SPATIAL DESIGN INTERVENTIONS ENHANCING PUBLIC QUALITY
THE ROLE OF INTERFACE BETWEEN PUBLIC AND PRIVATE SPACE
COLOPHON

Spatial design interventions enhancing public quality
The role of interface between public and private space

P2 REPORT

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As part of the master thesis program, the methodology course provided students a range of skills to structure their thesis plan and help students gain a comprehensive understanding of how research methods can be used to develop their project.

The lectures series, as part of the methodology course allowed students to develop their field of interest and research questions through the utilization of credible research methods. The series also showed how the data obtained from the research methods such as observation and interview can be transformed into analytical drawings and be used to support conclusions. They gave us an insight on how to narrow down our interest field to have more precise research questions and a clear problem statement. We also discussed what the relation between research and design is, the term design thinking and design related research and what role the TU Delft approach is playing in that case.

The lecture series also focused on past projects to give students an idea on what previous master and PHD students have completed for their graduation project. This helped motivate and inspire many students such as myself to gain a better grasp of their own project.

Theory of urbanism was another component of the master thesis program. Within the course, students were taught how to develop a main criteria for an abstract, the organization and referencing system that will be required for their project. Different programs, such as Zotero, and websites were shown to student on how to retrieve academic lecture and rank their usefulness in the thesis plan process.

The various exercises within the course helped to get started with the literature of the thesis topic and get a little bit more practise in writing abstracts. Thus, it was easier to develop and organise a theoretical framework for our individual project and to narrow down our literature field.

Overall, this course has allowed students to gain a better understand theoretical framework development process and sharpen literature review skills to manage the difficult task of structuring a high quality thesis plan.
Many public spaces in the Netherlands function exceptionally well and provide significant benefit to the wider society in areas such as public health, retail activity and community participation. However, the vast majority of public space does not perform as well. For example, Oude Noorden is an example where the public space has failed to provide a noticeable benefit for the community and contribute to poor living conditions of the neighbourhood. As a pre-war neighbourhood, located within the northern suburbs of Rotterdam and with its diverse ethnic population, there is an underlining conflict that occurs in regards to defining the spatial boundaries of public and private space. This occurs in the field of social difference and diversity in culture, identity, behaviour and activity. The cultural background shapes the public space and especially how the people use it. Hence, this thesis looks at the question of how spatial interventions can enhance the quality of public space within a multi-cultural neighbourhood with an elevated social diversity. Which demands on the public domain need to be fulfilled in a mixed population to contribute to the residents’ satisfaction?

Normally architects create urban areas by situating an imposing structure and public and private spaces take place in between; a couple purposely designed, others only as leftover spaces. Therefore, it is becoming increasingly important to concentrate on how an urban designer can contribute to a more liveable and active neighbourhood for its residents and visitors by precise planning of the private and public space. Since according to Gehl the behaviour of people is highly connected to the built environment and the built and unbuilt areas create spaces, which shape our movements and behaviour. In response to the claims above, my research contributes to the urban planning and design profession in understanding human behaviour, usage and preferences in interacting with the public realm.

Key words – urban regeneration, Rotterdam, (use of) public private space, behaviour in public spaces
‘The battle for neighbourhood quality is won or lost at the small scale... and we focus on the relationship between the built environment and people’s quality’ (Gehl, 2010).

This quote from Gehl has motivated me to make detailed inquiries of a neighbourhood and concentrate on the human scale to improve a district for the residents’ needs. The existing urban problems are the consequence of poor understanding of public and private spaces and safety practices in the architecture and urban planning and design profession. (Fine, 1989) Furthermore, the lack of understanding in the field of behaviour has also a huge effect on the design and planning of public spaces. Thereby, only professionals, architects and urban planners have the chance and can contribute a great deal to improve the actual situation. Although ‘the boundary between public and private life is often ignored by professionals, politicians and decision makers.’ (Woolley, 2003, p. 79) It is proven that housing, safety and accessibility are the key concerns of citizens and are strongly connected to the urban form. ‘The correct policies on density, land use, public space and the layout of infrastructure and services can make a difference to the delivery of good quality of life’ (UN-HABITAT, 2012).

In response to the claims above, this has motivated me to research and demonstrate through design what the relation is between public and private spaces and how you can contribute with spatial design interventions to make neighbourhood more liveable and safe. I am interested in using behavioural research, observations and interviews to understand the interaction of the community in my selected area. Those combined with site analysis, literature review and design methods, I hope this thesis contributes to the urban planning and design profession in understanding human behaviour, usage and preference in interacting with the public realm and the relation between public and private spaces.

source: (Montgomery, 1998)
This paper outlines my thesis plan for the graduation studio of ‘Design of the Urban Fabric’ within the Department of Urbanism at the Faculty of Architecture, Delft University of Technology.

This thesis is a research and design project titled; "SPATIAL DESIGN INTERVENTIONS ENHANCING PUBLIC QUALITY: The role of interface between public and private space".

This thesis is a public space study focusing on the quality and human behaviour within public and private spaces. Some public spaces in the Netherlands function exceptionally well and provide significant benefit to the wider society in areas such as public health, retail activity and community participation. However, the vast majority of public space does not perform as well. These spaces fail to provide any noticeable benefit for the community and in some cases, contribute to poor living conditions of the neighbourhood. (COS, 2012; RSO, 2014) The claims from above also apply to private and semi-public spaces across the country.

This research will investigate how small scale interventions in public and private space can contribute to improving the quality of open urban space of the multi-cultural neighbourhood Oude Noorden in Rotterdam, the Netherlands.

The assumption of this thesis is that public and private space can play a key role in the process of urban regeneration. The composition of building and space typologies has an impact on people’s behaviour and can affect their perception on safety and liveability. Public or private areas, which do not function well, can reduce the level of usage and positive reaction in the neighbourhoods that they live in. In order to make a conclusion for the thesis, it is important to understand what does urban renewal mean in the Netherlands, especially in Oude Noorden and to study the requirements for a strong structure of public and private space. For cities, it is increasingly important to invest in the quality of public space to pull more people, businesses and tourists to the city that is comparable to the vision of the city Rotterdam. (Stadsvisie Rotterdam, 2012) The local and the national government consider Oude Noorden and Rotterdam Noord as an area of current attention. The area is falling behind in quality of employment, education and residents’ satisfaction with the public space. (wijkprofiel.rotterdam.nl, 2014)
We, as urban designers intend to design quality public space for the community. Each community has their own individual needs, aspirations and strategic vision to support a healthy, vibrant and cohesive collective. To carry out this vision as an urban designer in 2014, I believe that creating a cohesive and just community requires the profession to focus on the human scale.

The idea of the human scale can be defined as a balanced relationship of the urban environment like buildings, public squares, streets and flora to the average human proportion and visual perspective. (Gehl, 2011) This scale should intrinsically be relatable to anybody and encourage an individual to feel that their immediate living environment as buildings, public and private spaces provides them with a sense of security, comfort and a genuine sense of happiness.

However, modernist forms of architecture, urban planning and design has ignored the principal of the human scale and as result has alienated many members of the community to feel that their quality of life is decreasing as a result of living in poorly planned cities. (Jacobs, 1961) There are many academic and anecdotal evidence to suggest that many neighbourhoods streets do not feel safe to be across specially for female members of the community (WCHM, 1995; ad.nl, 2010). This has leaded me to inquire about the negative attitudes towards neighbourhoods in the Netherlands. How unsafe do people feel in their own neighbourhood and contributes to an individual thinking that their environment is unsafe? Especially, how the interface of public and private space can contribute to this issue. As an urban designer, what has my profession done to contribute to this unease within our neighbourhoods and what can we do to resolve these problems?

“While group living is normal for human beings, it is also a source of stress. Friction between individual results from sharing the same rooms, the same buildings, the same streets, and the same towns which people who have different values, interests, and habits.” (Deasy 1985, p. 40) Age, gender, personality and so on have an influence on our size of private space and feeling safe and confident too. But not only personal influences, also the physical environment plays an enormous role. ‘Personal space is also influenced by the physical setting context of the interaction. Close distances are more uncomfortable when lighting is dimmer. Smaller distances seem to be preferred in wide or narrow rooms. Individuals appear to use more space in corners of rooms than in the centre.’ (Gifford, 2002, p. 130)

Since the Industrial Revolution, the urban planning and design profession has been tackling the issues derived from uncontrolled population growth, urban sprawl and technological advances in cities across the world. (Hall, 1988) These issues has brought into question how planners and designers are to maintain a high quality of living in cities when agricultural food, water sources and healthcare sources become critically endangered or stretched to the limits. These issues are not only unique to Dutch cities but also problems that cities globally have to face. In low social economic communities, poor planning controls in building standards, mono functional zoning, and undeveloped sites contribute significantly to big picture problem that planners and designers have to confront. (Gehl, 2011) These
problems are not always doom and gloom situations. However, they require a long term vision that is focused on changing the current negative trends of cities and neighbourhoods. This requires a shift of thinking within the built environment professions such as planners and designers, politicians, developers and of course the wider community to tackle these problems head on. There are many examples of individual solutions to resolve our current issues such as using leftover spaces and buildings with no function as converted new gentrified programmable precincts. While there are many opportunities to enact on these opportunities, urban planners and design must remain dedicate to tackle the underlining problems of the community for the public good as opposed to promoting vanity projects for politicians and business developers who may or may not have the best interest of the community at heart.

When designing/redeveloping future cities or neighbourhood, urban designers must consider the different design element of all spaces and how it would effect the social experience within the neighbourhood context. A clear definition of public and private space is difficult to define as result of complex cultural context within each neighbourhood. This complex cultural context could reflect an individuals’ value system, level of education, and different life experiences which could be defined by religious convictions, ethic behaviours and nationality. (Sandercock, 1998) Differences from the various members of the society can contribute to conflicts especially when the conflicting member cannot communicate effectively with each other. (Sandercock, 1998)

‘Anthropologist Edward T. Hall has described a series of distances that are normally used by people in North America in relating to others: Intimate distance, personal distance, social distance and public distance.’ (Deasy 1985, p. 21) The intimate distance is described in the book that it is reserved for lovers, family and very close friends and ranges up to 45 centimetres. When people interfere in this zone, but are not part of the group mentioned above, people start to feel uncomfortable. Personal distance also called “bubble of personal Space” ranges from 45 till 120 centimetres, which can be compared to one arm length” and strangers are not welcome in this area. Social distance, where most of public interactions take place, range from 120 till 365 centimetres and can be divided into two parts: normal and formal space. The first one, from 120 to 213, is the space that is used by people who work together and the second is likely used with strangers. Public distance, 365 until 762 centimetres, is the measurement where non-involvement begins, the range without feeling the need to stop and greet people. (Deasy, 1985; Hall, 1966)

Jacobs argued that urban planners and designers have pushed societies to become automobile dependent by encouraging for wider roads and increased parking spaces. As a consequence, the environment for cyclists and pedestrians has deteriorated drastically. (Jacobs, 1961) I, as an urban designer, want to understand, analyse and evaluate how spatial interventions could influence the quality of a Dutch neighbourhood. Focusing on the interface of public and private spaces and learning from existing studies how they can contribute to improving the living standards for Oude Noorden residents. By considering human behaviour and the human perception of space, it will strongly concentrate on the social-spatial aspect of public and private spaces.
PROBLEM STATEMENT

Oude Noorden is a pre-war neighbourhood located within the northern suburbs of Rotterdam. This neighbourhood has a collection of many public spaces, boulevards, streets and historic buildings pre-dating the Second World War. The old neighbourhood has diverse ethnic population making it a multicultural area where many people of different values from across the world come and live. (Stouten, 2010; CBS, 2014) The vibrant from its diverse ethnic population and extensive collection of public spaces has attracted many professionals with a creative background create small businesses and industries in the area.

Since many nationalities live in this area, clear definitions of spatial boundaries and usage of public and private space is a controversial subject regarding difference and diversity in culture, identity and activity. The cultural background shapes the public space itself and the use of public space. There is no interaction between the different cultural groups in Oude Noorden. Even when they are sharing the same spaces, there is not a clear exchange between them.

The district profile, called wijkprofiel in Dutch, is a tool that shows the actual situation through resident’s experiences on safety and the social and physical condition of the neighbourhoods. According to this, the residents are not satisfied with the external appearance of the public space. Complains reaches from dirt, safety and condition of the bicycle paths, to the appearance of public green, the quality of the real estate and quality of life in general. (wijkprofiel.rotterdam.nl, 2014) The already implemented interviews supported the results of the wijkprofiel. Hence we can say the quality of the public space in Oude Noorden is a main concern, which is reflected in the opinion of the residents and municipality of Rotterdam.

The quality of the public space has and will affect the residents’ behaviour, safety and liveability within the area. By improving the public space and the in-between space, it will also contribute to a more safe and liveable neighbourhood. The complaints about Oude Noorden are strongly connected to the physical conditions of the public space, the transition between public and private and people’s behaviour.
INTRODUCTION

buit area
unbuilt area
street network
public space
green areas
water

public space - dirty
public space - not working
Main research question

How can spatial interventions in public and private spaces facilitate quality in Oude Noorden?

Sub research questions

- How can spatial interventions improve the quality of public space and how can they increase the use of the space?

To achieve an answer, I will need to define what is influencing the quality in public space and how you can increase the use of the space itself by redeveloping an area. To answer this question diverse literature is needed and later on will be used for the design strategy and concept.

- How does the interrelation of built and unbuilt affect people’s behaviour (street life) and how can spatial interventions facilitate more social activities?

To achieve an answer, I will need to research people’s behaviour, social activities in public space and how they use their space through a literature review. In order to expand and specialize the information, general behaviour observations and concrete interviews will be undertaken.

- How does the transition between public and private influence the quality of the space and how can spatial interventions contribute to this?

For the outcome of this question I expect to understand the role of the building environment and facilities in relation to the topic behaviour and use of space. In addition, to understand the interface between public and private via literature research. The literature will help me to define criteria for the design process and will be integrated in the final design interventions.
PROBLEM STATEMENT → RESEARCH QUESTION → LOCATION ANALYSIS

THEORETICAL FRAMEWORK
- literature
- case studies

TOOLS
- mapping
- field observations
- literature research
- modelling
- interviews
- drawings

DESIGN PRINCIPALS
- design principals
- alternatives
- evaluation

FINAL PRODUCT
Literature research
A literature review will form a strong base for this thesis analysis and final design strategy. Critical concepts and knowledge will be derived from the different books and articles. There is an extensive collection of literature available in regards to public and private space, their relation to the behaviour of people and what is the interrelation between built and unbuilt environment. Which literature has been selected to answer which research question, have a look at the theoretical framework (see p. 18)

Interviews
An interview is an essential research method to gain an understanding of the residents' needs and also allow them to express their views on Oude Noorden. I aim to interview sixty or more inhabitants about their perception and experience of the public space within the neighbourhood, their daily habits and ideas on how to improve the locality's public space. For the interviews, the general interview guide approach will be used (Zeisel, 2006). Thus, specific questions will be asked to get precise information and can be measured in the research paper. However, a little scope of freedom and flexibility will be built into the interview to ensure high quality responses from the residences.

These four categories that will be important for during the interview:
• Opinion: How do residents perceive their area?
• Behaviour: What are the inhabitants' daily habits?
• Feelings: What are their emotional bonds to the neighbourhood?
• Demographics: Background data from the inhabitants (age, gender..)

Behaviour research through direct observations
Observations is a research method which I believe will help me understand public spaces and people's behaviour and answer my second sub-research question. This method should provide additional information besides the interviews to understand how people use their space and why some spaces are more used than others. It is important to note that this behaviour is constantly changing subjected to the seasons, time and current affairs of the community. Through the observations, I can my subjective view to contrast it with the interviews with residents and gain a contrasting analysis on the architectural value of buildings and unused/underused spaces.

Some questions in the behaviour research include:
• How can architecture, urban planning and design be used to influence the behaviour of the residents and potential visitors?
• How do people behave in public space? What do they use or do the most in these public spaces?
• What do they ignore within the public realm? What is the difference between day and night, weekdays and weekends?

