

# Appropriating the Residential Street

Guiding Residents to Gain Quality in the Residential Street



By Hans van Vroonhoven



# Appropriating the Residential Street

Guiding Residents to Gain Quality in the Residential Street

Master Thesis

By

Hans van Vroonhoven

August 2016

Student: J.F.M. van Vroonhoven  
Student number: s1389203  
First supervisor: Dr. M.H. Nagenborg  
Second supervisor: Dr. A.A. Albert de la Bruhère

This thesis is submitted for the fulfilment of the degree of Master of Science in Philosophy of Science, Technology and Society. This programme is offered in the faculty of Behavioural, Management and Social Sciences at the University of Twente.

## Acknowledgements

With delight I present to you my thesis. It has been a long, yet interesting process with which I come to an end of my life as a student. Because I have approached the master programme of Philosophy of Science, Technology and Society as an extension and broadening of my previous study in urban planning and design, I have attempted to relate many of the things I have written to the built environment. This thesis is no exception to this and gave me the opportunity to further look into the relation between the built environment and its users. As the built environment and the public space are too broad to assess, this research was narrowed down to consider the residential street. Although I have never lived in such a street myself, my previous study and extensive city strolls has given me enough feeling of the potential of this space and how it relates to its users. My eventual goal is to create spaces that will fit the wishes of its users and this thesis has been a step towards achieving this.

For getting me through this thesis I first of all want to thank my supervisors Michael Nagenborg and Adri Albert de la Bruhèze. They have greatly supported me through all this time that they had to work with me and have made it possible to have this thesis here now. Their interest in the built environment and their willingness to exchange their thoughts with me has made for pleasurable meetings. Michael I want to particularly thank for always being positive, even when there was not much progress in my work, he was always encouraging in that there at least was progress.

Furthermore I would like to thank my family for their continuous support even if it took all these years to get to this. I have not given them that many insights about my progresses, but they trusted enough in me to get to where I am now. I also want to thank my friends from my home town for making well deserved fun of my study and progress, but remaining their interest in what I have been doing. My housemates throughout these years I want to thank for making me feel at home in Enschede from the start and becoming a second family for me. And thanks goes to my fellow students of the PSTS programme and members of Ideefiks for making my time here even more pleasurable. This is such a close group of people with which it is great to discuss many serious topics as well as having good times with. Especially the first years of my study here have brought many memorable experiences with fellow students which I can now call friends. And my last grateful thanks goes to Eline. She has always supported me and helped me into continuing to work for my studies, while also helping me to get my mind of all the things that I have been doing.

## Abstract

The residential street is a public space that is used daily by many people and people are connected to it for a big part of their lives. This connection influences the well-being of people and their further appreciation of the living environment. Despite the importance of the residential street, it does not receive much attention. Literature about public spaces mostly focus on squares, parks and streets where many different people are expected to gather for significant activities. Also when looking at urban planning and design much attention is given to such seemingly more important spaces. If a residential street is ever depicted on a design website then this is because it is adjacent to a structure which has the main focus.

Generally the residential street is seen as a practical space that provides accessibility to its adjacent buildings and which is a connection with other public spaces. But the residential street can mean much more for its residents and frequent users. This mainly revolves around having activity in the street and having interaction between the users. Activity in the street can be invited by having quality in the street which can be ensured by following the quality criteria of urban planner and designer Jan Gehl.

But all people have different needs and desires which might entice them to be active in the public space. For the residential street the users are a select group of people who can easily be identified. In order to invite them to actively use the street the quality of the street should adhere to their specific needs and desires. This can be done by letting them participate in the development of the residential street.

Participation happens on many different levels; from the participants not having an actual say in developments to the participants having the freedom to realize their own ideas. In this colloquium I will show that the appropriation of the residential street should be somewhere in between, where the residents and frequent users have much influence in the development of the residential street and much freedom in its use, but this should happen under the supervision of an official.

## Table of Contents

Acknowledgements .....	1
Abstract .....	2
Introduction.....	4
Chapter 1: The residential street; a neglected public space .....	9
Chapter 2: Bringing quality into the residential street.....	21
Chapter 3: Roombeek; an example of participation .....	38
Chapter 4: The influence of the appropriation of the residential street.....	59
Conclusion .....	70
Bibliography.....	76

## Introduction

We make use of the public space every day. We pass through it when we need to go from A to B, may it be by walking or with some kind of transportation. During this passing through we are aware of our surroundings; we see the gardens and trees lining the streets, the details on the buildings, the insides of the buildings through the windows, the lampposts lighting the way and the trash lying in the corners. One space may be more attractive to pass through than the other; a street which is attractive for a car driver, because it can be passed through quickly, can be unattractive for a pedestrian for whom the street can give a feeling of unsafety. A pedestrian would more likely prefer a space with much activity which invites to observe what is happening and to make the occasional stop, for example in front of a shopping window or a street artist. Wherever people go they may encounter many other users; saying hello to the neighbours who leave for work, seeing a stranger walking his dog, being irritated by the cyclist suddenly crossing your path and honking at the other traffic.

Many things happen in public spaces and added up the time spent there makes up a big part of our lifetime. The streets right outside the places where a person has lived, went to school and has worked are the public spaces that most of this time has gone into. For a young child this was the place where he or she came into contact with the outside. Growing older the child would explore the world further by moving through the streets. Playing together with neighbourhood friends, walking the dog and learning to ride a bicycle all happened in the street right outside of the house. The world becomes bigger and bigger as children grow up further, going to school and going to friends to play there. When going to high school many children look out of the window to the street wondering when the bell would ring so they can hang out in the streets with their friends.

As the children become students, life becomes faster and they hardly find the time to spend on the streets anymore, besides moving through them on their way to the university or bars. But sometimes after a night out the street becomes a space where the student can spend a long time with newly met people. When working, life is still very fast and people look outside the window wondering when they will have the opportunity to relax and simply stroll outside through the streets. When settling into a new house, the street is the place where they will meet their new neighbours and interact with them. When a person gets children, they want their street to be safe for their children so they can play freely in them. The street becomes a carefree environment where the children can enjoy and the parents can relax while watching them. After their pension the people more often want to take a stroll outside, enjoying the fresh air and stretching their legs as far as they are still able to carry them.

For this all to be possible and for people to actually want to be able to do this, the streets should bring the opportunities and be inviting for such activities. Streets can be inviting in various ways and what seems to be working in one street, may have a different effect in another. Thus what should be considered as to invite people to perform various activities in the street? It would be useful to first determine what the street is and for this it helps to first have an idea about public spaces.

When talking with other people about the public space, it is not very clear-cut what is exactly meant by the public space. Every person gives it another meaning or includes different places to the phenomenon. Where one person solely thinks about public space as public buildings like libraries, town halls, shopping malls, cinemas, railway stations and courtyards, another person looks at outside places, like beaches, forests, parks, squares and streets. Yet another person would look more

abstract to what the public space is and include the internet to it and a more sceptical person would point out that the public space is only an ideal and that it does not really exist. There is something to say for all these ideas about what the public space is and that is what makes it difficult to talk about this topic. All the ideas about the public space have a certain value that contributes to its meaning and should thus also be addressed, even if it is just shortly.

The people that look at the public space as public buildings, address space as something that a person can enter and actually be in. For them this implies a place with walls around them and (at times) a roof above their head. The publicness of these buildings comes from the accessibility to them for everyone, like a shopping mall where people can walk in and out of without any troubles. It also often involves a public service that is provided in the building. The railway station provides public transportation, the library provides books for everyone to read, and any person can enter a town hall with issues about their public welfare.

Although these buildings are accessible for all, there are restrictions involved with them. People have to pay for the services, like having to pay for a ticket when boarding the train. People also have to adhere to a certain set of rules, like having to lower their voices when inside a library and having to wait patiently for their turn when having a question in a town hall. When a person violates the rules, the person will be approached on his behaviour and can ultimately even be forcibly removed from the building and be refused further access. The rules may include a closing time which makes such buildings not accessible at all times of the day.

Outside places are accessible at all times for all people and are thus often seen as public spaces. Here people are free to wander around, encounter other people and seemingly do whatever they want. But in cities there is not this much freedom as suggested. Parks and playgrounds can be closed for the public at certain times of the day and people are issued to make sure that there is no polluting or damaging of the park or playground. These people also make sure that the people in, for example, the park do not do whatever they want; they are not allowed to drink alcohol, make loud noises, walk through the bushes, climb the trees, make use of the water or other regulations that are set up by the park owners which often is the local government.

Keeping the place in order and clean is also attempted to be done in other outside spaces in the city, like squares and streets. This is done by order custodians, like police officers and more and more by the implementation of surveillance technologies which are used to observe wrongdoers according to the local regulations. Also the presence of other people ensures that people often do not do whatever they want, this can be because the other people will contact the police about the activities or just because people feel reserved in their activities in the presence of others.

The internet is also often seen as a public space as it is a place where people are free to access and do whatever they want, although this is limited to the possibilities of the system. A person is free to look for any information that they want and are free to say and write what they want, although in practice people are censored in many instances. But this virtual place cannot be accessed physically, making it difficult to address it as a space. Also because of its vastness and the difficulty to pinpoint its borders, it is difficult to address the internet as an exact space. It is situated in a virtual world with no single domain that can be defined. That is why the internet can better be defined as a public sphere or realm, than as a public space, at least how space is regarded in this thesis.

Indeed, this all may look like that the public space does not really exist and thus this concept cannot really be used. But all the accounts addressed here about what the public space can be, have certain features that make what a public space possibly should be and how it will be used in this thesis. The public space should be accessible without restrictions, like an entrance fee or a time



constrained. This goes along with how Habermas (1991) uses the word 'public': "We call events and occasions 'public' when they are open to all, in contrast to closed or exclusive affairs." Furthermore, the people in the public space should be free to do whatever activities they want, although this will always be restricted by the acceptance of others. People consider what is seen as publicly accepted and will generally feel reserved when they are possibly seen by others. Besides that, there are always legal matters that should be concerned in the behaviour of a person. The public space should have certain boundaries as to make it possible to actually define and address it. And the public space should be physically accessible.

For this thesis the use of the term "public space" is limited to the physical, bounded and defined places in the city that are accessible for everyone and where people are free to do the activities that they want, although restricted to what is legally and socially accepted. The places addressed in this thesis are squares, parks and streets in their various appearances. When looking through literature that concerns public spaces (Arendt, 1958; Girouard, 1985; Habermas, 1991; Mitchell, 1995; Mumford, 1961), it becomes apparent that generally the focus lies on places where many people would gather, performing particular activities. The street, and particularly the residential street, is mostly left out in the academic discussion, while this is the kind of public space where most people spend the most time in or next to in their daily activities.

In this thesis, a residential street is understood as a street that gives access to multiple residential structures which could also include the occasional small business or office and which is not an important connection between well-visited places. As the residential street plays an important role in the daily lives of people, especially in towns, cities and suburban areas of big cities, it would be more than fair that they receive the same amount of attention that big public spaces have. Although the residential street mainly serves a purpose for its residents and its frequent users, instead of for a large portion of the citizens and outsiders, this does not mean that the residential streets are not important for people.

As will be shown, big public spaces get the most attention in cities. Their design is extravagant with grand purposes and when it is finished its use is widely promoted. This is important for tourist information and the residents having various facilities and big gathering spaces in the city. But for the residents, the residential street is their main connection with the city. At least this is their first and last experience of the rest of the city every day when they leave their houses in the morning and come back in the evening. During the day there have been various connections with the residential street when going to and coming from various daily activities. But also there have been activities on the residential street itself. The residential street seen through the window, the greeting of a neighbour, getting the groceries from the car, encouraging the children to go and play, walking the dog, having a chat with an acquaintance, etc.

Thus the residential street is an important part of the experience that people have of the city and will determine for a great part whether they will feel content in living there. Their appreciation of the living environment will depend for a great deal on the residential street, thus it is important that the residential street receives enough attention so it will positively influence their appreciation. "The appreciation of an individual for the environment depends upon his or her personal characteristics, experience, personal interpretations and needs and upon social and cultural contexts" (van Dorst, 2010). The appreciation is thus personal, but also depends on the social and cultural environment. This appreciation of the living environment matters because generally the local governments of cities want to have the best for its citizens and the appreciation will reflect positively on the city as a whole. Thus it becomes important to know how attention could be given to the residential street in order to increase the appreciation of its users.

The appreciation of the living environment stems from the feeling that people have towards it and thus in part towards the residential street. There can be many things that contribute to this feeling and they can have various impacts on various people that are involved. Mostly the residential street is just there, where things happen without the public space seeming to do much to contribute to it. Thus the residential street does not often seem to be concerned by its users and is just taken as it is. But there is no doubt that there are different feelings to different streets. Not only between streets that have more of a resemblance with dark alleys and streets that are open and full of greenery. There are also different feelings to streets that appear to be similar. This might be because of the differences in the people that live in these residential streets, but it does not seem that that is the only thing to it.

In order to get an idea of how people are impacted in regards to their feeling towards the public space and how the users might give a different feeling to the residential street themselves, this thesis will try to answer the question: *How does the residential street influence its users and what is the influence that the users have on the residential street?*

In order to answer this question, the following things will be addressed in this thesis:

In the first chapter academic literature will be looked at regarding public spaces in order to view its development. The main authors discussing the development of public spaces who are used here are Hannah Arendt and Jürgen Habermas. This literature, together with many other literature, will be used to determine how the public space is perceived by different authors and how it has become to be what it is now. This will give an insight that the public space is subject to changes and that it will adhere to the apparent needs of the specific time, space and culture and thus the public space is dependent on the wants of the users. This also goes for the residential street where its use is dependent on what it can provide its users. Some important changes in the residential street are addressed according to the work of Hans Buiter and others.

To further get an idea of the use of public spaces, and more specifically the use of residential streets, the second chapter addresses the perspective of the practitioners. As planners and designers have to create public spaces for the people, they have to have a more practical approach than the academic writers have. They have to get an understanding of how people use or want to use the public space and how the public space can contribute to this. The main practitioner addressed for this is Jan Gehl (2010) who has done his research by trying to look from the perspective of the users. For him successful spaces are spaces that have quality and that are therefore actively used. Through his research he has been able to determine what makes for quality in the public space and has collected this in 12 quality criteria. For this thesis these criteria specifically viewed regarding the residential street. Important factors for this are the connection of the street with its adjacent structures and whether they adhere to the specific desires of the users.

The third chapter is dedicated to a case study. This thesis will look at the example of the district of Roombeek in the city of Enschede. The feature of which this district is mostly known is the measure of participation that it allowed for the citizens after its reconstruction due to the fireworks disaster. One of the authors used in this chapter is Bernard Colenbrander who has written three books about the reconstruction of the district. Through participation the users could have a direct influence on the residential street which would mean that these streets would adhere to the desires of its users and would have quality. The quality criteria by Gehl are used to determine whether this quality is indeed present in three different residential street in the district.

Finally, the fourth chapter will discuss the appropriation of the residential street and how this can contribute to the street and its users. Together with having participation in the development of

the residential street and the street having quality, the appropriation of the street by its users will bring benefits. Although participation in this should be that different parties are working together, thus not leaving the users to themselves in order to ensure that the residential street will indeed have quality.

## Remarks

Before beginning this thesis, some remarks are in order. Firstly, as the programme for which this thesis is written, being Philosophy of Science, Technology and Society, focusses on technologies, it is required to write a thesis concerning a technology. There seems to be discussion and doubt whether the public space, and thus the residential street, can be seen as a technology. This thesis does see the residential street as a technology. Taking technology in a broad sense, then all that is designed and made by human beings is a technology, thus including the residential street. Also when taking a more specific definition of technology the residential street can be seen as a technology.

The definition taken from the Oxford dictionary is: “The application of scientific knowledge for practical purposes” (Oxford University, 2016). There is no doubt that the residential street serves a practical purpose, but also the application of scientific knowledge most certainly applies. For the design, creation and maintenance of the residential street, many different professions are involved, including planners, designers, engineers, contractors, builders and maintainers. They all use their specific knowledge in order for the technology to exist. While much of the knowledge has been gained long ago through experience, this does not make it any less scientific. Even more so as there are still scientific changes and improvements to streets, like the relatively recent use of asphalt and the attempts to make energy producing streets. This is much like any other thing that is considered a technology, like televisions, cars, tables, etc. where many professions are involved and where there are possibilities for change. Furthermore the residential street consists of many different technologies, like buildings, pavements, cars, benches, electricity wires, sewage, lighting posts, etc. All these technologies can be seen as components that together make up a technology, being the residential street.

The second remark considers design and development approaches that consider the user. Many such approaches exist, each with their own ideas about the involvement of the users, which makes it difficult to incorporate them in this thesis. Just a few examples are value sensitive design, Co-design and living labs. In value sensitive design the values of the users are of central importance throughout the design process (Friedman, Kahn, & Borning, 2002). Co-design focusses on the processes and procedures and includes all stakeholders, not just the users, throughout the whole process to ensure that all their desires and needs are met (Szebeko & Tan, 2010). And living labs bring together different disciplines and users from the beginning of a development process where all stages are researched, explored and evaluated through experimentation in real world settings (Almirall & Wareham, 2011).

Although there is something interesting in all these approaches and many more, they will not be included in this thesis. This thesis looks from a personal perspective where the eventual guidelines considering the development of the residential street come from the research that is done throughout this thesis. As these guidelines also include users in the development there will be similarities with several of the approaches and there will be overlap, but it is not based on any of these approaches.

# Chapter 1: The residential street; a neglected public space

## Introduction

The main focus of this thesis is on the residential street, but since most of the academic writing linked to this topic is on public spaces in general, this chapter will first give an overview on the discussion concerning public spaces. Important authors in this discussion are Hannah Arendt and Jürgen Habermas. Arendt was a political theorist who addressed the public space as a space for political action in her work called *The Human Condition* (1958). Habermas is a sociologist and philosopher who is seen as the leading author on conceptualizations of the public sphere. The aim of the overview on public spaces is to get an understanding of public spaces in general and to apply these insights to discuss the residential street.

The chapter will continue with giving an account of several things that influence the public street. In this an article by Hans Buijter called *Constructing Dutch Streets* will be addressed on technologies that have had an influence on the street and this will continue with further changes that influenced the street and its users. Concerning the residential street the main users are the residents and people that live in its direct surroundings who make frequent use of it. For these users the residential street is part of their daily lives and they should thus be addressed in the development of the residential street, which will be addressed at the end of this chapter.

---

When looking at the history of the public space, the Greek agora is often mentioned as the prototype of the public space (Low & Smith, 2006; Mitchell, 1995; Mumford, 1961). The word agora is translated to “open space of assembly” (Mark, 2009) and it functioned as “the place of citizenship, an open space where public affairs and legal disputes were conducted” (Hartley, 1992). For Hannah Arendt (1958) the agora was a political space which supported people engaged in public debate. At this open space all citizens were free to gather to hear civic announcements and interact with each other and with the public officials to discuss politics. The agora further developed itself as the “marketplace of a city where merchants had their shops and where craftsmen made and sold their wares” (Mark, 2009). Thus the accessibility expanded to include everyone who wanted to sell services and produces and for people to try and make a bargain.

The agora was generally in the centre of the city, may this be the actual middle of the city or near the harbour. It was surrounded by public buildings and temples and often the space was enclosed by colonnades. Furthermore, it was adorned with trees, fountains, statues and altars (Jewsbury, 1992). As the early Greek cities developed in a spontaneous and organic fashion with “only the beginnings of arcaded public promenades” (Mumford, 1961, p. 163), also the early agorae were not coordinated and thus disorderly. Later, the new cities were more systematically planned and often laid out in a grid form (Carr, 1992). In this a more symmetrically planned agora fitted where the buildings together with the colonnades often formed a rectangle or a square (Jewsbury, 1992). The forum of the Roman Empire was similarly planned and formed.

In the Roman Empire, the cities were centred around the forum. In large cities, the forum was very big, enveloping various enclosed, semi-enclosed, and open spaces for the purposes of commerce, religious congregation, political assembly, athletics, and informal meetings (Mumford, 1961). This was thus the place where citizens could get together for various kinds of interaction as is how urban planners, like Jan Gehl (1987), propose how public spaces should function, which will be addressed in the next chapter of this thesis.

Here it seems like the agora and the forum were places which all the public could access freely and where the public would engage in interaction with all others. In reality the agora, as well as the forum was not as public as is suggested. "The publicness of the agora was circumscribed and stratified as an expression of prevailing social relations and inequalities" (Low & Smith, 2006). Male citizens held the best position in ancient Greek society. They enjoyed a full legal status, a right to vote, to hold public office, and to own property (Cartwright, 2013). An agora in the function of a marketplace was accessible for foreign merchants and for women when shopping for groceries. But for other interactions, like public affairs, political debate, philosophical discussion, and cultural exchange, the agora was exclusive for male citizens. Male citizens were free of having to perform labour in order to make a living and thus could focus on participation in public life, as this was itself a full-time job (Damiris & Wild, 1997). In the agora, as a political space, all male citizens were free and equal, this made it an ideal place for Socrates to ask them his questions so they could ponder their argumentations.

At the Roman forum public affairs, business deals, money exchanges, and justice was administered. These were things that were done by the male citizens, other men and women had no say in this. Although the women enjoyed more privileges than in Greek society, as they were allowed to leave the home more often and meet with other people (Cavazzi), they still just had to be loyal to their husbands and had to do what the men of the household told them to.

So the public space was not as openly accessible as it seems to be. Low and Smith (2006) suggest that there still are hardly truly public spaces as they are still ruled by social relations and inequalities. This is also a critique on the concept of the public sphere by Jürgen Habermas, which is said to be exclusive for the people belonging to the bourgeois society, which only consists of middleclass white men (Howley, 2007). Fraser (1990) and Hartley (1992) add to this by saying that public spaces are often places of exclusion. According to both authors the people that gathered in public spaces were carefully selected and others were left out or at least viewed as not belonging.

This is an issue that is also addressed by Don Mitchell (1995) in his example of the People's Park in Berkeley, California. This park has been the scene and the cause for serious protests in 1969 and again in 1991. The initial protests were about the University of California leaving a place of rubble, which local residents, merchants, and students together transformed into a park with a community garden and free speech area. After this transformation the park was taken by city and state police officers and fenced off. Several protests rose up to maintain the park for the community, which were put down hard (Brenneman, 2004).

The People's Park remained to be a park for the public in later years, but it was still owned by the University of California. When the university built volleyball courts in the park protests rose up again. Activists saw the building of the courts as an attempt by the university to regain control over the piece of land for new building plans and by that expelling people (mostly homeless) from the space. Mitchell (1995) addressed these later protests as a conflict between the activists and homeless people, who saw the park as a public space where everyone is free to access it and to interact, and the university and city officials, who saw the public space as a controlled and orderly place where everyone should behave properly or else is to be removed from it.

Here thus there is a difference in the meaning of the public space for different actors that are connected to the public space. The university, as the owner of the piece of land, preferably wants to use the place for their own goals, but otherwise they want the space to be used without any problems. The city officials and planners want the space to be used according to various rules to make sure everything is done safely and orderly and where the specific, appropriate users can enjoy

the space and the entertainment. The local residents and activists want to use the space for recreation and community gardening where they are free to appropriate the park as they like. The homeless people want to continue using the space as their home where they receive food and are able to access it whenever they want. And the students want the freedom to do what they want in the space and use it as a place to rally and have the freedom of speech.

The officials wanted to impose and uphold a certain intended use for the park, but the public had their own ideas about how they wanted to use the public space. According to Mitchell (1995) this corresponds loosely with what Lefebvre has called representations of space and representational space. Representations of space is how the space is planned in the design and how it is often only used for a short time. After this initial time the people who come to the space regularly and the people who associate themselves with the space will make use of the space as they see fit. They will appropriate the space and through this also stimulate others to join in the use or come up with different kinds of use. This is the representational space (Lefebvre, 1991). Just as with the People's Park, the public ultimately decides how the public space is used, this is simply shown in the way that the space is used.

Many private owners and city planners see the public space as pieces of land which they can use for their own development plans. The developments might be in the supposed interest of the public, but without asking the public what they really want. This, for example, happened in Istanbul, Turkey, where the reigning government, under the leadership of Prime Minister Recep Tayyip Erdogan, issued the building of several big scale projects without local consultation. These projects were even opposed by various groups with differing interests, but these complaints were dismissed (Cook & Koplou, 2013). When the government also wanted to bulldoze Gezi Park in Istanbul, people opposed this by camping in the park so the demolition could not continue. This camp was violently removed by the riot police, which led to largescale protests against the reigning government in many Turkish cities.

Just as the People's Park, Gezi Park became a place where people stood up to the decisions by officials and by this they voiced their complaints about these decisions. The public had another idea of how the park should eventually be used and made this clear by occupying the park. Through these actions by the people, the parks became political-public spaces. The People's Park for example, became one exceptional place where the people took the liberty to say and do what they wanted; where people who felt left out of the public pressed claims for their rights (Mitchell, 1995). Hannah Arendt (1958) refers to such spaces as "small hidden islands of freedom," it is an island where the people stood up to the reigning officials to speak their thoughts. They acted together in concert and by this forced interaction with the officials. The conflicts and protests might not be the ideal way for a public space to be a space of political interaction, but nonetheless it did lead to interaction between the public and officials.

For Arendt (1958) to act and speak freely in public and about things that matter in the world, is what it means to be human. In her associational view, spaces for acting and speaking freely emerge when men act together in concert through speech and persuasion (Benhabib, 1993). Now such political-public spaces have to emerge through protest and conflict. The Greek agora and the Roman Forum were spaces which served such a purpose by default; these were the spaces where people could discuss politics on a relative equal level and where political action came from gathering support for your claims (Damiris & Wild, 1997).

The political-public spaces transformed into social-public spaces after the emergence of modernity in the West around the 16<sup>th</sup> and 17<sup>th</sup> centuries. Here public space has become "a pseudo-

space of interaction in which individuals no longer 'act' but 'merely behave' as economic producers, consumers and urban city-dwellers" (Benhabib, 1993, p. 101). The public thus just seems to behave how it is expected of them and just performs market exchanges and other consumer interactions. As this started from the 16<sup>th</sup> or 17<sup>th</sup> century, other public spaces from before this time apparently functioned as political-public spaces.

