URBAN ACUPUNCTURE
Creating a method to strategically apply and design small scale interventions

Colophon

Urban acupuncture
Creating a method to strategically apply and design small scale interventions
MSc thesis

Nora Prins
noraprins@hotmail.com
Student ID 4109384

Keywords: Urban acupuncture, small scale interventions, public space, participation, Bergpolder, urban regeneration

Mentor team
dr. ir. P.L.M. Stouten - Chair of Spatial Planning & Strategy, department of Urbanism
ir. M.G.A.D. Harteveld - Chair of Urban Design, department of Urbanism
drs. P.W. Koppels - External committee member

Faculty of Architecture, Delft University of Technology
MSc Architecture, Urbanism and Building Sciences
MSc track Urbanism, Graduation studio Urban Regeneration

This thesis is downloadable for free from the TU Delft library website:
http://www.library.tudelft.nl/collecties/tu-delft-repository/

Delft, June 2013
This document contains the final thesis of my graduation project at the Urban Regeneration studio. This graduation project is part of the master track of Urbanism at the faculty of Architecture at Delft University of Technology. This thesis consist of a research and design project titled; “URBAN ACUPUNCTURE, Creating a method to strategically apply and design small scale interventions”. Since the economic crisis it has become more inconvenient to create large scale transformations for whole neighbourhoods, so the demand for small scale interventions is increasing. This research investigated how small scale interventions in public space can contribute to the regeneration of the deprived neighbourhood Bergpolder in Rotterdam.

This thesis is the conclusion of my Master Studies and the document contains methodological, theoretical, analytical and design sections. The problem statement and research questions will be elaborated in the first chapter. In addition to that, the theoretical framework is developed as an underpinning of the graduation project. It gives the theoretical background of urban regeneration, urban acupuncture & public space and participation. The project location chapter provides an overview of the location and the analysis which is carried out. The design chapter describes the urban design for Bergpolder. It shows the design through several scales, beginning with the neighbourhood vision which leads towards the small scale design interventions. And finally the conclusions that can be drawn from the theory and from the design will be described.

Due to the support of both my mentors dr. ir. Paul Stouten and Ir. Maurice Harteveld, I was able to establish this report. I want to thank them for their support and guidance during my graduation process.

Nora Prins
Delft, June 2013
# CONTENTS

| ABSTRACT ................................................ | 5 |
| 1. RESEARCH STRUCTURE .................................. |
| 1.1 Motivation ........................................ | 8 |
| 1.2 Problem statement .................................. | 9 |
| 1.3 Research questions .................................. | 13 |
| 1.4 Relevance ........................................... | 14 |
| 1.5 Location choice ..................................... | 15 |
| 1.6 Aim ................................................... | 18 |
| 1.7 Methodology ......................................... | 19 |
| 1.8 Involved disciplines .................................. | 22 |
| 2. THEORETICAL FRAMEWORK ............................... |
| 2.1 Urban regeneration & strategies .................. | 24 |
| 2.2 Urban acupuncture & pocket parks .................. | 29 |
| 2.3 Participation ........................................ | 36 |
| 2.4 Conclusions .......................................... | 41 |
| 3. PROJECT LOCATION ...................................... |
| 3.1 Bergpolder ............................................ | 44 |
| 3.2 History ............................................... | 45 |
| 3.3 Prize neighbourhood .................................. | 46 |
| 3.4 Physical environment ............................... | 50 |
| 3.5 Development .......................................... | 71 |
| 3.6 Participation ........................................ | 74 |
| 3.7 Interviews ............................................ | 75 |
| 3.8 Residential environment ......................... | 77 |
| 3.9 Lifestyles ............................................ | 79 |
| 3.10 Pocket park sites ................................... | 81 |
| 3.11 Conclusions ......................................... | 83 |
| 4. DESIGN ................................................. |
| 4.1 Solving problems and potentials .................. | 86 |
| 4.2 Neighbourhood vision .............................. | 89 |
| 4.3 Interventions ....................................... | 93 |
| 4.4 Residential street ................................... | 95 |
| 4.5 Neighbourhood street ................................ | 101 |
| 4.6 Pocket park .......................................... | 107 |
| 5. CONCLUSIONS .......................................... |
| 5.1 Conclusions ......................................... | 114 |
| 5.2 Recommendations .................................... | 117 |
| 5.3 Reflection ............................................ | 118 |
| LIST OF REFERENCES ...................................... | 119 |
| APPENDIX 1: INTERVIEWS .................................. | 123 |
| APPENDIX 2: REVIEW PAPER .............................. | 133 |
ABSTRACT

Due to the economic crisis, growth orientated urban planning in the Netherlands has come to a standstill and we need to consider other types of planning processes with a different emphasis (Kompier, 2009, p.441). It has become increasingly difficult to create large scale transformations for complete neighbourhood and hence the demand for small scale interventions is increasing.

Small scale interventions can activate potentials and the smallest effort on a critical point can be used to get the maximum results which is called urban acupuncture (Shidan and Qian, 2011). The small scale interventions of urban acupuncture are mostly applied in public spaces. The majority of the public space is regenerated by the municipality which occasionally causes a mismatch between the needs of the residents and effective implementations. To ensure that the implementation will actually meet the needs of the residents, the integration and understanding of the society is one of the key principles in seeking the correct intervention. If successful this will become a catalyst for a positive bottom up effect directed by society (Parsons, 2007). Participation is an interesting tool to create support and engagement among its users.

The most successful small public spaces are the ones that are responsive to the needs of their users.

The case study for this research project is Bergpolder. This pre-war residential neighbourhood is located in the north of Rotterdam and is one of the forty deprived neighbourhoods in the Netherlands. Due to the urban pre-war structure and the wishes of the residents to preserve Bergpolder in its current shape, it is important to transform Bergpolder without changing the existing spatial identity.

The research has been guided by the following hypothesis: How can small scale spatial interventions in public space, by means of citizen participation, strategically contribute to regenerate a deprived neighbourhood in the Netherlands?

To be able to answer this question, several sub-questions were formulated and answered during the research. These questions will be answered in the conclusions at the end of the report.

- How can small scale interventions complement city scale top-down strategies?
- What kind of spatial and functional criteria can be analysed to create strategic small scale interventions and urban acupuncture?
- At what stage and to what extent can residents be involved in the design of a small scale intervention? And what is the role of the urban designer in this process?

These questions are answered in line with several research methods. First a literature review was carried out to ascertain which criteria for small scale interventions in public space can be used with the objective of creating maximum effects of urban acupuncture in deprived neighbourhoods in the Netherlands. This initial research established three main criteria which were applied to the design interventions for Bergpolder. The next step was the analysis of Bergpolder in terms of its physical and social aspects and interviews with different stakeholders. Resulting from the literature review and the analysis a detailed design was drawn up for Bergpolder in which changes were applied to the public space by means of citizen participation.

The answers to the sub research questions were taken into account for the neighbourhood vision and the detailed design interventions in order to create interventions which are convenient for this specific
location. The design interventions answered the main research question of this study. For each location, the target group, lifestyle, residential environment, participants and the role of the municipality are used as guidelines in order to determine the process of citizen involvement and the type of intervention. But also the site itself contributes a great deal to the nature of the intervention. For successful urban regeneration it is important to transform the physical environment of residential areas while the existing spatial identity will be maintained or even strengthened (Bijlsma et al., 2008). Therefore the implementation of small scale interventions took into account the preservation of the existing urban identity.

The aim of the project was to search for an innovative method for the regeneration of public space by strategically applied and designed small scale interventions. A detailed design was drawn up for three places in Bergpolder. These places differ from each other in many ways such as target group, lifestyle, citizen involvement and objective. This means that the design principles used for the four locations are also transferable to places within other neighbourhoods with the same characteristics of Bergpolder. However, as mentioned before, every location and site asks for a tailor made approach. Every design location is unique and has to deal with the specific needs of local resident groups and spatial identity which may differ from location to location.

The problem statement showed that many former urban renewal projects did not justify the spatial potentials of existing neighbourhoods. Therefore the design principles of the spatial interventions consist of qualitative requirements in which the participants can arrange these public spaces the way they wish to. These qualitative requirements consist mainly of transition zones and places for self-organisation and participation. The quantitative requirements are set by the government and are valid for the remaining public space.

The ideas and outcomes of this research can be used as a generic strategic approach to apply small scale interventions as the study has shown that green spaces can contribute to the identity of a neighbourhood. This enables residents to engage with their living environment which leads to involvement and care for their neighbourhood. The process of participation and spatial interventions can increase the quality of the residential environment in a neighbourhood.

This research aims to solve some generic problems which occur in the current urban planning system. The small scale interventions in public space anticipate a decreasing need for large scale transformations. The small scale interventions also take care of maintaining or even strengthening the existing spatial identity which was omitted from many former urban renewal projects. By means of reuse and redevelopment on the smallest scale of the building block, the existing spatial identity is preserved by setting qualitative requirements rather than quantitative demands. Within the process of intervening on a small scale, the residents are involved in order to create greater engagement and commitment among its users. Neighbourhoods can be transformed along the requirements of its users and therefore it will represent the exact needs from society itself. Not only the municipality and developers but especially residents can play a large role in the transformation of their residential environment.
This first chapter discusses the motivation and problem statement of the graduation project. It also provides indications for further research. The research methodology used will also be explained.
1.1 MOTIVATION

Dealing with the regeneration of existing urban areas is one of the biggest challenges facing urban planners all over the world. Urban planners and city developers are highly depended on the construction initiatives of commercial investors. Due to the economic crisis, the growth orientated urban planning in the Netherlands has come to a standstill and we need to consider other types of planning processes with a different emphasis (Kompier, 2009). It is becoming more difficult to create new projects, so we need to take the current building environment into account. Due to this shift in the planning process, the economic crisis is considered to be a huge opportunity for new kinds of developments. The planned top down renewal in the Netherlands leaves out many small, pragmatic and community-orientated initiatives already in the first instance. Therefore we need to empower local residents and let go let go of what does not necessarily have to be regulated, stimulating rather than discouraging private initiatives and aimed at the development of the city would be a good first step (Kompier, 2009).

Another motivation for this study was the Urbanism Week 2012 which was organized by Polis. I was part of the Urbanism Week 2012 committee, of which the theme was ‘Second hand cities; rethinking practice in times of standstill’. It shows that the theme is on the agenda and a lot of people have an opinion about it. The purpose of this week was to get a better understanding of the situation that has crippled the world of urbanism & architecture, and by doing so, learn new ways of approaching urban issues that are more suitable to the socio-economic changes the world is currently experiencing. During the Urbanism week, we invited interesting speakers such as John Habraken, Joan Busquets and Henk Ovink to speak about their understandings of second hand cities.
INTRODUCTION

The urban environment is constantly changing. By 2050, we will reach a worldwide population of 9.15 billion of which 70% will be living in cities (Parsons, 2007). With the increase in population, cities are expanding, but the shift in population may also cause cities to shrink. In both cases, the change in population using the city will have an effect on the urban fabric (Parsons, 2007).

Since the economic crisis it has become more difficult to create large scale transformations for complete neighbourhoods, so the demand for small scale interventions is increasing. Many western scholars such as Jane Jacobs, Christopher Alexander and Lewis Mumford already reconsidered the urban restructuring in the 1960s, which took the large-scale transformation as the main form (Shidan and Qian, 2011).

There is also an increasing need for participatory planning as the emphasis within urban planning is more and more on social sustainable livability. Sustainable livability focuses on the livability aspects which are permanently important to current inhabitants as well as next generations (Dorst, 2005). The complexity of cities appears in many scales and levels of planning which makes the number and diversity of actors increasing (Rasmussen, 2012).

The question is how these small scale interventions can have large effects to regenerate areas and how the projects can comply with the requirements of the inhabitants and users of the area. Small scale interventions can activate potentials, the smallest effort on a critical point can be used to get the maximum results which is called urban acupuncture (Shidan and Qian, 2011).

The small scale interventions of urban acupuncture are mostly applied in the public space. The majority of the public space is regenerated by the municipality which occasionally causes a mismatch between the requirements of the inhabitants and effective implementations. To ensure that the implementation will actually meet the requirements of the inhabitants, the integration and understanding of the society is one of the key principles in seeking the correct intervention. If successful, then this will become a catalyst for a positive bottom up effect directed by society (Parsons, 2007). An important matter is how the public space can be regenerated with the participation of current and future users.

Places where an exchange between different social groups is possible and also occurs are called public domain (Hajer et al., 2001). Therefore it is inevitable

1.2 PROBLEM STATEMENT
that the process of urban acupuncture has to deal with the needs and participation of those groups. Participation is an interesting tool to create support and engagement among the users, but what will be the process of participation within a project of small scale interventions? And which parties do have a stake in such a project?

There are already multiple examples of small scale interventions which aim to intensify and improve public space. One of the first projects is New York’s portable parks project; ‘This involves turning vacant lots into children’s play areas with specially designed equipment that can be modified or moved as the growth needs of children and the neighbourhoods change’ (Weaver, 1969, p.28).

There is a large contrast between different types of small scale projects and their impact and problem solving ability. A really small intervention can have for instance the intention to contribute to a better living quality for the people who are living next to it, for example a small neighbourhood park. But a small scale intervention can also have a much wider scope, for instance a temporary restaurant or pop-up store. Some small scale interventions have a distinct aesthetic value, such as a piece of art in public space, while others contribute to the creation of public domain. The question is how to deal with the participation of these different small scale interventions as a designer, because they all have a different scope, aim and target group.

Urban regeneration needs to respond to these changing contexts of economic concentrations in cities and new population groups within the current urban population (Stouten, 2010).

Roberts has defined urban regeneration as: ‘Comprehensive and integrated vision and action which leads to the resolution of urban problems and which seeks to bring about a lasting improvement

Figure 5: Research themes (Author)
in the economic, physical, social and environmental condition of an area that has been subject to change’ (Roberts, 2005, p.17). Carter (2005), states that successful urban regeneration requires a strategically designed, locally based, approach. It is necessary to design and plan in a strategic way in order to receive long-term successes. Urban acupuncture is known as a contemporary strategy of urban regeneration; it implements small scale interventions in such a way that it takes into account the long term goals and the requirements of the area.

Many former urban renewal projects did not justify the spatial potentials of existing neighbourhoods. The urban renewal projects are often judged on the dwelling quantity rather than the quality of the residential environment, little attention is paid to the urban and spatial coherence which is anchored in the existing structures (Bijlsma et al., 2008). The aim of urban renewal was to improve the living conditions and to provide good-quality housing rather than improving the residential environment (Stouten, 2010). In practice, many different neighbourhoods and cities received the same standard solutions in which the local urban qualities and physical potentials of the neighbourhoods are often neglected. Therefore the physical environment of residential areas should be transformed while the existing spatial identity will be maintained or even strengthened.

The current urban regeneration tasks are dominated by several governmental policies (Bijlsma et al., 2008):
- The first goal is the economical use of space, the existing built-up area will be utilized more carefully.
- Secondly, it is important to adapt the type of dwellings and the residential environment to the preferences of the current residents.
- At last, the objectives of urban regeneration in the Netherlands are leading. One of the latest initiatives of this is the action plan of the prize neighbourhoods (krachtwijken) from the minister of Housing, Neighbourhoods and Integration in 2007. Meanwhile, this action plan is extended to more than these forty neighbourhoods which are called the 40+ neighbourhoods.

This area based action plan for the forty most deprived neighbourhood in the Netherlands, states several social, physical and economic objectives. The neighbourhood of Bergpolder is located in the North of Rotterdam. Bergpolder is one of those forty deprived neighbourhoods in the Netherlands. The area has a great deal of potential and opportunities but also a number of problems which are set out in the section about the location. The neighbourhood was built in the 1930’s and is compact. It is also part of the protected city scape of Bergpolder Blijdorp, and therefore it is quite hard to carry out large scale interventions in the area. Because of its history and pre-war structure, it is important to transform this neighbourhood with the preservation of the existing urban identity as stated by Bijlsma et al (2008).

All these factors make this pre-war housing area a convenient location for an analysis and a design based on urban acupuncture and small scale interventions. The neighbourhood houses several different groups who have an interest in the area, so it will become an interesting field of stakeholders and requirements.
Figure 6: Existing urban structure Bergpolder (Author)
1.3 RESEARCH QUESTIONS

The main research question which need to be answered is:

How can small scale spatial interventions in public space, by means of citizen participation, strategically contribute to regenerate a deprived neighbourhood in the Netherlands?

In order to answer this question, a set of sub-research questions should be answered separately.

1. How can small scale interventions complement city scale top-down strategies?
Small scale interventions arise through bottom-up initiatives, but there is always a top-down strategy for an area. So what can be the value of bottom-up initiatives? According to Carter (2005), one of the basic principles of strategic planning is to provide a bridge between ‘top-down’ and ‘bottom-up’ approaches.

2. What kind of spatial and functional criteria can be analysed to create strategic small scale interventions and urban acupuncture?
Shidan (2011) states that successful “Urban acupuncture” strategies depend on two basic conditions, namely the choice of the location and the quality of the urban catalyst or intervention. Which other criteria can contribute to the success of a small scale intervention?

3. At what stage and to what extent can participants be involved in the design of a small scale intervention? And what is the role of the urban designer in this process?
It is quite evident that bottom-up initiatives result from participation, but what will be the process of participation within a project? Which parties do have interest in such a project and what will be the role of the urban designer?
1.4 RELEVANCE

Societal relevance
Public space and domain is essential for today’s Western society; places were an exchange between different social groups is possible and also occurs are called public domain (Hajer et al., 2001, p.11). Public domain is not only used to refer to the physical places in the city. Philosophers such as Hannah Arendt and Jürgen Habermas have written about public sphere as the place where society is formed (Hajer et al., 2001, p.12). Literature by Sharon Zukin, Rob Shield and Kevin Hetherington underlines the importance of places were physical meetings occur in public sphere (Hajer et al., 2001, p.12). Globalization, email, internet and other contemporary ways of communication suggest that there is no need for the city as a meeting place any more, but the opposite is demonstrated (Gehl, 2003). Right now in this modern and electronic society, it is needed to create meeting places as good public spaces increase the quality of life and the social cohesion of the inhabitants of an area. Society demands better public environments and this project intends to offer different alternatives for planning and regeneration of public space in order to improve the quality of the residential environment. This is the degree in which the environment contributes to the well-being of its inhabitants.

Academic relevance
This research project will contribute to an academic debate about urban planning and the quality of public space. Due to the shift in population and the economic crisis, it is necessary to consider other kinds of planning processes for future developments. The aim of the project is to create a strategy which can be applied to small scale interventions in public space in order to regenerate a deprived neighbourhood in the Netherlands. This strategy might be applied to similar areas and neighbourhoods as Bergpolder in Rotterdam. The project will also contribute to the academic field because it will be a general approach towards public spaces and its quality. Therefore some elements of the results will be transferable and it will contribute to the academic field because of the innovative approach towards public spaces and citizen involvement. Another important aspect is the role of the urban designer in the future. How is the perspective of the urban designer changing in the coming years as the residents are taking more control of their residential environments?
1.5 LOCATION CHOICE

In 2007, the minister of Housing, Neighbourhoods and Integration, selected the 40 most deprived neighbourhoods in the Netherlands. These neighbourhoods received extra funding to be able to make drastic improvements to the neighbourhood. The areas are designated as prize neighbourhoods (prachtwijken) or empowerment areas (krachtwijken) to give them a more positive appearance. The neighbourhoods are located in 18 different municipalities and are based on several criteria. All these prize neighbourhoods have urban qualities which can be used in possible restructuring plans in order to improve the living environments, stimulating economic activities and activating public spaces (Lörzing et al., 2008). There are differences between pre- and post war neighbourhoods; In post war areas, the green structure is more valuable while pre war areas have monumental and iconic buildings which can be used for the recognition of these areas. Pre- war areas exist of mostly denser urban structures compared to the post-war areas with wide streets and large green spaces (Lörzing et al., 2008). The regeneration of deprived pre-war neighbourhoods needs a more careful program to preserve the characteristics of these areas. That is why the small scale interventions of urban acupuncture can contribute to this preservation in a strategic way. Therefore one of the selection criteria of the case study is that it has to be a deprived pre-war area.

Some deprived neighbourhoods derive potentials because of the location with respect to the urban area (Lörzing et al., 2008). The location of a deprived area close to the city centre can lead to certain positive extensions towards the neighbourhood, the area can actually benefit from its location close to the centre (Lörzing et al., 2008). Also the location of the area pertaining to infrastructure and public transport is important, therefore the case study must be located within the ring road of Rotterdam. The criteria for the selection of the area are; a pre-war area, close to the city center and within the ring road of Rotterdam. If these three criteria are tested on the seven deprived neighbourhoods in Rotterdam, three of them are applicable to the case study, namely Rotterdam Noord, Rotterdam West and Bergpolder. The outcome monitor area based approach (2012b) shows the gradient of the 40 deprived areas in the Netherlands over the last five years. This outcome monitor also gives an indication of which of the three selected areas will have the greatest potential for my research.
Oude Noorden:
The area based approach in case of the Oude Noorden focuses on the improvement of the shopping area, the redevelopment of the Rotte area and to make some areas more childproof/friendly. Another key issue is to get more people into the labour market and to focus on the development of local talent and skills.

Bergpolder:
In Bergpolder, the key themes are safety, livability and the residential environment. To increase the livability, a noise barrier will be placed next to the A20. The area wants to attract people with higher incomes and in order to do so there is a need for larger dwellings. There are already several initiatives from the inhabitants of Bergpolder, including the maintenance of front gardens.

Oude Westen:
Youth receives extra attention in this neighbourhood. An important icon in this area is a Thai boxing school which reaches young people with behavioural problems. The area needs to become attractive to the current and future inhabitants and entrepreneurs. A new platform within the Oude Westen is created which stimulated current and new entrepreneurship in the neighbourhood.

Bergpolder has been selected as the case study for this graduation project because of the focus of the area within the area based approach and the existence of neighbourhood participation which corresponds to my research. This shows that there is already support in terms of citizen participation which can be further expanded. The location is also a decisive factor because it is closely located to the city centre and the ring road of Rotterdam. As mentioned before, the neighbourhood is densely built, and therefore a suitable location for a project on urban acupuncture and small scale interventions.
Bergpolder

Bergpolder is located to the north of Rotterdam and is part of the sub-municipality Rotterdam Noord. The area is enclosed by Blijdorp and Liskwartier, two popular living neighbourhoods in Rotterdam. The central station of Rotterdam is within a 10 minute walking distance. The neighbourhood is situated on the south side of the highway which means that the area is easily accessible by car. The area is intersected by the Schieweg, which is one of the city boulevards which connects the city centre to the highway. On the east side of the neighbourhood the former railway the Hofpleinlijn is located. It is an elevated railway which does not serve as a railway anymore.

