A WORLD OF ACQUAINTANCES

How spatial patterns on various scales can form an integrated strategy to facilitate collective efficacy in Beverwaard

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COLOPHON

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“...a potentially chaotic and meaningless world of strangers was transformed into a knowable and predictable world of strangers by the same mechanism humans always use to make their world livable: it was ordered.”

Lofland in “A world of strangers; Order and action in urban public space” (1973)
Preface

When I started this graduation project, I though I had everything under control. The process I had roughly sketched out for the first presentation seemed fairly manageable. However, as you progress, you start to see new challenges, new questions start to pop up. This brings a lot of excitement, when I found interesting answers to questions I did not imagine I would have to answer. It also brings uncertainty and sometimes frustration, not knowing where to find the answers. If things got difficult, there where a number of people who where always there to help me.

The first one I want to mention in this light, is my first mentor Machiel. He has guided me through what sometimes felt as a labyrinth of theories, case studies and analyses. With his expertise and enthuism, this graduation project has recieved an injection of inspiration. I am greatly indebted to my second mentor Maurice as well. Maurice was always sharp; when I had missed something in my enthuism, he made sure I everything added up again. He structured my thoughts, while at the same time coming up with new ideas. I want to thank also my external examinor, Thijs. Thijs is an architect, and therefore he looks through a slightly different lens. However, he understood the project quickly, and provided me with an interesting perspective, which is useful to any Urbanism student. And ofcourse, I want to express my gratitude to my third mentor Egbert. While we did not have too much time to catch up when he stepped in, he still managed to give some interesting pointers for the finishing touch to my graduation project.

I also want to express my gratitude to all the people who took the time to have a meeting with me, and to share their views on Beverwaard and on my graduation project. In this context, I want to thank Harm de Oude, Martin den Hartog, Allyson Mannsur, Jurrian Arnold, Marjan Gonsalvez, Wenda Doff, Anthonie Mullié and the volunteers at Wijkcentrum de Focus in Beverwaard. Furthermore, I am indebted to my friends who were willing to participate in the workshop: Arjan, Bart, Bram, Floris, Karlijn and Tjerk. I am also grateful for all the people I met on the street of whom I did not always get the name, but who were willing to share some of their experiences on both Beverwaard and Oversie. Without them, the tremendously important local knowledge for this research would have been absent.

Last but not least, I have to thank all of my family and friends who have always supported me, been patient with me and helped me wherever they could.
Summary

The welfare state is transforming into a participatory society, in which citizens are expected to fill in the gaps left by the retreating government. At the same time, the government is trying to decentralize, putting increasing emphasis on cities, districts and neighborhoods. How can we, as urban planners and designers, facilitate participation in this changing political paradigm?

A lot of concepts come into play when linking these ideas about society - thus social issues - to spatial solutions. The aim of this graduation project is to facilitate collective efficacy - the social cohesion among residents and their willingness to intervene on behalf of the common good. In order to do this, the urban planner/designer intervenes in the physical environment. The environment must be designed such, that it facilitates public familiarity on the one hand (people knowing one another) and territoriality on the other (individually or collectively feeling responsible for a space). These two concepts in turn can facilitate collective efficacy.

In Beverwaard, a cauliflower neighborhood in the utter southeast of Rotterdam, the subjective scores of participation and social cohesion are far below average. and anonymity is high. Yet, the municipality of Rotterdam promotes Beverwaard as a district where people know one another, with a village-like vibe. These observations make Beverwaard a testcase very well suited for this graduation project.

Beverwaard as a whole is mainly residential, except for one shopping center. However, the shopping center is located far away for a lot of residents, which means they often take the car to shopping centers outside of Beverwaard. Also, the district is experienced as a whole district instead of a district with spatially articulated smaller entities in terms of scale. The housing quality in Beverwaard is often appreciated, although they often house lower income groups. Hence, the residents of Beverwaard often feel at home in their own private houses and sometimes in the district as a whole; the institution of a neighborhood for instance, is hardly mentioned.

The infrastructural system is characterized by a cauliflower structure; main roads branch out into secondary roads, which in turn branch out into third order streets that are often designed as “woonerven” or parking spaces (“hofjes” for parking). The public spaces for staying in Beverwaard, like the streets, are also differentiated in terms of scale of use. While most of the streets function relatively well with the exception of some of the hofjes for parking, the public spaces do not always work as well as perhaps intended. Often, the spaces that do not function well, are not used a lot or where conflict is likely to arise, there is a problem with the readability of the space. The territorial boundaries are often unclear.

From a literature review and the spatial analysis of Beverwaard and Overschie as a case study, a pattern language has been developed. These design patterns each provide a hypothesis, often concerning a spatial solution for a socio-spatial problem. The patterns are a convenient way of translating research into design elements, while the design can likewise influence the patterns as well; developing a pattern language is a
dialectic process. The basic layout of a design pattern makes it an ideal tool to communicate with laymen, but also with professionals.

The patterns are ordered in a pattern language, in which the semantic relationships between the patterns play an important role. By visualizing these relationships, design choices can be made more explicit, and are therefore easier to communicate.

Returning to Beverwaard, the main problems, as described, result from a lack of spatial articulation of certain spatial entities, as well as a lack of places to interact with others. The long-term vision for Beverwaard aims to take a few important measures: the boundaries of neighborhoods are spatially articulated, each neighborhood starts to develop an own identity over time and the facilities located in the center now are spread out over the district at strategic locations as places to meet others. The vision ideally is established in a workshop with “local leaders”, actors who know what goes on in the district and have the capacity to act on it.

Furthermore, two scenarios have been established to guide the transformation on the smaller scales: the readability scenario and the enclosure scenario. The readability scenario is aimed at spatially articulating territories on various scales; it is relatively cheap, flexible and “open”, as it outsiders are still allowed to go anywhere. The enclosure scenario in contrast, is characterized by an enclosure of spaces for outsiders or at least limiting the number of outsiders at specific locations. This scenario is relatively expensive, inflexible and “closed”. Ideally, the choice of scenario for a specific location is done in a workshop with local leaders as well. In this workshop, the more abstract, large scale patterns are employed.

The choice of scenario provides the framework for the further infill of the actual interventions. The infill is ideally decided upon in a workshop by local residents; their local knowledge is essential in redesigning a public space, for instance. In this workshop, the more concrete and small scale patterns are used, as they can be more easily understood by the laymen and are most relevant for the concrete infill of the framework.

The vision as well as the specific interventions are all targeted at making territories readable and facilitating public familiarity on various scales. Each of the interventions is shown in flowcharts, making the choices of patterns and thus the design choices explicit.

Together, all the small scale interventions fit into the long-term vision and they will generate a district with a gradual transition from private to public. Hence, the original idea behind the cauliflower district has been updated, to form an environment that will facilitate collective efficacy. Beverwaard thereby might become the district it aims to be; a district ready for the participatory society.
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Part I

Introduction
“People should feel that some part of the environment belongs to them, individually and collectively, some part for which they care and are responsible, whether they own it or not. The urban environment should be an environment that encourages people to express themselves, to become involved, to decide what they want and act on it. Like a seminar where everybody has something to contribute to communal discussion, the urban environment should encourage participation.”

Jacobs and Appleyard (1987)
The built environment reflects society; whether it be the great temples of Ancient Greece to honor their gods, the mass social housing production based on modernist principles after the Second World War or the “vandal proof” reprogramming of public spaces in the Netherlands during times of uncertainty and a feeling of public unsafety. In recent years The Netherlands has been experiencing a transition in society. With the recent introduction of the “participatiesamenleving” – or participatory society – in Dutch politics in 2013, the state of the Netherlands formally announced a process that had been slowly evolving over the past couple of years: the roll-back of the welfare state and the expectance of active citizens as the new initiators of change. Associated with this transformation is the idea that in some cases, people collectively need to take over services formerly provided by the government. Services like the provision of security and policing, but also the maintenance of public spaces have increasingly been provided by the government over the decades that followed the Second World War. Now, as many countries suffer from the consequences of a drastic economic crisis, governments seek to cut back on their spending, especially when it comes to such services. The question arises how this can be facilitated.

As in recent decades we have seen the advent of a period of neoliberalism in which some of these former governmental services have been taken over by market parties. Privatization of both services and property has often been the solution for unwanted or malfunctioning state assets and services. It is felt among many that the market is not the solution either. Similarly, theorists have warned for increasing polarization following from a neoliberal attitude (see for instance the work of Harvey (2005)). This graduation project will not try to critique neoliberalism however; it will limit itself to the search for a stronger civil society.

The transition also means the downscaling of the centers of power. Many services will be or have been decentralized. Cities, city districts, neighborhoods and even streets will have a more central place in this new “type” of society; people are expected to take care of their own problems, in local networks. The ideals of a civil society taking up services are, among others, based on concepts like self-organization, collective efficacy, public familiarity and sense of belonging. These are all concepts that can arise everywhere people live together in groups, but it does not equally distribute itself over space and time.

There are a lot of factors that come into play affecting the concepts mentioned above. Many of them have been discussed and also researched to some extent in disciplines other than urban planning, like social geography and sociology. However, there are still gaps in our knowledge about the factors establishing concepts like this, especially in terms of spatial conditions. This graduation project aims to expand the knowledge on specifically the spatial characteristics that serve as preconditions for collective efficacy on various scales. It thereby takes position in a debate about the spatial implications of a society where “active citizens” are demanded, and tries to unravel how design can play a role in facilitating that citizens can have a (larger) role in dealing with local issues.
This graduation project will start with the problem statement, followed by the research questions. After that, the relevance of the graduation project will be highlighted. Both the societal and the scientific relevance will be addressed.

Furthermore, in the theoretical framework, the existing literature that links to collective efficacy is explored. Concepts like social control, public familiarity, sense of belonging or feeling at home, self-organization and collective efficacy are addressed and theoretically connected to each other. This will be done first in broader terms; in later stages it will be linked to literature that deals with the relation between these concepts and their actual spatial preconditions and implications. The focus will be on three scales: the neighborhood scale, the street scale and the street detailing scale.

Next, the methodology of the project will be delineated. Here, the methods, comprising mostly qualitative ones, and the techniques will be precisely described. This will be followed by a design goal, in which the requirements that are to be met by the design will be addressed. Then the intended end products will be delineated. Finally, a planning will be presented, highlighting when important deadlines are and when certain products are expected to be finished.
1.2 Problem statement

The decentralizing and shrinking welfare state that is being transformed into a participatory society presents a new challenge for various disciplines, including urban planning and design, to explore the possibilities to shape this emerging type of society. People are expected to take initiative and to be less dependent on governmental services, but can this be expected of citizens? How can we as planners and designers support them in this change of “attitude”? And on what scales is it relevant to expect a contribution from citizens?

A lot depends on the citizen’s will to participate. Voluntarism is of key importance here, and will only start when people feel a part of something, when they feel they belong somewhere and when they therefore want to take action to contribute to it. The scale on which voluntarism can be expected, as among others Hunter (1985) has shown, is the parochial order, the scale on which people have a sense of community and belonging, the scale on which they have at least weak social ties to one another. A sense of belonging is a starting point for caring for the location to which one feels one belongs. This sense of belonging might – with some intermediate variables – eventually result in collective efficacy, a point where people actually take action to improve their environment.

However, the issue of scale has now mostly been described in social terms; the question for us, planners and designers, is what physical scale links to and what spatial characteristics can facilitate feelings such as belonging. Although theory has started to address such issues, planning practice has struggled to find answers to the questions concerning collective efficacy and related concepts.

Understanding the relation between belonging, scale and environmental characteristics can provide a starting point for designing for an environment that facilitates collective efficacy. It can therefore contribute to more efficient solutions for neighborhoods where commitment is low, making them more self-reliant by increasing collective efficacy.
1.3 Research questions

What generic spatial patterns across scales can facilitate collective efficacy, and how can these patterns be coherently implemented to facilitate the collective efficacy of Beverwaard specifically?

What is collective efficacy and how does it relate to notions like self-organization, public familiarity and parochial space?

What spatial characteristics can facilitate collective efficacy on various scales?

What are the problems and chances relating to general social, economic and spatial issues in Beverwaard?

How do the private, parochial and public orders manifest themselves spatially on various scales in Beverwaard and how are they interrelated?

How can these design patterns be applied in a coherent design for Beverwaard?
1.4 Relevance
Societal relevance

The concept of the participatiesamenleving has endured severe criticism since its inception. Many people believed it was a message that tried to disguise the impoverishment and sometimes even the abolishment of certain governmental services. Indeed, when the government cuts budgets on for instance care for the elderly, these elderly are dependent on their networks; they need to know people who actively want to provide care for them, like relatives or neighbors. The same goes for other services; local networks are needed to fill in for the lack of governmental support.

The question is however, do people have social networks that are strong enough to facilitate such services like care for the elderly or maintaining the public space in a neighborhood? Is there a strong enough “sense of community”, and on what scales do people feel connected to each other and responsible for their environments?

Various authors have commented on social cohesion and social networks. Some of the first were the classical sociologists Ferdinand Tönnies (1887), Émile Durkheim (1893) and Georg Simmel (1903). Tönnies, Durkheim and Simmel noted that with the division of labor individualism thrived; people enjoyed a greater freedom in the metropolis, compared to the small village with its strong social control. Next to this, Simmel notes that the individual in the metropolis has various social identities, is engaged in various social groups, but is not under the influence of strong social control by one group like in a small village anymore. Similarly, Putnam (2000) paints a rather pessimistic picture on the social cohesion and participation of society in the US. He attributes the growing individualization and the decay of social capital to the emergence of new ICT’s. This is similar to what Madanipour (2003) has argued, who maintains that the private sphere has become larger because of the same reasons.

On the other hand, these ICT’s have enabled people to connect in ways that were formerly impossible. Online platforms for instance provide new spaces to meet other people and thereby starting points for self-organization. However, in order to sustain trust, meeting people in real life – having face to face contact – is an absolute necessity, as argued by Urry (2004). Similarly it is thus argued in this graduation project, that physical space, in which people can meet and build relationships, is still of importance. Not only to build trust, also to know when to distrust, actual contact in physical space is needed (Blokland-Potters 2009, 154-155). Material space still matters, also for people organizing themselves.

The fact that knowledge is not sufficient yet, is exemplified by the governmental policies on problem neighborhoods. Problems in “krachtwijken”, best translated as problem neighborhoods, have often been diagnosed as problems in “social cohesion” and disorder resulting from it. The spatial solutions proposed for these problems however, have often failed to have an effect on the social cohesion (see for instance (Permentier, Kullberg et al. 2013)). Spatial improvement plans – costing millions of euros – have failed, due to a lack of knowledge on the effects of the environment on complex social issues like social cohesion, sense of belonging and participation.
Now, in the aftermath of a global economic crisis, budgets for restructuring will decrease. The money that will be spent must be spent efficiently. Similarly, (Hunter 1985, 238) has argued that a new regulating social order, outside of the formal government is needed. Knowledge about the conditions for collective efficacy is therefore absolutely essential, especially when keeping in mind the recent societal changes like individualization. As planners, the main tool we work with is space. The task for us is thus to search for spatial patterns that can facilitate collective efficacy.
1.5 Relevance

Scientific relevance

The described societal relevance has been addressed by various authors in sociology and environmental psychology. However, work on how to integrate self-organization, collective efficacy, public familiarity and sense of belonging in planning practice has received less attention so far.

There have been attempts to link social processes or qualities to spatial configurations; many of these authors will be mentioned in the theoretical framework. There have also been examples of urban planning movements that have made claims about spatial issues influencing social processes like social cohesion. One of the more famous examples is the “New Urbanism” movement. However, as Talen (1999) has shown, these claims have rarely been backed up by empirical evidence.

It is not surprising therefore, that solutions to increase aspects like participation do not always work. A report by the Dutch Institute for Social Research, the Sociaal Cultureel Planbureau (SCP), shows that existing strategies to improve residents’ participation in problem neighborhoods have failed to have effect. It states, about the research conducted to measure the effects of the policies on problem neighborhoods: “The hardest result is a negative effect of the problem neighborhood policy on the commitment of residents for their neighborhood. This is remarkable because promoting neighborhood participation was one of the core objectives of this policy (Permentier, Kullberg et al. 2013, 14).”

It is clear that – while important – there is a gap in theory when it comes to relating these social concepts like social cohesion and collective efficacy to spatial configurations. This research aims to make a start with filling in this gap.
1.6 Design aims and preconditions

Next to expanding and connecting the theory on collective efficacy and territoriality in urban planning and design, this graduation project aims to implement the research findings in a design case. This means a concrete design will be made for Beverwaard which aims to strengthen the collective efficacy by taking into account the various scales on which the dynamics of collective efficacy play a role. This design has to improve the collective efficacy of Beverwaard in a sustainable way; this means that if, in time, residents change, the solutions must be flexible and adaptable to new users.

This graduation project aims to do this in a comprehensive strategy on the scale of the city district Beverwaard as a whole, zooming in at specific neighborhoods, streets and street details to illustrate more tangible interventions on the smaller scale. These small scale interventions will be strongly connected to the strategy on the larger scale. Both on the larger and the smaller scale, the aim will be to increase collective efficacy in a sustainable manner, and to show how the different scales of collective efficacy are interlinked. The focus will be on intervening in the public space and leaving the existing buildings in tact as much as possible. It thereby aims not to displace residents and to limit costs.
1.7 Planning context
Planning for social cohesion in The Netherlands throughout history

Introduction
The desire of creating a community characterized by strong social cohesion in the city is only logical, especially in times like this when “placelessness” (see (Relph 1976)) is felt among many. With the exponential increase of new ICTs and modes of transport, traffic of people and information is easier than ever. The friction of distance has been tremendously decreased in the past decades (Graham 2001). Yet, it also makes people uncertain, asking themselves questions about feeling at home in the midst of the connectedness. This puts new emphasis on concepts like identity; people need a sense of belonging to resist against the forces of globalization (see for instance Putnam (2000), Madanipour (2003) and Duyvendak (2011)). Planning for a strong community is often put forward as the cure for these ills.

Urban planning and design can play an important role in facilitating behavior. However, to date it is often not so clear what role this is exactly. Throughout history a lot of theories and plans have been built on assumptions about the creation of a desired social life in a neighborhood. Some of the plans made out of a desire for a vivid and strong community have been successful, others have failed. Significantly, these historical examples can teach us a lot about the problems and opportunities regarding planning for social cohesion. This paper will start by explaining the first desire to plan for a sense of community, that emerged at the same time “modern city life” is said to have emerged, roughly sketching the development of planning for social cohesion throughout history, ending with the current debate and the lessons that can be learned from this historical perspective.

Garden city and new towns
Today’s search for community design and planning is set in a long tradition emerging during the European high days of urbanization in half of the 19th century. After the ascendance of the Industrial Revolution, cities developed into metropolises. A large number of workers was needed in the factories that developed in cities, while farming was mechanized as well causing a decrease of work opportunities on the countryside. As workers moved into the cities, these cities rapidly grew into metropolises. Life in these metropolises, so the German sociologist Simmel (1903) was one of the first to argue, is essentially “modern” and differs from all previous types of society.

Early sociologists who described the rapid urbanization often contrasted the life in the metropolis to the idyllic pre-modern village life. Classical scholars like the German sociologist Tönnies (1887), Durkheim (1893) – a French sociologist educated in Germany – and Simmel (1903) noted that life in the metropolis was largely anonymous. People had various groups of people they could associate with, but did not have strong bonds with each other. While anonymous, this lifestyle also provided a great degree of freedom to its residents. In the small, pre-modern rural village however, people all knew each other. Social cohesion was strong, but so was social control. Freedom was constrained by these strong social ties.

The loss of strong-tie relationships with neighbors was experienced as a problem by some. It
prompted The Chicago School of Sociology for instance to devise the “social disorganization theory”. Thomas, an influential thinker of this School, defined social disorganization as “...the inability of a neighborhood to solve its problems together” (Thomas and Znaniecki 1918). This concept is similar to Durkheim’s “anomie” (Durkheim 1893), describing a situation where external influences of society provide little norms and values for guiding an individual’s action. Put shortly, many early sociologists feared that the modern metropolis would exert little social control upon individuals, which could lead to normlessness and anonymity.

Anonymity was not the only problem metropolises faced. Pollution from the factories combined with the crowding of people in slums and a general lack of hygiene generally lead to appalling housing conditions for the working class. Howard, a British urban planner and designer based in the country where the industrialization originated, proposed a solution to counter these problems: the garden city (Howard 1902). His idea comprised the realization of a number of new built towns close to the metropolis to house the influx of new workers. These “garden cities” would be planned, relatively autonomous communities built in a green belt surrounding the central metropolis. Not only would they function autonomously, the social cohesion was expected to be high because of the relatively small amount of residents. Only some garden cities were actually built according to the principles of Howard. However, many were built based on the ideas, although not as autonomously functioning cities.

In the Netherlands, these ideas where translated into “tuindorpen” or “tuinwijken”, which were built at the edge of larger cities from the 1920s on. Famous examples of these types of planned communities are Betondorp in Amsterdam and Vreewijk in Rotterdam.