After the agora and the forum the public space has not been mentioned for some time in Western countries, as they, at least, did not have cities that acted as centres of commerce for that time (Mumford, 1961). When in the 10<sup>th</sup> century the defensible positions in the countryside extended their walls to encircle growing settlements, there came security within the towns, which stimulated the emergence of marketplaces (Carr, 1992). And because of the increasing trade, the towns could grow to become new cities. The marketplaces were often situated next to important buildings like churches and town halls and also often functioned as a stage for public activities. English marketplaces were used for the "retailing of news and gossip and the reiteration of cultural traditions and social roles" (Masschaele, 2002, p. 383) as much as for exchanging commodities. So the public space of the market was also a meeting place and some sort of political space.

With the discovery of the Americas the new settlements, in New England, were built around a place called the commons or the village green. This is inspired by the English central squares and also by the need for a meeting place. A meeting house, functioning as town hall and church, was placed on the commons and usually the commons "became the focal centre of all community activity, religious, social and political" (Cushing, 1961, p. 87). The Spanish settlements were set up similarly. The centre of these towns consisted of a main plaza surrounded by an arcaded street at which the town's major buildings were situated. The plaza was "used as a marketplace and for a variety of other purposes" (Girouard, 1985).

These public spaces indeed also fulfilled political functions, but there was less emphasis on this function. Other important functions were all kinds of interactions, like trading, religious speeches, news exchanges, and gossiping, as well as public events and activities, like public executions, tournaments, and festivities. The public space thus was more of a meeting grounds for the public (Carr, 1992). But still these public spaces are partially political-public spaces as they also functioned for informing the public about political decisions and where the public could discuss politics together with the officials.

The public space as a political space goes along with how Habermas (1991) defines the public sphere. According to him the public sphere is a "society engaged in public debate." Here something that approaches public opinion can be formed in interaction that is accessible for all citizens and unrestricted to what can be expressed (Habermas, 1974). Although Habermas does not talk about a place like a public space, the public space can act as a platform where society can engage in public debate. As he notes that the public sphere originally was "coextensive with public authority" (Habermas, 1991, p. 30), this could well refer to spaces like the agora and later the commons, which are seen as places that allowed the public to interact with the authorities.

Because the central public spaces, like the commons, attracted many people for the various activities, it also attracted businesses. Earlier commercial goods were produced at home or on the street and sold at the market. Probably the earliest, important business of a town was that of a blacksmith. The frequent visiting of the people, along with common sense, was the reason for him to move his workplace to the commons and set up a shop there to be close to the centre of activity (Cushing, 1961). Merchants saw the profit of having a shop close to the place where many people would pass by and moved (close) to the commons as well, followed by many other craftsmen and

service endeavours. So instead of sporting a market, the commons now served as a place where people would pass through to go to the shops.

The moving of the shops to the commons in New England shows changing attitude that is more focussed on making a profit. This orientation also had its impact on public activities where interactions and events were more and more viewed if they could mean something, in financial sense, for the people involved. Arendt (1958) claims that such an emergence of a market economy has meant the end of a political-public space. At least as a place where people could always go to for political interaction.

Habermas is a bit more optimistic. He thinks that through the market economy the people were less concerned with political issues which resulted in more power for the authorities. This way the authorities could impose their rule on the public and only show the public the decisions that they have made, because the decisions would not be discussed. But later on there was an increase in information exchange, production of literature and emergence of literate people, which made for more awareness by the people of what was happening in their city. This made the people of society wanting to discuss the actions of the authorities (Habermas, 1991). Habermas argues that society has been able to provide locations to have meaningful communication about emerging issues in the public sphere (Grant, 2008). Such interactions might not happen in the outside public spaces anymore, but these have moved to the insides of establishments, like British coffeehouses and French salons. Here the public gathered together and debated public issues. State authority was “publicly monitored through informed and critical discourse by the people” (Habermas, 1991).

The issues that were discussed in these indoor public spaces would eventually flow out to the authorities again, where they could be discussed further and possibly even enacted into law (Grant, 2008). Such a public sphere, as described by Habermas, focusses on a democracy in which the public can participate; where they can let the authorities know what they want and where the authorities listen to the public (Benhabib, 1992). In order to be critical of the authorities the interaction in the coffeehouses and salons had to be distinct from the state (Fraser, 1990) and it was also distinct from the market as it focused on debating rather than buying and selling. But more often the authorities were looked at for services and protection in private issues, for example in conflicts between workers and employers. This blurred the line between the authorities and society, which made it difficult for the public to remain a critical position towards the authorities (Calhoun, 1992). This gave rise to the welfare state in which the authorities made decisions for society in public issues.

As society looked less at public issues, they became more concerned with personal affairs. The main concern involved the market economy, thus also at the indoor public spaces this was partially what eventually put a stop to the formation of public opinion. People became more interested in consuming and making a profit, than in discussing political actions (Damiris & Wild, 1997). Thus the political-public space was not existent anymore and the public space became a place where other interaction prevailed. Arendt saw this as a problem which caused people to individuate themselves (Benhabib, 1993). The people did not really act for a general cause anymore, but merely did what was they deemed was best for themselves.

With constantly wanting to have what is best for themselves and to profit from all exchanges, the people have individuated themselves. People want to appear the best they can towards others in order to compete for recognition, precedence and acclaim (Arendt, 1958). Because of this they always try to act at their best and by that never really show their real selves. This limited the interactions with others in the public space as to not wanting to make a wrong impression, because the public space has become a competitive space in which the people want to be set apart



(Benhabib, 1993). Thus interactions were nothing more than visual contact with people of interest, verbal contact with an acquaintance or in a consumer exchange, or at the most physical contact in the form of a handshake. With people distancing themselves from others, it will also become less likely that they will offer mutual help and support (Carr, 1992).

Although the public became individualized, certain things could happen that bring people together to stand for one cause, like in People's Park and Gezi Park. Gerard Hauser (1998) supports this by suggesting that public spheres form around specific issues that are contested by active members of society. Thus the political involvement of the public changed in how it has expressed itself throughout the years. It is not the main function of the public space anymore, as the Greek agora appeared to be. But still public spaces can sometimes be used for political purposes, it is just one of the possible functions that it has.

Arendt and Habermas seem to suggest that this transformation in use is something to worry about, but all that can really be said about it is that there is a change in use. With changing times and changing culture, the mind-set of the people changes. This has its influence on how people act and use the resources that they have. With this, old customs are lost and new ones emerge. Just as after World War II much more open space was created; not with the primary purpose of civic functions or social interaction, but for separating functions and creating distance between buildings for greenery and the penetration of sunlight (Greenberg, 1990). This change was in order to provide a healthier environment for the citizens. This changed mind-set has changed how the public space is perceived and used and that shows that the use of the public space is dependent on the people.

This part, concerning the development of the public space seems to be deviating from the public space as used in this thesis and from the problem concerning the attention given to the streets in literature and design. But it is here used to show different interpretations and functions of the public space in different periods of time. There have been different uses of the public space and it seems that the different periods of time could be characterized by the function of the public space. But actually, in those different periods of time, not one specific functions was dominant for a public space. Many public spaces were used in many different ways and each public space had differing uses from other public spaces in the same city. Most authors who have addressed the public spaces, have addressed it mainly from a political perspective and focused on a grand idea and purpose of the public space.

What can be concluded from the works of these authors is that the function of the public space is dependent on the use by the public, in its culture, time and setting (Carr, 1992). It might well be that at a certain time more public spaces were used for public debate, for economic interaction, for mobility and transportation, or for public events, but this does not mean that that was the sole use of all public spaces. For most public squares it is not even possible to say that it has one sole use. The agora was used for public debate, but also functioned as a market. And squares today could at one time be a market, the other a site for an event, another time mainly as a space to go from A to B and again another time for social interactions and small activities. The authorities can influence this use by setting up activities or changing the physical appearance of the public space, but eventually because of the use or disuse by the public, the public space gets its function and image.

Another thing that comes forth from how the authors have addressed the public space, is that their main focus has been on big public spaces, like squares and parks, where many people can gather together and perform activities with grand ideas. It is on these spaces that many different uses can easily be observed and where there is much change and difference between time and place. In their works they mainly leave out the public space that constitutes the biggest area of a city and

which is most often used by people; namely the streets. Even less concern is given to residential streets as several main streets have such a size or proximity to certain places that they will be used for gathering many people and having grand events. As mentioned in the introduction to this thesis, here the residential street is understood as a street that gives access to multiple residential structures which could also include the occasional small business or office and which is not an important connection between well-visited places.

Although not many grand things might happen in the residential streets, it is still the public space with which practically all people get into contact with every day. This can be through the use of it when they go somewhere, the use of it when having a conversation with someone, or because they are looking at it through their home- or office windows. Already because of this the residential street deserves much more attention in literature. But as with the literature discussed in this chapter, trying to interpret what the residential street is and trying to pinpoint what its function was, is or should be, does not exactly get the essence of the residential street as a public space. Just as with every public space, the function of the residential street is dependent on its use.

Thus it is important to look at residential streets by regarding the things that could influence its use and appearance, in other words how the residential street is shaped. The things that have influenced big public spaces do not seem to have the same influence on public streets, in general. First of all streets, and particularly residential streets, are not generally meant for many people to gather together and perform collective activities. Streets are mainly meant as a space for mobility and transportation where the people move and goods are moved from A to B. But also other activities can occur, like meeting with acquaintances, interacting with people, playing on the street, buying wares from a street vendor, listening to street musicians, visiting street fairs and entering various buildings. Such activities can have a similar impression to a marketplace, political meeting or public event, but they happen on a smaller scale, so it differs from a public square.

The different possible activities happening on the public street are dependent on the place of the street in the city and the types of buildings that are adjacent to it. A street near the centre of the city or with a connection to it, is likely to have shops or other enterprises containing it and is a place where various people pass through. This influences the activities in that they are more oriented to consumption and attracting differing people. A street further away from the centre and without a connection to it which mainly contains houses (the residential street) is more oriented to social activities, like talking with people and play. This is also of influence on the use of squares and parks, but is hardly addressed in literature.

A thing that does have a great influence on the use and appearance of the public street are the development of certain technologies. The main focus in research concerning this has been on streets in general. One important development is in modes of transportation. In medieval cities, the streets were typically narrow and heavily used by people on foot or on horseback (Carr, 1992). From the sixteenth century the street design changed from an organically grown street to ordered streets which were straight and wide. There are several aspects that have influenced this change, going from improving public health, to the city planners having a new spatial perspective, to the need to more easily move commercial vehicles through the dense cities, to authorities wanting to have ease of movement for the military through the city (Girouard, 1985; Mumford, 1961). The possibility to move vehicles, like horse carriages, more easily through the streets increased such traffic. Through this there came ordering in the street where the vehicles took to the centre of the street and the people walking used the sides, eventually leading to the sidewalks (Mumford, 1961).

With the introduction of the safety bicycle, the machine powered streetcar and the automobile at the end of the 19<sup>th</sup> century, many new modes of transportation influenced the appearance of the street and the life on the street. For example, in The Hague in the Netherlands, the officials were initially opposed to implementing electrical streetcars with overhead wires as they feared that the “system would damage the aesthetic values of the monumental and representative parts of the political capital” (Buiter, 2008, p. 151). But several years later the system was employed, in order to support the building of an electric power station near the city. At the objections of having overhead wires and streetcars in the narrow lanes of the city, a broad boulevard was cut through a densely built neighbourhood to function as a traffic artery and give the district an international flavour (Buiter, 2008). So the existing urban landscape had to make way for new developments in transportation.

Next to bringing a modern appearance to a city and the convenience of faster and longer movement, the new transportation technologies brought many inconveniences for people moving through or living in the street. A great annoyance was the noise coming from technologies and the use of them and because of the higher speed of the technologies it also brought dangers of injury. Another inconvenience, that is mainly caused by automobiles, is the smoke that is contaminating the streets (Carr, 1992). So the streets were noisy, dirty and chaotic and thus not attractive for people to reside in, in that time. This is seen as having led to the decline of street life, especially the use of the automobile (Appleyard, Gerson, & Lintell, 1981).

Donald Appleyard has done a study in which he compared the liveability of three residential streets with different levels of traffic (Project for Public Spaces, 2016a). The biggest differences were between the most heavily travelled street, with 16.000 vehicles passing through per day, and the least travelled street, with 2.000 vehicles passing through per day. In the least travelled street the street was used for various activities. “Front steps were used for sitting and chatting, sidewalks for children to play and for adults to stand and pass the time of day, ... and the roadway for children and teenagers to play more active games like football” (Project for Public Spaces, 2016a). The most heavily travelled street was only used as a street to pass through and for the residents as a place that is in between their home and destinations to go to.

In this research, the residents of the least travelled street considered the whole street as part of their home territory, where they could interact with others, and had a high sense of community amongst the street. These residents had, on average, three more friends and twice as many acquaintances than the residents of the heavily travelled street. People living in a heavily travelled street hardly considered any space outside as part of their home territories and kept to themselves on the street, Appleyard suggests a relation between the level of traffic passing through a street, the territory where people feel comfortable to interact with others, and the amount of friends and acquaintances that a person has (Project for Public Spaces, 2016a).

Just as the market economy has, apparently, caused individualization in public spaces, it seems that the heavy use of transportation vehicles has caused individualization in the residential streets. Lewis Mumford (1961) also saw this problem, in that automobiles take away the possibility for people to meet face-to-face and have a conversation. This mainly goes for random encounters between people, because the automobile does give more freedom of choice and more opportunity to meet friends living further away (Riesman, 1962). But random encounters mean much for the wellness of a person, which will be elaborated on in the next chapter. Either way the automobile has changed the use and the appearance of the street, where people step in their automobiles in front of their homes and travel to get out in front of the place that they have to go. There is hardly any time

spent on the sidewalk as the walks are as short as possible. The automobiles appearing everywhere in front of buildings have led authors, like Mumford (1961), to see the city becoming a parking lot.

The necessity of having places for automobiles to park and for streetcars to have their lanes with overhead wires, led to an ordering of the street. As the horse carriages in earlier days already brought pedestrians to the sides of wider streets for convenience, the even faster transportation technologies brought the building of sidewalks for the protection of pedestrians (Buiter, 2008). To make sure that accidents would not happen and in order to ensure the safety of pedestrians, regulations were deemed necessary. These regulations gave all modes of transportation their place in the street and, for example, forbade pedestrians to use the streetcar zone when a streetcar was approaching. When looking at streets in the present time, they “are multi-layered spaces that may have sidewalks for pedestrians, safety islands for street crossings, defined lanes for buses and streetcars and sometimes also for bicycles, entrances for subway, and parking lots for automobiles, as well as special areas for markets and outdoor cafés” (Buiter, 2008, p. 141). Because of these measures there are limits to the accessibility of the street and to the freedom to act, while these are often seen as conditions for a public space.

More regulations and technologies were introduced for the streets in the name of public welfare. “Public welfare has always been a primary motivation for creating or improving public spaces” (Carr, 1992, p. 10). The planners intend to increase the comfort of the users and most of all ensure their safety when using the public space. With the use of gas lighting in the streets, the streets were not illuminated much as the lighting was not that strong and the posts were widely spaced from each other. The intensity of electric streetlights is higher and when they replaced gas lighting in the streets they were placed in greater numbers (Buiter, 2008). This changed the appearance of the city, especially at night, and made movement through the streets at night more comfortable and safe. But an important motive of having better lighting in the streets was the growing amount of high velocity motorized traffic (Buiter, 2008).

As the introduction of transportation technologies into the city has brought many issues, many of the measures for public welfare concern these technologies and with that many of the other technologies that have an influence on the appearance and use of the street are linked to transportation technologies. Bitumen was used for the street surfaces of busy routes to protect from the impact of heavy motorcar traffic. Much space in the streets became parking lots. Traffic lights were introduced to order the movement on the streets. And many signs and other visual measures were introduced to organize movement and possibilities for activities in the streets. With these physical measures that have changed the appearance and use came many regulations with which the people had to get used to, like where they could be at which moment and speed limitations.

To ensure the safety and comfort of people, all these technologies and regulations seemed to be necessary, according to officials. By ordering the streets they can take control over the situation and minimize problems. Actually problems would only occur when people do not keep to the rules. As this is a noble idea in itself, this also takes over public life. Where people were once free to perform activities like playing in the streets or selling their wares, they now find dangers and regulations preventing such activities in the street. If they want to perform such activities they have to go to the predefined spaces to do this. Through all this ordering it is said that every interaction is carefully planned (Sorkin, 1992) and thus there will be no unexpected issues with which the officials have to deal with.

Having spaces where people can encounter others with similar or differing ideas and where they can freely interact with each other is not the main priority for the authorities and planners

(Mitchell, 1995). Having control over the movement, activities and type of people makes for security. And in the case of commercial public spaces, having such control is even more profitable (Zukin, 1993). So again the attitude of the market economy opposes the opportunity of having free unconstrained interaction in the public space. A technology that is also seen as limiting unconstrained interaction is the use of surveillance technologies, like security cameras and drones, which are seen as further enforcing control in the public space.

By placing security cameras and using drones, the authorities have the intention of making the public space safer for the citizens. By watching the public space, crime can be prevented or detected and there can be fast response to assist in incidents (Finn & Wright, 2012). The view of the authorities is that if the people feel safe from crime in the public space, they will feel more at ease to participate in social activities in the public space. But on the other hand it is said that surveillance technologies make all people possible suspects (Patton, 2000) and thus people will be watchful not to perform unexpected and suspicious actions which could lead to a diminishing of social activities.

Although surveillance cameras are less likely to be used in the residential street than in other public spaces, drones can be used wherever one wants and often they remain unnoticed. Because it is not clear whether a person is watched by a drone and who is behind its controls, this technology can have the effect of people being reluctant to act freely in the residential street as they can be afraid of other people recording and judging their actions. This might not yet be a problem, but this might become a problem in the future if more people will have drones or similar technologies at their disposal. Hand-held cameras and smartphones can have a similar effect, especially when there are unfamiliar people passing through the residential street or when people are unacquainted with the other people living in the street.

This reluctance in actions may make people feel further under the control of others. This control does not come from the authorities, but now comes from technologies. Where people were earlier only considerate about whether the neighbours would have seen their actions, now these actions can be recorded and spread all over the world through various technologies. People should not be afraid that their actions performed in the residential street are judged by people that they do not know. But technologies have the effect of changing social standards and changing how the world is perceived. Where some see problems of the use of these technologies, others celebrate them as breaking barriers, with which people will now also act in public the way they would otherwise only have acted in private (Nissenbaum & Varnelis, 2012).

New developments make people rethink standards that are taken for granted. In the past there was the idea that people could say and do what they wanted in public space, but this apparently changed with a developing orientation towards the market economy where acting in public space was dependent on how a person wanted to be perceived. This acting again changed with the ordering of public space in the name of safety, where people could only act in the designated space for it. The technological developments now might encourage the people to again act freely in the public space where they dare to say and do what they want. This can again change the appearance and use of the public space.

This implies that the activities done by the public changes the public space, but Nissenbaum questions this by asking herself: "do the conditions of visibility in a park shape our activities, or do the activities we strive to pursue shape conditions of visibility in the park?" (Nissenbaum & Varnelis, 2012, p. 25). Most likely it works both ways, the actions of the public changes the appearance of the public space and the appearance of the public space changes how people act in it. This thus means that the appearance and the use of residential streets in general has changed according to a want for

activities by citizens in general, but also that the activities in the residential street can be changed by changing the appearance of that street. Whether the activities should be changed, should be left to the people that make the most use of the residential street, namely the residents and the frequent users.

By giving the residents a say in the development of the public space, being the residential street, this becomes part of the private space, being the home, as the residents can make some sort of claim on it and call it their own. This raises the question whether the residential street can really be seen as a public space? It has more of a resemblance with a semi-public space. But also that is not entirely right, as this has the implication that the space has limited accessibility and has a set of commonly accepted rules attached to it. The residents will have the feeling that the residential street is their own, but this should not mean that others are not allowed to use it anymore the way they want to use it. The space should not reflect that it is a separate part from its surroundings and the rest of the city. The residential street is part of the neighbourhood and the city, but it is also part of the buildings adjacent to it, which are mainly homes. Similar to how Appleyard (1981) has described it as a part of the home territory. So the residential street differs from most other public spaces in that it is also home to the residents of the adjacent buildings and frequent users of the street.

As the residential street can be seen as part of its adjacent buildings as well as the public space, it seems obvious that besides the officials, also the residents of the adjacent buildings have a say in the appearance and use of the residential street. In practice the users mostly take the residential street as it is delivered to them by the officials, without giving it a second thought. Where earlier the people were independent and allowed to take care of themselves, the welfare state took these responsibilities from them (Kratzwald, 2012). This is done according to their ideas about what is best for the people. The people, in turn, take these decisions as given and go along with it as best as they can. Even if the decisions are not preferable for the affected users, they will just adapt themselves to it.

In the welfare state the people have become used to the government making decisions for them as this practice has continued for several decades. The decisions are mostly made for the public in general, but such an approach could leave out the preferences of certain groups of society. So if a decision is made that works for a certain residential street, this might not work for another street in the same neighbourhood. For example, when there is a focus on mobility by car; in a residential street where mostly young business men and women live, this could be a preferable decision, but in a residential street where mostly families with young children or where elderly people live, this would not be the case. More often the people do not agree with the decisions that are made by the officials for them and are reclaiming control (Kratzwald, 2012). For the residential street this would be that the people appropriate the space to their own liking. In many streets the decisions remain unchallenged as the people do not know how to make changes to them by themselves and do not want to bother themselves with the hassle. The possibility for changes should be made accessible for the public, even better would be that there are no changes needed as the decisions actually are the best for the people at that place.

In order to have an actual idea of what the users of a residential street want, these users should also be involved in the decision making and the design of the residential streets. The public is eloquent and knowledgeable and being involved will give these people the opportunity to shape this space according to how they would like to see and use the space and not only be dependent on the ideas of the officials. This way the people will develop a sense of ownership to the residential street which will make for a street with more use and an increased appreciation of the living environment. To have an idea of the current appearance and use of the public space and what this means for its

users, the next chapter will address the public space, and particularly the residential street, from the viewpoint of the practitioner.

## Chapter 2: Bringing quality into the residential street

### Introduction

This chapter looks at the public space, and particularly the residential street, from the viewpoint of the practitioner. The main practitioner addressed in this chapter is Jan Gehl, a renowned Danish urban planner and designer, who has done his research by trying to look from the perspective of the users. His research has been inspired by American-Canadian journalist, author and activist Jane Jacobs who is known for criticizing existing approaches for city development, like those by Robert Moses and Le Corbusier and advocated to look more towards the citizens. She has said to “go out there and see what works and what doesn’t work, and learn from reality. Look out of your windows, spend time in the streets and squares and see how people actually use spaces, learn from that and use it” (Anderson-Oliver, 2013).

Walking through cities around the world and experiencing them is how Gehl has been doing his research. In his work as urban planner and designer he uses his, more than forty years of, observations of human behaviour rather than depending on theoretical urban studies. This perspective gives an idea of what the users would want for public spaces and what public spaces mean for them. The book that is mainly used here is *Cities for People* (Gehl, 2010) where the results of his years of experience have been written down and where findings from his other works also come back. In addition to the research done by Gehl, this chapter will look further into what the public space can mean for its users.

For the residential street to contribute to the lives of its users, the street should have a quality of its own. Gehl has set up 12 quality criteria for creating public spaces. These criteria can be divided in protection, comfort and delight. Protection focusses on the people being and feeling safe. Comfort on giving them many opportunities to do different things in the public space, like walking, sitting, seeing, talking, and playing. And delight looks at whether space is oriented on human beings so they can enjoy external conditions and the environment, like the sun and greenery. These criteria are addressed to public spaces in general, but every public space is different. So as the residential street is different from other public spaces, the quality criteria should also be addressed specifically towards the residential street. The quality criteria will first be addressed by the meaning given it by Jan Gehl and then be addressed in how this translates to the residential street.

Jacobs has also partially inspired a design approach called Crime Prevention through Environmental Design which is also addressed in this chapter. This approach attempts to use the design of the environment to increase a feeling of security in the public space. Next to physical design measures there is also a proposed need for having a community to further increase a feeling of security.

Unlike the previous chapter, this chapter is mainly based on authors that have provided guidelines for how to address, design and change the public space so it will benefit the public. Much of this is based on experiences and thus represents a more practical and hands-on approach. This chapter will form the base of the research done, which is addressed in the next chapter.

---

Streets generally differ from public spaces like squares and parks in that its main functions are providing access to the adjacent buildings and being a space for mobility that connects other spaces together. With squares and parks the focus is often on the activities that happen in the space



itself or on important adjacent buildings. Parks are designed to provide places for activities like sports and places for enjoyment and relaxing in a nature-like setting. Squares are designed to provide places for various activities, ranging from markets to festivities. Both these spaces are designed to be able to gather many people in one such activity or provide the room for various such activities to be enacted at the same time. The street generally does not have this opportunity. Besides the accessibility and mobility there are various activities possible in the street, but these are often only possible in a smaller scale.

Also in streets there are differences, as there are already many different names to them, like boulevards, lanes, roads, avenues, highways, paths, etc. As pointed out in the first chapter, there are also differences in the streets, depending on the position in the city and the buildings that are adjacent to it. Where a street close to the city centre often houses shops and other enterprises and which is oriented towards consumption activities and attracting various people, a street further from the centre and not connecting to a space that attracts many people often mainly houses homes and is oriented to the activities of the residents which are often social activities.