Figure 8: Bergpolder in Rotterdam (Author)
1.6 AIM

The main aim of the project is to search for an innovative method for the regeneration of public space by strategically applied and designed small scale interventions. The idea is that this method can be applied to similar areas and neighbourhoods such as Bergpolder in Rotterdam. Every location and site asks for a tailor made approach but the general ideas and outcomes of this research can be used as a strategy. The project will give more insight into bottom up projects with the help of citizen participation. This graduation project can therefore contribute to a better residential environment in pre-war high density neighbourhoods in the Netherlands.

Another goal is to create an actual design proposal for a specific location in Rotterdam Bergpolder. The aim of the design part is to create a spatial design solution for small scale interventions in Bergpolder to the north of Rotterdam and define general recommendations and criteria for other similar neighbourhoods.
1.7 METHODOLOGY

The tools which are used for answering the (sub) research questions are described in this chapter. The project can be seen as ‘Research driven design’ which means that the research and the design proposal are of equal importance.

**Literature review**
A theoretical framework is necessary as an underpinning for the graduation project. Books, journals, websites and articles are reviewed during the project. During the literature review, I discovered which criteria for small scale interventions in public space can be used with the objective of creating maximum effects of urban acupuncture in deprived neighbourhoods in the Netherlands. This first part of the literature review is part of the course ‘Urban Theory’ which resulted in a review paper. This review paper can be found in the appendix. The literature also addressed the theoretical background for the other sub-research questions, such as: What is the definition/understanding of small scale interventions? The literature is also used to investigate the process of participation; at what stage and to what extent can participants be involved in the design of a small scale intervention?

The findings of all the research is an integral part of the final thesis. The choice of the location Bergpolder has also emerged from the literature. Books and documents about deprived neighbourhoods have narrowed down three neighbourhoods in Rotterdam. Bergpolder has been chosen because of the opportunities stated in the outcome monitor (2012) of the area-based approach.

**Neighborhood analysis**
After the selection of the area Bergpolder, a neighbourhood analysis was needed in order to find out the opportunities and problems of the area. The analysis started with the location and history of the site. As stated before, Bergpolder is one of the forty empowerment neighbourhoods in the Netherlands, therefore the development over the last five years is shown from the outcome monitor of the area-based approach 2012. This also shows all the demographic and socio-economic data. In addition, the most important policies and developments with regard to the city of Rotterdam and the sub-municipality where Bergpolder is part of, will be highlighted. Finally, the physical urban structure of the neighbourhood will be shown, this consists of the accessibility, green structure, housing typology and functions.

**Comparative case study**
A comparative case study is, in addition to the literature review, very important to create a method for strategically applying and designing small scale interventions. The derived criteria for small scale interventions in public space can also be tested. After the P2 presentation, a meeting with the pocket park foundation took place. They created multiple pocket parks throughout Amsterdam and they are looking for opportunities to create a set of new pocket parks in Rotterdam. Out of the existing pocket parks and their new plans, criteria could be derived for the development of new pocket parks in Bergpolder. It was also very interesting to find out how they handled the process of participation within the design of the pocket parks. Even their search for new locations inside the city of Amsterdam helped me in the search for a suitable location and catalyst for the design intervention inside Bergpolder.

**Selection of the strategic location**
As a result of the literature review, the neighbourhood analysis and the comparative
What kind of spatial and functional criteria can be analysed to create strategic small scale interventions and Urban Acupuncture?

How can small scale spatial interventions complement city scale top-down strategies?

How can small scale interventions strategically contribute to regenerate a deprived neighborhood in the Netherlands?

At what stage and to what extent can participants be involved in the design of a small scale intervention? And what is the role of the urban designer in this process?
case study, three strategic locations are chosen for the actual design proposal. These locations of the strategic interventions are really important; According to Manuel de Sola Morales, the location of the sensitive point is the first step in the urban acupuncture strategy (Parsons, 2007). It was necessary to gain a well underpinned explanation and reason why this particular location is a good pinpoint for urban acupuncture. What is this location offering or lacking in comparison to other locations?

**Design proposal and intervention**

Due to the criteria which are derived from the literature and the comparative case study, an actual design intervention could take place. The analysis of the locations and the participation of residents gave an insight into the kind of interventions which should take place in these specific locations. The type of catalyst is determined by the purpose, programming, size, shape and the surrounding land use. Therefore the first stage of this design consisted of mapping the location. In this phase, the context analysis of the location will be done with mapping to get an understanding of the present situation, problems and opportunities of that specific location. Together with the physical analysis, the participation process in the neighbourhood took place in order to establish what the needs of the community were. Or as Francis (2003, p.33) stated; ‘Successful public spaces are the ones that are responsive to the needs of their users; are democratic in their accessibility; and are meaningful for the larger community and society’. A spatial design for these three specific locations inside Bergpolder is created with the aim to provide a large impact through small interventions.

**Interviews**

Part of the design proposal was to carry out interviews with stakeholders to establish how they can participate within the design of the actual interventions. In addition, the process of participation is really important in the whole thesis; Who gets involved in the process and which parties do have an interest or want to invest in the project? Several interviews have been carried out to find out the needs and wishes of the inhabitants and the municipality. The residents-association of Bergpolder and the sub-municipality of Rotterdam Noord were interviewed to find out what their focus was and how they wanted Bergpolder to develop in the future. In addition, an interview with the pocket park foundation took place to find out what their aim and starting point is, and how they manage the process of public participation. The information obtained from the interviews, is used in the next phase of the graduation project. The interviews can be found in the appendix.
1.8 INVOLVED DISCIPLINES

Chair of spatial planning and strategy;
Dr. ir. P.L.M. Stouten

My first mentor Paul Stouten is assistant professor in the chair of spatial planning and strategy. It is a core chair at the Faculty of Architecture concerned with knowledge about the formulation, implementation and evaluation of strategic and urban planning tools - visions, strategies, plans and programmes. Paul Stouten’s specialism is urban design related to architecture, urban transition and processes of urban regeneration with dynamics of social, cultural and economical processes and media. This discipline connects to the graduation project because of the urban acupuncture strategy. 'Strategic vision is concerned with creating the framework in which longer-term goals, aims and objectives of individuals, organizations and areas can be realized' (Carter, 2005, p.42).

Chair of urban design;
Ir. M.G.A.D. Harteveld

The Chair of Urban Design focuses on transformations in the existing urban area. The main subject is the design of public space in relation to infrastructure, urban objects and urban greenery. The design moves ‘across the scales’; the design of specific urban projects is concerned with the new position and the significance in the context of the greater whole. Maurice Harteveld’s central themes are interior public space in relation to the outdoor space and the network of public space. The final design of the graduation project is focused on public space and its surroundings and demonstrates a link between this discipline and the graduation project.
THEORETICAL FRAMEWORK

This chapter is the underpinning of the graduation project. It gives the theoretical background of urban regeneration, urban acupuncture & public space and participation.
In the Netherlands, urban renewal and regeneration have undergone several different forms. Before 1970, there were many plans for the demolition of areas particularly adjacent to city centers. In the 1970s, due to protests of residents, a big change occurred and urban renewal for the current inhabitants got more priority, which is called the area based approach. Therefore in the 1990s, the approach of intervening in cities changed into a wider perspective; to the total city and/or region. Urban renewal became part of a more comprehensive form of urban regeneration which became an important method of spatial interventions aimed at providing more lasting solutions (Stouten, 2010).

Roberts has defined urban regeneration as: ‘Comprehensive and integrated vision and action which leads to the resolution of urban problems and which seeks to bring about a lasting improvement in the economic, physical, social and environmental condition of an area that has been subject to change’ (Roberts, 2005, p.17).

After the second world war and the bombardment of Rotterdam, the key issue was the restructuring of the city because of the housing shortage. Between 1950-1965, large amounts of money were invested in the constructions of new extensions on the outskirts of the city (Stouten, 2010). Between the end of the second world war and the end of the 1960s, there was a period of urban restructuring, which was seen as an improvement of the urban structure inside the built-up area with the aim of ensuring the adequate functioning of city centers in respect to expanding settlements (Stouten, 2010). In 1975, a new policy document was presented by the new mayor and city councillors of Rotterdam, in which the new urban renewal strategy was ‘Building for the neighbourhood’ (Stouten, 2010). Building for the neighbourhood means reconsidering the needs and requirements of the population and avoiding forced removal and displacement; ‘The strategy would not be limited to technical and physical improvement of housing and the residential environment but would also pay attention to the process of social development’(Stouten, 2010, p.112). In the 1990s, more differentiated housing was seen as a solution to discourage the threat of spatial segregation. Differentiation of the residential environment became a new objective; ‘Differentiation, sustainability and the designed quality of residential environments were emphasized, in combination with strategic planning as important elements in giving shape to the new framework for urban renewal’ (Stouten, 2010, p.131).

Carter (2005), states that successful urban regeneration requires a strategically designed, locally based approach. But what is actually meant by strategic design or planning? The need for strategic approaches arises from the concerns regarding urban regeneration in general which have been designated as being modest in scale, geographically dispersed, marginal and the most important ad hoc in character without any relationship to urban economic trends (Carter, 2005). Therefore it is necessary to design and plan in a strategic way in order to receive long-term successes. ‘Strategic vision is concerned with creating the framework in which longer-term goals, aims and objectives of individuals, organizations and areas can be realized’ (Carter, 2005, p.42). According to Carter (2005), a strategic plan should emphasize the interdependence of actions, the long-term outcomes and benefits and the overall requirements of an area.
Since the economic crisis it has become more inconvenient to create large scale transformations for whole neighbourhoods, so the demand for small scale interventions is increasing. Therefore urban acupuncture is known as a contemporary strategy of urban regeneration; it implements the small scale interventions in such a way that it takes into account the long term goals and the requirements of the area.

The implementation of small scale interventions takes into account the preservation of the existing urban identity. For successful urban regeneration, it is important to transform the physical environment of residential areas while the existing spatial identity will be maintained or even strengthened. (Bijlsma et al., 2008). Transforming is a collective term for all types of physical changes in a residential area. There are three different types of transformations (Bijlsma et al., 2008): Restructuring is the most radical option in which neighbourhoods, or parts of it, will be demolished and replaced by new residential environments with other kinds of dwellings and lifestyles. Reuse is a less invasive form of physical interventions which includes for example the merging of dwellings, adding new functions in existing buildings or the creation of collective and new public spaces. The least radical adjustment is the redevelopment of public and collective space in a residential area, by adjusting street profiles, planting or street furniture.

But what is actually meant by the spatial identity of a neighbourhood? The existing spatial identity takes place in different scales inside a neighbourhood (Bijlsma et al., 2008):

At the level of the neighbourhood, the identity exists of the infrastructural and green structures, the important monumental buildings and large scale urban areas. At the level of the ensemble, the identity is marked by the building typology within the urban fabric. On the smallest scale, the buildings itself and the surrounding public space are the most important for the spatial identity.

Within interventions on the smallest scale, it is good to involve the residents within this transformation process; As the users of an area, they are in some cases not only stakeholders but also experts (Bijlsma et al., 2008).

A transformation process asks for a collective approach because multiple actors are involved.
and many collective functions such as parking, maintenance, design and financing will be covered. This does not necessarily mean that transformations have to be carried out from top-down; also bottom-up strategies can be fulfilled such as private versus collective commissioning or private versus collective management of the public space (Bijlsma et al., 2008). It is more easy to initiate bottom-up initiatives in case of the buildings or building ensembles than within the scale of the neighbourhood. On this levels, the interventions are smaller in scale which makes it easier to realize a customized intervention.

There are several reasons to start a transformation process in a neighbourhood (Bijlsma et al., 2008);

- The fist reason can be the extent in which the characteristics of the dwellings and the residential environment connect to the demand in a neighbourhood. If this does not correspond, an adjustment in the housing stock needs to be done.
- The second reason can be the livability inside a neighbourhood, if this is inconvenient, a physical transformation is necessary.
- The last reason for transformation is the urban pressure. This refers to the pressure on residential areas close to the city center. This can consist of functions such as retail and facilities which are not exclusively focused on the daily needs of the district population. This pressure is highly dependent on the location of a neighbourhood pertaining to the center of the city. The location of an area close to the city centre can also lead to certain positive extensions towards the neighbourhood, the area can actually benefit from its location close to the centre (Lörzing et al., 2008)
Gentrification

Since the increase of the market-led policies in the 1990's, gentrification became a key issue in urban regeneration. “In the Netherlands, state-led gentrification is viewed by the national government as a successful urban renewal strategy with winners on both sides: higher-income groups acquire the housing they need, while lower-income groups can profit from the economic and social resources that higher-income groups bring to the neighbourhood” (van der Graaf and Veldboer, 2009). But there are also a lot of negative impacts visible. For example, the increased value of property may be positive for new home owners but bad for poor households in the area (Atkinson, 2004).

Table 1 gives an overview of the most common neighbourhood impacts of gentrification. Because of all these negative effects, it is more beneficial to develop an area for its current inhabitants, to give them opportunities to develop themselves within an area. A social mix occurs which is less directed by the government instead of a forced one by gentrification. Hereby less community resentment and conflicts will occur and there will still be affordable housing.

<table>
<thead>
<tr>
<th>Positive</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stabilization of declining areas</td>
<td>Community resentment ans conflict</td>
</tr>
<tr>
<td>Increased property values</td>
<td>Loss of affordable housing</td>
</tr>
<tr>
<td>Reduces vacancy rates</td>
<td>Unsustainable speculative property price increases</td>
</tr>
<tr>
<td>Encouragement of further development</td>
<td>Commercial displacement</td>
</tr>
<tr>
<td>Reduction of suburban sprawl</td>
<td>Loss of social diversity</td>
</tr>
<tr>
<td>Increased social mix</td>
<td>Displacement through rent/price increases</td>
</tr>
<tr>
<td>Decreased crime</td>
<td>Population loss to gentrified areas</td>
</tr>
<tr>
<td>Rehabilitation of property both with and</td>
<td>Displacement and housing demand pressures on surrounding areas</td>
</tr>
<tr>
<td>without state sponsorship</td>
<td>Secondary psychological costs of displacement</td>
</tr>
</tbody>
</table>

Table 1: Neighborhood impacts of gentrification (Atkinson, 2004)
Livability

If a neighbourhood is to be developed for its current inhabitants, it is necessary to engage the residents in the area. To make sure that people feel more connected with the neighbourhood, it is necessary to increase the livability of the residential environment in a deprived neighbourhood.

The residential environment is described by Van Dorst (2005) as the close environment of a dwelling that is often used by the residents. It can be a building, a street, a part of a neighbourhood or a part of a city. It has to do with both the physical and the social environment and is perceived from an individual point of view. The residential environment does not correspond with the whole neighbourhood, it mostly covers a part of the neighbourhood. This residential environment is part of the living environment which also includes other places which are used.

Van Dorst (2005) also explains different terms of livability:
- Obvious livability (Kennelijke leefbaarheid) is the degree in which the environment meets the conditions of a specie. The obvious livability shows how long and satisfied people are living in a place. This kind of livability puts emphasis on a good match between specie and environment.
- Perceived livability (Gepercipeerde leefbaarheid) is the appreciation of an individual of its living environment. It is based on subjective feelings of a person and his or her personal characteristics.
- Expected livability (Veronderstelde leefbaarheid) is the degree in which the environment meets the expected conditions for obvious livability. The expected livability is a sum of factors such as environmental issues, physical and social aspects.
- Quality of living environment (Leefomgevingskwaliteit) is the degree in which the environment contributes to the well-being of its inhabitants.

For the purpose of this study, the definition of quality of living environment is the most suitable. Nevertheless, I chose to change this term into quality of residential environment, because my study is mainly based on the most commonly used spaces near the dwelling.

The research is based on a spatial perspective. Spatial interventions should eventually increase the quality of residential environment and contribute to the well-being of its inhabitants.

In conclusion, the quality of the residential environment should be increased in order to create opportunities and willingness for the current inhabitants to develop themselves within the neighbourhood.

Figure 11: Terms of livability (Dorst, 2005)
2.2 URBAN ACUPUNCTURE AND POCKET PARKS

Urban acupuncture
Since the economic crisis it has become more inconvenient to create large scale transformations for whole neighbourhoods, so the demand for small scale interventions is increasing. Many western scholars such as Jane Jacobs, Christopher Alexander and Lewis Mumford already reconsidered the urban renewal in the 1960s, which took the large-scale transformation as the main form (Shidan and Qian, 2011).

Small scale interventions can activate potentials, the smallest effort on a critical point can be used to get the maximum results which is called urban acupuncture (Shidan and Qian, 2011).

But what is actually meant by small scale interventions? It is quite vague to link a certain scale to the term small scale interventions. Should the scale be in terms of budget, size or number of participants? Van Lievenoogen (2011) stated that the small scale interventions of urban acupuncture are not related to scale but to the strategy of the intervention (van Lievenoogen, 2011). Therefore we can say that small scale interventions are applied from bottom up, but are actually part of a larger strategy. When small scale interventions are part of a larger strategy, we can speak of Urban acupuncture.

“I see cities not as problems, but as solutions. I would argue that any city, willingly, can be transformed for better in a relatively short period of time, provided that we embrace a more generous approach to them” (Lerner, 2008).

Lerner’s key principle is to design the city with a holistic approach; “The design of the city is realized through the manipulation of precise interventions at pressure points throughout the city (Parsons, 2007, p.13).

Manuel De Sola Morales states that as well as with acupuncture as a medical treatment, the location of the sensitive point is the first step in the strategic treatment of the urban skin; “the skin of the city has to be observed with the attention of a detective who scrutinizes the tiniest clues in its wrinkles and their apparent lack of connection” (Parsons, 2007, p.15).

Next to the location of the sensitive point, the correct interventions should be found. The integration and understanding of the society is one of the key principles is seeking the correct intervention, if successful, then this become a catalyst for a positive bottom up effect directed by society (Parsons, 2007).

Next to the element of society, other elements such as ecological, economic, cultural, infrastructural, historical and political should be evaluated; one in isolation will not enable a successful intervention (Parsons, 2007).

The interventions of urban acupuncture claim to contribute to the activation of places, but neighbourhood regeneration cannot take place if the
appropriate catalyst is introduced only by designers, it should be created with the assistance of designers (Pascaris, 2012). Urban acupuncture does not have to be initiated by top down structures because it is more effective through modest community level efforts (Pascaris, 2012, p.17). Casagrande states that urban acupuncture is a design tool where punctual manipulations contribute to the creation of sustainable development. He combines urban design with the traditional Chinese medical theory of acupuncture in order to understand the city (Rasmussen, 2012). “if an element is un-healthy or un-balanced then the effects are visible in the urban fabric. Each element is of equal importance and the balance of all is fundamental to a sustainable environment’ (Parsons, 2007, p.19).
Green as a catalyst

The type of catalyst in case of urban acupuncture is determined by the purpose, programming, size, shape and the surrounding land use. According to Malmstrom (2008) there are six types of small public spaces which can function as a catalyst in the urban fabric (Malmstrom, 2008, p.15);

- A traditional park; Primarily green and softscape with recreational functions, usually located within residential neighbourhoods.
- A plaza park; Primarily hardscape for passive recreation, social gathering and special events, Located adjacent to mixed use areas.
- A community garden; Food producing with an active hands-on interaction with plants for production.
- Experience parks; Theme gardens for learning, viewing and interacting.
- Promenade parks; Wider, non-vehicular, external corridor, serving as open space or as destination itself.
- Paseo parks; Narrow, non-vehicular, internal corridor, serving as part of a system or greater whole.

In the city of Amersfoort, residents were invited to come up with new ideas for vacant spots in the city. It was notable that almost all of their new ideas were concerned with green places inside the city (De stad Amersfoort, 2012). Green spaces inside the city have a lot of positive effects, for instance in terms of health, education, social safety and cohesion, economy and environment.

The Alterra report of 2006 describes these benefits of green inside the city (Salverda and Vreke, 2006). Some of the benefits stated in the report can even contribute to the green space as a catalyst of urban acupuncture. Green inside the city enables children’s learning experiences through discovery and adventure. The research shows that the presence of green contributes to the social safety and cohesion inside a neighbourhood. According to Grijsbach, social cohesion is related to territorial determined societies on a small scale, therefore small scale neighbourhood green will foster social cohesion more likely than a large city park (Salverda and Vreke, 2006, p.23). Green can also contribute to the identity of a neighbourhood, which makes residents engaged with their living environment which leads to involvement and care for their neighbourhood.

Research even shows that green is one of the factors that attract and engage people with high incomes to neighbourhoods (Salverda and Vreke, 2006).

The National VROM survey from 2005 shows the most important factors in relation to people’s direct residential environment and residence (VROM, 2005). The participants ranked the main topics as following; Affordable housing, physical living environment, safety inside the neighbourhood, social living environment, health, nature and recreation (table 2). It showed that people chose the physical environment as the second most important factor. And if we take a closer look at this topic, 33% indicated green in the neighbourhood as the most important physical factor, even more important than parking and neighbourhood facilities (VROM, 2005, pp.4-10).

The aim of urban regeneration as a strategy is to revitalize potentials which already exist, to sustain urban regeneration in such a way that current actions will have long term effects on future urban developments (Rasmussen, 2012). In order to do so, the scale and nature of the catalytic intervention, as well as their location is significant, but one of the
most important factors is assuring the continuity of the quality and activating collective awareness and engagement in the neighbourhood (Rasmussen, 2012, p.30). Therefore green is one of the key points if it comes down to the nature of interventions. Interventions as green can contribute to the identity of a neighbourhood and therefore the engagement and interconnectivity of its inhabitants.

![Table 2: most important factors of peoples direct residential environment (VROM, 2005)](chart1.png)

![Table 3: Sub topics of physical residential environment (VROM, 2005)](chart2.png)
Pocket parks

If it comes down to small scale interventions in the public space, there are many examples. But one of the best known principles is the pocket park. In 1733, the first public park was laid out in Manhattan; Bowling green was established through the efforts of three neighbourhood residents (Seymour, 1969, p.1). Two centuries later, in 1967, the newest pocket park, namely Paley Park was opened. Paley Park is located in the middle of Manhattan. It occupies minimal space and it provides a center of interest and activity in the urban landscape. Both of the parks are small open spaces in the heavily congested area of Manhattan and both parks have been created by private citizens responding to urban needs instead of the input of interventions of municipal authorities (Seymour, 1969). Pocket parks are also known in the Netherlands. And last year a pocket park was constructed in Amsterdam; This project is focused on the development of community-based programmes and the co-creation of food activities. They work a lot with the local community and they concentrate on community gardens and neighbourhood activities (Farming the city, 2012).

Another example is the copy garden in Rotterdam; The Copy Garden anticipates the demand for more green in one of the priority neighbourhoods in the city of Rotterdam. The actual garden is copied on a blind wall. In front of the wall, the trees and the pavement are extended to get a great effect of green in the city (Mothership, 2011).