The idea of the garden city provided also inspiration for the New Towns Act in the United Kingdom in 1946, after which many New Towns were realized, promoted as an escape from the unhealthy conditions and anonymity in the metropolis (see for instance the famous promotion

**Figure 1.1: Diagram explaining the garden city concept (Howard 1902)**
video for new towns “Charley in new town” from 1948, in which the new town is depicted as a community with a very strong social cohesion). It also inspired various other national governments to adopt similar policies, for instance in The Netherlands. This was exemplified in policies like the “Derde Nota Ruimtelijke Ordening” – the third memorandum of spatial planning – in which centers of growth were identified, located close to major cities.

**Neighborhood unit**

In contrast to the escape from metropolitan life, Clarence Perry developed the concept of the “Neighborhood unit” (Perry 1929) for residential development in the metropolis. By this, he aimed to reduce the anonymity, the alienation and the civic indifference that characterized metropolitan neighborhoods and to increase the identification of residents with their neighborhood. The neighborhood unit is a concept that shares strong similarities with the Garden City movement, albeit that the Garden City movement was outspokenly anti-urban, while the idea of Perry tried to make city-life more “satisfying”. The idea consisted of a number of principles to steer the realization of new residential neighborhoods in the metropolis. These principles included physical guidelines for walkability, size, street hierarchy, facilities and public space for the neighborhood.

The neighborhood unit has been characterized by Allaire, a member of the American Society of Planning Officials, as reflecting: “...a nostalgia for rural living. The neighborhood unit often was touted as the vehicle upon which the intimate social relationships and stability lacking in chaotic city life would return (Allaire 1960, 5).” What Allaire describes here precisely depicts the wish of planners to counteract the observations of the sociologists mentioned earlier; the wish to fight anonymity and normlessness. Although Allaire critiques the concept of the neighborhood unit, he acknowledges the potential embedded in the concept to help planners...
and designers in thinking about neighborhoods (1960, 24).

The notion of the neighborhood unit has been severely criticized. Isaacs (1948) was one of the first to point out that there was hardly any evidence backing up that of a strong community could be created by physical form. Opponents also criticized the “sectarian discourse” of the concept; they argued that it was “…being used as an instrument for the segregation of racial, ethnic, religious, and economic groups (Isaacs (1948) quoted in Allaire (1960)).” Isaacs also mentioned the principles of the neighborhood unit would create a neighborhood as “…a tight little island devoted as strongly to keeping out “undesirable” people as to restricting through traffic (Allaire 1960, 5).”

**Wijkgedachte**

Notwithstanding, the idea of the neighborhood unit has had a massive impact in urban planning and many neighborhoods throughout the world have been planned according to the neighborhood unit principles, or similar ones. To discuss these neighborhoods, this thesis will specifically look at the Dutch context. In the Netherlands, the ideas of both the neighborhood unit and parts of the garden city were translated to a theory called the “wijkgedachte”. It was used to design a large amount of city districts (in Dutch: wijken) in the Netherlands after the Second World War. The basic idea of the wijkgedacht was that the city as a whole would be too anonymous and too disordered for people, and would therefore best be made up of various neighborhoods, that in turn would make up various districts, that again would make up the city. Planning for this articulation of spatial entities on various scales would increase the social cohesion and sense of community, which in turn would increase livability, it was believed (Geyl 1949).

The wijkgedachte has been incorporated in a variety of realized plans in the Netherlands. Some of the first examples have been realized in Rotterdam, a city that had been destroyed during the Second World
War. New residential districts were needed to house the people who had lost their homes. Famous examples include Pendrecht – designed by Lotte Stam-Beese – and Zuidwijk, a design from Willem van Tijen. Both city districts, built from 1949 onwards, are located in the south of Rotterdam and are characterized by clear borders. Next to this, the Pendrecht and Zuidwijk had their own center with facilities and accommodated about 20,000 residents. All these design elements were expected to result in a “rich community life” (Gemeente Rotterdam 2015). People would meet in the center of the districts, from which social cohesion would arise. The population size of the districts is somewhat in between the 32,000 Howard proposed for the garden cities, and the 5,000 to 8,000 Perry proposed for the neighborhood unit. There is a focus on territority; making the territories readable on various scales by articulating their boundaries (Duyvendak 1999).

**Modernism and functionalism**
In the late 1960s and the early 1970s the realization of housing became more and more large scale. Low rises were often replaced by high-rise apartments. The large open spaces surrounding the high rises were expected to be used by the community as places of bonding. These plans largely followed the urban planning principles of Le Corbusier and the CIAM; a functional separation between housing, facilities and recreation as well as a separation of different modes of traffic. However, this way of building soon started to receive large amounts of criticism, mainly focusing on the anonymity of both the residential buildings and the space surrounding them. The critics, of whom the American journalist and sociologist Jane Jacobs is perhaps the most famous one today, also pointed out the absence of a vivid street life (Jacobs 1961). It was in fact this street life, she argued, that fostered a strong community and social cohesion.

Not only were these districts criticized, problems started to arise in them as well. Perhaps the most famous exponent of this way of building in the Netherlands was the Bijlmermeer. The suburban, high-rise apartments were placed in a regular pattern, in large open spaces of green. The housing was built mainly for the lower income segment. While at first after completion things seemed to be running fine, problems would arise soon. The design did not lend itself for social control, which cause problems like anonymity but also robbery for instance. Next to this, original residents started to move out after a while, and mostly immigrants came in. This
led to a district that had a high concentration of people on the lower scales of income, which in turn led to alienation and crime among residents.

**Bloemkoolwijk**

As a reaction to the problems and as a result of the criticism towards these types of districts, a new type of neighborhood planning was introduced: the “bloemkoolwijk” – translated as cauliflower neighborhood. This idea originated in the early 1970s and comprised a neighborhood structure in which traffic is hierarchically ordered. The main flow of traffic would often branch out into secondary roads, which in turn branch out into “woonerven”, relatively quiet living streets. The bloemkoolwijk is therefore also called a “woonerfwijk”. The street in this type of district is considered as a space with social importance; it can function as a space for people to meet, as mentioned by De Boer as early as 1966 (Boer and Klaasen 2005). This idea has later been adopted and elaborated by the work of American urban designer Donald Appleyard (1981).

The buildings were mainly low-rise as a contrast to the decades before, which was expected to bring back the “human scale” that had been lost in the large scale high-rise projects realized in the past decades; small scale instead of large scale. Most of the housing consisted of single family homes with a garden (Bureau Middelkoop 2015). Each cauliflower neighborhood had its own center in which facilities were located. All these interventions were planned with the idea to create a sense of community; kids would be able to play on the woonerven that would carry only low amounts of traffic, people would meet in the local center when they would go shopping and so on. The designers of the cauliflower neighborhoods though they could, by design, steer the behavior of people. Examples of this type of neighborhoods include Beverwaard in Rotterdam and Schollevaar in Capelle aan den IJssel. Most of the cauliflower neighborhoods were realized in the 1970s and the 1980s.

However, here also problems started to arise regarding social cohesion. The cauliflower neighborhoods, often located at the edge of cities, were often in the lower price segment. As more and more housing was built in higher segments, the cauliflower neighborhoods started to fall in the lowest price category (Bijlsma and Van Dam 2014). This meant that low income groups started to move in, many of them immigrants. The original residents slowly started to
move out, not satisfied with the social composition of the neighborhood anymore. All of this resulted in lower social cohesion, even though residents were generally still relatively happy with their homes (Bijlsma and Van Dam 2014).

**VINEX and thematic neighborhoods**

Years later, a new policy specifically on realizing new neighborhoods was created: the Vierde Nota Ruimtelijke Ordening Extra, publicly known as VINEX – translated as the fourth memorandum of spatial planning extra (Ministerie van Volkshuisvesting and Ministerie van Algemene Zaken 1990). In this document of 1990, new locations for housing close to existing city centers were pointed out. In the VINEX-document social cohesion was not one of the main focuses. However VINEX locations were realized by private developers, and were put in the market mainly for the middle class, in contrast to many of the cauliflower neighborhoods that fall into the lower price segments. In many cases, in order to be able to sell the houses they built, they invented a new way of branding the neighborhood; “theming”.

A neighborhood was given a specific theme, which then would attract a specific, relatively homogeneous group of people. This would lead to a strong sense of community and social cohesion, it was expected. The idea was inspired by amusement parks like Disneyland, where everything was planned so that dissonance would not be given a chance (Hajer and Reijndorp 2001); “there are no demonstrations in Disneyland”,

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*Figure 1.6: Le Medi in Rotterdam (Google 2015)*

*Figure 1.7: Brandevoort in Helmond (Google 2015)*
American architectural critic Michael Sorkin (1992) famously wrote. The theme of the neighborhood was often very explicit and “readable” – the design would make the neighborhood border very explicit. Themes of these neighborhoods vary; some of them have a strong emphasis on sustainability, some have a strong historic character and others are themed in building styles that refer to other countries, like Le Medi in Rotterdam.

A telling example of this type of neighborhood is Brandevoort in Helmond. It has been realized in a “historicizing” style of architecture and urban planning. The borders of the neighborhood are very hard and explicit; one has to enter through a “gate”, and the neighborhood is surrounded by what could be called a moat. The gate does not physically close of the neighborhood – people can pass through at all times – but it does make one thing very clear: once you enter, you are in a different neighborhood, a very clear territory that belongs to the people who live here. Architects and urban designers Sjoerd Soeters and Léon and Rob Krier are famous representatives of the historical theming of neighborhoods, often linking strongly to the principles of New Urbanism.

Yet, theming of neighborhoods has also been a proven concept to keep the figurative “others” out (Meier and Reijndorp 2010). The explicit readability of the neighborhoods facilitates strong social control, which in turn makes it very easy for people to call the police when they do not trust “intruders” in their neighborhood. We here return somewhat to a critique we have seen before: the desire to keep what Allaire called “undesirables” out of the neighborhood (1960). In this sense, themed neighborhoods function a bit like gated communities (and it needs to be said, that some of them do indeed have gates that close after a certain hour in the evening). Gated communities have been criticized by anthropologist Setha Low (2001). A direct colleague of Sorkin, she sees them as generating social capital inside the gates, but the social cohesion of community at large, outside of the gates, suffers from it. Similar things can be argued against themed neighborhoods; although making an implicit distinction between insider and outsider, there is a distinction.

This observation is one of the core debates that have accompanied planning for a community – or for social cohesion – since its inception. Should all city spaces be public spaces? How far can “parochialization” of spaces go (see for instance the work of American sociologist Lyn Lofland (1973))? Are we, in the Netherlands, not overly focused on keeping the city public (see Hajer and Reijndorp (2001, 120-121), and are we too afraid of gated communities (Hamers and Noorman 2007)? In fact, as Harteveld (2014) argues, perhaps no space has ever been truly public. He states: “Public spaces have always been as specific and relative as are the people, who use, own and know the place (2014, 11).” Perhaps, looking back at the introduction, not all spaces have to be public; if we are to find an answer to the placelessness this essay started with, perhaps allowing parochialization of space, people attributing meaning to a certain space, is the way to go. The question then becomes how to facilitate this spatially.
Conclusion

This short introduction to the planning context throughout history has shown the attempts of theorists and urban planners to shape the behavior of a group of people towards “social cohesion”, a state where people in a certain place are tied to each other. This is expected to result in higher levels of livability of neighborhoods, and is therefore sometimes seen as the “holy grail” of urban planning. The search for spatial design characteristics that can influence social cohesion makes perfect sense, looking at the massive increase of traffic of people, goods and information in the past decades, which threatens people in their sense of belonging (Duyvendak 2011).

However, while various theorists and planners have made claims about design affecting social cohesion, few of these claims have been backed up by empirical evidence (Talen 1999). Plans that have been made to foster social cohesion might have had the desired effect on the short term, but have failed on the longer term. When residents change, the ideas implemented in a design to strengthen social cohesion do not seem to be as robust as expected, as we have seen in the examples of for instance the cauliflower neighborhoods. One important conclusion is that planning clearly has not yet found a way to sustainably foster social cohesion, as knowledge does not seem to be sufficient.

Next to this, it is important that there is a ton of variables that influence social cohesion. Environment is merely one of them. Other aspects perhaps play an even larger role, for instance the homogeneity of a neighborhood’s residents. Factors like the size of a neighborhood – both in terms of residents as in spatial terms – and their effects on social cohesion have also shown to be hard to get a grip on (see for instance Duyvendak (1999)).

Finally, it is perhaps both reassuring and realistic to realize that all factors that might have an influence on social cohesion can merely facilitate it. These factors cannot, individually, steer behavior of people and therefore they cannot lead to social cohesion. We must realize that urban planning and design can therefore at best try to facilitate social cohesion and we need to refrain from the illusion of creating social cohesion by neighborhood design.

Planners need more empirical evidence that shows how social cohesion or parochialization of space can be facilitated by design. Special attention should be given to the longer term to realize sustainably facilitate social cohesion, not just for a specific group of residents with specific needs as these might change over time. It is equally important for planners to make sure that “undesirables” still have the freedom to go where they want; when planning for social cohesion, exclusion is often brought forward as the only option. It is the challenge for us as both scientists and planners to think of ways to keep neighborhoods at least accessible to all, while fostering social cohesion at the same time.
1.8 Societal context
The participatiesamenleving

Only recently the “participatiesamenleving” or participatory society – formally introduced to the Dutch audience in the “Troonrede” – started to influence political decisions. The participatiesamenleving shares many similarities with the “Big Society”. David Cameron introduced the idea in 2010 to designate a policy idea similar to the participatory society in the Netherlands. It implies an active, self-organizing role of citizens and facilitation by the government where needed and is, according to various authors, an important idea for future interplay between citizen and government (see for instance (Uitermark 2014)). Both the ideas of the Big Society in the United Kingdom and the participatiesamenleving in The Netherlands loosely follow the ideas of Blond (2009); civic participation as an alternative to the allegedly failed models of the welfare state, in which the state had a big role to provide for its civilians, and neoliberalism, in which the market played a decisive role in all aspects of society.

The ascendance of the participatiesamenleving is often interpreted as a wish of the government to cut costs. This is not entirely the case, as Tonkens (2008) argues. This demand for facilitating active citizens has not come from nowhere; it has increasingly been incorporated into policy over the last couple of decades. It is therefore relevant to shortly discuss the history of this development. After the Second World War, the Dutch government took the responsibility to rebuild the country. At the same time, the welfare state was introduced. In the 1970s, people started realizing the state was not solving all of their problems, and the state in turn recognized that the knowledge of citizens could be useful in creating good policies. The welfare state had to reform under pressure of the demands of citizens for more democracy. This led to more transparency (Duyvendak, Knijn et al. 2006). In this period, the state still played a major role, but citizens could exert influence. In the 1980s and 1990s, the state retreated more and more, and the influence of citizens was increased (Tonkens 2008). Civilians were invited to join and cooperate with the government. It was a period of neoliberalism (see for instance (Peck and Tickell 2002)). However, the retreatment of the government sometimes led to inequality, and they searched for a new equilibrium between the state and its citizens. The passive state of the 1980s and 1990s made way for a more proactive state, facilitating citizen’s initiatives. Bailey, discussing the United Kingdom, concludes that government policies have changed from the “welfare state model” to the recognition of local knowledge as useful, facilitating civil initiatives (Bailey 2012). In these times, grand, top-down policy and planning seem to be history and people seem to have real influence (see for example (Uitermark 2014))

As noted before, this redistribution of power towards the civil society is combined with decentralization of power. This leads to a revaluation of the neighborhood in governmental policy (Specht 2012, 65). Investments and policies are aimed at increasing participation of citizens, at creating more self-reliant neighborhoods (see for instance (Engbersen and Rensen 2015, NRC.nl 2015)). The ideals of a civil society taking care of their own problems are based on a large amount of concepts, a few of which will be discussed in
the theoretical framework.

\footnote{Largely cited from my own work, see Zimmermann (2014)}
1.8 Societal context
The multicultural neighborhood and “ghettoization”

In recent decades, the tension between different cultural groups seems to have increased. Topics like segregation, multiculturalism and the mixing of various groups of people have received a tremendous amount of attention in the Dutch social sciences over the last couple of years. So-called “probleemwijken” or “achterstandswijken”, city districts that are faced with mainly social problems, among others, have been prime research grounds for researchers. These districts often house large amount of non-Western ethnic minorities, referred to as “allochtonen”. Fueled by incidents of violence over the past couple of years and the resulting fear of segregation combined with the general idea of failure of multiculturalism, Dutch society is afraid of the formation of ghettos.

The relation between segregation and integration has received much attention in the Netherlands compared to other countries (Uitermark, Duyvendak et al. 2004, 3). This topic in the social sciences is characterized by a debate between proponents and opponents of social mixing. The proponents of mixing point at research suggesting that indeed, mixing does lead to integration of the lower groups of society, while the opponents either denounce this as untrue, or point at other solutions that might be more effective. Research on both sides is ambiguous at best (see for instance the research of Musterd, Ostendorf et al. (2003) which shows that the social composition of a neighborhood has only modest effects on social mobility), but it is to be noted that the pro-mixing discourse seems to have the upper hand among politicians in the Netherlands (Uitermark, Duyvendak et al. 2004, 20). While this research is not aiming to renew the social composition of the district of Beverwaard – in fact the author aims not to displace or add any new residents and keep the current composition intact as much as possible – the “mixing discourse” and the “segregation discourse” are important in sketching the political context regarding multicultural neighborhoods.

Beverwaard is a neighborhood with high levels of ethnic minorities and lower income groups, and as such encounters problems similar to other multicultural neighborhoods. These problems are tackled, according to Uitermark, Duyvendak et al. (2004, 28-29), by three largely complementary strategies:

- Mixing
- The reform of institutions, the revaluation of professionals and the involvement of residents
- The intensification of maintenance

As stated in the design aims, this research aims not to displace any of the current residents in Beverwaard. The other two strategies thus seem more applicable. Interestingly, in the explanation of the second strategy, concepts like social cohesion and social capital are mentioned frequently as important pillars of the strategy (Uitermark, Duyvendak et al. 2004, 31). As we will see later in the work of Hunter (1985) and Sampson (1997), who is actually cited in the work of Uitermark and Duyvendak – addressed in the theoretical framework – the parochial order, that will have an important part in this research, can function as a new institution to fight problems multicultural neighborhoods are faced
with. Hence, the second strategy is the main strategy chosen as the approach for this graduation project. The third strategy, the intensification of maintenance, is also a relevant one. Here, the “schoon, heel en veilig” approach (translated as “clean, intact and safe”) is delineated; this approach has been researched by Blokland-Potters (2009) – whose work will also be addressed in more depth later – and found to be quite effective as well. However, as this is more of a social measure, this graduation project will not go into detail about this strategy. The strategy is of importance however, as it has been proven to have a positive effect on problem neighborhoods.
Part II

Methodology
“For citizens to establish themselves as virtuous, there ought to have been those who “lacked” their virtues. Against whom did citizens define themselves? How were strangers and outsiders constituted in relation to citizens? Rather than focusing on the glorious images given to us by the victors, would it not be more revealing to problematize the margins or points of contact where the inside and outside encounter, confront, destabilize, and contest each other?”

Isin (2002)
2.1 Methodology

To perform this graduation project, a qualitative approach has been taken, combined with some quantitative secondary data analysis. Qualitative methods lend themselves well for the relatively small scale of this research as well as for the need to in the end produce a design in a small amount of time. Next to that the theoretical concepts used in this research, like the three social orders entities described in the theoretical framework, can be analyzed using qualitative methods. Hunter states for instance: “Three different social orders-the private, the parochial, and the public are easily distinguished as qualitatively distinct, ideal types (Hunter 1985, 231).”

Various methods have been employed during various stages of the graduation project. The graduation project consists roughly of four more or less separate parts: the theoretical framework, case studies, the location specific analysis and the design. The theoretical framework, the case studies and the location analysis together comprise the research part of this graduation project.

The methods that have been employed are observation, interviewing, literature review, secondary data analysis, mapping, workshops and drawing. The last three methods have been used during both the research and the design part of this graduation project, while the other methods have been employed mostly during the research part.

Observation
This method has been used in two parts of the research: the case studies and the location specific analysis. Observation has been employed to research the spatial characteristics of a location, as well as the behavior of residents at a location. During the observation, it has been important to look for characteristics that define a location on various scales. On a larger scale, special attention has been paid to the boundaries or edges of a location and the connections. These characteristics can, as we will see in the theoretical framework, play a role in defining the sense of belonging. On a smaller scale the street profile will be important, as well as the buildings themselves. Special attention has also been paid at if various territories manifest itself spatially, or if they are observable from the use of the space. This has been done by looking at planters, benches, waste bins and bicycles for instance. These objects can give indications on what individuals or groups see as their territory.

The observations have been conducted at various hours, to get a good impression of the use of a place during the whole day, not just a few hours a day. This is important, as the use of a place can vary throughout time. The same goes for various days a week; spaces can be used differently in the weekends than during regular working days. Also, observations will be conducted during various times a year, as use varies at different times a year as well. Possible bias in the observation findings will be discussed further in the limitations and the delimitations chapter.