In depictions of the street, often people are used to indicate a vibrant space and give the impression that the street is very active. For painters, bringing in the people creates a vibrant atmosphere. For designers, bringing in the people is an attempt to attract people in how the space should function. Showing people in the pictures does not mean that people will indeed be active in the street when it eventually is in use, but it does show that having people in a space makes the space more attractive to want to be part of (Gehl, 2010). The paintings might be an indication of how the street is actually used, especially in older times. But in design impressions the active use of the street is a possibility which often is not close to reality. In contemporary times, it seems that people are less active in their streets due to their busy lives where they have to work long days or have to go to school and at other times people are busy with various activities at other places if they are not in their homes behind the television, computer or busy with whatever they are doing. There seems to be less time and want for wandering the street and interact there in whatever way. It seems that everything should have a purpose, whether or not it is sometimes questionable what the purpose is.

Thus the happy and active people depicted in designer impressions are often not representative of the actual use of the eventual street. This is also because these impressions are mostly focused on the design of the buildings lining the street and the street just functions as the surroundings of the buildings. The streets are not taken into the design when a separate building is designed, the designer generally has no influence on what happens to the street. The design of the street can be taken in by a corporation which would design all, or at least the most, buildings that line the street, but mostly the street is designed in commission of the local government. In both cases the street is mostly designed with a practical function in mind, namely as infrastructural access for the buildings and for the mobility of the surrounding spaces. In such designs not much attention is given to the use of the street, besides its use as a transportation system. It is difficult to anticipate use in the design of public spaces, as the previous chapter indicates that the use of public spaces is dependent on the people that make use of it in what way they want at that time. Designers try to encourage people to use a space in a certain way, but this intended use should be in line with what the people want.

If one wants to design a public space that the people want to use in the indicated way, the designer should have an indication of what the people want. If there is even the desire to design public spaces which people can use, as the focus often remains on the buildings. In the past, buildings were built along public spaces as conglomerations, now urban areas are often collections of random, spectacular individual buildings with the surroundings public spaces functioning as parking

lots and access points for fast traffic (Gehl, 2010). This can also be seen in depictions of projects by designers where the building stands out from the other buildings and the public space almost seems to be drawn in as an afterthought. The public space just seems to exist to serve the building where people always look happy and active. Jane Jacobs (1961) sees the focus of designers on the individual buildings as the reason why life has been pushed from public spaces, with the increasing automobile traffic of her time squeezing out the rest of public life.

City planning, especially in the United States of America, became increasingly oriented towards automobiles where much of the space had to make way for this mode of fast traffic. When a space is dimensioned for a certain type of transport, that use of transport is increased (Gehl, 2010), thus more and more automobiles have occupied public space in these cities. As Appleyard (1981) has shown in his research on various streets, described in the previous chapter, the increasing amount of automobiles in the public space meant a decline of public life. This policy in favour of the car, together with city governments wanting to have imposing buildings in order to “enhance the global image of the city” (Al-Kodmany & Ali, 2013), are policies that take away possibilities of interaction in public space. This also brings in external issues that influence internal life and changes the city scape. Jacobs advocates local expertise to guide community development (Project for Public Spaces, 2016b).

The focus on buildings and automobiles connects to the top-view approach to city planning that urban designers often seem to have. This way a project might fit in with the big lines overlaying the surroundings of the project and the project might look spectacular in between the rest of the buildings, but the view from the street level is totally different. On this level the project might feel like it is pressing down on its direct surroundings or turning its back towards it with no sense of city life. The project might look impressive from a plane or in the rendering of the architect, but it is more important how the buildings connect with each other and how the public spaces are organized around them (Anderson-Oliver, 2013). When not much attention is given to the ground level and its direct surroundings, which is common with the top-view approach, there is “little to promote active pedestrian and social life at ground level” (Al-Kodmany & Ali, 2013). Next to the lack of social interaction, the absence of a connection of the buildings to the street will also make the street feel unsafe.

Local governments and city planners should create public spaces that make its inhabitants feel safe, secure, and socially integrated (Jacobs, 1961). To achieve this Jacobs sees the healthy sidewalk as a critical mechanism. The healthy sidewalk is where many different people can walk and go about their daily activities. Here people can have conversations, students can get to their destinations, residents can take out the trash, shopkeepers can exhibit their wares and street performers can attract crowds. With many people using the sidewalks in various ways, there is much social order to detect and prevent crime. This also makes people come into contact with others, even though it might only be through the exchange of glances. But also contact might be facilitated through shared experiences and interests which can be encountered through activity on the sidewalk.

When addressing the sidewalks, Jacobs focusses on big public spaces where people can get into contact with strangers and they together keep social order. This is distinct from residential streets in that these streets preferably do not have an overwhelming amount of strangers. In the residential street there might be some strangers passing through, but mostly the population will consist of the residents and frequent visitors. But also this space should make the people feel safe, secure, and socially integrated. Here also the sidewalks are a critical mechanism, in combination with the adjacent buildings. Although it might be that sidewalks are not preferred in a residential street as it might not adhere to the character of the specific street in that it makes for zoning. So instead of

sidewalks it is better to address spaces for slow traffic, which could be a predefined space, but could also be the street as a whole.

Activity on these spaces for slow traffic makes for social control in the street as slow traffic can assess what is happening around them and becomes an almost unconscious network of controls and standards (Jacobs, 1961). But it is not likely that there will constantly be slow traffic in the residential street, quite often there might not be any activity in these streets. But having a connection with the adjacent buildings also invites people from inside the buildings to look to the street and keep an eye out for anything extraordinary or it at least gives the possibility that people will look outside. This prevents crime and can also make people feel secure when they are living in this street.

Spaces for slow traffic do not mean that people are expected to be constantly moving on these spaces. When there are good conditions for life on foot there are more walking activities, but also more social and recreational activities (Gehl, 2010). As people are moving at a slow pace and are able to assess their surroundings, these spaces also invite lingering and standing still for people to interact with their surroundings and with other people. People might see some nice flowers or artwork in the street, look for inspiration in a front garden or use street furnishing to enjoy the weather, eat their sandwiches or do their exercises. And people might wave to their neighbours behind their windows, say hi to people walking by, engage in conversations or gather for a local event while children are playing in the street. When various slow activities happen in front of the buildings in the residential street that involve the residents and its property, the buildings become more of a part of the street and the street becomes more of a part of the buildings. What Appleyard (1981) refers to as home territory.

Still the residential street remains a step between the anonymity of the public space and the intimacy of the private home, as is addressed in the previous chapter with describing the street as different from other public spaces because it is also home to its residents and frequent users. In the residential street people can engage on friendly terms with many people without obligations of inviting anyone inside for a drink (Jacobs, 1961). As the users of the residential street are people that can be encountered frequently, there is a tendency to want to appear at their best, as people want to be perceived at their best, especially when there is much activity on the street and the users are acquaintances. This makes for people wanting to keep their houses and front gardens decent, spent more time being connected to the street from their home in order to see what is happening on the street, venture out doors more often to be part of the activities of the street, keeping the streets decent, gaining more acquaintances, getting a sense of belonging and inviting people to drink coffee in their home when becoming more than acquaintances.

These things can only happen when people want to invest in their streets and for that the loyalty of the residents and frequent visitors should be won (Jacobs, 1961). When practitioners talk about their plans, they give the impression to know what the users want and what they will eventually do in their designed space. With that impression they design the space in a way that accommodates their imagined activities. But often this does not fit the actual users. The users in the works of practitioners are represented users, which are not always a good representation of what the real users will be. The use that is envisioned in the space by the practitioners is called the "representations of space" by Lefebvre (1991). In this the practitioners try to guide and shape the users in such a way that the use will be how they want it to be, letting the users be discursive constructs rather than real actors (Davenport, Leitch, & Rip, 2003).

How a technology, like the residential street, can be used is constrained to the use and the user that the practitioners had in mind (Woolgar, 1991). Thus in order to use the space as is intended, the actual user should be like the user that the practitioners had in mind. But more often than not, the actual users are not similar to the represented users (Oudshoorn & Pinch, 2008). This will lead to unintended uses of the space where the users associate themselves with the space will appropriate the space to their own liking and thus change the appearance and experience of the space. This is what Lefebvre (1991) calls the representational space.

So it seems that practitioners do not really involve users in the design of public spaces, but only have a represented user in mind that fits how they want to see the public space. According to Henriksson (2014) the practitioners do have a user in mind, but they look from their own experiences as users. Thus this experience is still from a professional viewpoint which might not reflect what actual users will experience. The represented user should be close to the actual user. In order to really be able to experience from the viewpoint of the users, these users and their actual use of public spaces should be analysed.

Jan Gehl has done an extensive research on human beings and their use of the public space. For this he has done research about the human body and its capabilities and has done numerous observations concerning the behaviour of human beings. The most highly developed sense of human beings is sight, together with hearing these are the senses that are most important for the experience of the public space and the people that use it. Through evolution the vision of humans is slightly tilted down by about 10 degrees (Gehl, 2010). We are well capable of seeing what is on the path ahead of us so we do not trip when walking forward. Also we can move our heads easily to the sides to see what is happening around us, together with our hearing we can assess and experience the situation in the public space. Looking up is more difficult for us, this makes it difficult to see upper floors of buildings when standing close to them. For this people should move further away from the building, but this increasing distance makes it difficult to see details. Thus people have more of a connection with things that happen on eye level to which they can get close to without constraint, like the open space and ground floors of buildings.

As distance has an influence on the details that a person can see, distance also has influence on what can be heard. Gehl (2010) has assessed that the distance corresponds with how people communicate with each other. Where distances from 370 cm and up are for formal contact and one-way communication, like street performances. The closer the distance becomes to one another the more personal the contact and conversations become. For example, the width of a dinner table can determine whether the occasion is formal or personal. Knowing such distances for perception and hearing helps in how the public space should be dimensioned.

Our sensory apparatus and systems for interpreting sensory impressions are adapted to walking. We have time to see and hear what is happening where when moving at a normal walking speed and then we can react to new situations. At running and biking speed, there is an acceptable level of control when the surroundings are even and reasonably easy to comprehend. We have to slow down when things get more complicated. Thus the design of the street can influence the desired velocity used. But also the supposedly used speed influences how the street looks like as signals are adapted in order to be visible and assessable. Slow speed spaces are small and have small signals, many details and people close by. High speed spaces are large and have large signals and no details. At high speeds it is not possible to see details or people and thus they mostly stay clear of such spaces (Gehl, 2010).

In the consideration of public spaces it is important to be aware of such human capabilities and with this knowledge public spaces can be designed that fit the human scale. In public spaces, where the human scale is taken into consideration, it will feel more natural for people to be in such a space. For example, in many old city centres the streets are narrow and there are small spaces. Here people can see the buildings and other people from close range by which they can see many details. Many people will use these spaces because there is much to experience when moving through it at a slow pace. This will trigger many activities, which again will attract more people to use the space. These narrow streets and small spaces are perceived as warm, personal and welcoming (Gehl, 2010). In contrast there are many areas in cities where streets are very wide, squares are big and the adjacent buildings are very tall. This is out of proportion to the human scale and hardly any details are visible because of the distance. Not that many details are even used as the great sizes do not allow it or have no use for them. There are hardly any people that use these spaces as they do not bring anything interesting. These spaces are mostly only used out of necessity or by passing through them at high speeds. These types of urban spaces are often perceived as impersonal, formal and cold (Gehl, 2010).

The size of a space can also have a different influence on perception. It makes a big difference when the same amount of people is present in a small or big place. In a small place there would seem to be much activity and it will look inviting to engage in the space, to interact with other people in whatever way. "A few people in a narrow village street can easily present a lively, beckoning picture" (Gehl, 2010, p. 63). In a big place that amount of people would make the space seem empty where people would naturally keep their distance from others.

Thus when creating a public space it is important to have an idea of what to achieve and how the human body fits into this. The residential street is a space where the residents enter their homes. Here they go to and come from on their various activities throughout the city. Other people living close by the particular residential street pass through this space on their way and coming from their various activities. And there are various frequent visitors that like to pass through or reside in the particular residential street. Thus there are various people that use the residential street, although they mostly appear to be the same people every day. The amount of people is generally not that big and thus it is not necessary to create a very big space for them. The residential street just needs to provide the opportunities that these users want from the space.

As these users live along the residential street and have to make frequent use of it at various times of the day, they first and foremost want the street to be safe in its use and want to have a feeling of security when being there. If the street is not safe to use and gives a feeling of insecurity, the people will only use it out of necessity and move away from it, there is no point in looking for any other quality in that street as it will not mean anything to anyone (Gehl, 2010). The safety of use can be asserted by keeping the routes well visible all around the year and throughout the day and night by providing good lighting and keeping the paths clear of garbage, leaves and snow. Also keeping the routes free from things where people can trip over, fall into or collide against. And where people might cross each other's trajectory there should not be the risk for an accident or injury.

The feeling of security in the residential street revolves around the feeling of being safe from crime when passing through the street and when living adjacent to it. "Crime and the fear of crime are serious issues confronting societies and contribute to decline the quality of life" (Marzbali, Abdullah, Razak, & Tilaki, 2011). Thus it is important that people will feel secure in the street that they live in or make frequent use of. Preventing crime can be done through the design of the residential street of which measures are provided by an approach that is aptly called: Crime Prevention through Environmental Design. This reduces the need for labour-intensive procedures,

like guards and policing, and capital-intensive mechanical and electronic devices, like security cameras (Cozens & Love, 2015).

Jacobs (1961) provides three main qualities that a street must have for a street to be secure. The first one is that there should be a clear demarcation of what public space is and what private space is. Secondly, there must be eyes upon the street in which the street must be visible from the adjacent buildings. And lastly, there must be users on the spaces for slow traffic, fairly continuously, in order to have more eyes on the street and to entice people in the adjacent buildings to watch the people passing by. The perceived risk of getting caught is more important than the perceived reward or ease of practice in deciding whether a crime would be committed (Bean, 2003). Thus it is indeed important for the street to be visible from the buildings and that there is much activity on the street to prevent criminals from committing a crime.

Crime Prevention through Environmental Design continues on these three qualities by Jacobs. There have been researches on measures that can assure these qualities, some qualities are extended and there have been additions (Cozens & Love, 2015). Clear demarcation comes back in the concept of territorial reinforcement in which a sense of ownership for a space is created that discourages the presence of people that do not belong there. This can already be done at the entrance of the residential street where the impression can be given that the street is mainly meant for the use of the residents, but this can also be done by the use of fences and hedges to clearly define private space. Here the residents can have a feeling of security and it makes clear to others that it is suspect if they are there without a good reason.

Image and space management connects into this by providing the image that the front garden or other private space is well used and maintained. This gives the feeling that there is often somebody present. Maintenance done to the rest of the residential street also contributes to the security by continuous functioning of the space and giving the impression of the space being well used by people. As spaces with poor maintenance tend to have a lower use and attract more crime (Cozens & Love, 2015). Image and space management will attract more regular use to the street and have (the impression of) people looking at the street from the adjacent buildings.

Having more eyes on the street can also be established by the promotion of natural surveillance. This is done by not obstructing the lines of sight in the street with greenery or other elements and keeping the street well visible also in the night with street lighting. Also the placement of entrances and windows in the façades of buildings contribute to this as they give the impression to potential criminals that they can be observed, creating something similar to the panopticon by Foucault (1979). This will make the criminals hesitant of committing a crime and it will make the regular users of the street feel more secure.

Giving signs that a person is entering a certain area, like a residential street, where certain activities might happen, like cautioning for playing children, will give a sign to what kind of behaviour and activities are desirable and directly what is undesirable, besides giving the impression that there is frequent activity in the street. It will also make the residents and frequent users of the street more aware of looking out for behaviour and activities that do not belong there and will be more engaged in the legitimate activities that happen there. And people who come to the residential street will know to look out for potential activity which will increase safety.

Most of these security measures focus on having activity in the residential street and having a connection with the adjacent buildings. This is something that often comes back in the work of Gehl. In his work Gehl (2010) has set up 12 quality criteria to which a public space should adhere in order for it to be a well-functioning space. Six of these criteria revolve around comfort and focus on

promoting activity in the street and having a connection with the adjacent buildings. These are followed by three criteria that revolve around delight which makes for whether the public space provides things that the users can enjoy. But first there are three criteria that revolve around protection. All the criteria can be seen in table 1. The criteria will be addressed in the following where first the meaning given to it by Gehl will be noted followed by how this translates to the residential street.

12 quality criteria			
<b>Protection</b>	1: Feeling safe: Protection against traffic and accidents	2: Feeling secure: Protection against crime and violence	3: Protection against unpleasant sensory experiences
<b>Comfort</b>	4: Opportunities to walk	5: Opportunities to stand/stay	6: Opportunities to sit
	7: Opportunities to see	8: Opportunities to talk and listen	9: Opportunities for play, exercise and chores
<b>Delight</b>	10: Human scale	11: Opportunities to enjoy the positive effects of climate	12: Positive sensory experiences

*Table 1: 12 quality criteria*

According to Gehl the other criteria are not worth striving for when the first three criteria have not been taken into account, which revolve around protection. First there are the criteria of (1) feeling safe and (2) feeling secure that have already been addressed earlier. Gehl (2010) adds a third criterion which is the (3) protection against unpleasant sensory experiences to ensuring safety and security. People in the public space should have the possibility to be sheltered from sudden and extreme weather influences, like wind, rain and snow. Heat and cold should not be emphasized by the design and materiality of the public space and preferably its effect should be lessened. And users should be spared from various inconveniences, like glare from bright street lighting, noise from nearby railroads, and pollution from factories and cars.

Gehl generally thinks that much use of cars in public spaces decreases the quality of the space. To increase the quality of a space, walking should be promoted because besides it being a form of transportation, it also is a potential beginning or occasion for many other activities (Gehl, 2010), thus (4) opportunities to walk is the first quality criterion of comfort. When automobiles were increasingly used in Western cities, this form of transport gained the preference over others, like walking. Thus pedestrians were pushed to the sides of the streets where they had to walk on increasingly small sidewalks where they had to weave around obstacles and could only move in columns. In order to promote walking, the pedestrians should have room to walk relatively freely and unhampered. This might invite them to move more freely through the space in overall and thus this will warn automobiles to be alert for them. Especially when the preference of use is given to pedestrians, which can often be the case in residential streets, then pedestrians should have the possibility to cross the space without being afraid to be run over by a speeding car, although the pedestrian should also watch out for its own safety.

A space focused on pedestrians should be accustomed to the slow speed of passing through it. It is preferable to have a small scale and much details to the space as has been addressed earlier. This promotes moving slower as there will be many experiences. The edges of the street will have an important influence in this where doors, windows, building details, landscaping and greenery in front of the buildings will provide something new to see frequently (Gehl, 2010). In psychological studies it

is shown that human senses need stimulation every four to five seconds (Nordahl, 2012), thus humans also need to experience something frequently for them to be attracted. Residential streets with terraced houses often do not have much interesting to see on a frequent basis as the edges consist of a long line of repetition. The street can look more interesting when this line is broken by several elements, like emphasizing vertical elements, bringing in exceptions, bringing in diversity to the alignment or bringing in diversity by creating different types of buildings or giving them differing looks. Residents can also contribute to this by personalizing the façade, placing things in the windows or allowing looks through the windows. Also front gardens can break the repeating lines by bringing in different views every few seconds, at least if they are not lined by high hedges or fences as these will bring a new façade with not much to experience.

Walking can lead quickly to people standing still and staying at a certain place when the environment invites them to do so. The people can stop to stay when they see something interesting of which they want to have a closer look, they can stop to have a conversation with an acquaintance passing by or they can just stop to take a short brake. (5) Opportunities to stay or stand is the second criterion addressed by Gehl (2010) concerning comfort. Standing typically is a short-term activity, but when people want to stop and stand for a longer time, they will find a comfortable place to do so. For public spaces in general these places are at the edges of the public space in niches and leaning up against a wall. Here the local climate is often better, the back of the person is covered and he or she will have a good overview of the space.

For the residential street, the edges are often the houses of the residents or the borders of their front gardens. When people stand for a longer time in a residential street, it is mostly because they are in a conversation with someone or when they are observing something that is happening in the street, like watching over playing children or observing maintenance and other tasks. For this people might look for a comfortable edge, but people might as well stand still anywhere. When there is a low amount of traffic and enough space to stand they will not often stand in the way of someone passing by and when they do they will let them pass with a friendly word.

When staying will be even longer, the people will find places to sit. This is the third criterion by Gehl (2010), concerning comfort, where (6) opportunities to sit should be provided. "General requirements for a good place to sit are a pleasant microclimate, good placement preferably at the edge of the space with your back covered, a good view, an appropriately low noise level to allow conversation, and no pollution" (Gehl, 2010, p. 140). Opportunities to sit are often not provided in residential streets and there also does not seem to be any need for it. Because of a limited space in the street a bench often is an obstruction and as placement would be in front of a house or front garden, this might be unwanted by the specific residents. When people would like to sit in the residential street they will most likely use their own sitting furniture and place this in front of their own houses.

Studies show that most of the staying and sitting in public spaces in city centres will happen in or along the private spaces that line the public space (Gehl, 2010). These spaces can be outfitted by the users themselves and thus make for an easy and attractive space to stay. Also in residential streets, most of the sitting and staying will probably happen in front gardens, on balconies or at least close in front of the people their own homes. This does not necessarily invite other people to join them, but it does invite for saying hello, commenting on the weather and having a conversation. Also seeing others on the street sitting in front of their home might invite other people to sit in front of their own homes.



Seeing is the most important sensory use of humans and is what the fourth quality criterion concerning comfort revolves around; (7) opportunities to see. "To see and be seen is the simplest and by far the most widespread form of meeting between people" (Gehl, 2010, p. 148) and it is also the most popular activity in public spaces. People generally like to be in a public space and look at other people and what they are doing. This can be seen on terraces where the most chairs are turned towards the public space to have a good view of the people there. To be able to view people or other interesting scenes, like art, architecture, water or greenery, the lines of sight have to be concerned in the development of a public space.

In residential streets the residents like to be able to see the people passing by and the activities in the street. This is an important reason why people sit in front of their houses. Thus when designing the residential street it is important to keep in mind the visibility of the street from inside the houses and from the front gardens. When people want a connection with the street and interact there should be much connection with inside and outside. So many windows and the possibility of people to see the street unhindered from inside. When less interaction is wanted, then the windows could be smaller, but it is still preferable to keep visual contact with the street from inside as people do enjoy seeing life, but also so they can keep an eye on what is happening on the street and by this contribute to the safety and security of the street. Also when designers work on the edges of the street where the front gardens begin, it is important that visibility should be maintained, so no high hedges, fences or detailed railings. Also the cars should not be able to be parked too close against the borders of the buildings as these can obstruct the view as well. And also other objects in the public space should not obstruct any views.

Having the people in the buildings looking at the street increases the security and safety of the street by having eyes on it, but people from outside also like to look inside the houses of others which is not always preferred by the residents. To limit visibility from outside this can, for example, be done by the specific designs of the window frames and by providing particular screens, which will make it less easy for people to look in. Also landscaping can be used for this where plants, objects and fences can limit the view. With these options it has to be made sure that the view from inside will not be limited. Another option is to keep people at a distance from the windows with the use of stairs, front gardens and flowerbeds. And also the houses can be lifted a few steps above street level (Gehl, 2010) which will not only decrease the possibility of looking in, but also increase the visibility of the street from inside the house.

The other important human sense for public spaces is hearing to which the fifth criterion concerning comfort is directed; (8) opportunities to talk and listen. When there is fast motorized traffic moving through the space then the noise coming from this drowns all other sounds and conversations can hardly be held. When walking in a public space that is free of automobiles, also in its surroundings, it is possible to hear voices, footsteps, birds and music (Gehl, 2010). Activity and interaction becomes possible when traffic intensity and velocity is not that high. This way people can at least have conversations and hear the sounds of activity, besides not having to be afraid for dangerous situations.

When it comes to people having conversations in the residential street, a study shows that this often happens along the edges, especially in densely built streets with outdoor terraces between the residence and the street space (Gehl, Thornton, & Brack, 1977). In the study 69% of all activities took place at such terraces or near its borders. The residents would use these front gardens for various activities, in combination with being able to follow life on the street. These people are confident within their space and have a good contact with their surroundings, but they will mostly only stay outside when there is activity in the street, preferably pedestrian. When there is activity,

the combination of people being in their front gardens and familiar people passing by, this often leads to conversations. While conversations might most often happen at the edges, any place in a pedestrian focussed street might provide an opportunity when acquaintances come into contact with each other.

The last quality criterion for comfort by Gehl (2010) is (9) opportunities for play and exercise. In this thesis opportunities to do chores is added to this. It is often seen that children have to play in designated playgrounds where they will be under the supervision of adults. Here the play equipment is designed with mostly single uses in mind as to make sure to keep the children safe from any harm (Saffron, 2015). But in general children want to use their surroundings for play in whatever way they can think of. Through their imagination they can make a complete adventurous story and play revolving around a tree. Children will use whatever they have for play, but they want to make the choices for themselves what to play with and how they will use it (Gray, 2011). Thus it is not necessary to send of children to designated playgrounds for play, they can have as much fun in the residential street. And it is not necessary to provide them with play equipment, they will only need the space to play and various objects that provide opportunities to play, like ledges that they can climb on and jump from, as long as they are allowed to do what they want.

The residential street is an ideal place for children to play. This is generally the place where they first come into contact with the outside world, here they can explore a new world and learn new things, like riding a bicycle. When children see other children playing in the street they will want to join them, this will get them to know new people and make friends. Exploring, learning new things and making friends is good for the development of children (Gray, 2011). Having children play in the residential street is also beneficial for the parents as they can keep an eye on what they are doing to make sure that they do not get hurt. Else there will be other people looking out who can react when something might happen, as generally people like to see human activity. Through their children the parents can also get acquainted with other people in the neighbourhood. Ensuring the reasonable safety of the playing children in the residential street can be done in the design of the street with measures for reducing the speed of automobiles and giving them the space to freely play.

Also many other activities besides play should be given the opportunity to perform in public spaces. More and more the public space is used for playing music, singing, dancing, exercising and engaging in sports (Gehl, 2010). Besides a sport like running the residential street will not see many of these activities. But other activities that will happen more often in residential streets are the doing of chores. For this the residents should have the space to do several tasks like washing the car, hanging out laundry and fixing things, by giving them the a private space or the opportunity to do this in the street itself. Concerning the private properties the residents will also have to clean the windows and maintain the gardens which adds to the activity in the street.