According to Guggenheimer (1969), the number of activities that can take place in pocket parks is almost unlimited. Desirable goals of pocket parks are for instance social adjustment, a place for social communication; mental improvement, educational programmes or neighbourhood improvement (Guggenheimer, 1969, pp.97-106). It is important to find out, together with the community, which purpose is appropriate for a specific site. Francis (2003) states that successful public spaces are the ones that are responsive to the needs of their users; are democratic in their accessibility; and are meaningful for the larger community and society (Francis, 2003, p.33).
The pocket park foundation (Stichting Postzegelparken) is a group of people in the Netherlands who engage in the creation of pocket parks. Their aim is to connect interventions in public space to a social process. This social process means that they start with the needs of the users in a neighbourhood from which they take their lead. They want to develop public outdoor living rooms within the neighbourhood where residents can meet each other. Their idea is to create ten pocket parks in the Indische Buurt in Amsterdam in walking distance from each other. Thus, residents can find different places within their neighbourhood, every pocket park will have its own identity.

The pocket park foundation noticed that the public places are becoming more anonymous and that people are living next to each other. Their question is how these public spaces can play a role in this process of engagement. Another question is to discover how residents can be engaged within the management and maintenance of these public spaces to create responsibility. With respect to the physical side of the pocket parks, they emphasize that the pocket parks should not become modest places. The parks should differ from the average public place in the Netherlands; less anonymous, less stony and more usable green spaces. Another important aspect is to create a place with a unique identity, so that it can be recognized as a pocket park. It will be a combination of physical and social aspects.

Seymour (1969) states that good design is an essential ingredient of small urban parks: “It is the quality of urban open space that counts more than the quantity (...), in addition to being easily accessible, parks should be important in themselves, not merely an incidental adjunct to some housing project, or treated as waste space. Each park should have a focal point and should genuinely strive to produce delight for those who use it or look at it” (Seymour, 1969, p.9).

According to Marc Augé, the identity of public space is the most important criteria; ‘places are marked by identity, social relations and history, while non-places have no identity and are difficult to define (...)’ (Hajer et al., 2001, p.45). Places were an exchange between different social groups is possible and also occurs are called public domain (Hajer et al., 2001). This does not necessarily mean that every public space is also public domain. Public domain is not only used to refer to the physical places in the city.
Philosophers such as Hannah Arendt and Jürgen Habermas have written about public sphere as the place where society is formed (Hajer et al., 2001). Globalization, email, internet and other contemporary ways of communication suggest that there is no need for the city as meeting place any more but the opposite is demonstrated (Gehl, 2003). Right now in this modern and electronic society, it is needed to create meeting places as good public spaces increase the quality of life and the social cohesion of an area.

“...In the present day situation nearly all the activities seen in public spaces are free-of-choice activities. People do not have to walk; they can use cars and other means of transport. People do not have to shop in the streets; there are many other options. People do not have to meet and socialize in the public spaces; many other possibilities are offered. (...) When people use the cities today it is not because they have to, but because they like to. The public spaces can offer something attractive and meaningful to the citizens — if not they would not come” (Gehl, 2003).

This big change in the way people use the public space requires the creation of high quality spaces, so the demand for good quality public space is becoming even more important. Next to that, a more people oriented design is needed. The individual identity of a place is associated with personal tastes and values. Places are generally designed by others, but individuals always adapt and modify their environment. Meis identified three design strategies to give identity to a place designed for others: a design based on the designers understanding of the values and behavior of the people concerned, participation of future users in the design and a design that users can modify and adapt to their own needs (Carmona, 2010, p.121).

Jane Jacobs and Christopher Alexander are the British pioneers of community architecture among the leading proponents of citizen activism and community power (Walters, 2007, p.65). Jacobs stated that top down planning destroys the social structure in a neighbourhood, therefore it is more likely to create small scale bottom up plans (Jacobs, 1998). Jane Jacobs formulated conditions for converting potential public areas into effective environmental surroundings (van Lievenoogen, 2011, p.76): a mix of functions, concentration of people to ensure density, social heterogeneity to ensure a variety of audience and short blocks to provide attractive corners and side streets. However, these conditions are set up for American cities in the 1960’s which means that not all of them are suitable for Dutch neighbourhoods. The condition of short blocks is for instance assigned to the American grid structure. We rarely use such a structure in the Netherlands and that condition is less applicable for our public spaces.
Due to the economic crisis, the growth orientated urban planning in the Netherlands has come to a standstill and we need to consider other types of planning processes with another emphasis (Kompier, 2009, p.441). Due to this shift in the planning process, the economic crisis is considered to be a huge opportunity for new kinds of developments. The planned top down renewal in the Netherlands, leaves out many small, pragmatic and community-oriented initiatives from the start. Therefore we need to empower residents and let go of what does not necessarily have to be regulated and stimulating rather than discouraging private initiatives aimed at the development of the city would be a good first step (Kompier, 2009, p.441). There is also an increasing need for participatory planning since the emphasis within urban planning is more and more on social sustainable livability. Sustainable livability focuses on the livability aspects which are permanently important for current inhabitants as well as next generations (Dorst, 2005, pp.98-99). The complexity of cities appears in many scales and levels of planning which makes the number and diversity of actors increasing (Rasmussen, 2012, p.11).

Most of the participatory planning proposals in the Netherlands are framed within the policies and conditions of the government, therefore government-driven participatory trajectories are accompanied by three major inclusion processes (Boonstra and Boelens, 2011).

- Procedural inclusion; participation is always based on the idea of a conflict between the powerful and the powerless, in which the powerful determines the procedures along which the powerless shall participate. Sherry Arnstein presented the ‘ladder of participation’ in 1969. In this ladder, each rung corresponded to the citizens’ power in determining a plan. The eight rungs of the ladder are (1) manipulation, (2) therapy, (3) informing, (4) consultation, (5) placation, (6) partnership, (7) delegated power and (8) citizen control. Government authorities still decide who can participate in a plan, when this takes place, which influence is allowed and on which rung of the participation ladder the process is placed.

- Thematic inclusion; Planning actions are often a result of a problem definition from a government perspective. The issues at stake and the reasons why these issues are addressed are usually determined by government objectives. The pocket park foundation always focuses on neutral places. At the unsafe/problem places, there is a physiological negative atmosphere, which also causes participants to create a negative feeling about it.

- Geographical inclusion; Participation of plans often aims at area-based policies, in which the area is chosen using administrative boundaries.
without taking the spatial or social entities into consideration. Focusing on a neighbourhood or other geographical entity denies the idea that network formations take place across spatial barriers and on different levels.

As an answer to these inclusion processes, Boonstra en Boelens (2011) came up with the term self-organization, which they define as initiatives for spatial interventions that originate in civil society itself via autonomous community-based networks of citizens and outside government control. ‘In the context of urban development, this notion would then refer to situations in which citizens and/or other stakeholders contribute to urban developments out of their own motivation and interests in specific actor-networks, if necessary to be facilitated (and not directed) by planners and governments’ (Boonstra and Boelens, 2011, p.108). There is a difference between participation and self-organization; with participation, the initiative is taken by the government or a housing association, while at self-organization the initiative is taken by members of civic society. It is hard to make self-organization happen, it simply happens or not. ‘Planners can play a crucial role in ‘making it happen’ by being part of the initiating actor-network assemblage’ (Boonstra and Boelens, 2011, p.107). And when it actually does happen, it will represent the exact needs from society itself. Planners should position themselves in the middle, as actors integrated in the self-organization process itself in order to play a role in connecting individual self-interests to a common interest of higher added value.

Manzini (2011) states that the range of activities of the designer can be very wide. Designers can act as facilitators to support ongoing initiatives, they can also be the triggers in making new initiatives happen. Designers can act as members in the design team itself, they can collaborate with groups of final users or they can behave as design activists to launch socially meaningful design initiatives.

Boonstra en Boelens (2011) put forward four arguments for citizen involvement in planning:

- Social
  When citizens are involved at the spatial development of an area, it will contribute greatly to social coherence in an increasingly fragmented and secularized society. Especially in deprived neighbourhoods, citizen participation or involvement is used as an instrument to improve social conditions.

- Spatial
  Citizen involvement stimulates new accountability for the spatial conditions of certain areas. It is expected that active and involved citizens will contribute to improving and maintaining the spatial quality of their working and living environments.

- Economic
  In the short term, increased social cohesion and commitment would shorten planning procedures. And in the long term, citizen participation and involvement could improve the connectivity of networks with public welfare and would for instance improve the employment rate in deprived neighbourhoods.

- Political
  Public participation strengthens civic support for public policies. Since citizens’ priorities can be better matched with policies, policies could become more focused. Communication between governments and citizens would improve and, last but not least, participation would give citizens a more realistic expectation of government actions.
According to Urhahn (2010), an example of participation by citizens is ‘organic urban regeneration’ in which initiatives will be taken by different groups of society. Residents, businesses and associations are willing to improve their environment. Small-scale initiative is the driving force behind the regeneration of an area or neighbourhood. For this shift in focus from top down planning to a city that is shaped by its occupants, an organic urban growth is needed (Urhahn Urban Design, 2010). Organic growth is based on surprise development, small scale interventions and a non-linear design of the city. Urban designers will work in close collaboration with the project initiators, they forge a path between individual choice and common interest (Urhahn Urban Design, 2010).

Another example of participation is crowd funding. ZUS (Zones Urbaines Sensibles) designed a plan for a 350 meter span pedestrian bridge, which will re-connect Rotterdam Central District with the Hofbogen. The luchtsingel is their first step in bringing back urban qualities adding small-scale interventions to the urban fabric. The luchtsingel is a fully crowd funded project: anyone can contribute to the project from buying a single wooden plank with their name on it to fund the project (ZUS, 2012). A disadvantage of this method is that the citizens are not involved with the actual design and the type of intervention.

A more radical form of participation is Tactical urbanism, also known as ‘guerilla urbanism’, ‘pop-up urbanism’, ‘city repair’ and ‘DIY urbanism’. Tactical urbanism pretends to promote short-term actions causing long-term changes in the city. The generally tactical interventions are low-cost initiatives with an illegal character. The illegal character asserts the spontaneity of the urban action, rather than its law-breaking aspect (Rasmussen, 2012).
Hulsbergen and Stouten (2011) wrote an article about design ateliers in which they described the ateliers or so called charettes as solution oriented and collaborative and where a cross section of community stakeholders who have an interest in a specific development project were involved. Much knowledge for solutions lies within the neighbourhood, therefore a strategic framework includes a bridge between “top down” and “bottom up” approaches; a design atelier can be a suitable instrument to study a problem from different perspectives, interests and fields of knowledge to explore new solutions (Hulsbergen and Stouten, 2011).

They selected a list of different approaches which are interesting initiatives of participation and which demonstrate variety concerning spatial scale, aims, method and presentation of results. The selected approaches are listed in table 4. The participation approaches which are the most applicable in Bergpolder are the ‘Residents housing workshops’ (woonateliers) and the ‘Neighbourhood ateliers’ because of their scale and method. But the resident housing workshops are used as an instrument to involve users in the neighbourhood, it is a practical working method to work with residents in an interactive way and it stimulates a dialogue and contact between residents mutually and between residents and professionals (Hulsbergen and Stouten, 2011). The resident housing workshops have a wide range of topics and it is not only about living and housing, but also about topics such as parks and greenery, neighbourhood economy and the design of public space.

If we take a look at the ladder of participation by Anstein, we notice that the residents housing workshop will probably be on the upper end of the ladder. The workshops can be compared to a partnership as it is about a collaboration between residents and professionals. The results are translated into an actual new design.
<table>
<thead>
<tr>
<th>Method</th>
<th>Spatial scale</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Redesign the City</td>
<td>Locations, as part of the city</td>
<td>Presentations of results to stakeholders and professionals</td>
</tr>
<tr>
<td>Geerse Approach</td>
<td>Location, Neighbourhood Buildings</td>
<td>Practical products, Variety of experiences as input for new situations</td>
</tr>
<tr>
<td>Collective Clients approach</td>
<td>Building block</td>
<td>Modernisation and new housing mixed with other facilities</td>
</tr>
<tr>
<td>Neighbourhood atelier</td>
<td>Central part of district and district as whole</td>
<td>Structure vision, designs, report</td>
</tr>
<tr>
<td>KEI-city Lab Approach</td>
<td>Central area, district and cross area-border</td>
<td>Findings embodied in report, published on KEIwebsite</td>
</tr>
</tbody>
</table>

Table 4: Design ateliers (Hulsbergen and Stouten, 2011)
In the Netherlands, urban renewal and regeneration have undergone several different forms. Before 1970, there were many plans for the demolition of areas particularly adjacent to city centers. In the 1970, due to protests of residents, a big change occurred and urban renewal for the current inhabitants got more priority, which is called the area based approach. Therefore in the 1990’s, the approach of intervening in cities changed into a wider perspective; to the total city and/or region. Urban renewal became part of a more comprehensive form of urban regeneration which became an important method of spatial interventions aimed at providing more lasting solutions (Stouten, 2010). Carter (2005), states that successful urban regeneration requires a strategically designed, locally based, approach. Urban acupuncture is known as a strategy; it implements the small scale interventions in such a way that it takes into account the long term goals and the requirements of the area.

The implementation of small scale interventions takes into account the preservation of the existing urban identity. For successful urban regeneration, it is important to transform the physical environment of residential areas while the existing spatial identity will be maintained or even strengthened. There are three different types of transformations (Bijlsma et al., 2008): Restructuring is the most radical option, reuse as a less invasive form and redevelopment as the least radical adjustment.

At the level of the neighbourhood, the identity exists of the infrastructural and green structures. At the level of the ensemble, the identity is marked by the building- and parcel typology and on the smallest scale, the buildings itself and the surrounding public space are the most important for the spatial identity. Within interventions on the smallest scale, it is good to involve the residents within this transformation process; As the users of an area, they are in some cases not only stakeholders but also experts (Bijlsma et al., 2008).

Gentrification is a key issue in urban regeneration. But due to the negative effects within the process of gentrification, it is more beneficial to develop an area for its current inhabitants. To give them opportunities to develop themselves within an area whereby a naturally social mix occurs instead of a forced one by gentrification.

If a neighbourhood is to be developed for its current residents, it is necessary to engage the residents in the area so they would like to develop themselves within an area. To ensure that people feel more connected with the neighbourhood, it is necessary to increase the quality of the residential environment in a deprived neighbourhood. The quality of living environment (Leefomgevingskwaliteit) is the degree in which the environment contributes to the well-being of its inhabitants.

Small scale interventions can activate potentials, the smallest effort on a critical point can be used to get maximum results which is called urban acupuncture (Shidan and Qian, 2011).

From what is explained in chapter 2.2 about urban acupuncture and public space, we can conclude that it is quite difficult to set up a fixed list of criteria for small scale interventions in the public space. This is mainly due to the fact that every site and situation is different from one to the other. And as Parsons noted “There is not a precise set of rules for the application of the theory of urban acupuncture, just principle ideas” (Parsons, 2007, p.11). Nevertheless, it is possible to draw up some general criteria as recommendations for the design.
According to Manuel de Sola Morales, the location of the sensitive point is the first step in the urban acupuncture strategy (Parsons, 2007, p.15). The location is crucial in order to discover which critical point can activate potentials to get the maximum results. To find a strategic location to place the catalyst will be the first criterion.

The second criterion would be to work together with the local residents; the most successful small public spaces are the ones that are responsive to the needs of their users. It has been shown that urban acupuncture is the most effective by bottom up participation.

The third criterion is to determine the nature of the catalyst. As Malmstrom stated, the type of catalyst is determined by the purpose, programming, size, shape and the surrounding land use (Malmstrom, 2008, p.15). It is important to find out what the users need and the catalyst should have a strong identity, the place should be important by itself.

Studies such as the Alterra report from 2006, showed that green inside the city has a lot of benefits in terms of health, education, social safety and cohesion, economy and environment. Therefore green is one of the key strategies in small scale interventions. Green can contribute to the identity of a neighbourhood and therefore the engagement and interconnectivity of its inhabitants.

Pocket parks are known as a tool to create small scale public spaces. According to the pocket park foundation, the aim of pocket parks is to connect interventions in public space to a social process. This social process means that they are led by the needs of the users in a neighbourhood. They want to develop public outdoor living rooms within the neighbourhood where residents can meet each other. This tool can be used to engage the current inhabitants in their neighbourhood and to increase the quality of the residential environment.

Pocket parks are mostly developed through citizen participation, but there are several different forms of participation. At first, a division can be made between participation and self-organization.

With participation, the initiative is taken by the government or a housing association, while with self-organization the initiative is taken by members of civic society. It is hard to make self-organization happen, it simply happens or not. ‘Planners can play a crucial role in ‘making it happen’ by being part of the initiating actor-network assemblage’ (Boonstra and Boelens, 2011, p.107). And when it actually does happen, it will represent the exact needs from society itself.

If we take a look at participation, different design ateliers can be listed. The ateliers or so called charettes are solution oriented and collaborative and involve a cross section of community stakeholders who have an interest in a specific development project (Hulsbergen and Stouten, 2011).

The participation approach which is the most applicable in Bergpolder is the ‘Residents housing workshops’ (woonateliers) as this is used as a tool to involve users in the neighbourhood.
This chapter provides the conclusions of the analysis which was carried out for the project area. It gives an overview of the location together with the conclusions of the analysis.
3.1 BERGPOLDER

Bergpolder is located in the north of Rotterdam and is part of the sub-municipality Rotterdam Noord. The area is enclosed by Blijdorp and Liskwartier, two popular living neighbourhoods in Rotterdam. The central station of Rotterdam is located at a walking distance of 10 minutes. The neighbourhood is situated on the south side of the highway which means that the area is easily accessible by car. The area is intersected by the Schieweg which is one of the city boulevards which connects the city centre to the highway. On the east side of the neighbourhood the former railway the Hofpleinlijn is located, it is an elevated railway which does not serve as a railway anymore.

There are three monuments located inside the neighbourhood:
- The Bergpolderflat (Van Tijen, 1933), the First gallery flat in the Netherlands
- The Sportfondsbad Noord (1937), the swimming pool with an indoor and outdoor pool
- The Hofpleinlijn (1908), The former railway to The Hague
3.2 HISTORY

Bergpolder, formerly known as the Bergsche polder, remained undeveloped for a long time. Although Rotterdam was founded in 1270, the growth of the city was limited inside the city walls until 1825. After the construction of the New Waterway in 1872 the city expanded rapidly outside the city walls (Wellenberg, 2010).

In 1904, the Bergsche polder was annexed by Rotterdam, the territory was passed from the municipality of Hilligersberg to the municipality of Rotterdam. In 1907, the Hofpleinlijn was constructed. This electric railway connected the city of Rotterdam with The Hague. After the completion of the railway, the construction of the adjacent neighbourhood Liskwartier was started as can be seen in figure 20 (Duurzaam buurtpunt Liskwartier, 2011).

Bergpolder was built based on the expansion plan of 1931 by ir. W.G. Witteveen and W. Kromhout which is shown in figure 21. The design has many wide main roads, while the secondary streets can be really narrow and tight. The buildings consist primarily of closed building blocks executed in brick. During the second world war only a few houses in the area were bombed and the rest of Bergpolder remained unharmed. Both the urban plan and the original buildings are still largely intact. The separate building blocks are a compositional whole and they frame a bigger unit around the main roads. The neighbourhood is part of the protected cityscape Bergpolder-Blijdorp due to its history, the successful example of both aesthetic and functional oriented urbanism, the strong architectural and visual unity, and because of the iconic entrance to the city of Rotterdam (Gemeente Rotterdam, 2012a).
3.3 PRIZE NEIGHBOURHOOD

The following information is retrieved from the outcome monitor Wijkenaanpak 2012 (CBS, 2012b).

In 2007, the minister of Housing, Neighbourhoods and Integration, selected the forty most deprived neighbourhoods in the Netherlands. These neighbourhoods received extra funding to be able to make drastic improvements to the neighbourhood. The areas are designated as prize neighbourhoods or empowerment areas to give them a more positive appearance. The neighbourhoods are located in 18 different municipalities and were selected on the basis of several criteria. The neighbourhoods are characterized by an unilateral housing stock, many local authority rental properties and small houses. Residents often indicate their living area as unsafe and the unemployment rate tends to be high. All the prize neighbourhoods are selected on the basis of established criteria but the character of the areas may differ a lot. At the start of the area based approach (Wijkenaanpak), each neighbourhood received a tailor made action plan appropriate to the specific situation and priorities of the area.

Now five years later, in 2012, the outcome monitor of the area based approach (2012) will provide insight into the current situation concerning the prize neighbourhoods. The neighbourhoods are tested on the following subjects: Population; Living and livability; education; employment; income and debts; safety; health and integration. Not all these factors are important for the analysis of Bergpolder; health and integration are less significant for this particular study. All the other subjects will be reviewed according to the outcome monitor 2012.

Population

On the 22th of November 2012, Bergpolder had a population of 7750 people (CBS, 2012a). The population is quite young compared to the average age in Rotterdam; 66% of the population is between the age of 18 and 45 compared to 41% for Rotterdam as a whole. Bergpolder has a lot of natives in comparison with the average of all the prize neighbourhoods in Rotterdam; 57% vs. 35%. This also implies that the neighbourhood houses less immigrants. The composition of households varies a great deal from the rest of Rotterdam. Bergpolder provides a home to many students, therefore this neighbourhood has a lot of single households; 66% of single households in the neighbourhood compared with 49% in Rotterdam. There are a lot of students and young professionals living in the neighbourhood and the number of families living in the area is quite low.
Living and livability
The housing stock consists of 62% of small dwellings, that is why there are a lot of students and young professionals living in this neighbourhood. Because of the small dwellings, the value of the dwellings is significantly lower compared with the prices in the rest of Rotterdam as can be seen in figure 23. What can be noticed is that there is a slight increase in the prices since the selection of the prize areas in 2007. The prices increased from € 122.000 up to € 140.000. In the whole city of Rotterdam, the average prices increased from € 178.000 up to € 194.000. A considerable amount of the dwellings in Bergpolder is of poor quality, although this has been improved over the last five years.

According to the ‘Leefbaarometer’, which is the extent to which the environment is in line with the conditions and requirements of the inhabitants, the score for Bergpolder has increased in the last 5 years which is shown in figure 24. In relation to the quality of life within Bergpolder, a lot of attention to reducing physical nuisance is necessary. In particular reducing the noise nuisance by the busy Schieweg which crosses the area and the air and noise pollution caused by the highway at the north side of Bergpolder is essential.

Education
From all students who finished their secondary school, 69% of the students are continuing their education to tertiary education and university. This is above the average of Rotterdam; 35%. As stated before, a lot of students are housed in this neighbourhood. The city of Rotterdam is home to several universities and HBO-institutions such as the Erasmus University, the Hogeschool Rotterdam and InHolland.

Due to the location of Bergpolder close to the city center and the central station, and due to the small and affordable housing stock this neighbourhood is very popular among students. There is not much information available about primary schools as the number of schoolchildren in Bergpolder is too low to calculate an average score.
Employment
73% of the population of Bergpolder receives income from employment, this is substantially higher than the average of 64% in Rotterdam. But over the last five years this number is decreasing. 10% of the population is retired compared with 22% of Rotterdam’s average.
The number of job seekers is lower than the national average. Although this number is still below the average, since the start of the area based approach there is a negative development evident. Only 2% of Bergpolder’s inhabitants is long term dependent on financial assistance from the government.