Interviewing
Interviewing has been used in the case studies as well as in the location analysis. The method has been used
to assess their relationship with the spatial environment and with their neighbors. Semi-structured interviews will be conducted, leaving a lot of room for respondents to tell their own story.

Furthermore, the respondents have been asked about their lifestyle; this means some personal questions might have been asked regarding age, kids or profession. This has remained relatively superficial so that respondents do not feel uncomfortable giving the information, but detailed enough to get a general impression of their lifestyle. This is of importance, to assess if certain target groups can be distinguished looking at their relationship with space and neighbors. The respondents have been selected after a spatial analysis. Some will be chosen who live in a busy street, some in a quiet street. Some have been picked because they live in a neighborhood with clear, hard edges; some have been picked because they live in a neighborhood that is not that strongly spatially defined. In short, respondents have been picked because of their geographical location.

When in a specific location, respondents have been picked randomly. The danger with specifically picking respondents is that the outcomes are biased. This would skew the research findings. Randomly picking the respondents therefore provides the best chance of gaining information from different residents who together make up the average resident.

Also, it is important to avoid “snowballing” (Hennink, Hutter et al. 2010). Snowballing means that a respondent refers the interviewer to other respondents. This way the interviewer ends up with a specific group of people that know each other, and might therefore not represent the average resident of a specific location. This again will lead to biased findings. In the limitations and delimitations chapter, possible bias in the findings will be discussed further.

**Literature review**

The literature review forms the input for the entire theoretical framework. The relevant literature on the subjects relating to this graduation thesis has been studied. These theories can help explain and understand various aspects of the subject matter. The topics this literature review will deal with will be further outlined in the theoretical framework. The literature has been used to interpret research findings and provide input for the design.

Significantly, by reading and referring to authors, one can start to “gather allies” for arguments one wants to make. It also provides insight in what has not been done yet, and thus enables one to make his contributions to the literature more precise and more relevant.

**Secondary data analysis**

I have not been the first to study the specific location; useful information can be found that has been published by others. The secondary data analysis has been employed in the case studies part and the location specific analysis of this graduation project. The secondary data analysis has been focused on searching for socio-economic data concerning the inhabitants of a location that is being researched. As socio-economic
factors might influence collective efficacy, it is important to know these factors to nuance the findings. Also, it has provided essential information to select a site to test the results of the research in a design case. As in this graduation project one of the goals is to link spatial characteristics to social characteristics, thus starting from the idea that spatial factors can influence social and economic data and vice versa, locations with low “social cohesion” or high “anonymity” have provided ideal test cases for a design to strengthen these characteristics.

Also, facts and descriptions on the location of study have been used. This includes information about the history of the location and texts about the social, economic and physical structure of the location. These have helped to give a general impression of the location, as well as pointing out problems or chances that might be relevant for this graduation project.

Mapping
Mapping as a method has been used in two parts of the research: the location analysis, but also in the design part. From both existing maps and observation, maps have been made to convey essential information about the research locations. Mapping is not a neutral task however, as it implies making choices on what information is shown and what is not; it is a political tool. Therefore a careful deliberation is needed before creating a map. Maps have also been used to relate social and economic issues to a geographical location. Finally, mapping has been employed to draw conclusions from and to show these conclusions.

Specific attention is paid here to the mapping using a method related to street depth. This technique – falling under the method of mapping – is explained with the help of the figure on the next page. With every turn one makes away from the main street, one goes deeper into the network. The main street- shown in red - is a street of the first order; the street one turn away is of the second order, shown in red/orange. One further is the third order in orange/yellow, and so on. This method is used to assess the scale of use of a certain street. The lower the street order – for instance a first or second order street – the more likely it is to have high levels of transit traffic. The higher the street order – for instance a third or fourth order street – the less likely the street is to cope with a lot of transit traffic.

Workshop
For more information on the workshop and the use of patterns, see chapter 5.

Drawing
During the research and the design process drawing has been used as a method to show and reflect on design interventions and research findings. Drawing is a method that enables one to quickly show an intervention or finding to think about it for oneself or to discuss with others. In this way, it can be used also to show possible interventions or research outcomes in workshops and provide a basis for discussion.

2A piece of a quote from a lecture from S. A. Read (2014), given at the TU Delft.
What generic spatial patterns across scales can contribute to collective efficacy, and how can these patterns be coherently implemented to strengthen the collective efficacy of Beverwaard specifically?

Theoretical framework

- Definition parochial space
- Definition public familiarity and relation to others
- Definition collective efficacy and relation to others
- Definition self-organization and relation to others
- Comprehensive theoretical model of collective efficacy and the relation to space

What is collective efficacy and how does it relate to notions like self-organization, public familiarity and parochial space?

Spatial characteristics on various scales that facilitate collective efficacy

What spatial characteristics can facilitate collective efficacy on various scales?

Location with (assumed) collective efficacy

Specific analysis of the location

Spatial characteristics of the location

Repeat steps for other locations until a pattern is found

Spatial patterns on various scales that facilitate collective efficacy

How do the private, parochial and public orders manifest themselves spatially on various scales in Beverwaard and how are they interrelated?

Spatial analysis of Beverwaard

Combining spatial analysis with local experiences

Analysis of the social orders

Overlap of the social orders

Problems and chances relating to various social orders in Beverwaard

What are the problems and chances relating to social, economic and spatial issues in Beverwaard?

Spacial analysis of Beverwaard

Social and economic analysis of Beverwaard

Combining the analyses

Conclusions from the analyses

Spacial analysis of Beverwaard

Social and economic analysis of Beverwaard

Combining the analyses

Conclusions from the analyses

Problems and chances related to Beverwaard in general

Analytical framework

Spacial analysis of Beverwaard

Social and economic analysis of Beverwaard

Combining the analyses

Conclusions from the analyses

Problems and chances related to Beverwaard in general

Participatory phase

How can these design patterns be applied in a coherent design for Beverwaard?

Design patterns

Location specific needs

Top down design by author

Participatory design with results from workshop

Preliminary design

Final design for Beverwaard

Design

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How can these design patterns be applied in a coherent design for Beverwaard?
2.2 Limitations and delimitations

Using complex concepts like public familiarity, sense of community, collective efficacy and self-organization inherently means that one cannot address every aspect of those concepts. This is neither the aim of this research. They will only be explained concisely and focused on the use in this specific graduation project.

Also, these concepts are multi-scalar, both in terms of space as well as time. In the limited amount of time, it is impossible to address all of the relevant scales. This research will focus on the street level, the neighborhood level and will only very briefly address the city level; these are recognizable entities for both laymen and planners alike.

Furthermore, the research methods that are employed are always subject to bias. This bias can never be totally avoided. For instance, the people that are willing to talk are perhaps more likely to be active in the neighborhood as well. Another example: observing people, as mentioned, might produce skewed findings, as the researched is always observing at a certain place at a certain time. Use and users might vary through time. Bias also can skew the workshop findings. Most likely, the people actively involved in their environment will participate more frequently that the ones that retreat more into their private sphere. All of this might lead to biased findings; but again, as stated, bias can never be totally avoided.

Furthermore, while this research searches for patterns for self-organization and social cohesion, it cannot research all relevant patterns. There are just innumerable options and a huge amount of research is needed to even start coming close to discovering all of them. The aim of this research is mainly to provide a starting point for future research on this topic and to show some basic examples of spatial patterns of self-organization that can be of use to planners and laymen alike.

The most important constraint to this research is the amount of time. The shortage of time to conduct research increases the tension between research and design. With the limited amount of time, conclusions from the research cannot be convincingly underpinned by findings unless the research topics are narrowed down and very well delineated. On the other hand, if the research limits itself to a very narrow and well delineated topic, the input for a design is only very minimal. Essentially then, the aim of this research comes into conflict with the amount of time: the aim to distil patterns (enough to have choices) from the data gathered in research, that are then translated into a design might not be realistic. As this graduation report is established within the department of Urbanism – a master’s track focusing on planning and design, the design is crucial. A focus will therefore be on establishing certain hypotheses with indications that they might be true, after which enough patterns will be distilled from these hypotheses to establish an actual “pattern language”, as Alexander (Alexander, Ishikawa et al. 1977) did. So, due to time constraints, the amount of data that can be gathered might not be totally conclusive to prove certain claims. It thus needs to be stressed that the conclusions that will be made will be delicate and tentative, and future research will be needed to thoroughly examine the findings and to
prove them right.

While the structure and premises of the research might come off as spatially determinist, some nuance is needed here. The research does address the fact that social and economic aspects determine self-organization as well; it tries to take into account these factors by searching for similar social and economic characteristics in areas. If these characteristics are not relatively similar, it will be mentioned in the discussion of the results. However, the research does start from the hypothesis that spatial aspects can stimulate some forms of behavior and can counteract other forms.

3Although of course, conceptions of a “neighbourhood” vary from person to person. The same goes for “street” and “city”, but to a lesser extent.
2.3 Case selection

It is desirable to find cases where the social and economic characteristics among residents in the location are equal as much as possible, for if there is any difference then in collective efficacy in various locations of the case site, it is more likely that the spatial characteristics of the location have caused the difference. Then, also, it is useful if at least one of the locations has a quite differentiated spatial structure, as then these spatial structure might also be a greater factor determining collective efficacy. However, it is also important that there are indicators that might indicate whether there is a strong collective efficacy or a weaker collective efficacy. Looking at the extremes makes it easier to identify the causes. For this, the research has looked at the amount of initiatives funded by the Opzoomer Mee foundation, a foundation that supports citizen initiatives (OpzoomerMee.nl 2015) participation and the “Wijkprofiel”, an index consisting of various measures to get an indication on various social and economic phenomena in neighborhoods in Rotterdam (Gemeente Rotterdam 2014). Both are expected to give an indication of the collective efficacy in a neighborhood.

One of the case studies will be Overschie, a city district of Rotterdam. This location has a quite differentiated spatial structure, both in terms of streets and in terms of neighborhoods, yet it is still quite homogeneous in terms of its residents. It also has a high level of social cohesion and scores high on the social index according to its Wijkprofiel (Gemeente Rotterdam 2014). Next to this, some specific areas in Overschie participate a lot in Opzoomer Mee activities, which might be an indication for collective efficacy as well. Therefore, Overschie provides an ideal case to research what spatial characteristics cause collective efficacy.

The second case is the city district Beverwaard, also in Rotterdam. Here, too, the socio-economic characteristics of residents are quite similar and the spatial structure is somewhat diverse as well. Beverwaard will also be the location where the patterns will be applied in order to make a design. This is because Beverwaard is considered as a district where anonymity is a problem according to a research of a Dutch newspaper (AD.nl 2014) and social cohesion is low according to the Wijkprofiel (Gemeente Rotterdam 2014). Also, there are not many Opzoomer Mee funded initiatives. As we have seen in the theoretical framework, people who live anonymously are less likely to self-organize and the district is less likely to have a high level of collective efficacy. This means that the patterns – when applied here – might have positive effects.

Both cases are situated somewhat in the periphery of the city and are purposefully chosen there. Closer to the city center and at places of special importance, spatial claims of various actors are greater. In these areas, more money comes into play. Significant to note is also, that more people pass by in more central areas without actually living there than in less central areas; a central area is more “public” in this sense. This often means that a strong, formal organization is needed to make and enforce decisions and provide services. This means that not only there is a demand for a more formal organization; there is also greater financial means to actually support this formal organization. This is also acknowledged by Hunter, arguing that “The institutional
base of the public order is found preeminently in the formal, bureaucratic agencies of the state (1985, 234).” Collective efficacy is therefore of minor importance, and will likely occur less often as there are more people who pass by the location and do not have a sense of belonging there.
Part III

Theoretical framework
“There are many ways to create livable streets and neighborhoods. Most of them will come from the grass roots as they have in the past.”

Appleyard (1981)
3.1 Introduction
On territory, parochial space and collective efficacy

In the theoretical framework, theories will be discussed that will be used to interpret the data gathered from the research part, as well as shaping and reflecting on the design. In this way, it is a pair of theoretical glasses through which this graduation project looks at the world.

First, four concepts relating to the ideals of a strong and self-reliant civil society will be discussed: sense of belonging, public familiarity, collective efficacy and self-organization. After explaining and relating them to one another, it will become clear how they can play a role in facilitating neighborhoods that can solve problems with less governmental intervention. Then, possible spatial solutions that can facilitate the emergence of such concepts will be discussed. These are broken down into two categories: theories concerning the regulation of privacy – dealing mostly with territoriality, and the principles of the New Urbanism movement from which collective efficacy might arise. Finally, this theoretical framework will address various theories about spatial conditions that relate to the concept of collective efficacy; these are split into spatial conditions relating to readability and others relating to interaction.

Feeling at home in the community
First of all, it is important to know what constitutes the notion of “belonging”. It is this notion ties a resident to a specific place, which is a starting point for feeling responsible for a space and collective efficacy. An author that has extensively theorized this issue is Duyvendak (2011). He argues that due to increased mobility of people, people feel threatened in their “feeling at home” or “belonging”. He states that home is not merely material, but symbolic as well. To make this clear, he introduces three elements of home. The first of these elements is “familiarity”: because a home is familiar, people know their way around their homes, and can feel relaxed. The second is “haven”: it means that home feels “secure, safe, comfortable, private and exclusive (Duyvendak 2011, 38).” It addresses the private sphere of “feeling at home”. Third, there is “heaven”: this refers to the aspect of home where one feels “publicly free and independent (Duyvendak 2011, 38).” It is where people feel connected with their own people, where they “feel at home” in the community. Through a couple of examples, he shows how people try to establish a feeling of “belonging”, and the problems that arise during these practices. Duyvendak states:

![Figure 3.1: Threats in belonging (Author 2015)](image-url)
“Feeling at home as an exclusive and selective emotion is hardly a problem when home is lived as a ‘haven’ – in private. But living home-as-heaven – the public manifestation of home feelings by an exclusive group on a territory claimed as their own – can be much more problematic (Duyvendak 2011, 83).”

Often, people feel at home – in the “heaven” sense – when people in their community are for a large part similar, when the group is homogeneous. Duyvendak recognizes the same idea when it comes to “feeling at home” in a nation; people feel that others who are different, threaten their sense of “belonging”. Immigrants have to adhere to a certain norm, established by the dominant group in a nation, that is considered to be universal in a specific country. If they do not meet the requirements, immigrants are seen as a threat for the nation.

**Parochial order**

While Duyvendak’s example explained here is about the spatial entity “nation”, the same goes for smaller spatial entities, like neighborhoods (in fact, Duyvendak even shows some examples of neighborhoods, where the same mechanisms apply as the ones described in the example above). The appropriation of such spaces by certain groups has been described by scholars as “parochialization” of space. The conception of Duyvendak’s home as heaven – when one feels publicly at home – links strongly to ideas about “parochial order”, which Lofland – based on the ideas of Hunter (1985) – defines as “...characterized by a sense of commonality among acquaintances and neighbors who are involved in interpersonal networks that are located within “communities” (Lofland 1989, 19).” This parochial order is the transition between the private order and the public order (Hunter 1985).

The definition of a parochial space is described by Van Dorst as “...a territory in public space, belonging to a limited number of households or a limited group of users (Van Dorst 2005, 224).” He also mentions a parochial space has to be recognizable as such by both residents, visitors and passers-by. In this definition, we can see the implicit reference to a similar problem Duyvendak sketches. Residents of a certain neighborhood, often the dominant group in that neighborhood, expect visitors and passers-by adhere to their “norms”. Groups of people attribute similar meanings to a place and thereby establish norms; they
appropriate space in that sense (Reijndorp and Reinders 2010), and expect others to behave according to the norms they have established. The parochial order, in this sense, can be described as the spatial articulation of Duyvendak’s publicly feeling at home.

Relevant as it may seem, it has to be noted that not everyone wants or needs such interpersonal networks in a neighborhood. In this sense, a neighborhood is not a community (see for instance Blokland-Potters (2009)). However, as Van der Wardt notes, “… only few do not attach any value at all to the social aspects of their residential environment (1994, 149).” What also becomes apparent, is that people want to have a choice in the effort they put in the neighborhood. For instance, some people might not want to take part in the maintenance of a neighborhood, others will (Van de Wardt 1994). The parochial order is therefore established by the institution of voluntarism (Hunter 1985).

Another point that is stressed, is that the parochial realm should be experienced as welcoming for its residents (see for instance (Van de Wardt 1994, Duyvendak 2011)). If not, people will retreat into the private sphere – or, in more extreme examples, people might create a new parochial order, physically closed off like as an enclave, like in a gated community. We will come to this later.

**From feeling at home to action: collective efficacy**

But why is this parochial realm so important? How can it contribute to neighborhoods being more self-reliant, and less dependent on governmental services for things like maintenance of public spaces? To understand this, it is important to look at what behavior a parochial order might facilitate.

When the parochial order is experienced as strong, people are likely to feel “publicly at home”. One of the causes of this can be that there is a high level of “public familiarity”. This concept is perhaps best explained in Figure 1. Public familiarity is located between intimate and anonymous, between public and private (Blokland-Potters 2009). In fact, public familiarity can be seen as a basic characteristic of the parochial realm.
However, public familiarity in itself does not say anything about actual action of residents to improve their environment. It merely provides a basis from which “collective efficacy” can arise, a concept introduced by sociologist and criminologist Sampson defined as “...social cohesion among neighbors combined with their willingness to intervene on behalf of the common good (Sampson, Raudenbush et al. 1997, 918).” Disclosed in this definition is the possible action arising from the social cohesion – a term similar to public familiarity: intervening on behalf of the common good. An example makes clear how this might happen in practice: public familiarity means that people are familiar with each other, that they know each other or can at least “categorize” and thereby evaluate each other. This makes it easier for people to call other people to task about something. If someone that you vaguely know throws something on the floor in your parochial space, it is easier to ask him to pick it up than if you do not know him at all. So, if collective efficacy can be established by creating a clear parochial realm, it might in fact have an influence in the behavior of residents and in the end might lead to people maintaining a public space, for instance, or it might provide a feeling of public safety.

Self-organization
Self-organization has been increasingly used as a political ideal that can provide an alternative for models like neoliberalism or a welfare state. Self-organization, according to Uitermark, in this context refers to “...initiatives that originate in civil society itself, via autonomous community-based networks of citizens outside government control which participate in developing the ‘urban fabric’ (2011, 99).” They contrast this to formal procedures where government remains in control and asks citizens to participate. It is imaginable for anyone, then, that collective efficacy is a form of self-organization; citizens take initiative themselves.

4The quotes of the work of Van Dorst have been translated from Dutch.
3.2 Spatial solutions

Spatially establishing the parochial order

The actual strength of public familiarity, interpersonal networks in neighborhoods, or the feeling of belonging, is affected by numerous variables that we will not be able to deal with here. A lot depends on the social aspects like homogeneity. In this graduation project however, we are more interested in the spatial factors that can contribute to a sense of belonging. How is a parochial space spatially constituted, and why is this relevant?

As theorists have shown, there might be something that can be considered a “parochial space” (for empirical research on the existence of the three social orders described by Hunter and Lofland, see Capowich (2003)). However, it is often hard to “recognize” a parochial space for someone who is not part of the “parish”. While private spaces of individual people are often clearly defined, boundaries for parochial spaces are often blurry. This blurriness can sometimes lead to conflict; for instance, when a group of kids from somewhere else decides to play at a location that is considered by the local residents as a parochial realm where it should be quiet, problems might arise. The children might not have seen any “spatial signs” that this location had been “parochialised”, and therefore they did not adjust their behavior. If this happens too often, the local residents might not feel “publicly at home” anymore, which might lead to withdrawal into the private sphere. In other words, if parochial spaces are not “readable” for outsiders, problems might arise.

We here return somewhat to the first point Duyvendak makes: traffic of people can affect the notion of belonging. It is therefore important to take a look at what work has been done at regulating the traffic of people – or, in other words, the regulation of privacy; spatial boundaries of the social orders might play an essential role here. Other claims have been made as well that might increase a “sense of community” though spatial design. These theories have focused on things like the mixing of functions, walkable neighborhoods and high densities and the supposedly vibrant street life resulting from it. Perhaps the most famous movement promoting these planning elements is New Urbanism.

Privacy regulation

While the tension between public and private – and the relation between the individual and “the other” – has been extensively described in social terms (see for instance the works of classical sociologists like Tönnies (1887), Durkheim (1893) and Simmel (1903), but also more recent work (Lofland 1973, Putnam 2000, Young 2000, Isin 2002, Madanipour 2003, Mitchell 2012), and in the Dutch context (Gadet 1999, Hajer and Reijndorp 2001, Blokland-Potters 2009, Duyvendak 2011)), work has also been done on describing this tension in spatial terms. It then focusses mostly on control over interaction with others – see for instance the work of social and environmental psychologist Altman (1975), the work on defensible space by architect and planner Newman (1972) and the legibility of boundaries and privacy zoning by environmental psychologist and designer Van Dorst (2005). Basically, they deal with territories, for individuals as well as for groups. They all three make an argument for the readability of territories. The point is that if territories are readable, conflicts like the
example in which the children were playing in a quiet parochial space are less frequent, as the parochial space is recognized as a territory belonging to a certain group, and behavior is therefore more often adjusted to an expected norm. It also works the other way: if a parochial realm is clearly defined, the residents of that parochial realm will feel more responsible for the space and might be more willing to “intervene on behalf of the common good”, to use the words of Sampson. This might be a start from which residents can start to actively take up services, like maintenance of public space.