From my observation in connection with the information from the selected literature in mind, I want to define social behaviour patterns and demonstrate the social interaction level in front of dwellings, parks, playgrounds and gardens.
Mapping
Mapping will be a core tool and method in this research and design project to translate the different results of observations, literature review and site analysis into a spatial analysis. I intend to combine my findings this method. However, this tool will be mostly used for the site analysis and will help map spatial qualities and problems and historical developments in the area.

Location Analysis
A detailed neighbourhood analysis is needed to find out the qualities, problems and opportunities of this area. It will cover the impact on the district on Rotterdam and the relevant building environment. Demographics, historical evidence, urban regeneration developments and social-economic data will be acquired to show a general picture of the neighbourhood.

• How does the built environment look like (quality, diversity, facilities, public areas)?
• Which household types (family with low income, average, high, couples..) are dominant within the area?
• What are the characteristics of the buildings (family sized dwellings, ground-based dwellings with front and/ or back gardens, rental homes and a large share of owner-occupied dwellings, Average or more expensive housing prices)?
• What kind of functions can you find there and how well does the interrelation between public and private space work?
• How attractive is the Oude Noorden based on its urban aesthetics? What is its identity, character, atmosphere, aesthetic quality of buildings, functions and social sustainability?

Design proposal
The outcome of the literature review and site analysis will help contribute to a spatial design intervention. The analysis of the Oude Noorden will inform what the residents require and what kind of interventions are needed to improve the public space in this area. This will be illustrated through models and a final design draft. The spatial interventions in the public space can be supported through existing examples in the Netherlands or other European countries.
This thesis explores how spatial design interventions can help to improve the quality of public and private space in Oude Noorden and what role the interaction between public and private space and the behaviour of people is playing. In addition, this thesis will find out what kind of different needs do people have on public space in a multi-cultural area and how you can provide public space for everyone. What an urban planner can contribute to a better quality of (public) space within a neighbourhood with social diversity to reach a socially and spatial liveable neighbourhood.

To help answer my research questions, the following literature review will define the various ideas discussed and explored in this thesis.

Firstly, there are many different ways and perspectives to describe the concept of public space. Literature such as “Public Space” (Carr, 1992), “Public places, urban spaces” (Carmona, 2003), “Public and Private Spaces of the City” (Madanipour, 2003) all describe different aspects of public space with Madanipour and Carr’s works having a strong perspective on the social aspect of developing public space. Therefore, this paper will need to define the concept of public and private space by using a variety of academic and professional literature resources. Because the quality of public space is linked to various issues, it will be important to understand the connection between public space and the identity/ownership of the space, human scale, safety and liveability and use of space. For this purpose, among others “The image of the city” (Lynch, 1960) and “In search of new public domain” (Hajer and Reijndorp, 2002) has been selected.

Not forgetting, for the location analysis it is important to know what does urban regeneration and transformation mean in the context for Rotterdam Noord and especially Oude Noorden. For this purpose „Changing contexts in urban regeneration“ (Stouten, 2010) will be used to understand the context and urban renewal process of my selected area.

Secondly, to understand peoples’ behaviour within the context of public life and their connection to the built environment, among others, the following literature was selected: „Life between buildings“ (Gehl, 2011), “Cities for People” (Gehl, 2010), „The Death and Life of Great American Cities“ (Jacobs, 1993) and „The social life of small urban spaces“ (Whyte 1980). They will help understand how public life can support this thesis’ understanding on practices in Oude Noorden’s public spaces. Because the behaviour is linked to the social aspect the human scale and perception of residents is important. “The hidden dimension” (Hall, 1966) and “Environmental Psychology” (Gifford, 1997) will help to understand these phenomena.

Thirdly, it needs specific literature to understand the relation between public and private spaces. “Between the edges” (Bobic, 2004), “Front to Back: a design agenda for urban housing” (Lewis, 2005) and “Street-facing dwelling units and liveability” (MacDonald, 2005) are just few examples that will help understanding the connection between built and unbuilt.

Lastly, this paper will also need to explore the concept of how to bring the theory into practise. Therefore, „A pattern language“ (Alexander, 1977) and „People places - design guidelines urban open space“ (Marcus, C. and Francis C. 1990) can be a helpful tool. It will contribute design ideas on how you can use patterns and guidelines and transform them into spatial interventions.
Social relevance

The topic public space and change of the public space in connection with safety and liveability occurs in many media platforms and can be seen as an current topic in the neighbourhood. It is one issue that they have to deal with quite a long time now. There are more and more articles about how the public spaces changes over time and that it is not the same as it used to be. Claims in newspaper articles reach from about the public quality in Oude Noorden itself to that the residents are not satisfied with the change of their public spaces, for example the shopping streets and Noordplein in the area. Moreover, newspapers write about crime and how to deal with this problem to make Oude Noorden more safe and liveable. (see p. 21)

Because the quality of the public space will have an impact on safety and liveability, this aspect is important for the thesis as well. The Netherlands is focusing a lot on safety and liveability in Dutch cities. This is represented by several web pages regarding this topic, for example the leefbaarometer (liveability index), sociale index (social index) and veiligheidsindex (safety index). One of the more recent articles is mentioning that safety is the second worry of residents, even before that the economic crisis.

We, as urban planners have a great impact on creating better places, which can affect the social aspect of a community. In my opinion, creating space for people and regarding their needs can influence the quality of life and make an area more liveable. Therefore, it is relevant to focus on the current social issues of safety and liveability and how urban design can contribute to these problems. Finally, an urban designer’s main client will always be the community. As a result, we help shape and influence the public realm to help improve the quality of living for all.

Scientific relevance

Many academics and interested individuals have completed research on the interrelation of public and private space and how the built environment relates to the behaviour of people. For example, Jan Gehl, William Whyte or Jane Jacobs have related the quality of outdoor space to the amount and success of social activities in the community (Gehl, 2011; Jacobs, 1961, Whyte 1980). Often ‘the boundary between public and private life is often ignored by professionals, politicians and decision makers’ (Woolley, 2003, p. 79).

In regarding to this topic, there are no existing studies or projects in Oude Noorden in Rotterdam. A goal of this thesis is to develop physical and social criteria, together with strategic ideas on how to increase the quality of public space on a local scale and their impact on the larger city scale. Furthermore, my topic is regarding the human and technical perspective of the design of the built environment, that’s why it is relevant for the research group “Design of the Urban Fabrics".
Nog steeds onveilig rond de scholen

ROTTERDAM - De opgeving van basischolen is nog steeds niet veilig van Kavel Verkeer Nederland.

De ouders constateren dat er te veel auto’s rond het schoolgebouw rijden, het overige verkeer wordt gehinderd.

Ruim helft meisjes voelt zich ’s avonds onveilig

ROTTERDAM - Ruim de helft van de Nederlandse meisjes voelt zich ’s nachts onveilig in hun eigen wijk of in het centrum van de stad. Dit blijkt uit een onderzoek van de ontwikkelingsorganisatie Plan.

Plan bevestigt nationale en lokale overheden aan meisjes beter te betrekken bij de inzichten van de stad.

Rotterdammers voelen zich vooral ’s avonds onveilig

ROTTERDAM - Zes van de tien Rotterdammers merken regelmatig overlast en worden vaak onveilig in hun eigen wijk. Dit blijkt uit onderzoek van het Centraal Bureau voor de Statistiek.

Rotterdammers betreden de straat minder vaak, dit blijkt uit een onderzoek van Plan. Het buitenleven is minder belangrijk, dit blijkt uit het onderzoek van Plan.
RELEVANCE

Link between graduation topic and research theme

This thesis is focusing and working on the relation between the built environment with the surrounding and taking the human scale and perspective into account, it fits in the chosen research theme “Design of the Urban Fabric”. The research theme strongly focuses on the design of the urban fabric and how it can contribute to a vital urban environment. The activities in the public domain play an important role. By concentrating on arrangement of the built and unbuilt environment and the behaviour of people, physical and social criteria will developed into phrases to improve the existing external appearance of the public and private space. The research will reflect different aspects about public space with selected literature and their relation to the surroundings including behaviour patterns and role of in-between spaces. The final design will utilize the results of the research and try to develop criteria for spatial design interventions to improve the current issues in the public space in Oude Noorden in Rotterdam. This approach is consistent with the requirements of the research group “Design of the Urban Fabrics”.

‘The urban fabric as a network of places and spaces’ (http://urbanfabrics.weblog.tudelft.nl, 2014). The public space plays an important role in cities and culture. It is crucial to focus its relation to the surrounding environment. The definition and usage of public spaces have changed over the past years and is challenging urban designers to find new ways how the built environment can shape how people can use the public space. Designers are exploring people’s behaviour and vital relations between public and private space as apart of achieving the endeavour of improving the public space. In my thesis, I focus how can spatial interventions in public and private spaces can facilitate quality within a neighbourhood and how can they increase the use of the space.

‘Design strategies for renewal of the urban fabric’ as the second important issue in context to the research theme (http://urbanfabrics.weblog.tudelft.nl, 2014). The process of urban renewal is required to take on the economic issues into account and provide a method of spatial interventions which responds to the changing social and cultural circumstances. This is an aim of the design for this thesis which is to provide with the spatial design a long term strategy which focus on the changing societal conditions.

‘The urban fabric as a complex human-environment system’ (http://urbanfabrics.weblog.tudelft.nl, 2014) The research is focusing on the private zoning and the relation between people and the built environment. An eye-level perspective is required for consideration as it will focus strongly on the people and their perception of the built environment. I’m concentrating on this aspect. On how the interrelation of built and unbuilt affect people’s behaviour and how the transition between public and private influence the quality of the space.

Link between research questions and research theme

I would like to address how the built and unbuilt environment is connected to the behaviour of people with my research questions. As an urban designer, I would like to explore how can the urban design can impact on the public quality and thus influence the use of space. The research questions relate to main approach of the research theme of “The Design of the Urban Fabric”.

‘The urban fabric as a network of places and spaces’ (http://urbanfabrics.weblog.tudelft.nl, 2014). The public space plays an important role in cities and culture. It is crucial to focus its relation to the surrounding environment. The definition and usage of public spaces have changed over the past years and is challenging urban designers to find new ways how the built environment can shape how people can use the public space. Designers are exploring people’s behaviour and vital relations between public and private space as apart of achieving the endeavour of improving the public space. In my thesis, I focus how can spatial interventions in public and private spaces can facilitate quality within a neighbourhood and how can they increase the use of the space.

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Link between bibliography and research theme

My selected literature matches with the listed bibliography of the research theme “Design of the Urban Fabric”, which was used most by students in 2013. The books from Carmona, Gehl, Jacobs, Whyte are selected few that I require to respond to my research questions.

Firstly, using a variety of academic and professional literature resources will define criteria of public space. The literature such as “Public Space” (Carr, 1992), “Public places, urban spaces (Carmona, 2003), “Public and Private Spaces of the City” (Madanipour, 2003) will help to describe different aspects of public space. The quality of public space is linked to various issues hence it will be important to understand the connection between public space and the identity, ownership of the space, human scale, safety and liveability and use of space. For this purpose, among others “The image of the city” (Lynch, 1960) has been selected.

Secondly, the understanding of peoples' behaviour within the context of public life and their connection to the built environment is required. The following literature was been selected: “Life between buildings” (Gehl, 2011), “Cities for People” (Gehl, 2010), “The Death and Life of Great American Cities” (Jacobs, 1993) and “The social life of small urban spaces (Whyte, 1980). Human behaviour is linked to the social aspect the human scale and perception of residents is important. “The hidden dimension” (Hall, 1966) and “Environmental Psychology” (Gifford, 1997) will further the understanding of this phenomena.

Thirdly, this thesis requires specific literature to understand the relation between public and private spaces. “Between the edges” (Bobic, 2004), “Front to Back: a design agenda for urban housing” (Lewis, 2005) and “Street-facing dwelling units and liveability“ (MacDonald, 2005) are just few examples that will help the understanding between the connection between built and unbuilt.

Lastly, this paper will also need to explore the concept of how to bring the theory into practise. “A pattern language” (Alexander, 1977) and “People places - design guidelines urban open space“ (Marcus, C. and Francis C. 1990) can be a helpful to expand on how to create a practical method to translate the material gained from the research process. It will contribute design ideas on how you can use patterns and guidelines and transform them into spatial interventions.
Project Aims

The Aim of the project is to create spatial design interventions in public space, which can contribute to improve the public quality, which will also have an impact on safety and liveability in the Dutch multi-cultural neighbourhood. Strengthen the neighbourhood by creating public space and a compact, walkable, safe, mixed-use and sustainable urban area. A strategy that can be used in more Dutch cities, but the main case is shown in Oude Noorden in Rotterdam. Oude Noorden has a lot of possibilities with its cultural background, but the quality of the public space and safety are still one of the main issues that need to be solved.

The design concept should generate neighbourhoods, where the inhabitants feel safe and which they assume as liveable. The main significance of the project are the residents, who are living in this area. They shouldn’t be pushed away to solve the problem. The result should be that the neighbourhood, regarding private and public space will become safe and a place where people want to be. Therefore, also a feeling of connectivity with this neighbourhood and with the city Rotterdam is needed.

The research for the following design is focussed on how people use spaces, what are their needs in public and private spaces and how that can be translated into spatial conditions in order to increase social safety and liveability within the neighbourhood. At the end of my research, I will be able to understand behaviour patterns in public and private spaces and which effect building typologies have on the street life. What is causing insecurity in neighbourhoods and which spatial interventions can contribute to make public space within a neighbourhood more attractive for their inhabitants.

Design goal

The end result and design goal would be a strategy and design for Oude Noorden in Rotterdam which increases the quality and usability in public and private spaces and living conditions in the chosen neighbourhood.

First, the theoretical part of the research will provide information how people are using and experience public space in connection with safety and liveability. Through various literature it will be explained the connection between the built environment to the use, identity of the Space. Moreover, how the cultural background of the residents influences a different use of space and how can this be integrated into spatial conditions.

Secondly, the location Oude Noorden will be analysed with the results of the above-mentioned theoretical research in mind, in order to establish criteria for this area. The location analysis will help to understand the phenomena of the area and illustrate the current situation and demographics linked to the spatial.

The last part will include the design in the chosen area, where the conclusion of the research and site analysis will be implemented in Oude Noorden, in order to achieve a more safe and liveable neighbourhood by improving the public and private space. Two different areas are selected, one will be a neighbourhood block and the second the connection from the Noordplein to the shopping streets.
This project makes use of different scales. The image below presents the elements of the thesis regarding the scale. Literature research will cover all of the various scales. However, the neighbourhood, street and building scale will be the most important ones, especially for the design because it’s the scale in which the spatial interventions will take place. The city scale is relevant as well because these interventions will have an effect on the whole city of Rotterdam.

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# TIME-WORK SCHEDULE

## General Overview

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### Introduction

- **THESIS PLAN** (draft to final)
- **ABSTRACT** Theory paper
- **ANALYSIS**
- **THEORY PAPER**
- **STRATEGY + CONCEPT**
- **DESIGN PROPOSAL**
- **FINAL DESIGN**

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INTRODUCTION
THEORETICAL FRAMEWORK
Since the 1960s the significance of public space has been intensified established in literature, e.g. Jacobs 1961, Lofland in 1973 and Sennett in 1977, and 'since the late 1980s the public space has been a subject of intense interest. It is the key to urban renewal strategies all over the world' (Hajer, 2002 p.7). The denial of modern urban planning lead to a concentration on the design of public spaces and awakened attention to a more human orientated urban design of public spaces. (Jacobs, 1961; Gehl, 2010) As Gehl mentioned: ‘The battle for neighbourhood quality is won or lost at the small scale.’ (Gehl, 2010)

The concept for a good neighbourhood is to find a balance between a safe, active, attractive and sustainable area and that they work together constantly. On the upper picture on the right you can see those principles for a liveable neighbourhood. The liveability rises when people spend more time in the neighbourhood. It is not only important that people use the public realm, it is also important that you extend their stay there by improving the public quality. This can happen by offering variety in space which different user groups can use and providing high quality space for walking and opportunities for interaction between human beings. (PPS, n.d.)

Also the PPS came up with a concept for a good public space, which includes access, sociability, use and image of the place.