Income and debts
The share of people with low incomes has decreased between 2006 and 2010 from 48 percent to 45 percent (figure 25). This is in favour of the middle- and higher incomes. If we take a look at the number of people who are moving out of the neighbourhood, we can see that more people with middle and higher incomes moved out of the area instead of towards the area. On the other hand, people with lower incomes move towards the area. The positive development of the average income points out an increase of income of people living inside the area.

Safety
In terms of safety, Bergpolder scores the same as Rotterdam’s average. If we take a look at the safety index (Gemeente Rotterdam, 2012c), Bergpolder scores a 8,4 compared with a 7,3 in 2007. So the safety feeling in the neighbourhood is increasing. 83 percent is satisfied with the area and only 2 percent feels unsafe in their own living area compared with 4% in 2007.
Thief and traffic show a deterioration compared to 2009, but they still remain in the safe category. Drugs nuisance, violence and burglary remain the same. Vandalism, nuisance and cleanliness show an improvement (Gemeente Rotterdam, 2012c).
Conclusion Area Based Approach

The information from the outcome monitor 2012 shows that Bergpolder scores a lot better than the other deprived neighbourhoods in Rotterdam. This also shows that the neighbourhood has a lot of potential and that several problem factors have been decreasing. However, there are still a lot of problems in the area. In terms of the housing stock, there is a large amount of small houses, and also the value of the houses is quite low compared to Rotterdam’s average. A lot of students and young professionals are living in Bergpolder because of the small and affordable houses. The share of people with low incomes has decreased between 2006 and 2010 from 48 percent to 45 percent and the general livability of the area has increased over the last five years. One of the biggest problems is the physical nuisance by the Schieweg and the highway, they cause a lot of air and noise pollution.

The social index (2012) shows that Bergpolder scores quite low; 5.9. However, Rotterdam’s average is a 5.5. The biggest problem on a social level is the rate of social engagement with the neighbourhood; 4.4 (Gemeente Rotterdam, 2012b). As mentioned before, a lot of students and young professionals are living in the area. Many people live quite anonymously and on their own or are more orientated towards the city centre than to the neighbourhood. The willingness to relocate within this group of people is really high so they do not feel the need to get attached to their living area.

The educational level scores really high, but people with middle- and higher incomes are moving out of Bergpolder. This is also a consequence of the unilateral housing stock; there are too many small dwellings of poor quality.
3.4 PHYSICAL ENVIRONMENT

Urban structure
Bergpolder consists mainly of closed building blocks of four or five storeys high and was built on the basis of the expansion plan of 1931 by ir. W.G. Witteveen and W. Kromhout.
The buildings are grouped into symmetrical units of closed blocks within a predominantly straight street pattern. By the application of kinks and diagonals in the main traffic structure, the plan received its significant character and variation. The planned expansion has a clear hierarchical structure of main roads and patterns of secondary streets and squares. The design has many wide main roads, while the secondary streets can be really narrow and tight. The original urban structure of Bergpolder is still intact. Noticeable is the clear and spatial structure constructed in a logical pattern of main roads and consisting of a symmetrical and geometrical arrangement of architectural building blocks (DS+V Rotterdam, 2005).
The green strips of the main roads and park facilities in the shape a green axis, provide the distribution of green over the area. Most of these green axis are developed in a north-south direction.
As noticed before, Bergpolder is part of the protected cityscape Bergpolder-Blijdorp.
Neighbourhood identity

The spatial identity of the neighbourhood focuses mainly on the large roads and connections which are important for the whole city. The Schieweg intersects Bergpolder and is one of the entrances for the city of Rotterdam. It connects the highway with the city center and is therefore important for the whole city. The other elements which are important for the identity on this level are the waterways and the green structure.

Ensemble identity

On this level, the identity is marked by the building typology within the urban fabric. In case of Bergpolder, this consist of mainly closed building blocks with private inner gardens. The residential area is divided into four building ensembles through the large roads which are intersecting Bergpolder. Within this field of closed building blocks, there are some open spaces for public space, but there are not many open spaces within this dense residential area. Furthermore, a clear hierarchy of main and secondary streets is visible.

Building block identity

Most of the buildings can be characterized as closed building blocks. These closed building blocks have one dwelling on the ground floor with a private garden and two or three apartments on top of this. However, there are several exceptions; There are also some apartment buildings and flats in the neighbourhood. Some of the buildings contain facilities on the ground floor, this is mainly next the main streets.
Bergpolder is a pre-war residential area and therefore it is densely built which makes it difficult to do large scale interventions without changing the existing spatial identity. The neighbourhood is part of the protected cityscape Bergpolder-Blijdorp because of its history, the successful example of both aesthetic and functional oriented urbanism, the strong architectural and visual unity, and because of the iconic entrance to the city of Rotterdam (Gemeente Rotterdam, 2012a). Because of the protected cityscape, it is even more difficult to make large changes within the existing spatial structure of the neighbourhood. Therefore reuse and redevelopment are the two most convenient ways for transformations in Bergpolder. As stated in the theoretical framework: Reuse is a less invasive form of physical interventions which includes for example merging of dwellings, adding new functions in existing buildings or the creation of collective and new public spaces. The least radical adjustment is the redevelopment of public and collective space in a residential area, by adjusting street profiles, planting or street furniture (Bijlsma et al., 2008). With reuse and redevelopment, the physical environment of Bergpolder can be transformed or even strengthened.

Especially on the level of the building block, adjustments can be done in order to improve the quality of the residential environment in Bergpolder. The transformations which can be done on this level with the help of reuse, consist mostly of merging dwellings, adding new functions in existing buildings or the adjustments in the surrounding public space. Within interventions on the smallest scale, it is good to involve the current residents within this transformation process; As the users of an area, they are in some cases not only stakeholders but also experts (Bijlsma et al., 2008).
### Accessibility

Bergpolder is easily accessible by car and public transport as well as for pedestrians and cyclists. Several main roads are intersecting the area. One of them is the Schieweg which is stated as one of the city boulevards which connects the city centre to the highway and makes the distance to the ring road only 5 minutes. The other main road which crosses the area in east west direction is the Bergselaan which is connected to the regional network through the Gordelweg.

Rotterdam central station is easily accessible within a walking distance of 10 minutes, as well as the new metro station Blijdorp. There are several bus and tram lines running through the Schiekade which are connecting Bergpolder with the central station and the city centre. As mentioned before, the Hofpleinlijn is no longer used as a railway.

![Accessibility Map](image)

*Figure 32: Accessibility (Author)*
Parking

The whole streetscape in Bergpolder is dominated by cars. Almost all the streets contain parking places next to the pavements. Parking is actually becoming a real problem in the neighbourhood. In the evening and at night all the parking places are occupied whereby car owners are forced to park their car far away from their home on a prohibited place which can cause unsafe situations in case of an emergency. Toll parking is present in the whole neighbourhood and in most of the places you have to pay till six or eleven o’clock in the evening. There is only one parking garage present in the area which is located in the south part of Bergpolder underneath a new square. This parking garage opened last year and residents of the neighbourhood can rent a parking place.

Recently a new parking standard has been approved:

<table>
<thead>
<tr>
<th>Surface in m²</th>
<th>parking places per dwelling</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 40</td>
<td>0,1</td>
</tr>
<tr>
<td>&gt;40&lt;=65</td>
<td>0,8</td>
</tr>
<tr>
<td>&gt;65&lt;=85</td>
<td>0,8</td>
</tr>
<tr>
<td>&gt;85&lt;=120</td>
<td>1</td>
</tr>
<tr>
<td>&gt;120</td>
<td>1,2</td>
</tr>
</tbody>
</table>
**Street hierarchy**

There are three kinds of streets to point out in Bergpolder. Several main streets are intersecting the area which divide the neighbourhood into four different residential areas. These main streets are designated as city boulevards through the municipality of Rotterdam and thus they do have a very urban and public character. The main streets are a connection between the highway and the city centre of Rotterdam and make the area easily accessible by car and public transport. The main streets consist of four or more traffic lanes and also houses bus and tram lanes. The second range of streets connects the main roads with the inner areas. These secondary streets consist of one or two traffic lanes. The third range of streets are located inside the more quiet living areas and are narrower. Many of the small streets consist of one-way traffic which causes unclear situations, in some places it becomes a labyrinth of small streets and it is hard to find a way out by car.
Figure 35: Sections (Author)

12 meter

20 meter

54 meter
**Physical nuisance**

Bergpolder is located outside the noise zones of industrial activities and the railway. The traffic noise does play a really important factor in the neighbourhood.

The neighbourhood is surrounded by urban roads and city boulevards which cause a lot of noise. The most important roads are the highway and Gordelweg to the north side of the area and the Schieweg and the Bergselaan which cross the area. Through the use of EU noise maps, the noise nuisance of the location is indicated.

The Schieweg and the Bergselaan cause a lot of noise in particular. The small living areas within Bergpolder are more quiet. In the near future a noise barrier will be placed next to the A20. The noise nuisance of the Schieweg and the Bergselaan is considered to be a large problem in the neighbourhood.

The accessibility of Rotterdam needs general improvement. In order to improve the flow at the north side of the city the development of some new highways is necessary.

To improve the traffic flow at the north side of Rotterdam, the construction of the A13 A16 is necessary. This new highway will connect the A13 and the A16 in order to unburden the A20 which is located next to Bergpolder. In this way also the Schieweg will be quieter in the future.

This operation is not only necessary to unburden the highways in the northern part of the Rotterdam region but also to increase the livability in the area.
Housing stock and lifestyle

In contrast to a lot of other prize neighbourhoods, the housing stock of Bergpolder is largely owner occupied. The housing corporation Vestia is in possession of merely 25% of the 4700 dwellings (KEI, 2009). Several owner occupied dwellings are not well maintained. The relatively cheap dwellings are placed inside housing blocks existing of three or four floors.

The housing stock in Bergpolder acts mainly as a first step onto the housing ladder. Youth, students, and first time buyers are attracted to the neighbourhood. These groups are mainly attracted by the affordable housing in the area. The middle and higher economic segments are almost not represented. A result of this current housing stock is that people can hardly take the next step onto the housing ladder. The housing stock is too unilateral.

According to ‘the big living test 2008’ (de grote woontest), there is a demand for a quiet urban residential environment in Bergpolder. There are two lifestyles which match this residential environment (Van Bergen Kolpa Architecten, 2011):

- Vitality and liberty
  People with this lifestyle want to live among people from all different kinds of society and cultures. They do not connect much with each other and liberty and independency are of great importance. They are always looking for flexibility and new experiences, and they prefer to live inside the big city.
  Living inside the city is interesting because they can live their own way, because of anonymity and because of the many possibilities and activities which the city has to offer.

- Harmony and involvement
  These people appreciate social contact inside their neighbourhood. Their family always comes first and they are real group people. People with this lifestyle want to live in quiet living areas with a lot of green where children can play and with multiple facilities in the neighbourhood.

According to these two lifestyles of the big living test 2008, there is a need for small, affordable dwellings and more expensive apartments and family houses with high specifications. The second kind of housing hardly exists in Bergpolder, so there is a potential demand for high quality apartments and family houses.

Further ahead in this analysis, more information about the residential environment and lifestyles can be found.
Dwelling size

As mentioned before, the housing stock in Bergpolder consists up to 62% of small dwellings. Most of the dwellings are between 51 and 75 square meters. This type of apartment mainly consists of houses with a shared front door and staircase. The dwellings which consist of more than 100 square meters are mostly merged houses which used to be two separate apartments. Buildings with a size bigger than 150 square meter are only facilities like shops, schools, churches or warehouses. Dwellings smaller than 50 square meters are mostly studios or shared student homes.
**Building heights**

Most of the building blocks are four storeys high. But on the edges of the living areas, the buildings contain mostly five storeys. As noticed before, these main roads are quite broad so the buildings next to it can be higher because of the spatial composition. There are a few exceptions; four buildings are more than five storeys, they are mostly located on the heads of building blocks. There are also a couple of buildings which are only one storey high, those buildings are located inside the building blocks or at the more quiet streets.

*Figure 41: Building heights (Author)*
Year of construction

Bergpolder has been built based on the expansion plan of 1931 by ir. W.G. Witteveen and W. Kromhout. The neighbourhood was constructed in the 1930’s. The construction of the buildings went really fast because in 1934 almost the whole neighbourhood was built up.

Some of the buildings were built at a later date, for instance the building cluster in the north of the neighbourhood. On this site, a former children’s hospital was located which was demolished after the hospital moved to its current location in the city centre. Almost all the buildings in Bergpolder stayed intact over the years and only a couple of buildings on the south side of the area were demolished and replaced by newer apartment buildings from 1990 till 2010. The most recent development is the construction of the parking garage underneath the Insulindeplein at the south side of the neighbourhood.
Facilities
Bergpolder is an area with a lot of small scale shops and neighbourhood facilities. During the construction in the 1930s, shops were added to the plinths of the buildings next to the main roads. This trend is still visible inside the area, most of the facilities are located next to the main roads and the secondary roads. Some facilities are located inside the neighbourhood. Bergpolder is home to many specialized shops such as bakeries, hairdressers, flower shops, bicycle shops and small grocery stores. There is a shopping centre with a big supermarket located at the south west side of the area. In addition to shops, there are a lot of day care centers located next to the Schieweg. At the west side of the neighbourhood, just outside of Bergpolder, three different primary schools are located. There is also a swimming pool located inside one of the building blocks which also contains an outdoor swimming pool. A high rate of vacancy can be found inside Bergpolder. A lot of the vacant retail premises are caused by mismanagement. One of the tasks from the vision of the sub municipality Rotterdam noord is to facilitate the entrepreneurship at the retail premises next to the Schieweg through handling changes in function in a flexible way.
Green structure Rotterdam
The city of Rotterdam consists of several large scale parks and green spaces. These are all green spaces which are important outside the boundaries of a neighbourhood or district, the green spaces are used by people from the whole city and they are important in a spatial way (Gemeente Rotterdam, 2010).
In the vicinity of Bergpolder you will find the Vroesenpark. This park was constructed in 1929 within the expansion plan of Witteveen and in 1948 a new plan for the park was designed by J. Bijlhouver. This park is really well used during the summer, but also during other periods when it is used by people walking their dog and joggers. Another large green area close to Bergpolder is the Blijdorp zoo although this is not a public green place. However, a large number of people from Rotterdam north visit the zoo very often. The biggest city park in Rotterdam is the Kralingse bos, a lot of people go there for recreational purposes. So the surrounding area of the neighbourhood has enough large scale parks for recreation. The green area at the north side of Bergpolder is just a green border of the city to separate the residential area from the highway.
Green spaces

There are not many green spaces inside the neighbourhood. There are two parks located at the west and east side of the area. The park at the west side is located next to three primary schools and a lot of children use the park during their school breaks. The rest of the day the park is only used by people to walk their dogs. The other park is situated inside a more quiet residential area and consists of a football pitch, a playground and some places to sit down. Apart from this, there are not many green spaces in the area except for green in the middle of the main roads, some unused lawns and some flower containers throughout the neighbourhood. The biggest trees are all located next to the main roads, inside the more quiet residential areas, there are only smaller trees.

As can be seen in figure 45, most of the green axis are oriented in a north south direction. These green public spaces are flanked by monumental facades which are classified as valuable urban compositions by the municipality of Rotterdam. As stated before, this is part of the protected cityscape Bergpolder-Blijdorp.

Figure 45: Green spaces (Author)
Green experience

The experience of green in Bergpolder is mainly insufficient (Van Bergen Kolpa Architecten, 2011). This is particularly evident in the narrow residential streets inside the more quiet areas. As can be seen from the map with the green spaces, there is not much green in these places, only small trees. Notable is the green experience on the main roads and especially on the Bergselaan which runs in west east direction. It shows that the green experience is really sufficient, while there is hardly any green on this road. This positive green experience can be a result of the width of the road. The other streets inside the area are really narrow what gives a certain trapped feeling of tightness. The negative green experience does not necessarily have to be a problem because it is located in a really urban area. But as can be seen in the image with the green spaces, there is hardly any green in these streets. Even urban areas can still have a positive green experience. Noticeable is that the green experience on the north east side is really positive compared with the rest of the neighbourhood.
Public spaces

A lot of the public space in Bergpolder is rather stony. There are only a couple of places where a small square or park is located, all the other public spaces are just a broadening of the pavements.

1. Park which is mostly used by children during school breaks or people walking their dog.
2. A broadening of the pavement with flower containers and a small playground.
3. A small square with flower containers and benches.
4. The park inside the residential area which also has a football pitch, a playground and places to sit down.
5. Small playground.
6. A lawn around the historic building, this public space is only used by dog walkers.
7. A broadening of the pavement only consisting of trees and flower containers.
8. A green area in the middle of the road, only used by people walking their dog.
10. A square on top of the new parking garage with flower containers and a playground.
11. An unused lawn with trees in front of the shopping centre.
Main streets and impressions
The map indicates the most important streets in Bergpolder while the images give some general impressions of the Neighborhood.

1. Tunnel which runs underneath the busy Schieweg.
2. The canal which forms the boundary of bergpolder. This canal is located adjacent to the highway.
3. The entrance of Bergpolder seen from the highway.
5. Poor maintenance of the buildings.
6. The elevated Hofpleinlijn with facilities in the plinths.
Policies
The urban vision ‘Rotterdam 2030’ not only aims to improve the development of knowledge and services economy but will also guarantee an appealing residential and social climate capable of attracting more graduates and creative people. An appealing residential city means that residents feel connected to their city and that their living needs will be fulfilled. The potentials to become an attractive residential city are highlighted for each neighbourhood in Rotterdam.

The approach to Rotterdam North is based on making better use of and enhancing the existing qualities such as the hubs of economic activity and the attractive residential environments. Bergpolder has the potential to grow towards a mixed, urban living and working environment. One of the strategies to become such a neighbourhood is gentrification. The neighbourhoods around the centre of Rotterdam, such as Bergpolder are designated as gentrification neighbourhoods in the urban vision. Because of their central location, the historic character and the mix of living, work and facilities Bergpolder should be an ideal neighbourhood to attract people with middle and higher incomes. From social, cultural and economic perspective, Bergpolder has the right opportunities to start the process of gentrification and to become a lively and urban neighbourhood (DS+V Rotterdam, 2007). An important aspect of gentrification is the development and maintenance of high quality public space. This is also one of the key issues according the urban vision of Rotterdam.

The sub-municipality Rotterdam noord focuses on an integrated approach. They endeavor to become a socially and economical strong sub-municipality with an appealing living environment. This requires high quality housing, pleasant public spaces, educational opportunities, good accessibility and a divergent range of cultural and commercial facilities (Deelgemeente Rotterdam Noord, 2007). Their main goals are:
- Strengthen the urban structure and connections
- Create a more attractive living environment
- Strengthen the neighbourhood economy
- Use public space as a catalyst for an attractive living and working environment

According to the current vision of Rotterdam Noord; Noord Sterk en Geliefd 2010-2014 (Deelgemeente Noord, 2011), they aim to retain the attractiveness of Bergpolder north for students and young professionals and to increase the attractiveness of Bergpolder south according to the new masterplan which will be reviewed in the next paragraph.

Their tasks for 2010-2014 are:
- The development of Bergpolder south into an attractive living area in the heart of the neighbourhood.
- Increase the quality of the housing stock by encouraging home owners’ associations (VVE)
- Facilitate the entrepreneurship of the retail premises next to the Schieweg through handling functional change in a flexible way.
The current and future development of Bergpolder takes place mainly in the southern part of the neighbourhood. A masterplan has been drawn up for the southern part of Bergpolder and there are also several plans for the development of the Hofpleinlijn. There are no current or planned developments for the other parts of Bergpolder.

**Masterplan Bergpolder zuid**
The concept of the new masterplan is ‘quietness and activity’ (Van Bergen Kolpa Architecten, 2011). Bergpolder south will be connected with the city center. Some parts of the neighbourhood will not only be intended for the inhabitants, but also for visitors outside of the area. Bergpolder is going to be a lively neighbourhood but also an area for the residents where they can live quietly. Bergpolder is going to be a neighbourhood with parts which the residents share with the rest of the city. Part of the masterplan is the demolishment of two residential buildings to create space for new apartment buildings in a higher price range. A lot of attention is paid to public space which includes the refurbishment of the shopping area, a new square with an underground parking garage and the development of a semi-public park inside a housing block. A participation process has been carried out during the development phase of the masterplan. Five meetings with different aims were organized for all interested parties; from providing information to debates. Participation is important for the sub municipality in order to understand the wishes and needs of the residents and to take these into account within the new plans. The sub municipality did not take into account all the wishes of the inhabitants. The residents are for instance against the demolishment of two housing blocks although this is still part of the masterplan.
**Hofpleinlijn**

In 2006 the Com.Wonen, Stadswonen, PWS and Vestia housing corporations joined forces and purchased the Hofplein line railway viaduct from the Dutch Railways. In 2008, Crimson Architectural Historians presented a vision for the future of the Hofbogen. The aim of this vision is to create a future image with respect to the development of the Hofbogen and to draw interest from possible investors. Substantive and financial support from various parties is necessary to actually realize the transformation.

The plan is to create a carefully considered new use for this former railway line. It will become a public recreation area which will also make a contribution to upgrading the quality of the northern suburbs of the city (Crimson Architectural Historians, 2008). The transformation of the Hofbogen concerns the building itself and the top of the building. The building itself will be restored and developed and gives place to many different facilities such as shops, workshops or studios. The roof of the Hofbogen will be treated as one continuous public space which is designed as a collection of successive places with various programs. The different zones and programs will be connected with each other through the trail on top of the former railway. The redeveloped viaduct will not only benefit the local inhabitants but it should also tempt other inhabitants of Rotterdam to visit this special location in the city.

Due to problems associated with separate ownership of the building and the railway, the financial crisis and the lack of public investors, the ambitious plans for the Hofpleinlijn are postponed.

*Figure 51: Images Hofpleinlijn (Crimson Architectural Historians, 2008)*
3.6 PARTICIPATION

As noticed before in outcome monitor Wijkenaanpak 2012 (CBS, 2012b) there is already some citizen participation taking place in the neighbourhood. Residents can, together with the whole of their street, participate within the Opzoomer project. This Opzoomer project is characterized by residents’ initiatives in streets in Rotterdam. These ‘do-it-yourself’ activities are focused on meeting and greeting and are often linked to practical initiatives such as children’s playgrounds or a clean street. Some examples of the activities are: Street dinners, game days, cleanup and street parties. One of the residents initiatives in Bergpolder are the allotments (volkstuinen) on the north side of the neighbourhood.

Another initiative from the residents is the front garden day (geveltuinendag) whereby residents with a frond garden can pick up free pants. The frond garden day stimulates and helps residents to develop the small gardens and to maintain them. The aim of these days are to add more green to the streets in Bergpolder and to engage people in the neighbourhood. Noticeable is that most of these initiatives are taking place within the more quiet areas of Bergpolder.
3.7 INTERVIEWS

Several interviews have been carried out to elicit views on the needs and desires of the inhabitants and the municipality. I asked both parties, among other things, to do a SWOT analysis to find out what their focus was.