All the quality criteria for comfort in residential streets, being opportunities to walk, stand/stay, sit, see, talk and listen, and play, exercise and chores, invite more pedestrian activity to the street. To have more active residential streets, it might then be obvious to simply ban automobiles from these streets and only allow bicycles and pedestrians. In many city centres, like Melbourne, Copenhagen, Buenos Aires and Venice the automobile is not allowed instead of in special circumstances. In such cities pedestrian life is stimulated and many activities take place in the public spaces. Public transport is stimulated to get people to these zones and automobiles are placed in big parking buildings along the edges.

All residential streets can also be made free of automobiles, the automobiles should then be parked in designated spaces along the edges of these zones. As most residential areas are sparsely

populated, there are not many facilities contributing to the residents. This means that the residents mostly work outside of the residential areas and have to do their shopping outside of it. The residents constantly have to traverse between their homes and the parking spaces or other spaces outside the residential zone often carrying their things for work or things like groceries. Coupled with people generally wanting to be able to see their cars from their homes in order to make sure that nothing happens to them, making the residential areas completely free of automobiles might not be a preferred option.

An option that could be explored is to restrict automobile access to people living there, but then measures have to be made to keep out other people. But automobiles do bring their own liveliness to the street when passing by. Especially in residential streets where not that many people live and thus there is sparse activity in the street during various times of the day. Here the passing of automobiles might actually be welcome to retain some activity, as long as they do not breach safety. Thus activity in residential streets can possibly better be provided by having various modes of mobility pass through them.

Jacobs (Jacobs, 1961) proposes that diversity will lead to more activity in the public space and that it will make for a lively, urban city. For this she gives four requirements that mainly focus on the neighbourhood. Firstly, the neighbourhood or district should have more than one primary function, preferably more than two. Here she wants diversity in the functions of the different buildings to attract more people and a variety of people. This variety of people will make use of the neighbourhood in different ways and at different times of the day which ensures that there is always something going on. But they will all use the provided facilities when these connect to their wishes. To accomplish this it is necessary to interact with the different people to understand their wishes or to even get them involved in providing the facilities.

Jacobs' second requirement is having small blocks of buildings and a fine-grained street pattern. By doing this the facilities will not be concentrated on only a few streets, but it invites for the facilities to spread through the neighbourhood as also the streams of people spread through all the different streets. As the people have the liberty to choose a variety of directions to reach their destination, they will experience the district in different ways every time. The third requirement of Jacobs is to have differing ages and conditions of the buildings so no street will look the same and the experience will indeed be different. This will also make for differing economic opportunities and expectations for people which will attract a variety of people.

The last requirement by Jacobs is the need for concentration. Next to the differing ages and conditions of the buildings there should also be a variety of types and styles for buildings. Next to the one family homes there should be apartment buildings, next to the small businesses there should be office buildings, and next to the shops in front of or underneath a home there should be shopping centres. Even more preferable is that in the bigger buildings a variety of functions is combined in the buildings as to get a variety of users spread over the day and to have concentrations of many people.

These generators of diversity mainly look on a bigger scale than the residential street, namely the neighbourhood or district. This is also important as the surroundings of the residential street also need to have quality and be secure in order to maintain the quality and security of the residential street. Newman (1973) addresses this with the term geographical juxtaposition which "refers to the influence that nearby land uses and activities may have on the safety and security of a particular site" (Cozens & van der Linde, 2015). As Jacobs promotes a variety of functions to attract a variety of people at different times of the day, Newman is cautious about this mixed use in neighbourhoods. When wanting to mix functions in a neighbourhood, it is important to consider things like the type of

business, at what times there will be activity and what type of people and behaviour it might attract (Newman, 1973). For this he particularly warns for land uses that tend to generate crime like pubs, pharmacies and vacant buildings. Such uses can cause problems for its surroundings and thus jeopardize the safety and security of the residential street.

Ensuring safety and security, the quality criteria for comfort and the generators for diversity together will make for more activity in the residential street and by this create a social environment. This will bring benefits for the public frequently using the residential street. In later additions to Crime Prevention through Environmental Design the significance of a social environment is addressed with promoting social programs and community participation (Cozens & Love, 2015). Four interwoven areas of attention have been identified which together “seek to promote notions of community and neighbourliness in order to prevent crime” (Fisher, 2016, p. 1). Having a community feeling and being able to rely on others will further benefit the public by bringing them a feeling of security. The areas of attention are social cohesion, connectivity, community culture, and threshold capacity.

For social cohesion there are strategies that try to establish relationships between the residents, the frequent users and other occasional users of an area. Here this can be taken as the residential street, but also together with its direct surroundings. To establish these relationships and limit potential conflicts between these people, social events can be organized like street barbecues or by bringing people together in local organizations. Such things can be set up as the people already have a connection with others in the street through the opportunities for activity through the quality criteria for comfort. Through community events and organizations the residents of the area and frequent visitors come closer to each other by which more intimate relationships might be established and strengthened. This will lead to the people taking more responsibility for the community and the street as the people might develop a sense of belonging there (Cozens & Love, 2015).

When communities come to exist it is important that these do not become isolated (Fisher, 2016). It is important for them to be able to establish connections with other organizations and groups as not to become an excluded community itself. This connection might be achieved by establishing awareness of the community activities, exchanging experiences with other communities or combining efforts in order to establish something together. There should also be a connection with the local government so the community will know what the possibilities are in funding and the government will be aware of the wishes of the people living in particular streets and areas. Through these connections it is made possible for the residents to have influence in the things that will happen in their street, like making changes in the planning and development of it.

Other things that happen in the street can be set up by the community itself, like festivals or sporting and culture events. Here the residents can come together and a community culture can be developed revolving around the area (Cozens & Love, 2015). Through this the people will be encouraged to take ownership of the shared area and protect and maintain it. This can also lead to the people keeping an eye out for each other, like helping others with problems, reducing family issues and involving new families in the community.

The groups, organizations, festivals and social, sporting and cultural events have limitations to them in order for it to be for and within the community. There is a certain threshold capacity in which it will be functioning and the amount of people will not result in anonymity within the group. When it becomes too big the people will not be able to know one another anymore and there will be no real community anymore (Cozens & Love, 2015). For this it has to be kept to the human scale

where people can still comprehend the amount of activity. This also goes for the public spaces and the residential streets. When they become too big or too inviting it can exceed its capacity by which the residents are not able to keep social control, retain responsibility and maintain the space. Thus it is preferable to have neighbourhoods that are small and locally based in which the residents work, go to school and socialize with opportunities for various types of interaction and establishing relationships (Cozens & van der Linde, 2015).

Keeping things at a (10) human scale is where Gehl starts with for his remaining quality criteria that revolve around delight. "The experience of comfort and well-being in cities is closely tied to how city structure and city space harmonize with the human body, human senses and corresponding space dimensions and scale" (Gehl, 2010). When a public space becomes too big it will not be able to facilitate the potential activities and its centre will feel empty because generally people will keep to the edges of such space as the other side is too far away for the crossing to be interesting. Thus the size of the space influences how the space is used and which functions it can facilitate as well as it influences the comfort of a person within such a space.

In order for the residential street to adhere to the human scale it should not be too wide, else it will get out of proportion to its use and function. This might happen when buildings are set far from the street. Although the street itself might not be wide, the visual edges are far from each other. This can be overcome by requiring the building owners to set up high attributes on the edges of their front properties as to lessen the visual distance. High hedges and fences are not an ideal solution as they close the buildings from the street, making the residential street a closed space similar to having buildings with no doors and windows on the ground floor. Another possibility is to make the street appear smaller, for example by placing trees, street furniture or artwork in patterns as to make them seem like façades. This also works when the residential street is lined with tall buildings like apartment buildings, these artificial façades will then bring the tall buildings to the background so they do not push down on the passing pedestrians. But the placing of tall buildings in the residential street should be cautioned because it might bring a concentration of many people which will cross the threshold capacity and it soon exceeds the human scale as people cannot easily perceive and interact with higher floors.

When the residential street is meant to be oriented on pedestrians, the architecture should be according to this velocity and the human senses and capabilities. Thus spaces with much detail and facilities. This might also invite the possible automobiles to move at a reasonable pace through the residential street as it is clear that it is meant for slow traffic. In residential streets which are not completely oriented on pedestrians facilities should be provided for multiple speeds where automobiles, bicycles and pedestrians can move comfortably through the street. In residential street it is wise to make sure that the different modes of traffic keep in mind the presence of the other modes of traffic to make sure that safety is upheld.

The second quality criterion concerning delight is providing (11) opportunities to enjoy the positive aspects of climate. Having bad or good weather has a big impact on the use of a public space. Short stops for conversations can happen all the time, whether it is cold or warm outside. The same goes for taking a stroll, walking the dog and children playing. Though the weather does impact such activities. These activities will decrease on rainy days or when it is really cold outside. For moderate and cold temperature regions, these activities will increase when the sun is out and it is not too windy. Also other activities will more likely occur in the residential street when it is sunny, like standing and sitting outside for longer periods of time, doing chores in front of the buildings and having gatherings with other residents.

The public space can contribute to this by improving or worsen the effects of weather. When living in a warm and sunny climate it is preferred that shading is offered in the residential street. This can be done by placing the buildings close to the street or using trees and furniture for shading. When living in a cold region, the sun is welcome all the time. So it is preferable to have an open sky in the street so the people can enjoy the sun. Here the trees should be cropped or left out together with other elements that can obstruct the sun. In moderate climates some of both can be implemented where trees can provide shading, beauty and a point of recognition besides leaving room for the sun to reach the street surface when they are spaced apart.

Besides the sun, the wind is an important factor in the comfort of a space. The dimensions of a space and the adjacent buildings can influence the wind speed at the street level. Big open spaces let the wind move through at the same speed as it flows through open landscapes in the surroundings of the city. And tall buildings increase the wind speeds at the street level because they catch the wind at high levels where it flows down and combines with the wind that is already flowing there. The wind speed can be reduced with the use of many trees and clustered low buildings which provide friction so the majority of the wind will flow over them. Thus in residential streets the wind will flow at a regular speed when the buildings are far apart and there are no trees or other elements that provide friction. To make a more comfortable climate for themselves, the residents will put up hedges and fences to keep the wind out, but this will also close them off from the residential street. The wind can be reduced with having the buildings closer to each other and filling the street somewhat with trees and other elements. When a tall apartment building is situated in the residential street, a low addition to the ground floor of the building or a canopy can catch the wind coming down. Reducing the wind at the street level can make for a more comfortable space and thus invite people to make more use of this space.

The last quality criterion concerns (12) positive sensory experiences. Gehl has placed the focus on whether something looks good as the last criterion with a purpose. When a space is solely focused on providing visual quality, it is not certain that it will have quality on its own. "Urban projects and urban spaces [where visual and aesthetic considerations have dominated the design may] be pictured in architecture magazines, but in the real world these city spaces typically work poorly or not at all, because key consideration for people and life in public space is missing" (Gehl, 2010, p. 181). For a public space to have quality it is important to incorporate all 12 quality criteria together and not focus on one or a few.

As every public space is different, it is difficult to set up quality criteria that will fit all public spaces equally well. Residential streets are different from other public spaces as they are mainly used by the residents, people that pass through it frequently who are mostly people that live close-by, people who work there or close-by and people who visit one of the buildings. They use the street to gain access to the surrounding buildings and to get to and from their destinations. As other people are not really expected to come here, it is rather easy to pinpoint the frequent users of any residential street. These people are all more or less directly connected to the street and thus have a certain feeling to it. This makes it different from public spaces like squares, parks and shopping streets, where many different people are meant to gather and because of the great amount of people the users become more or less anonymous.

There are also differences between residential streets and other streets, already shown in the many different names used for them, like boulevards, lanes, roads, avenues, highways, paths, etc. Highways and boulevards are mainly used for getting from one point to the other in the city or other cities and often at a high speed. Here again the amount of people makes them anonymous and other activities besides for mobility are not likely to happen. Streets through industrial areas are

again another type of street which people use to get to and from their work. The activity on these streets is at set times while activity on residential streets can be at all times of the day, at least that is what is often strived for as this stimulates safety and security.

As pointed out in the first chapter, there are also differences in the streets, depending on the position in the city and the buildings that are adjacent to it. Where a street close to the city centre often houses shops and other enterprises and which is oriented towards consumption activities and attracting various people, a street further from the centre and not connecting to a space that attracts many people often mainly houses homes and is oriented to the activities of the residents which are often social activities. Thus the residential street is a public space that first and foremost is meant for its main users which are the residents and frequent visitors. The quality and opportunities that the residential street should provide should also revolve around these users.

As mentioned earlier, by getting involved with the residential street, through activities and the community, the residents and frequent visitors might develop a sense of belonging. Because of this they will increase the feeling of responsibility for the community and the street. Also for the individual this has its benefits. People can feel attached to a place because of the connections that they have with other people, groups and the socio-physical environment, such as their houses (Brown & Perkins, 1992) and the residential street. Having these connections and belonging to a community will increase regular casual interactions which is generally seen as beneficial for the well-being of a person (Coleman, 1990). Being able to have interactions in the street and doing other activities will make for more acquaintances and friends (Appleyard et al., 1981) which increases the quality of life of a person. And other people already gain benefits by seeing other people in the street and receive nods and smiles from others (Cattell, Dines, Gesler, & Curtis, 2008).

Thus for the benefits of the community and the individuals Ruchelman (1988) advises in his guidelines for design projects that “streets should be maintained as lively and interesting places.” This can thus be done by ensuring a feeling of security for the users of the residential street and by providing quality to the residential street through the guidance of the 12 quality criteria by Gehl. Feeling secure and having activity and interaction in the residential street will make for the people being more socially engaged with each other and will increase their well-being. Daily physical interaction with the urban environment and social interaction within the urban environment will bring appreciation of the living environment, but only when the space is practicable, attractive and safe (Gifford, 1997). Thus when attention is given to the 12 quality criteria, the residential street will bring appreciation of the living environment.

But there is more to the appreciation of the living environment than providing an environment with quality. “The appreciation of an individual for the environment depends upon his or her personal characteristics, experience, personal interpretations and needs and upon social and cultural contexts” (van Dorst, 2010). Thus besides having an active environment with interaction and a community culture, the appreciation also depends on the individual. In order to provide an environment that adheres to the individual, designers should have some idea to what type of users there are in the residential street and what they want there. But having an abstract idea is not enough to satisfy all the individuals as they are all different.

In order to truly be able to look from the user perspective, the users should also be involved in the design. Designers are generally hesitant in this, because it is difficult to work together with the users, especially if there are many involved. There may be conflicting desires and often users do not entirely know what they want or about all that is possible in the field. Designers are then often afraid that only standard ideas will come forth which is not enough of a challenge for them. To ensure that

the public space will have quality, the users should be able to participate under the supervision of a professional. But it is important that the participants are allowed to bring in their own ideas and that these ideas are taken seriously, which could make for a challenge for the professional to come up with something new and exciting.

At least the main opportunities provided in the residential street should be suggested by the residents and implemented by the designer. It should be kept in mind that the opportunities that the residents want might not be different from what is already planned or present. In some residential streets there might be suggestions for bringing in many opportunities for the residents to interact, play and come together, but for other residential streets the residents might not want to get too much engaged with the other residents. As long as this is to their own choosing. Even though the professional should try to make clear what the benefits are for the individuals in having activity and interaction in the street. Differences in streets will make for a variety in street environments, which will make for more diversity in the community of the neighbourhood. Having differences in streets might transfer ideas of opportunities from one place to another and make residential streets that earlier only facilitated fast mobility opportunities into spaces focussing on interaction with the neighbours, or the other way around. Also when connecting streets have a similar want for interaction, this might be combined in both streets, which will expand the interaction and form engagement in a small community. This engagement might spread further into the whole neighbourhood.

There is always the possibility that the majority of the residents and frequent users do not want that much activity in the street or have interactions with their neighbours, and it could be that they do not have or want to take the time for it. But as shown in this chapter there are various benefits for having activity and interaction in the residential street and there are ways to naturally promote such behaviour. When the users might initially not be interested in such interactions, this might change over time. For this there should be the opportunity to make changes to the residential street at a later instant.

The next chapter will focus on Roombeek in which the residents were able to participate in the development of their district. And potentially make choices that would be to the benefit of all individuals. With this example there will be more insight on what kind of influence user participation will have on the residential street.



## Chapter 3: Roombeek; an example of participation

### Introduction

Many of the requirements for bringing quality to the residential street addressed in the previous chapter involved people being active in the public space and them having a connection with the public space. Gehl (2010) has approached this by trying to look from the perspective of the user as to have an idea to what the users want in a public space in order for them to be more involved in it. He has much experience in creating public spaces for people and gained much experience about the users in doing his research. This is often not something that many other urban planners and designers have that much experience with and often when they try to look from a user perspective they still look through the eyes of a professional and this is thus different from the actual users.

A better way to get to know what the users would want in the public space, is to involve the users in the design and development of the public space, as well as for changes at a later stage. Roombeek, a district in the city of Enschede, is often used as an example where many people were able to participate in the plans for the reconstruction of the district. In this thesis it will be used to see whether this participation has contributed to the quality of the residential street. Because of the importance of the reconstruction of Roombeek there is various literature concerning the process. The main author used for this is Bernard Colenbrander who has written three books about different topics that concern the reconstruction. The first one (Colenbrander, 2003) gives an overview about the process of the plan phase. The second one (Colenbrander, 2004) gives the word to several different people who have been involved in the reconstruction and they have experienced the process. And the last book (Colenbrander & Lengkeek, 2008) mainly concerns the residents of the new district and several outcomes of the reconstruction.

In order to look more specifically at participation and how this was regarded by the participants, a department of the University of Twente was issued by the local government. Other data concerning the district are taken from the Central Bureau of Statistics, other data surveys and personal experiences gained by visits in the public spaces of the district.

---

Roombeek is a district in the north of Enschede, which is a city in the east of the Netherlands. The city has a long history, but for Roombeek the history became interesting with the textile trade. Textile trade has been important for Enschede since the 18<sup>th</sup> century (Enschede-stad.nl). The linens that were traded were bleached on bleach fields adjacent to the stream the Roombeek which are situated on the site where the district Roombeek currently exists. With the Industrial Revolution textile factories arose in Enschede and with the building of a railway to the north, it became interesting to build these factories closer to the bleach fields and the Roombeek (Roombeek.nl).

With the increasing amount of factories also came an increase of demand for housing for all the labourers who came from the region as well as from foreign countries. These houses were built close to the factories as the labourers did not have many options for transportation (Boom, 2009). And because of the fast growing industry the houses were built cheap and fast without much planning and facilities emerged in between them. So Roombeek, as a district, emerged as a disorganized, industrial and multicultural labourers' district.

Because of foreign competition there was a decline in demand of textile from Enschede, in the 1960s. Despite several attempts to retain the textile industry almost all factories were closed

1977 (Enschede-stad.nl). In Roombeek most factories were not demolished and parts of some of these complexes served as studios for artists and offices for small businesses. In 1998 plans were devised on what to do with the abandoned factories and the district as a whole with its outdated houses (Boom, 2009).

In one of the abandoned factories a fireworks production company was situated since 1977. Later, production moved to China and the building was used as a warehouse for the storage of fireworks. The warehouse was situated in the middle of Roombeek, without any knowledge of the people living around it (Colenbrander, 2004). A small fire in the middle of the day on the 13<sup>th</sup> of May 2000 led to huge explosions which caused the death of 23 people and around 950 people got injured. The explosions destroyed 650 houses directly and many more were damaged, also more than 500 companies lost their accommodations (Roombeek.nl).

The reconstruction of Roombeek had to be done with care because of the emotional damage that has been endured. At this time, there were tensions between the authorities and the citizens as the local government was perceived as being partially responsible for the disaster (Colenbrander, 2003). The citizens did not know that such a depot was situated in the middle of their living environment and after the disaster they could not believe why the local government has ever given a permit for such a company to exist there (Colenbrander, 2004). Many citizens lost their trust in the local government because of this. There was a decline of trust as well in the Dutch Ministry of Defence because of the lack of supervision concerning such a depot as there seemed to be illegal amounts of fireworks stored.

Also in the aftermath of the disaster the authorities were looked at with distrust as the people were not allowed in the area to see what had become of their homes for a long time and some investigation developments were obscured, leaving no real knowledge as to what exactly happened in the disaster. Right after the disaster the local government of Enschede wanted to make plans for the reconstruction in which they promoted participation. According to Colenbrander (2004) the “participation” was originally not meant to be more than a way to get people behind the choices for the own plans of the local government and there was no intention of actually having contact with the participants or them having a say in the plans. But the authorities had to realize that such an approach would work against them, especially because of the accumulated distrust (Colenbrander, 2004).

Because of this the local government took a step back from the reconstructions and set up an independent project management team for the reconstruction in one of the surviving buildings. This group gained plenty of authority by the local government to initiate a process and make decisions on their own. Only in the end the plans needed approval by the local government, but the authorities also steered in some parts of the process. They had made the promises that all victims of the disaster could return to the district if they wanted to and they had to make sure that this would be achieved, along with the ambitions for citizen participation in which they would actually have a say. An important reason for the promise and ambitions was to regain the trust of their citizens (Colenbrander, 2004).

Before the start of making plans for the reconstruction, all the former inhabitants of Roombeek were approached by the project management team and asked about their opinions, ideas and wishes for the new district of Roombeek. This was mostly done by setting up meetings with small groups of the victims of the disaster and have the meetings at the places where the victims lived at the moment at the times that they wanted (Colenbrander, 2003). In addition, separate meetings

were held with the entrepreneurs and artists who lost their businesses. All these initial interactions together resulted in seven goals for the reconstruction of the district.

First of all, the former inhabitants wanted (1) the opportunity to return to the district and live there again. With this they wanted the district to have some qualities that according to them belonged to it, especially the district being (2) a lively district with functions ranging from industry to culture. This goes together with the remembrance of its (3) history and the maintaining of the old industrial buildings that were still standing. Bringing these elements from the history back also contributed to maintaining (4) the familiarity of the district. But besides holding onto things from the past of the district, the people also wanted the district to have (5) a value for the future and that it would not directly slide into deprivation as was the condition before the disaster (Colenbrander, 2003). This condition of deprivation also leads to the goal of having a district where people can (6) feel safe. And lastly the people do not want to feel disconnected from the rest of Enschede. It should not be a gated community and thus it should be a (7) district without borders (Stadsdeelmanagement Noord, 2012).

Asking the people what their ideas are and what they would wish for concerning the reconstruction and bringing this to just several goals is a difficult task, as all people are different. But its value is also questionable, because the wishes of people are very subjective and fleeting. Shortly after the disaster the opinions and wishes could well be driven by the trauma that they were enduring, but sometime later more practical wishes would come up. Even later, when there are social changes for people, their wishes would again be different. Because of this it is questionable whether people even know themselves what they really want. Thus it is difficult to work with the ideas and wishes of people in the built environment as this environment is very concrete and supposed to last for a long time and the ideas and wishes are personal and temporary. Therefore the outcome of this first interaction with the former inhabitants was brought down to several fairly abstract goals by the project management team trying to interpret some general wishes that would remain through the reconstruction and would also still be suitable for the future.

To make something out of the goals that are set up by the former inhabitants and to create an idea that could outlive the changing wishes of people, the urban planner Pi de Bruijn was enlisted to make the urban plan. He already had some experience with big urban plans, but more importantly he was born and raised in a town close to Enschede. This was important because the local government wanted to provide someone that the citizens would trust as they did not trust the local government itself. Because of the origins of de Bruijn, he stood closer to the citizens and they would trust that he would understand what they want and would make a plan that was in the best interest of the citizens.

Together with the project management team, under the leadership of the project director Peter Kuenzli, de Bruijn created various propositions about what should be present in the district, like a sufficient amount of houses for elderly people and places for entrepreneurs. These propositions were based on the seven goals, which were an interpretation of the interactions with the former inhabitants. The propositions were first discussed with several key-figures within the district which consisted of citizens from different societal groups, entrepreneurs, artists and other interested parties. After that in a big gathering the citizens who were willing to participate in the reconstruction of the district were able to react to these propositions by giving their opinions about them (Boom, 2009).

The propositions and accumulated opinions about them were used to further specify the plan. This was done as soon as possible, without having the time to wait for the report about the

gathering which would summaries all the most important issued that came up through the gathering and which would be approved of its accuracy by the participants. Thus with continuing before waiting for the report, the plans were based on the direct experiences of the professionals that were present at the gathering. But according to a research done by the University of Twente the opinions of the participants were taken into account well enough (Klok, Denters, van Heffen, & Visser, 2004). This research was issued by the local government of Enschede in order to have an insight on whether the victims of the disaster got enough opportunities to express their thoughts and preferences, whether these thoughts and preferences were considered in making the plan and whether this involvement has been of influence in matters of trust, like trust in the local government. More on this research will follow later in this chapter.

The concept plan that followed from the propositions and opinions of the big gathering was discussed with the key-figures during the process. In this plan the street pattern of the district was maintained for the people to retain a familiarity with it. This went along with maintaining and adding various historical elements, like reallocating surviving textile factory buildings, bringing back the old bleaching fields as public parks, bringing back the route of the old railway line and letting the stream, the Roombeek, flow through the district again (Colenbrander, 2003). These lines and buildings formed the contours of the new plan which was flexibly filled in by de Bruijn. The flexibility was done because the plan was supposed to be as open as possible where the residents, entrepreneurs, corporations and project developers could create their own interpretations. Of the houses, 50% would be built in private commissioning, where the people would be able to build their own houses, albeit overlooked by de Bruijn in different degrees of freedom. Also in other parts of the plan the people were able to participate by making choices for themselves. This concept plan was meant to function as the foundation of the further reconstruction (Boom, 2009). In this plan several of the initial goals were fulfilled, like maintaining some of its history and having a connection with the surroundings of the district. The other goals would be achieved by keeping the plan flexible.