What often happens, is that signs are placed, literally prescribing visitors or passers-by to adhere to the norms. This explicit form of “laying down the parochial law” often overshoots the mark and is in Dutch often negatively qualified as “vertrutten”; making too many signs and rules which leads to people ignoring them. A more subtle form of facilitating desired behavior is needed and can be generated by designing (parochial) places with knowledge of their territorial relations.

**New Urbanism**

Other theories concerning spatial factors that can establish a sense of belonging deal with various elements like the mixing of functions, high densities, public spaces to meet and a resulting vivid street life. These ideas have been famously described by Jacobs (1961) as a critique to modern city planning. This functional mix facilitated a vibrant street life that then would create local networks tying people together. The ideas of Jacobs have inspired various other ideas and movements, such as New Urbanism.

While new Urbanists are often bold in claiming their design principles generate a sense of community, Talen (1999) shows that it is not that clear. The effects of the planning principles of New Urbanism are often unknown. While sometimes they might produce a stronger parochial realm, there is little evidence that this is due to their spatial configurations. Talen argues that intermediate variables are needed to explain the relationship between the physical design and the sense of community resulting from it. She states: “More defensible is the presumption that New Urbanism increases the social interaction and that this interaction in turn creates at least weak social ties (1999, 1374).” The argument of Talen in this way ties in with the point Blokland-Potters (2009, 218) makes; the built environment does not directly “…create a sense of community, it can increase its probability (Talen 1999, 1374).” In other words, design can facilitate certain behavior, not steer it. However, facilitating desired behavior is a start in the direction of more self-reliant neighborhoods.

**Various scales**

Collective efficacy can manifest itself on various scales. A group of people living in a neighborhood can for example collectively resist to the placement of wind turbines close to that neighborhood. It can also be seen in a street; people who inhabit a certain street might one day decide to clean up their street together if it is really dirty. It is therefore important to keep in mind that, when relating collective efficacy to certain spatial characteristics, one has to take into account the various
scales on which collective efficacy might play a role.

In this research, mainly three scales will be addressed: the neighborhood scale, the street scale and the street detailing scale. Although other scales are of importance as well – and will shortly be addressed in the graduation project, this project limits itself to these scales as time to conduct the research is limited. While the link between collective efficacy and environment has been described above, here we will go into more detail about concrete physical characteristics that can establish the ideas of the theories mentioned before and can thus facilitate collective efficacy. The spatial elements that are important in this light, are the ones relating to readability and interaction.

**Readability**

For people to be able to read the environment, territories need to be spatially explicit. In this light, it is useful to look at theories that have described how people experience the environment and the specific spatial features that play a role in this.

Perhaps the most well-known author on this subject, is American urban planner Kevin Lynch (1960). In his book “The Image of the City” he distinguishes between five elements that affect a person’s mental image – or in his words, “imageability” – of a city: paths, edges, nodes, districts and landmarks. These elements are absolutely essential to address when thinking about territory, for instance. Neighborhoods might be connected by paths; when one wants to articulate boundaries between these neighborhoods, one might think of a way to alter the experience of that path, for instance by a fence or a speed bump.

Other theories on readability have arisen from the “defensible space” theory by architect and urban planner Oscar Newman (1972). He approaches urban design from the perspective of safety against criminality. He argues that anonymous, non-defensible space can lead to feelings of unsafety, and thus emphasizes the need for defensible space. He thus argues for clear readability of territories and a human scale. Newman’s theory on defensible space, in a way, could be seen as

**Figure 3.4: The 5 elements of Lynch (Lynch, 1960)**
a prime example of spatial design that might facilitate collective efficacy as well, much like the aim of this project.

**Interaction**
An important author, who has observed and written on public life and interaction extensively, is Danish architect and urban designer Jan Gehl. Gehl (1987) distinguishes between three types of activities. The first is the necessary activities; these activities are “…those that are more or less compulsory (1987, 11)”. The second is the optional activities. These activities are characterized as “…those pursuits that are participated in if there is a wish to do so and if time and place make it possible (1987, 11)”. The last are the “resultant” activities or social activities; these “…depend on the presence of others in public space (1987, 14)”. The social activities, Gehl argues, arise from the other two types of activities, as it requires people to be in public space.

Following Gehl, it is thus important to keep in mind that a good spatial environment can facilitate interaction between people. This, in turn, can result in public familiarity, which is a condition for collective efficacy. Hence, when designing, it is important to pay attention to the quality of the public space, to accommodate optional activities.

Another important theorist regarding interaction is Altman and his privacy regulation theory. He argues that interaction is not always pleasant; it is therefore essential for people to have control over interaction (Altman 1975). When people are able to control the level of interaction with others, this will lead to a more desirable living environment. This idea has been concretely studied by Skjaeveland and Garling (1997), who found that very often, informal interaction starts from the front yard. The importance of a transition zone between public and private has recently been exemplified in the Dutch context by Ulden, Heussen et al. (2015) in the book “De stoep: ontmoetingen tussen huis en straat”, freely translated as “The doorstep: interactions between house and street”. This is hardly surprising, as residents who find themselves in this hybrid zone between private and public have the choice to end the conversation when they want, simply by

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**Figure 3.5: Activities according to Gehl (1987)**

<table>
<thead>
<tr>
<th>Quality of the physical environment</th>
<th>Poor</th>
<th>Good</th>
</tr>
</thead>
<tbody>
<tr>
<td>Necessary activities</td>
<td><img src="Necessary_activities.png" alt="Icon" /></td>
<td><img src="Necessary_activities.png" alt="Icon" /></td>
</tr>
<tr>
<td>Optional activities</td>
<td><img src="Optional_activities.png" alt="Icon" /></td>
<td><img src="Optional_activities.png" alt="Icon" /></td>
</tr>
<tr>
<td>“Resultant” activities (Social activities)</td>
<td><img src="Resultant_activities.png" alt="Icon" /></td>
<td><img src="Resultant_activities.png" alt="Icon" /></td>
</tr>
</tbody>
</table>
retreating into the private zone.

There is one other author that is important to mention in light of this graduation research: Donald Appleyard. His research focusses on urban streets. He showed empirically, that the more traffic passed through a street, the lower the number of neighbors residents living at the street knew (Appleyard 1981). He also showed that as traffic increased, the space residents considered their territory decreased. The theory of Appleyard thus matches traffic with interaction. This means also that scale comes into play; when a place has importance at a large scale it is more likely to generate more traffic, which means it is likely that interaction among local residents decreases. These findings are important to keep in mind when generating a design for Beverwaard.

Finally, there are many other theorists, movements and ideas and to be named in light of readability and interaction. The ideas of Lewis Mumford (1961), Jane Jacobs (1961), Christopher Alexander (1977), the (resulting) principles of New Urbanism and various other ideas are worth mentioning in this context. Many of these authors and theories address walkability of a neighborhood and mixing functions. Walkability increases interaction, and so do small shops spread through a neighborhood (see for instance Blokland-Potters (2009) and Van der Zwaard and Giersbergen (2010), of which the last one specifically targets interaction between various ethnical groups facilitated by small shops). All of these theories have been of influence in this graduation project.
Roughly, the discussed strategies to facilitate collective efficacy can be divided into strategies that try to facilitate the formation of a group - these include the ideas of Jane Jacobs, New Urbanism, Jan Gehl, Blokland-Potters and more - and strategies that try to facilitate a sense of territoriality - for instance the theories of Altman, Newman, Van Dorst and others. The other theories that have been discussed are generally targeted at making both strategies possible spatially. In this context one might think of the work of Kevin Lynch for instance.

The design patterns that have been generated, using both the literature review and the spatial analysis as a source, also reflect the two main strategies. They have been concretized into spatial solutions for a social issue; facilitating collective efficacy in a spatial way.

The image below depicts the main message of this theoretical framework. The environment, the object of intervention of us, planners and designers, can play only a facilitative role; it can facilitate public familiarity and territoriality. These two concepts can then facilitate collective efficacy. Collective efficacy is the actual action that this graduation project aims to achieve: people intervening on behalf of the common good. While it is almost a numbers game - in a well-designed environment public familiarity and territoriality are more likely to arise and when they arise collective efficacy is more likely to arise - I argue that this is the way we as urban planners and designers can contribute to more self-reliant “communities” and as such, give shape - literally - to a participatory society.
Part IV

Analysis
“Knowledge only gains societal value when it is shared and used in concrete solutions or products.”

Ministerie van Onderwijs, Cultuur en Wetenschap (2014)
4.1 Introduction

In the analytical framework the analysis of specific locations will be presented. The locations that are discussed are mainly Beverwaard and Overschie. Overschie, scoring high on various elements in the Wijkprofiel (2014), especially on the social index, and having a high level of participation in Opzoomer Mee activities, is used in many cases as an example for Beverwaard. Beverwaard is the location for which the eventual design will be made; it will therefore sometimes receive more detailed attention than Overschie. Also, other examples from outside Beverwaard and Overschie might be addressed, if they provide strong examples or contribute to the clarity of the research.

In Overschie, the research will start from places where collective efficacy is assumed to be high. This will be done by looking at places that participate actively in Opzoomer Mee activities. Then, the spatial characteristics of that area will be determined. In Beverwaard, the research will start with a spatial analysis. Places with an assumed high or low collective efficacy will be determined, and by observation and interviewing this will be verified.

The results from the analysis in Beverwaard, Overschie and possible other cases will be compared, resulting in conclusions and recommendations for the design for Beverwaard.

The analysis part will focus on answering two research questions:

*What are the problems and chances relating to general social, economic and spatial issues in Beverwaard?*

*How do the private, parochial and public orders manifest themselves spatially on various scales in Beverwaard and how are they interrelated?*
Checking, by observation and interviewing if the level of collective efficacy is indeed low or high.

Starting with a spatial analysis resulting in locations with assumed low or high levels of collective efficacy.

Starting from streets that participate in “Opzoomeren”, where collective efficacy is assumed to be high.

Checking if collective efficacy is high and determining the spatial characteristics of these streets.
4.1 Introduction
The locations of study

Figure 4.1: The locations of the research; Overschie (North-West) and Beverwaard (South-East) (Author, 2015 based on Bing Maps, 2015)
Overschie scores high on almost every aspect of the Wijkprofiel. Only on the environment (milieu), it scores low. Important is that Overschie scores very high on objective measures of social cohesion and quite high on participation. These aspects are also experienced as relatively positive by residents.

Also, Overschie is both objectively safe and experienced as safe. This often contributes to participation and social cohesion. This contrasts to Beverwaard, that is both experienced as relatively unsafe and is also relatively unsafe. Participation and cohesion often arise less frequently in these sorts of areas, as we have seen in the theoretical framework.
4.2 Overschie  
Green and urban tissue

The image on the right shows the area of Overschie that has been researched in this graduation thesis. The urban tissue is quite dense in the north of Overschie, while the south contains more open space. Historically, Overschie grew at a place where diverse rivers came together, along the Schie. This is the dense northern part. When Rotterdam started expanding, the district of Overschie became more populous, but it remains a district with relatively low density. The southern part is characterized by a combination of low and highrise housing projects in often large open spaces.

Water also plays an important part in the way Overschie functions. While it owes much of its history to its adjacent rivers, they now also form a barrier towards other parts of the city.
4.2 Overschie
Road hierarchy

The figure on the next page shows the network of roads in Overschie. The roads are subdivided in hierarchy. The first thing that becomes clear from the map, is that Overschie is not only cut off from the rest of Rotterdam by the water, but also by a highway. This means Overschie is most likely to be functioning relatively autonomously compared to other districts in Rotterdam.

Next to this, the area that has been researched is cut in half by a highway as well. These highways play an important role in the circulation in the district. They do not only make Overschie easy to reach by people coming from the highway, they also make some connections to and inside Overschie more difficult, especially for traffic on the lower hierarchy roads.

Legend

- Highway
- District access street
- Neighborhood access street
- Residential street
4.2 Overschie
Opzoomeren in Overschie

In Overschie, participation in Opzoomer Mee activities is relatively high. One of the important explaining factors in participation in Opzoomer Mee activities, is the amount of young children in a district (see the interview with Den Hartog, appendix). This is quite high in Overschie. Especially in the part called “Oud-Overschie”, a lot of people participate in these activities. This is why this research will zoom in to a more detailed scale, choosing Oud-Overschie as a case study.

*Figure 4.3: Opzoomer Mee (Google 2015)*
4.3 Oud-Overschie
Green and urban tissue

The area that is of most interest, as people seem to participate in Opzoomer Mee activities quite often, is Oud-Overschie. The oldest part of Overschie has a quite dense urban tissue that grew organically over the years, with small streets providing access to the houses that are mostly part of closed building blocks. The urban structure and street pattern is quite irregular and is also characterized by the very few continuous streets through the urban fabric, except from the ones at the outer western, eastern and northern sides. Functions and shops are spread out quite evenly over the whole of Oud-Overschie.

The area is closed off from its surroundings by the Delftse Schie at the western part, the highway (A13) at the eastern side, the Rotterdamse Schie at the southern part and a pool of water in the north; it functions, like the whole of Overschie, relatively autonomously.
4.3 Oud-Overschie
Street depth

The next map shows the street depth of the streets in Oud-Overschie, as well as the buildings, the front yards and the backyards. The aim of the map is to show the “implicit” territories in Oud-Overschie and the similarly implicit boundaries of these territories.

As explained in the methodology section, the order of the street is based on the number of turns from the main road. The more turns away from the main road system, the less transit traffic. This often means the greater the street depth, the less “outsiders”.

As we can see in the figure, the road structure is quite irregular and there are hardly any continuous streets, hence, one has to a lot of turns to get to the center of the shown part of Oud-Overschie. While this makes some parts of Oud-Overschie hard to reach on the one hand, it makes some public parts of Oud-Overschie also very “private”; it can easily be appropriated by local residents because hardly any outsiders pass by. Each turn deeper in the network can thus be interpreted as an implicit boundary towards a more and more collectively privatized territory. While residents at the main streets - or first order streets - may experience a very “hard” transition between their private homes and the often quite busy streets, a resident of a third or fourth order street has a subtle but very real transition zone between the private home and “real publicness” of a main street.

Interestingly enough then, we can see that some parts of the first order streets have quite large front yards. This is perhaps not surprising; it provides their transition zone - often called the “hybrid zone” - between the privateness of the homes and the publicness of the street.

This technique to describe territories might not be totally conclusive; territories are not static, and might change even with as much as an interaction between people. Therefore, it is important to observe and interview people about these supposed territories as well; stories might provide further insight in the complex workings of territories the city.

The following pages will show images linked to specific street orders, to be able to properly analyse the relation between street depth and territory.
4.3 Oud-Overschie
Images hybrid zones related to street depth

1. Figure 4.4: Section of a first order street

2. Figure 4.5: Section of a second order street
4.3 Oud-Overschie
Images hybrid zones related to street depth
4.4 Beverwaard
General information, Wijkprofiel and concrete problem statement

Beverwaard is a city district located in the utter southeast of Rotterdam. It is part of the “stadseel” IJsselmonde. The website of the municipality of Rotterdam makes the following statement about Beverwaard: “Beverwaard houses roughly 12,000 inhabitants. It is a city district where people know their neighbors and where there is solidarity among residents. Residents of the district and other stakeholders describe Beverwaard as a district with character and with a small “village-like” vibe. Beverwaard has the qualities to become the main city districts for families in IJsselmonde, and maybe even of the whole of Rotterdam South (Gemeente Rotterdam 2015).”

This text is interesting, as it implies that social cohesion in Beverwaard is experienced as high, as well as the participation. This is contradicted by various statistics however. Beverwaard scores relatively low on various elements in the Wijkprofiel. It scores lowest for the physical index, especially on the facilities. Beverwaard does have a central shopping area, however, the rest of the district is purely planned as residential. The low score in the physical index means there is a need for physical intervention, and further exemplifies the relevance of this graduation project.

Significantly also, Beverwaard scores high on social cohesion (“binding”) and participation (“meedoen”) according to objective measures. However, subjectively, Beverwaard scores very low. This means that its residents perceive a lack of cohesion and participation in the neighborhood. This is an important finding for this graduation project.

The sharp contradiction between the text on the website of the municipality and the actual statistical data presented here is significant. On the other hand, it indicates a gap between the desired situation and the actual situation. The statistics also indicate that probably Beverwaard is a case well chosen for this graduation project, as the aim is to facilitate people to participate. This adds to the problem statement as stated in the first chapter of this graduation report; not only is there a gap in theory about a broader societal shift that needs to be incorporated in urban planning, Beverwaard is also a concrete case that needs a little push in the right direction towards collective efficacy.
Figure 4.6: Wijkprofiel Beverwaard (Gemeente Rotterdam 2015)
4.4 Beverwaard

Population statistics

Population age in Beverwaard:
- Residents under 15 yrs of age: 21%
- Residents under 15-65 yrs of age: 70%
- Residents of 65 yrs and older: 9%

Population age in Rotterdam:
- Residents under 15 yrs of age: 17%
- Residents under 15-65 yrs of age: 68%
- Residents of 65 yrs and older: 15%

Ethnicity in Beverwaard:
- Autochtonous: 44%
- Non-western immigrant: 47%
- Western immigrant: 9%

Ethnicity in Rotterdam:
- Autochtonous: 51%
- Non-western immigrant: 37%
- Western immigrant: 12%

Household typology in Beverwaard:
- Single person household: 33%
- Couple without kids: 18%
- Couple with kids: 27%
- Single parent household: 21%
- Other: 1%

Household typology in Rotterdam:
- Single person household: 48%
- Couple without kids: 22%
- Couple with kids: 19%
- Single parent household: 10%
- Other: 1%
Beverwaard is a district of about 12,000 residents (Gemeente Rotterdam 2014). The average age of the population in Beverwaard is shown on the left, with the average age of the population in Rotterdam as a whole next to it. The population of Beverwaard is on average a little bit younger than the population in the whole of Rotterdam. Both the percentage of residents under 15 and the percentage of residents of 15 to 65 is larger than in Rotterdam. Especially the group of under 15 is very relevant, as children are often an explanatory factor for interaction among residents and the participation in neighborhood activities (see interview Den Hartog in the appendix).

The following graph shows the ethnicity of Beverwaard compared to the Rotterdam average. We can see that Beverwaard has a relatively high amount of non-western immigrants. Significantly, it has high levels of Surinamese and Antillian immigrants, and a comparatively low level of Turkish or Marrocan immigrants (see interview Mannsur and Oozo.nl 2015).

The last graph shows the household typology in Beverwaard and in Rotterdam as a whole. The main things that catch the eye are the high percentage of single parent households and the high percentage of couples with kids in Beverwaard compared to the percentages in Rotterdam. This indicates that a lot of children live in Beverwaard; this, as mentioned before, can facilitate interaction among neighbors and finally facilitate participation or collective efficacy.
4.4 Beverwaard

Housing statistics

- **Function as a percentage of all buildings in Beverwaard**
  - Residential: 90%
  - Non-residential: 10%

- **Home ownership in Beverwaard**
  - Social housing: 54%
  - Owner-occupied: 42%
  - Private rent: 4%
  - Residential: 90%
  - Non-residential: 10%

- **Housing typology in Beverwaard**
  - Single family home: 48%
  - Multi-family home without elevator: 6%
  - Multi-family home with elevator: 4%
  - Unknown: 6%

- **Function as a percentage of all buildings in Rotterdam**
  - Residential: 54%
  - Non-residential: 46%

- **Home ownership in Rotterdam**
  - Social housing: 46%
  - Owner-occupied: 35%
  - Private rent: 19%

- **Housing typology in Rotterdam**
  - Single family home: 24%
  - Multi-family home without elevator: 48%
  - Multi-family home with elevator: 22%
  - Unknown: 6%
The images on the left show the statistics of Beverwaard compared to the ones of Rotterdam as a whole related to housing. One of the most significant differences is shown in the first graph. Beverwaard has a very high number of residential buildings and a relatively low level of functions (facilities et cetera) while the whole of Rotterdam is a lot more mixed. This already implies that it is probably a relatively quiet district, where not many people come to visit to go to shops or similar functions.

In the next set of graphs, we can see that Beverwaard has a high level of social housing compared to the Rotterdam average. This can indicate that the average income is relatively low, which is also backed up by other statistics of Beverwaard (Gemeente Rotterdam 2014). However, the housing stock of Beverwaard does consist of a lot of owner-occupied housing, although they are mostly located in the lower price segments. This is important to remember, as homeowners will be more likely to actively participate in the neighborhood, as they will probably stay in the neighborhood longer.