Residents association
The residents association of Bergpolder consists of volunteers who (preferably) come from different groups within the neighbourhood. Everyone who is living or has an enterprise within Bergpolder can be part of the association.

The most important comments of the residents association were that there are two groups in Bergpolder, a group of people who want to participate in the development of the area and a group which pays less attention to participation. The group who takes initiatives in participation is really enthusiastic, they organize days to maintain front gardens and other activities. The association also want to involve the other group of people, but they think it is more important to put effort in the group which is already participating. The residents are afraid that the municipality is creating plans to attract new inhabitants to the area and not for the current inhabitants. The new masterplan of Bergpolder south contains for instance the demolition of two social housing buildings to create dwellings for people with higher incomes from outside the neighbourhood.

This group of residents do not want the area to change in a radical way but they do want the area to improve. They see the traffic in the area as a weakness and they want that to change. The cars should be less dominant in Bergpolder so there will be more possibilities to create new public spaces. The residents experience Bergpolder as a really stony neighbourhood and it is necessary to pay more attention to green and public spaces.

They talk about the development of the Hofpleinlijn as a great opportunity for Bergpolder. The old train track should be developed with small scale interventions instead of all at once. Other smaller opportunities are the development of collective gardens inside the housing blocks and more space next to the buildings to place a bench or other street furniture.

To conclude: The residents association want Bergpolder to remain in its current shape but they do want the traffic problems to be solved so there can be more possibilities for new green and public spaces.

<table>
<thead>
<tr>
<th>STRENGTH</th>
<th>WEAKNESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>The location</td>
<td>Traffic in general</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OPPORTUNITY</th>
<th>TREATTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>The development of the Hofpleinlijn</td>
<td>Governmental policies, too much development</td>
</tr>
</tbody>
</table>
Sub-municipality Rotterdam noord
The sub-municipality of Rotterdam noord wishes to attach people to the whole sub-municipality instead of to one area. Within Rotterdam noord, the housing stock is really diverse so they are not particularly aiming at creating a housing ladder within Bergpolder. They are facilitating citizen participation instead of motivating. This means that they will always ask citizens about their ideas and opinion in new plans but they are not actively stimulating citizen participation. A participation process has for instance been carried out within the new masterplan of Bergpolder south.

A great opportunity within Bergpolder is to merge small dwellings together to create bigger ones. They are encouraging home owners to buy an adjacent dwelling and convert them instead of moving out of Bergpolder to buy a larger dwelling. The current financial crisis makes this opportunity even more likely because it is really insufficient and hard to sell a house at the moment. The sub municipality will make it more easy to convert the dwellings starting with policies and a facilitator. Bergpolder is a really compact area and it is really hard to create new open spaces without removing parking places. A study by the sub municipality has shown that it would be ideal to remove parking spaces on the southern sunny sides of the streets to create larger pavements, but a solution needs to be found for the shortage of parking places. At the moment they are already planning on creating a waiting list for parking licenses. When dwellings will be merged, a reduction in dwellings will occur whereby the opportunity to remove parking places arise. When this actually happens, more open space arises to improve the public space.

To conclude: The sub-municipality wants to support the merging of dwellings, and to create dwellings and a residential environment for people with higher incomes so it will be possible to move up the housing ladder. They are also trying to solve the traffic problems in the neighbourhood by solving the parking problem and to release the high traffic and pollution pressure of the Schieweg.

The biggest conflict between the residents and the sub municipality is that the residents are afraid that the future developments will be carried out in favour of new inhabitants rather than the current inhabitants.
According to the report ‘Woonbeleving Regio Rotterdam 2008’, which is a research report commissioned by the municipality of Rotterdam, different housing associations and investors, there is a demand for a quiet urban residential environment in Bergpolder. The need for this environment is already described in the urban vision ‘Rotterdam 2030’. Urban quiet is the most requested residential environment in the whole Rotterdam region and this demand is not yet fulfilled.

The SmartAgent company (2008) calls this residential environment ‘the best of both worlds’, because it contains the social character of a residential area, but the physical diversity in dwellings and facilities of a lively environment.

In the current situation, Bergpolder houses mainly a lively residential environment and at the east side, only a small part of the neighbourhood houses a quiet urban residential environment.

There are three ways to transform a lively residential environment to a quiet urban residential environment (The SmartAgent Company, 2008);

1. Areas where both lively- and quiet urban residential environments are present - Physical.
2. Areas with a lively residential environment which function moderate.
3. Lively residential environments where the inhabitants want to live more quiet - Social.

In Bergpolder, both the lively- and quiet urban residential environments are present so there is an opportunity to transform the area into a more balanced residential environment. To start this transformation an increase in larger dwellings and green spaces is necessary (The SmartAgent company, 2008). This creates a more intimate atmosphere ensuring that more group oriented people would like to live there.

When creating larger dwellings, it becomes possible for the current inhabitants to take the next move up the housing ladder. It has been demonstrated, that those people feel more involved in the area because they are planning to live there for a longer period (The SmartAgent company, 2008). The willingness to relocate along the students of the smaller dwellings is much higher because they do not feel the need to participate and be involved in the area. It is also possible that students would like to take the next step up the housing ladder within the same neighbourhood.

Characteristics of a quiet urban residential environment area are (The SmartAgent Company, 2008):

Social
- High diversity of social composition in terms of ethnicity, age and family composition.
- Protected living environment
- Cozy and intimate
- Privacy

Physical
- High rate of mixed use
- A lot of green spaces
- High diversity of dwellings
- Historical and 1930’s architecture
- Dwellings with a private garden or a balcony

In the future, there should be a mix of residential environments in Bergpolder. Currently the majority of the neighbourhood is dominated by the lively residential environment. In the future, it should be more balanced and a mix of the lively and the urban quiet residential environment.
In het onderzoek is onderscheid gemaakt in een achttal woonmilieus. Vervolgens is in kaart gebracht welk woonmilieu men _ervaart_ in zijn directe omgeving en in welk woonmilieu men _zou willen_ wonen.

Onderstaande kaart geeft weer hoe de bewoner zijn woonmilieu beleeft. Daar waar in de figuur vlekken van één kleur ontstaan, domineert een woonmilieu _sterk_. Vlaardingen en Schiedam zijn de meest stedelijke gemeenten rondom Rotterdam. In de gemeenten Spijkenisse, Barendrecht, Ridderkerk, Krimpen aan den IJssel en Albrandswaard domineren de woonmilieus ‘woonwijk met vooral eengezinswoningen’ en ‘woonwijk met appartementen en eengezinswoningen’.

Door vervolgens het huidig beleefde woonmilieu te vergelijken met het gewenste woonmilieu, ontstaat inzicht in de mate waarin vraag en aanbod op elkaar _aansluiten_ en in hoeverre bewoners op de juiste manier worden _bediend_ in hun

---

**Table 5: Characteristics of residential environments (The SmartAgent Company, 2008)**

<table>
<thead>
<tr>
<th></th>
<th>Lively Urban</th>
<th>Quiet Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target group</td>
<td>Red Lifestyle</td>
<td>Mixture of Lifestyles</td>
</tr>
<tr>
<td>Character</td>
<td>Dynamic and cosy</td>
<td>Cosy and homey</td>
</tr>
<tr>
<td>Social mix</td>
<td>Mix of residents</td>
<td>Fairly mixed</td>
</tr>
<tr>
<td>Function mix</td>
<td>Mixed-use</td>
<td>Fairly mixed</td>
</tr>
<tr>
<td>Amount of green</td>
<td>Little</td>
<td>Pretty much</td>
</tr>
<tr>
<td>Ownership</td>
<td>Mainly rent</td>
<td>Rent and owner occupied</td>
</tr>
<tr>
<td>Dwelling type</td>
<td>Multi-family homes</td>
<td>Single and multi-family homes</td>
</tr>
</tbody>
</table>

---

*Figure 53: Residential environment in Rotterdam (The SmartAgent Company, 2008)*
3.9 LIFESTYLES

According to the report ‘Woonbeleving Regio Rotterdam 2008’, there are four different lifestyles present in Rotterdam. The vertical axis of this lifestyle diagram is based on a physiological dimension, and the horizontal axis on a social dimension (figure 54).

Currently, Bergpolder is dominated by the red lifestyle. A small part of the neighbourhood already houses people with the yellow lifestyle.

The red lifestyle is characterized by a group of people with a free, independent spirit. They have an active lifestyle and they want to live among people from different societies and cultures. They do not interact much with each other and independency is of great importance. The red lifestyle has a really urban orientation without actually living inside the city centre. This group mainly consists of young people, namely students, young professionals and socially mobile residents who expect their income to increase.

The yellow group appreciates social contact inside their neighbourhoods and has a strong group orientation. People with this lifestyle want to live in quiet urban living areas with a lot of green where children can play and with several neighbourhood facilities. The yellow lifestyle consists mainly of families and senior citizens.

The small group of people making up the yellow lifestyle are already participating in the neighbourhood. People with this yellow lifestyle are really group oriented. These are mostly the people who are already part of the residents association and who are taking initiatives to organize activities inside Bergpolder. The yellow lifestyle is much more interested in the participation process of the development of the area. They are involved within the area as this group of people is much more reliant upon an area while the red lifestyle is much more oriented towards the city center and not dependent on their neighbourhood. It is hard to know what the people with the red lifestyle would like as they are not taking part in the participation process at the moment. They do not participate in the development of the area so you do not know what their wishes and needs are. But it is actually really important to make the group with the red lifestyle more committed to the neighbourhood to give them the opportunity to discolour within Bergpolder and to make it possible to be part of another lifestyle. The residents association has indicated that they are afraid that the neighbourhood will be developed for new people coming from outside the area. If you create new opportunities for the current inhabitants to take the next step on the housing ladder within Bergpolder, you are developing the neighbourhood for the current inhabitants rather than for outsiders. So for Bergpolder it can be important to create opportunities to change the dominating red lifestyle to a combination of red and yellow. The emergence of the yellow lifestyle goes along with the creation of a quiet residential environment.

The biggest challenge within this development is to make the red lifestyle feel involved within the neighbourhood. As stated in the literature, Boonstra en Boelens (2011) say that planners can play a crucial role in ‘making it happen’ by being part of the initiating actor-network assemblage. Planners should position themselves as actors integrated in the self-organization process itself in order to play a role in connecting individual self-interests to a common interest of higher added value. This is where the design of the neighbourhood comes in. It offers the current residents a vision of how it can be developed in the future, but this vision leaves open the spaces where the residents can start the self-organization or participation process.
De duidelijke tweedeling van de egogeoriënteerde huishoudens in Rotterdam Noord en de groepsgerichte huishoudens in Rotterdam Zuid wordt in de volgende figuren geografisch weergegeven.

Figuur 1.10: Spreiding van de belevingswerelden in Rotterdam Noord

Figuur 1.11: Spreiding van de belevingswerelden in Rotterdam Zuid

Figure 54: lifestyles in Rotterdam (The SmartAgent Company, 2008)
3.10 POCKET PARK SITES

As noticed before, green spaces are really important within the creation of a quiet urban residential environment and the yellow lifestyle. The emergence of pocket parks can be a tool to make the red lifestyle feel more involved and connected to the neighbourhood to create the opportunity that they eventually can discolor and grow towards the yellow lifestyle.

Pocket parks are mostly created by bottom up participation to take the needs of the inhabitants into account. Or as Francis (2003; p.33) stated; ‘Successful public spaces are the ones that are responsive to the needs of their users; are democratic in their accessibility; and are meaningful for the larger community and society.

Bergpolder is an ideal location for the creation of pocket parks because of the compactness of the area. There is no room left, and no need for large open spaces, so the small green spaces has to be designed in an inventive way.

As a result from the consultation with the pocket park foundation and my own research, several conditions are drawn up for the locations of the pocket parks;

- The site should be limited in size, there is not a specific size for the parks.
- The site should be easily accessible especially for slow traffic.
- A place should be public and it is not recommended to create a pocket park within a private area.
- Unused existing open spaces are ideal locations for the creation of pocket parks. The pocket park foundation has noticed that the development of these kinds of places works really well with the help of a participation process.
- Neutral places; The inhabitants association pointed out a couple of places which feel a bit unsafe but the pocket park foundation recommended to take neutral places for the pocket parks. In unsafe places there is a physiological negative atmosphere which is causing participants to create a negative feeling about it. This places should be redeveloped but not with the help of participation.

When neutral unused open space are developed, inhabitants are mostly very curious and interested in the development of these spaces.

To find the ideal places for the creation of pocket parks within Bergpolder all the unused open spaces in the area are possible locations for development. In addition, the streets with a negative green experience are marked, these are places were green development has a high priority.

The analysis of the area has demonstrated the existence of many narrow streets dominated by cars and these streets are also excellent places for development. At the north side of Bergpolder, three streets are designated by the residents as places which feel a little unsafe. These three places will therefore not be indicated as possible pocket parks because of the negative atmosphere.

Out of all these possible intervention locations three places are selected and elaborated on in the design.
Figure 55: Possible locations of pocket parks (Author)
3.11 CONCLUSIONS

In this section the most important conclusions of the project location and its analysis will be highlighted.

The information from the outcome monitor 2012 shows that Bergpolder scores a lot better than the other deprived neighbourhoods in Rotterdam. This also shows that the neighbourhood has a lot of potentials and that the problem factors have been decreasing over the past years. However, there are still a lot of problems in the area. In terms of the housing stock, it shows that there is a large amount of small houses and also the value of the houses is quite low compared to Rotterdam’s average. For most people in the area it is not feasible to move up the housing ladder and so they have to move out of the neighbourhood. Many students and young professionals are living in Bergpolder because of the small and affordable houses. One of the problems is that they live mostly anonymously and individually inside the neighbourhood, they are more oriented on the city centre and other facilities elsewhere in the city which causes a lack of social engagement inside Bergpolder.

The number of people with low incomes has decreased between 2006 and 2010 from 48 percent to 45 percent over the last five year. This positive development of income points out an increase of socially mobile residents in Bergpolder. One of the biggest problems in terms of livability is the physical nuisance by the Schieweg and the highway which cause a lot of air and noise pollution.

Traffic is one of the biggest physical problems in the neighbourhood. Some large roads are intersecting the area and the whole district is dominated by cars. As mentioned before, the highway and the Schieweg are causing a lot of air and noise pollution. Parking is also a large problem. In the evening and at night all the parking places are occupied whereby car owners are forced to park their car far away from their home or in a prohibited place which can cause unsafe situations in case of an emergency.

A large part of the neighbourhood encounters a negative green experience. This is particularly the case in the small residential streets inside the more quiet areas. Notable is the green experience on the main roads, and especially on the Bergselaan which runs in west east direction. It shows that the green experience is really sufficient, while there is hardly any green on this road. This positive green experience can be a result of the width of the road.

There are not many green spaces inside the neighbourhood. A lot of public space is not well used or does not have a clear function. Most of the public space is just a widening of the pavement with some flower containers, a green space in the middle of the main roads or unused lawns. There are already several large city parks in the surroundings so there is no need for large scale green space.

According to the urban vision of Rotterdam, the city wants to become an appealing residential and social climate capable of attracting more graduates and creative people. They want to embed a mixed quiet urban environment close to the city center. The sub-municipality of Rotterdam North wants to use public space as a catalyst for an attractive residential and working environment.

From the interviews it became clear that the residents association want Bergpolder to remain in its current shape but they do want the traffic problems to be solved so there can be more possibilities for new green and public spaces. The sub municipality on the other hand wants to support the merging of dwellings and to create dwellings and a residential environment for people with
higher incomes so it will be possible to move up the housing ladder. They are also trying to solve the traffic problems in the neighbourhood by solving the parking problem and to release the high traffic and pollution pressure of the Schieweg. The biggest conflict between the residents and the sub municipality is that the residents are afraid that the future developments will be carried out in favour of new inhabitants rather than its current inhabitants.

Because of the urban pre-war structure, and the requirements of the inhabitants to preserve Bergpolder in its current shape, it is important to transform Bergpolder without changing the existing spatial identity. Reuse and redevelopment are the two most convenient ways of transforming Bergpolder. Especially on the level of the building block, adjustments can be made in order to improve the quality of the residential environment in Bergpolder. Within transformation on the smallest scale, it is good to involve the current residents within this transformation process (Bijlsma et al., 2008).

According to the report ‘Woonbeleving Regio Rotterdam 2008’, there is a demand for a quiet urban residential environment in Bergpolder. Currently the neighbourhood is dominated by the lively residential environment and so it should become more balanced with a mix between those two environments. This change in environments ensures that people can move up the housing ladder. As noticed before, green spaces are really important within the creation of a quiet urban residential environment and the yellow lifestyle. The emergence of pocket parks can be a tool to make the red lifestyle feel more involved and connected with the neighbourhood to create the opportunity that they eventually can discolor and grow towards another lifestyle.

Image 56 shows the places where the current development of the masterplan Bergpolder Zuid takes place. This separate building ensemble differs from the other ensembles because of the social context and ownership. More property is possession of housing corporations. At the east side the Liskwartier is located, the set up of this neighbourhood is much wider than the compact Bergpolder. The most eastern part of Bergpolder is set up according to these guidelines and has a much higher quality than the rest of the neighbourhood.

This part of the neighbourhood consist of a different building ensemble and more people with the yellow lifestyle are living in this part of the area. The remaining area consisting of similar building ensembles is going to be the location where interventions are mostly needed. There are no current or planned developments for this part of Bergpolder.

Figure 56: Intervention area (Author)
This chapter describes the urban design made for the case Bergpolder. It shows the design through several levels, beginning with the neighborhood vision which leads towards the design interventions.
In the theoretical framework, several reasons were listed to start a transformation process in a neighbourhood. This reasons were; the extent in which the characteristics of the dwellings and the residential environment connect to the demand in a neighbourhood, the livability inside a neighbourhood and urban pressure from the city center (Bijlsma et al., 2008). In the case of Bergpolder, the first two reasons are valid to start the transformation process. These two reasons for transforming will be clarified by the following aspects due to several potentials or problems which can be solved in Bergpolder.

The residents of Bergpolder are afraid that the municipality is creating plans to attract new inhabitants to the area without taking into account the current inhabitants. From the interviews it became clear that the resident association wants Bergpolder to remain in its current shape, but they do want the traffic problems to be solved so there can be more opportunities for new green and public spaces. As stated in the literature, if a neighbourhood should be developed for its current inhabitants, it is necessary to engage the residents in the area so they wish to develop themselves within an area. To ensure that people feel more connected with the neighbourhood, it is necessary to increase the quality of the residential environment in a deprived neighbourhood. The emergence of pocket parks can be a tool to make residents feel more involved and connected with the neighbourhood and to increase the quality of the residential environment.

A large part of the neighbourhood encounters a negative green experience. A lot of public space is not well used or does not have a clear function. This lack of green spaces can be changed with the help of urban acupuncture and pocket parks. As noted in the theoretical framework, green can contribute to the identity of a neighbourhood and therefore the engagement and interconnectivity of its inhabitants which is currently lacking. Especially when the process of design will be carried out together with the inhabitants. In fact, the most successful small public spaces are the ones that are responsive to the needs of their users (Francis, 2003). It has been shown that urban acupuncture is the most effective by bottom up participation.

For most of the people in the area, it is not possible to move up the housing ladder so they have to move out of the neighbourhood. Many students and young professionals live in Bergpolder because of the small and affordable houses. The problem is that they are living mostly anonymously and individually inside the neighbourhood which causes a lack of social engagement in the area. Therefore there is a need for larger and more expensive dwellings in the area. New dwellings will make it possible for the current inhabitants to move up the housing ladder so they will not have to move to another neighbourhood.

Traffic is one of the biggest physical problems in the neighbourhood. Some large roads are intersecting the area and the whole district is dominated by cars. A solution for this problem is the creation of a new parking garage and the redevelopment of some important roads. At some places, parking places can
be removed in order to create more public space in the neighbourhood.
The city of Rotterdam designated the Schieweg as an important city boulevard, so it can actually become an entrance to the city with a public appearance.

All these problems and potentials indicate that Bergpolder should be transformed while the existing spatial identity will be maintained or even strengthened. The sub municipality and especially the residents association lead on to developments within the existing identity of Bergpolder.

The neighbourhood vision will be executed on the neighbourhood scale in which no changes in the existing urban structure will be made. In this approach, the large scale urban space consisting of main roads, neighbourhood parks and large scale public spaces is considered to be the unchanging framework in which transformations can take place.
The transformations on the neighbourhood level are aiming at continuing and strengthening the main urban and green structures (Bijlsma et al., 2008).

The transformations within the detailed design interventions will be executed on the level of the building block in which this structure is the leading principle. An integrated approach on the level of the building block can provide an effect on the whole neighbourhood. Within the design interventions, reuse and redevelopment will be used as transformation methods. Reuse is a method to apply physical interventions, which includes for example converting dwellings, adding new functions in existing buildings or the creation of collective and new public spaces. Redevelopment of public and collective space in a residential area consist of adjusting street profiles, planting or street furniture.

To sum up the three different scales:
Within the neighbourhood scale a vision is made with the aim of continuing and strengthening the main urban and green structures. No transformations will be executed on the level of the ensemble; the building typology within the urban fabric will remain identical. And on the smallest scale, interventions within the existing buildings and the surrounding public space will be implemented with the conservation of the existing spatial identity.
NEIGHBORHOOD VISION

NO TRANSFORMATIONS

SMALL SCALE INTERVENTIONS

Figure 57: Neighborhood identity (Author)

Figure 58: Ensemble identity (Author)

Figure 59: Building block identity (Author)
From the analysis of the project location and the interviews which were carried out, a new neighbourhood vision has been created. With this neighbourhood vision, Bergpolder will connect better to the surrounding neighbourhoods in the north of Rotterdam. Not only by creating new physical connections between the neighbourhoods but also by adjusting the type of residential environment. The development of Bergpolder will be significant for the whole district. The vision is divided into the following subjects; traffic, public space and living.

**Traffic**
One of the wishes of the residents association and an important task of the municipality, was to solve the traffic problems in the neighbourhood. Too many streets are dominated by cars, there is a parking problem and several large roads are crossing the area.

In the neighbourhood vision the Schieweg will be designated as a city boulevard. This means that it should have the allure of a city entrance. More green spaces will be constructed next to this road and the most important crossings. The facilities next to this city boulevard will have a different character from the other facilities in the neighbourhood. These facilities are more orientated towards the city while the other facilities are more neighbourhood orientated. A new highway which connects the A13 and the A16 will be constructed in order to unburden the A20 which is located next to Bergpolder. In this way also the Schieweg will be more quiet in the future.

The Bergselaan will be given a greener character which means that the profile of this street will be changed in order to create more usable public space. Currently a green space is located in between the lanes which is not used. The lanes will be centered in the middle of the street so there will be wider pavements. These pavements could also become places for the shop owners to expose their goods or create a little terrace.

A new parking garage will be created at the west side of the neighbourhood. This is one of the few locations were a garage can be realized as many other streets and places in the neighbourhood are just too small. This new parking facility is in line with the plans of the municipality. They wish to create a parking garage for approximately 200-250 cars underneath the park of the Noorderhavenkade.