‘The importance of life in public space, particularly the social and cultural opportunities as well as the attractions associated with a lively city.’ (Gehl, 2010 p.6)

A safe neighbourhood or city is a minimum necessity for a high quality urban life. Streets and squares should be inviting while protecting people from traffic and comfortable by a well-defined public space network.
Since there are more and more cars, planners have concentrated a lot more on making more room for cars, either if it is new wider roads or more parking space. Which has the consequence that the circumstances for cyclists and pedestrians have deteriorated drastically. Nowadays, a lot of streets with a small width are overfilled with parking areas and traffic signs. However, the situation for cyclists has become unsafe for the simple reason that bicycle paths have been eliminated from the street and that cyclists have to cycle next to cars.

About 50 years ago, the American-Canadian activist and journalist Jane Jacobs brought out her well-known book “The Death and Life of Great American Cities” in 1961. She was one of the first authors who ‘attacked on current city planning and rebuilding’ (Jacobs, 1961, p. 3). It is one of the most influential books in the field urban planning because she was the first powerful voice that draw attention to the crucial need for a change in building cities. She claimed that the dramatic growth of motor traffic in combination with modern urban planning theories disconnects the city and the urban spaces. All those separated detached buildings bring no life into the city and cities will become inactive and passive.

She outlined the qualities and strength of a lively city, which is intensified when more people are attracted to bike, walk and remain in public spaces. One reason for that is, if more people are moving around and staying in public areas, it is becoming more safe. People have the feeling that other people are around and are watching the place. To insure that a clearly and efficiently structure is needed that provides short walking distances, catchy public spaces and a variety of functions. When all those elements work together, they will increase life on the street and the feeling of safety in the public realm.

In the first chapter Jane Jacob focused on mixed functions and safety by analysing the uses of city elements like parks, sidewalks and neighbourhoods. For instance ‘sidewalks serve many purposes besides carrying pedestrians’ (Jacobs, 1961 p. 29). Lively sidewalks and streets assure safety, strengthen social contract between people by bringing people together and integrate children into community. A neighbourhood that fails to guarantee safety, cause anxiety, which has the result that people use the sidewalks less. Another consequence from that can be that they use the streets even less because they are deserted. Jane Jacobs believes that there should be a clear separation between public and private and they should not blend into each other like they normally do in suburbs.

Another quality of safe areas is that ‘there must be eyes upon the street, eyes belonging to those we might call the natural proprietors of the street’ (Jacobs, 1961, p.35). The last important factor is that sidewalk ‘must have users on it fairly continuously’. ‘People attracts still other people .. and they love watching activity and other people.’ (Jacobs, 1961, p.8) A safe and lively street has always its users and watchers. Old buildings are important to offer cheap space for new businesses and low-cost housing. They also have the function as a landmark or anchor point for the area. Furthermore they a mixture of old and new allows small businesses to exist longer because they can cooperate with larger ones in the area and allows to accommodate residents will all kind of income level.
SAFETY AND URBAN LIFE

Jane Jacobs already mentioned the importance of safe streets in her book “The Death and Life of Great American Cities”. She mentioned that if we inhibit crime on street, the area will become more lively. Mixing functions is one way to do it. Those areas have more activities in and outside of buildings the whole day and people will feel more safe in the evening and night time due to the light from the shops and offices.

But it doesn’t mean that automatically there is a safe feeling around shopping areas. If there are a lot ‘solid metal shutters close off shops outside opening hours a sense of rejection and insecurity is produced’ (Gehl, 2010, p. 99). Around residential areas with a lot of windows and lights the people feel also more safe because they get the sign that people are present. The emotion of feeling safe is crucial for design pleasant and appealing cities for people.

When we strengthen the walking qualities, people will spend more time in public spaces and safety and perceived safety will extend. There is a connection between life in public space and safety; street life has an effect on safety and safety is a major element of life in the public realm. ‘Experienced as well as perceived safety is crucial for life in the city” and “will increase in connection with a well designed ground floor, mixture of functions and attractive edges’ (Gehl, 2010, p.97).

By improving the experience of walking, it will make an area more safe, especially for children and elders. It will also effect the quality of life. Therefore, it is important to shorten the distances and to improve the existing sidewalks and squares to give people a safer and more comfortable walk. Here for the walking distance plays an important role. When people should walk daily in their life, this means that the most important destinations have to be really close. This should include going to work by public transport or going to the grocery store or shopping. The majority is willing to march only one kilometre. For that reason you can find a connection between density and walkability. If you have a compact and high-density neighbourhood people are more likely to gather and meet with other people, thus local stores have enough customers and public transport enough passengers. Moreover, it is crucial to have an interesting walking experience, which can be improved by interesting façades or buildings. We should also pay attention, if we improve the walking experience and the feeling of feeling safe, we automatically improve the sitting experience. Which will also help to improve the social life and liveability of the area because people will spend more time outdoor and socialize. (Gehl, 2011)

Safety is not only about a good and clear city layout to finding the way trough the city, but to ensure that human beings feel personally safe on streets which will lead to a successful and lively city district. Jane Jacobs submits that when people do not feel safe in a city that means that they feel insecure on sidewalks. To prevent that and to make a place more safe, ‘it is essential to focus on sidewalks and streets’ (Jacobs, 1961 p.30).

Fear of crime can stop people from using good public spaces as well. Young people often adopt the habits and opinions of their parents. If their parents fear the place, they are likely to do the same. By changing the physical condition of the built environment and better control can help to reduce the fear of crime.
Furthermore, community gardens can reduce crime in neighbourhoods and can have an impact on the interaction between different cultural groups within a community. Open space in front of the houses affected neighbours to have more contact with each other: meeting at a local square or just having a chat over the fence or land border. It supports possibilities for good community and small personal interactions between people.

To conclude pedestrians need to feel **safe from traffic**. This can be achieved through wide sidewalks or with buffer zones. The faster the cars are driving, the wider the sidewalks need to be. Not only the sidewalk needs to be protected, there is also a necessity of having safe crossings.

Pedestrians need to feel **devoid of crime**. This is significant for women and uses during the evening and night. The fear of crime is related to the urban environment and also to the society living in the area.
The natural starting point for the work of designing cities for people is human mobility and the human senses because they provide the biological basis for activities, behaviour and communication in city space. (Gehl, 2010) The built environment has an effect on peoples' lives and behaviour. Therefore, the buildings should render assistance for peoples' daily habits in any case: sitting, walking, playing, standing etc. For creating a high qualitative neighbourhood, it is important to concentrate on humans from the very beginning of the design and planning process. 'Our bodies and senses have not changed much through modern times, and the basic needs of people remains consistent across cities, and across cultures' (Gehl, 2010, p.8). Human are made for walking and moving and we are moving around with an average speed of 4,8 km per hour. Meanwhile, we perceive most of the environment with an angle of 72° right around us. The facilities at the ground floor are the most important ones because they are perceived easily by the eye perspective and grab someone’s attention. We observe the world around us not only with our eyes, but also with our senses. Smells and sounds can drastically affect the perception. To improve the quality of a neighbourhood and the quality of peoples' lives, it is important to focus on these things.
Edward T. Hall did a lot of observations about human senses, their characteristics and value, which is published in “The Hidden Dimension” in 1966. His communication studies describe how people’s perception of the surrounding and behaviour are linked to cultural patterns.

Conversations take place under a huge spectrum of behaviour patterns, which are unverified and often taken for granted, and this happens without noticing it. Culture might be defined as a summary of what people learn as behaviour patterns, gestures and material things. The cultural background can affect the behaviour in deep and insisting ways, which most of them cannot be perceived and thus people cannot control those behaviours consciously. Culture is really complex and has its roots in the past, with influence behaviour and activities (Hall, 1959).

Hall claims that culture performs in three different ways: formal, informal and technical. One is always dominant, but all of them are attending. He claims that culture is a conjunction between people and the tool they use for interacting with other people. He described two different distances, the close senses like tasting and feeling and distance senses like hearing, seeing and smelling. Interhuman conversations have to deal with totally different ranges. Especially the visual sense is connected to the spatial conditions because it is influencing people’s process of orientating in cities and places and how they travel and move in space. (Hall, 1959)

We can recognize shapes as human beings from 300 to 500 meter, more detailed gestures and paralanguage from 100 metres. Among 50 to 75 metres we can identify a person and about 22-25 metres we can perceive facial features and countenances. Parallel to those seeing processes, the hearing processes are working too. 50-70 metres cover shouts for help and 35 metres one-way conversations. Only at a distance around 20-25m some short information can be shared. Whole conversations can only happen at a distance from 7 metres to half a metre. (Gehl, 2010) (see p. 34)

Not only these two forms of senses play a role, also smelling and touching has a huge impact on the emotional well-being through meetings.

We can conclude that barley something happens until the person is standing 25 metres away from you. After that little by little it is getting more intense until 7 metres are reached. Afterwards all our senses are activated and more feelings are exchanged. This relation between our senses and conversations and interaction between people can be connection to urban planning. The vision or ideology that there are more interactions between people in public spaces, is illustrated in old city spaces and squares. ‘It can also be a beginning more extensive contacts all start with seeing and hearing’ (Gehl, 2010, p.236).

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| Low intensity | Passive contacts „see and hear contacts“ |

by author
PERCEPTION AT EYE LEVEL

The design of the place, details, street profiles and experiences and memories affect the quality and satisfaction of people while walking. The arrangement and condition of the ground floor level influences the walkability because we have enough time to observe the area and this will affect the pleasure and quality of the walk. Especially this is a most important exchange zone between the built environment and people, here is where life inside and outside can meet.

There are few principles that will help to ensure that people will stay longer in public space and make a district more alive.
- shorter distances between facilities to attract more people
- mixed functions to ensure flexibility and variety, which will help to make a district more safe and social sustainable
- create safe pedestrian and bicycle routes
- removing border between inside-outside: inside of buildings and outside public space should work together
- attract more people to remain longer in public spaces by strengthen the physical conditions of public space

The comfort of seating influences the choice of seating and length of stay. A sufficient and various selection of seating in the city can be established with a combination of primary and secondary seating. Primary seating consists of actual furniture with backs and arms City benches, free standing chairs and café chairs. In all cases the backs and arms of the seating will only contribute to comfort if people want to stay for a while or for the senior citizens who need support while seated and when sitting and getting up again. The seating design also impacts on comfort, of course, as do the materials, isolation and water-repellent properties of the seats. City furniture can have a huge influence on meetings and staying in urban space.

Small benches are not good for communications because they protect private space and you have to turn your head during a conversation. Also for families and groups a straight line of benches is not inviting. However, you can arrange then into a “talkscape”, which was used by Ralph Erskine, who aligned benches in a specific angle thus people can keep the conversation going and use a table in the meanwhile too. One of the most biggest attractions are for example, moveable chairs. Here people can create their own space and align the chairs how they want them to be. Not only the furniture has an influence, also the noise level of the public space. ‘The School of Architecture at The Royal Danish Academy of Fine Arts conducted a study in Burano... and in a traffic street in Copenhagen that shows a connection between communication and noise level in the pedestrian town and traffic street’ (Gehl, 2010, p. 153).

Traffic is also an important part of public life and therefore, we need to regard the whole transportation network. ‘No matter which mode of transportation you choose, all journeys start and end with walking’ (Gehl, 2010, p.13). Hence, it is crucial to consider arrival points and pedestrian movements in public spaces and to guarantee a safe journey with all kind of means of transportation. For instance, for a safe cycling journey a separated bicycle path is a essential element. Bikers should be protected from the car traffic, therefore they should be separated by curbstones and parked cars.
The ground floor of the urban fabric, also called plinth, is a essential part for the perception at eye level and experience in the public realm. The plinth play a key role in a positive experience because it can compensate an ugly building. Although if the building itself is very beautiful but there are only blind walls at the ground floor, it does not have an impact on a positive experience. Additionally, if only one individual building is well designed for the perception at the eye level, though the remaining of the street consists of blind walls, the street will not perform well.

Thus we can say that the design of the plinths is important for the attractiveness in residential and retail areas. People will spend three times longer in an attractive street or square that in an unfriendly and deserted area. ‘The entire urban environment shapes this atmosphere, but plinths play a key role. The ground floor may be only 10% of a building, but it determines 90% of the building’s contribution to the experience of the environment’ (Glaser, 2012).

On the right picture you see a set of criteria made by Stipo for plinths. Each scale mentions subitems that are important for each scale. ‘The levels cannot be separate from each other, they interact’ (Glaser, 2012, p. 17).

1 The building
- small scale units
- variety of functions
- transparent façades
- special character of the architecture
- richness in material
- vertical orientation of the façade
- a well functioning ‘hybrid zone’
  (the transition from private to public)
- appropriate signing
- flexibility in height (4m)
- flexibility in the land use plan
  (zoning)

2 The street
- pleasure to walk in
- physical comfort (wind, sound, sun,
  shadow, maintenance)
- definition (the height should at least be
  half the width)
- variation in buildings
- quality that binds the eye
- good tree canopy
- parking facilities
- clear beginning and ending of the street
- possibilities to sit
- density

3 The context
- plinth-oriented consumer audience
  (pedestrian streams day and night, 5-20
  passers-by per width meter per minute,
  economic and cultural capital in the
  surrounding neighbourhoods)
- special urban programme or a special
  cluster of economic or cultural functions
- good connections to the network of
  squares and parks
- partners who take initiative
- coherent urban design
- a good position in the urban fabric and in
  the city’s walking and cycling routes

source: (Glaser, 2012)
People like to meet other people in the public realm, therefore the human scale is essential and vibrance of the public space; both granted by plinths on the ground floor. The more a place has to offer, the more the place is successful on the long term. This applies not only to the ground floor, also to the whole street profile and public spaces. Streets are often seen as abandoned spaces, but this is particularly the space where public life occur if it is well designed with attractive plinths and façades.

Especially in residential areas it is important that the design of the plinth and in-between space is sophisticated. One element is the size of the windows, they shouldn’t be too big with the result that people try to hide behind curtains or too small. The biggest challenge is to design for both types, residents and visitors that just pass by. Often the sidewalk in residential neighbourhoods is too small, thus residents feel threatened and try to close their windows by curtains to make their home more private. Although this can be prevented by a small front garden or other forms of private zones in front of their houses along the sidewalk. Just as the window plays a role, so does the height of the ground floor. In order to get enough sunlight in the building and provide versatility for non residential facilities. Normally you would say that a high ground floor gives everytime a good atmosphere, although it is important that the proportions of the built environment relate to the street profile.

If the plinths contain functions other than living such as a cafe, shop or restaurant, it will make the place more lively. In a lot of residential neighbourhoods these facilities are located at the street corner or are on a main street within the neighbourhood. In these areas people may stop at a shop window, looking at the products or see other people inside the shop or cafe and this attracts more people.

For an active and successful public life it is crucial to facilitate movements in public and private spaces and a fluent transition to one experience to another. In the Netherlands between 1950 and 1960 many low-rise three floor dwellings, called portiekflats, were built. A lot of them have on the ground floor a closed facade that evoke the emotion of insecurity. ‘The plinth is a crucial link between the dwelling and the use and image of the neighbourhood’ (Glaser, 2012). Every location asks for a different solution, which can be an improvement of the existing plinth, a complete transition or a reorganisation. This depends on the use and facilities of the location and how the entrances of the buildings are organized with the surrounding.
- To draw more people to the area, transparent and accessible ground floors should be created.

- Improve streets for pedestrians through street furniture, trees, enough light and recognizable design elements.

- Attractive shopping streets should not be longer than 1.6 km in a residential area.

- Consider the walking speed of 5 km/h by designing the ground floor (transparency of façades, function diversity).

- Car traffic should not become dominant, a balance between vehicles and pedestrians is important.

- The focus should be on the life between and in buildings because it is more relevant that the urban fabric itself (Gehl, 2010).

- Improving the area through uniqueness and identity of the space and materials and colour (Cullen, 1961) by author.

- For a lively public life every 15 metres should be a new public function.

- Small shops with a transparent facade allow interaction between public and private and we become more attached to the area. (Glaser, 2012)

- The height of the ground floor need to be related to the street profile to ensure enough sunlight and flexibility.

- Provide a mixed-functioned neighbourhood with no homogeneous ground floor levels (Jacobs, 1961).