The plan was presented to the participants in a second big gathering where they were able to discuss the plan and give their opinions about different parts of the plan. Because the plan was laid down rather soon after the disaster still many former inhabitants were part of the participants. This contributed to the desire to keep in more history of the district. According to the project management team preserving the history of the district was not recommendable, as the district was generally deprived after the closing down of the textile factories (Colenbrander, 2004) and bringing back new factory buildings would probably lead to them being empty. The participants needed to be convinced that the district also needed new components, like a place for buildings villas (de Bruijn, 2008). There were thus already suggestions given about how the different parts of the district should be filled in and these suggestions were discussed.

The involvement of the participants made sure that sufficient attention was given to several facilities, like schools and meeting places. Such facilities are often not taken into account in a plan and only brought in at the end of the design process. In Roombeek such these facilities received important places as clusters in the centre of the district (Colenbrander, 2004). The supervision of the discussions of the plan ensured that the participants would see value for the future of the district. This influence by the project management team and the urban planner questions the level of participation, but the participants generally reported that they were able to give their opinions, although there was less contentment with whether these opinions were taken serious (Klok et al., 2004). After the second gathering the plan was presented to the local government of Enschede together with the annotations from the gathering. They then looked over the new plan and added further substantive quality (Brouwers, 2008).

It should be noted that by the beginning of 2004 only about 60% of the people living in Roombeek were people who lived there before the disaster, which is about 40% of the total residents before the disaster. By 2014 only 20% of the people living in Roombeek were people who lived there before the disaster, which is about 30% of the total residents before the disaster (Centraal Bureau voor de Statistiek, 2015). Thus while the participants in the plan phase would have mainly consisted of victims of the fireworks disaster and the goal was for many to be able to return, the plan would eventually mostly be inhabited by newcomers who might have no direct connection with the disaster nor the district.

Still participation was beneficial for the reconstruction. Besides coming to a plan that the residents would agree with and remain interested in for its further proceedings, there were more reasons why the involvement of the participants was important. It also worked as a way to cope with the grief that the disaster has brought to the people and that they were able to do something themselves about the reconstruction of the district. And it helped to take their minds off their anger towards the local government and as an attempt to regain the trust of the citizens (Colenbrander, 2003). Whether some of the trust was regained was attempted to be researched by a department of the University of Twente.

This research only looks from the first big gathering in May 2001 until after the definitive decisions about the urban structural plan which was in March 2002. There is thus a limited time frame on which the researchers could base their conclusions. There were many participants that gave their ideas about the reconstruction of the district and many people were present at both gatherings which is thus taken as a representation for the victims of the disaster (Klok et al., 2004). After the first gathering the participants indicated that they were generally positive about the urban planner and the way that they were able to give their ideas and opinions. Further, they think that their opinions are taken fairly seriously. And there is a bit less contentment about the information concerning what will be done with the opinions and what kind of consequences they will have, but this was still graded as sufficient (Klok et al., 2004).

The second gathering was generally seen as a bit less positive. This is probably because the plan was already in a more advanced stage which gave the idea to the participants that their opinions would not be much of influence anymore. This could have been different if the participants were allowed to look at the plans in a slightly earlier stage as well, if they would be informed about the progress or if they would have been given insight in what has been done with their earlier ideas and opinions. The contentment with the urban planner is still quite good, as well as the possibility of giving their opinions. There was a bit less contentment with the measure of which their opinions were taken seriously and how questions were handled. The way of gathering the opinions was not seen as positive, as many different aspects would be placed in one statement, which made it impossible to give specific opinions about the different aspects (Klok et al., 2004).

Whether the participants were content with how their participation has been implemented in the plan is not directly analysed, but the grade that they gave the plan design itself has a mean of 6.9. When after the second gathering the question was asked "whether the plan could follow through the way it went or whether it had to be done anew" (Klok et al., 2004) almost all people supported that the plan could follow through. But the way the question is asked, the people will not soon say that everything has to be done anew. They might want to have many changes in the plan, but doing it anew is quite drastic. Thus taking this as a very positive response is not completely justified.

Whether the local government of Enschede regained a measure of trust, with taking a step back from the plan and letting the citizens participate in the making of the plans, cannot really be determined. There is no data that indicates the measure of trust directly after the disaster which could function as a basis. After the first gathering the participants could indicate their trust in the local government and in the plan. On a scale from 0 to 1, with 0 being total lack of trust and 1 complete trust, the values of trust are respectively 0.51 and 0.56 (Klok et al., 2004). As there is no earlier data it cannot be established if trust in the local government has declined after the disaster and whether there has been a change in trust following this gathering. But because this value of trust is not exceptionally high or low, the researchers assume one of two possibilities. The first is that trust has not been severely damaged as was earlier assumed and the second is that the trust has already been partially increase after the first step (Klok et al., 2004). The researchers seem to take these numbers as positive, but it cannot be said that the seemingly distrust of about half the people is very positive. Although it does not become clear what the standards are for these numbers.

The participants are fairly content with the participation process which could give an indication that there is some measure of trust in how the process is organized. But this does not make clear whether the contentment in participation increases the trust or the trust increases the contentment in participation. It can only be said that trust has possibly been improved because of the positive experiences in the participation process (Klok et al., 2004). Unfortunately it cannot directly be determined whether participation here had positive effects on the participants, at least not regarding the trust in the local government.

After the second gathering similar data has been accumulated and analysed. Here there has been a minimal negative change in the value of trust in comparison with the first gathering. According to the researchers this shows that there is no significant change of trust in the local government nor the plan process after the second gathering (Klok et al., 2004). But at least the feeling that the participants had less influence in the outcome of the plan, as it already was in an advanced stage, could have an important influence on the reason why there has been a minimal negative change in the measure of trust.

Trust is important in order to being able to come to a plan and its further development with which all involved parties are satisfied. This is trust of the corporations, the project developers and the entrepreneurs that the plan will work and trust of the local government in these groups that they can make the plan work (Colenbrander & Lengkeek, 2008). But as much of the plan for Roombeek looks at the citizens to build their own houses, there also needs to be trust concerning them. Trust of the local government in the citizens, trust of the citizens in the local government and a mutual trust between citizens that will be building alongside each other. According to the 'Wetenschappelijke Raad voor het Regeringsbeleid', trust will make for participation in the community and a healthy dose of distrust will keep the authorities in check and bring societal renewal (Wetenschappelijke Raad voor het Regeringsbeleid, 2012). The Wetenschappelijke Raad voor het Regeringsbeleid is an advisory body for the Dutch government policies. They inform and advice the national government about issues that are of importance to society.

Trust might not have been that much of a negative influence on participation as was first expected by the local government of Enschede. The research of Klok et al. (2004) also looked at the reason for participation or non-participation and only a few people gave distrust as a reason for not participating. The main reasons for not wanting to participate are lack of interest and not wanting to return to the district. A lesser reason is that the people experience emotional problems and do not want to be reminded about the disaster. The reasons why the people did participate in the plan

process is for a great deal in order to gain information about the progress, another important reason is wanting to be involved or just being interested (Klok et al., 2004).

The research indicates that people who have more trust in the process of participation do less often participate compared to people with less trust in the process (Klok et al., 2004). The researchers had the assumption that people who trust the process would be more inclined to participate than people who do not trust it. And thus they conclude that there is no correlation between trust and participation. But this can be viewed differently. The reason for people, who do not trust the participation process, to participate could be their lack of trust. As they do not trust that their opinions will make a difference, they might want to at least try and see whether they will actually be listened to or not. Having less trust could be a good reason to put in more effort to be heard and thus participate.

Participation by citizens is something that is encouraged by authors like Arendt (1958) and Habermas (1991) as shown in a previous chapter where they want people to interact about public issues and let their voices be heard by the officials. Governmental organizations in Western countries also try to stimulate their citizens in participating in various public issues, like issuing referenda and giving the public the possibility to object to plans. Also for local plans, changes and their evaluations citizens are asked to present their thoughts. But often it is apparently difficult to involve people in such things, even if they are willing to try (Wetenschappelijke Raad voor het Regeringsbeleid, 2012).

After the Second World War many of the countries in Western Europe changed to social welfare states that made sure that people would get back on their feet again, that the people were financially protected from risks and that public goods and services were affordably available (Kratzwald, 2012). This way the authorities would take care of their citizens, but with this the authorities also gained more control in that they would make all the decisions for the citizens. The citizens would not have to think for themselves anymore as the authorities have their backs and will make sure that everything is just fine. The authorities could do this from the idea that they know what is best for their citizens, but as there was less and less feedback from the public, it appears that their knowledge about their citizens gradually went further from what is actually best for the citizens (Damiris & Wild, 1997). This is shown in that the state is now more oriented towards ensuring competitiveness in the global economy (Kratzwald, 2012) which lead to the privatization and dangers of privatization for many public goods and services. It makes it difficult to discern what public actually is and thus in which things civilians could still have a say, making them more often not wanting to say anything.

Another reason why it is difficult to involve people in participation is that they do not always have the time to spend on it and it may give the idea that it is a second, unpaid job. When people do want to spend time in participation, they might still have the idea that they lack other resources and capabilities. These issues are mostly because it is not clear how people can participate in anything, what it means to participate and even what a specific issue is actually about. Governmental processes and procedures are often very complex which works discouraging towards the people who want to participate. It is difficult to find information on anything useful or specific and it is difficult to get into contact with the right person (Wetenschappelijke Raad voor het Regeringsbeleid, 2012). Because of the limited spreading of information the people hardly know what they have to do in order to be able to participate in anything.

Because of this lack of information, the people will feel that they lack the knowledge and the capabilities. And this also is what officials think about the people. According to them, the citizens do not understand what the officials do in their work and that they lack the capabilities to understand it

and what they themselves can do (Wetenschappelijke Raad voor het Regeringsbeleid, 2012). But it is the problem of the officials that they do not think further than the formal plans, procedures and organisations. Because of this they are not willing nor are they able to clearly communicate their knowledge to the public. People are generally understanding when things are explained to them in a clear way. This does not mean that they are less knowledgeable, it is just that they do not work in the complex world of the authorities themselves where they have to deal with complex communication on a daily basis.

The officials often underestimate what the people can do. Through their work, education and hobbies the people can have capabilities that are very useful in any development in a multiple of ways. When people are finally willing and able to participate in anything, it is useful to find something for them that already fits in their capabilities and they should be allowed to bring these capabilities forward. If the officials are open for what the people can do, they will feel appreciated and useful in the participation. This will also work towards the benefit of the officials in that the participants will get more understanding, respect and trust in what the officials do (Wetenschappelijke Raad voor het Regeringsbeleid, 2012).

In order to regain and build trust with the citizens of Enschede, the local government and the planners involved in the reconstruction of Roombeek wanted to adhere to the wishes and assumed wishes of the public. In the beginning of the reconstruction there was a mix of wishes for the public space, like retaining the old street pattern. As these wishes were gathered from many people and people were also able to give their wishes in later stages, these wishes became a jumble. Because of this there were also wishes that the people were assumed to have, but were actually made up through all the chaos. But because the authorities and the planners wanted to keep the people on their side, they translated this collection of wishes and assumed wishes into a varied collection of public spaces. Although the amount and types of public spaces in Roombeek were not necessarily something that the residents wanted, but more something that came from the authorities and the designers (Colenbrander & Lengkeek, 2008). This now reflects in the sparse use of many of these big public spaces. By having trust in participation, there could have been more interaction on whether such spaces were wanted and necessary.

As trust is beneficial for participation, a healthy dose of distrust also helps. This healthy dose will make sure that not all the things that each party does will be left unchecked and it will also push others in trying new things (Wetenschappelijke Raad voor het Regeringsbeleid, 2012). There should be some trust by the officials in the citizens that they can make decisions for themselves. In Roombeek this comes forward in the extensive possibility for people to build their own houses. But the healthy distrust ensures that the houses will still fit in the general atmosphere of the surroundings of the houses, which de Bruijn wants to achieve with different levels of visual rhetoric along different important streets and spaces (Brouwers, 2008). The residents of Roombeek should trust the local government in that they will provide them with the necessary opportunities for living in the district. A healthy distrust will let the people keep in mind that this is not a given and that they will have to ensure for themselves that they will have what is necessary, which can be achieved by various forms of participation. And the residents should trust the other residents in that they can make things happen together, for example when building their houses, the people will have to interact with their neighbours in order to make decisions about what will be built where. A healthy distrust will ensure that this interaction will be maintained and that the people will not rely on others to achieve things for them.

This mutual trust can only be achieved by having decent interaction between the different parties. If there is no interaction it will soon feel like a group stands on its own and it is us against



them. With having interaction and knowing what others do and what they are capable of the different parties are able to rely on each other and have less of a feeling that they have to do everything by themselves. This will make for the possibility of new opportunities to explore. Such interaction is beneficial between citizens, but also between citizens and officials, like the authorities and building organizations as the citizens will be able to make things happen for themselves and their surroundings and the officials will have an idea of how they can contribute to the citizens and how they can work along with them.

In Roombeek several parties made sure that there was a continued interaction with the (future) residents of the district. Not only in the plan phase, but also in the further developments of the reconstruction. One person who has contributed to this is Joop Hofman who was involved in the reconstruction as an expert on participation. He sat with the residents and became a familiar face for them. Through the interactions with the (future) residents Hofman wanted to bring the neighbourhood and the street into the picture for the residents as more often they only focus on their own belongings (Colenbrander, 2004). Hofman would approach the officials with the ideas and desires of the people and would make sure that these are also met in the further developments.

As he was familiar with the people, he was also often approached by the planners and developers when they had an idea of which they do not know if the residents understand it or would agree with it. He was asked to convince the residents of the ideas, but instead would leave this to the planner and developers themselves and stood for the residents in order to make sure that their interests were not neglected (Colenbrander, 2004). Often these ideas were made too complicated so this would go above the heads of the residents which shows that when different parties want to work together they should interact on a mutual level.

Right after the disaster there was social cohesion within the district. Everyone was first and foremost victim and secondly part of one of the neighbourhoods or a foreigner or anything else. But after a few years this all slowly changed and residents would more and more fend for themselves again (Colenbrander, 2004). This also shows in the development of the district. In the beginning of the plan phase all the people were asked about their desires and the participants could give their opinions which would be considered. Later in the plan phase it was more of a presentation where the designers convinced the participants that what they had designed would be the best for the plan (Colenbrander, 2004). Here already there was a turn towards doing what one wanted themselves as the designers showed the participants what would be best for them without real consultation.

After the plan was finished, further developments were done in sub-projects which mostly revolved around former neighbourhoods. Several developers were under the impression that participation would now be done so they could go back to their usual way of working from their own impressions what is best for the people and finish the projects as easy and fast as possible. But the project management team and people like Hofman made sure that each sub-project would still have some measure of participation, although there were differences there. Some sub-projects were to be developed by the residents themselves where they have a relative freedom to build what they wanted with varying limitations by de Bruijn. Other sub-projects would be built by project developers where they see participation as the people having various choices for sizes, blueprints and building façades. Other sub-projects would be built by corporations which had a limited possibility of participation as they mainly provided rental houses.

Participation did become interesting in one of the sub-projects under the development of a corporation. In a neighbourhood which was already in ownership of a corporation before the disaster, the corporation wanted to rebuild a neighbourhood together with the people who already

rented the houses there. In agreement with the local government and de Bruijn the corporation issued a survey about whether or not to demolish what was left of a neighbourhood, which was in a bad shape, and to start over again. The people voted in favour of the demolition and this was supposed to be a determining vote. But a few days later the representational value of the survey was questioned and de Bruijn and the local government turned themselves against the approach. After that a motion was passed for maintaining as many houses as was possible for their cultural value (Colenbrander, 2004). This shows that participation was only good enough when this also serves the purpose of the powerful players in the plan.

This opposition to direct participation resulted in a compromise in which 4 designers were approached to design a plan for the district with the freedom to vary in the amount of houses that would be maintained, ranging between 0 and 40, and how much of the characteristics of the districts would remain. The citizens would then be allowed to vote for the plan that they preferred and this would be binding. After many issues this plan went through and a design was chosen in which only 5 houses would remain. The people who have lived there had no interest in cultural value of the houses, the houses were old and insufficient for current standards and thus needed to be renewed or demolished. But they did want to get back the same feeling for a neighbourhood so the new plan was on the outside fairly similar to what it was.

As this happened early in the reconstruction, it was still possible for people to have their say and make sure that the desires of the people were met. After the plan was finished the main work of de Bruijn was done and he moved to the background of the development. The plan was now in hands of the local government of Enschede who would supervise the different sub-projects. The flexible plan had the potential to provide coherence in the district and contribute to the city as a whole (Colenbrander, 2004). But the local government was slow in continuing the development and there had not been much structural progress for some time. The different involved parties in the different sub-projects were mostly left to themselves and slowly reverted to their old routines of work. Meaning that there was less participation in the further developments and there was a lack of coherence between the different projects.

The lack of coherence also speaks partially from a research done by market research office Motivaction in 2005 with more than 1000 residents and, for that time, future residents of Roombeek. This research looked at the expectations that the people have for the district through the use of various statements. For one of these statements about 45% of the people agree that the district Roombeek does not really exist, instead it is more like separate neighbourhoods. And about the same amount of people state that they hardly ever speak with people from other neighbourhoods (Colenbrander & Lengkeek, 2008). The neighbourhoods are thus not entirely separate from each other, but there is also no unity between them. There are big differences between the different neighbourhoods in the district which is supported by 65% of the participants who do not see themselves living in one of the other neighbourhoods (Colenbrander & Lengkeek, 2008).

At the 1<sup>st</sup> of January in 2005 the project management team was disbanded as an independent service and it was again taken in by the local government. A city council member admitted that this would lead to a less sharply articulated management than before (Colenbrander & Lengkeek, 2008). As there was already a decline of management this would thus only become less. It appeared that after the disbandment, people could rely less on the plan and the decisions that were made and also there was a lack of flexibility when problems were encountered. As the project management team was a party that stood in between all the other parties that were involved and would keep contact with all of them, they were an important asset for keeping the development connected. With this connection they could also ensure quality, especially for the residents. For

citizens it is difficult to have direct contact with the other parties because of all the procedures, different agendas and lack of wanting to invest time in the residents. This will give the feeling to the people that their desires are not considered anymore.

In order to support participation the advisory body for Dutch government policies pleads for 'interne verbinders', which translates to internal connectors, who can build bridges between the involved organizations and the residents (Wetenschappelijke Raad voor het Regeringsbeleid, 2012). The connector is a person from the community who has contact with the different residents in his or her community and with whom the officials can keep a connection. With this, lines can be maintained and the residents get the feeling that they are still listened to. In Roombeek such people were limitedly present at later stages, but in the plan phase they were identified as the key-figures.

Next to these key-figures it is important to have respect for the citizens and a balance between letting go of the project and directing it for participation to succeed (Wetenschappelijke Raad voor het Regeringsbeleid, 2012). Participation can be stimulated by having respect for the residents and taking them serious, by maintaining an exchange of information and by keeping a sharp focus on what is and what is not possible. The residents understand that some things will not exactly go as they had in mind, but they want to be involved, listened to and be informed. They do not want to have the idea that their thoughts are neglected and everything happens without their knowledge.

Participation was previously organized as the local government having a plan, the residents can have their say in a meeting because this has to be done, but the plan is already set without having considered anything that the people said. When local governments have a plan they should be willing to take a step back, let the residents have a look and say about the plans or changes. According to the government of Enschede the citizens increasingly know better what they want and they become increasingly critical on what there is present (Gemeente Enschede, 2012). After the residents give their opinions the officials should consider the arguments and make changes if necessary. It can be that this could bring big changes to a plan and that it is time consuming, but this will make for a plan which will eventually be better for everyone. For the residents there will be a development according to their desires and the officials will have clients and citizens that are pleased with the interaction and are more trusting in future developments.

Unfortunately developments mainly revolve around what is the best financial solution instead of what is best for the users. In order to be able to sell a development the officials will need support, to gain this participation is used as an excuse. Participation can happen in various levels which is shown by Arnstein as a ladder of citizen participation (Arnstein, 1969). She differentiates eight rungs on the ladder where the bottom two have the heading of non-participation, the next three of tokenism and the top three of citizen power. At the bottom of the ladder the so called participants are shown what the official want to achieve without giving them much room to ask questions and be critical. Here participation is just used in gaining support without there being any consultation with the participants and without them really knowing what they support.

At the higher rungs of tokenism, the participants are at least recognized (Arnstein, 1969). At the bottom of this heading the people are informed about certain developments, but not much more. This happens, for example, when a building project is already at an advanced stage of development and the surrounding residents are only informed about the appearance of the building and what it would imply for them, during and after construction, close before the actual construction.

At the higher rungs under the heading of tokenism, the participants can at least give their opinions through meetings, surveys and by being part of committees, but still here there is limited to no say in the matters (Arnstein, 1969). For example with participation in building projects, where the participants are allowed to have a look into the plans of the designers. For this the designers often have worked out a couple of plans in which one could be where they have put in some suggestions that were done by the participants. But mostly the plans will be based on the ideas that the designers have themselves. The designers will generally have one favoured plan and in showing the different plans to the participants, this one will be the most positively presented and have the most attractive depictions. Thus although the participants have a say in which plan they favour, and can possibly address the changes of certain features, the choice is mostly directed by the designers. And when the participants should argue into another direction, the designers have their ways to convince the participants as they are the professionals in this and know what is best for the participants. This is similar to the second big gathering in the plan phase of the reconstruction of Roombeek. Here the people could give their opinions about the plan, but nothing much was done with those opinions as the plan was already in an advanced stage.

At the top three rungs of the ladder participants can contribute to the decision-making. At the first rung under the heading citizen power, citizens actually have a say in boards and with committees or they can make a difference in other ways (Arnstein, 1969). But eventually the officials still have the final say in matters and will make the decisions. This is what happened with Roomveldje where the citizens could give their decision, but the officials eventually vetoed this. The first gathering in the plan phase of the reconstruction would probably also fall into this level as the participants could give their ideas and decisions about the propositions which would be taken into account in the further development of the plan. But it was eventually the choice of the officials to take these propositions along as they pleased.

At the top two rungs of the ladder the participants are the dominant decision-makers or are even in full control (Arnstein, 1969). This might be the level of participation for the people that are free in building their own houses, although they still have to consider their direct neighbours. For the other development in Roombeek it is not completely clear at what levels of participation they could be placed. This is because especially the plan phase was well documented and later phases received less attention in how the developments progressed. Another reason is that there are many nuances to the ladder of participation in which developments have similarities with multiple rungs. But for the neighbourhoods that were built by project developers and corporations, the participants were at least acknowledged, informed and asked about their opinions, so they can at least be placed at the higher levels under the heading of tokenism. For the people that could build the houses themselves, they had citizen power, although there were different gradations as at various places there was visual rhetoric about what was allowed to be built.

As coming to a higher level of participation asks for the officials to more and more let go of the project, it is still necessary to give the citizens a push; they need to be directed in order to stimulate participation (Wetenschappelijke Raad voor het Regeringsbeleid, 2012). Not all people know what they want and other people only think that they know what they want (Gemeente Enschede, 2012). It is thus important to stimulate people to critically think about what they would like to see for a development. The official can stimulate the residents to think about their desires, bring forward these ideas, let them think about their reasons for it and give reasons about why things might not be feasible. He can then filter through the desires and make sure that they actually fit other structures and plans for the direct surroundings, neighbourhood or district. Further the official can suggest possible alternatives or new opportunities, give possibilities how the desires might look

like, communicate with the other residents what they think about it and communicate with other stakeholders about the possible changes. Also in realizing their ideas and desires the residents need directing, else they might wait for others to do the things for them or they do not know how to begin. In guiding them in actually doing something they need to have security from the officials that they are backed up in their developments (Wetenschappelijke Raad voor het Regeringsbeleid, 2012).

With having this connection and interaction with the people of the city, the officials will have a general idea of what the people want for their city and they can use this knowledge in various other developments. Other information that is often used in city developments is various data gathered by institutes which can be viewed online. This data gives statistics about the people that live in different districts. For the Netherlands such data is provided by the Central Bureau of Statistics. This data is here used to see the condition of Roombeek in comparison with the surrounding districts and similar districts in the city of Enschede.

There are no considerable differences between Roombeek and the other compared districts concerning age differences and domestic compositions (Statline, 2016a). As this is comparable to the other districts this can be used to determine how well the average individual in Roombeek scores compared to the average individuals in the other districts. What stands out is the high house value in Roombeek (195.000 euro) compared to the other districts (the mean in Enschede is 167.000 euro) (Statline, 2016b). This connects to the relative high incomes of working individuals and the relatively high amount of households with a high income (Statline, 2016b).

There is also a relatively low amount of households with low spending power (Statline, 2016b) and a relatively low amount of people in the welfare system (Statline, 2016a). This all shows that people in Roombeek are doing relatively well for themselves when concerning finances. Another research, called the Wijkveiligheidscan 2012, determines the liveability and security in districts, including Roombeek. Concerning the liveability of the district the participants of this research have graded the living environment of Roombeek with a 7.7 which is higher than the average grade of the whole of Enschede, being a 7.2 (Stadsdeelmanagement Noord, 2012). The participants especially appreciate the public green, but they do feel less secure in the district compared to the mean of Enschede. This could have varying reasons, one of which could be that the directly surrounding districts have a proportionally high amount of people with low incomes and people that are in the welfare system (Statline, 2016a).

A high amount of companies has settle down in Roombeek (Statline, 2016a), especially for a district outside of the city centre and which is not an industrial district. Thus it does seem that the ambitions to give the opportunity for all businesses to return to the district after the reconstruction has been achieved. Although before the disaster almost half of the district (27 hectares) was occupied by companies, being entrepreneurs, artists, etc. but during the development of the reconstruction it was made clear that only a limited amount of these companies could come back as a limited area of 9.5 hectares would be intended for business (Colenbrander, 2004). There was more interest in building housing as this would make more money for the local government and in order to make a beautiful new district it appeared that industry did not belong there (Colenbrander, 2004).