In 2006, research has carried out to find out how much support there is within the neighbourhood (Brokken and de Graaf, 2006). 21% of the inhabitants of the area think an underground parking garage is a good idea. Those who did not think this was a good idea, were asked under what conditions they would approve the plan. 25% of them said they would approve the plan only if the park on top of the garage will be redeveloped. In the neighbourhood vision the parking garage will be created and the park on top of this garage will be redeveloped in order to increase the quality of the residential environment in Bergpolder.

In addition to the parking garage a new slow traffic connection will be developed. This connection runs through the middle of the neighbourhood and connects Bergpolder to the Vroesenpark. This slow traffic connection will be developed next to the existing secondary road. There are already several neighbourhood facilities located next to this road.

**Public space**
From the theoretical framework, the analysis and the interviews, several locations for new public space and pocket parks are designated. These are
Figure 60: Neighborhood vision (Author)
mostly places which are currently unused or places with a negative green experience. All the pocket parks will have a different character and identity but are recognizable as a pocket park. The parks should have a meeting or a residential function and should be created and maintained with the help of inhabitants or adjacent entrepreneurs. These pocket parks can contribute to the identity of Bergpolder, which can make residents more engaged to their residential environment which leads to involvement and care for their neighbourhood. If the public space will be created and designed with the help of the residents and entrepreneurs, they will feel even more involved which can lead to people becoming more engaged with the Bergpolder and want to settle down in the area for a longer period. The pocket parks are mostly created inside the more quiet areas of Bergpolder as they are intended as outdoor neighbourhood living rooms. Three locations are chosen for a detailed design from several locations. The public spaces will differ from each other in terms of identity, target group and degree of publicness.

As indicated before, the residents of Bergpolder view the Hofpleinlijn as an important opportunity for the neighbourhood. In the new vision, the Hofpleinlijn is designated as development area. This means that the development of this former railway is still on the agenda but is should be developed by small scale initiatives instead of all at once.

**Living**

From the criteria for the pocket parks and the analysis of the area, several locations are chosen for the creation of the pocket parks and new public spaces. The dwellings next to these new pocket parks should be redeveloped or, as the sub-municipality suggested, merged in order to create a place for the yellow lifestyle. The intention is that people with a red lifestyle will take the next step up the housing ladder inside Bergpolder. Thus, they eventually evolve towards the yellow lifestyle which feels more engaged to their residential environment. It has been demonstrated that those people feel more involved in the area because they are planning to live there for a longer period (The SmartAgent company, 2008), so they will probably feel a greater need to participate in the creation of a pocket park. The potentiality to merge dwellings is mostly located inside the more quiet areas of Bergpolder. The analysis has shown that most of the participation
takes place in these areas. The merging of dwellings means that a building with currently three apartments will be changed into two apartments of approximately 120 square meter. This rebuilding is quite simple because of the existing internal staircases. The red-lifestyle dominated neighbourhood will be changed towards a combination of red and yellow. This will automatically change the residential environment of the neighbourhood. In the future there will be a larger variety of lifestyles and a mix of the lively and the urban quiet residential environment. Characteristics of this mixed residential environment are:
- High rate of mixed use
- A lot of green spaces
- High diversity of dwellings
- High diversity of social composition in terms of ethnicity, age and family composition.

It will be possible to remove several parking places and to create new public spaces due to the shrinking of available dwellings. This will happen in the places where the pocket parks and new public spaces will be developed. Two small streets in the middle of the area will be completely car free.

Figure 63: combining of dwellings (Author)
### 4.3 INTERVENTIONS

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Residents</td>
<td>Residents</td>
<td>Residents + Neighborhood facilities</td>
<td>Residents + Neighborhood facilities</td>
<td>Residents + City facilities</td>
</tr>
<tr>
<td>Lifestyle</td>
<td>Yellow</td>
<td>Red</td>
<td>Yellow + Red</td>
<td>Red</td>
</tr>
<tr>
<td>Residential environment</td>
<td>Quiet Urban</td>
<td>Lively</td>
<td>Lively</td>
<td>Lively</td>
</tr>
<tr>
<td>Publicness</td>
<td>Semi-private</td>
<td>Public</td>
<td>Public</td>
<td>Ultra-public</td>
</tr>
<tr>
<td>Municipality role</td>
<td>Reserved</td>
<td>Facilitating</td>
<td>Facilitating</td>
<td>Executive</td>
</tr>
<tr>
<td>Participants</td>
<td>Residents</td>
<td>Neighborhood facilities</td>
<td>Residents + Neighborhood facilities</td>
<td>x</td>
</tr>
<tr>
<td>Citizen involvement</td>
<td>Self-organization</td>
<td>Self-organization</td>
<td>Participation</td>
<td>x</td>
</tr>
<tr>
<td>Shape</td>
<td>Strip</td>
<td>Strip</td>
<td>Park</td>
<td>x</td>
</tr>
<tr>
<td>Atmosphere</td>
<td>Intimate</td>
<td>Inviting</td>
<td>Approachable</td>
<td>x</td>
</tr>
<tr>
<td>Objective</td>
<td>Creating an outdoor living room</td>
<td>Creating a green/functional strip</td>
<td>Creating an usable place out of an unused space</td>
<td>x</td>
</tr>
</tbody>
</table>

Table 6: Characteristics of the small scale interventions (Author)
Four locations are designated as places for which a small scale intervention will be designed. These small scale interventions in public space will regenerate parts of Bergpolder by means of citizen participation. These design interventions will give an answer to the research question of this thesis.

The characteristics of the locations are divided into three groups; Target, actors and intention (figure 6).

As mentioned before, there will be a mix of lifestyles and residential environments in Bergpolder and therefore the four locations differ from each other in terms of target group, lifestyle and residential environment. The lively environment is connected to the red lifestyle and is located at the primary roads in the area. This lively environment contains a mix of functions while the quiet urban environment mainly consist of dwellings.

The rate of publicness increases within the four locations. The residential street is semi-private. This means that it is a public street but by the way it is designed and equipped it has a certain private atmosphere. The neighbourhood street and the pocket park are public but they are mostly intended for neighbourhood use. The city boulevard is ultra-public. As mentioned before it is designated as an entrance to Rotterdam and therefore this boulevard is meaningful for the whole city. The municipality has an executive role in the development of the Schieweg and therefore it is not suitable for participation. Also the profile of this street is not suited for a major change.

The municipality plays a different role in each location. In the residential street, the role of the municipality is reserved; they do not interfere with the actions of the residents in the public space. A part of the public space will be assigned to the residents which they can equip and arrange by themselves through self-organization. In the neighbourhood street and the pocket park, the municipality plays a facilitating role which means that they provide spaces for participation and self-organization in the public space. In contrast to the residential street, there are more actors involved in these cases and they are located next to a primary road. At the neighbourhood street the entrepreneurs of the neighbourhood facilities will have the opportunity to arrange the public space in front of their premises. The residents next to this street are mostly part of the red lifestyle and do not wish to participate much. Therefore the space for self-organization will be arranged by the entrepreneurs instead of the residents. In the case of the pocket park, multiple actors are involved; the residents and the entrepreneurs of the neighbourhood facilities benefit from this public space. Therefore the process of participation should be regulated. Within self-organization, the participants can define the spatial interventions outside government control while with participation the initiative is taken by the government or a housing association.

As can be seen in table 6, the intention of the three final intervention locations varies and the abjective provides a conclusion of all the characteristics together.

Figure 64: Locations inside Bergpolder (Author)
4.4 RESIDENTIAL STREET
The residential street is located in the heart of Bergpolder. The interventions on this level are carried out on the scale of the building block and the surrounding public space. The transformations can be distinguished as reuse and redevelopment. The street is completely car free and intended for the local residents. As mentioned before the dwellings next to this street are enlarged to create places for the yellow lifestyle to settle. This lifestyle asks for a quiet urban residential environment where children can play outside and were social interaction can take place. The residents can park their car in the new underground parking garage at the Noorderhavenkade. This parking garage is really close to the residential street.

At the edge of the street, a clear transition should separate the surrounding area from the residential street. This transition can be carried out as a small fence. It should not be possible to lock this fence, it is a visual boundary which indicates the transition from public to semi-private. The first part of the street is a paved area where bicycles can be stored. A small transition zone is created next to the building blocks. This zone indicates the separation between the private dwelling and the semi-private street. This zone can be arranged in the way the residents wish and they can determine the pavement and introduce for instance a bench outside.

Two half-paved paths provide access to the rest of the street. The path on the south side of the street is three meter wide and can be used in case of an emergency.

In the middle of the street, a strip is designated as a place for self-organization. This strip is indicated as collective green. The residents of this street can arrange this street without any governmental control. This part is located at the north side of the street whereby this strip will be less affected by the shadow of the buildings. The only condition for this strip is that there are two places where you can cross this strip.

The objective of this intervention is to create an outdoor living room were residents can meet each other, were children can play safely outside and were local neighbourhood activities can take place.
<table>
<thead>
<tr>
<th>Target</th>
<th>Residential street</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target group</td>
<td>Residents</td>
</tr>
<tr>
<td>Lifestyle</td>
<td>Yellow</td>
</tr>
<tr>
<td>Residential environment</td>
<td>Quiet Urban</td>
</tr>
<tr>
<td>Publicness</td>
<td>Semi-private</td>
</tr>
<tr>
<td>Municipality role</td>
<td>Reserved</td>
</tr>
<tr>
<td>Participants</td>
<td>Residents</td>
</tr>
<tr>
<td>Citizen involvement</td>
<td>Self-organization</td>
</tr>
<tr>
<td>Shape</td>
<td>Strip</td>
</tr>
<tr>
<td>Atmosphere</td>
<td>Intimate</td>
</tr>
<tr>
<td>Objective</td>
<td>Creating an outdoor living room</td>
</tr>
</tbody>
</table>

*Table 7: Characteristics of the residential street (Author)*
Figure 67: Impression residential street (Author)
Figure 68: Materials residential street (Author)
**Materials**
The residential street consist of several different types of paving. The street adjacent to the residential street is paved with road bricks and the sidewalks consist of concrete tiles. These types of paving are also used in many other parts of Rotterdam in order to create continuity and unity on the streets and pedestrian areas. The transition from the public street to the semi-private residential street is carried out as for instance a small fence or little poles. The first part of the street is paved with concrete slabs of 1 by 1 meter while the rest of the street consist of half paved paths. The residents can determine the type of pavement in front of their dwelling by themselves.
4.5 NEIGHBOURHOOD STREET

Figure 69: Design neighbourhood street (Author)
The neighborhood street is one of the primary streets in Bergpolder. The neighborhood vision already showed that this street will get a more green character with more usable public space.

The roads will be centered in the middle of the street whereby more usable public space arises at the sides of the street. The former tram way in the middle of the street will be demolished to make this possible. At the south side of the street the parallel parking places will be changed into 90° parking in order to create more parking places. These parking places at the south side of the road will be surrounded by low bushes to keep them a little out of sight. The infrastructural part in the middle of the street will be framed with three rows of trees.

At the south side of the street, next to the building blocks, a small transition zone is created just as in the residential street. This zone indicates the gradation between the private dwelling and the public street. The residential environment of this street will be lively which includes the red lifestyle and a mix of functions. The dwellings at this neighborhood road will remain in its current shape. At the north side, several neighborhood facilities are located. In front of these facilities, a strip will be created for self-organization. Every shop owner can arrange the part which is located in front of their store. This zone can be an extension of their shop; the shop owners to expose their goods outside or create a little terrace. They can also choose to create a green space in order to make this street more green. The shop owners can arrange their part without any governmental control; the municipality does take care of the rest of the street. This zone is created at the north side of the street to benefit the most from the sun.

The objective of this self-organization strip is to create a green and functional zone within a lively residential environment.
<table>
<thead>
<tr>
<th>Target</th>
<th>Neighborhood street</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target group</td>
<td>Residents + Neighborhood facilities</td>
</tr>
<tr>
<td>Lifestyle</td>
<td>Red</td>
</tr>
<tr>
<td>Residential environment</td>
<td>Lively</td>
</tr>
<tr>
<td>Publicness</td>
<td>Public</td>
</tr>
<tr>
<td>Municipality role</td>
<td>Facilitating</td>
</tr>
<tr>
<td>Participants</td>
<td>Neighborhood facilities</td>
</tr>
<tr>
<td>Citizen involvement</td>
<td>Self-organization</td>
</tr>
<tr>
<td>Shape</td>
<td>Strip</td>
</tr>
<tr>
<td>Atmosphere</td>
<td>Inviting</td>
</tr>
<tr>
<td>Objective</td>
<td>Creating a green/functional strip</td>
</tr>
</tbody>
</table>

*Table 8: Characteristics of the neighborhood street (Author)*
Figure 71: Impression neighbourhood street (Author)
Figure 72: Materials neighbourhood street (Author)
**Materials**

The main streets consist of asphalt while the secondary streets such as the residential street are paved with road brick. The distinction between these two types of streets is carried out to increase the readability of the public space. It shows that you enter a different type of street which is located in a more quiet residential area.

In the middle of the four lane street, there is a green bank which provide a green boundary between the lanes. The sidewalks consist of concrete tiles which is similar to the paving in the rest of Rotterdam. The zones for self-organization on both sides of the street can be arranged how the residents or entrepreneurs wish to. The participants can choose to pave this zone or to create a small green space in front of their dwelling.
4.6 POCKET PARK

Figure 73: Design pocket park (Author)
The pocket park is located next to the Bergselaan, one of the primary streets of Bergpolder. As noticed in the design of the neighborhood street, the profile of this road will be changed to create more usable public space on the sides. The two small streets next to the park will be closed in order to create a pedestrian area around the pocket park. At the end of this blind street, a turning place is created. The removed parking places next to this road will be replaced at the Bergselaan.

The park is surrounded by building blocks on three sides. At the north side, the famous van Tijenflat is located and the other two sides are enclosed by dwellings. The dwellings in the van Tijenflat are intended for seniors which is not going to change. The dwellings in the building blocks at the east and west side of the park will be enlarged to create even more places for the yellow lifestyle to settle. In the plinths of the buildings, new room for facilities is created. In front of the facilities, the self-organization strip will be created so that the entrepreneurs can arrange this space.

In the middle of this building block ensemble, a new pocket park will be created. It can become a small park with direct connections to the facilities around it. The elderly from the van Tijenflat can meet each other and relax in the park while little children from the surrounding dwellings can play safely outside. As stated before, multiple actors are involved in this space; the local residents and the entrepreneurs of the neighborhood facilities benefit from this public space. Therefore the participation process should be regulated by an unbiased outsider. Here the role of the urban designer comes back in the picture. As stated in the literature; ‘Planners can play a crucial role in ‘making it happen’ by being part of the initiating actor-network assemblage’ (Boonstra and Boelens, 2011, p.107). But there are actually a few conditions attached to the design of the pocket park. The van Tijenflat is a monument and designed by the architects Van Tijen, Brinkman en Van der Vlugt in 1934. The principle idea of the design was to create a building with the same density as the other blocks, but to pile up the dwellings. Therefore open space around the flat arose. In the new design for the pocket park, this open space should not be totally filled up. It was the intention to create open space, and this idea should be continued. Therefore the outside border of the park should remain really clear and the new objects should be placed within this field of open space.

The objective of this pocket park is to turn an unused open space in usable public space.

Figure 74: Van Tijenflat (Author)
### Table 9: Characteristics of the pocket park (Author)

<table>
<thead>
<tr>
<th>Target group</th>
<th>Residents + Neighborhood facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lifestyle</td>
<td>Yellow + Red</td>
</tr>
<tr>
<td>Residential environment</td>
<td>Lively</td>
</tr>
<tr>
<td>Publicness</td>
<td>Public</td>
</tr>
<tr>
<td>Municipality role</td>
<td>Facilitating</td>
</tr>
<tr>
<td>Participants</td>
<td>Residents + Neighborhood facilities</td>
</tr>
<tr>
<td>Citizen involvement</td>
<td>Participation</td>
</tr>
<tr>
<td>Shape</td>
<td>Park</td>
</tr>
<tr>
<td>Atmosphere</td>
<td>Approachable</td>
</tr>
<tr>
<td>Objective</td>
<td>Creating an usable place out of an unused space</td>
</tr>
</tbody>
</table>

*Figure 75: Sections pocket park (Author)*
Figure 76: Impression pocket park (Author)
Figure 77: Materials pocket park (Author)
Materials
The streets consist of road brick and the sidewalks are paved with concrete tiles. The wide self-organization zones next to the buildings are used by the entrepreneurs and the smaller zone is used by residents. They can determine the type of pavement in front of their dwelling or shop by themselves. The border of the pocket park must be carried out as a clear separation between the park and the street. This border should not be carried out as a fence because it should always be open and accessible by people. But it can for instance be implemented as a small elevation to clarify the transition from the sidewalk to the park. Next to the van Tijenflat a hedge is planted to indicate the transition from the public park to the private area around the flat.
CONCLUSIONS

This is the final chapter of this thesis. This chapter describes the final conclusions that can be drawn from the theory and from the design. In addition it provides recommendations for further research. At the end it gives an evaluation of the whole research study.
The theoretical framework and the location analysis provided answers to the different sub research questions of this study.

The first question of how small scale interventions can complement the city scale top-down strategies is answered for this specific location. Research about the city scale top-down strategies in Rotterdam and Bergpolder showed how the municipality wished to develop the neighbourhood. Examples of these top-down strategies are the urban vision ‘Rotterdam 2030’ and the vision of Rotterdam Noord; Noord Sterk en Geliefd 2010-2014. The priorities of these top-down visions are partly implemented in the neighbourhood vision. However, the small scale design interventions of this study are applied from bottom up. This is the only convenient way to find out how the current users of Bergpolder wish to transform their residential environment. Within interventions on the smallest scale it is important to involve the residents within this transformation process.

The second sub-research question is answered from the perspective of the theoretical framework and the interviews. Many studies and the interview with the pocket park foundation provided criteria for the creation of small scale interventions and urban acupuncture. The outcome of answering this question was that there is not a precise set of rules for the application of the theory of urban acupuncture but just key ideas. Nevertheless, it was possible to set up some general criteria as recommendations for the design; designate a strategic location, work together with the local residents and determine the nature of the catalyst. The last sub-research question was answered by the theoretical framework and the analysis of the location. The question was at what stage and to what extent participants can be involved in the design of a small scale intervention? As stated before, different locations have different stakeholders. And therefore the process of participation is different within every design intervention as can be seen in table 6. In the case of Bergpolder a distinction is made between participation and self-organization. The process of participation should be regulated by an unbiased outsider while at self-organization the participants can define the spatial interventions outside government control (Boonstra and Boelens, 2011). For each design intervention the municipality plays a different role. This can be an executive role in case of the city boulevard and a reserved role in case of the neighbourhood street. In all cases there is balance between the role of the municipality and the competence of the residents. Or as Kompier (2009) stated: We need to give more capacity to the citizens and let go off what does not necessarily have to be regulated.

Finally, the design interventions answered the main research question “How can small scale spatial interventions in public space, by means of citizen participation, strategically contribute to regenerate a deprived neighbourhood in the Netherlands?”. For the neighbourhood vision and the detailed design interventions the answers of the sub research questions were taken into account in order to create an intervention which is applicable to that specific location. For each location, the target group, lifestyle, residential environment, participants and the role of the municipality are used as guidelines in order to determine the process of resident involvement and type of intervention. But also the site itself contributes a great deal to the nature of the intervention. As stated in the problem statement: For successful urban regeneration, it is important to transform the physical environment of residential areas while the existing spatial identity
will be maintained or even strengthened (Bijlsma et al., 2008). Therefore the implementation of the small scale interventions took into account the preservation of the existing urban identity.

The aim of the project was to search for an innovative method for the regeneration of public space by strategically applied and designed small scale interventions. The idea was that this method could be applied in similar areas and neighbourhoods with similar characteristics to Bergpolder in Rotterdam.

The idea of a general method is executed in a specific way. A detailed design has been drawn up for three areas in the neighbourhood. These areas differ from each other in many ways such as target group, lifestyle, citizen involvement and objective. All the areas inside Bergpolder can be classified within one of those categories. This means that the design principles for the four locations are also transferable to places within other neighbourhoods with the same characteristics of Bergpolder. These characteristics can be similar in terms of lifestyles, stakeholders, residential environment and urban structure.

However, as mentioned before, every location and site asks for a tailor made approach. Every design location is different and has to deal with specific local participants and spatial identity which may differ from location to location. This tailor made approach should also be applied to the different lifestyles which are present in an area. For this research, the four lifestyles according to the SmartAgent Company research were used. But every site demands locally based research about lifestyles as it is just not possible to classify people of different groups of society into four groups.

The problem statement showed that many former urban renewal projects did not do justice to the spatial potentials of existing neighbourhoods. The aim of urban renewal was to improve the living conditions and to provide good-quality housing rather than improving the quality of the residential environment (Stouten, 2010). Therefore the design principles of the spatial interventions consist of qualitative requirements in which the participants can arrange these public spaces the way they wish to. These qualitative requirements consist mainly of transition zones and places for self-organisation and participation. These zones are designated as transition zones or boundaries which indicate the separation between public, semi-private and private properties. The quantitative requirements are set by the government and are valid for the remaining public space. These requirements are for instance regarding the width of the streets, the parking standard and the accessibility of emergency services.

An outcome of this research and the design interventions was that the readability of the public space is extremely important. The transition zones and places for self-organisation or participation indicate the separation between the private and the public space in the neighbourhood. Therefore each function is indicated with a different paving or with a clear border or zone in order to increase this readability. This does not mean that all the functions have to be separated from each other, but in order to use the public space in the right way it has to be readable.

The ideas and outcomes of this research can be used as a generic strategic approach to apply small scale interventions in public space by means of citizen participation in deprived neighbourhoods. The study has shown that green spaces can contribute to the identity of a neighbourhood.
This enables residents to engage with their living environment which leads to involvement and care for their neighbourhood. The process of participation and spatial interventions can increase the quality of the residential environment in a neighbourhood. Or as Francis (2003, p.33) stated; ‘Successful public spaces are the ones that are responsive to the needs of their users; are democratic in their accessibility; and are meaningful for the larger community and society’. This means that the created public spaces are responsive to the needs of their direct users, but can be used by everyone and therefore are meaningful within a wider range.

As mentioned before there are many different ways of participation. And every activity or design asks for different participants. The neighbourhood street asks for local residents while the pocket park has to deal with a wider range of users. All those participants will use the public space in different ways. So it is important to adjust the kind of activities or design to the audience you wish to reach. Public spaces should be useable for every group of society and should therefore adapt to the requirements of different groups.

This research aims to solve some generic problems which occur in the current urban planning system. The small scale interventions in public space anticipate the decreasing need for large scale transformations. The small scale interventions also take care of maintaining or even strengthening the existing spatial identity which are omitted from many former urban renewal projects. With reuse and redevelopment of the smallest scale of the building block the existing spatial identity is preserved by setting qualitative requirements rather than quantitative demands.