- Create a fluent transition and edges between public and private and avoid an abrupt boundary.

- Create a ground floor that preserve privacy for residents and attraction for passers-by.

- Create a design that lasts over time and exist at least for three generations.
Public spaces are places where people enjoy their free time, meet other people, take a break from the stressful daily life or just simply pass by. And the platform for these movements and actions is the public domain. Walking is the fountain head. Human beings were made to walk and while walking we recognize a lot more details from our surrounding than with other forms of transport. ‘Life in all its diversity unfolds before us when we are on foot’ (Gehl, 2010, p. 19).

An active street life provide liberation from a stressful everyday life, relaxation, amusement and social intercourse. The quality of public space has a huge impact if there is a social contract between neighbours, friends and strangers. One goal would be that a square, park, or open space offers a spectrum of requisite for active and passive activities, on stony and soft surfaces. (Carr, 1992)

Gehl claims that if the conditions for pedestrians in a city are improved, people are more likely to walk and the walking activities increases noticeably. Furthermore, the social and leisure actions increase enormously when we strengthen public life for walking activities. Thus we can argue that there is a connection between the availability and condition of paths for walkers and social activities. Hence, good walking opportunities are necessary for a lively, safe and sustainable city. However, there is a higher desire within cities than just walking. ‘There is direct contact between people and the surrounding community, fresh air, time outdoors, the free pleasure of life, experiences and information’ (Gehl, 2010, p.19).

Gehl divides activities in three categories, which will be explained further. These activities are requested for social activities.

**Necessary activities (under all conditions)**

He classify necessary activities what people have to take on in their daily life such as ‘going to work, shopping or school, waiting for the bus, bringing goods to customers. These activities take place under all conditions’ (Gehl, 2011, p. 20). These activities are obligatory and necessary, are more functional and have a minimal influence of the physical environment.

**Optional activities (under good conditions)**

Another sort of activity is optional activities, which take place under good conditions. These are the most attractive and favoured actions in cities, which has a huge impact on the physical environment. Thus, a good quality is a requirement. If the conditions are impossible for those activities, nothing will happen. If they are bearable, the amount of activities will grow and if the outdoor conditions are excellent, the quantity of those optional activities will increase significantly.

**Social activities**

This include all kind of activities that need other people such as playing, conversations and passive contacts. This can happen almost everywhere, private, in-between and public spaces.
**Influence of the weather**

The weather and temperature is one of the most influence for outdoor activities. If it is too cold or if it is raining too much, the quantity of activities will decrease and a longer outdoor stay is made more difficult and sometimes almost impossible. Sun, wind, trees, water, food all influences the use of the space. Especially water, which has a calm and quiet atmosphere and people enjoy just looking at it. The weather and especially the sun is an important factor, but it does not explain why some places are more popular than others. (Gehl, 2010; Whyte, 1980)

An additional factor is the quality of the space itself. The design of the space can have an impact on the range of outdoor activities and on peoples’ decisions to spend more time outside than just crossing a public space. This includes furniture, feeling safe and protected in the area and visual quality. The most efficient radius for a plaza is three blocks. Furthermore, the quantity of seating space is essential. For example the most liked places have more sitting opportunities than not so well used spaces. ‘People tend to sit most where there are places to sit’ (Whyte, p. 28). But it is not only about the amount of seating places, it should be comfortable too, physically and socially. The more choices you have, the better. So people can choose to sit to the side, in the back, in the shadow, in the direct sun, sitting in groups, alone and so on. Whyte claims that 43 cm is the ideal sitting height and it is comfortable to have on a 75-90cm deep bench and 30 to 90 cm long bench. Moreover, the perfect space should offer 6-10% sitting opportunities in an open area. (Whyte, 1980)

**“The edge”**

The edges of a street or square are really important because it’s the space where the most interaction between indoor and outdoor takes place. From this you have a good overview of the surrounding and what is going on. It is one the zone with the highest influence on street life and experience everything more intensely. It offers all kind of activities, from standing to sitting, and the climate is more comfortable. That is a reason why more people choose the edge for longer outdoor stays either on benches or in cafés. We can conclude that the edge zone of a residential area is the most appealing realm. Also Alexander says in his book “a pattern language”: ‘if the edge fails, then the space never becomes lively’ (Alexander, 1977, p. 600).

Soft edges between building and street have a huge impact on activity patterns and appeal of the space. Especially the arrangement and design of the ground floor is fundamental for the overall attractiveness of an area. Long blank walls where nothing happens with only few windows or doors gives a sign to move forward. The edges of squares can be seen as a intersection between public and private domains and need to grand privacy and meeting opportunities. Corners are functional because people often sit at the edge of the steps which provide a perfect angle for face to face sitting in group conversations. Also on the corners the are more walking, standing activities happening. Thus we can say that people will more likely choose edges rather than the middle of a huge open space. (Whyte, 1980)
THEORETICAL FRAMEWORK

Communication
All kind of communication and interaction between people represent social activities and if there are many social interactions, the public space will be become more lively. This includes plenty of different actions, for example “passive see and hear contact”. People like to watch other people and see what is happening in the surroundings. Neighbours greet each other and maybe have a longer talk with friends and neighbours.

Small conversations can happen on the benches in a park, on a market stall or at a bus stop. In some cases people start talking with each other about the weather, when the next bus will arrive or ask to find the way to their next destination. From these brief talks it is possible that the social contract will extend. Thus the public space can be one extent where people meet each other, for example children playing together or young people hanging around. The place is their gathering place or meeting spot. All those activities connected to seeing and hearing is the biggest group of social communications and can be changed and improved by urban design. The more opportunities a space offers to meet with your friends, the more likely the space will get more lively and more interactions will take place. And those opportunities are the starting point for other types of social contracts. A lot elderlies like to watch other people and street life from their own gardens, balconies and from their home through their windows.

Respecting the personal distance space is one of the basic rules for communication and important factor that people feel safe and comfortable moving around in public space. And this is also connected to the experience of public space. If you feel not safe, comfortable, through various reasons, you will have a negative connection to the space itself.

Ground floor linked to behaviour and use of space

The Built and unbuilt environment possibility affects the behaviour of people. A window for example, allows someone to look through and watch other people. In contrast to a solid wall with does not facilitate this option. Also the amount of windows and doors at the ground level can influence social interactions. They contribute to a more active and lively street when there are more see-through elements than blank walls. ‘Residential neighbourhoods where houses have front porches present a more gregarious setting than those where three-car garage doors face onto public space’ (Ford in Carmona, 2003, p.107). Furthermore, short distances car-home entrance does not contribute much to life on the street.

Between higher buildings and ground floor there is no interaction feasible. Until the second floor small conversations are possible, from the third and fifth its possible but not as effective. After the firth floor the connection to the street is disconnected because they rarely can see and hear the people downstairs. (Gehl, 2010)

The ground floor level is also connected to walking and the experience while walking. If we walk slower, we are more tented to stop more often because we are attracted by offers from shops, cafés. Therefore, we can conclude that people are more likely to stop and spend some time in public space, doesn’t matter if its just sitting on a bench or staying for cup of coffee. Thus, it is important that there is balance between “how many” and “how long” to ensure long outdoor stays to make a place more lively.
Studies of new Copenhagen residential areas in 2005 show that the activities in and around semiprivate outdoor space in front of ground-floor units account for over half of all outdoor activities, even though residents on the ground floor comprise only 1/4 of the residents.  

source: (Gehl, 2010, p. 84)
Streets and squares

Carmona claims streets as "dynamic spaces" with more movement than squares which are called "static spaces". Those can be either formal or informal. He describes formal places as a place with a lot of order, symmetrical and enclosed by buildings, which have also street furniture and a high quality of space. On the contrary the informal squares, which are more calm character, asymmetrical arrangement and a various types of architecture types. (Carmona, 2003) Small streets and spaces will be perceived more intense and with more details than wider streets. Gehl described those as "warm, personal and welcoming" compared to larger spaces with less people as "impersonal, formal and cold". (Gehl, 2010) If people have to decide which street they have to choose, a lively or empty street, in most cases they would pick the more active one. Life on the street will make you feel safer while walking and it is more exciting as well. 'People come where people are – people are inspire and attracted by activity and the presence of other people' (Gehl, 2010, p. 65).

People walk and sit in the mainstream, no one will move outside that stream, it is more likely that more people will join. The sidewalk for walkers should be on the diagonals of the entrances of the buildings to the corner of the steps. Which can be seen as a natural connection point where a lot of actions will take place. If there are seating opportunities available, people will prefer those places for sitting and staying in the place for a while. Also sight lines are essential because when people don’t see the place, they will not go there and use it.

‘Planners aim for more that just ensuring that people can walk and bike. Public space must be alive with many different groups of people using it’ (Gehl, 2010, p.63). The amount of people in public space is one factor but equivalent with the amount of time people spend in those places. When people just pass by a space it will affect the city life and it will be not as active as when there are a lot of people spending time in city spaces. What attract people the most, are other people, which is comparable to Jan Gehl’s statement.
**Figure 12.** Pedestrian behaviour in front of ground floors in main streets.

**Figure 13.** Activities per hour in front of ground floors in main streets.

source: (Gehl, 2010)
OWNERSHIP OF SPACE

The ownership of public space plays also an important role and is influencing the quality of the space. In the last years public spaces have changed with the recent local and national policies. There is a tendency going on that more and more urban spaces are in private partnerships. Public spaces, which can be a street, a square or a park, is identified by how people see and behave in the space. It is also a space that helps people decide where they live and businesses want to invest.

Public space is a medium between private spaces and should be managed by a public authority (Madanipour, 2003) Although Gehl claims we shape the city and therefore it is important that also the residents feel connected with the city and play an active part in obtaining and caring about public space. (Gehl, 2010)

Although many public spaces are under control from a public authority, does not mean that the residents cannot make a contribution. By putting a bench outside, or floral arrangements in front of their houses, show other people that they care about their neighbourhood and try to make it more inviting and cosy. Thus we can say that ‘the quality of the public realm has a significant influence on quality of life because it affects people’s sense of place, security and belonging’. (PPS, n.d.) Project for Public Spaces (PPS) also created four key qualities which make a public space successful. These include that public space should be good accessible, comfortable and have a positive identity, people feel connected to the area and are motivated to participate in activities in these public spaces and meet other people and friends there. (PPS, n.d.)

Gifford categorize three types of neighbourhoods:
1) integral neighbourhoods; this include direct interaction between people and attendance in organisations
2) parochial neighbourhoods; alike as the integral but less attendance in organisations
3) anomie neighbourhoods; few direct interactions and participation (Gifford, 1996)

Direct conversations between neighbours create positive personal relationships between the inhabitants. (Ebbesen et al., 1976 in Skjaeveland and Garling, 1997) Although the social relation varies conditional on the cultural background, income and habits of those affected.

Especially when we talk about private zones and boundaries of privacy and residents’ territory, the ownership contributes a lot to that topic. Where there are more houses with more identification and decoration like a nameplate on the entrance door, individualized letterboxes, floral decorations etcetera there are less cases of crime than in houses without these decorations. Thus, if ownership is done in the right way, it does not purely protect and extend privacy, it also supply other positive experiences on the street.

A well-functioned Public space has also an influence on the economy. The appearance of green areas and squares attract investors and they can use them as a tool to draw more businesses to the district. Businesses become aware of well-designed and manages places and those draw customers and services. By redeveloping the public areas increases also in a lot of cities the property prices and has a strong influence on the price of the real estates. Especially in the Netherlands the price rises when the house has a view over a river or is close by to a park up to 10 per cent (Luttik, 2000) Which you can see on the next page on the lower pictures.
Public spaces also have a capacity to be a starting point for social events. Events within a neighbourhood can strengthen the environment and draw different cultural groups together. Sennett differentiate between public and private in the size of knowledge that people have about other people. (Sennett, 2008). In the book „The Fall of Public Man“ he also argue that the electronic communication influences the public life. It increases the information about people, but reduces the contact between people.

If a dwelling is owned by a single person, company or multiple companies, will not only have an impact on the street design and ground floor structure, but also on the social events and interventions. If just one company is responsible for one area, it has a powerful voice in organisation and changing the current situations. Furthermore, they can realise a strategy for the district in a long term. However, it often fails in making an area lively and active. A mix of businesses can contribute to that a little bit better. It offers a variation, making it more lively and attractive. Although, the challenge for a multiple ownership can be to supply the feeling of safety and comfort.

In Oude Noorden the Zwaanshals shopping street can be seen as an example for a lively neighbourhood street how Jane Jacobs would describe it. Although the cheap housing lead to social problems in the neighbourhood. One reason could be that in this district Havensteder, a housing cooperation in the Netherlands, is prevalent and the housing policy controls the area. (Glaser, 2012)
IDENTITY OF SPACE

When we talk about the identity of space, one of the first authors that comes to your mind is Kevin Lynch with his book “Image of the city”. His book focuses on the visual quality, clarity and readability of urban spaces. He claims that the visual importance of the city is the readability of identifying individual elements and bring them together. Also Carr claims that a space should have its own unique identity. (Carr, 1992) Readability is used for fast and good orientation, finding your way and basis for the formation of relationships, promote activity and security. A place should be designed as diverse as possible, which all the elements Lynch is mentioning, so that it allows anyone to see the world in their ways. Important is flexibility, for the various observers but also for the changing times. Furthermore, each city dwellers feel closely connected with any part of the city and this is liked to memories and meanings, does not matter if good or bad. The ideal image of the environment contains the following three components: identity, structure and meaning. It is appropriate to consider these three separately in the investigation, but you have to keep in mind they belong together in reality. For Lynch identity means that you can identify and distinguish individual objects and structure that there is a spatial relationship between objects itself and between objects and viewer. These two together strengthens the memorability of the place. The idea of the place is influenced by social significance of an area, its function, its history, its name and by the physically observable objects. The moveable elements of a city, especially the people and their activities, are equally of important as the stationary physical elements The urban image is divided into paths, edge, node, district and landmark. Not only the elements itself matters, also the properties of them. To mention some, the uniqueness, the clarity of form, continuity, dominance, clarity of links, direction differentiation, scope of the viewing area. (Lynch, 1960)

1. **paths:**
routes are the channels through which the observer normally, occasionally, or possibly is moving. These may involve streets, walking paths, routes, waterways, railways. The following issues are influencing the perception: the area (narrow, width, main or secondary roads), the facade design, if it’s near to important places of the city, continuity, the name, relation to the superordinate way system and if it’s related to environment. Overall transport system should be recognizable, humans tend to geometry.

2. **edges:**
Boundary lines function as linear elements which do not serve as roads. They form a border between two areas. Important for the perception is a border such as coasts, railways, border of a building or wall because it gives clarity. Although there are clearly defined edges, there should be a bond to the rest of the city structure (roads etc.)

3. **districts:**
those are relatively large municipalities with uniform character, not necessarily only externally, can also be based on social and ethnic unity. Individual instructions must be highlighted to make the area memorable, an area must have something typical. Name and history can also contribute greatly to the identification of a neighbourhood. Boundaries can vary considerably, from spongy to sharp, and can help to make a place more recognizable, but can also effect the opposite. Typical characteristics plan an important role like visual properties (special house forms, architecture, topography, details, colours, materials, planting, lighting, etc.) or non-visual properties (noise, scents).
Public space is open to everyone, unattached to ethnic groups, gender or age. When public spaces are designed appropriately, they can unite a community, offer gathering places and social activities. They offer communities a place to be and shape the identity and character of a neighbourhood.

The topic everyday life is often discussed in connection with public space. Thrift says that the ‘daily rhythm is a component of the interaction between people’ (Thrift 2009, p.103) and Relph argue with ‘people are their place and place is its people’ (Relph 1976, p.34). Both indicate that there is a connection between humans and their surroundings and how they control affect each other.

Identity is ‘fundamental in everyday life’ (Relph, 1976, p.45) and there should be a differentiation between ‘identity of and identity with’ (Relph, 1976, p.45). With identity is meant that a place has some identifying features, although it is more relevant that a person have some personal connections with the place, for example good or bad experiences. The identity of the city is ‘not just as a thing in itself, but the city being perceived by its inhabitants’ (Lynch, 1960, p.3).