But all in all the data looks positive for the quality of life for the residents of Roombeek, but it cannot be determined whether this is because of the built environment and how it has been developed. Unfortunately it is not possible, through the data, to see differences between the different neighbourhoods as there are differences in their developments and the levels of participation. In the neighbourhoods with much freedom to build own houses, the houses are generally privately owned and of a higher value. The neighbourhoods built by corporations mostly

have rental houses of which some neighbourhoods have subsidised houses where thus the houses have a low value. And the neighbourhoods built by project developers mostly have private houses, but in various styles and of various values. The high amount of privately built houses could indicate why there is a relatively high house value and income compared to other districts.

Another research looks more specifically to the residents of Roombeek. This research divides people in what kind of orientations that they have concerning their living environment. The result from this is that 30% has an urban orientation, 30% has a neighbourhood focus and for 40% the home is central. Compared to the rest of the Netherlands there is a relatively high score in urban orientation and placing the home centrally (Colenbrander & Lengkeek, 2008). It is likely that this difference with the rest of the Netherlands is because only a limited amount of people who lived in Roombeek before the disaster has come back to live there again, namely 30% as of 2014 (Centraal Bureau voor de Statistiek, 2015). The people that have come back generally are more oriented towards the community and the facilities that the district brings them. These are also the people that have been involved in the development of the district from the beginning and already have a sense of belonging to the place. Mostly newcomers have come to Roombeek, this is because of the new possibilities that the district provided in building their own houses and the proximity to the city centre of Enschede which is the biggest city in the east of the Netherlands. This would explain the high amount of people that orient themselves on the urban environment or put their homes central.

The people who have an urban orientation mostly live in the neighbourhoods Bamshoeve and Schurinksweide and are the newcomers in Roomveldje. The locations of these neighbourhoods and following neighbourhoods can be seen in image 1. The people with this orientation choose Roombeek because of its urban facilities. Most of them are active individualists (actieve individualisten) who are individualistically and materially focussed, looking for excitement in an urban environment and are limitedly involved in the direct living environment (Colenbrander & Lengkeek, 2008). Thus they do not have that much of a connection to the neighbourhood. The biggest neighbourhood that they live in, Bamshoeve, had a high measure of freedom in building the houses to their own liking. Here it is noticeable that every house stands on its own without much regard to its surroundings being the street or the other buildings. These houses are closed to each other and also closed to the street. As the people had the freedom to build what they want, it has no connection with anything around it. A small part of this group with an urban orientation is the tolerant socializer (tolerante socialisers) who are more oriented on the direct social environment and they have a preference for a lively urban environment (Colenbrander & Lengkeek, 2008). These people mainly live in the neighbourhoods which are closer to the centre of the district where there are many different facilities close-by and thus much activity.

The group for whom the home is central are spread in the neighbourhoods Bamshoeve, Menko and Deurningerstraat Oost. For these people the choice of where to live is centred on the house without regard to the neighbourhood or district. They only use the district as a place to live in without having much knowledge about the facilities there. This group can be divided in two separate groups of which the hurried middleclass (gehaaste middenklasser) is the most represented in Roombeek. The hurried middleclass is ambitious, materialistic, sensitive for status and wanting to be secure. They typically live in a uniform neighbourhood with lots of privacy. The houses should be luxurious, comfortable, big and spacious and the availability and affordability of the mainly new building is decisive (Colenbrander & Lengkeek, 2008). Thus this group has come to Roombeek for the newly build and big houses with much privacy. They do not generally look at the street in the choice of the house and just take this as secondary to the house. The main role of the street is to give them

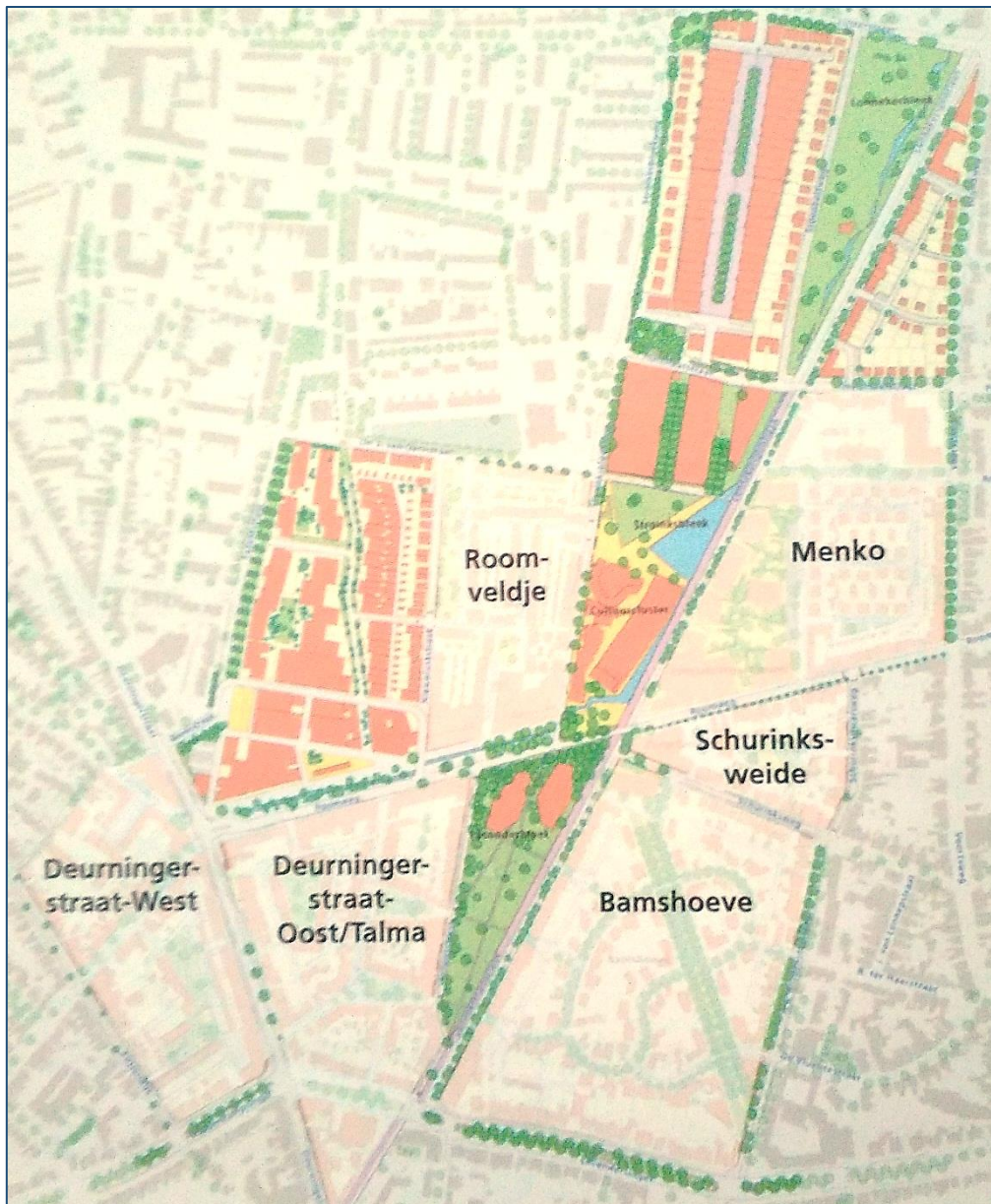


Image 1: Neighbourhoods Roombeek (Colenbrander & Lengkeek, 2008)

access to their private domain. With the house they want to show and feel that they are doing well financially.

The other group that puts the home central are the settled idealists (gesettelde idealisten). This group is less represented in Roombeek. They are idealistic, self-conscious and tolerant (Colenbrander & Lengkeek, 2008), thus they are acceptant towards the things that happen around their homes and do not need to show that they are doing well financially. They are also generally helpful if asked and thus are willing to contribute to the community. They have come to Roombeek because of the possibility to realise their wishes for living.

The people that have a focus on the neighbourhood are in comparison with the rest of the Netherlands underrepresented in Roombeek. This group of people chooses to live in Roombeek because of the facilities there and the social contacts in the district. The biggest part of the people that stayed or came back to the district after the disaster belong to this group. And they are generally situated in the neighbourhoods Deurningerstraat-West, Schurinksweide and Roomveldje

(Colenbrander & Lengkeek, 2008). Deurningerstraat-West is a neighbourhood where many of the houses have been salvaged and thus many people could stay there after the disaster. Just as a part of Schurinksweide, but in this neighbourhood there is also an apartment building with care facilities where several of the apartments are connected to the care function. It is conceivable that several of the elderly people that lived in Roombeek and are in need of care have moved to live in this building, thus having many people in this neighbourhood who value the district for its history. Roomveldje is a neighbourhood that has been rebuilt in the traditional style of how the neighbourhood looked like before the disaster. Here the former residents had a voice in how the whole neighbourhood would look like based on a competition. Bringing a traditional appearance to the neighbourhood also brings back the same people and try to bring back the same kind of atmosphere.

This group is divided in three separate groups which are relatively equally dispersed in Roombeek. The group of homely people (*huiselijken*) are mainly elderly people that are locally involved and value tradition. They are attached to a familiar house and its familiar environment. For them it is important to have all the necessary facilities close-by (Colenbrander & Lengkeek, 2008). Next there are the community inclined (*gemeenschapsgezinden*) who are locally oriented, inclined towards a community and have difficulty with complexity and individualization. They have a need for harmony, peacefulness and an orderly and healthy life. They do not want an urban environment, do want to stay at the same home as long as possible and do want to have their family close (Colenbrander & Lengkeek, 2008). This group is slightly less represented in Roombeek which is obvious because of the limited amount of houses that have remained after the disaster. They likely mostly live in the house that were able to remain in the district and situated in the more traditional neighbourhoods which do not have an urban appearance. The last group is the neighbourhood oriented (*buurtgeoriënteerden*). They are hedonistic, materialistic and traditional in consumption. They do not want to stand out and thus also do not want a house that stands out. Generally, they want to be close to family and friends. And their motive to live in Roombeek is generally because they want to come back to the old district (Colenbrander & Lengkeek, 2008).

Through these distinctions it becomes clearer what people expect from their direct living environment and how they intend to use it. An ambition for Roombeek was to create a lively district and this they wanted to achieve through giving people the freedom to create their own homes (Colenbrander & Lengkeek, 2008). But when looking at what kind of orientation the people have who generally have built their own houses, these people do not want to be much involved in what happens in their direct surroundings. This also shows when walking through the streets of these neighbourhoods as they have the appearance of the inside of the mobile home of a gypsy (Colenbrander & Lengkeek, 2008). It is a jumble of different building styles all standing by themselves. Concerning the public spaces around the private lots, the residents could make decisions in agreement with the other residents about things that had something to do with their own private space, like where the entry point will be for the car. Despite the freedom of building something to their own liking, there is a limited variety in building styles. But the differences are present which still makes for a jumble of different buildings without much cohesion.

Having diversity is something that has been attempted in neighbourhoods as these, but also in the district as a whole. This follows the proposition of Jacobs that diversity will lead to more activity in the public space and that it will make for a lively, urban city (Jacobs, 1961). Although the generators of diversity, being having more than one primary function, small blocks, different conditions of buildings and a need for concentration, are generally followed for the district, this is difficult to see in the neighbourhoods. Because all the neighbourhoods have been developed in separate projects, each development has mostly focused on one style with little diversity within the



neighbourhood. Even in the neighbourhoods where the people were free to build what they wanted themselves, there is still a lack of diversity in styles. This already presents a difficulty for having quality in the residential street.

When looking at three different residential streets in the district more closely, it is possible to see more clearly whether it has quality and how this has been influenced by the development of the district. These streets are the Bamshoevelaan within the neighbourhood Bamshoeve, the Velduilstraat within the neighbourhood Menko and the Merelstraat within the neighbourhood Roomveldje. The houses adjacent to these streets are respectively built by the residents themselves, a project developer and a corporation. For judging whether these streets have quality, the quality criteria by Gehl (2010) are used. These criteria concern feeling safe, feeling secure, protection against unpleasant sensory experiences, opportunities to walk, stand/stay, sit, see, talk and listen, and play, exercise and doing chores, considerations for human scale, enjoying positive aspects of climate and positive sensory experiences. These criteria are further explained in the previous chapter and can be seen in the table on page 28.

With visiting the Bamshoevelaan on many different days and at different times it was striking that hardly anyone was ever seen in the street. The streets were generally empty and the only activity could be heard when people were active in back gardens or closed off front gardens. Only occasionally a car or a cyclist could be seen, which gives the impression that there is only activity when people pass through the street as they go to and from their houses. Other people than the residents of the street or the connecting streets do not use the street and when the people arrive at their houses they park their bikes and cars on their private lot and disappear into their homes.

The houses adjacent to this street are all build by the residents themselves or at least according to their specific desires. Here there was no visual rhetoric by de Bruijn and this thus made for a mix of various houses. This unfortunately also made for a street with all separate spaces. As the residents built their homes, they built them to their own liking and only with regards to the private lot itself. There is no connection between the buildings and there is also no connection with the street. This is accentuated by the façades often having small windows, there being screens in front of the windows and the front gardens with high plants that obstruct further visual connection between the residents and the street. The appearance of the street fits the profiles concerning the orientation towards the living environment for the neighbourhood Bamshoeve. Here mostly newcomers live who are active individuals and the hurried middleclass of which both groups do not have much of a connection with their direct surroundings and they value their privacy. They have more concern for having a house and private space that is conform their preferences than any connection to their direct environment. They do not see the benefits of the residential street for themselves.

When looking at the quality criteria by Gehl, the lack of activity in the street and a lack of visibility of the street from the houses, will make that the street will not score highly in regards to the feeling of security. The feeling of security is one of the most important criteria (Gehl, 2010) and when this is not present other criteria can prove meaningless to ensure quality in the street. But when looking further only a limited amount of quality criteria can positively be distinguished.

The Bamshoevelaan is a curving street which can make it interesting for opportunities to see as something new can be seen around the bend, but this also makes it uncertain whether a car will come from around the bend which is negative for a feeling of safety. Thus it does not invite to stay on the street itself. There is a sidewalk that lines the street on one side, but this is very narrow and thus also does not invite for staying. The street is clearly focused as an access point for the adjacent houses and is mostly focused on the movement of cars. It does thus not give any opportunity for

slow traffic and activities that can come forth from this, like sitting, talking and playing. The front gardens and the houses provide opportunities to invite such activities, but as they mostly have high planting lining the streets and the façades are closed there is no opportunity to see people there and interact with them. The only things that the street is positively viewed upon through the quality criteria is that the street is designed to the human scale and that the visual quality of each separate house is appealing. Also because of the low housing and the trees in the street, the climate and sensory experiences are generally pleasant. Thus the street looks really good, but this is not sufficient in order to have quality in it. It is not surprising that hardly anyone can be seen in this street as it mostly lacks in quality, according to the quality criteria.



*Image 2 and 3: Bamshoevelaan*

With visiting the Velduilstraat in the neighbourhood Menko there is a different experience. Here people could frequently be seen in the middle of the street, while there is a sidewalk lining the street on one side it seems that the street itself is more frequently used for staying and walking. On several occasions people were standing in a group talking with each other and often adults and children were seen walking through the street. This street only seems to be used by the residents and the residents of the street connecting to it as there is no purpose for anyone else to pass through it. This thus makes that there is hardly any traffic in the street and when there is a car passing through it is just starting to move or slowing down to park next to the houses.

The adjacent houses are built by a project developer and are privately owned by the residents. It does not seem that the residents had anything to say about how the houses would look like from the outside and this makes for a repetition of the same blocks. The only variation is in the small front gardens, albeit limited, and in the spaces next to the houses where the residents could make choices of putting up a fence or other options.

The orientation of the residents on the living environment is directed to the urban environment and the house itself as mostly tolerant socializers live in the neighbourhood Menko together with the hurried middleclass and settled idealists. Most of the people living here are newcomers and although they do not have an initial connection to the district, there seems to be enough attraction for them to be active in it. For the tolerant socializers this is expected as they want to have a lively urban environment, but the other groups mostly value their private property and the house with less attention for the surroundings. There thus seems to be something that is appealing enough in order to invite them to be active in the residential street and interact with the other residents. This could be because of the invitation of the active residents or the quality that the residential street provides.

With the repetition of the same houses the street might not look very exciting and there is not something really different to be seen every few seconds, thus the visual quality might not be that high. But the street is open and clear and there is a good connection with the houses which still gives much to see in both directions. The houses stand close to the street and have many reasonably sizes

windows which makes it easily possible for people inside to see what happens in the street. On the criteria of safety and security the street scores sufficiently, although there are no functions nearby that will make for activity at night.

As people make use of the street for walking, staying and talking there appears to be sufficient opportunities for these activities, although the street does not seem to be specially designed to promote such activities. The sidewalk is rather small, but the street itself has taken over the function for the various activities. There are small front gardens, but these will not promote much more activity than maintaining this garden. The street does not provide opportunities for sitting other than the pavement itself and play and exercise will more often happen at the end of the street where there is a big schoolyard with running tracks. But as there is only slow traffic in the street, play is also invited in the residential street itself. What does bring more opportunities for various activities are the big spaces next to the houses. These are for private uses, like parking a car, but because of the open connection to the street these can be seen as a semi-private space and could invite for activities with the intention to have a connection with the street. As the street also fits the human scale and it allows to enjoy the positive aspects of climate, the street all in all has much quality according to the quality criteria.



*Image 4 and 5: Velduilstraat*

Visiting the Merelstraat in the neighbourhood Roomveldje makes for various experiences of the quality there. Frequently people can be seen in the street and often these are elderly people taking a stroll on their own. But also various other people can be encountered there who would occasionally give greetings. Mostly the people can be seen as they walk through the street, hardly ever in a staying activity. This could be because these houses have a back street where the residents can park their cars and enter their houses from that side. Cars can pass through the Merelstraat, but there is not really anywhere to go to and there is no space to park the car as this will obstruct potential other traffic, it is only possible to place the car there for things like unloading the groceries.

The adjacent houses are built by a corporations and thus they are mainly rental houses. This is apparent as they are terraced houses that generally look the same. On one side of the street some of the houses have a small front garden which could make for activities like staying and talking. Further the street has one lane for faster traffic, two sidewalks and much greenery in the form of trees and low bushes which together brings good opportunities to walk. This street is not very exciting to look at, but there is a direct connection with the houses which makes for a good consideration of the human scale and gives a pleasant feel to it. The windows are big, but unfortunately because of a complicated use of window frames the visibility to the inside is limited, although this also is because many of them have screenings. As the visibility on the street from the inside of the houses is good this gives some sense of security, but people walking by at night will feel less secure as there is no activity at that time.

The orientation regarding the living environment is varied in the neighbourhood Roomveldje. Newcomers, described as tolerant socializers, live there because of the proximity to the urban facilities in the district and the potential lively urban environment. Others came back after living there before the disaster or wanted to live in a traditional environment, which are described as the community inclined and the neighbourhood oriented. All these groups would like to have an active community with much interaction, so from the people there is much potential for this. Also the residential street has potential regarding its quality. The street does provide opportunities for people interacting from their front gardens and have staying activities, but as the people mostly enter the houses from the back, there is limited activity of the residents at the front of their houses. The street does further have many opportunities to be used, but the only actual use is walking through the street because there are no initial activities coming from the people who in most residential street make for the most activity. It would does make for decent quality in the street, but in practice this does not come to fruition. Thus the residential street should not only try to invite people to be active outside, the street should also have a practical use for the residents in order for them to come there often.



*Image 6 and 7: Merelstraat*

As also diversity is often promoted to make the public space lively and active (Jacobs, 1961), it is striking that seemingly the streets that are more monotonous attract more activity. The Bamshoevelaan has much diversity and thus it would seem that there is much activity, but by letting the residents themselves be free to bring diversity the houses have become separate from each other and closed off from the neighbours and the street. When people build their own houses, it seems that they prefer to be left by themselves and make sure that they will not be influenced by external conditions. Thus concerning the residents there might be not much of a difference between or at least this is not encountered in the street as there is hardly any contact.

In the Merelstraat there is diversity because of the different groups that settled there, but some of these groups are inclined to keep to the community that they know and are comfortable with. This makes it difficult for newcomers to get into contact with the people who have already lived there in the past. Thus although there is diversity in people, this does not necessarily mix and bring activity and interaction. In the houses there is hardly any diversity as they are rentable terraced houses which basically look the same. The houses will have the same value and thus will mainly attract people with similar ideas and social situations.

The houses in the Velduilstraat also will be of a similar value as they look the same from the outside, but as they are private homes there is more diversity on the inside and at the places where the residents themselves had more of a say. This partial freedom and the ownership of the houses brings some more diversity between the residents compared to the Merelstraat. Thus there is not much diversity to be seen in the street, but this could make for more unity in the street. There is potential diversity between the residents, which could contribute to the activity within the residential street.

What seems to be the biggest driver to have activity and interaction in the residential street, and thus have a lively environment, is bringing quality to the street. More specifically the connection that the residents have with the street is important; how the houses and (semi-)private spaces have a connection with the street and the freedom for the users to use the street to their own liking. But to ensure that people will use the residential street, the space should also inherently provide opportunities that connects to the needs and desires of the users. In order to get a good idea of what the needs and desires of the users are, participation might still be an option, although it should be different from how it is approached in Roombeek. This will be elaborated in the next chapter.

## Chapter 4: The influence of the appropriation of the residential street

### Introduction

This chapter will give an idea of how participation and appropriation can contribute to the residential street and its users. It serves as an advisory chapter on how to ensure that the residential street will have quality. This is done by first looking critically at how participation in Roombeek has influenced the assessed residential streets. Continuing with the notion of appropriation and its importance for creating a community feeling. And eventually how participation in the development of the residential street and its appropriation can be stimulated in order to come to quality in the street and its further benefits.

The chapter is based on personal experiences and ideas complemented with notions addressed in the previous chapters.

---

Roombeek is hailed for how it has incorporated participation in its reconstruction and the high amount of freedom for people building their own houses. But what have these focuses brought for the district when the reconstruction is mostly completed? When looking critically at participation in the plan phase this was mainly limited to its beginning. Already later in this phase the participants were becoming more sceptic about whether their opinions were still incorporated in the eventual plan (Klok et al., 2004). It mostly seemed that the designers and the local government brought in the desires of the participants at an early stage, in order to gain trust and support, and during the plan process they formed this into a plan that was at least to their own liking. But still the initial desires of the participants had a big influence in how the plan was eventually formed and thus participation was present in the plan.

After the plan was finished, participation existed in different ways depending on the different neighbourhoods. In the neighbourhood Roomveldje participation showed itself in that the residents were allowed to bring out their votes for the design. This resulted in the construction of houses that fit current standards for well-being, but have the appearance of traditional houses, as has been described in the previous chapter. The neighbourhood looks similar to how it looked before the disaster and this attracted many of the former residents to move back to this neighbourhood. The traditional appearance makes it attractive to walk through the street as in the Merelstraat that has been looked at in the previous chapter. Thus participation has made for an attractive walking environment, but unfortunately other than that there is not much activity in the street.

Much participation was present the neighbourhood Bamshoeve in the form of people having the freedom to build their own houses to their own liking. This type of participation has made for houses that are completely to the choosing of the residents. It has resulted in a visually attractive neighbourhood with a great diversity of houses, but as seen in the previous chapter in the Bamshoevelaan, it has also made for a street with hardly any activity.

In the neighbourhood Menko the houses adjacent to several streets are built by a project developer. Here there has been a limited possibility for participation. At least the residents had no say in the appearance of the houses as they all look the same with the same distribution of windows and front doors. When looking at the Velduilstraat it can be seen that the residents could decide themselves what they would do for their front yards and for the private spaces next to their houses. There does seem to be some restrictions to that, as when a fence is placed they all stand further back

on the same line. Thus when looking at the appearance of the street there has not been much input by the residents and thus not much participation. But when looking at the street there is a lot of activity where the people walk, stand and talk in the middle of the street.

From this, it seems that there is a negative correlation between participation and the activity and interaction in the residential street, or at least between the freedom of input that the people had in the appearance of the houses and the activity and interaction. Activity and interaction is what Gehl (2010) intends to bring into the public space through his quality criteria, as described in the second chapter. As a high quality of the public space will make for a high appreciation of the living environment (Gehl, 2010), much activity and interaction in the residential street will thus bring a higher appreciation. A study concerning the liveability of districts, in 2011, shows that there is a higher appreciation of the living environment in Roombeek compared to the rest of Enschede, respectively a 7.7 and a 7.2 (Stadsdeelmanagement Noord, 2012). The reason for these grades is not clear from this study, but this might in part be because of the activity and interactions in the public spaces of the district.

It thus seems that one of the seven goals for the reconstruction of Roombeek, being creating a lively district, has been achieved. Although they wanted to achieve this through letting the citizens participate and giving freedom in building their own houses, as addressed in the previous chapter. By looking particularly at the three addressed residential streets the greater amount of participation has resulted in less activity and interaction and thus in a lower appreciation of the living environment. Like in the Bamshoevelaan where the residents could build their houses to their own liking, which has resulted in a street with hardly any activity, and the Merelstraat where the residents have chosen a design in which there is hardly any activity in the street besides walking. Participation thus does not bring quality to the residential street, at least not how it has been done in Roombeek.

When looking at the Velduilstraat, the professionals are the ones that have brought quality to the street. It seems that the project developer has had a good idea of what contributes to a good living environment. A connection between the houses and the street has been created, though the openness of the building façades and the unrestrained visibility, and this also made a connection between the residents. These are things that are also addressed in the quality criteria. The front garden and the space next to the houses are private property, but because of their connection with the street, these spaces have a semi-private function. But through the use of the street, the street also seems to be part of the home territory of the residents, as Appleyard (1981) has called it. The activity in the middle of the residential street seems to exist because the users appear to see the space as their own. The residents appropriate the street, which might be the reason why there is much appreciation of the living environment.