The last set of graphs shows the housing typology in Beverwaard and in Rotterdam. These images indicate that the housing stock in Beverwaard is mostly low-rise, whereas in Rotterdam as a whole there is relatively more high-rise housing. Not only this, we can also see that a lot of the housing is ground-floor. This means that probably, a lot of the houses will have gardens, which was one of the main principles of the cauliflower neighborhood as opposed to modern architecture (see chapter 1.7).
4.4 Beverwaard
Green and urban tissue

Beverwaard is a relatively new city district. It is located at the utter South-East of Rotterdam, next to Ridderkerk. Beverwaard has a so-called “cauliflower structure”: the main streets branch out into smaller ones (Gemeente Rotterdam 2015). In the early seventies, plans were made for a residential area in the Beverwaard. The largely followed the ditches perpendicular to the dike (the “slagenlandschap”) in the North of Beverwaard (Rotterdam woont 2015). Some of the ditches were widened to “singels”, others were filled up. This resulted in a district with five neighborhoods subdivided by the singels.

The district was built for the largest part between 1978 and 1988. As a reaction to post World War II reconstruction plans that consisted mainly of high rises, the plan for Beverwaard consisted of solely low-rise buildings, with a maximum of four stories. Many of these low rises are one family homes that are located at “woonerven”\(^5\). Beverwaard has the highest amount of “allochtonen” of all cauliflower neighborhoods in the Netherlands, 53% in 2008 (Ubink, Steeg et al. 2011). Beverwaard is a fairly green neighborhood, as we can see in the figure on the next page.

\(^5\)A cauliflower neighborhood is also called a “woonerfwijk” (Bureau Middelkoop 2015).
4.4 Beverwaard
Functions

The next map shows the most important functions in Beverwaard. The commercial center is located in the center of the district. Outside of the center, there are close to none other commercial activities. The shopping center is under pressure however, due to competition of other shopping centers nearby. There are two primary schools in Beverwaard. These sometimes cause traffic jams around the time the school starts or ends, something which residents complain of. Next to this, there is an elderly home, located in the southern part of Beverwaard. Finally, there is a trailer park in the utter southeast of Beverwaard. This park is closed off from the rest of the neighborhood by a small ditch and a defensive architectural style.
4.4 Beverwaard

Shopping center

Although the shopping center is located in the center, it is still far away for the people living in the outer areas of Beverwaard. The image on the next page shows a 500 meter radius from the shopping center, a distance an average person is willing to walk towards a shop. A lot of the district’s houses fall outside of this radius, meaning that it is likely that they will use another mode of transport to go to the shop. Often, this is the car.

There are some quite large parking lots near the shops. This makes it very tempting to go to the commercial center by car. However, when people do decide to take the car, their action radius extents further, and they might go to another shopping center nearby that has more to offer. This is what often happens in Beverwaard; people take the car to a shopping center in Bolnes, Ridderkerk. This causes problems for the entrepreneurs in the center of Beverwaard.
4.4 Beverwaard
Road hierarchy

The image showing the road hierarchy indicates that there are two main access roads towards Beverwaard; these are the Beverwaardseweg in the north and the Groeninx van Zoelenlaan in the south. Both of these roads serve as quite hard boundaries between Beverwaard and its surroundings. There is one wide access route connecting the north and the south, although it is not a continuous line; it contains multiple bends. There are other less used roads between the north and the south as well.

Another significant element in the map, is the highway A16 on the westside of Beverwaard. It marks a sharp border with the rest of Rotterdam. On the eastside of Beverwaard, there is a road carrying only minor traffic. However, this street - called “Dijkje” (translated as “little dike”) is higher than the rest of Beverwaard and because of this, it provides a boundary in terms of height.

Summarizing, we have seen that roads play an essential role in determining the character of Beverwaard as a whole. They signify the boundaries of Beverwaard, and thereby determine the interaction between the district and its neighboring areas.

Legend
- Highway
- District access street
- Neighborhood access street
- Residential street
4.4 Beverwaard

Public transport

Along the Beverwaardseweg, there is a bus line. Beverwaard also has a tram line, departing from Rotterdam Central Station. The tramline, passing along the Schinnenbaan, forms a barrier between the west and the east of Beverwaard. However, as not too much trams pass by, the barrier is relatively easy to cross.
4.4 Beverwaard
Street depth

The image on the next page shows the street depth in Beverwaard. Beverwaard, as stated before, is designed as a cauliflower neighborhood; the main road branches out into second order streets, which in turn branch out into third order streets, and so forth. The streets with the higher depths, often the third or fourth order streets, are designed as “woonerven”; relatively quiet residential streets. This structure is practically based on the principles this very research examines; territory related to scale. The streets with less transit traffic, are also the quiet residential streets where children can play. They are sheltered from traffic by the distance - measured in the number of turns - from the main traffic arteries.

The district- as we have seen- is accessed solely from the utter north and the south; in between, all going from south to north, there are second order streets connecting the two district access points. The streets then, one turn deeper, the third order streets are often woonerven or “hofjes”- translated as courtyards.
4.4 Beverwaard
Sections related to street depth

The following images show sections related to street depth. As Beverwaard is a cauliflower neighborhood, the system of streets has been carefully designed, often with good results.

The Beverwaardseweg, a first order street, forms an exception. The transition from private to public is perhaps the hardest here of all of Beverwaard, but yet there is no transition zone at various places along the road. A more detailed analysis of this will be shown later.

The second order streets function relatively well, thanks partly to their transitions zones in the form of front yards.

Figure 4.7: Section of a first order street (Author 2015)

Figure 4.8: Section of two second order streets (Author 2015)
4.4 Beverwaard
Sections related to street depth

The third order streets shown here are “woonerven”. These are typical for a cauliflower neighborhood, and from interviews they are experienced as nice and “parochial”.

The fourth order street shown here is relatively quiet but has a wide profile. This is due to the large amount of parking spaces; however, as concluded from observation, many of the parking spaces are often empty.

Figure 4.9: Section of two third order streets (Author 2015)

Figure 4.10: Section of a fourth order street (Author 2015)
4.4 Beverwaard

District scale; transitions public-private along the Beverwaarseweg
4.4 Beverwaard

Images of Beverwaard

**Singels**
The structure of Beverwaard is based on the former polder landscape. Some canals have been transformed into singels, which are now the main boundaries between neighborhoods. They also provide a green living environment for the residents, something that is frequently mentioned in interviews as one of the main qualities of Beverwaard.

**Boundaries**
However, when crossing the singels by car (see image above), they are hardly experienced as a boundary. The long lines of sight, the lack of boundaries and the buildings that are similar throughout all of Beverwaard make it hard to orient yourself, and especially to relate to any spatial conception of the neighborhood. Beverwaard is thus easily experienced as a district as a whole, without subdivisions.
Shopping center
Beverwaard has, as we have seen, one central shopping area. Many shops have trouble surviving, as many of the residents in Beverwaard take the car to other shopping centres closeby. Yet, the center remains the cluster of activity, also comprising a community center. It thus continues to play an important role of facilitating interaction between residents.

Hofje for parking
Beverwaard is also characterized by the large amount of hofjes used for parking. While the example above seems quite safe, there are other examples where residents feel unsafe parking their car. Significantly also, many of the parking spots are often empty, even late in the evening.
4.4 Beverwaard

Conclusions

The map on the right shows the a summary of the large scale analysis of Beverwaard. At all sides of the district it is closed off from its surroundings; on the west by a highway and a park, on the east by a dike with a road, on the north by a dike and a busy road and on the south by another busy road. This all means Beverwaard functions relatively autonomously, and does not communicate much with its surrounding city districts.

There is one center that contains most of the functions. As we have seen, for many people it is too far to walk. Consequently they take the car and when they do, they often go to another shopping center, which results in problems for the businesses in Beverwaard. Next to this, people do not encounter each other on their way to the shops or even in the shops.

Beverwaard has some decent size public spaces; these can serve as meeting point for the district or the neighborhood. Sometimes, they do work like this; in other cases, these public spaces do not function as planned and are often unused. Especially the public spaces that are programmed seem to function well, whereas the undefined public spaces do not seem to attract as many people.

The existing infrastructure and water system create boundaries between various parts of the district; sometimes these boundaries are only minor, in other cases they are fairly hard. These existing structures can provide a framework to base a division of planned neighborhoods on.

It is also important to mention that Beverwaard has been planned as a cauliflower neighborhood, therefore the scale of use of streets has been carefully composed. This means that usually, street profiles work relatively well, as we have seen. The transition zones in Beverwaard help to facilitate residents in their control over interaction with others, and they do this relatively well, as shown by Ulden, Heussen et al. (2015). Some of the housing at the Beverwaardseweg form the exception to the rule.
4.5 Beverwaard
Neighborhood scale; general

On the next page a part of Beverwaard is shown in more detail. On the westside of the built area, there is a fairly large park, with some recreational options. Other places for recreation are provided by some fairly large public green spaces.

Next to some large green spaces, Beverwaard is characterized by low-rise buildings, often with a small front and quite large backyard, especially compared to other districts or neighborhoods that have been realized during this period of time.

Moreover, we can see cycling lanes sometimes fulfill quite important roles in the road structure. This is interesting, as Beverwaard was initially planned as a district where the bike would play an important role as a mode of transport in the district. However, during observation and in interviews, by far the most used mode of transport has been identified to be the car. This has had some drastic implications for the district, for instance the pressure on parking space.
4.5 Beverwaard

Neighborhood scale; Nolli map

The image on the next page shows a “Nolli map” of a part of Beverwaard. This map is a representation of the private space mapped as black versus the public space mapped as white. As we have seen in the introduction chapter, the cauliflower neighborhood was a reaction to the post-war modernism and the large open spaces. In the cauliflower neighborhood, as we can see in the figure, building heights are limited and there is not an “overload” of public space.

The Nolli map not only shows the exterior public space; it also shows the interior public space. While in the famous map of Nolli himself, made of Rome, it does show a lot of public interiors like churches for instance, Beverwaard does not have too much public interiors. Next to the few public functions in the center of the district, there are hardly any public interiors.
4.5 Beverwaard
Neighborhood scale; street depth

The next map shows the street depth on the neighborhood scale. As mentioned before, we can see that the third or fourth order streets are often streets with a relatively small profile width; they are characterized by a low amount of traffic which leaves room for the resident to appropriate the space.

Another interesting thing is that we can see that a lot of these third and fourth order streets are dead-end streets; they are often used for parking instead of providing access to housing. There is one fourth order street that actually does provide access to housing. Although this street carries little traffic, it is quite a wide street. This contrasts sharply with what we found in Oud-Overschie and with the logic of a regular cauliflower neighborhood, where the less accessible streets measured from the main street are often the ones with the smallest profile width.
4.5 Beverwaard

Neighborhood scale; front and backsides

The figure on the next page show the front and backsides - often the backyards- of the houses and in Beverwaard. The backsides are often characterized by relatively high fences, over which people cannot see. They thus shield the backyards from people who pass by, and provide a private realm for the resident.

Public space at the backside has a totally different character than the public space at the front side. At the backside, it is often more quiet and perhaps mostly used by the residents only. At the front side, people pass by. This has consequences for the use of the space, as well as the likelyhood of people feeling responsible for the space.

Legend

- Front side
- Back side (fence)
4.5 Beverwaard
Neighborhood scale; public space typologies

Building on the previous analyses, we can make a division between various types of public spaces to stay. Some are more private, while other have a more public character. As we can see, the space at the backsides of a block of houses is often a collective space; it is hardly used by any others than the residents that live adjacent. There are also a couple of places where the backsides are not only collective; these are the collective spaces at the backsides that are connected through paths and green. Here, the space will be mostly used by residents, but also by residents living further away than just the adjacent housing block.

Then, there are spaces that work on the neighborhood scale. These spaces are located at the front sides of the adjacent housing, and are used by people from further away than just these houses. Often, these public spaces are characterized by programming; some have playing elements for children, others have a place to walk your dog, et cetera.

Finally, there is one public space in the whole of Beverwaard that is specifically designed to be a space used by all of the district. This park contains a lot of trees, a large open grass field and a stage to facilitate performances during nice warm days. Although it was designed as a space for the whole of the district to meet, it is hardly used, and people complain about nuisance caused by the youth, feelings of unsafety and litter.

Legend
- Buildings
- Front & backyard
- Collective space
- Semi-collective space
- Public space; neighborhood
- Public space; district
4.6 Beverwaard  
Building blocks - boundaries

The following maps show the boundaries on a very local scale. These boundaries vary from high fences to small tresholds, but they always signify something. Boundaries, no matter how small, make a territory spatially explicit; it is important to treat boundaries as such- as spatial articulations of territory. For example, a mother might let her child play at a “woonerf” between two speed bumps. While the designer will not have thought about this use of the speed bumps, they do have implications for the parochial realm of that child. Hence, in this graduation project, special attention is paid to the existing boundaries at specific locations. Various types of boundaries will also be used in the design part of this project to articulate territories.

Figure 4.12: The boundaries in a collective space that functions well

Legend
- Bush
- Parking
- Fence
- Treshold
- Low wall
- Entrance
Figure 4.13: The boundaries in a collective space that does not function well

Figure 4.14: The boundaries in a neighborhood space that does not function well
4.6 Beverwaard

Building blocks - control

The maps below show an assessment of the control over the environment on a very local scale. This mapping method has been used before by Arnold (2013). The legend is based on the ladder of citizen participation, established by Arnstein (1969), shown in figure 4.16. The higher up the ladder, the more power citizens have. Similarly, the darker the legend, the more control (power in the words of Arnstein) for the residents living adjacently.

It is important to note that control does not

Figure 4.15: The control in a collective space that functions well

Figure 4.16: The ladder of citizen participation (Author 2015 based on Arnstein 1969)

Legend
- Private management
- Collective management
- Appropriation
- Participation
- Voice
- Informing
imply ownership (Habraken 1998). As the legend shows, it might just be who feels responsible for the space. The maps have been made at places where the author of this research has done extensive observation, to determine the level of control of the residents living adjacently to the spaces shown over these spaces.

Figure 4.17: The control in a collective space that does not function well

Figure 4.18: The control in a neighborhood space that does not function well
4.7 Becramming & Cannemanstraat
A small case study on enclosure

The Becramming and the Cannemanstraat are two identical building structures in terms of spatial layout. The main difference is the type of housing; one is owner occupied, while the other is in the rental sector.

A few years ago, both the Becramming and the Cannemanstraat fell victim to high levels of burglary. They consequently decided to build a fence to fight the crime. This provides an interesting case study on how an enclosed collective space works; especially with two different target groups.

At the owner occupied Cannemanstraat, where a lot of young parents live, the collective space seems to work very nicely. Children are playing together and parents meet each other. However, at the Becramming, the mostly elderly people retreat into the private sphere. They often do not feel comfortable in the collective space, and have high fences to maintain their privacy.
The communal garden is used a lot in the Cannemanstraat; it is targeted at young children. Toys and other things to play with are at anyone's disposal.

The private gardens are relatively open towards the collective space; the hedges are low and there is a lot of interaction between backyards and the collective garden.

The communal garden is hardly used in Becramming. This has led to a lack of maintenance for the collective space.

"Burglary rates are still high; if they want to, they can still climb over the fence or deceive the elderly. However, it has decreased in recent years."

The private gardens are relatively closed towards the collective space; hedges are high and people retreat more into their private gardens or homes.

The hedges were planted at the same time as the fence was realized; according to residents, there used to be a lot more interaction back when the hedges did not exist.
4.8 Interviews & observations
 Interviews, maps of the neighborhood and observations

Oud-Overschie
In Oud-Overschie, people feel at home at almost all levels of scale. They often know a lot of their neighbors, and they know nearly all of the people passing by, or at least recognize the face. When asked to draw a their neighborhood, people would often draw exactly the boundaries of Oud-Overschie. Significantly, people often drew more neighborhoods; one for their direct neighbors - the people who they’d have a lot of interaction with - and one of a larger area, where they went often and still recognized a lot of people (see map on the right.

Beverwaard
Beverwaard is almost binairy when it comes to publicly feeling at home; when it works, which it does for a fair amount of people, it is a district where people vaguely knows each other, for instance through mutual acquaintances. People meet people at the community center, the shop or at one of the many activities that are organized. However, there are a lot of residents who do not feel Beverwaard works in terms of “publicly feeling at home”. They often state that they are happy with their house, the private realm of feeling at home, but they do not even know their direct neighbors, let alone their neighborhood. These are often the ones that also take the car to the shopping center in Bolnes, which is closeby and - according to many of them- much nicer.

Yet, there are a residents who claimed that they did feel privately at home, in their own house, as well as in the district as a whole. When asked to draw their neighborhood, these people would point out their own house and circle the district as a whole (see image on the right. For all of the maps, see the appendix.

Conclusions
Firstly, it is interesting to see that people experience various scales of belonging. The small scale belonging is often strong (for instance the private household), and weakens as the scale gets larger. This seems to be in line with for instance Geyl, as we have seen in the introduction chapter.

However, it is important to consider that those “scales of parochiality” are never static; they change over time. Similarly, they are different for every person. It is also necessary to keep in mind that when one is walking somewhere one does not fit into one territory at a time; one is walking in various territories at a time, working at various scales and differently for various people.

For more data, see the appendix.
More maps are shown in the appendix
Part V

The use of patterns
“This language is extremely practical. It is a language that we have distilled from our own building and planning efforts over the last eight years. You can use it to work with your neighbors, to improve your town and neighborhood.”

Alexander (1977)
5.1 Introduction

This graduation project aims to strengthen the collective efficacy of Beverwaard. However, collective efficacy is a vastly complex concept; many variables have an influence on it. Experts or professionals, like urban planners and designers, are able to deal with this complexity because they are trained to do so. However, this graduation project is not aimed for professionals only; it aims to be of use to the local residents as well. These laymen may not be able to deal with the complexity and may therefore not be able to evaluate the final design of this graduation project if it were implemented top-down. In order to involve the local residents and to better explain to them the choices that are made, this graduation project will employ a “pattern language”, as originally described by Alexander, Ishikawa et al. (1977).

First and foremost, the patterns offered in the work of Alexander try to offer a solution to a problem, linking behavior of human beings to architectural or urban form. In this way, it differs to “stylistic rules” of contemporary architecture, that “…frequently have no connection to human needs (Salingaros 2000). While stylistic rules are often one-dimensional – they only apply to form – architectural patterns link to other essential pattern languages and can coexist with these other languages. Stylistic rules however, cannot, according to Salingaros.

An Alexandrine pattern consists first of a statement summarizing the idea about a specific topic. It is followed by an explanation supporting the statement. The format allows people to immediately see the stated hypothesis, in order for people to be able to easily judge if they agree or disagree with the pattern. This makes it easier for people to understand design decisions, and pinpoint the decisions they might or might not agree with (Alexander, Ishikawa et al. 1977, 11).

The Alexandrine patterns all link together. They are hierarchically ordered, either in terms of scale or in terms of abstraction. Alexander states: “Each pattern can exist in the world, only to the extent that is supported by other patterns: the larger patterns in which it is embedded, the patterns of the same size that surround it, and the smaller patterns which are embedded in (1977, 13).”

Critique

Prominent supporters of using pattern languages, like Alexander and Salingaros, do seem to believe in universal values for good living environments for people that can be expressed by patterns. While this might be considered positivist and in this way maybe even Modernist – though it is exactly Modern architecture they are criticizing – the works of these authors should rather be interpreted as manifestos. While their research is extensive and their ideas are complete and coherent, there are some basic assumptions on which both base their views.

Impact

As a theoretical model, the pattern language has had a massive impact. This model did not specifically impact architecture and urban planning and design however; the intellectual construct of a pattern language in itself has found numerous applications, the most prominent of which has been its use in software design. While
the application of pattern language in architecture and urban planning and design has not been overwhelming over the past decades, it has recently gained renewed attention, for instance at the Faculty of Architecture at the TU Delft.

**Software**
Salingaros, who was a mathematician, treats architectural patterns as almost being software, I think a pattern language is always a bit subjective; emotion comes into play when judging spatial issues whereas in programming a program either works or it does not. Therefore, in this graduation project, patterns will not be treated as being certain algorithms that together form a solution for a problem. However, the comparison is strong in my eyes. The patterns are set up as a language, with various patterns having various types of relationships with each other. These relations between patterns are definite and link strongly to software. However, the pattern itself is often open for interpretation; it is not a fixed thing. A pattern is interpreted by the person using it, adjusted to a certain (socio-spatial) context. In this way, it differs from software programming.

Yet, the final design products can be interpreted as the “front-end” programming. The patterns - that are often no longer visible - can be considered the “back-end” programming; they are, combined with the interpretation of the patterns by the people using them, the explanation of why the design is what it is.

![Figure 5.1: Smaller or more concrete patterns form a larger or more abstract one (Salingaros 2000)](image)
5.2 Questions
Three questions regarding participatory design and patterns

*Why perform a participatory design?*

This graduation project aims to generate a large scale, abstract and long-term vision as well as a set of local interventions to exemplify and elaborate this large scale vision. It is on this local scale that a participatory design method becomes essential. When intervening locally - for instance in a street or a square - the ones that have the most knowledge of the way these spaces work are the local residents. Making design choices about these type of spaces without consulting the residents is risky, as one cannot know how residents will evaluate the design, while the residents are the ones that are going to use the space. Especially in this graduation project, where the aim is to facilitate collective efficacy, it is important to know the current state of the territorial structure, the problems and how the residents evaluate the collective efficacy. Similarly, it is important to know if the residents think the proposed design interventions will improve the current situation.