4. **nodes:**
strategic nodes arise either by coincidence of roads or concentration of any properties. Intensity of use reinforced identity of the place. These are the strategic points of a city, and can be destination and starting points for walking. Important influences have Viewings, overlaps, light shades, surface slope, perspective, containment system, structure, motion and noise.

5. **landmarks:**
Main characteristic is uniqueness or remarkable sight. Mainly we find those object at hills, or it can be a sign, buildings or church. The size is not important but the location.
The image of the city can easily change, depending on the view. For example analysing the area trough the eyes of a driver or pedestrian.

source: (Lynch, 1960, p.61)

source: (Lynch, 1960, p.62)
ELEMENTS OF PUBLIC SPACES

Public space is generally hard surfaced and made for sitting, relaxing and watching. In contrast to sidewalks, where mainly people just pass through. Here also the main surface is hard, regardless that there are also trees and plants as scenery. When the percentage of green surfaces is higher than that from hard surface, the space is called a park than a public space. The sidewalk is a small public space which is connected to the street and mainly used for short periods. Generally they are more used by men than by women and the main function of sidewalk is waiting, passing by and sitting. On the street you find two different seating and waiting types. One is for general uses like seating, rest, waiting and watching and they happen when the street provide seating steps or benches. The second type you find is a bus stop: a part of the sidewalk is also used for waiting for the next bus which offers often a shelter with or only a bench. The transfer from sidewalk to public space is really important to encourage people to use or not use the place. Furthermore, the functions of the surrounded buildings influence activities too. Blank walls are not inviting compared to retail and cafés, which attract people to stay in the public space and vitalize the area. Whyte recommends that 50 per cent of the façades are retail or other services. (Whyte, 1980)

The size
The size of the public space differs in each place. Lynch for example suggest an optimal size between 12 and 24 metres, where 12m is more intimate than 24m. Although a public space should not overtake 140 metres, which he argues with that all of the successful past public spaces were not bitter than that. (Lynch, 1971) On the other hand Gehl recommend a size of 70 to 100m because 100 metres is the minimum range of being capable of seeing events. That can be connected to his suggestion of the maximum distance of seeing facial expressions of 20 to 25 metres.

Gender
Men dominate in public spaces and they mainly use them alone. Women use them in groups or in couples. The use itself also differs by gender. Women use them less than men, but when they use them they prefer natural atmosphere to escape from the stress in daily life. They are looking for comfort, safety. Men prefer places with human interactions and they are looking for social interaction, involvement and experiences. The task for a urban planner is to design places for both genders and uses in one setting. If you combine both uses, the place will be used more often which contribute to a more safer place because it is less likely to be disturbed by vandalism, overload and crime. (Whyte)

Plazas must be able to accommodate three other forms of circulation:
1. passing through: people using the plaza as a shortcut or a pleasant walking through space.
2. Access to a café, bank or other retail use peripheral to the plaza
3. Access to seating or viewing areas: people entering the plaza in order to sit in the sun, eat a bag lunch, vie an exhibit, or listen to a concert.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Transport facilities</th>
<th>Streets</th>
<th>Plazas</th>
<th>Recreational space</th>
<th>Incidental space</th>
<th>Parks and gardens</th>
<th>Food production areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>City</td>
<td>Airports; harbors; freeways</td>
<td>Central boulevards</td>
<td>Large formal plazas</td>
<td>Stadiums; greenbelts</td>
<td>Semi-wild areas</td>
<td>Large formal parks and gardens</td>
<td>Orchards; Large agricultural plots</td>
</tr>
<tr>
<td>Neighborhood</td>
<td>Train stations; city gate areas; storage lots</td>
<td>Streets</td>
<td>neighbor-hood plazas</td>
<td>Sports facilities; playgrounds</td>
<td>Empty lots; transportation borders</td>
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</tr>
<tr>
<td>Residence</td>
<td>Parking areas</td>
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<td>Interior courtyards</td>
<td>Houseyard Playspace</td>
<td>Marginalized space</td>
<td>Houseyard gardens</td>
<td>Kitchen gardens</td>
</tr>
</tbody>
</table>

size of public space; source: (Johnston, 2013, p. 2)
Every open space should get as much sunlight as possible. Whyte: We came to a conclusion: people sit most where there are places to sit. Other things matter too, food, fountains, tables, sunlight, shade, trees but this simplest of amenities a place to sit is far and way the most important element in a plaza use. (Whyte 1980, p.30)

To encourage strangers and neighbours to remain in a place, the space needs something to convince them to remain there. They are looking for anchors and attraction points, which they can either use physically (sitting, leaning) or representative (standing closely, looking at).

A good feature of a public space is when there are more secondary seating (steps, walls) places available than primary (benches) because if no one sits there, the place does not seem as empty as when there are just empty benches. Those secondary seats function more as a sculptural effect and design of the place. Although it shouldn’t be more than 50 per cent of the total amount of seating spaces and should provide a seating height of 40 to 80 centimetres. Steps will be used quite often by younger men and the advantage of those steps is that people can choose their way to sit and gather in the public realm. Moreover, groups tend to use secondary seating more often than singles because there is no required sitting position. It is essential to provide different ways of seating because not everyone wants to sit in the same way. (Project for Public Space, 1978) “A study of the Federal Building Plaza in Seattle found that people overwhelmingly preferred wooden benches, followed by steps, planters and low on the list stone seats and the ground.” (PPS, 1978) Additionally colours and fragrance should also be considered as important factor of the amusement of users.
WAITING FENCE-SITTER → PLAZA-EDGE SITTER → EDGE / ISLAND SITTERS → SECLUDED INTIMATE SPACES (BACK OF PLAZA OR DEAD SPACE)

2 PERSONS FACING CHOICE OF ORIENTATION

3 PERSONS PRIVACY STILL MAINTAINED BY SPACE IN BETWEEN

4 PERSONS BENCH BECOMES SEAT + TABLE COMBINED

by author
INHIBITING CONTACT
visual and auditory

Walls
Long distances
High Speed
Multiple levels
Back-to-back orientation

PROHIBITING CONTACT
visual and auditory

No walls
Short distances
Low Speed
One level
Face-to-face orientation
Public spaces are often defined through private spaces. ‘Private and public domains are divided by sharp boundaries, with a wide range of protective elements that have been established to prevent any disturbance between them’ (Bobić, 2004, p.16). There are three different public areas, which vary in ownership and the control inhabitants have over use of the space. The first is called “primary territory” and that is used by a specific group of people that mark the public space as their own. “Secondary territories” are for example when a regular guest asks for a specific seating place or can be categorised as a group personal space. The third “public territory” is accessible for everyone, but only for a temporary quality. This can be occupied by a society or is open for anyone.

Modern Architecture and Urbanism has changed the spatial relationship between buildings and street and has formed a new concept of space. (Madanipour, 2003) Gehl for example had found out that the in-between space has a huge influence in terms of social interaction and behaviour.

In the urban form structure the urban elements play an influential role because streets, entrances of buildings and squares and many other elements interact as connection points between public and private spaces. This inter-space combines inside and outside spaces and also connect the space with miscellaneous activities. Those in-between spaces also assure integration of the urban structure through the different classifications of space. These spaces are lively and active elements in cities where communication, social life and social cohesion between inhabitants, strangers, but especially neighbours happen. When those spaces are missing or not well defined yet, the potential is very high that the social community and relationship is weak. Another result might be that it will cause monotonous, isolated and empty spaces, which enlarge the fear of crime within a community. Turner, for instance, categorise social interaction in following elements:
1. motivation: where people are motivated for interactions
2. connection: how they influence each other
3. their relation with the space

Gehl defines those in-between spaces as spaces where inhabitants get prepared for the public world (Gehl, 1986)

When residents go to work, or just go outside their houses they sometimes smash into other residents and they start to greet them. After some time this will become part of the everyday life and they will repeat that every single time, they meet them. This process strengthens the social relations between residents and the social life can be preserved. (Giddens, 1984; Pader, 1988) This is a part of a social community cycle, which repeats regularly and will change the interpretation of their social correlation in a space - time context. This transformation process is connected with the use of public space and the social vitality of a district. (Giddens, 1984)

Public space was defined by a lot of authors (Akkar, 2005; Borja, 1998; Burte, 2003; Capron, 2002; Carmona et al., 2003; Carr et al., 1992; Dijkstra, 2000; Madanipour, 1999; 2003; 2004) as a place that is accessible to all people and used by everyone. Furthermore as a meeting point between different cultures and activity junction. Madanipour defines public space as “an exploration of difference and identity”, “a place of simultaneity”, “an arena of recognition”, and ‘the in-between space that facilities co-presence and regulates interpersonal relationships’ (Madanipour, 2003, p. 206).
Lewis defines the quality of open space with two elements: first, the use of surrounding buildings and how they relate to the open space. Second, the front and back spaces of buildings and their clear differentiations between each other. The front part should face the public spaces like squares and streets to ensure activities for inhabitants. And the back of the buildings should ensure private spaces. (Lewis, 2005)

Gehl claims that the soft edge in open space controls the use of space and interact as a transition zone. Those edge zones should be designed as smoothly as possible to ensure a soft transition between public and private. For example, front yards have a positive effect on the social interaction between neighbours because they are used twice as much as the backyards in neighbourhoods. We can say that when we improve those soft edges, it will increase the social life on streets. People will stay longer in public places and take part in activities. But what we have noticed is that this is only one factor that is affecting social life on streets. We must consider various factors like street furniture, buildings height and density, function of the buildings, traffic and climate.
BLANK

A blank wall, often used in industrial and commercial areas has no impact on social interactions between people.

CAR BLANK

This includes garage doors on the street where only cars can enter the private space. This has no impact on the social relation at all.

TRANSPARENT BLANK

There is an interface where pedestrians can’t enter but the private space is visible from the street. Social or commercial relations are possible here.

DIRECT OPAQUE

The entry of the private space is directly on the street without any visual connection or transition zone. This type is common for industry, residential, ground floor shop-top housing, but not retail.
INTERFACE TYPES:

visibility, access

EXAMPLES

- mall, warehouse, parking lot
- parking garage entry
- showroom
- apartments, warehouse
- shop
- suburban housing, row housing
- housing, industry
- shopping mall, housing

DIRECT TRANSPARENT

A direct entrance from public into private with a direct visual connection (e.g. a shop). Typically for shopping areas, where direct relations and transparency is important. Not used for residential, industry.

source: maps.google.nl

PEDESTRIAN SETBACK

The entry of the private space is set back from the street. This in-between zone offers social activities between neighbours.

source: maps.google.nl

CAR SETBACK

The entry of the private space is set back from the street with a parking space in between.

source: maps.google.nl

SECONDARY INTERFACES

Here the in-between zone is deep enough for a second type of interfaces, which can have different functions and facilities.

source: maps.google.nl
Those in-between spaces play a huge role in the organisation of settlements in public space and are the basic components of street design. The quality and materials of those in-between spaces are components that increase the identity of the location and where a lot of activities take place. They connect indoor and outdoor, interior space with landscape and community. Therefore it is important to understand how they relate to each other. For example, windows interact as a link between human and the outside and building entrances are used for gathering and meeting places. In consequence of different societies and cultures there exist different design solutions, and some of them increase human activities more than others. (Nooraddin, 2002)

For example the “walled entrance” of a dwelling is one attribute for social life between neighbours and you can find more activities in front if the dwelling than in other types. On this example you can see that the spatial structure and alignment of the dwelling has an influence on the behaviour of people and how they feel connected to the outside. These forms of houses attract sub-communities which are an essential part of urban community. (Banz, 1970)

In some cultures those entrances have a religious role and to respect other people’s privacy they do not step on the threshold. (Raglan, 1964 in Gauvain and Altman, 1982) Every culture group has their own meaning and definition for those in-between space and we can argue that the entrances is representing the accessibility of a culture and the social and economic status of the residents. Gauvain and Altman distinguish between identity and community and openness and closeness. Related to the different cultural background the urban elements reveal not only the identity and uniqueness but the community between residents and their neighbours too.

Gehl, Jacobs and MacDonald found out that the ground floor and entrances of dwellings can contribute to safety and liveliness by giving opportunities for social interactions. Residents like to spend time on their terraces, front gardens or balconies when they can watch what is going on the streets and this contributes to safety because there are ‘eyes upon the street’ (Jabobs, 1961, p. 35). Moreover, these facilities attract the interests of passers-by.
Private space is influenced by many factors like age, gender, or cultural background. Hall published in his book “The hidden dimension” four different personal distances between people: intimate, personal, social and public. Those are relying on the relationship between the individual and the stranger. (for more detailed explanation see p. 34) Another factor is the personality. For example, for a shy person anxiety plays a huge role in meeting other people and they have a lot of time a different definition of personal space than others. Mainly, they are shy and therefore they have a larger distance to strangers. The cultural background has also a huge influence on the personal space between others. North Americans need a larger personal space than North-Europeans. North Europeans need more than South Europeans, and South Europeans need more than Arabic population. Regarding gender, we can say that women need less personal space than men, although the results are not really consistent. Those distances of personal spaces are taught through social interactions over years. Children sometimes are unable to understand the right distance, therefore they are sometimes too close or too far away from strangers.

Privacy controls how much contact and how much distance is wanted when meeting or making contact with someone new. You can observe this in public environment, when people stand in a row. They will always stand with some distance to the next person, although the length varies through the cultural background, gender or age. The personal space is playing a key role during social behaviour with strangers and cultural standards are responsible for the setting parameters. Private spaces interact as a form to prevent humans from climate and external forces. The dimensions of privacy and household structure are different in each country and culture and time period. It is very difficult to define because it changes constantly. Briefly the concept of privacy means intimacy, being alone, isolation, anonymity, being out of communication, to be secluded, among other definitions. (Mazumdar, 2000; Westin, 1967 in Carmona et al., 2003) What a lot of authors found out, that lifted front yards ensure better privacy for the residents than front yards that are on the same level as the street. Although passers-by need to see enough to exchange conversations between each other. (Altman, 1975; Alexander et al., 1977 in Skjaeveland and Garling, 1997; MacDonald, 2005) MacDonald also claims that a terrace should be at least one metre higher that the street level or around 4-5 steps. In Amsterdam, for example, a lot of houses in front of the canals have front yards a few steps higher than the street level and this feature make activities in public space and personalisation of the private space possible. They also supply a balance between private and public. Carmona et al. claims that permeability between public and private should not be too connected nor too separated. It should give the possibility to protect privacy from the residents but on the other hand also allow communication and intercourse between the outside. Along with Macdonald (2005), various researchers such as Altman (1975), Alexander et al. (1997), Bentley et al. (1985), Gehl (1996), Lewis (2005), and as well as various design guidelines such as The Urban Design Compendium (2007) and The Essex Design Guide (2005) point out the importance of the relationship between private and public space. (Carmona et al., 2003) However, if one space is defined as public or private depends on the individual. Madanipour believes that it is essential to have an in-between space between public and private, thus more communications between neighbours can happen: ‘public and private spaces are a continuum, where many semi-public or semi-private spaces can be identified, as the two realms meet through shades of privacy and publicity rather than clearly cut separation’ (Madanipour, 2003, p. 210). Establishment of neighbourhoods can extend the private realm by creating a semi-private, semi-public realm, where a ‘smaller number of urban residents may be aware of each other and of their differences from the rest of the citizens.’ (Madanipour, 2003, p. 209) The spatial unit of private property is closely associated with the social unit of household. ‘Exclusivity and intimacy are combined to find expression in the home, the symbol of private sphere’ (Madanipour, 2003, p.203).
It is crucial to consider buffer zones or in between zones between public and private during the design process because it shapes the physical and social field. Designers should not separate private and public completely nor should they overlap. It must be permeable to connect indoor with the outdoor space. The physical setting defines the identity of the space by giving the area and urban space a special character. Furthermore, a high quality in-between space boosts movements and activities. This contributes to the public life and makes it more active and attractive for others. At last the major element: the social interaction, which is composed of a certain level of tolerance and lessen the fragmentation between public and private.
SITE ANALYSIS
HISTORY & URBAN RENEWAL IN OUDE NOORDEN
In Oude Noorden the history is readable from the structure and recognizable from the size difference of the built environment because the dimension is connected to the time the polder was formed. The buildings from about 1896 were built in the three-block layout, with 40-65m wide blocks. Around 1900 the land prices began to rise and this led to a denser building block, the four-block layout, within the same polder structure. The result of that is that the streets became narrower, from 12-15 metres in the three-block area to only 10 metres wide. In de Kop van Oude Noorden the blocks are mainly from north to south and around 12m wide which provides good light conditions and the possibility of a tree line on one side of the street. In 1930 they start building along the river Rotter (Rottestock) with a completely different structure. The shopping streets as they exist now, were not planned like this during the urban regeneration process. They were an end result because the market was moved from the city centre of Rotterdam to the Noordplein in the neighbourhood. Therefore, the ground floors were transformed into shops. ‘Before urban renewal about 80% of all housing stock was built before 1920 and most of the housing stock was in private hands… with more than 92% owned by a large number of private owners’ (Stouten, 2010). Those houses were in a very poor condition, one reason for that was that 95% had no private bathroom and the kitchen had only 3m2. ‘Between 1970 and 1993 two thirds of the stock was radically improved or newly-built’ (Stouten, 2010). Even after the urban regeneration you can still see a clear difference between the three-block and four-block layout: in the south the buildings are much larger than in the North. In general also the closed building blocks were obtained, and until 19865 the connection between those old and new houses was really bad and caused a fragmentation of the built environment. The same applies for the public space, which was completely incidental. This spatial fragmentation evokes an unclear arrangement between public and private. ‘The aim of the urban renewal was to improve living conditions and to give low-income groups access to good-quality housing’ (Stouten, 2010). By improving the social ambition, they hoped to reduce the high numbers of unemployment in the area. By renewing the physical elements they were aiming for an improvement of the housing stock quality and public space.
HISTORICAL ANALYSIS BY AREA

