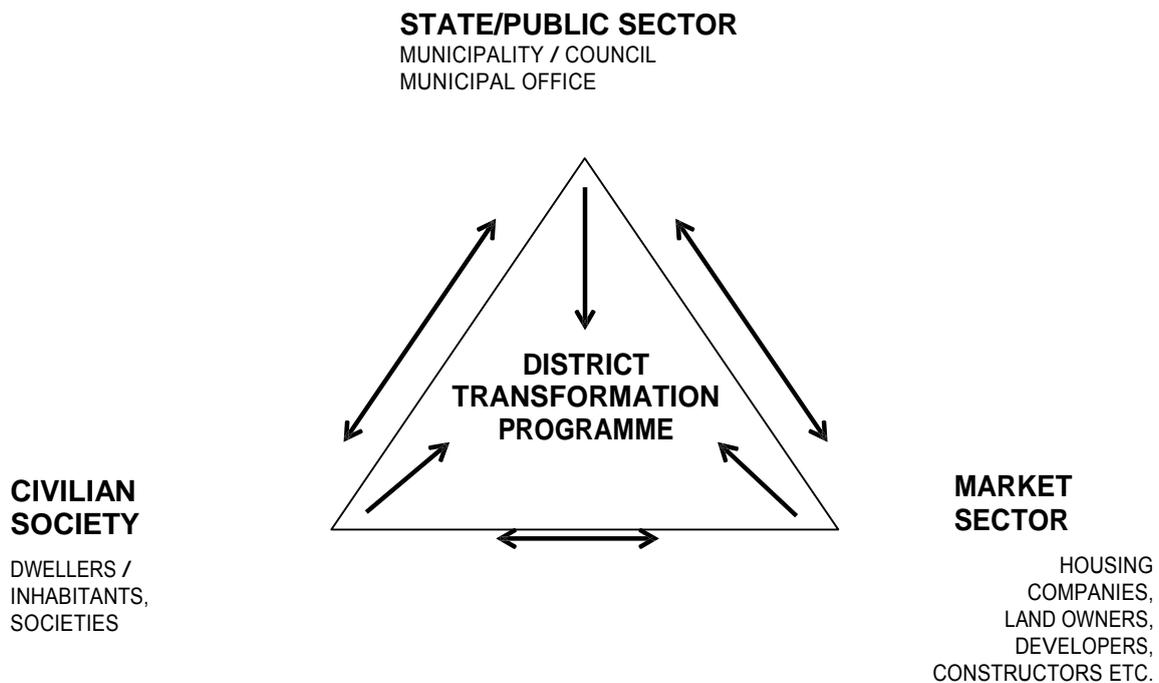


Diagram: Jacob Norvig Larsen

The municipality is the primary driving force in ensuring housing estates and city to long-term sustainability and good cooperation between several actors: local authorities, politicians, administrations and institutions, market players such as landowners, developers and consultants as well as residents, citizens and associations in the civil society. There may be agreement on the challenges and goals, but not always on how to manage and give priority. The dilemma is that there are not always harmony between solutions that work well locally and solutions of the cities or municipality's strategic challenges. Both perspectives must be recognized and taken into account simultaneously. Another dilemma exists between the short term and the long term. The local authority and housing association focuses on the long term, such as adaptation to new standards and rising energy prices. Cost of improvements will result in rent increases affecting the current residents, while the benefits may not appear until new residents have moved in. It is difficult to find evidence, that more extensive physical transformations can solve social problems for the existing residents, they are often linked to change of the composition of residents. Therefore, listening to residents is needed and short-term here-and-now needs must be met by "soft" interventions.



*Diagram:
Jacob Norvig
Larsen*

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The Nordic Urban and Housing Research Network (NSBB) was established in 1997 with the aim of hosting annual Nordic seminars on urban and housing research in the Nordic countries. The host in the 2013 conference was The Danish Building Research Institute, Aalborg University in cooperation with The Danish Centre of Housing Research. It was held from September 17th to 19th in Roskilde, Denmark. The theme of the conference was *Suburbs - transformation and development*.

There are currently numerous ongoing initiatives discussing the future development of suburbs. This happens in the recognition that suburbs represent a significant part of the overall townscape, combined with a new interest in suburban qualities. The conference aimed to discuss the ideals and intentions that form the basis of the current suburb development projects; projects which all intend to revitalize and develop the suburban everyday life.

In this publication all the papers from the conference are published. The papers have all been peer-reviewed.

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