Within the process of intervening on a small scale, the residents are involved in order to create more engagement and commitment among its users. Neighbourhoods can be transformed along the requirements of its users and therefore it will represent the exact needs of society itself. The economic crisis is considered to be a huge opportunity for these kinds of developments. Not only the municipality and developers but especially residents can play a large role in the transformation of their residential environment.
5.2 RECOMMENDATIONS

The thesis can be continued with more in depth research in order to make it even more feasible and evident.

One of the recommendations is to do more research regarding different lifestyles and residential environments. During my research, I considered to continue this topic with the report of the SmartAgent Company of 2008. I am aware of the fact that this is not the only point of view about lifestyles and residential environments. There exist many other research models which could have been compared with the one I have used. The model of the SmartAgent Company defines four lifestyles, but there are a lot more different lifestyles than those four. It is just not possible to classify people into four different groups. The four lifestyles are not static and there must be more overlap between these different lifestyles.

The next step would be to set up the participation process in the neighbourhood. Due to the time limitations of my research project, it was not possible to set up such a process. Examples from practice demonstrate that such a process could take years. The pocket park foundation worked for one year to set up one pocket park in Amsterdam. In this thesis I indicated the places where the participation can take place. The next step will be to cooperate with the different stakeholders such as residents, entrepreneurs and the municipality to come to an actual design of a pocket park. At that point it can become a detailed design in which the needs and the requirements of the residents and entrepreneurs are included.

Another recommendation is to carry out research about the economic feasibility of these kind of public spaces. Is the municipality for instance willing to invest in a project in order to increase the social engagement of the inhabitants of an area. What kind of organizations provide funds for these projects and is their willingness among the inhabitants and entrepreneurs to make a financial investment in their residential area. And what is the chance of success for a project with citizen involvement?
5.3 REFLECTION

Relation with the studio
The discipline of Urban regeneration connects to the graduation project due to the urban acupuncture strategy and the small scale interventions. Carter (2005), states that successful urban regeneration requires a strategically designed, locally based, approach. The need for strategic approaches arises from the concerns regarding urban regeneration in general which have been designated as being modest in scale, geographically dispersed, marginal and the most important ad hoc in character without any relationship to urban economic trends (Carter, 2005). Therefore it is necessary to design and plan in a strategic way in order to receive long-term successes. ‘Strategic vision is concerned with creating the framework in which longer-term goals, aims and objectives of individuals, organizations and areas can be realized’ (Carter, 2005, p.42). According to Carter (2005), a strategic plan should emphasize the interdependence of actions, the long-term outcomes and benefits and the overall requirements of an area. Since the economic crisis it has become more inconvenient to create large scale transformations for whole neighbourhoods, so the demand for small scale interventions is increasing. Therefore urban acupuncture is known as a contemporary strategy of urban regeneration; it implements the small scale interventions in such a way that it takes into account the long term goals and the requirements of the area and its users.

Relation between research and design
The project can be seen as ‘Research driven design’ which means that the research and the design proposal are of equal importance. The research part exists of the theoretical framework and the location analysis. These two parts are used in order to create well underpinned design interventions. The theoretical framework is used as the general foundation while the location analysis has formed the framework for the location.

Relationship to the wider social context
Public space and domain are essential for today’s Western society; places were an exchange between different social groups is possible and also occurs are called public domain (Hajer et al., 2001, p.11). Public domain is not only used to refer to the physical places in the city. Philosophers such as Hannah Arendt and Jürgen Habermas have written about public sphere as the place where society is formed (Hajer et al., 2001, p.12). Globalization, email, internet and other contemporary means of communication suggest that there is no need for the city as meeting place any more but the contrary is demonstrated (Gehl, 2003). Right now in this modern and electronic society, it is needed to create meeting places because good public spaces increase the quality of life and the social cohesion of an area. There is a huge demand from society asking for better public environments so this project intends to improve the quality of the residential environment through the participation in the design process of the public space. This project intends to offer different alternatives for planning and regeneration of urban space in order to improve the quality of the residential environment for people which is the degree in which the environment contributes to the well-being of its inhabitants.
# LIST OF REFERENCES

## A


## B


## C


**CRIMSON ARCHITECTURAL HISTORIANS 2008.** Toekomstvisie De Hofbogen Het langste gebouw van Rotterdam. Rotterdam: Hofbogen BV.

## D


**DS+V ROTTERDAM 2007.** Stadsvisie Rotterdam; Ruimtelijke ontwikkelingsstrategie 2030. Rotterdam: Gemeente Rotterdam.


GEMEENTE ROTTERDAM 2012b. Rotterdam sociaal gemeten; 4e meting Sociale Index. Rotterdam: Gemeente Rotterdam Cluster Maatschappelijke Ontwikkeling.

GEMEENTE ROTTERDAM 2012c. Veiligheidsindex 2012; Meting van de veiligheid in Rotterdam. Rotterdam: Gemeente Rotterdam, Directie Veiligheid.


SEYMOUR, W. N. 1969. Small urban spaces; the philosophy, design, sociology and politics of vest-pocket parks and other small urban open spaces, New York, New York University Press.


STOUTEN, P. 2010. Changing contexts in urban regeneration 30 years of modernisation in Rotterdam, Amsterdam, Techne Press.


URHAHN URBAN DESIGN 2010. The spontaneous city, Amsterdam, BIS.


Several interviews have been carried out to establish the needs and wishes of the inhabitants and the municipality. Next to that an interview with the Dutch Pocket Park Association is carried out in order to gain more knowledge about pocket parks.
INTERVIEW DEELGEMEENTE NOORD

13-2-2012 Eudokiaplein 35, Rotterdam

Nils Berndsen, portefeuillehouder Deelgemeente Noord
Mieke de Leeuw, regiemedewerker ruimte Bergpolder

Wat is jullie visie over de wijk Bergpolder?
In de gebiedvisie Bergpolder staat beschreven welke kant moet het op moet gaan met de wijk. Bergpolder is gedefinieerd door de stedenbouwkundige structuur, bergpolder zuid sluiten we dan even uit omdat dit deel een hele andere structuur heeft. Voor dit deel is afgelopen jaar dan ook al een nieuw masterplan opgesteld. Het deel aan de oostkant van de wijk is in de jaren 20 gebouwd met de structuur van het Liskwartier mee, hier bevindt zich dan ook meer groen dan in de rest van de wijk. De rest van de wijk is een jaren 30 uitbreidingswijk. Bergpolder is zeer compact gebouwd wat maakt dat er vrij weinig ruimte is voor de toevoeging van openbare ruimte. De meeste openbare ruimte bevindt zich aan de randen van de wijk. De wijk is compacter gebouwd dan Blijdorp wat veel brede stadstraten heeft. Veel straten in Bergpolder zijn te smal voor bomen. Aan de westkant zijn bij het park aan de Noorderhavenkade al veel voorzieningen voor kinderen, zo is hier ook reeds een nieuwe natuurlijk spelen plaats gecreëerd.

Wat is jullie idee bij Bergpolder als krachtwijk?
Wij hebben het zelf eigenlijk nooit als probleemwijk gezien, de variabelen waardoor Bergpolder als krachtwijk is aangewezen verschillen veel met andere probleem wijken waar het meer over de sociale kanten gaat. Bergpolder is een krachtwijk vanwege geluid - en lucht vervuiling en de grote verhuisbereidheid in de wijk. Dit zijn allemaal variabelen die heel moeilijk te sturen zijn. Wat een bijkomend voordeel is geweest is dat we subsidies van de overheid kregen waardoor er veel activiteiten zijn ontplooid en nieuwe dingen zijn gedaan. Zo zijn er onder andere ondernemersactiviteiten geweest, is er een sportveld aangelegd bij de Tak van Poortvlietstraat en is er een buurthuis opgericht. Maar, als je het vergelijkt met andere krachtwijken in Nederland is dit absoluut geen slechte wijk. Kwaliteit van de woningen is niet best, vooral in het westelijke deel zijn de woningen er gehorig, hebben ze een onlogische indeling met gedeelde trappen en is er veel particuliere verhuur. Er wonen veel studenten in de wijk waardoor de verhuisbereidheid erg groot is, dit is een van de variabelen voor de aanstelling van de krachtwijken. Studenten in de wijk worden helemaal niet als iets negatiefs gezien, het zorgt juist voor een bruisende studentenwijk. Studenten blijven geen 10 jaar in een studentenhuis wonen dus vandaar dat die verhuisbereidheid zo hoog ligt.

Sturen jullie ook aan op het hechten van bewoners (studenten) aan de wijk?
Het doel is om mensen te hechten binnen de deelgemeente in plaats van binnen Bergpolder. Binnen bergpolder is het woningaanbod heel eenzijdig, maar binnen de deelgemeente is er wel weer heel erg veel keuze. Oude noorden bevat veel kleine woningen in de sociale huur sector, heb je meteen een goede baan dan kun je ook kiezen voor één van de kluswoningen in het Oude Noorden. Blijdorp biedt voor betaalbare woningen voor starters, maar ook duurdere woningen voor doorgroeiemogelijkheden. In bergpolder loop op dit moment wel een project om het samenvoegen van woningen te stimuleren. Echter de subsidies die hiervoor beschikbaar waren zijn nu op. Er was toen weinig animo voor. Dat was toen geen
goede ingreep omdat de markt niet meewerkte, op dit moment hebben we die markt wel mee en zijn echt kansen, alleen moeten de mensen gefaciliteerd worden. Het samenvoegen van woningen scheelt veel kosten van bijvoorbeeld verhuizen en het verlies wat je moet nemen bij de verkoop van een woning. Twee losse units zijn echter meer waard dan een grote, maar dat is incidenteel geld, het is geen structureel verschil. Als je dat verschil en de kosten van de verbouwing afzet tegen je verhuiskosten en het verlies van de woning, kom je volgens mij beter uit. Er is in de huidige tijd van crisis juist een kans om grotere woningen te krijgen vanuit die marktlogica. Binnen de deelgemeente noord missen we nu nog wel middeldure woningen om juist die wooncarrière binnen de deelgemeente te faciliteren. In het Oude Noorden wordt nu 130 watt gebouwd, een woningbouwproject met grotere woningen, daar is echt heel veel vraag naar.

Wat wordt er in Bergpolder gedaan aan de participatie van bewoners?
We faciliteren de participatie maximaal, als mensen zichzelf willen verenigen over een onderwerp dan ondersteunen we dat. Er is binnen de wijk wel een bewonersorganisatie. Er is al enige formele vereniging van bewoners, de dekkingsgraad hiervan is alleen niet zo heel groot omdat de helft van Bergpolder niet weet dat er een bewonersorganisatie is of geen interesse hebben. Bij het masterplan voor Bergpolder zuid is ook een klankbordgroep vanuit de bewonersorganisatie aangewezen die participeerde in het project.

De parkeerdruk in het gebied is zeer hoog, wat doet de deelgemeente hiermee?
We zijn bezig met het normeren van vergunningen. We geloven namelijk niet in het slopen van woningen om parkeerplekken te creëren. Er kan bijvoorbeeld een wachtlijst worden ingevoegd, veel vooroorlogse wijken in Nederland hebben dat al. De vergunningen zijn ooit gekomen om het vreemdparkeren tegen te gaan, het is geen sturingsinstrument voor bewoners. Dan wordt nu omgedraaid, om het parkeren op de piektijden te kunnen reguleren.

Wat zouden in de openbare ruimte plekken zijn om kleinschalige interventies toe te passen?
We hebben binnen de deelgemeente een beleidskader voor de buitenruimte, we hebben een scan gedaan van de hele deelgemeente om een soort ideaalbeeld te creëren. Het meest ideale beeld is natuurlijk om brede stoepen te hebben aan de zon zijde van de straat en om het parkeren te centreren aan de schaduwkant. Dit is alleen niet realistisch voor de hele wijk, deze aanpak kan overigens wel toepast worden op strategische plekken in de wijk. Op het moment dat er binnen de wijk verdunning optreedt, door het samenvoegen van woningen, zijn er wel kansen om parkeerplekken weg te halen en hier een verbetering van de openbare ruimte op te laten treden. Het slopen van woningen gebeurd gewoon niet omdat er heel weinig in bezit is van de corporaties. Maar 15% van alle woningen is in het bezit van Vestia. Het oostelijke deel van bergpolder sluit veel meer aan op de stijl van het Liskwartier en heeft dus ook minder ingrepen nodig, het is breder opgezet. Het westelijke deel van bergpolder heeft veel meer verbetering nodig, er is alleen wel heel weinig ruimte voor ingrepen. De compacte bouw is natuurlijk ook het karakter van de wijk, en dat hoeft ook helemaal geen probleem te zijn.
Er zijn in de directe omgeving veel groene ruimtes te vinden zoals het Vroesenpark en de speelplekken aan de Noorderhavenkade.
Ingrepen in de stedenbouwkundige structuur zijn niet echt realistisch en wenselijk in de wijk, het gaat een beetje tegen het karakter van de wijk in.

Hoe zorgen jullie ervoor dat de bewoners betrokken raken bij de wijk?
Alleen op het moment dat er ontwikkelingen zijn worden bewoners erbij betrokken. Als we niets veranderen zien we ook geen reden om mensen te betrekken, dit deel ligt meer bij de bewonersorganisatie of bij de bewoners zelf. We hebben wel een gebiedsregisseur ‘schoon, heel veilig’ (Jan Ritskes), die loopt veel rond in de buurt en heeft veel contact met bewoners over hele kleinschalige ingrepen zoals paaltjes, verkeersborden, parkeerplaatsen e.d.

Hoe kijken jullie aan tegen de Schieweg, is het een kans voor Bergpolder of alleen een barrière?
De Schieweg is vrij problematisch, het is een enorm drukke aanvoerroute waar geen alternatief voor is. Wat wel een kans zou kunnen bieden is de A13 en A16 waardoor de A20 voor een deel ontlast kan worden. Verder kan de Schieweg wel een flinke opknappbeurt gebruiken, omdat de inrichting nu niet optimaal is. De beste oplossing is om de Schieweg half verdiept aan te leggen zoals de ’s Gravendijkwal. Op die manier zal het doorgaand verkeer half verdiept liggen en al het wijkverkeer op maaiveld waardoor er betere verbindingen mogelijk zijn. Op maaiveldniveau kunnen er dan overkappingen gemaakt worden waardoor ook hier weer openbare ruimte ontstaat. Het zal niet bevorderlijk zijn voor de luchtkwaliteit, maar dat is een algemeen probleem voor Rotterdam. Bij de Gordelweg worden binnenkort geluidsschermen geplaatst om de geluidsoverlast tegen te gaan, en aan luchtkwaliteit is gewoon weinig te doen.

Wat kan er gedaan worden om de Bergselaan te vergroenen?
De tramrails op de Bergselaan kan niet weg, de RET heeft de policy om ongebruikte infrastructuur niet weg te halen. Het kost gewoon te veel om het weg te halen, en er is altijd een mogelijkheid dat het ooit weer gebruikt wordt. Een ideaal beeld zou zijn als de tram doorgetrokken wordt naar Overschie, dit biedt hier ook weer perspectieven.

SWOT-ANALYSE
- Zwakte
Het verkeer en de problematiek die daarmee samenhangt.
- Sterkte
De ligging, het ligt super strategisch.
Sociale cohesie in de buurt is best goed als je kijkt naar de samenstelling.
- Bedreiging
Achterstallig onderhoud van de particulier woningen, op het moment dat het gaat verloederen gaat het ook hard bij deze bouw. Om het onderhoud te stimuleren zijn we actief bezig geweest met het activeren van VVE’s en het opstellen van meerjarenonderhoudsplannen. Bewoners konden ook geholpen worden met het beheer van de VVE. Nu gaan we een periode in van handhaving.
- Kans
Het samenvoegen van de woningen, zolang de crisis gaande is ligt hier een kans. Er komt een promotiecampagne en een samenvoegcoach die bewoners hierbij kan helpen.
13-2-2012 Rotterdam

Bestuur bewonersorganisatie:
Hester van Vugt, Wendelien Lans en Jan Schrijer

Wat is jullie idee bij Bergpolder als krachtwijk?
Wij waren verbaasd over het feit dat Bergpolder aangewezen was als krachtwijk omdat uit de meeste onderzoeken vanuit de bewoners de wijk niet wordt ervaren als een enorme achterstandswijk. Het had vooral met de criteria te maken die de wijken aanwezen, en bij Bergpolder ging dat over de bevolkingsaanwezigheid en de milieuoverschrijdingen. Achteraf bleek dit toch ook wel prettig te zijn omdat er vanuit de krachtwijken geld beschikbaar werd gesteld. Er was ook meer budget beschikbaar voor burgerinitiatieven wat erg stimulerend werkt voor bewoners. Mensen komen met veel ideeën om het geld te besteden. Een van de initiatieven die hieruit is gekomen is de inrichting van een buurtcentrum in de Hofbogen. de subsidie voor dit buurtcentrum was krachtwijkengeld en is per 1 januari 2013 gestopt. De deelgemeente heeft nu besloten om nog een jaar door te gaan met de subsidie voor het buurtcentrum, maar daarna moeten we toch een andere vorm van financiering gaan bedenken. Een andere blijvende ingreep was de realisatie van een voetbalveld bij de Tak van Poortvlietstraat. Er zijn ook meerdere kleine initiatieven geweest zoals buurtbarbecues en de geveltuindagen. Vanuit het geld is er ook een blog bijgehouden over Bergpolder als krachtwijk. Het zuidelijke deel van Bergpolder wordt toch het meeste als klassieke krachtwijk gezien, hier is dan ook een nieuw masterplan voor gepresenteerd.

Wat ervaren de bewoners als de grootste problemen in de wijk?
Het parkeerprobleem wordt als grootste probleem ervaren. Als er een inspraakavond is gaat het daar namelijk altijd over. Bewoners ergeren zich ook aan vuil op straat als containers niet op tijd geleegd worden. Bewoners vinden dat er meer groen op straat mag komen, hierdoor is ook vanuit de bewoners de geveltuinendag georganiseerd. Dit is een dag waarbij nieuwe geveltuinen worden aangelegd en onderhoud wordt gepleegd bij bestaande tuintjes. Het wordt ervaren als een hele stenige wijk. Ook het nieuwe masterplan van Bergpolder zuid speelt in op de vergroening van de wijk. Dat geeft aan dat de deelgemeente en de bewoners wat dat betreft wel op een lijn zitten.

Wat is het grootste conflict tussen bewoners en de deelgemeente?
Het type woningen wat de deelgemeente met het nieuwe masterplan wil realiseren. De twee PSW blokken moeten in de toekomst vervangen worden door duurdere woningen die de huidige bewoners niet kunnen betalen. Vestia beweerde dat er genoeg plek was in de wijk voor de bewoners van de PSW blokken, maar onderzoek wijst uit dat er niet veel betaalbare woningen vrij komen. Een ander conflict in het gepresenteerde masterplan is de sloop van het spoorpunt aan het Insulindeplein. Dit pand staat nu leeg en er zijn initiatieven om hier kluswoningen van de maken in plaats van sloopnieuwbouw. Dit maakt het weer betaalbaar om een grotere woning te realiseren binnen de wijk. Voor het masterplan is een participatietraject ingegaan, hier is een klankbordgroep voor opgesteld die uiteindelijk ook een advies aan de deelgemeente hebben geschreven over hoe er omgegaan werd met de participatie.
Sturen jullie ook aan op het hechten van bewoners (studenten) aan de wijk?
Er zijn twee soorten mensen in de wijk, mensen die er al langer wonen en actief participeren, en een groep studenten/jongeren die zich inderdaad minder hecht aan de buurt en snel verhuisd. Sommige activiteiten die georganiseerd worden trekken veel jongeren, maar dat is vaak eenmalig.
Voor de ontwikkeling van de wijk is het natuurlijk gunstig dat de jongeren zich binden aan de wijk. Bij het masterplan is juist gekeken naar het aantrekken van andere bevolkingsgroepen in plaats van het hechten van bewoners binnen de wijk.
We willen de studenten graag betrekken bij de wijk, maar we vinden het ook zonde om er heel veel tijd en energie in te stoppen als er ook niets uitkomt. Die tijd en energie kan beter gestoken worden in zaken met mensen die al gemotiveerd zijn om te participeren, zo bereik je uiteindelijk veel meer.
Het is ook een risico om studenten heel erg actief te maken in een wijk, ze willen uiteindelijk toch iets anders in hun leefomgeving. Denk bijvoorbeeld aan de Jordaan in Amsterdam wat vroeger een volksbuurt was en nu een echt yuppen wijk. We vinden het veel belangrijker dat het voor de huidige bewoners leefbaar is in Bergpolder, dan wordt het ook aantrekkelijker voor toekomstige bewoners. Het is ook afhankelijk per gebied, de binnenstraten lenen zich namelijk veel meer voor bureninitiatieven en contacten.

Wat zouden in de openbare ruimte plekken zijn om kleinschalig interventies toe te passen?
De Hofpleinlijn zou een van de eerste projecten zijn die veel mensen aan willen pakken, zeker ook in combinatie met een groene ruimte op het voormalige spoor. Wij zijn van mening dat de hofpleinlijn ontwikkeld moet worden door kleinschalige interventies, dus niet in 1 keer een grote ontwikkeling.
Sommige plekjes worden wel nog ervaren als onveilig en donker, ook hier kan wat aan gedaan worden. Dit speelt onder andere in de buurt van de Borgesiusstraat en de Curtus Donkerstraat.
Bij de poort van de Hofpleinlijn bevinden zich de Gordelweg tuinen, ook dit wordt wel gezien als een beetje ongure plek.
Een andere kans zou zijn het ontwikkelen van binnentuinen, er bevinden zich namelijk al een aantal collectieve binnentuinen in Bergpolder. Er is namelijk heel veel mogelijk bij de binnenterreinen, ze zouden bijvoorbeeld gedeeltelijk openbaar kunnen worden.
Het is ook leuk om te zien dat veel mensen bijvoorbeeld een bankje voor de deur zetten en zo gebruik maken van de openbare ruimte, nou is het wel zo dat de binnenstraten zich hier meer voor lenen dan bijvoorbeeld de Bergweg.

Hoe kijken jullie aan tegen de Schieweg, is het een kans voor Bergpolder of alleen een barrière?
Het blijft gewoon een grote barrière, ons logo is tegenwoordig ook een klavertje vier omdat de wijk in vier delen wordt verdeeld, deze wegen zijn toch grote barrières in het gebied.
In een duurzaamheidsonderzoek is ook voorgesteld om te Schie weer in ere te herstellen. Dat zien we niet snel gebeuren, maar dan zou het wel meer betekenis hebben voor de buurt.