1. Noordsingel
   (Bergweg - Zwart Jansstraat - Noordmolenstraat - Noordplein - Noordsingel)

2. Erasmuskwartier
   (Bergweg - Zwart Jansstraat - Noordmolenstraat - Noordplein - Noordsingel)

3. Noordplein & Northern Boulevard
   (Zwart Janstraat - Noordmolenstraat - Noordplein)

4. Snellemanbuurt
   (Zaagmolenstraat - Zwaanshals - Noordmolenstraat - Jacob Catsstraat)

5. Pijnackerplein
   (Zaagmolenstraat - Jacob Catsstraat - Zwart Janstraat - 3e Pijnackerstraat - Benthuizerstraat)

6. Schoonoord
   (Bergweg - Benthuizerstraat - Zwart Janstraat)

7. Blokland
   (Benthuizerstraat - Hooglandstraat - Zwaanshals - Zaagmolenstraat)

8. Kop van het Oude Noorden
   (Gordelweg - Rotte - Hooglandstraat - Bergweg)
Noordsingel is part of Rose's Water Project, the plan to improve urban water management. In the hierarchy of the urban structure of the Old North Noordsingel occupies an important position.

Along Noordsingel could only representative residences for the wealthy class to be built. On the north side of the Noordsingel the courthouse and jail complex take a prominent place.

The Water Project Rose is a fine example of a large, coherent urban concept with various exemplary for the nineteenth century objectives: improving the city sanitation and urban water management.

Urban architecture is Noordsingel and walk in landscape style intact. The buildings along the Noordsingel is considerably less coherent. The large-scale disturb the high-rise office buildings and some residential complexes of the original nineteenth-century urban character of this' golden edge.

The original buildings and the church building on the other hand very valuable and contribute to the special character of the Noordsingel as gold border along a green walk.
The polder structure of this area consisted of fairly large, elongated plots with an east-west longitudinal direction. Across the region, between the current Burgemeester Roosstraat en de Jacob Catsstraat, the cadastral map from 1830 shows that the entire area was undeveloped. The earliest building was the jail at the Noordsingel (1866-1872). The prison was later expanded with the House of preservation (1882), the courthouse (1897-1899) and the notarial archives (1900).

About half of the buildings are nineteenth century, the other half was demolished in the period of urban renewal and replaced by new buildings. Buildings from the nineteenth century are focused on the Noordsingel, Burgemeester Roosstraat and the western part of the Erasmusstraat. Buildings from the period of urban renewal concentrated in the Jacob Catsstraat and Rembrandtstraat.

The nineteenth-century buildings are mainly built in the Neo-Renaissance style. The houses in the Zegwaardstraat (No. 3.) and on Montagne (No.s 44-46.) are an example of the Delft School. The “portiekflat” in the Zegwaardstraat is built in the style of functionalism and the recent construction in Bleiswijkstraat is built in the style of contemporary traditionalism.

The original street plan of the Erasmuskwartier, which is the oldest street plan in Oude Noorden, are largely intact. Only the school yard at the Tollensstraat and Bleiswijkstraat are not original. This is reflected in the spacious layout with wide streets and spacious allotment in three stroke model.
The cadastral map from 1830 shows that this part of the area outside was vacant on the fifteenth-century watermill Blommers Dijkse.

The open spaces between the Noordsingel, the Rotte and Hofdijk-Zwaanshals 1891 were already known as the Noordplein. The square was partially furnished as a public garden and there were some warehouses. However, back then the Noordplein was much smaller than the current Noordplein. The warehouses were demolished. The old course of the watercourse was appointed as a public garden. Through these interventions resulted in a much larger open spaces with lots of green spaces in landscape style. In 1899 the Noordplein was partly taken into use as a market square. In 1910, the market expanded to the entire Noordplein. The park was there for neighbourhoods. A pumping station in 1894 replaced the mill. This electric pumping station is located on the northern part of the current Noordplein. The market was moved to the city in 1958. Since then Noordplein has been used as a car parking place. In 1995-1996, the Noordplein redecorated with a fountain and benches. The buildings along the Noordplein are extremely diverse. Around the square you can see buildings from three different construction periods. The urban architecture of the Rottekwartier, the combination of urban architecture and shop houses in the late nineteenth-century with Neo-Renaissance style in the Erasmuskwartier, and brick architecture from the thirties in Pleinzicht.
The buildings that belong to the Erasmuskwartier street plan consist of commercial space on the ground floor and apartments on the upper floors. The block Pleinzicht consists of commercial space in the plinth and housing on the upper floors. The Rottekwartier consists entirely of homes.

The route of the Noordmolenstraat and Zwart Janstraat was intended as one of the main streets in the Oude Noorden. The buildings on the Noordmolenstraat and Zwart Janstraat were mainly built between 1875 - 1900. These properties are built in the style of neo-classicism and neo-Renaissance.

Almost all the houses are residential retail, only the buildings on the western part of the Zwart Janstraat were intended to lower and upstairs apartments. In the twentieth century many of the lower houses were converted into shops, thus Zwart Jansstraat was connected as a shopping street until the Bergweg. All store fronts have been modernised around that time.

The Noordplein and Noordmolenstraat and Zwart Janstraat had because of their role as market and shopping area for decades a strong relationship and formed a vibrant vein in the Oude Noorden. Nowadays the Noordplein occasionally used for events. The hustle and bustle has disappeared. The buildings around the Noordplein still partially still functional dichotomy: activity on the ground and in the plinth and live on the floors. The Noordmolenstraat and Zwart Janstraat have retained their function as shopping and are still very much alive.
The polder structure in the Old North consisted of relatively large, elongated plots with east-west longitudinal direction. The cadastral map from 1830 shows occasional building west of the Zwaanshals. The streets are plans in the period 1892 - 1897 submitted for approval to the City Council. Due to the fragmented ownership and small and odd shaped lots with buildings was the purchase of the land between the Zaagmolenstraat and Woelwijkstraat a complex operation.

The neighbourhood consisted of narrow streets and narrow building blocks. The difference between these two causes in line with the other neighbourhoods for some friction. Because the width of the east-west oriented streets and the depth of the blocks differ, the streets do not connect well with each other and run nearly all east-west oriented streets dead on a block. About half of the buildings are nineteenth century, which are mainly built in neo-renaissance style, the other half was demolished in the period of urban renewal and replaced by new buildings. The nineteenth-century buildings concentrated around the Ooievaarstraat and Jennisiusstraat. In the area around the Snellemansstraat has intervened dramatically during urban renewal in both urban and history of architecture. The restructuring, however, mean the loss of spatial coherence of the neighbourhood. The new open space and the new building has that coherence cannot bring back. Although the new building have a fairly good quality and unique style, but no relation the environment.
The polder structure existed in this area of relatively large, elongated and regularly shaped lots with east-west longitudinal direction. The cadastral map from 1830 shows that the area was completely undeveloped. The urban plan of G. J. de Jongh from 1883 projected at the height of the current Brancoplein around a square with radial streets. The square is the centre of Oude Noorden between Noordsingel and Bloklandstraat. This town plan was discarded because implementation was made. Impossible due to the fragmented land ownership.

At the time of construction of Oude Noorden Pijnackerplein was the only square in this neighbourhood.

In the area around the Pijnackerplein the buildings exist almost entirely from the original nineteenth-century buildings. The façades is virtually untouched. Most nineteenth-century buildings consist of two layers with one dwelling per layer. Exceptions are the street corners that connect the Zwart Janstraat and Zaagmolenstraat; these properties count three layers. Only on the corner of the Pijnackerplein and Benthuizerstraat state buildings dating from the period of urban renewal. The nineteenth-century buildings are mostly built in the Neo-Renaissance style and the streets are mostly small series of buildings with an identical design.
The polder structure of the terrain between Bergweg and Benthuizerstraat was part of the square to the Hofdijk-Zwaanshals and Blommers Dijk parceled polder. The cadastral map from 1830 shows that the area was completely undeveloped. The Bergweg (formerly Blommersdijk) was the connection way to Hillegersberg. Since the Middle Ages this road had a rural character with some farms and estates. The buildings in this area consist of both original buildings dating from the nineteenth century and from urban renewal projects, where the original buildings were renovated. The original building was built in the Neo-Renaissance style, sometimes with the influence of Jugendstil and rationalism. The urban renewal consists mainly of single unique designs. In Gerard Scholtenstraat and north of the Zaagmolenstraat the façades are still the original, only in the Schommelstraat and Vinkenstraat the renovations are visible in the facade. The urban architecture consists of fairly good quality houses with an unique structure, although no relation to the immediate environment.
The polder structure of this part of the former polder Blokland consisted mainly of large, elongated and regularly shaped lots with an east-west longitudinal direction. The façades in Blokland are dominated by original buildings dating from the 19th century and urban renewal projects. During the urban renewal parts of the original buildings were renovated. For example, the roofs where replaced in different variants and occasionally balcony railings and entrances have been changed too. The original buildings were built in the Neo-Renaissance style, occasionally with gentle influence of Jugendstil and rationalism. The recent construction on the Zaagmolenstraat and Meidoornstraat builds on the neomodernism: scale and functionalist.
The polder structure of this part of the former polder Blokland consisted mainly of large, elongated and regularly shaped lots with east-west longitudinal direction. Kop van het Oude Noorden belonged until 1903 to the municipality Hillegersberg. The Verbraakstraat is no longer recognizable as a street. The street is part of the pedestrian area around the St. Hildegardis Church and Johan Idaplein. The area was demolished in favour of the construction of the Hildegardis School during the urban renewal.

The façades compared with other areas in Oude Noorden are very diverse. The original building dates back quite a long period (1900 - 1964) which is located in the southern part of this area. The original buildings of Soete Daalseweg dates mainly from the inter-war and reconstruction period; urban renewal came here hardly. During the urban renewal is a big part of the original buildings renovated, mainly the southern part.

The original building suffered from various stylistic influences: neo-Renaissance, Jugendstil, rationalism and expressionism. A particular example of the Delft School is the Evangelical Lutheran Church. Historically, this area still has the original street plan. Although the façades has been modifies, they are still recognizable broadly. Moreover, south of the Soete Daalseweg was pretty much replaced by new buildings. Often those buildings that are historically in architecture and reasonably good quality, but its unique design has no relationship with the immediate environment.
BUILT ENVIRONMENT
Are there areas with the same building period and is there a link between the condition of the buildings. The most northern part and the east part of the area is more or less built between 1900 and 1930, so before the second world war.
The southern part of the area near the Noordsingel is built mostly around 1860 and 1900, but with some renovated housed from 80ies and 90ies.
The area around the Hofplein is built around 1975 and 1985.
There are only a few buildings that are made after 2005, so in summary can be said that the majority of the buildings are build in the 19th century.
This map illustrates how many buildings were built before the Second World War. Because this neighbourhood is a pre-war neighbourhood, 66% of the total built environment is built before 1945.
The map shows in which area you find different building typologies. We can conclude that in the southern and eastern part there are a lot of apartments. The majority of row houses are located in Bergweg, Zwart Jansstraat and Zwaanshals and are most of the time with different programme on the ground level like shops. There are not a lot or "portiekwoningen" in this area, but some of them you can find in the middle of the area. Mainly the western part is built as "Beneden-bovenwoningen", also this typology is the most common one in the whole area.
The map shows the heights of the buildings. The majority of houses have a height from two to three floors. In the western part you find more lower heights and the height increases to the east.
Private space: 88%
Shared private space: 3.8%
Shared public space: 4.7%
Open space: 11.5%
You can see that Oude Noorden is a really dense neighbourhood which is linked to the history of this area. There are not a lot of wide streets because they built dense building blocks inside the small polder. The analysis reveals that the most northern area has more open space than the rest of the areas, which is because the canal, train track and highway A13 is located in this part. Thus, we can conclude that this neighbourhood has in general a very high percentage of building surface.

<table>
<thead>
<tr>
<th>Area</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area 1</td>
<td>16%</td>
</tr>
<tr>
<td>Area 2</td>
<td>36%</td>
</tr>
<tr>
<td>Area 3</td>
<td>37%</td>
</tr>
<tr>
<td>Area 4</td>
<td>36%</td>
</tr>
</tbody>
</table>
For most of the monuments it's the architecture that is special and needs to be preserved. In Oude Noorden you can find three monuments.

"Rijks" monuments

1. R.K. Hildegardiskerk (1892)
   Hildegardiststraat 50

2. Rechtbank and jail (1899)
   Noordsingel 113-117

3. Koopmanshuizen (ca. 1700)
   Rechter Rottekade 405-417
Ground floor:
- Open - windows in the facade
- Closed - curtains / tinted glass / no windows at eye level

There are no courtyards for the housing blocks, and therefore people have the tendency to close their curtains or tint the glass. By doing this they gain privacy in their homes, but there are no eyes on the street. Mainly you can find closed walls in Oude Noorden, although on the shopping streets the façades on the ground floor are more opened in contrast to the rest of the neighbourhood.
The amount of inhabitants of Oude Noorden is significant changing in a negative way, it’s shrinking. In comparison the population of Rotterdam is increasing.

The average age of the inhabitants is between 23-54 years. Although you can find a lot of kinds in this area, you cannot find a lot of old people.
You can clearly see in those diagrams that in Oude Noorden the majority are immigrants. Only 33.4% of the area is native. The majority of the immigrants are Moroccan and Turkish people.

In Oude Noorden there are mainly one-person households. Followed by families with children, mostly 1-parent families.

source: https://rotterdam.buurtmonitor.nl
Percentage of unemployed inhabitants

Oude Noorden

Percentage of inhabitants with special support

Rotterdam - 36,224 inhabitants
Oude Noorden - 1,534 inhabitants

Percentage division average income of inhabitants

highest 20%
middle 40%
lowest 40%

source: https://rotterdam.buurtmonitor.nl
More people are leaving Rotterdam instead of settling there. But the number dropped dramatically. In 2013 it was more than 2300 people leaving, now it is only 282. For Oude Noorden the amount of people leaving is really high. The number is the half of the people leaving Rotterdam! The normal average of a neighbourhood lies with around 30.

source: https://rotterdam.buurtmonitor.nl
If we look at the crime in Rotterdam, there is a shrinkage noticeable. For the area of Oude Noorden this is different, we see a rise of crime. In all the neighbourhoods the crimes due to alcohol or theft/robbery/break-ins stand out.
PARTICIPATION IN CULTURE

Background statistics
The cultural activities that mark the cultural identity of Oude Noorden are researched by Centrum voor Onderzoek en Statistiek (COS) in January 2011 in order of Dienst Kunst en Cultuur. The research is divided into two main topics:

1. Culture participation
2. Participation in other types of leisure activities

The fact that the research uses respondents from different neighbourhoods makes it possible to reflect the results from Oude Noorden in the context of Rotterdam.