According to Jacobs (1961) the streets being owned by the public is what makes for a just city. When the people can make their own decisions in what they do around their own residences they will feel secure about their living environment and this makes for a more pleasant environment for everyone. As addressed in the second chapter, a sense of ownership will make for an increased feeling of security through reducing crime as outsiders will get a feeling that they are watched and should adhere to the rules of the space that they are in (Cozens & Love, 2015). As the sense of ownership is important for the residents and frequent users of the residential street, they should be given the opportunity to gain such a sense. Residents can fairly easily be given a sense of ownership of the residential street as this is a space with which they are often in connection. They hear the sounds coming from the residential street from inside the house or the back yard and see the street through the windows. Also they pass through it when going to and from other spaces and they can be active in it in various ways, together with the frequent users of the residential street. Because of



the frequent use and what it could mean for the residents and frequent users it seems absurd that they do not have a say in what the street looks like or how it could be used.

As has been addressed in the first chapter, Habermas (1974) said that in the public sphere all citizens should be free to express their ideas and desires. Thus the people should have the opportunity to appropriate the residential street. This is supported by Lefebvre (1996) with his notion of 'The Right to the City'. In this he claimed that the citizens should have more control over the decisions made for the public space. First of all, the citizens have the right to participate; they should play a central role in the decisions that concern the production of the public space. As the people in Roombeek initially had a say in the public spaces in the district, this possibility to participate later seems to be abandoned. But this still give the citizens their second right, namely the right to appropriation (Lefebvre, 1996). In this they have the right to access, occupy and use the public space, but also create public spaces to their own liking (Purcell, 2002). This is how the activists and students approached the People's Park, as is addressed in the first chapter.

Thus the residents and frequent users of a residential street should have the opportunity to use the street to their own liking, but also change it so it will fit their own desires. People are willing to take more control over their own lives (Kratzwald, 2012) and in appropriating the residential street they have the opportunity. But they should also be given the opportunity by the local government to do something in or to the direct environment. Local governments often try themselves to provide its citizens with opportunities that they think that they want. The 'Wetenschappelijke Raad voor het Regeringsbeleid' (2012), being the advisory body for the Dutch government policies, proposes to develop and maintain spaces for the people to use, like shopping areas, squares, parks and shared gardens. This are thus public spaces where more people can gather at the same time. The citizens are expected that they will use these other spaces for such activities and thus not the residential streets.

At other places the 'Wetenschappelijke Raad' advises to stimulate functional meeting places, like schools and sports- and music associations (Wetenschappelijke Raad voor het Regeringsbeleid, 2012). At these spaces they expect the citizens to be active, but for this there is a threshold to pass in order to be able to be active at such meeting places. When a school or an association is designated as a meeting place, then there are requirements to meeting with other people, namely having children that go to that school and being a member of the association. Also when a person is new to a street and its community it is difficult to enter a community building without knowing what to expect and without invitation.

The residential street is inherently an ideal meeting place. "Streets have been the places where children first learned about the world, where neighbours met, the social centres of towns and cities" (Appleyard et al., 1981). Thus the residential streets are where people meet and learn. When people are new in the neighbourhood, the street is where the people often have the first connection with the neighbours and the neighbourhood. Here it is easy to have casual interactions which increases the well-being of a person as it gives "perceptions of inclusion and a sense of community" (Cattell et al., 2008, p. 547). Also when there is activity in the residential street and the people have the opportunity to interact with various people there, this will make for the residents having more acquaintances than in streets which are devoid of activity as Appleyard (1981) shows, which will increase the well-being even further, as is addressed in the second chapter. Such interactions will happen less in big public spaces or places where more people gather, because then a person will become a stranger in a crowd and will keep to his or her self or to the people that they are with.

First and foremost a person should feel connected to his or her direct environment and this connection does not have to be sought somewhere else and is also more difficult to be sought



somewhere else. The residential street is a natural connection which could benefit its residents and frequent users. Residential streets are developed by the local government as they are in general primarily responsible for the public space, as also is the case in Enschede (Gemeente Enschede, 2012). Unfortunately there is not much contribution of the users of the respective streets in this. The authorities will try to create the street in the best interest of the users, but as this is the best interest according to officials, this does not necessarily reflect the desires of the actual users. Besides, the local government is the one financing the development of the street, thus the best interest is weighed against the costs for it. Often this will result in a functional street where people can easily pass through, the residents can easily reach their homes with their cars and with some easily maintainable greenery lining it.

The local government of Enschede wants to give its citizens more say in things that concern them, like what happens in the residential street. They stimulate citizen initiatives and with this try to increase participation and the involvement with the neighbourhood and the city by the citizens (Gemeente Enschede, 2014). For this the local government has assigned management teams for each city quarter, which try to stand close to the citizens and stimulate them to come with ideas for their street, neighbourhood or district. The management team is allowed to operate separately from the city authorities in order to being able to focus on the citizens and ensure their desires and needs without being driven by a government agenda. This is similar to how the project management team initially worked in Roombeek, in the previous chapter.

Because of the similarities, with promoting participation and setting up a management team, it might seem doubtful whether there will be something positive coming from such an approach. But there are differences in the intentions. With the reconstruction of Roombeek the initial intention was to regain trust between the citizens and the local government of Enschede. The ideas of the citizens were used to establish goals, which were achieved to various extends, but all in all it only had limited influence on the plan. The intention of the participation after the plan was to create a lively district, but participation does not seem to have contributed in this. The recent intention of the local government of Enschede with participation is to actually try to achieve participation and with that create a community feeling between the citizens.

Creating a community feeling seems to be what many of the addressed authors want to achieve with public spaces to some extent and with differing motivations. Arendt and Habermas want the public space or public sphere to allow for the creation of a community that is free to discuss political issues and stand up to ideas coming from the authorities if necessary. Jacobs sees a community feeling in the public space as something that will increase the feeling of security in the living environment. For Appleyard the community feeling in the street will contribute to people having more friends, acquaintances and subsequently an improved well-being. And Gehl promotes a community feeling as it will contribute to bringing quality to the public space. Even more a community feeling will give the people more of a connection with their direct environment and its users (Cozens & Love, 2015).

As creating a community feeling seems to be that beneficial, the take that the local government of Enschede currently has on participation is a good one. As for the content for these initiatives concerning this participation, the citizens can come up with a variety of ideas as long as they are not focused only on personal gain. These ideas can range from wanting to organize a barbecue for the street to stimulating sustainability in the district and from asking for social assistance for the elderly to placing a bench at a playground. Initially the ideas mainly concerned the direct environment of the initiators and thus would have contributed to the residential street. With this the residents could, besides appropriating the street through using it, also appropriate it through

making physical changes adhering to the desires of the residents, although the changes will be small. The budgets for initiatives are limited and because an initiative for improving a street will mainly be beneficial for the residents of the street and its frequent users and not for a greater group in the district, a limited amount of this budget will go to such an initiative.

Further funding should be gathered in a different way. The initial development of the street, in Enschede, is primarily done by the local government, but also other parties can invest in it when there are advantages to the added value (Gemeente Enschede, 2012). For the residential street the added value will mainly be for the residents and the frequent users and thus other parties will not likely be willing to invest in the street. But still the residents can contribute to it themselves, although spending much money on something that is not just for personal gain is a difficult choice to make. Having a community feeling would help as the investment will be shared with acquaintances, especially if all the benefits of having quality in the street become clear. The benefits of having quality in the street can be made clear through the use of the quality criteria by Gehl (2010). By showing how these criteria can make for quality in the street and by giving examples of how to address these criteria, the people will have a clearer insight of how quality can be brought into the street and how they can contribute to this themselves.

But in order to save the trouble of having to convince the local government, investors or residents to improve the quality of the residential street, bringing in quality should already happen in the design of the residential street. For this the residents should be allowed to participate in the design of the street from the beginning so attention will be given to it. Just as Lefebvre (1996) puts it with citizens having to be allowed to play a central role in the decisions concerning their direct environment. Although first the citizens should be made interested in participating.

The residents might be made interested in investing in the street by concerning the design of the street early in the development of the area. If the residents are made clear what the benefits could be of bringing quality into the street, for example that it brings security, and be shown how it would look like alongside their houses, they might become interested in investing. Also when concerning this in an early stage the costs for the development of the street, might not be that much different than creating a street as the local government would do anyway, because quality can be provided through simple measures. Also quality in the street can add value to the houses which would be interesting for the residents when they might want to sell their houses in the future. Thus when showing the residents the benefits of investing in the residential street, this would increase the possibility of them becoming interested. Even more so if the investment does not have to be financial, but them spending some time on coming to an agreement about the requirements of the residential street.

Coming to agreements between citizens on a development plan is already inherent in a building approach called *collectief particulier opdrachtgeverschap*, which translates to collective private commissioning. Through this approach the consideration of the street, according to the quality criteria, can easily be implemented. Here a group of individuals assemble themselves in a collective which is assigned or acquires a construction site on which they will develop a collection of houses (or apartments, offices, etc.) with the help of an architect, advisor and contractor. As a collective, the individuals make decisions about the collection of houses and the individuals have a more particular influence on their own individual houses (Noorman, 2006). This is different from the freedom in building houses in Roombeek as there the individuals only had a say in their own particular houses and not about the collective as a whole.

In this approach the focus of the collective is on the houses itself and possibly on a shared garden. The attention mostly does not extend itself towards the direct environment, being the residential street. For the residents this is initially probably not much of their concern as they want to have a new home that they can enjoy, but the space outside of their home will have an influence on how they will enjoy their further lives there. As a new collection of houses will also have a big influence on the appearance of the residential street, it is important to be aware of this influence and it would be feasible that the individuals will also have a say in the development of the street, so the street can adhere to their desires and the street will have coherence with its adjacent houses.

In new projects it might be difficult for the residents to know what they would want for the street, as they do not have much experience with the neighbourhood yet and what it has to offer and they are not that much acquainted with the other residents from the beginning to know what they can expect from them. In the beginning it is expected that the residents will focus on the functionality of the street where they will have a place for their cars and can enjoy a certain view. As in the beginning of the people living there the focus is on the buildings, the street will be nothing more than an access point to the houses and a connection with other places that the residents have to go. This way they will not have an experience of a potentially lively street with interaction with the other residents from the start and will get used to keeping to themselves when they are in the street. There might be changes at a later time, but these might not be deemed necessary as the people are used to the way it is.

Concerns for the quality of the residential street should begin alongside the development of the adjacent buildings. The individuals should be made aware of the influence of the street and what it can offer them. This way the street will have its quality from the start when the residents will move into their homes. The residents will then experience their lives in the new home in connection with the street as this is also part of their influence in the development. Because of this, the space will partially become their own and it will be different from other streets in the city in their experience. The residents will create a unique feeling to the residential street and have a sense of belonging there. Also as they have created the street together alongside the houses, the participants will have more of a connection with each other and this will bring activity and interaction to the street. Here already there will be a community feeling from the start. In the beginning the users of the street will mainly be the residents and the interactions will be between them, but later on this will also include the people who frequently use the street as they live close-by or enjoy the street because of its quality.

When the residential street has more houses than coming from the collective private commissioning project, then of course the other residents should also be involved in the development of the street and also can give their opinions about the appearance of the collection of houses as it will have a great impact on the street. As in collective private commissioning the people are already assembled in a collective, it is easier to discuss the development of the street alongside the development of the houses. It is also easier to make them aware of the benefits of investing in the residential street as they will do it together. But also for individuals building a house there should also be the opportunity to come together with the other residents that want to build a house to discuss the development of the street. As they are making plans for their houses they should be made aware of the opportunity to develop the residential street alongside the development of their house and for this they can discuss their ideas with the other builders.

When these people are brought together and be made aware of what the residential street can offer them, they might also consider to have more of a connection with the street in their development of the house. In such a gathering the people can exchange their ideas about the houses

and about their desires for the street. Ideas will come up for facilities that the street can offer and through this the street will become a space that is unique and fits the ideas of the residents. Through the influence that the residents will have on the street, the residential street will feel like it belongs together with the house. As this appropriation and the assurance of quality will create more of a connection between the houses and the street, there will be more of a cohesion in the street, unlike what is seen in the Bamshoevelaan in Roombeek. Because of the gatherings the people will have a connection with each other as well, which is likely to bring more activity and interaction in the street as it will bring a community feeling.

It has to be considered that there will be people who will not be able to be present at such gatherings, who do not have the resources to also be involved in the development of the street besides the development of their houses or who do not agree with the ideas that the others have. These people can disrupt the further development of the street for bringing quality. One house can disrupt the cohesion between the other houses and when one family does not want to contribute to the street with finances or activity this might disrupt the community. Other residents might get the idea that they also will not invest in the street as they do not want to give something to someone who does not want to invest themselves. Also when some residents do not contribute to the street or the community in other ways it will be easier for others to also limit their contribution.

This is where an external party can contribute to the community. This person or group of people can approach the ones that are not able or willing to contribute to the street and inquire about their reasons or hesitations. The external party can inform the person about the benefits for quality in the street, about the ideas that are present for the residential street and how this person can contribute to it or be involved, possibly without having to be present at any gatherings. When the person cannot be convinced or still not have the time or want to be involved, the external party can communicate this to the other residents and together think of how this can be worked with. In the case of having a conflict between differing ideas, the external party can facilitate a discussion and can come with ideas how to overcome the differences.

But there are also many more functions for this external party. The external party has to stand close to the residents in order to be able to assist them in developing the residential street. For Enschede the management team, which is mentioned earlier concerning citizen initiatives, already tries to have close contact with the residents of the specific city quarter (Gemeente Enschede, 2014). Because of their goal to get people to participate, ensure their desires and needs and their direct connection with the local government, this seems like a good external party to assist the residents in the development of the residential street. The person assisting the residents can be of various professions or backgrounds as long as the person can facilitate communication, has knowledge of plans by the local government and is aware of possibilities and what happens in the rest of the city quarter. This person will further be addressed as the official.

In the development of the residential street the official should first of all address all people that will be building or will be living in that street and they have to be informed about the possibilities that they have to participate in the development of the street. The official should then bring them together and further elaborate what the benefits would be for participating in the development, as the residents will be able to bring their desires into the plan, and what the benefits would be for bringing quality into the street. The (future) residents should be stimulated to bring ideas for the development and discuss this together with the other residents. In this the official can facilitate the discussions and make sure that all present participants will be able to have their say.

Also the official can react to the ideas as to make people aware of limitations or point to other possibilities, this to make sure that the residents consider their ideas well and also to make sure that the street will eventually have added quality. Such supervision apparently lacked in the Bamshoevelaan in Roombeek. As the built environment is generally something that will last for a long time, its initial development should also be in such a way that it will satisfy the desires of the residents now, but also for the future or at least be flexible enough to allow small changes. For this the official should steer away from ideas that will probably only have a temporary value. But the ideas should mainly come from the residents themselves so it can really be their own project and they will not get the feeling that they are just present to listen to the ideas that the official has. For this the official should also be open for opportunities that he or she does not have any experience with.

The ideas can be about the maximum traffic speed in the street and whether there should be a focus on pedestrian traffic or faster traffic. It can be considered where cars would be parked and whether there will be a space where the residents can perform various activities, like play or barbecues. Furthermore there can be ideas whether there should be benches and if there is a space where people can occasionally place a work of art. Also there can be ideas if the street should have greenery and whether this should line the street, be placed in an intricate pattern or should be focused at a certain place. Further ideas can concern the facilities that the residents want have be close-by, like a place for walking the dog or to do certain shopping. And ideas can revolve around the connection that the houses should have to the street, whether there should be front gardens and big windows or something else. And the ideas can be about many more different things.

From such a gathering, general ideas for the residential street can be established, which then can be communicated with the residents that were not able to be present for their opinions. And the official can assess whether the ideas are feasible and whether they fit plans for the surroundings. The residential street should not be seen as a space in itself, it is part of a network of streets and squares and by that stands in a connection with the rest of the city. Thus in making decisions for the residential street, it is important to consider what this would mean for its surroundings. If, for example, the choice is made that no cars are allowed in a residential street, people will have to find other routes to drive through and people will park their cars in the surroundings streets which can cause problems there.

As the residential street will be developed by the local government they will be funding it, but there will be limitations to this as the local government will not simply pay for the desires that the people have when these are outside of the regular budget. The official should be aware of these limitations and look for possibilities where the residents can achieve their desires, but with limited costs for themselves as they are probably not willing to spend too much money on a space that in reality is not just theirs. The local government of Enschede has established that the residents do not want to carry all the risks for the development of the street and that they need some security in this (Gemeente Enschede, 2014). Thus the official has to make sure that the investments of the residents are secured.

The official has to make the residents aware of the limitations and of new possibilities through continuous interactions and having new gatherings. For this it should be made sure that all residents will keep being informed and have the opportunity to give their opinions as to not exclude anyone. And in these further gatherings the ideas can become more concrete, which can eventually be presented to the local government who will make the final decision for the plans. It might be that the local government has other ideas than the residents and it is up to the official to bring these differing ideas together. The official should not just be the spokesperson for the local government in

what is and what is not possible, but he or she should stand for the residents and make sure that their desires are met, at least if these are feasible. This is also how Hofman took his function in the reconstruction of Roombeek, where he tried to make sure that the decisions would be in the best interest of the users (Colenbrander, 2004).

Through all the interactions with the official and with the other residents in the gatherings, the residents will have a connection with the local government that they can trust for further use and they will also establish a connection with the other residents. Here already a community feeling is established even before the people will actually be living in their new houses and street. There is a danger that the people who were not able or willing to be at the gatherings will be excluded from such a community and that the family will always be frowned upon. This could also happen for the people that will be moving into the street at a later stage of the development. That is why it is important that a connection with all residents is maintained and that it is also tried to include them.

When the residential street has been build and is in use, this will be the place where the participants will interact. But also for the people who were not able to be at the gatherings, this will be the place for them to have casual interaction with the other residents and by this can be included into the community. Through this activity and interaction in the street between residents and frequent users, together with having participated in the development of the street, there will be a feeling of ownership concerning the street. Because of the impression of it being a home territory, the street will bring a comfortable and secure feeling to the residents and its frequent users.

This sense of ownership might bring discomfort to other users of the street, especially when these users are viewed as not belonging and also are given that feeling. But as the residential street is still a public space, it should be accessible for everyone as established in the beginning of this thesis. While the residential street does seem to have a bit of a different status in this, the street and its community should not exclude others as then it will become isolated from its surroundings. To prevent this the residents should also have connections with the surrounding streets or with other groups. This connection might be to establish awareness of the community activities, to exchange experiences with other communities or to combine efforts in order to establish something (Fisher, 2016).

Keeping a connection with the official will help to make sure that the community will not isolate itself. As the official also has a connection with other street and keeps close contact in his or her area of contact, the official will have an idea of what happens in and around the residential streets. When he or she observes that problems might arise from certain developments, it is up to the official to work on this and find a possible solution together with the citizens. Keeping contact with the residents after the construction of the houses and the street is finished is important. With this the residents maintain a line with the local government and will be able to give their opinions about issues that concern them.

When the residents regularly have contact with the official and can regularly interact with the other residents about the issues that they encounter, it can be discerned whether there are mutual issues. As the residents live in the street for some time they will be aware of the limitations that the street has and what is missing in the street. It might also be that opportunities, that the street provided, previously led to an increase in quality, but at a later time these will not be sufficient anymore. Also they will have experiences of other streets and through that have created ideas that they also want to implement in their own street. For example it might be that the residents would want more comfortable walking space, more space for their front gardens, more trees or more parking space, or less of either one of them.

There are also frequently changes to the composition of the residential street. Some people move out of the street and others move in. The residents get older and get into different stages of their lives with different desires. People will have children and want their children to be safe in the street. Children will move out of the homes of their parents, people will have pets, the residents will get closer to each other or the other way around. These constant changes will bring changes to what the residents desire for the residential street. The design of the street should be such that these desires fit the space without any changes or the design should be flexible enough so it will allow changes to be made. For this the continued contact with the official will give the opportunity for there to be possible changes which the official should again consider whether this is feasible and whether this fits the surroundings.

With keeping contact with the residents it should be kept in mind that the opportunities that the residents want might not be different from what is already planned or present. In some residential spaces there might be suggestions for bringing in many opportunities for the residents to interact, play and come together, but for other residential spaces the residents might not want to get too much engaged with the other residents. Then still contact from the official is needed in order to make sure that no changes are needed. And when the official has contact with the residents he or she will also come to understand why there is no need for changes. Not all residents are the same and this will also make for all different residential streets, although the influence of the official will make sure that each street does not become a separate space as he or she will keep an eye on the connections between the different spaces.

As there is a connection between the different streets there will be mutual influences and the residents of one area will also have their opinions about other areas. Crime in another area can have a negative influence on the feeling of security in the residential street, which is expressed with the term 'geographical juxtaposition' (Cozens & van der Linde, 2015). As the residents in a residential street interact with each other frequently such concerns will be talked about. The participation that the local government of Enschede proposes also gives the opportunity for ideas that will reduce crime (Gemeente Enschede, 2014). By communicating with each other the residents might also come up with ideas how crime can be reduced. Communication will also bring other issues of the residential street under the attention, like its maintenance.

Generally when people have a connection with a space and with its users, they will want to see to it that the space will remain at its best. Especially when the users have a sense of ownership they will feel responsible for the space. As the local government of Enschede allows expressions of ownership as the people are allowed to participate in the development of the residential street and use the street to their own liking, it seems fair that the local government expects the residents to take some care of the maintenance of the street (Gemeente Enschede, 2012). With activity in the street by the residents and the frequent users already there will be made sure that the street looks decent enough. With maintenance for the greenery, for example, there might be residents who are willing to handle this. Other than that the residents can keep an eye on any possible defect, like a defect lamppost, loose tiles or a broken bench. This they can communicate with the official and this connection will make that things will be fixed soon. Also because of the use of the street by the residents and frequent users, there is social control with which suspicious practices and people could be detected. This should also be communicated with the official who can deal with it in an appropriate manner.

So there will not only be benefits for the residents when they are allowed a sense of ownership to the residential street. Also the local government can benefit from this as they do not have to keep an eye out for any possible problems and will be aware of any changes in the desires of

the citizens without the having to guess what the desires are. Even crime can be detected which will help the local government in making plans to deal with this. And the participation of the residents will create ideas for various issues that the residents encounter.

As seen in this chapter allowing citizens to appropriate the residential street and participate in its development will bring various benefits to the street as they will increase its quality. But to have a feeling of ownership concerning the street, there should already be quality in it or else the residents and frequent users would not have much want to use the street in the first place. Participation in the development will contribute to bringing quality, whereas participation when the street already exists for a longer time will be stimulated through the appropriation of the street. Thus these three notions work together, have overlap and complement each other. It is already shown that they can bring many benefits for the residential street and its users, but they also influences more abstract notions.

When people talk about the city they do this through the associations that they have to the city. For most people the place with which they have the most contact is their street and thus this will also come to mind when they are describing the city. When people live in a qualitative good residential street, depending on whether the quality criteria are considered and on the activity on the street, they will have a positive association when describing the city. This will thus also make for a more positive description of the city. Furthermore, the association will depend on what other people tell them about the city, like acquaintances and the media. Thus when there are several residential streets in the city that provide quality to the residents, many residents will have experiences with such streets and talk positively about it. Also when a person strolls through the streets of the city and comes through a street with much activity, this will be one of the things that is best remembered of this stroll and generally in a positive way.

Thus having quality in the residential street will reflect positively on the appreciation of the city as a whole. At least when the residential street has quality, this will reflect in the activity and interaction on the street and it will make for a pleasant environment for its users. As the residents and frequent users will often use the residential street, this continuing pleasant experience will make them appreciating the environment and will also generally appreciate the living environment as this will be a reflection of their most frequent experiences. Participation can thus make for a higher appreciation of the living environment, but this participation must happen to such an extent that the residents and frequent users will have a connection with the residential street and have a sense of ownership to it.



## Conclusion

The residential street is a public space that often only gets limited attention, as well in academic literature, which does regard the importance of big public spaces, and in urban planning and design, where the residential street mostly gets a functional design. But the residential street is the public space where most people have a daily contact with and which thus has an influence on their daily lives. Because of the daily use of the residential street by the residents and frequent users, it is important that the street is functional, but this functionality is dependent on the users and the other desires that they have for the residential street. Besides an easy access to their house, they might want to use the street for various other activities. As each residential street is dependent on the desires of its users, it is difficult to get a general idea of what these streets can mean for the residents.

For big public spaces this might be easier to assess. While they do have many more users than a residential street has, these spaces generally have a common shared meaning, like a square where people go for shopping or a park where people go for exercising. There are different nuances in this for each person and for several users there might be additional purposes, but this will not likely change its general meaning unless it is shared by many and then it is questionable if this should not be the actual meaning of the space in the first place. At squares, parks and shopping streets many different people gather and most people are strangers to each other. Here the people are content with having to share the space with all the other people and all the people seem to become a unity in their anonymity. Here it is thus important to have a general idea of what the people want. This is dependent on multiple factors, but when knowing what kind of public space one wants to achieve to produce, there are some general measures that can guide in providing a suitable space. Although often the attempts still fail.

In the residential street the users all have a face and are recognized. These are the residents and the other frequent users from the surrounding streets or who frequently visit. These people can be identified and because of their frequent use there will be a close connection to the residential street. As these users differ from the users of other residential streets, each street will appear different from others and have a different purpose. But the difference does not only come from the difference in its users. Also the physical street contributes to this as well as how the residential street is approached.

The research question addressed in the introduction of this thesis is: *How does the residential street influence its users and what is the influence that the users have on the residential street?*

In order to answer this, this thesis has looked at how public spaces have been regarded in academic literature. Here there often has been the focus on big public spaces and the grand purposes that these spaces should have. Like being the space which can be freely accessed by the citizens and where they are free to say and do what they want. Here they would have the possibility to discuss politics with their fellow citizens and let their voices be heard by the authorities. This is how the public space has been used in ancient Greek and Roman times and this is also how Arendt (1958) and Habermas (1991) viewed what the public space should be. The use as a political-public space slowly diminished and other activities gained dominance.