SWOT-ANALYSE
- Zwakte
Het verkeer in het algemeen, en alleen wat dit met zich meebrengt.
- Sterkte
De locatie, de stad en ‘buiten’ is per fiets heel goed bereikbaar.
- Bedreiging
Het is zo gunstig gelegen dat de wijk wel eens zou kunnen ‘veryuppen’.
Een bedreiging is dat er te veel ontwikkeld zou worden waardoor er geen rekening gehouden wordt met de huidige bewoners. De wijk wordt bedreigd door overheidsbeleid.
- Kans
De ontwikkeling van de Hofpleinlijn. Een groot deel van de wijk zou hier profijt van kunnen hebben.
Er kunnen activiteiten georganiseerd worden die mensen ook meer bij de wijk kunnen betrekken.
INTERVIEW STICHTING POSTZEGEL PARKEN

22-2-2012 Amsterdam
Marita Tolman

Wat is jullie visie/doelstelling achter de postzegelparken?
We willen de ingrepen in de openbare ruimte koppelen aan een sociaal proces. Dat sociale proces geeft aan dat we starten bij de gebruikers in een buurt en dat leidend laten zijn, we kijken dus naar wat ze willen in een buurt. Met als doel om die plekken in de buurt als openbare huiskamers te laten fungeren waar de buurtbewoners elkaar weer gaan ontmoeten. Het straatleven wordt tegenwoordig veel anoniemer, mensen leven veel langs elkaar heen, en onze vraag is wat voor rol die plekken in de openbare ruimte daarin kunnen hebben.

Wie is jullie opdrachtgever? Of initiëren jullie de projecten zelf?
De stichting is ontstaan vanuit een haalbaarheidsonderzoek in de Indische buurt. Public Area is in 2008 begonnen met een onderzoek om te kijken in hoeverre er draagvlak is om dit soort plekken te realiseren. Op basis hiervan zijn 31 locaties geselecteerd en is er een sociale kaart van initiatieven die hieraan mee willen doen. Vanuit dit onderzoek is de aanbeveling gekomen om dus een stichting op te zetten die deze plekken in kaart brengt, en die fondsen kan werven. Op deze manier is er een soort koepel ontstaan die verschillende organisaties onder zich kan brengen en gebundelde financiering mogelijk maakt. Samen met het stadsdeel en de betrokken woningcorporaties hebben we toen een plan gemaakt om de financiering rond te krijgen voor de projecten in de Indische buurt. Het initiatief om deze groepen bij elkaar te brengen lag wel bij ons.

Hoe hebben jullie de bewoners betrokken bij het project?
Uit het haalbaarheidsonderzoek zijn voor een groot deel al bewoners met initiatieven en plannen naar boven gekomen. We sluiten voor de bewonersinitiatieven aan bij een participatie makelaar in de Indische buurt. Dat is iemand die vanuit de wijkenaanpak bezig is met bewonersinitiatieven in de Indische buurt. In de buurt zijn op dit moment heel veel bestaande initiatieven waar we op ingespeeld hebben. Je bent wel echt afhankelijk van mensen die het leuk vinden om iets in de buurt te doen, of bijvoorbeeld een school die betrokkenheid heeft met een plek. De commerciële kant aan de postzegelparken is bijna nihil, weinig mensen willen investeren in zo’n park.

Hoe gaat het participatieproces omtrent de postzegelparken?
We beginnen altijd met het uitzetten van de kaders van een plek zodat je ook aan verwachtingsmanagement kunt doen. Als uitgangspunt nemen we een aantal initiatiefnemers die ideeën hebben, maar eigenlijk nodigen wij de buurt uit voor een eerste startbijeenkomst waarin we de plek presenteren en met de mensen in...
gesprek gaan om te kijken wat ze graag willen. Op basis van deze bijeenkomst wordt een ontwerp gemaakt wat dan weer wordt gepresenteerd aan de bewoners, hierop kunnen ze dan weer reageren. Aan het eind is er nog een algemene presentatie voor de omwonenden met de concrete plannen waar ze dan ook weer op kunnen reageren.

Welke mensen doen er vooral mee in het participatieproces?
Het is afhankelijk van het project wat we doen. Maar de grootste groep die meedoet is toch wel 35+. De eerste plek waar we mee aan de slag zijn gegaan was een plek met veel drugs en alcohol overlast, hierin waren dus echt de omwonende bewoners erg actief. Bij dit project zijn indirect ook de kinderen betrokken om te kijken wat ze graag wilden op deze plek. Jongeren participeren weinig in deze processen. De mensen die het meest op de buurt zijn aangewezen, zoals gezinnen met kinderen, ondernemers en zzp’ers zijn het meest actief in de participatie.

Hebben jullie per buurt nog een grootschalige visie/strategie, of zijn het opzichzelfstaande parken?
Het idee is dat er 10 verschillende plekken worden ontwikkeld op loopafstand van elkaar. Zodat de verschillende buurtbewoners op verschillende plekken wat kunnen vinden, en dat je dus ook tussen die plekken kunt bewegen. Zo ontstaan er ook verschillende identiteiten op deze plekken. Postzegelparken kunnen bijvoorbeeld een methode zijn om mensen meer te laten bewegen of buiten te laten komen.

Je merkt dat de reeds aangelegde parken een grote aantrekkingskracht hebben, zeker op het moment dat de parken werden aangelegd. Het verschil tussen de parken is wel groot, elke identiteit zorgt weer voor een ander soort betrokkenheid.

Wat vinden jullie condities waar de postzegelparken aan moeten voldoen?
Qua grootte zitten er niet echt voorwaarden aan verbonden, het zou bij wijze van een verticaal park kunnen zijn. Een postzegelpark zou echter wel een verblijfs- of ontmoetingsfunctie moeten hebben. Ook moestuinen zouden bijvoorbeeld een ontmoetingsplek kunnen zijn, in de Indische buurt delen ze bijvoorbeeld het gereedschap en hebben ze kleine plekjes waardoor mensen altijd wel een praatje met elkaar maken.

Een plek moeten ook een eigen identiteit hebben en aansprekend zijn, het moet zich kunnen onderscheiden van een gemiddelde openbare ruimte. Verder moeten de postzegelparken een aanleiding geven tot ontmoeting.

Wat is jullie idee voor het stadsinitiatief in Rotterdam?
We willen in Rotterdam graag het concept van de postzegelparken toepassen. Als je kijkt naar de andere initiatieven dan zijn er veel kleinschalige plannen voor de openbare ruimte, met de postzegelparken kun je dus meerdere initiatieven onderbrengen onder één naam. Ons doel is dan ook om dat binnen één buurt of wijk te doen in Rotterdam waardoor je op loopafstand een lint van postzegelparken ontwikkelt met verschillende identiteiten. Het is dan ook niet echt het idee om zelf in Rotterdam aan de slag te gaan, maar meer het overdragen van het concept en het project op poten zetten zodat locale rotterdammers dit kunnen uitvoeren. Wij delen dus onze ervaringen vanuit het project in de Indische buurt, zodat het proces steeds sneller kan gaan lopen. De locale betrokkenheid is hierbij echt het belangrijkste. We hebben nog geen concrete plannen, ontwerpen of locaties voor dit
Hoe kiezen jullie de locaties voor de postzegelparken?

In de buurt is gekeken naar restruimtes en anonieme stoepen, deze 30 locaties zijn in kaart gebracht. Vanuit verschillende kaders is daarna gekeken wat de beste plekken zijn. Ook is er gekeken naar projecten die al gaan lopen in de toekomst waar de postzegelparken iets aan toe kunnen voegen. Verder is er heel erg gekeken naar de lopende buurtinitiatieven.

Veiligheid/onveiligheid hoeft niet per se een kader te zijn voor de locaties. (On)veiligheid heeft in eerste instantie een negatieve lading, mensen willen de plekken wel beter maken, maar de vraag is in hoeverre mensen echt betrokken willen zijn bij zo een plek. Alles waar negativiteit aan vast zit is erg beladen, je kunt beter neutrale plekken uitzoeken in een gebied.

Het kader voor de parken zou dus niet moeten zijn om een plek veiliger te maken, maar meer om een ontmoetingsplek te creëren, een nieuwe huiskamer voor de buurt.
This review paper is part of the theoretical framework for the research study. The main question is to find out which criteria for small scale interventions in public space, can be used with the objective of creating the maximum effects of urban acupuncture in deprived neighborhoods in the Netherlands?
URBAN ACUPUNCTURE
A literature review on criteria for small scale interventions which can create maximum effects

Abstract – Because the shift in population and the economic crisis, it is necessary to consider other kinds of planning processes for future developments. It has become more inconvenient to create large scale transformations, so the demand for small scale interventions is increasing. One of the answers to this, is urban acupuncture which result in the maximum effect through the minimum investment of small scale interventions.

The main question of this literature review is which criteria for small scale interventions in public space, can be used with the objective of creating the maximum effects of urban acupuncture in deprived neighborhoods in the Netherlands? Shidan (2011) states that successful “Urban acupuncture” strategies depend on two basic conditions, namely; the choice of the location and the quality of the urban catalyst. Different from those conditions, which other criteria can contribute to the success of a small scale intervention?

This paper explains the reasons and strategies of Urban acupuncture, then green inside the city as a catalyst and the pocket parks will be discussed. This literature review will conclude in a set of criteria as recommendations which can be used as a method to strategically contribute to the regeneration of a specific area in the Netherlands. The outcome of this paper is intended to build the theoretical framework for the graduation project as well as finding the criteria which can be used in the final design intervention.

Key words – Urban acupuncture; Public space; Participation; Pocket parks; Small scale interventions

1. Introduction
The urban environment is constantly changing. By 2050, we will reach a worldwide population of 9.15 billion of which 70% is living in cities (Parsons, 2007, p.7). With the increase of the population, cities are expanding, but the shift in population may also cause cities to shrink. In both cases, the change of people who are using the city, will have an effect on the urban fabric (Parsons, 2007, p.7).

Dealing with the regeneration of existing urban areas is one of the biggest challenges for urban planners all over the world. Urban planners and city developers are highly depended of the construction tendency of commercial investors. Due to the economic crisis, the grow-oriented urban planning in the Netherlands has come to a hold and we need to consider other kinds of planning processes with another emphasis (Kompier, 2009, p.441). Due to this shift in the planning process, the economic crisis is considered to be a huge opportunity for new kinds of developments.

The planned top down renewal in the Netherlands, leaves out many small, pragmatic and community-oriented initiatives already in the initial phase. Therefore we need to give more capacity to the citizens and let go what does not necessarily have to be regulated, stimulating rather than discouraging private initiatives aimed...
at the development of the city would be a good first step (Kompier, 2009, p.441).

Since the crisis it has become more inconvenient to create large scale transformations for whole neighborhoods, so the demand for small scale interventions is increasing. Many Western Scholars such as; Jane Jacobs, Christopher Alexander and Lewis Mumford already reconsidered the urban renewal in the 1960s, which took the large-scale transformation as the main form (Shidan and Qian, 2011, p.1). There is also more need for participatory planning since the emphasis within urban planning is more and more on social sustainable livability. Sustainable livability focuses on the livability aspects which are permanently important for current inhabitants as well as next generations (Dorst, 2005, pp.98-99). The complexity of cities appears in many scales and levels of planning which makes the number and diversity of actors increasing (Rasmussen, 2012, p.11).

In the following literature review, the main question is to find out which criteria for small scale interventions in public space, can be used with the objective of creating the maximum effects of urban acupuncture in deprived neighborhoods in the Netherlands? First of all, the strategy urban acupuncture and its pioneers will be highlighted. Secondly green inside the city as a catalyst and the term pocket parks will be discussed. At last, the criteria will be adjusted and explained.

The outcome of this paper is intended to build the theoretical framework for the graduation project as well as finding criteria which can be used in the final design intervention.

2. Urban acupuncture
Small scale interventions can activate potentials, the smallest effort on a critical point can be used to get the maximum results which is called urban acupuncture (Shidan and Qian, 2011, p.1). But what is actually meant by small scale interventions? It is quite indistinct to link a certain scale to the term small scale interventions. Should the scale be in terms of budget, size or number of participants? Van Lievenoogen (2011) stated that the small scale interventions of urban acupuncture are not related to scale but to the strategy of the intervention (van Lievenoogen, 2011, p.16). Therefore we can say that small scale interventions are applied from bottom up, but which are actually part of a larger strategy. When small scale interventions are part of a larger strategy, we can speak of Urban acupuncture. “Urban Acupuncture is the combination of small scaled, strategically placed, catalytic interventions that stimulate urbanism and result in the maximum effect through the minimum investment. There is not a precise set of rules for the application of the theory, just principle ideas” (Parsons, 2007, p.11).

There are three main pioneers of ‘Urban Acupuncture’; Jaime Lerner, a Brazilian architect and urban planner; Manuel de Sola Morales, Spanish architect and designer; and Marco Casagrande, a Finnish architect (Rasmussen, 2012, pp.29-31). Jaime Lerner developed the practice of ‘urban acupuncture’ throughout an assembly of projects in Curitiba, Brazil, in the years 1960-1990’s.

‘I see cities not as problems, but as solutions. I would argue that any city, willingly, can be
transformed for better in a relatively short period of time, provided that we embrace a more generous approach to them’ (Lerner, 2008).

Lerner his key principle is to design the city with a holistic approach; ‘The design of the city is realized through the manipulation of precise interventions at pressure points throughout the city’ (Parsons, 2007, p.13).

Manuel De Sola Morales states that as well as with acupuncture as a medical application, the location of the sensitive point is the first step in the strategic treatment of the urban skin; “the skin of the city has to be observed with the attention of a detective who scrutinizes the tiniest clues in its wrinkles and their apparent lack of connection” (Parsons, 2007, p.15).

Next to the location of the sensitive point, the correct interventions should be found. The integration and understanding of the society is one of the key principles is seeking the correct intervention, if successful, then this becomes a catalyst for a positive bottom up effect directed by society (Parsons, 2007, p.13). Next to the element of society, other elements such as ecological, economic, cultural, infrastructural, historical and political should be evaluated; one in isolation will not enable a successful intervention (Parsons, 2007, p.21).

The interventions of urban acupuncture claim to contribute to the activation of places, but neighborhood regeneration cannot take place if the appropriate catalyst is introduced only by designers, it should be created with the assistance of designers (Pascaris, 2012, p.16). Urban acupuncture does not have to be initiated by top down structures because it is more effective through modest community level efforts (Pascaris, 2012, p.17).

Casagrande states that urban acupuncture is a design tool where punctual manipulations contribute to the creation of sustainable development, he combines urban design with the traditional Chinese medical theory of acupuncture in order to understand the city (Rasmussen, 2012, p.30). “if an element is un-healthy or un-balanced then the effects are visible in the urban fabric. Each element is of equal importance and the balance of all is fundamental to a sustainable environment’ (Parsons, 2007, p.19).

“The effectiveness of acupuncture as a medical application for the relief of pain and therapeutic purposes has been the subject of active scientific research. Several reviews have concluded that its effectiveness is possible to be explained through the placebo effect, the phenomenon that an inert substance can heal a patient through positive perception and expectation. It’s through positive perception and expectation that the theory of Urban Acupuncture may be successful” (Parsons, 2007, p.21).

3. Green as a catalyst
The type of catalyst is determined by the purpose, programming, size, shape and the surrounding land use. According to Malmstrom (2008) there are six types of small public spaces which can function as a catalyst in the urban fabric (Malmstrom, 2008, p.15);
- A traditional park; Primarily green and softscape with recreational functions, usually located within residential neighborhoods.
- A plaza park; Primarily hardscape for passive recreation, social gathering and special events,
Located adjacent to mixed use areas.
- A community garden; Food producing with an active hands-on interaction with plants for production.
- Experience parks; Theme gardens for learning, viewing and interacting.
- Promenade parks; Wider, non-vehicular, external corridor, serving as open space or as destination itself
- Paseo parks; Narrow, non-vehicular, internal corridor, serving as part of a system or greater whole.

In the city of Amersfoort, residents were invited to come up with new ideas for abrasive spots in the city. It was notable that almost all of their new ideas had to do with green places inside the city (De stad Amersfoort, 2012). Green spaces inside the city have a lot of positive effects, for instance in terms of health, education, social safety and cohesion, economy and environment.

The Alterra report of 2006 describes these potentials of green inside the city (Salverda and Vreke, 2006). Some of the potentials stated in the report can even contribute to the green space as a catalyst of urban acupuncture. Green inside the city makes children gain learning experiences by discovery and adventure. The research shows that the presence of green contributes to the social safety and cohesion inside a neighborhood. According to Grijsbach, social cohesion is related to territorial determined societies on a small scale, therefore small scale neighborhood green will foster social cohesion more likely than a large city park (Salverda and Vreke, 2006, p.23). Green can also contribute to the identity of a neighborhood, which makes residents engaged to their living environment which leads to involvement and care for their neighborhood. Research even shows that green is one of the factors that attract and engage people with high incomes to neighborhoods (Salverda and Vreke, 2006, p.62).

The National VROM survey from 2005 shows the most important factors in relation to peoples direct living environment and residence (VROM, 2005). The participants ranked the main topics as following: Affordable housing, physical living environment, safety inside the neighborhood, social living environment, health, nature and recreation. It showed that people elect the physical environment as the second most important factor. And if we take a closer look to this topic, 33% voted green in the neighborhood as the most important physical factor, even more important than parking and neighborhood facilities (VROM, 2005, pp.4-10).

The aim of urban regeneration as a strategy is to revitalize potentials which already exists, to sustain urban regeneration is such a way that current actions will have long term effects on future urban development’s (Rasmussen, 2012, p.30). In order to do so, the scale and nature of the catalytic intervention, as well as their location is significant, but the one of the most important factors is assuring the continuity of the quality and activating collective awareness and engagement in the neighborhood (Rasmussen, 2012, p.30). Therefore green is one of the key points if it comes down to the nature of interventions, because there is already stated that green can contributes to the identity of a neighborhood and therefore the engagement and interconnectivity of its inhabitants.
4. Pocket parks

If it comes down to small scale interventions in the public space, there are a lot of examples. But one of the best known principles is the pocket park.

In 1733, the first public park was laid out in Manhattan; Bowling green was established through the effort of three neighborhood residents (Seymour, 1969, p.1). Two centuries later, in 1967, the newest pocket park, namely Paley Park was opened (Illustration 1). Paley Park is located in the middle of Manhattan. It occupies minimal space and it provide a center of interest and activity in the urban landscape. Both of the parks are small open spaces in the heavily congested area of Manhattan, and both parks have been created by private citizens responding to urban needs instead of the results of municipal authorities (Seymour, 1969, p.2).

Pocket parks are also known in the Netherlands, last year, a pocket park was constructed in Amsterdam (illustration 1); This project is focused on the development of community-based programmes and the co-creation of food activities. They work a lot with the locals and they concentrate on community gardens and neighborhood activities (Farming the city, 2012). Another example is the copy garden in Rotterdam; The Copy Garden anticipates on the demand for more green in one of the priority neighborhoods in the city of Rotterdam. The actual garden is copied on a blind wall. In front of the wall, the trees and the pavement are extended to get a great effect of green in the city (Mothership, 2011).

According to Guggenheimer (1969), the number of activities that can take place in pocket parks is almost unlimited. Desirable goals of pocket parks are for instance social adjustment, a place for social communication; mental improvement, educational programmes or neighborhood improvement (Guggenheimer, 1969, pp.97-106). It is important to find out, together with the community, which purpose it appropriate for a specific site.

Francis (2003) states that successful public spaces are ones that are responsive to the needs of their users; are democratic in their accessibility; and are meaningful for the larger community and society (Francis, 2003, p.33).

http://farmingthecity.net
http://everydayadventuresofacuriousgal.blogspot.nl/

Figure 1: Paley Park New York

Figure 2: Copy garden Rotterdam
5. Identity and public domain
Seymour (1969) states that good design is an essential ingredient of small urban parks: “It is the quality of urban open space that counts more than the quantity (...), in addition to being easily accessible, parks should be important in themselves, not merely an incidental adjunct to some housing project, or treated as waste space. Each park should have a focal point and should genuinely strive to produce delight for those who use it or look at it” (Seymour, 1969, p.9).

According to Marc Augé, the identity of public space is the most important criteria; ‘places are marked by identity, social relations and history, while non-places have no identity and are difficult to define (...)’ (Hajer et al., 2001, p.45). Places were an exchange between different social groups is possible and also occurs are so called public domain (Hajer et al., 2001, p.11). This doesn’t necessarily means that every public space is also public domain. Public domain is not only used to refer to the physical places in the city, philosophers such as Hannah Arendt and Jürgen Habermas have written about public sphere as the place where society is formed (Hajer et al., 2001, p.12). But what is the relation between public sphere and physical space?

Literature by Sharon Zukin, Rob Shield and Kevin Hetherington underscores the importance of places were physical meetings occur for the public sphere (Hajer et al., 2001, p.12). The individual identity of a place is associated with personal tastes and values. Places are generally designed by others, but individuals always adapt and modify their environment. Meis identified three design strategies to give identity to a place designed for others: a design based on the designers understanding of the values and behavior of the people concerned, participation of future users in the design and a design that users can modify and adapt to their own needs (Carmona, 2010, p.121).

Jane Jacobs and Christopher Alexander are the British pioneers of community architecture among the leading proponents of citizen activism and community power (Walters, 2007, p.65).

Jacobs stated that top down planning destroys the social structure in a neighborhood, therefore it is more likely to create small scale bottom up plans (Jacobs, 1998). Jane Jacobs formulated conditions for converting potential public areas into effective environmental surroundings (van Lievenoogen, 2011, p.76): a mix of functions, concentration of people to ensure density, social heterogeneity to ensure a variety of audience and short blocks to provide attractive corners and side streets. However, these conditions are set up for American cities, which means that not all of them are suitable for Dutch neighborhoods. The condition of short block is for instance assigned to the American grid structure, and because we rarely use such a structure in the Netherlands, that condition is less applicable for our public spaces.

6. Conclusion and recommendations
From what explained above, we can conclude that it is quite difficult to set up a fixed list of criteria for small scale interventions in the public space. Mainly because every site and situation is different from another. And as Parsons noticed; There is not a precise set of rules for the application of the theory of urban acupuncture, just principle ideas” (Parsons, 2007, p.11). Nevertheless, it is possible to set up some general criteria as recommendations for the graduation
According to Manuel de Sola Morales, the location of the sensitive point is the first step in the urban acupuncture strategy (Parsons, 2007, p.15). The location is very important to find out which critical point can activate potentials to get the maximum results. So that will be the first criterion, to find a strategic location to place the catalyst.

The second criterion would be to work together with the locals; the most successful small public spaces are the one that are responsive to the needs of their users. It has shown that urban acupuncture is the most effective by bottom up participation.

The third criterion is to determine the nature of the catalyst. As Malmstrom already stated, the type of catalyst determined by the purpose, programming, size, shape and the surrounding land use (Malmstrom, 2008, p.15). It is important to find out what the users need, the catalyst should have a strong identity, the place should be important by itself.

Studies showed that green inside the city has a lot of potentials in terms of health, education, social safety and cohesion, economy and environment. Therefore green is one of the key strategies in small scale interventions, green can contributes to the identity of a neighborhood and therefore the engagement and interconnectivity of its inhabitants.

References


Malmstrom, T. 2008. *A model for small public places; For the city of Sacramento.* University of California.