Culture participation (table 2.)
The visit of (theatre) shows, movies, cultural heritage, festivals, local culture centres but also the individual practice of art-related practices is researched as the most important part of participation in culture. The neighbourhood shows an average percentage of festival visitors and the percentage of visits to movies, theatre are lower than in Rotterdam as a whole.

Participation in other types of leisure activities (table 3.)
While in the first analysis of culture participation the focus of the activities was more on public or facilitated issues, this analysis of participation in culture focuses more on the private leisure activities that are regulated by individual purpose.

In Oude Noorden is the percentage of unpaid workers relatively low. The inhabitants are also less active in sporting activities, but they visit the neighbourhood facilities in the public realm as much as in Rotterdam. They spent less money on horeca than in the other areas of the city.
Table 3. Private leisure activities as culture participation in 4 linked neighbourhoods and Rotterdam itself in %s. (Epskamp et al, 2011)

<table>
<thead>
<tr>
<th>Neighborhood</th>
<th>Sporting (at least on a monthly base)</th>
<th>Visit on neighborhood facilities in public realm</th>
<th>Unpaid work</th>
<th>Percentage spending on horeca</th>
<th>Money spent on horeca</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hillegersberg-Zuid (1.)</td>
<td>70</td>
<td>70</td>
<td>57</td>
<td>97</td>
<td>133 euro</td>
</tr>
<tr>
<td>Agnisebuurt-Provenierswijk (2.)</td>
<td>49</td>
<td>60</td>
<td>35</td>
<td>91</td>
<td>97 euro</td>
</tr>
<tr>
<td>Oude Noorden (3.)</td>
<td>45</td>
<td>62</td>
<td>32</td>
<td>81</td>
<td>76 euro</td>
</tr>
<tr>
<td>Oud - Crooswijk (4.)</td>
<td>47</td>
<td>68</td>
<td>45</td>
<td>82</td>
<td>65 euro</td>
</tr>
<tr>
<td>Subtotal of the five neighborhoods</td>
<td>52</td>
<td>64</td>
<td>40</td>
<td>87</td>
<td>91 euro</td>
</tr>
<tr>
<td>Rotterdam</td>
<td>52</td>
<td>64</td>
<td>44</td>
<td>86</td>
<td>87 euro</td>
</tr>
</tbody>
</table>
Oude Noorden is a pre-war neighbourhood located within the northern suburbs of Rotterdam. This neighbourhood has a collection of many public spaces, boulevards, streets and historic buildings pre dating the Second World War. The old neighbourhood has diverse ethnic population making it a multicultural area where many people of different values from across the world come and live (Stouten, 2010). The vibrance from its diverse ethnic population and extensive collection of public spaces has attracted many professionals with a creative background create small businesses and industries in the area.

**Social Index Oude Noorden** (Sociale Index in Dutch)
This social index identifies the relative degree of socio-economic stress on the average Dutch household; ‘access to education and employment’, ‘capacities’, ‘engagement with the community’ and ‘housing opportunities.’

In regards to Oude Noorden, the index suggest the following issues are:

1. Capacities
   - Sufficient income has the lowest score (3.3) - Many households have a low income, which makes it difficult to afford basic amenities and many rely on social assistance from the level of governments.
   - Dutch language skills (3.7) - A high percentage of immigrants struggle with the reading, writing and/or speaking in the Dutch language.
   - Level of personal health (4.2)

2. Access to education and employment
   - A significant number of adults are unemployed and are without basic professional qualifications in Oude Noorden.

3. Engagement with the community
   - A large proportion of residents have a negative opinion about their neighbourhood.
   - The number of daily interaction between a resident’s neighbours (familiarity) is low.
   - Low number of residents feels ‘responsible’ for their neighbourhood.

4. Housing and Social Opportunities
   - The number of residents who are not satisfied with their current residence is high.
   - However, the residents view on social and cultural activities and social commitment are positive. This is demonstrated by the a significant proportion of the population going once a month to a social event such as community events.
Safety remains a major issue in the northern suburbs of Rotterdam. Crime especially among the younger members of the community is a complex issue. In many recorded cases, the residents of Oude Noorden has experienced conflicts with teenagers and young adults and is a persistent problem identified by the police, neighbourhood and municipality. (Trouw, 1998)

According to Rotterdam safety index known as veiligheidsindex in Dutch, the measurement of safety varies between the suburbs of northern Rotterdam (BSD, Rotterdam). Residents in Blijdorp are perceived to be the safest with 9.2 compared to 5.5 of Oude Noorden, the lowest score which is considered as an endangered area towards crime and safety levels. (COS, 2012) This low score is in relation to the significant drug and general nuisance recorded problems and has made Oude Noorden become earmarked as unsafe. However, it is important to note that burglary, vandalism and theft are statistically low within this area.

Crime and nuisance behaviour towards the community is related to the way the youth groups conduct themselves on the streets (Martinea, 2006). It has been suggested that the physical environment of a deprived neighbourhoods help contribute a tense atmosphere that contributes to the statistical crime and poverty level.

Municipality of Rotterdam to tackle these includes by implementing safety policies and urban design strategic guidelines as integral part of the statutory planning process (Stadsvisie Rotterdam, 2012). These policies focus on public safety and attractiveness for the area as apart of the municipality’s strategies.

Potential policy and guideline suggestions could include the removal of dead-end streets, dark, low, narrow spaces and deserted places. Close access to main arterial roads should be considered to create fast and easy access for essential services i.e. police, ambulance and fire brigade to access homes and public spaces. By addressing the current layout problems of the public, semi-public and private space in the Oude Noorden, this will contribute to the environmental quality and social safety of the wider community.
To measure the quality of the environment, the leefbaarometer is used to categories and give information about the quality of life, trends and background in within Dutch neighbourhoods (BZK, Rotterdam). The Leefbaarometer is updated biannually. The results of 2014 will be released next year in mid-2015. In order to be able to document the neighbourhood’s habitability with a positive or negative score on the Leefbaarometer, there are 49 different indicators to measure the grade of liveability of an area. These indicators are categorized into six main categories: housing, public space, facilities, demographics, social cohesion and safety. For some years, the cooperating community groups have tried to make their neighbourhood more liveable for growing children. They deeply believe that their children should get the opportunity to reach their potential within a safe and vibrant neighbourhood. (hetoudenoorden.nl)

Many children in the neighbourhood are growing up low socio-economic families. These families are often from ethnic minorities who have a poor handle on the Dutch language and a negative generalize perception of Dutch society (COS, Rotterdam). Nevertheless, the Oude Noorden has the potential to become a vibrant and successful area of Rotterdam. It is a neighbourhood that has an ideal environment for hospitality business and diverse range of people to patron and service it. In order to harness, these strengths, the community and municipality will need to invest more into safety and improve the overall quality of life. This can be achieved through strong policies which promote a strong uptake of using the public space, attending cultural activities, strong education attend rates and a flexible urban economy.

By improving the safety of public and private spaces, it is hoped that the neighbourhood will become more attractive and safe place. An analysis of the existing urban typologies, relationship between public space and private space, residents’ interaction and behaviours within the neighbourhood should be the basis for a comprehensive design solution to improve safety of Oude Noorden.
Leefbarometer Oude Noorden

Source: (leefbarometer.nl; BZK Rotterdam 2012)
WIJKPROFIEL

ANALYSIS

WIJKPROFIEL ROTTERDAM
source: (wijkprofiel.rotterdam.nl, 2014)

OUDE NOORDEN

source: (wijkprofiel.rotterdam.nl, 2014)
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotterdam</td>
<td>68%</td>
<td>73%</td>
<td>90%</td>
</tr>
<tr>
<td>Oude Noorden</td>
<td>54%</td>
<td>64%</td>
<td>97%</td>
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</table>

<table>
<thead>
<tr>
<th>Area</th>
<th>Balance Residents Employed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotterdam</td>
<td>13%</td>
</tr>
<tr>
<td>Oude Noorden</td>
<td>36%</td>
</tr>
</tbody>
</table>

**ANALYSIS**

**Wijkprofiel Rotterdam**

Source: (wijkprofiel.rotterdam.nl, 2014)
In Oude Noorden Havensteder, a housing cooperation in the Netherlands, is controlling the housing policy with more than 60% of the area. They have a huge impact on the street design and ground floor structure because they have a powerful voice in organisation and changing the current situations in a long term. (shown in the left map) Moreover, you can find in Oude Noorden several signs that illustrate the behaviour of the residents in diverse areas. The inhabitants created special rules how they would like to behave with others in their street. (shown in the right map)
On this map you can see that there are mainly two big shopping streets in this area. In the Zagmolenstraat you find some pubs and restaurants. In Oude Noorden you also have a lot of "basisscholen" and some community meeting societies.
ART EXPRESSION
This ground signage can be found in the whole neighbourhood on the streets.

Oude Noorden has a lot of art expression on streets, façades or sculptures. The area tries to express with art their culture and lifestyle. This can be because this is an area where a lot of artists and creative businesses come together, but also because the residents try to make their neighbourhood more recognisable and friendly.
Oude Noorden is a quite dense and urbanized area and you find a lot of one person or two person households in the area.
In Oude Noorden has a lot of single households and a lot of one-parent households. The households with children are mainly in the north-western part which is linked to the non-western immigrants.

single households
source: CBS

household with children
source: CBS

one parent household
source: CBS
In Oude Noorden there are a lot of non-western immigrants, which are mainly located in the north-western part of the neighbourhood. The ratio between male and female is fairly equal and the monthly income really low with less than 2,000 € in the whole area.
In Oude Noorden there are a lot of children in the north-western part of the neighbourhood, which is linked to the non-western immigrants. The amount of elderlies over 75 years in the neighbourhood is quite low. People over 65, are a little bit more, although compared to other neighbourhoods it is not a lot.
INFRASTRUCTURE & BLUE-GREEN NETWORK
TRAFFIC INTENSITY CITY SCALE

----- planning area
In Oude Noorden there are not a lot of bicycle paths. The only ones you can find along the Noordsingel and Bergweg, connecting the area to the city centre and Hillersberg, and Gondelweg, connecting the surround east and western neighbourhoods.
In Oude Noorden you have a lot of sidewalks that are between 1.5 and 2.5 metres. Some sidewalks are wider, which can be found around the shopping areas and the river Rotte. Although there are a lot of wider sidewalks, some streets do not have a lot space to walk on, which are located in the western middle part of the area.
The area does not have a lot of crossings which are regulated by traffic lights, only along the Bergweg and Gondeweg. Along the river Rotte you find a lot of bridges connected Oud and Nieuw Crooswijk with Oude Noorden. The only pedestrian zones are the parks and squares in the middle of Oude Noorden. Although we can also only find crossings for pedestrian along the shopping street Zwart Jansstraat, Bergweg and Benhuizerstraat.
Here you can see that the distance to bigger parks are quite short. The closest is the Crooswijk park, at the border to the neighbourhood next to Oude Noroden. Although Hillersberg park, Vroesenpark and Kralingse Bos are also only 15 to 20 minutes away.
You can find the "green areas" in the North and South of the Area, although the percentage of green is in general not really high. The same applies to water, only 5.6% is available in Oude Noorden.

<table>
<thead>
<tr>
<th>Area</th>
<th>Percentage of green</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area 1</td>
<td>12 %</td>
</tr>
<tr>
<td>Area 2</td>
<td>4 %</td>
</tr>
<tr>
<td>Area 3</td>
<td>5 %</td>
</tr>
<tr>
<td>Area 4</td>
<td>18%</td>
</tr>
</tbody>
</table>

Percentage of water 5.6%
BUFFER ZONES

front gardens

tree lines

green areas

- tree lines
- front gardens
- green areas
On a city and national scale Oude Noorden has several advantages as Rotterdam’s Central Station can be reached with in a walking distance. From this station it is possible to travel to nearly any place in the Netherlands and other countries like Belgium, France or Germany in three hours at the most.
Rotterdam has a multi modal public transport system that covers most of the city and extents even to some of the neighbour cities like Schiedam. This system is based on three types of transport systems that complement the railway system. Reason why we they all intersect at Rotterdam Central Station, making it the most important hub/landmark for public transportation in the city.
PUBLIC SPACE
SIZE OF PUBLIC SPACE

ANALYSIS
ANALYSIS

Nr. 5: c1.staticflickr.com
Nr. 6:
Nr. 12: www.oozo.nl
rest: google.maps.nl
## TYPOLOGY OF SPACES

<table>
<thead>
<tr>
<th>Scale</th>
<th>City</th>
<th>Intermediate</th>
<th>Residence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport Facilities</td>
<td>Harbors, Airport and Train Station Parking</td>
<td>Transit Stations, City Gate Areas</td>
<td>Driveways, Parking Areas</td>
</tr>
<tr>
<td>Streets</td>
<td>Central Boulevards</td>
<td>Street Space</td>
<td>Pedestrian Alleys, Paths</td>
</tr>
<tr>
<td>Plazas</td>
<td>Large Formal Plazas</td>
<td>Smaller Neighborhood Plazas</td>
<td>Interior Courtyards</td>
</tr>
<tr>
<td>Recreational Space</td>
<td>Stadiums, Greenbelts, Beaches</td>
<td>Sports Facilities, Playgrounds</td>
<td>Houseyard Playspace</td>
</tr>
<tr>
<td>Incidental Space</td>
<td>Natural Features and Semi-Wild Areas</td>
<td>Empty Lots, Transit Borders</td>
<td>Marginalized Space Between Buildings</td>
</tr>
<tr>
<td>Parks and Gardens</td>
<td>Major Formal Park and Garden Space</td>
<td>Institutional Gardens, Small Parks, Cemeteries</td>
<td>Household Gardens</td>
</tr>
<tr>
<td>Food Production</td>
<td>Orchards, Agricultural Fields</td>
<td>Grazing Commons, Community Gardens</td>
<td>Kitchen Gardens, Small Horticulture</td>
</tr>
</tbody>
</table>

Source: Stanley, B et. al., Urban open spaces in historical perspective: a transdisciplinary typology and analysis, Urban Geography, 2012, 33, 8, pp. 1089–1117, Bellwether Publishing
The principle from Stanley of urban open spaces applied in my chosen area Oude Noorden in Rotterdam. Mainly we find sport facilities and playgrounds and courtyards.
The performed interviews in Oude Noorden resulted in the following results. 75% of the residents in Oude Noorden use the shopping street in the area. A really small amount of other districts of Rotterdam are using them. Furthermore, the majority is using the Zwaanshals for shopping, followed by Zwart Jansstraat. The Noordplein is mainly used in the surrounded cafés and restaurants, the space it self is more used for just passing by. Only few people are using the playgrounds in the area. Moreover, 40% complained about young people hanging around on the street and 60% do not feel safe in the area. Almost the half believes that the bicycle paths are not safe and there are not enough path for bikes existing in the area. Another complain about the street profile was the parking situation in the area. They think it is not convenient because it is either too busy, expensive or not suitable for the street life.
What they like about Oude Noorden

- Shops: 19.2%
- Close to centre: 38.5%
- Playgrounds: 7.8%
- Everything: 11.5%
- Nothing: 7.8%
- Others: 15.4%

Complains about dirt

- Too much dirt on the streets: 65.5%
- No complaints: 34.5%

Complains about playground

- Too many nationalities: 47.6%
- Not enough + close early: 38.1%
- Like the playgrounds: 14.3%
- No opinion: 0%

Social interaction

- Not satisfied: 20.8%
- Satisfied: 79.2%

Activities for children

- More activities: 40%
- No complaints: 60%

What they really enjoy in Oude Noorden are the shops and that it close to the city centre. Some mentioned the playground around the school for their children. Although almost 40% complained that they close too early or are not enough and there should be more activities for children. Another complain was about too much the dirt on the street and too many nationalities within the area. The main problems they mentioned about this issue that people do not care about the neighbourhood and do not show interest in interacting with other nationalities. People really are worried how other people treat each other in Oude Noorden.
OBSERVATIONS

28.11.2014
Friday, sunny, cold noon

sitting
standing
walking with dog
shopping
parents with kids
playing

Kids
Young
Middle-age
Elderlies
OBSERVATIONS

garbage, people hanging around
In Oude Noorden you can find mainly big outdoor seating places or smaller ones. Bigger ones, that offer more than 20 seats, are concentrating around playgrounds like Pijnackerplein, Brancoplein, the Noordplein or around some restaurants. Smaller seating spaces, with less than 5, are a lot of times at corners or smaller squares. In many cases the seating opportunities are not arranged well, it seems like they were randomly located.
DESIGN AREA 2 - RESIDENTIAL AREA

The current situation in the neighbourhood is that there is a hard border between public and private space and no buffer zone in between. This has the result that people try to protect their privacy with closing the curtains and reduce the transition between inside and outside.