The market function has always been an important use of public spaces and with an increasing importance as a function of the public space, this also slowly brought a change in attitude of people. Through the market economy people became increasingly focussed on doing well

financially, which caused people to be more concerned about their appearance in public and how to gain the most from their actions there. This changing attitude has brought a further change in the public space as entrepreneurs set up shops adjacent or close to the central squares and the users of these spaces were mainly consumers that moved to the services that they needed. Thus here the changing function of the public space has influenced its users in their activities and the changing use has influenced the public space in its appearance.

This also changed as more activities gained equal importance in public spaces. Different public spaces gained different functions and many of the big public spaces would have various functions, although this has actually always been present. But nowadays there is also more possibility for recreational activities and festivities, provided by parks.

Public spaces have always been subject to change and its use will probably always alter as society is ever changing. As a public space, also the street has transformed over time. An important element that has brought a transformation in relative recent times has been the introduction of the automobile. Through this technology the use of the streets has changed, as well as the appearance and its requirements. For some time, mobility by car gained preference over other types of transportation, like cycling and walking and thus it shaped the behaviour of people in the streets. The change of the street through the increasing use of the car has had a great impact on public life on the street as it brought limitations and regulations for its use as well as new possibilities. Because of safety issues the car has limited the space that could freely be used by pedestrians and there came regulations on what is allowed to happen and where, but it made it easier for citizens to travel longer distances so people could live further away from their work. Thus also other technologies have had their influence on the street as a technology, as well as on its use and its users. Another example in a more recent time is the introduction of surveillance technologies which has had an influence on the behaviour of people in the streets.

From this it follows that there is indeed a mutual influence between the residential street and its users. The changes addressed in the first chapter mainly concern considerable changes in use, behaviour and appearance. But also individual particular residential streets can have different particular influences on its respective users, just as a different usage and behaviour can have particular influences on a residential street. Going back to the example of cars in a residential street, the amount and velocity of this kind of traffic passing through the street has an influence on the use of the street as well on the well-being of its users because of the possible use. Generally, when there is activity in the street and people are able to interact with other users, this will improve their well-being through having more acquaintances and friends, having a feeling of community and having a sense of belonging.

Thus having activity and interaction in the residential street is important to achieve, which can be achieved through the development of the residential street. The second chapter looked more specifically into how the residential street can be developed in order to influence its use, which would then again influence the behaviour of its users. In the development of the residential street the focus is mostly on its adjacent structures, which comes from the hand of a designer or multiple designers if the houses are built separately. The street itself comes from a different hand, mostly being the local government of the city. The structures are an important part of the street and make a big difference in how the street is perceived. Especially the connection that the structures have with the street is of importance and thus it is unfortunate that they are designed by different parties.

Designers always have a user in mind when designing something, but as there are different designers there will be different represented users. Besides that, the represented users often are far

from the eventually actual users. It is important to get a good idea of the residents and the potential frequent users of the residential street, as these are the main users and practically the only users for a long period of time. The residential street should adhere to the needs and desires of these users in order for them to have a positive feeling towards the space and them wanting to be active in it.

Urban planner and designer Jan Gehl has set up general guidelines that prove, from experience, to create a public space where users positively experience the space. These are his 12 quality criteria which will ensure quality in the public space. With looking particularly at the residential street, these criteria give guidance how the physical space can be used in order to bring activity and interaction to the residential street as this is what improves the lives of its users. Particularly slow traffic contributes to activity and interaction and this is thus what his criteria focus on. With these, the residential street can consciously be altered in order to influence its use and its users.

The 12 quality criteria are divided in protection, comfort and enjoyment. The criteria can be found in the table on page 28. To shortly recapitulate them: Protection focusses on the people being and feeling (1) safe and (2) secure in the public space and the (3) protection against unpleasant sensory experiences. The criteria under the heading comfort attempt to give the residents many opportunities to do different things in the public space, being (4) walking, (5) standing/staying, (6) sitting, (7) seeing, (8) talking and listening, and (9) playing, exercising and doing chores. And enjoyment looks at whether the public space is oriented on the (10) human scale so they can enjoy external conditions and the environment, like the (11) climate and (12) sensory pleasant scenery.

These criteria can be applied by the developers of the street and the houses in an attempt to influence use in the residential street, but this does not ensure that there will be activity and interaction. It depends on the users whether the measures will indeed have the wanted outcome. As all individuals are different, having different desires and needs, standard measures will have different influences on the users. Through this some streets might have much activity, where others will have none and at some streets the measures might bring a division between the different users or bring issues from outside the street itself.

For every residential street the quality criteria might thus have to be implemented differently in order to ensure activity and interaction from its users. As it is difficult to have a good idea to the desires and needs of each individual and as it is easy to identify the main users of the residential street, the best way to have a residential street that befits its users is to involve them in the design and development of the street. Through this the users can directly influence the residential street and when this is done while following the quality criteria activity and interaction can be ensured.

The reconstruction of the district Roombeek in Enschede is a well-known example where the citizens were allowed to have much influence in the built environment. The citizens could participate in making a new plan for the district and could, to various extents, participate in building their own houses of which many were completely built to the liking of the residents themselves. But, in fact, the influence of the citizens was limited in the plan phase as the level of participation slowly diminished nearer to the end of the plan.

When advancing in a development and coming closer to an eventual design, participation is more often seen as a hindrance and something that is difficult to incorporate by officials. This will limit participation and thus will limit the influence that the users have in, for example, the development of the residential street. But there are more reasons why participation does not always have the influence of the users as was assumed. This is because of the officials, but also because of the users themselves. Thus as there was initial influence by the participants on the plan for the

reconstruction of Roombeek, in the form of goals that were set, this influence was limitedly present when the plan was discussed and approved.

After the plan was finished further development was separate into neighbourhoods. Each neighbourhood was different in how participation was incorporated and this led to differences in the appearance of the residential streets and their quality. Where generally one would think that much participation, in that the residents would have much freedom in the development of their houses, would lead to quality in the street, it seems that this great amount of influence has the opposite effect. With looking at different residential streets, it turns out that the residential street where the residents had the least influence in the development of their houses, there is the most quality in the street, expressed by the activity and interaction in it.

An important reason for this is that participation focussed on the houses and did not look at the street. In a residential street with quality there is a good connection between the street and its adjacent structures. This connection will influence the use of the street and will lead to the residents feeling that the street is part of their houses. With this feeling the residents will treat the street as their own and appropriate it by creating and using a space that fits their particular desires and needs. In order to invite the users to appropriate the residential street, there should be some initial opportunities coming from the street itself which will influence the users in being active and interact in the residential street. This can be achieved by letting the users participate early in the development of the public space as to implement quality into the street that adheres to their specific needs and desires.

The users should be allowed to do this together, but as it is initially difficult to bring a group together to participate an external party should be active. This person or group of people can get the people to participate in the development of the residential street and make sure that all voices are heard. But also they can show the participants the benefits of participating at the hand of the quality criteria in order to create a street where the users want to be active in. As the external party will be in between the authorities and the citizens, he or she will be able to clearly inform the participants, stand for them in ensuring their needs and be able to map social developments for the local government.

Through the participation of the users in creating and appropriating the residential street, the users will have a connection with the street and with its users. They will develop a community feeling which will benefit them in various ways, like in the feeling of security and in their general well-being. This is something that the residential street can bring for them, through the effort that the users themselves invest in it. Thus the residential street influences its users in many ways and in order to ensure that this influence is positive, the users should be allowed to be involved in its development. The users will influence the residential street either way through its use or its disuse, but by ensuring quality in the residential street that is specific to their needs and desires, the use of the residential street will make for a pleasant living environment.

## Discussion

Here some issues will be discussed which can be seen as limitations to this thesis. The first one regards participation. While participation is attempted to be achieved in many approaches and resolutions, it remains difficult to actually involve people to participate. An official might have close contact with the citizens and do all he or she can to convince them to participate, it is still up to the citizens themselves if they want to participate. People will have many reasons why they would not want to participate, which could just as well be that they do not feel like it. Having only a part of the residents participating in the development and continued change of the street might have negative consequences for the relation between the participants and non-participants. As there can be division within the residential street, this might also come to exist between different connecting streets. For example, because activity in one street might bring hindrance and annoyance to another street. It is very difficult to work with the differences between people and to try and get them on the same line, but the official can always attempt to bring the best possibilities forward.

The quality criteria by Gehl can be an interesting tool to 'naturally' get people to be active in the residential street and for them to interact which might gradually lead to the users having more of a connection with each other. But having activity and interaction in the residential street is not something that can easily be achieved which is a second limitation. As there are different residents with differing desires and needs in every residential street, they will also have different lifestyles. Many streets will be mainly empty of people because its main users will be at work all day and at other times they will be at different places or glad to just be inside their house. From a residential street with only homes it cannot be expected that there will be activity throughout the day and with differing lifestyles and available moments of being in the street it is difficult to encourage activity and interaction at all.

A further limitation of this thesis is that there is no certainty about how the residents of the different streets appreciate how their respective streets have turned out to be. And it is not clear what the relations are between the different users of the street. It might be that the residents of the Bamshoevelaan are very happy with their street, would not like it when there was more activity in the street and have extensive community relations which are expressed in different ways than on the street. For the residents of the Velduilstraat the opposite might be true. Regarding the assessed residential streets in Roombeek this thesis is mainly build on personal experiences and because only a few streets could be assessed it is difficult to get substantive conclusions from this.

## Recommendations for future research

This last limitation makes for an opportunity for further research. In order to have more certainty about claims that are made concerning the residential streets, more different streets should be studied concerning the application of the quality criteria, whether the users are able to appropriate the street, the measure of freedom that the people have in influencing their private property, how much interaction there is between the different users, etc. This will make for an extensive research which can help local governments in how residential streets should be developed in the future.

This thesis uses the quality criteria by Gehl and advises to follow these criteria as guidelines in order to come to a residential street with quality. But even when the quality criteria are not regarded in the development, the choices that are made can still bring quality to the residential street which would be in line with the criteria. When, for example, looking at the Velduilstraat, the project developer has brought quality into the street without being aware that the quality criteria are followed, in a sense. Although the sense of bringing quality into the street might be lacking, bringing quality to the street through the connection with the adjacent buildings seems to be inherent for

many housing developers. It is interesting to know where this inherent implementation of Gehl his ideas come from and might thus make for an interesting future research. The research could revolve around what the influence of Jan Gehl is on urban planning and design and whether this comes from education or whether the ideas are a logical outcome of own experiences of working as a planner or designer.

## Reflection

The recommendation of this thesis to involve users in an early stage of the development of the residential street and to keep a close contact for possible further developments is something that could benefit future design of the public space. First of all there should be more connection between the development of the residential street and its adjacent structures and secondly the users should be involved. This will bring the different stakeholders closer together as there will be more understanding of the activities and opportunities that each party can deliver. What was interesting during the research for this thesis is that most of the initial ideas of what could be improved and how this could be done, are already considered, discarded or applied. Thus actually developers for housing and public space and local governments are doing a good job and are improving towards creating a built environment that actually fits their users.

With this development the residential street might not change into a public space where politics are discussed, like in the Greek agora and the Roman forum and how authors like Arendt (1958) and Habermas (1991) would like to see the public space. But by providing quality to the residential street, it will make for casual interactions which will benefit the well-being of the people. And maybe, when there are frequent encounters, the interactions will develop into having extensive discussions about politics. Thus maybe there will be some sort of political function in the future. As the people will already have participated in the development of the street, they have already made decisions for themselves, which also can be seen as a political influence. And through the sense of belonging and interactions with the other residents, the people will develop into a community. When in a community the people might exchange ideas about a variety of subjects and might gather together to stand for a certain issue or stand against a decision made by the local government. Thus politics might come forth from the residential street, in a certain similarity to the coffeehouses addressed by Habermas (1991). But the most important thing is that the people have the freedom to do what they want in their street and are able to make decisions about it.

## Bibliography

- Al-Kodmany, K., & Ali, M. M. (2013). *The Future of the City: Tall Buildings and Urban Design*. Southampton, Boston: WIT Press.
- Almirall, E., & Wareham, J. (2011). Living Labs: Arbiters of Mid- and Ground-Level Innovation. *Technology Analysis & Strategic Management*, 23(1), 87-102.
- Anderson-Oliver, M. (2013). Cities for People: Jan Gehl. *Assemble Papers*. Retrieved from <http://assemblepapers.com.au/2013/06/13/cities-for-people-jan-gehl/> website:
- Appleyard, D., Gerson, M. S., & Lintell, M. (1981). *Livable Streets*. California: University of California Press.
- Arendt, H. (1958). *The Human Condition*. Chicago: University of Chicago Press.
- Arnstein, S. R. (1969). A Ladder of Citizen Participation. *Journal of the American Institute of Planners*, 35(4), 216-224.
- Bean, P. (2003). *Crime: Critical Concepts in Sociology*: Taylor & Francis.
- Benhabib, S. (1992). *Situating the Self: Gender, Community and Postmodernism in Contemporary Ethics*: Psychology Press.
- Benhabib, S. (1993). Feminist theory and Hannah Arendt's concept of public space. *History of the Human Sciences*, 6(2), 97-114.
- Boom, S. J. (2009). *Roombeek: De vernietiging van cultureel geheugen & de wederopbouw van culturele identiteit*. (Master Architectuurgeschiedenis en Monumentenzorg), Universiteit Utrecht, Utrecht.
- Brenneman, R. (2004). The Bloody Beginnings of People's Park. Retrieved from The Berkeley Daily Planet website: <http://www.berkeleydailyplanet.com/issue/2004-04-20/article/18700?status=301>
- Brouwers, R. (2008). *Pi de Bruijn: Engagement + Stedenbouw*. Delft: Prototype Editions.
- Brown, B. B., & Perkins, D. D. (1992). Disruptions in Place Attachment. In I. Altman & S. M. Low (Eds.), *Place Attachment*. New York: Plenum Press.
- Buiter, H. (2008). Constructing Dutch Streets: A Melting Pot of European Technologies. In M. Hard & T. J. Misa (Eds.), *Urban Machinery: Inside Modern European Cities* (pp. 141-164). Cambridge - London: MIT Press.
- Calhoun, C. (1992). *Habermas and the Public Sphere*. Cambridge and London The MIT Press.
- Carr, S. (1992). *Public Space*. Cambridge: Cambridge University Press.
- Cartwright, M. (2013). Greek Society. Retrieved from Ancient History Encyclopedia website: <http://www.ancient.eu/article/483/>
- Cattell, V., Dines, N., Gesler, W., & Curtis, S. (2008). Mingling, observing, and lingering: Everyday public spaces and their implications for well-being and social relations. *Health & Place*, 14, 544-561.
- Cavazzi, F. Roman Society, Roman Life. Retrieved from Illustrated History of the Roman Empire website: <http://www.roman-empire.net/society/society.html>
- Centraal Bureau voor de Statistiek. (2015). Vooral Nieuwkomers in door Vuurwerkramp Getroffen Buurt. Retrieved from cbs.nl website: <https://www.cbs.nl/nl-nl/nieuws/2015/20/vooral-nieuwkomers-in-door-vuurwerkramp-getroffen-buurt>
- Coleman, J. S. (1990). *Foundations of Social Theory*: Harvard University Press.
- Colenbrander, B. (2003). *Nieuw Roombeek: Enschede na de vuurwerkramp* (Vol. 1). Rotterdam: Uitgeverij 010.
- Colenbrander, B. (2004). *Het spel en de spelers: Enschede na de vuurwerkramp* (Vol. 2). Rotterdam: Uitgeverij 010.
- Colenbrander, B., & Lengkeek, A. (2008). *Op locatie: Enschede na de vuurwerkramp* (Vol. 3). Rotterdam: Uitgeverij 010.

- Cook, S. A., & Koplow, M. (2013). How Democratic Is Turkey? Retrieved from foreignpolicy.com website: <http://foreignpolicy.com/2013/06/03/how-democratic-is-turkey/>
- Cozens, P., & Love, T. (2015). A Review and Current Status of Crime Prevention Through Environmental Design (CPTED). *Journal of Planning Literature*, 1-20.
- Cozens, P., & van der Linde, T. (2015). Perceptions of Crime Prevention Through Environmental Design (CPTED) at Australian Railway Stations. *Journal of Public Transportation*, 18(4), 73-92.
- Cushing, J. D. (1961). Town Commons of New England, 1640-1840. *Old-Time New England*, 51(183), 86-94.
- Damiris, N., & Wild, H. (1997). The Internet: A New Agora? In J. J. Berleur & D. Whitehouse (Eds.), *An Ethical Global Information Society* (pp. 307-317): Springer.
- Davenport, S., Leitch, S., & Rip, A. (2003). The 'User' in Research Funding Negotiation Processes. *Science and Public Policy*, 30(4), 239-250.
- de Bruijn, P. (2008) *Pi de Bruijn over Roombeek/Interviewer: H. den Hartog*. ArchiNed.
- Enschede-stad.nl. Geschiedenis van Enschede. Retrieved from <http://www.enschede-stad.nl/geschiedenis.htm>
- Finn, R. L., & Wright, D. (2012). Unmanned Aircraft Systems: Surveillance, Ethics and Privacy in Civil Applications. *Computer Law & Security Report*, 28(2), 184-194.
- Fisher, D. (2016). Second Generation CPTED. *Crime Prevention Fact Sheet Series*. Retrieved from <http://www.chdpartners.com.au/getmedia/298fef0e-c401-4b54-adcf-723590c94352/Second-Generation-CPTED.aspx> website:
- Foucault, M. (1979). *Discipline and Punish: The Birth of the Prison* (A. Sheridan, Trans.). New York: Random House.
- Fraser, N. (1990). Rethinking the Public Sphere: A Contribution to the Critique of Actually Existing Democracy. *Social Text*, 25/26, 56-80.
- Friedman, B., Kahn, P. H., & Borning, A. (2002). *Value Sensitive Design: Theory and Methods*. Retrieved from <http://faculty.washington.edu/pkahn/articles/vsd-theory-methods-tr.pdf>
- Gehl, J. (1987). *Life Between Buildings: Using Public Space*: Van Nostrand Reinhold.
- Gehl, J. (2010). *Cities for People*. Washington: Island Press.
- Gehl, J., Thornton, S., & Brack, F. (1977). *The Interface Between Public and Private Territories in Residential Areas*. Melbourne: University of Melbourne.
- Gemeente Enschede. (2012). *Structuurvisie Woonvisie Enschede 2025: Stad in Beweging*. Enschede: Gemeente Enschede.
- Gemeente Enschede. (2014). *Jaarprogramma Stadsdeel Noord 2014*. Enschede: Gemeente Enschede.
- Gifford, R. (1997). *Environmental Psychology: Principles and Practice*. Boston: Allyn & Bacon.
- Girouard, M. (1985). *Cities and People: A Social and Architectural History*. New Haven: Yale University Press.
- Grant, J. A. (2008). *The New American Social Compact: Rights and Responsibilities in the Twenty-First Century*: Lexington Books.
- Gray, P. (2011). The Decline of Play and the Rise of Psychopathology in Children and Adolescents. *American Journal of Play*, 3(4), 443-463.
- Greenberg, K. (1990). The Would-be Science and Occasional Art of Making Public Space. *Architecture and Behaviour*, 6(4), 323-338.
- Habermas, J. (1974). The Public Sphere: An Encyclopedia Article (1964). *New German Critique*, 3, 49-55.
- Habermas, J. (1991). *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society* (T. Burger & F. Lawrence, Trans.): MIT Press.
- Hartley, J. (1992). *The Politics of Pictures: The Creation of the Public in the Age of Popular Media*: Psychology Press.
- Hauser, G. A. (1998). Vernacular Dialogue and the rhetoricality of public opinion. *Communication Monographs*, 65(2), 83-107.
- Henriksson, M. (2014). *Travelling Right is Great, Travelling Free is Greater: Municipal Planners' Images of Sustainable Mobility*. (Doctor), Linköping University, Linköping.



- Howley, K. (2007). Community Media and the Public Sphere. In E. Devereux (Ed.), *Media Studies: Key Issues and Debates* (pp. 342-360): SAGE.
- Jacobs, J. (1961). *The Death and Life of Great American Cities*. New York: Random House.
- Jewsbury, L. (1992). The Glory That Was Greece. *A History of Ancient Greece*. Retrieved from <http://history-world.org/> website:
- Klok, P.-J., Denters, B., van Heffen, O., & Visser, M. (2004). *Monitor Participatieproces voor de Wederopbouw van Roombeek: Resultaten en Conclusies*. Retrieved from Enschede:
- Kratzwald, B. (2012). Rethinking the Social Welfare State in Light of the Commons. In D. Bollier & S. Helfrich (Eds.), *The Wealth of the Commons: A World Beyond Market and State*: Levellers Press.
- Lefebvre, H. (1991). *The Production of Space* (D. Nicholson-Smith, Trans.): Blackwell Publishing.
- Lefebvre, H. (1996). *Writings on Cities* (E. Kofman & E. Lebas, Trans.). Oxford: Blackwell Publishers.
- Low, S. M., & Smith, N. (2006). *The Politics of Public Space*: Routledge.
- Mark, J. J. (2009). Agora. Retrieved from Ancient History Encyclopedia website: <http://www.ancient.eu/agora/>
- Marzbali, M. H., Abdullah, A., Razak, N. A., & Tilaki, M. J. M. (2011). A Review of the Effectiveness of Crime Prevention by Design Approaches towards Sustainable Development. *Journal of Sustainable Development*, 4(1), 160-172.
- Masschaele, J. (2002). The Public Space of the Marketplace in Medieval England. *Speculum*, 77(2), 383-421.
- Mitchell, D. (1995). The End of Public Space? People's Park, Definitions of the Public, and Democracy. *Annals of the Association of American Geographers*, 85(1), 108-133.
- Mumford, L. (1961). *The City in History: Its Origins, Its Transformations, and Its Prospects*. New York: Harcourt, Brace & World.
- Newman, O. (1973). *Defensible Space: People and Design in the Violent City*. London: Architectural Press.
- Nissenbaum, H., & Varnelis, K. (2012). *Modulated Cities: Networked Spaces, Reconstituted Subjects* (Vol. 9). New York: The Architectural League of New York.
- Noorman, A. W. (2006). *Particulier Opdrachtgeverschap: Tussen Droom en Daad staan Instituten in de Weg*. Retrieved from Rotterdam:
- Nordahl, D. (2012). *Making Transit Fun!: How to Entice Motorists from Their Cars (and onto their feet, a bike, or bus)*: Island Press.
- Oudshoorn, N., & Pinch, T. (2008). User-Technology Relationships: Some Recent Developments. In E. J. Hackett, O. Amsterdamska, M. E. Lynch, & J. Wajcman (Eds.), *The Handbook of Science and Technology Studies* (3 ed., pp. 541-566): MIT Press.
- Oxford University. (Ed.) (2016) Oxford Dictionaries. Oxford University Press.
- Patton, J. W. (2000). Protecting Privacy in Public? Surveillance Technologies and the Value of Public Places. *Ethics and Information Technology*, 2(3), 181-187.
- Project for Public Spaces. (2016a). Donald Appleyard. Retrieved from Project for Public Spaces website: <http://www.pps.org/reference/dappleyard/>
- Project for Public Spaces. (2016b). Jane Jacobs. Retrieved from <http://www.pps.org/reference/jjacobs-2/>
- Purcell, M. (2002). Excavating Lefebvre: The Right to the City and its Urban Politics of the Inhabitant. *Geojournal*, 58, 99-108.
- Riesman, D. (1962). Some Observations on Lewis Mumford's "The City in History". *Washington University Law Review*, 1962(3).
- Roombeek.nl. Het verhaal van Roombeek. Retrieved from [http://roombeek.nl/1\\_over\\_roombeek/1\\_het\\_verhaal\\_van\\_roombeek/index.html](http://roombeek.nl/1_over_roombeek/1_het_verhaal_van_roombeek/index.html)
- Ruchelman, L. I. (1988). The Urban Ecology of Tall Buildings. In Council on Tall Buildings and Urban Habitat (Ed.), *Second Century of the Skyscraper*: Van Nostrand Reinhold.
- Saffron, I. (2015). Redesigning Playgrounds to Promote 'Loose Play' - Think Pop-up Play Spaces. *Play and Playground*. Retrieved from

- <http://www.playgroundprofessionals.com/news/playgrounds/redesigning-playgrounds-promote-loose-play-think-pop-play-spaces203>
- Sorkin, M. (1992). *Variations on a Them Park: The New American City and the End of Public Space*: Farrar, Straus and Giroux.
- Stadsdeelmanagement Noord. (2012). *Wijkprogramma's 2013-2017: Stadsdeel Noord*. Enschede: Gemeente Enschede.
- Statline. (2016a). *Kerncijfers Wijken en Buurten 2015*. Retrieved from:  
<http://statline.cbs.nl/StatWeb/publication/?VW=T&DM=SLNL&PA=83220NED&LA=NL>
- Statline. (2016b). *Kerncijfers Wijken en Buurten 2013*. Retrieved from:  
<http://statline.cbs.nl/Statweb/publication/DM=SLNL&PA=82339ned&D1=121&D2=1929&HDR=T&STB=G1&VW=T>
- Szebeko, D., & Tan, L. (2010). Co-Designing for Society. *Australasian Medical Journal*, 3(9), 580-590.
- van Dorst, M. J. (2010). Sustainable Liveability: Privacy Zoning as a Physical Condition for Social Sustainability. In A. Abdel-Hadi, M. K. Tolba, & S. Soliman (Eds.), *Environment, Health and Sustainable Development* (Vol. 1): Hogrefe Publishing.
- Wetenschappelijke Raad voor het Regeringsbeleid. (2012). *Vertrouwen in Burgers*. Amsterdam: Amsterdam University Press.
- Woolgar, S. (1991). Configuring the User: the Case of Usability Trials. In J. Law (Ed.), *A Sociology of Monsters: Essays on Power, Technology and Domination*. London: Routledge.
- Zukin, S. (1993). *Landscapes of Power: From Detroit to Disney World*: University of California Press.