*Why use design patterns?*

There are various reasons for the use of design patterns in urban planning and design in general, and in this graduation project specifically. Firstly and perhaps the most important one, is that the use of patterns makes it easy to translate research into a body of knowledge that is easy to use for anyone interested. Next to this, they are a tool to communicate with the layman. Their basic structure - comprising a hypothesis, a section of further explanation, a section describing the spatial implications and an image - makes it easy to discuss and apply a design choice, captured in a pattern. These patterns can thus be an extremely useful tool for a participatory design workshop. Finally, it provides a fairly coherent way to translate findings from both theory and from research into design interventions.
Why would you make an own, top down design, if you are trying to achieve a participatory design as well?

This is an interesting question, as it brings me to one of the main aims of this graduation project, although not explicitly formulated in the introduction: imagening what a design process is and can be and how we can learn from it by experimenting with the setup of the design process. This is why first I wanted to generate a design myself, to compare and contrast it with a participatory design afterwards. It would have been nice to see how I used patterns and how the residents and other stakeholders used them, and how their designs fit in my large scale vision. This would provide a lot of interesting information about various types of design setups.
5.3 Actors
Relating type of actors to phase, abstraction and scale

In the pattern language I have developed, there is a large difference in abstraction between the patterns. There is a pattern that concretely states that a front yard is useful for people to interact casually, while another pattern states that territory should be spatially articulated. There is also a large variety in scale, ranging from very small details such as a balcony or a speed bump, to a pattern prescribing the size of a neighborhood.

Local leaders; the framework
This variety in scale and abstraction makes the whole of the language relatively complex to the average layman or residents of a neighborhood I am designing for. However, actors that occupy higher positions might be able to grasp the more abstract patterns and debate about them. These actors with higher positions, who make of influence decisions for the larger scale (district, neighborhood, infrastructural systems, businesses et cetera), are called “local leaders” here. The actors belonging to this category are the ones shown in the list on the right. These are the actors that know what is going on on the larger scale, and are able to make relevant decisions for these scales. Significantly, these are also the people that (at least partly) finance transformations- with the exceptions of investing actors like project developers or other financing actors and urban planning and design firms who do not determine the long-term strategies for Beverwaard. These actors can however, if asked, be invited in the midst of the local leaders.

In the actual planning process, these local leaders are invited for a workshop on the more large scale and abstract patterns and long-term decisions. They are the ones that have knowledge on what is happening on the larger scale and have the power to intervene on this larger scale. They are the people who know where what type of intervention is necessary.

Vision and scenarios
The level of abstraction in the patterns and inherent in long-term and large scale solutions also means that no blueprint masterplans will be realized in these workshops. Rather, they are the first step in a process. So, what is realistic to expect as an outcome of the workshops with local leaders?

First of all, the aim is to establish a vision for the whole of Beverwaard. This document intends to delineate the transformation for Beverwaard in the long term, looking forward 20 to 40 years. In the design chapter, I have established a vision as well.

Furthermore, choices can already be made for a scale smaller than the district scale as well - the neighborhood scale. One of the constraints for the neighborhood scale decisions is ofcourse that they need to fit into the district wide vision. There are various scenarios one can think of for the future development of Beverwaard’s neighborhoods related to collective efficacy. As we have seen in the theoretical framework, strategies to facilitate collective efficacy can be divided into strategies aiming to facilitate public familiarity and strategies aiming to facilitate territoriality. These two are strongly interlinked.

The scenarios that are proposed in the design section of this graduation project, adress both of these
Local leaders in Beverwaard

- Representatives from the municipality (Stadsontwikkeling)
- Gebiedscommissie IJsselmonde
- Representatives of housing associations (Woonbron and Woonstad Rotterdam)
- Gebiedsnetwerker
- Gebiedsmanager
- Representatives of residents association
- Representatives of tenants associations
- Representatives entrepreneurs association
- Representatives of the Police
- Representatives of local (voluntary) organizations, such as PIT 010 IJsselmonde, Buurt Bestuur, Like je Wijk, Beverwaardigheden.nl, Opzoomer Mee and various sports and hobby clubs
strategies. One of the scenarios aims to make territories readable (the readability scenario), while the other scenario aims to make territories spatially explicit, by sometimes closing spaces off for certain people while allowing entrance for others (the enclosure scenario). In the workshop with the local leaders, who are often very aware of what is going on at what location in Beverwaard, decisions on what scenario to choose in what specific area of Beverwaard can be made. Concretely then, the abstract, large scale patterns are employed to already give an indication of what concrete, small scale patterns will be used later.

The residents; the infill
When the scenario has been decided on for a certain location in Beverwaard, workshops with the local residents are organized. These laymen often do not have the knowledge to cope with abstract patterns; here, the smaller scale more concrete patterns are used to give local infill to the framework that has already been decided upon by the local leaders.

The workshops aim to use the local knowledge of residents (for a great read on the importance of incorporating local knowledge, see Scott 1998). These residents know best what is happening in their neighborhood; they know the problems the neighborhood encounters. The concrete patterns might be used to find an answer to some of these problems. So, while the framework is determined in workshops with the local leaders, the local infill of this framework is defined by workshops with residents.
Workshops local leaders on the vision & scenarios

- Local leaders implement the basic framework
- Workshop local residents on local implementation

Infill by various parties

Time

Large scale, abstract patterns

Small scale, concrete patterns
5.4 Pattern field
Semantic relationships between patterns

As described earlier in this chapter, the relationships between patterns are an essential part of the pattern language. The diagram on the right shows these various semantic relationships between the patterns.

While in other pattern languages the relationships between various patterns are merely described by a single type of line, the pattern field shown here distinguishes between various types of relationships between patterns. This is largely in line with the thinking of Salingaros and follows similar logic as software programming.

As we can see, some patterns exclude other patterns; for instance, the pattern “Entrance to the district” cannot be combined with “Quiet street” when designing a certain street, as the entrance to the district always carries a lot of traffic as well as a lot of passers-by instead of only local residents. Some patterns are concrete forms of other patterns, like “Low fence” is a concrete form of “Boundary”. At the same time, “Low fence” reinforces “Social control”. There are also patterns which can be used quite similarly, for instance “Road as a boundary” and “Water as a boundary”.

These semantic relationships make design choices more explicit and more coherent. They are further clarified in the design section with the help of “flowcharts”, which make every design step explicit, both visually and textually.
5.5 The implementation
On the workshops and the use of patterns

Workshops will be organized to test the patterns and to make a participatory plan for the design cases. Using a pattern language has enabled me to connect the research and design parts. In essence, the patterns can be categorized into both the research and design parts of this graduation project. In the workshops, local residents will be asked to participate. They will be asked first to give their impression on the location in general, and if they have specific complaints or if they see positive things in the area.

After that, the patterns will be introduced. The residents will be asked to give their opinion on the patterns, to see if they are comprehensible and relevant for them. They will also be asked to suggest patterns they think are missing.

Finally, the places of intervention will be discussed; the places where many residents feel something should happen will be explored, as well as already proposing some of the patterns that might be useful to implement in these specific locations. Possible bias in this design procedure will be discussed further.

Relations between patterns
Because this graduation research is not only focusing on the patterns themselves, but also on the semantic relations between the patterns, the “related patterns” section is not shown in the patterns used for the workshop. Because of this, it will be possible to see if the laymen come up with similar combinations as the author of this thesis. If so, it can be used as backing evidence for the pattern field and the flowcharts deduced from it.

The workshop with residents
Although a lot of people had been invited, both by mail, via folders, on facebook and just on the street, only mr. De Oude showed up. While the session with him was interesting - judging the patterns and discussing local problems and chances - a larger group was also needed to see how local residents would interact with each other and the patterns, and to see if they could come to a design. The fact that hardly anyone showed up could be interpreted as data as well; it might indicate a lack of concern over public space among residents.
5.6 Workshop
A workshop with friends

After a failed workshop with residents, I planned a workshop with some friends, many of whom are also designers. As I did not want their professional takes on the patterns and the design case, I assigned each of the participants a specific role. The roles described (see the appendix for the exact role descriptions) were inspired by possible residents in Beverwaard. However, they have also been exaggerated, in order to have a lot of debate between the “residents”.

The participants were asked first to judge the patterns. The patterns used in the design case were in Dutch – unlike the ones in the final pattern book – and were made more “tangible” or concrete, in order to be easily understandable.

As expected due to the very diverse roles, there was hardly any consensus about the patterns; discussions were often heated. The patterns that were judged relatively positively and the ones that were judged negatively are shown later.

After the judging of the patterns and the discussion, the participants were asked to redesign the neighborhood square. Again, most of the participants found very different solutions. All of the participants were subsequently asked to present their designs, after which a discussion followed. Time was running out at the end of the session, but some compromises could be made, especially in terms of designing for meeting other people. Some interesting synergies were also found, for instance that when designing a square for children to play during the day, local youth can use the square to “hang around” in the evening. Most participants subscribed to this idea, as various target groups would be able to meet but in a “controlled environment”; social control was an important aspect in the success of this idea among participants. Finally, participants were also asked if they would add a pattern, which some of
the participants did. All in all, it was a fruitful session with a lot of interesting ideas and a lot to reflect upon. Some of the drawings are shown on the next pages, some are shown in the appendix.
5.7 Results
The judging of patterns and interpreting the findings

The patterns used in the workshop with friends were, as described, more concrete than the ones found in the pattern book. Yet, they described similar patterns in simpler words. In total, 16 patterns were judged. The results are shown in the image on the right.

The horizontal axis goes from positively judged to negatively judged, while the vertical axis ranges from concrete patterns to abstract patterns (the level of abstraction has been determined by myself). Significantly, there does not seem to be a relationship between the level of abstraction of a pattern and the judging of the pattern. Perhaps this is caused by the participants in the workshop: all were or have been students at the TU Delft, and many of them studied at the Faculty of Architecture. It would be interesting to see how the laymen would judge the patterns, and if a causal relationship can be established for instance between negatively judged patterns and abstraction (this is merely a hypothesis, as I can imagine that people dislike what they do not totally understand).

What is interesting as well, is that the patterns related to public familiarity and meeting others score relatively high. On the other hand, the pattern “quiet street” also scores high, which basically states that a street where not too many strangers pass by is a nice street. Perhaps it is thus fair to conclude that people like to meet like-minded people. This is something encountered at the very beginning of this research: homogeneity of the residents is a very important factor in explaining collective efficacy (see for instance the level of participation in Oud-Overschie, with a relatively high level of homogeneity among residents).

Also in the discussions, it was clear that people like to meet other people, as long as they are at least a bit similar to themselves.

Interestingly, when meeting strangers, the participants often mentioned the importance of social control and the clarity of the interaction; it should be clear who is on which territory and the “social rules” resulting from this, and there needs to be the opportunity to monitor the interaction for residents living adjacently (in order to feel safe- social control).

Both of these findings are exemplified in some of the drawings made by the participants. Only some of the drawings are shown on the following pages, the rest is to be found in the appendix.
Public space for diverse scales
Boundary
Public interior at street corner
Neighborhood square as a place to meet
Quiet street
Living room at ground floor
Front yard
Children play at the front of a house
Access to public space
Collective space
Diverse neighborhood square
Water as a boundary
Collective space as a place of rest
Public space instead of parking
Materialization
Parking at front side
5.7 Results

Some of the drawings by the participants
Rosa

Plein openbaar!
Geen codes!

Openbaar voor dringende
(C.V. bruur this)
5.8 Reflection

Reflection on the process of the workshop with friends

Beverwaard is a quite multicultural district, meaning that the population is quite mixed in terms of ethnicity. Various people with different ethnic backgrounds might have various points of attention when participating in a workshop. This can lead to conflicts of interests. Disagreement between residents over what is to be changed and what is to be maintained can lead to a difficult process for a participatory design.

In this case, the roles were described such that they would have conflicts of interest. This was already apparent in the judging of the patterns; almost every pattern had at least one vote in favor and one vote against, and some of the discussions about the proposed patterns lead to irreconcilable differences of opinion. In the design part of the workshop, every “resident” proposed a different design. However, while the overall designs differed, some of the elements they used were quite similar. Significantly also, in the following discussion, some combinations proved to be interesting. For instance, a playground for children can be used for youth of higher ages during the later hours of the day; various users have various times at which they use various spaces. This is only a small example of the fruitful combinations that arose from the workshop. Yet, a total consensus for a design proposal was hard to reach, as the characters were very different and consequently had very different needs and wishes.

When the people participating in a design workshop are all quite similar and have similar needs and wishes, leading the workshop is a relatively easy task for the urban planner and designer. The design can almost be established totally bottom-up; the planner/designer perhaps sometimes has to intervene when plans become unrealistic, or when he thinks that some parts of the proposal might not work – judging from his background as a trained urban planner/designer. In contrast, when residents have different interests, conflict might arise. Consensus might consequently be impossible to reach. In this case the urban planner/designer has to intervene more often. Hence, the design becomes more top down; more decisions are made by the professional.
“Ontwerpen blijft echter mijns inziens toch voor een deel een wonderlijke zaak.”

“Design remains however, in my opinion, partly a mysterious thing.”

Jaap Bakema
6.1 Introduction

The outline of this chapter

In this chapter, the proposed strategy and design interventions are shown. The chapter will start with a large scale vision for the whole district Beverwaard. This is the strategy in which all specific interventions should fit into. However, it is also more that a framework that is exemplified by showing local interventions; it shows the final goal of a long-term process of transformation of Beverwaard. As the vision is quite radical and ambitious, the aim is to work towards the proposed ideal during the coming 20 years. In 2035, the aim is to have realized most of the major steps towards the idealistic vision.

After the vision, two scenarios are presented for the more concrete and more small scale interventions. One is the readability scenario; this scenario aims to make territories readable by articulating their boundaries. With this, the aim is to provide people with the spatial tools and signs to know “whose territory” one finds him-or herself in, and to show them what the expected code of behavior is. This aim strongly relates to the theory, as in this scenario spatial tools are implemented to facilitate the establishment of a parochial realm or territories. This scenario is quite flexible, as interventions are often minimal and can be altered quite easily. However, in the more serious cases of social disorganization, a heavier approach might be needed.

The second scenario is the scenario of enclosure; this scenario aims to facilitate territoriality not by designing readable spatial territories, but by spatially enclosing territories. It formalizes boundaries to keep outsiders out when needed. This scenario is less flexible than the readability scenario, but it can be of use for the more problematic areas.
6.1 Introduction
Some considerations on urban planning and design

Scale
In urban planning and design, scale is one of the most important variables one has to take into account. A large square with seating for example – of a certain size itself – can function on various scales; people that live in houses adjacent to that space may use it to sit in the sun on a warm summer’s day. Yet, children from a few blocks further down the road might use that same public space as well, because it is the only square nearby that is large enough to play football on. If there are also shops located adjacent to the square, it might attract people from even further away. The designer should be aware of these scales on which the square can play a role, as it might determine the use of the square in an important way. This not only goes for places of staying however, like a square, but similarly affects streets; a street that functions on a large scale will be busier than a street that only functions on a small scale. It will also attract a different crowd than the one functioning on the smaller scale. These are all issues a planner or designer has to take into account.

Time
Another essential part of the context for urban planning and design is the timeframe for which the design is made. There are a lot of factors that come into play when looking at time related to design. Time can, like space, be looked at from various scales. The first is the small timescale; use of a public space for instance, varies over time. It can vary during every minute, hour or part of the day. Use varies per even per day, per week, month season or year. It changes over the course of years and decades. The longer the timeframe, the more uncertain the use will be. Fifty years ago, no one would have expected new ICT’s to have such a large impact on how we use space, for example. Similarly, cars have changed the use of public space dramatically; who could have expected that when the first automobile was introduced? However, also at in a small timeframe there is uncertainty. A planner or designer cannot possibly know exactly what will happen at the public space he is designing.

All of this uncertainty makes it extremely important to generate designs that are adaptable and flexible. Some changes that take place over time are only minor; only very strict plans will then not be able to accommodate these changing conditions. When changes are larger, however, not all is uncertain. A planner or designer in The Netherlands can expect more people to be outside during the summer than during the winter. Design can play into that. Similarly, a public space may be used more frequently during the day than during nighttime; as a planner or designer it is important to keep these timescales in mind.
6.2 Vision
Vision for Beverwaard 2040

**Beverwaard; current**
One large city district with a singular identity, monofunctional, one center of functions and central points of interaction between residents.

**Articulating boundaries**
These boundaries will more clearly divide Beverwaard into neighborhoods, increasing the likelihood of public familiarity and territoriality.

**Different identities**
The different neighborhoods are further distinguished by working towards various identities. This further strengthens the neighborhood as a spatial entity.

**Polycentric**
Functions are to be spread out over the district as a whole; local functions facilitate public familiarity on the local scale. Interaction occurs in the neighborhood as well as in the district as a whole.
6.3 Existing situation

The images on the right show the existing situation of two areas of intervention: the neighborhood square at the Tongelaarweg on the left, located at the front of the adjacent housing, and the “hofje” at the Guntersteindam at the right of the 3D image, located at the backside of the adjacent housing. Both of them have already been thoroughly been analyzed in chapter 4.
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The neighborhood square

The hofje
6.3 Existing situation

Figure 6.1: The square at the Tongelaarweg (Google Maps 2015)
6.4 Vision & interventions

The generic places of intervention for both scenarios projected on the vision
The image on the left shows the part of the vision that has been zoomed into. It also shows the smaller scale interventions that will be clarified later in this chapter. Some of the interventions have a relatively generic character; the hofjes used for parking for instance. This typology is common in Beverwaard, and the solutions proposed later for the hofje can be translated to other hofjes as well. The same goes for the neighborhood boundaries, which are the crossings of the singel.

The neighborhood square and the first order street (the Beverwaardseweg) are specific interventions; the other neighborhood squares in Beverwaard function relatively well - this specific square does not. Similarly, the Beverwaardseweg is a specific intervention, because it is the only main entrance to the district from the north and differs very much from the entrance in the south.

The specific interventions do not directly link together strongly. However, they do all share similar principles: articulation of territory on various scales and facilitating public familiarity. Indirectly however, one might say they all hang together quite coherently, as the whole of interventions provides a very gradual transition from public to private throughout different levels of scale.
6.5 Readability scenario
The patterns used in the elaborated interventions
6.5 Readability scenario
Two interventions in bird’s-eye view

The interventions in the readability scenario are mostly elements that articulate territory. Often, the interventions are the addition of boundaries or the removal of them. At the neighborhood square, some of the boundaries are removed, while another boundary - the hedges - has been added. This makes the space more accessible, but still marks the space as a neighborhood space. This is due to the fact that it is not easily to appropriate by the adjacent residents, thanks to the hedges. Also, the space is programmed for various target groups and thus lends itself for meeting others. A reference for the neighborhood square is shown in figure 6.2. The transition between the neighborhoods - of which the singel is the main boundary - is spatially articulated by the addition of a speed bump and trees to block the lines of sight from one neighborhood towards the other. The hofje finally is articulated as a collective space by the addition of hedges.
Figure 6.2: A square to meet others; Brancoplein, Rotterdam (Google 2015)

Figure 6.3: Articulating boundaries by hedges; GWL-terrein, Amsterdam (Google 2015)
6.5 Readability scenario
Neighborhood square; map of the framework & infill
Infill
The local infill of the framework is determined in the workshop with residents, not only living adjacently but also further away - being a neighborhood square. Here, the more concrete patterns are chosen. In this case, the square has been designed as a neighborhood square where various people can meet; it is a place of bridging (see Putnam 2000). Various activities are facilitated by the design of the square, in order to attract a diverse crowd.

The infill of the framework realized by various parties; not only the municipality and perhaps the housing association will need to finance some of the project, some projects might also be realized by residents with help of the Opzoomer Mee foundation.

Framework
The framework for the readability scenario of the neighborhood square consists of a green square with hedges as boundaries. The decision to choose the readability scenario lies with local leaders and is determined in the workshop(s). The square in this scenario is designed to function on the neighborhood scale; the hedges will prevent the adjacent residents from appropriating the space to a too large degree, so that it remains a space open to residents of the whole neighborhood.

The framework, in this case, is not only decided upon by the local leaders, it is also realized by these actors, with the municipality in a leading role in the process of transformation.
6.5 Readability scenario

Flowchart neighborhood square

**Relations between patterns**
- Excludes
- Reinforces
- Concrete form of
- Addition to
- Similar to
- Specific relationship

**Actors:** municipality
**Actors:** municipality, housing association, entrepreneurs, residents

- Diverse neighborhood square
- Neighborhood space at front side
- Children play at the front of a house
- Articulation of territory
- Public space for diverse scales
6.5 Readability scenario
Impression neighborhood square
Neighborhood public space

Neighborhood space at front side

Diverse neighborhood square

Children play at the front of a house

Infill

Neighborhood square as a place to meet

Framework

Boundary

Neighborhood public space
6.5 Readability scenario
Hofje; map of the framework & infill
Infill
The infill for the collective space on the backside of the housing is decided on in a workshop with the residents living adjacently, as even in the readability scenario the space is meant to be read as controlled by the residents living adjacently. The patterns that have been used in this case, are strongly linked to the idea that a collective space at the backside should be a place of rest, as this space borders on the backyards of the housing. These backyards are often used for relaxation, and a busy collective space would thus interfere with the choice of the residents to relax. The infill can be realized by the municipality, housing association but also the residents.