In the design case for the residential area, spatial interventions should improve the situation by creating a buffer zone between private and public facilities.


251-267.
Abstract — When designed and planned, public spaces can function exceptionally well and provide significant benefit to the community in areas such as public health, retail activity and community participation. However, the vast majority of public space created today does not perform as well and fail to provide a measurable benefit towards their community and contribute to poor living conditions of their neighbourhood. In a diverse ethic population, there is often an underlining conflict in defining the spatial boundaries of public and private space. This occurs in the field of social difference and diversity in culture, identity, behaviour and activity. The cultural background shapes the public space and especially how the people use it. This paper looks at the question of how urban planners can enhance the quality of public space and which demands on the public domain need to be fulfilled to contribute to the residents' satisfaction?

Normally architects create urban areas by situating an imposing structure and public and private spaces take place in between; a couple purposely designed, others only as leftover spaces. It is has become increasingly important to concentrate on how an urban designer can contribute to a more liveable and active neighbourhoods for its residents and visitors by precise planning of the private and public space. According to Gehl and Whyte people's behaviour is highly related to the built environment, which shape our movements and behaviour.

In this paper I will explore what are the essential elements of a well-functioned public space and if existing literature can still be applied to today's needs or if there is a need for change.

Key words — public and private space, use of space, future public space, human scale, social activities in public space
1 Introduction
We, as urban designers, focus increasing on quality public space for the community. Every community has their own individual needs, aspirations and strategic vision to support a healthy, vibrant and cohesive collective. “While group living is normal for human beings, it is also a source of stress. Friction between individual results from sharing the same rooms, the same buildings, the same streets, and the same towns which people who have different values, interests, and habits.” (Deasy and Lasswell, 1985, p. 40) Age, gender, personality and other social traits influence our perception on private spaces and feeling safe in public spaces. The physical environment also plays a role alongside social traits in influencing on our perception within the public space. The physical and social environments are linked together, as claimed by Gifford, “personal space is also influenced by the physical setting context of the interaction.” (Gifford, 2002, p. 130) Public spaces are part of everyone’s daily life and our urban environment, where people enjoy activities, leisure, socialise or be used as apart of a commute. (Carmona, 2003; Carr, 1992; Madanipour, 2003) This is a platform for movements and activities in the public domain. Walking is the starting point, human beings were made to walk and while walking we recognize a lot more details from our surrounding than with other forms of transport. “Life in all its diversity unfolds before us when we are on foot.” (Gehl, 2010, p. 19)

A city is defined by its public space. The different social and aesthetic qualities of the space shape the character and identity of the space more than the topographical properties or character of the buildings. Public spaces preserve the historic urban form and are constant elements of the urban structure. This concept could also be considered as some form of “physical memory” of the city moreover part of the collective memory for its residents. Public spaces are not only places for certain municipal functions of transport, trade, representation or recreation, but also carry different meanings, memories and stories, which condense to the image of a city. (Lynch, 1960)

Many academics have explored the theory of the public space and how to make a public space function. There are different and many factors that influence the function of the public space. The factors range from the usage of the space, the identity and subjective perception of safe, liveability and physical qualities of the space.

This paper will explain the characteristics that form the public space moreover critically explore the future of the public space with whether the theory is still suitable for existing professional practise, or do professionals need to rethink and create new criteria developing existing and future urban spaces?

2 Safety in public spaces
About 50 years ago, the American-Canadian community activist and journalist called Jane Jacobs brought out her well-known book “The Death and Life of Great American Cities” in 1961. It has since become one of the most influential books in the field urban planning as it drew attention to the need of designing and planning cities for people. Jacobs claimed that the dramatic growth of motor traffic in combination with modern urban planning theories disconnects the city and the urban spaces. All those separated detached buildings bring no life into the city and cities will become inactive and passive.
She argued that urban planners and designers have pushed societies to become automobile dependent by encouraging for wider roads and increased parking spaces. As a consequence, the environment for cyclists and pedestrians has deteriorated drastically. Nowadays, a lot of streets with a small width are over-filled with parking areas and traffic signs leading to the detriment of the public sphere. (Jacobs, 1961)

In her book, Jacobs outlined the qualities and strength of a lively city, which is intensified when more people choose to bike, walk and remain in public spaces. The author reasoned that if more people are moving around by foot and there is a higher chance that they will remain within the public areas. This contributes to the perception of safety as people have the feeling that others are around and are passively watching the space. Jacob further discusses this idea by suggesting, “sidewalks serve many purposes besides carrying pedestrians”. (Jacobs, 1961 p. 29) Lively sidewalks and streets assure safety, strengthen social contract between people by bringing people together and integrate children into community.

A neighbourhood that fails to guarantee safety can cause anxiety in the community, which will reduce the number of people using the sidewalks, which will eventually lead towards desertion of public space. Jane Jacobs believed that there should be a clear separation between public and private space, which should not blend into each other like they normally do in suburbs. Another quality contributing to safe areas is that “there must be eyes upon the street, eyes belonging to those we might call the natural proprietors of the street” (Jacobs, 1961, p.35). The last important factor is that sidewalk according to Jacobs is that users must use it on a continuous basis. “People attracts still other people ... and they love watching activity and other people.” (Jacobs, 1961, p. 8)

A safe and active street has always its users and residents. Old buildings are important to offer cheap space for new businesses and low-cost housing. They also have the function as a landmark or anchor point for the area. They also provide a mixture of old and new buildings and allow small businesses to exist longer. They can cooperate with larger ones in the area and allow to accommodate residents with all kind of income level.

To insure for a clear and efficient structure, there is a need for designing into urban form, short walking distances, attractive public space and a variety of functions. When all those elements work together, they will increase activities on the street and help enhance feeling of safety in the public realm.

3 Influence of human senses and culture on public space

Edwart t. Hall has made observations about human senses, their characteristics and value. These observations were published in “The hidden dimension” in 1966. His communication
studies describe how peoples' perception of the surrounding and behaviour are linked to cultural patterns.

Conversations take place under a huge spectrum of behaviour patterns, which are unverified and often taken for granted, and this happens without noticing it. Culture might be defined as a summary of what people learns as behaviour patterns, gestures and material things. The cultural background can affect the behaviour in deep and insisting ways, which most of them cannot be perceived and thus people cannot control those behaviours consciously. Culture is really complex and has its roots in the past, with influence behaviour and activities (Hall, 1966)

Hall claims that culture performs in three different ways: formal, informal and technical. One form is always dominant, but all of them can attend. He claims that culture is a conjunction between people and the tool they use for interacting with other people. He described two different distances, the close senses such as tasting and feeling and distance senses like hearing, seeing and smelling. Interhuman conversations have to deal with completely different ranges. Especially the visual sense is connected to the spatial conditions because it is influencing people’s process of orienting in cities and places and how they travel and move in space. (Hall, 1966)

We can conclude from his text that barley something happens until the person is standing 25 metres away from you, where we can identify a person and perceive facial features. After that little by little it is getting more intense until 7 metres are reached. Afterwards all our senses are made active and more feelings are exchanged. This relation between our senses and conversations and interaction between people can be connection to urban planning. The vision or ideology that there are more interactions between people in public spaces is illustrated in old city spaces and squares. “It can also be a beginning more extensive contacts all start with seeing and hearing. (Gehl, 2010, p. 236)

4 Use of Space

William Whyte undertook behavioural studies on many plazas in New York. He observed the usage of public space within the city and Jan Gehl has also completed many behavioural studies on pedestrian activities in Denmark and other cities in the world. Both have attempted to create criteria on how people use the space and question why some spaces are more used than others.

Whyte developed some principles on why some public spaces are more appealing to people than others. The results of his observations are represented in his book “The Social Life of Small Urban Spaces”. He discovered that the small elements in public space control the overall use of it. An example of a small element is a bench, which invites people to have a seat and attracts people. If people start sitting on a bench, more people will do the same. Important is also what people attracts the most, are other people. Jan Gehl’s and Jane Jacobs’ studies also advocates for this theory. (Gehl, 2011; Jacobs, 1961; Whyte, 1980)

In “Life between Buildings” three different activities in public space and related then the behaviour and outdoor activities to physical conditions. These three activities are: necessary,
optional and social activities. (Gehl, 2011)

Gehl classified the necessary activities what people have to take on in their daily life such as “going to work, shopping or school, waiting for the bus, bringing goods to customers. These activities take place under all conditions”. (Gehl, 2011, p. 20) These activities are obligatory and necessary, are more functional and have a minimal influence of the physical environment.

Another sort of activity is optional activities, which takes place under good conditions. These are the most attractive and favoured actions in cities, which has a huge impact on the physical environment. Thus, a good quality is a requirement. If the conditions are impossible for those activities, nothing will happen. If they are bearable, the amount of activities will grow and if the outdoor conditions are excellent, the quantity of those optional activities will increase significantly. (Gehl, 2011)

<table>
<thead>
<tr>
<th>Quality of the physical environment</th>
<th>Poor</th>
<th>Good</th>
</tr>
</thead>
<tbody>
<tr>
<td>Necessary activities</td>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
</tr>
<tr>
<td>Optional activities</td>
<td><img src="image3.png" alt="Image" /></td>
<td><img src="image4.png" alt="Image" /></td>
</tr>
<tr>
<td>‘Resultant’ activities (Social activities)</td>
<td><img src="image5.png" alt="Image" /></td>
<td><img src="image6.png" alt="Image" /></td>
</tr>
</tbody>
</table>

Source: (Gehl, 2011, p. 11)

The weather and temperature, especially the sun, is one of the most influences for outdoor activities. If it is too cold or if it is raining too much, the quantity of activities will decrease and a longer outdoor stay is made more difficult and sometimes almost impossible. But it does not explain why some places are more popular than others. (Whyte, 1980; Gehl, 2011)

An additional factor is the quality of the space itself. The design of the space can have an impact on the range of outdoor activities and on people’s decisions to spend more time outside than just crossing a public space. This includes furniture, the impression of feeling safe and protected in the area and visual quality. The quantity of seating space is essential. For example, the most favourable places have more sitting opportunities than not so well used spaces. “People tend to sit most where there are places to sit.” (Whyte, 1980, p. 28) However, it is not only about the amount of seating places, it should be comfortable too, physically and socially. The increased choices an individual have, the better. Hence, people can choose to sit to the side, in the back, in the shadow, in the direct sun, sitting in groups and alone.

Public spaces also have a capacity to be a starting point for social events. Events within a neighbourhood can strengthen the environment and draw different cultural groups together. Sennett differentiates between public and private in the size of knowledge that people have about other people. (Sennett, 2008) In the book „The Fall of Public Man“ he also argues that the electronic communication influences the public life. It increases the information about people, but reduces the contact between people.
5 Identity and Ownership of Public Space

When we talk about the identity of space, one of the first authors that come to your mind is Kevin Lynch with his book “Image of the city”. His book focuses on the visual quality, clarity and readability of urban spaces. He claims that the visual importance of the city is the ability of identifying individual elements and bringing them together. Also Carr claims that a space should have its own unique identity. (Carr, 1992)

The ownership of public space plays also an important role and is influencing the quality of the space. In the last years public spaces have changed with the recent local and national policies. There is a tendency going on that more and more urban spaces are done within in private partnerships. Public spaces, which can be a street, a square or a park, are identified by how people see and behave in the space. It is also a space that helps people decide where they live and businesses want to invest.

Public space is a medium between private spaces and should be managed by a public authority. (Madanipour, 2003) Although Gehl claims we shape the city and therefore it is important that also the residents feel connected with the city and play an active part in obtaining and caring about public space. (Gehl, 2010) Although many public spaces are under control from a public authority, it does not mean that the residents cannot make a contribution. By putting a bench outside, or floral arrangements in front of their houses, show other people that they care about their neighbourhood and try to make it more inviting and cosy. Thus we can say that the condition of public space has major impact on people’s life because it influences people’s feeling in safety and property. Especially when we talk about private zones and boundaries of privacy and residents’ territory, the ownership contributes a lot to that topic. Where there are more houses with more identification and decoration like a nameplate on the entrance door, individualised letterboxes, floral decorations etcetera there are less cases of crime than in houses without these decorations.

Thus, if ownership is done in the right way, it does not purely protect and extend privacy, it also supplies other positive experiences on the street. We can say that the identity and ownership are strongly connected with each other. If residents own one space, they are responsible for the condition of the public space, which is linked to the identity of the space. Even when the public space is in public hands, the residents can influence the condition, as I explained earlier.

6 The Future of Public Space

What will be the future of public spaces? Since the new century it is an important question to ask as we enter a new territory. Few years ago nobody would have thought about this question. There was no occasion to be worried about the future public spaces. Public spaces have gone through various transformations over the last years and this process will continue. How can we maintain public quality in a long term?

We will need in the future public space, more than ever. This can only be provided when the polarity between private and public space claims, the shift back towards more public and community spaces. The new communications media platforms have an influence on the public space itself. There is
substantial evidence that the increasing work and communication relationships in the virtual world of the Internet triggers greater hunger for real experiences and real social interaction. Ultimately, only the city and its public spaces can contribute to this. Urban designers and architects need to come up with a differentiated perspective about the public realm – a perspective that regards changes in modern life and offers a range of new flexible opportunities.

Public spaces are important for creating public life. There are many types of public spaces, which attract various users and provide different functions. A balance between deserted and crowded places is unavoidable. (Neuts, 2011)

In his book “The Fall of Public Man” Richard Sennett was very critical and strict about public and private space and their relation between society and space. However, in 2008 he revisited his own theory about public space. This article is called “The Public Realm” and there he takes his old origins of concepts and modified his views. He argues that in the 21st century the development of urbanism needs a different approach. He came to the conclusion that public realm is a meeting place of strangers moreover that urban planners should focus on the edge zones of a place. He pointed out that there is a difference between boundaries and borders. These boundaries are for example edges that separate one place from the other and borders is an interactive edge between two zones. The edge zone became so important because it is a place of movement. People move from one side to the other and it’s also the space where one terrain contacts the other. Here can any experience happen, but that does not imply that a public space cannot work like this, it just means that their performance is limited.

He also claims that today architects urban planners don’t use all the potential of materials because they don’t use them creatively. (Sennett, 2008)

In his first book, he envisioned the hard border separation of the public and private. He has now adapted his approach and claims that the division between public and private lies just in the size of knowledge that has one individual about another. He compared the private space to a “family” and public to “anonymity”. In the public no one knows the other, but in a family they all know each other quite well. But the most essential element is the activities in public space, which can only happen in the public realm and not in a private space. Here people can extend their knowledge and horizons, for instance at markets and debates. Individuals can develop better in an anonymous open space. (Sennett, 2008)

We can conclude that is important not to separate public and private from each other, but finding a way in which both private and public activities can be provided for the residents. Moreover, to maintain public space for more than just one generation, it is important to focus on the human being and supply social activities within the public realm.
7 Conclusions

Public space is a required value for the inhabitants. These spaces do not just connect places and buildings, they also provide a place for social activities, although public space is an object that has evolved the past years. Nowadays, we try to create new ways of infrastructure and make room for more cars. It seems that designers and planners have forgotten about the importance of people needs within the public space. Pedestrians are negatively affected from the poor quality and poor access of public space. While the perception of the space is important, it is also important to explore the significance of how people use the space to benefit of society. How people translate this into actions in public spaces. Especially nowadays and for the future public space needs to be flexible to meet varying demands of different people.

Bibliography