Framework
The framework for the readability scenario of the “hofje” consists of adding a hedge as a boundary at the entrance of the space. Also, the parking spaces are removed in order to make place for a collective space that is easy to appropriate by the residents.

The local leaders are responsible for the choice of the scenario for the framework. They are also the ones who finance the framework. Mainly the municipality and the housing association will be involved.
6.5 Readability scenario
Flowchart hofje

Relations between patterns

- Excludes
- Reinforces
- Concrete form of
- Addition to
- Similar to
- Specific relationship

Actors: housing association, municipality, residents

Collective space
Boundary
Collective space at backside
Collective space as a place of rest
Actors: residents

- Social control
- Articulation of territory
- Low fences
- Gradual transition private-public
- Public space for diverse scales
- Social control
6.5 Readability scenario

Impression hofje
Infill

- Collective space as a place of rest
- Collective space at backside
- Low fences

Framework

- Boundary
- Collective space
6.5 Readability scenario
Impression Beverwaardseweg
Framework

Entrance to the district

Existing situation Beverwaardseweg
6.5 Readability scenario
Flowchart neighborhood boundary

Relations between patterns

- Excludes
- Reinforces
- Concrete form of
- Addition to
- Similar to
- Specific relationship

Actors: municipality, residents
Boundary

Blocking sightlines

Actors: municipality, residents

Articulation of territory
6.6 Enclosure scenario
The patterns used in the elaborated interventions
6.6 Enclosure scenario
Two interventions in bird’s-eye view

The interventions in the enclosure scenario are explicit; people are sometimes excluded, while others are included. This might be needed in some cases, for instance when a neighborhood is dealing with crime or nuisance. The neighborhood square has been transformed into a collective space at the front side of the adjacent homes. The removal of any boundaries from the front doors of the adjacent houses towards the space make it very easy to appropriate by the local residents. The fact that there is no traffic passing through the area anymore either, because of the total closure of the street that crossed the singel, make it a collective space even more, meant for local residents. The boundary between the two neighborhoods has been dramatically strengthened by the removal of the crossing; this can facilitate collective efficacy on neighborhood level, while on the other hand it might negatively affect collective efficacy on district level. Hence, a careful deliberation has to be made in order to intervene in this was.

The hofje is closed off from any outsiders, leaving room for the local residents to collectively manage the space. This is similar to what has been done at the Cannemanstraat that has already been discussed in the analysis chapter (see figure 6.6 also).
Figure 6.5: A space to appropriate for the adjacent residents; Aldegondaplantsoen, Maastrict (Google Maps 2015)

Figure 6.6: A closed off collective space that functions well; Cannemanstraat, Rotterdam (Author 2015)
6.6 Enclosure scenario

Neighborhood square; map of the framework & infill
**Framework**

The framework for the enclosure scenario of the neighborhood square consists of removing all boundaries of the adjacent housing towards the square and adding green. The decision to choose the enclosure scenario lies with local leaders and is determined in the workshop(s). The square in this scenario, while not located at the backside, is aimed to be a collective space and is therefore free for the residents to appropriate.

The framework, in this case, is not only decided upon by the local leaders, it is also realized by these actors, with the municipality in a leading role in the process of transformation.

**Infill**

The local infill of the framework is determined in the workshop with residents living adjacent to the square. In the enclosure scenario, the space is meant to be a space of bonding (Putnam 2000); local residents meet with each other.

The municipality and perhaps the housing association will need to finance some of the infill, some projects might also be realized by residents with help of the Opzoomer Mee foundation. Furthermore, the infill will not consist of too much programming, as it aims to leave a lot of room for local residents to appropriate the square.
6.6 Enclosure scenario
Flowchart neighborhood square

Relations between patterns
- Excludes
- Reinforces
- Concrete form of
- Addition to
- Similar to
- Specific relationship

Actors: municipality
**Actors:** municipality

- Public space instead of parking
- Articulation of territory
- Gradual transition private-public
- Public space for diverse scales
6.6 Enclosure scenario
Impression neighborhood square
Children play at the front of a house
6.6 Enclosure scenario
Hofje; map of the framework & infill
**Infill**
The infill of the framework regarding the collective space in the enclosure scenario does not differ much from the readability scenario. However, it does differ in management of the space; in this case, the hofje can be collectively managed, so a association of owners must be established. They will decide on the exact infill in a workshop.

This association will also be responsible for a part of the realization and financing. Next to the owners association, the municipality and/or housing association can step in as well.

**Framework**
The framework for the enclosure scenario of the collective space consists of closing off the space to passers-by and providing a space to appropriate for the residents, instead of the parking spaces that are there right now.

In this way, the space becomes collectively owned; in this case, the local leaders have made the decision for this scenario in a workshop (for example because the residents at that hofje suffered from a lot of burglaries). The local leaders are also the ones realizing and financing the majority of the transformation, with a leading role for the housing association. The residents however, whom will be organized in an owners association, might also participate.
6.6 Enclosure scenario

Flowchart hofje

Relations between patterns

- Excludes
- Reinforces
- Concrete form of
- Addition to
- Similar to
- Specific relationship

Actors: housing association, municipality

Actors: housing association, municipality
Actors: residents
6.6 Enclosure scenario
Impression hofje
6.6 Enclosure scenario
Impression Beverwaardseweg
Section Beverwaardseweg before intervention

Section Beverwaardseweg after intervention

Front yard

Entrance to the district

Framework
6.6 Enclosure scenario

Flowchart neighborhood boundary

**Relations between patterns**

- Excludes
- Reinforces
- Concrete form of
- Addition to
- Similar to
- Specific relationship

**Actors**: municipality

**Actors**: housing association
Actors: municipality, residents

Actors: housing association, municipality, residents

Materialization

Alternation of height

Front yard

Collective space

Collective space at backside

Articulation of territory

Gradual transition private-public

Public space for diverse scales
6.7 Evaluation control
Evaluation of control over the hofje

Existing situation
In the existing situation, as we have seen in the analysis, residents might “participate” concerning the collective space at the backside. Occasionally for instance, people might throw away litter that is not theirs, to keep it a little bit clean. However, it feels relatively anonymous.

Readability scenario
In the readability scenario, the space at the backside is clearly read by residents as well as passers-by to be a collective space. There is a lot of room for the residents living adjacently to appropriate the space.
Enclosure scenario
In the enclosure scenario, the space at the backside is closed off to outsiders; this means that the space becomes a collective one, and is also collectively managed. Therefore, as mentioned, an owners association is established.
6.7 Evaluation control
Evaluation of control over the neighborhood square

Existing situation
In the existing situation, the neighborhood square is not used much. The hard boundaries (the parked cars for instance) make it a hard space to reach, and it does not facilitate a lot of activities. People will be merely informed about decisions concerning the square, which means they will have very little control over it.

Readability scenario
In the readability scenario, the neighborhood square is made more accessible by the removal of some of the boundaries. This means that residents will have more control over the space and are able to use it more frequently. Also, in the workshops, people can now voice their opinion on what should happen with the square, which is also a form of control.
Enclosure scenario
In the enclosure scenario, the neighborhood square is almost “collectivized”. The residents living adjacently will have a lot of freedom to appropriate the space, and they will be likely to also feel responsible for the space. They will, in this way, have a fair degree of control over the space, and might collectively make sure that the space remains clean and orderly. This is facilitated also by the decreased number of passers-by, as the road for through traffic towards the rest of the district has been closed off.
6.8 Evaluation scale & control
Sections evaluating the scale of use and control over the environment

The following figures show the transitions from the private sphere to the more public spheres at various locations. Below the 3D sections, the scale of use of a zone is shown, as well as the level of control the local residents have over that space.

The legend for the scale of use for the space is based on the analyses in chapter 4. Both the analysis of the street depth has been used; here, the scale of use has been defined for the streets. Next to this, the analysis of the public space typology has been used to determine the scale of use for the “places of staying”. These have been combined into one system of determining the scale of use, to increase the coherence of the images.

We can see that in general, as the scale of use becomes larger, the control for local residents over this space becomes smaller. This will be described more thoroughly in the reflection chapter. Significantly, in all the scenarios and at all locations, the transitions between private and public are made softer; this increases the choice over the interaction with other people for residents, which contributes to a socially sustainable living environment (Van Dorst 2005).

Beverwaardseweg
The difference between the readability and the enclosure scenario at the Beverwaardseweg is not very large. In the readability scenario, a strip of a different materialization is realized in front of the front doors, making a transition zone between public and private readable - thus creating a semi-private sphere. In the enclosure scenario, the transition zone is realized by adding front yards. This means that also here, a semi-private zone appears, however, in this case the semi-private sphere is privately owned, in contrast to the strip of materialization.

Neighborhood square
At the neighborhood square, the difference between the two scenarios is more obvious. In the readability scenario the scale of use gradually transitions from private sphere to neighborhood sphere. Similarly, the level of control gradually declines. In the enclosure scenario, the scale of use for the square is not the neighborhood sphere anymore - as less people pass by due to the closed off road - but the collective sphere; people who live adjacent to the square are likely to use it. This means the level of control for the local residents will also remain fairly high.

Hofje
The two scenarios at the hofje do not differ that much either. The main difference is the level of control over the collective space bordering on the backyards of the housing. In the readability scenario, the space is readable as a collective space and local residents are invited to appropriate the space, whereas in the enclosure scenario, no outsiders are welcome and the collective space is collectively managed.
**Hofje; readability scenario**

**Hofje; enclosure scenario**
6.9 Parking
Study of the number of parking spaces

Beverwaard is a district with a high amount of cars (see interviews in the appendix and concluded from observation). Yet, Beverwaard also has a very large amount of parking spaces, as it was built around the very “car-oriented” 1980s. This means that Beverwaard has an surplus of parking spaces at some locations.

From interviews (see appendix) it also became clear that people preferred to park their car at the front side of their houses, as it is considered easier and safer. However, Beverwaard has a lot of parking spaces located in hofjes at the backside of the housing. Here, social control is often low and some people do not like parking their car there.

**Hofje**
This concretely means that for the hofje at the Guntersteindam, perhaps it is worth considering removing some of the parking spaces in order to make room for a collective space. In total, if all parking spaces would be removed at the backside of the houses, it would cost 15 parking spaces. At least 8 of those can be relocated at the front side of the homes, when the profile is transformed such that it allows perpendicular parking instead of parallel parking (see the sections). This means a total loss of 7 parking spots. This is not too much, especially as the parking spaces at the backside are often unused, and there are a lot of parking options at the front side already. There is no difference between the readability scenario and the enclosure scenario.
Hofje before intervention

Hofje after intervention
**Neighborhood square**

At the neighborhood square located at the Tongelaarweg, there is a difference between the readability scenario and the enclosure scenario. In the former one, 36 parking spots are removed; none of which are relocated. This means a total loss of 36 parking spaces. Most, if not all of this can be buffered by the parking spaces at the Tongelaarweg.

In the enclosure scenario however, 76 parking spaces are removed. At least 16 of them can be relocated in the new design. However, this still means 60 parking spaces are lost in total (see images on the right). This is a large amount of parking spaces that is sacrificed for public space. However, as mentioned before, Beverwaard has an overcapacity of parking space at other places. Next to this, car ownership is declining and expected to decline further the coming decades (see for instance DeMorro 2014). The problem is thus not the lack of parking spaces, but the time it might take to walk to a car. This is why the spaces that are relocated will be reserved for the residents living adjacently to the square, as they do not have any parking spots in front of the door anymore.
Part VII
Reflection & discussion
“The idea that a living environment can be invented is outmoded: environment must be cultivated.”

Habraken (1998)
7.1 Conclusions

Answering the research questions

1. What is collective efficacy and how does it relate to notions like self-organization, public familiarity and parochial space?

Collective efficacy is to the social cohesion among residents and their willingness to intervene on behalf of the common good. Two concepts are strongly linked to and can even facilitate collective efficacy: public familiarity and territoriality. These two can be facilitated by the environment, the planner’s and designer’s object of intervention.

2. What spatial characteristics can facilitate collective efficacy on various scales?

The spatial characteristics that can facilitate collective efficacy are divided in this research by spatial characteristics that can facilitate territoriality and characteristics that can facilitate public familiarity. These characteristics have been determined by literature review and case studies, and have been translated into a pattern language.

3. What are the problems and chances relating to general social, economic and spatial issues in Beverwaard?

Beverwaard’s perceived social cohesion and participation are low. The average income in Beverwaard is also low, as well as the state of the public space in some cases. The problems and chances have been determined after a spatial analysis, as well as in interviews, literature review and secondary data analysis. When redesigning Beverwaard, it is important to keep these factors in mind.

4. How do the private, parochial and public orders manifest themselves spatially on various scales in Beverwaard and how are they interrelated?

Beverwaard is a cauliflower neighborhood, making the various realms relatively easy to determine. This has been done using the “stappenmethode”, or the method of determining the street order. Next to this, public spaces have been categorized according to the scale of use. In short, public space in general has been categorized according to the scale of use using mapping, but also observation and interviews.

5. How can these design patterns be applied in a coherent design for Beverwaard?

The developed pattern language resulting from subquestion two has been applied twice; once by the author of this graduation report to generate a top-down design. First, a vision was established for the district scale. All the smaller scale interventions need to fit into the large scale vision. If possible, this would have been done also in a workshop with local leaders, determining the framework for the future smaller interventions. After this, the author tried to coherently group patterns together into flowcharts, using various semantic relationships between patterns, to clarify the design process. The language has also been used in a design
workshop, to fill in the framework at a more concrete level. In this workshop, the participants were asked to judge and apply the patterns. They all made a design for a specific location, trying to come to a compromise in order to reach a final design. However, as the opinions of the participants differed and they could not agree, the author of this report had to step in and make more top-down decisions. These findings have been reflected upon.

Main research question: What generic spatial patterns across scales can facilitate collective efficacy, and how can these patterns be coherently implemented to facilitate the collective efficacy of Beverwaard specifically?

In this graduation project, various methods have been employed to determine what spatial characteristics facilitate collective efficacy. This has resulted in a number of patterns grouped together as a pattern language that has been developed during this graduation project. These patterns make the design process “textually explicit”. The semantic relationships between the patterns give more coherence to design decisions; they are further clarified by flowcharts, making the design decisions “visually explicit”.

The participatory design workshop also provided some input for design. Although the patterns did not form a coherent strategy for a design, the “local knowledge” gathered can locally embed the design in a specific location, making it more likely to work as relevant local problems have been addressed. In order for the design process to work well during the workshop, the workshop leader has to either take control when residents do not agree on certain issues, or stay relatively quiet when residents are able to make compromises. When the workshop leader adapts to the people participating in the workshop, the result will thus be more coherent.
7.2 Discussion
Interpreting the data

This graduation project has resulted in, among other things, a lot of data; data gathered from observation, from interviews but also from literature. It is hard to draw very general conclusions from such a specific and short graduation project. However, the data provoked some interesting points of discussion. This discussion returns to the essential transition described in the first chapter: the shift from welfare state to participatory society. I will try to answer here what we can realistically expect from the design interventions proposed, in terms of facilitating participation among residents.

This graduation project points into the direction of the graph shown on the right. The horizontal axis shows the control of residents over a space, while the vertical axis shows the scale of use of a space. The line represents what the findings of this graduation project have indicated: if a space is used on a very large scale, the control of residents over that space is very limited. The 3D sections shown in the design chapter are a direct extrapolation of this graph or vice versa. We have seen this at the Beverwaardseweg: a large first order street where a lot of people pass by, and the residents interviewed felt anonymous when stepping outside their front door. The observed lack of transition between public and private did not help facilitate control over the space either. The main, realistic goal for such streets might be for people to start exerting social control; once they have a transition zone and open their windows, they can start recognizing and classifying passers-by.

However, as the scale of use becomes smaller, for instance looking at a public space where almost no people pass by except for local residents, control is high for these residents. This is what we have seen in Oud-Overschie, where people maintained a plantation located at a small public space deep into the traffic system. Almost all residents seemed to know each other, and some even said they often went for coffee with their neighbors. In low traffic, low passer-by streets, maintenance of public space might be a realistic goal.

In between the two, at public spaces where traffic is mediocre, control is likely to be mediocre as well. A realistic goal here might be that neighbors get to know each others names; they are thereby not only able to classify insiders and outsiders as one might hope for in a busy street, but also ask people to do something together, because one knows the other one’s name. Keeping a sidewalk clean, together with neighbors, might be a realistic goal here.
Scale of use

Control residents over space

- Exerting social control
- Cleaning the sidewalk
- Maintenance of a plantation
7.3 Reflection

Reflection on research, design, methods and making plans

During this graduation research, many things have been planned in advance. Some of these might not have worked out exactly as planned. Other things that were not planned, became part of this research. This means that there are various issues that are useful to reflect upon.

The process in general
A planning and/or design process is never totally planned beforehand. Things always change during the process, some steps take longer than expected, some perhaps take shorter than expected; some desired results to strengthen a design might lead to a need for the use of new methods, and so forth. Flexibility is needed both in a time schedule and in the project framework.

From the very beginning, when I knew the topic of my graduation project, I thought out a very general framework for my project. I devised a step-by-step “manual” of how to approach the project that was not too detailed; it left room for change. The time planning I made was also purposefully vague, as I know I needed flexibility (see figure below).

Although often during the project I did various things at once, I was always aware of how the things I was doing fitted back into the manual. This means that while the process might have looked chaotic - doing various things at the same time - I was always aware of how the things I was doing helped me to reach the goals I set at the start of the project. The presentations (P1, P2, P3 and P4) where the moments where everything

Figure 7.1: The planning shown during P2 (Author 2015)
had to come together; it was at these moments I tried to fit everything back into the larger framework. In between the presentations however, things might not have looked so orderly.

**Research and design**
The link between research and design in this graduation project has perhaps been slightly different from regular graduation projects due to the use of design patterns. Due to design patterns, research - both theoretical and other more “spatially oriented” research - can be easily translated into design principles. It also works the other way around: when designing, I sometimes noticed my pattern language lacked some patterns essential to make a good design. I then went back to the research part, to look if I could find an appropriate design pattern to fill in the gap. This way of working meant that there is a very explicit way of communicating between research and design; they are directly interlinked via the design patterns.

**The use of patterns**
As discussed previously, there are various reasons to use patterns. Perhaps the most important one, is that they translate research into a body of knowledge that is easy to use for anyone interested. Next to this, they are a tool to communicate with the layman. Their basic structure- comprising a hypothesis, a section of further explanation, a section describing the spatial implications and an image - makes it easy to discuss and apply a design choice, captured in a pattern. These patterns can thus be an extremely useful tool for a participatory design workshop. Finally, it provides a fairly coherent way to translate findings from both theory and from research into design interventions.

In advance, the plan was to use the generated patterns in a design case with residents from Beverwaard. However, only one of the residents participated. This means that one of the advantages of using patterns, namely the communication with laymen, can be nullified in this research project. Consequently, it has also been impossible to generate a participatory design in collaboration with residents with help of design patterns.

Although some of the advantages of the use of patterns have been cancelled out, the other advantages are still not to be neglected. They have been very helpful in translating the theoretical work, the various location analyses and case studies into useful design elements. They also provide a catalogue that others - either researchers or laymen - can use for their own design interventions. In this way, they have contributed to the body of knowledge on interventions relating to collective efficacy. Finally, they have contributed to a coherent link between (theoretical) research and design. The patterns have helped to explain, visualize and make explicit- the design interventions that have been decided upon. This has made it easier to communicate with my tutors and my peers, for instance.

**The pattern flowcharts**
The pattern flowcharts provide a unique way of looking at the relations between patterns. The relation between patterns, mapped in a pattern field, is something that
has been done before (see for instance Van Dorst 2005). Also, different types of relations between patterns have been described (see for instance Salingaros 2000). However, while Salingaros would partly try to argue otherwise, these relations between patterns have a different meaning in computer science than in architecture. In computer science, a combination of patterns works binary; it either does or it does not. In architecture, it is not so straightforward. This is why I designed “flowcharts” depicting certain relations between patterns. With these flowcharts, essential steps in the design process are shown, namely the coherence between the applied patterns.

The question is if prescribing relations between patterns is needed beforehand. One might intuitively apply patterns that might work well together when designing. This might be the case. However, when applying the patterns in a design, one cannot see the thinking process that has preceded the design. In order to visualize and to make these steps in thinking explicit, one might use visual tools, like the flowchart.

Hence, establishing the flowchart of a cluster of patterns can work in two ways; one can think of relations between patterns beforehand or one can generate a flowchart in retrospect, after one has tested the relations between patterns in a design case - this is what might be considered “research by design”. In this graduation project, both methods have been used; some intuitive designs have been made, after which a flowchart was established, which also prescribed relations that had not been tested in a design case yet. It then developed further by going back and forth between research and design.

During the project, the flowcharts have proved an effective tool to bridge the gap between the sometimes seemingly random collection of patterns (to those who do not have time to carefully study all the patterns) and a coherent design intervention incorporating various patterns.

The whole of methods

The detailed limitations and delimitations of the methodology of this graduation project have already been covered in the chapter “methodology”. This short reflection will concern the whole of methods that have been employed to come to an overall strategy to tackle the research question(s). These methods comprise the combination of literature review, secondary data analysis, mapping, observation and interviews.

The first two of the mentioned methods, literature review and secondary data analysis, have been employed mainly to get a grip on the subject matter. It helped me to define and understand the exact problem I wanted to tackle. Especially the literature review has also provided a lens to look through when interpreting the data gathered from other methods.

The combination of the other methods - mapping, interviewing and observation - has proved to be a fruitful synergy. As described in the methodology chapter, the methods have been employed simultaneously to mutually check the findings of the other methods. Let me give an example of this. The mapping of the street depth is a highly abstract analysis technique; it was used in this graduation project with
the aim of determining the scale on which a certain street was used. However, to see if the outcome of this technique really manifests itself in reality, one still has to check in reality on the specific location if this is the case. So, I went to certain streets and I observed the people passing by. Occasionally, I would also interview people, to find if they lived nearby, and why they took this route. In this way, the findings of the observations and interviews often provided back-up evidence for the maps.

The example specifically addresses the analysis of the scale on which a certain public space is used. The example refers to the scale of use of streets; similarly, this has been done for the public spaces for staying (this might be a confusing term, as streets are obviously used for staying as well sometimes; however in this case it clarifies the distinction between streets as spaces for moving and public spaces as spaces for staying), although another technique of mapping has been used. Determining the scale on which a public space is used has been the major challenge of the analysis part of this graduation project. The methodology I have devised as an answer to this challenge has been, in my eyes, appropriate and perhaps even innovatory, linking specific “hard” techniques like the “stappenmethode” - the technique of mapping the street depth - to “softer” methods like observation and interviews.
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Part VIII
Apendices
Appendices
1. Interviews
2. Observation
3. Workshops
4. Design
1.1 Interviews
Interviews with locally relevant actors

Interview Martin den Hartog
Stichting Opzoomer Mee
13/11/2014

Note: this text is a summary of the most important information of the interview

Can you tell me something about Opzoomer Mee?

- Started in the late 80s with the Opzoomerstraat in Spangen, but really kicked off as a foundation in 1994. Meant at first to actively participate in shaping the environment, later also to do something for the whole street or building block.
- As of right now, it has almost become a governmental organization, with 95% of the work is being funded by the municipality; basically they are a municipal organization that takes care of the funding of citizen initiatives for mostly streets, but they also treat the larger grants for neighbourhoods and city districts and their events.
- Den Hartog has worked for Opzoomer Mee for 12 years now.

After shortly explaining my topic, we talked about the terms used in the research

What (spatial) factors, in your opinion, can contribute to neighbourhoods or streets with a high level of collective efficacy?

Non-spatial
- Most important factors explaining participation in the Opzoomer Mee campaign is if there are a lot of children in the street. Parents meet each other via the interaction of children, and then start to think about organizing activities with neighbours.
- Other important factors are homogeneity of the residents (a homogeneous population is more likely to organize something) and the mutation rate (if people only live in a neighbourhood for a short period of time, they are less likely to organize something).
- A while ago, we saw that it was mostly the “autochtonen” who would make use of the Opzoomer Mee project, now it has become more diverse.

Spatial
- A small street profile has a positive influence on the participation.
- Slow or little traffic has a positive influence on the participation.
- Strong enclosure of streets has a positive

it might be better or more positive to use the “zelforganiserend vermogen” or self-organizing capacity of a street or neighbourhood.
influence on the participation.
- The availability of a public space like a square or a small park has a positive influence on the participation.
- Residents of apartments or flats are less likely to participate.
- Shopping streets are less likely to participate.

Other remarks
- There is not a direct link between the ratio home-ownership and rental sector homes and the level of participation.
- The “action-ratio” of an Opzoomer Mee activity is about 50 to 100 meters; when streets are too long, they are subdivided in parts.
- Residents also participate with their building blocks.
- “Buurthuizen” or community centres are also of importance; they provide spaces for people to meet. More and more, community centres are closed due to budget cuts; volunteers are more and more trying to keep them running.

Interview II Martin den Hartog
Stichting Opzoomer Mee
26/01/2015

Summary:
- Various “rounds” in which people can participate
- 1st round: room for various activities and initiatives
- 2nd round: Activities for the youth and “lief, leed en zorg”
- 3rd round: Christmas, new-year activities
- The average street that participates, participates twice a year

A lot of activities happen in closed building blocks, in communal spaces inside these blocks. Often, these are closed off by a fence, and are only accessed by residents. The danger if open, is that it becomes a place where youth can hang around and cause nuisance.
Interview Wenda Doff
PhD researcher OTB Research for the built environment
02/12/2014

Summary:

- Methodological concerns: either be methodologically sound and focus on a very specific aspect that might influence collective efficacy (e.g. only look at street level), or accept that the research will be for a large part speculative.
- Talja Blokland interesting literature – Oog voor elkaar. Schoon, heel en veilig, kwaliteit van e openbare ruimte en voorzieningen zorgen voor publieke familiariteit.
- Collective efficacy is an important term in the literature. Others include Dutch terms like: collectieve weerbaarheid, wijkweerbaarheid, publieke familiariteit.
- My research implies that a condition for participating in Opzoomer Mee activities is that there is a high level of collective efficacy
- Also focus on literature concerning legibility of the built environment, and authors like Lynch, Jacobs and Whyte.

Interview Allyson Mannsur
Projectmanager Beverwaard at Stadsontwikkeling Rotterdam
04/02/2015

Summary:

- Project manager Beverwaard, externally hired.
- Beverwaard is a cauliflower neighborhood (bloemkoolwijk), but because the “hofjes are quite small it is also called a “spruitjeswijk” or sprout neighborhood.
- The district was planned to have a social cohesion and social control, but the composition of the district has changed over the years.
- The district was planned for the bicycle, however it is not used that way.
- There are a lot of different groups; a lot of Antilleans. They are outside a lot during summer, which is qualified by other residents as nuisance.
- A lot of lower incomes in Beverwaard; however, people are often happy with their homes. Rental housing is relatively cheap. Also the owner-occupied housing is quite cheap, while they are often ground floor dwellings.
- Parking located at “hofjes” at the backside feel unsafe; high fences shield eyes on the street and thus social control.
- Parking at the front feels safer, but often there is not enough parking space.
- The alleys at the backside are often considered
- Scary, because of the lack of social control.

- People have front yards, but do not always use them.

- People take the car to shopping centers further away, which is bad for the shopping center in Beverwaard.

- People have a lot of cars, but there are a lot of parking spaces as well.

- People in Beverwaard move once every 8 years, on average.

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**Interview Marjan Gonsalvez**

Vice-voorzitter Gebiedscommissie IJsselmonde (Leefbaar Rotterdam)

11/02/2015

Summary:

- Everyone knows each other due to certain institutions like the school or supermarket and the community center.

- A lot of low-income families in Beverwaard.

- Beverwaard is a district of ups and downs; nice people on the one hand, impoverishment on the other hand.
Interview Harm de Oude
Gebiedscommissie IJsselmonde (PvdA)
11/02/2015

Summary:
- Harm likes being part of the Gebiedscommissie; he has a lot of contact with residents.
- There are a lot of initiatives in Beverwaard. Numbers do not always do justice to this.
- Beverwaard has an image problem; the residents are generally happy.
- There are a few “bad neighborhoods” in Beverwaard, which causes trouble for the whole district.
- There is a problem with youth nuisance.
- There is often little social control towards the parking spots located at the backsides of the homes.
- Beverwaard’s qualities are the greenery and the social cohesion among some parts of the population.
- Problems are mainly the poverty and the subjective safety numbers.
- There are a lot of nice initiatives in the district, for instance the dog field; a grass field has been specifically transformed into a field where one can walk ones dog. People meet each other here, which can lead to social cohesion.

Anthonie Mullié
Programmamanager Beverwaard at Woonbron (a housing association)
18/02/2015

Summary:
- Woonstad Rotterdam owns 800 houses in Beverwaard, Woonbron owns 1925 houses.
- Mullié is program manager Beverwaard at Woonbron; his main concerns are investments and maintenance.
- Beverwaard is often portrayed as a disadvantaged district, however, the housing is relatively good.
- In building blocks, often the higher and lower incomes are mixed, due to the mixing of larger and smaller houses. Mullié thinks this is a good thing; it causes mutual understanding.
- Woonbron and Mullié specifically try to create stable environments to place the right people together. This generates social cohesion.
- Beverwaard has the “Bijlmer-syndrome”; Beverwaard was finished as a whole almost instantly. This meant that a lot of houses were for sale at once (5000 houses actually). There was not a demand for all of these houses at once, causing a lot of the housing to go to housing associations (1000 houses at once) and into the rental sector. This meant that a lot of people went to live in Beverwaard who did not plan to live there.
- Image is dynamic, but it arises from concrete interactions. Woonbron tries to cooperate with other actors to change the negative image of Beverwaard.
- 40% of the people in Beverwaard has lived there since the start. This means there is a very large, stable group of people.
- There are too many parking spaces; the amount was calculated in the 1970’s.
- The district is too much spatially determinist.
1.2 Interviews
Summary of the interviews with people on the street

**Oud-Overschie**
Meaning and physical environment perfectly overlap; a lot of people qualify the whole of Oud-Overschie as “their neighborhood”, which is accentuated by the spatial characteristics of that neighborhood. People attribute meaning associated with a parochial realm to a certain part of the environment; that environment in this way is created as such. Physical environment and the meaning attributed to it by people are in a constant dialogue. This dialogue seems to be relatively stable and coherent in Oud-Overschie, which leads to clear rules about behavior. It is spatially clear – or readable – what part of the environment belongs to whom, and people also seem to acknowledge or recognize this.

This is important, because it can facilitate certain desirable types of behavior. As we have seen in the theoretical framework, when a territory is readable for residents, visitors and passers-by, conflict can be avoided and a feeling of responsibility for the environment can be enhanced. For visitors and passers-by, it is clear that they enter a parochial realm, and that they are a guest; they have to adjust their behavior. For residents, the fact that they for a large part designate the same area as their neighborhood, and almost all say that they at least know each other’s faces there – if not their names – means that it is easy for them to feel publicly at home there (see theoretical framework, especially Duyvendak (2011). The fact that they feel at home and at least vaguely know each other, facilitates collective efficacy. This is exemplified once more by the maintenance of the plantation at a small square in the heart of the neighborhood. This in turn can also evoke feelings of place-attachment and pride to live in such a neighborhood.

**Beverwaard**
People do not attribute much “real” meaning to their physical environment. While often the designers have tried to spatially articulate various parochial realms – for instance by accentuate boundaries – they are hardly experienced as such. People hardly have an idea how to draw their neighborhoods, let alone that the drawings of various people look similar or their experiences of neighborhoods overlap. One of the main things people mentioned is that they only experience their own private house as a place where they feel at home; they do not often seem to feel publicly at home in Beverwaard. These findings confirm the statistics we have seen from the Beverwaard (see the Wijkprofiel 2014 (Gemeente Rotterdam 2014).

The fact that people do not experience a parochial realm as such does not immediately cause problems; people can feel at home in their private houses and in fact, the people in Beverwaard seem to be quite happy with their homes according to the respondents. Publicly feeling at home, as Duyvendak (2011) describes, can be important and definitely contributes to, but is not a prerequisite for livability. However, it can cause unpleasant conflicts. For example, if a seemingly collective backside of an open building block is publicly accessible and not “read” by visitors – for instance playing children – as a collective space, the resident who lives adjacently and is quietly enjoying the sun on his balcony might experience nuisance from the
sound of the playing children. If space was considered collective, and only children that live adjacent would play there, the resident would know the children and ask them to go play somewhere else for instance. The conflict is then resolved more easily. When he does not know them however, it is harder for him to tell them to be quiet or go somewhere else. Next to the problem of readability of the territory for visitors and passers-by there is the problem of attributed meaning to a space for the residents itself. If residents do not attribute meaning to a space, they will hardly feel responsible for it.

Most mentioned problems / nuisances:
- Youth nuisance
- Litter
- People do not use or maintain their front yards
- General feeling of unsafety
- Not knowing the people and the neighborhood

Most mentioned qualities:
- Nice home
- Green
- The social cohesion (depending on where you go)

Overschie (Becramming & Cannemanstraat)

Houses have been built in the 1950’s. Many of the residents have lived at Becramming for large parts of their lives; many of them therefore know each other well. The housing is in the rental sector, allowing people with an “AOW” or a “uitkering” to live there. Many elderly people live there. Over recent years however, foreigners have moved in as well, causing some elderly people to retreat into their private sphere.

In the Cannemanstraat consists of owner-occupied housing. They target young families with small children. The communal space is used to play, and people leave their toys in the collective garden for anyone to use.

Fences have been placed to fight burglary, which was very frequent at the time. They have been placed about 10 years ago. The placement of fences have been accompanied by the placement of hedges to create private gardens. Many people in Becramming like the hedges, as it enables them to be in their private sphere instead of the collective space. This does however lead to retreat in general, and not much commonality. In the Cannemanstraat, where the hedges are lower and more opened up to the collective garden, they form a sort of a hybrid zone between the home and the collective space.
1.3 Neighborhood maps

Neighborhood maps from some of the people interviewed; Overschie
1.3 Neighborhood maps

Neighborhood maps from some of the people interviewed; Beverwaard
2. Observation

Summary of the observations

The data gathered from observation has been used throughout this graduation project, although often not explicitly formulated. The findings described here are only the very general findings from the observations.

Overschie

Dates of observation (on various hours during the day)
27/09/2014
15/10/2014
13/11/2014
18/11/2014
19/11/2014
15/01/2015
17/03/2015

Findings:
- Quite a mixed district (many ethnicities, from observation)
- Quite separated from the rest of Rotterdam; an outskirt of the city
- Hard boundaries; roads and water, but also inside Overschie a strong division between East and West, separated by a highway (A13)
- Many different housing typologies; gallery apartments, “portiekwoningen”, row housing and detached housing
- Also, older and newer parts in terms of building age
- A lot of appropriation (benches, planters etc.) of streets in the older parts of the district

Beverwaard

Dates of observation (on various hours during the day)
20/11/2014
06/12/2014
23/12/2014
11/02/2014 (with Harm de Oude)
23/02/2015
11/03/2015
17/03/2015
10/04/2015
15/04/2015
22/04/2015

Findings:
- Quite a mixed district (many ethnicities, from observation)
- Quite separated from the rest of Rotterdam; an outskirt of the city
- Hard boundaries; dikes, nature (around the highway A16) and the busy Beverwaardseweg, from which Beverwaard is mainly accessed.
- A lot of people coming home by car; mainly parking at the front sides of the house
- Quite a lot of people outside: walking the dog or jogging
- Some kids playing in the streets and on the squares
- Many kids playing football on the field at the Houdringeweg
- There is one central shopping area, in the middle of the district
Many streets are long, straight lines; same goes for the “singels”; North – South axis is more dominant than the East – West axis.
3.1 Workshop 1
Preparations for the workshop with residents

The workshop took place in Wijkgebouw De Focus in Beverwaard. I planned to do a few things with the residents. First, I would briefly introduce the topic of my research and the idea for this workshop. Then, I printed a 3D model of two neighborhoods of Beverwaard on an A0 paper; residents were expected to put post-its with annoyances, problems, chances and qualities on specific locations on the model.

Next, the residents were expected to judge the patterns. The patterns that have been used during this workshop were translated into Dutch, and had been made “more concrete” and more easy to grasp for laymen. When the judging was done, a discussion on some of the patterns would follow.

Finally, the aim was to make a design for certain locations in Beverwaard, using the design patterns. When finished, the results would be discussed, with the aim of coming to solutions that everyone could agree on.

The schedule for the workshop was as follows:
15:00 – 15:15: Introduction
15:15 – 15:30: Drawing neighborhood + qualities and annoyances post-it’s
15:30 – 15:45: Break and explanation rating patterns
15:45 – 16:10: Rating patterns and discussion
16:10 – 17:00: Design with the patterns and discussion
17:00 – 17:10: Which patterns do we miss? (Creating new ones)
3.2 Workshop 2
The role descriptions

Karlijn: Jolanda – zwangere asociale PVV-stemmer met 5 kinderen en een uitkering
Zij woont al 15 jaar in Beverwaard, en heeft het de buurt de afgelopen jaren zien veranderen. Steeds meer “culturen” zijn de wijk in gekomen, en dit heeft niet tot verbetering geleid; eerder verslechtering. Ruimtelijk wil ze vooral een veille plek voor haar “engeltjes” om te kunnen voetballen. Vuil wordt gewoon op straat gegooid, en als iemand haar op iets aanspreekt kunnen ze een grote bek verwachten.

Arjan: Bas – Oudere CDA-stemmer die vond dat het gezin de hoeksteen van de samenleving is
Meerdere culturen in een wijk is geen probleem, zolang we het maar met elkaar kunnen oplossen en er goede sturing is vanuit lokale instituties. Het gezin, de school en verenigingen spelen hier een belangrijke rol bij. Ontmoeting tussen verschillende soorten mensen is de sleutel tot een meer leefbare wijk.

Tjerk: Henk – PVV’er in hart en nieren; stemde vroeger fanatiek op Pim (“hij zei wat wij dachten”)
Henk is alleenstaand en ergert zich aan de achteruitgang van de wijk, waar hij al sinds het begin woont. Vroeger was het nog gezellig, met allemaal “echte” Nederlanders. Nu, met al die andere nationaliteiten, wordt er veel gehangen op straat door jongeren, is er veel overstel, zwervervuil en criminaliteit. Dit moet volgens Henk veel harder aangepakt worden.

Bram: Meneer Rosa – Antilliaanse man van rond de 40 die voetbaltraining geeft
Meneer Rosa is een actieve donkere man, die zich inzet voor de wijk. Hij probeert verschillende culturen bij elkaar te brengen door activiteiten te organiseren. Ook zorgt hij dat (probleem)jongeren hard maar rechtvaardig worden aangepakt, bijvoorbeeld tijdens de voetbaltraining. Hij heeft veel contacten in de wijk, en staat voor een wijk met een open karakter waar iedereen elkaar met respect behandeld.

Bart: Big L – donkere rapper met 3 auto’s (“They see me rollin’
Big L is een rapper van een jaar of 40 die het nooit écht gemaakt heeft. Wel heeft hij vroeger aan een van zijn “underground” hitjes genoeg geld verdiend om in één keer 3 auto’s te kopen. Nu het geld niet meer binnenstroomt, doet hij zijn boodschappen verderop bij de Lidl buiten Beverwaard. Zijn auto’s zijn zijn belangrijkste bezit; hij rijdt regelmatig door de wijk om zijn waggies te showen en hij wil voor de deur kunnen parkeren. Hier ontsteelt hij een gevoel van status aan.

Floris: Mo – een jonge Marrokaan van een jaar of 18 die graag “hangt”
Mo wil graag beschutte plekjes waar hij rustig jointjes kan roken met zijn matties zonder al te veel overlast te veroorzaken. “Ik zoek geen problemen, problemen zoeken mij,” is een van zijn befaamde uitspraken. Wel rijdt hij wel eens te hard met zijn scooter, waarbij hij laatst een kindje heeft aangereden. Hier heeft hij spijt van.
Mel: **Angelo – drugsdealer (“Lay low for a while”)**
Angelo woont nog niet zo lang in de wijk, maar zijn wietplanten staan al volop in bloei. Ook de coke die hij zo nu en dan doorverkoopt legt hem geen windeieren. Wat wel een probleem is, is dat veel buren weten dat hij dealt; dit zorgt voor onrust in de buurt. Hij wil zich nu zoveel mogelijk gedeisd houden, en trekt zich het liefste terug in de privé-sfeer.

**Note:** Mel was er uiteindelijk niet, maar zijn rol heeft wel invloed gehad.
3.3 Results
The results from the workshop
**Patroon #...**

**Titel:** Meer & Schuttingen en Beggen

**Stelling:**

Dan krijg je meer privacy op straat

**Toelichting:**

Veel eigen plekjes

**Ruinatie gevolgen:**

Mo en

**Afbeelding:**

Eeuw. d.W.V. parkeren

Nekken naar de achterkant.
3.3 Results
The results from the workshop
Titel: *patroon #* met de echte woonkamer + garage voor mijn auto

Stelling:

Toelichting: \*veilig schutting + goede testpunten metlek \*galnidsinstallatie en waardevolle uitbreiding van de straat

Ruimtelijke gevoegen:

Afbeelding:
3.3 Results
The results from the workshop

Figure 8.1: The results of a session of judging of patterns in a student workshop (Author 2015)
4. Design
Sketchy impressions

Impression hofje, readability scenario

Impression neighborhood square, readability scenario; image based on Google Maps (2015)

Impression hofje, enclosure scenario

Impression neighborhood square, enclosure scenario; image based on Google Maps (2015)
Impression Beverwaardseweg, enclosure scenario

Impression Neubourgstraat, enclosure scenario; image based on Google Maps (2015)