Creation of gentrified space through mental maps

Perception of space from old and new residents in gentrified Roombeek, Enschede

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The following research analyzes residents living through gentrification and their perception of space compared to the new residents that have gentrified the neighborhood. This is analyzed through mental maps, and through the relation resident have with the commercial structure of the neighborhood they live in.

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Summary

Gentrification has been thoroughly studied by scholars, focusing either on the gentrifiers or on the displaced. However, an important group has been less investigated, the people "living through gentrification". Understanding how these people lived through the gentrification and how they relate to the gentrifiers provides important knowledge for understanding the process. Countries like the Netherlands present a convenient scenario to study these groups because of its public policy which prevents original residents from being displaced. The research is situated in this context; it took place in the neighborhood of Roombeek in the city of Enschede in the eastern part of the country. The neighborhood of Roombeek went through an important reconstruction and urban renovation after a fireworks disaster in the year 2000. This attracted a wealthier population to one of the most deprived neighborhoods of the city. The investigation presents an analysis of how the neighborhood has changed and how the new and old residents relate to the different places in it. This was realized by the examination of residents' mental maps, in order to understand how they relate to each other and to the different parts of the neighborhood. Through this methodology, it is possible to understand the neighborhood and how it is perceived by its inhabitants. As a result, the mental maps present interesting outcomes on spaces of integration and segregation, which can be helpful for policy makers who want to create an integrated neighborhood. This case study presents an important contribution to the theory of gentrification since it is focused on a neighborhood that was reconstructed under a participatory process and after a disaster in a mid-size city.

Keywords: gentrification, state-led gentrification, mental maps, urban renovation, reconstruction, perception of space.

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1. Introduction

Ruth Glass first introduced the concept of gentrification in the decade the 1960's to explain how central neighborhoods of London were becoming "affluent spaces". Today the concept has been broadly used by scholars to explain an upper class transformation and the creation of affluent spaces (Doucet, 2009). Gentrification is a phenomenon that basically involves two actors, the old or original residents from a working class and the new or gentrifier residents from a higher class (Butler, 2003). Nevertheless, as a process of urban revitalization it can also involve a third actor, the state, which is known as state-led gentrification (Uitermark, Duyvendak, & Kleinhans, 2007).

Gentrification has been taking place in many of the central neighborhoods of important cities in developed countries. As a result, decaying areas have converted into affluent bohemian spaces attracting services, amenities, shops, and other commercial activities (Doucet, 2009). This has been seen as an opportunity for urban planners to vitalize decaying neighborhoods not only in the center of the city, but in other places as well (van Beckhoven & van Kempen, 2003). Literature on gentrification is generally focused on gentrifiers or the displaced; however, policies preventing displacement in the Netherlands make this scenario a good place to study the people in between, people "living through gentrification" (Doucet, 2009; Ernst & Doucet, 2014).

Roombeek is a neighborhood in the Netherlands that, like many neighborhoods, has gone through the process of urban reconstruction in order to prevent poverty pockets. The process in this neighborhood is however different from the others, because in the year 2000 a fireworks warehouse exploded, which destroyed more than half of what was Roombeek. After the accident, the municipality started an intense project that included the redevelopment of the area through a participatory process (Denters & Jan Klok, 2010). To prevent the displacement of the original residents, which were of the working class, Enschede assured the possibility for all of the residents to return. Rental residents had the possibility to retain their rental agreements while homeowners had access to plots similar to what they previously owned. In addition, the former industrial land would give space for upper class houses, a new commercial area, and offices to attract different businesses.

While the neighborhood was being reconstructed, people slowly started to come back. Not all residents decided to return, but the ones that did, received new houses and retained their former rental prices. Further, new residents started to build their new homes in unique ways that were not normal for the country; they got the chance to design whatever they wanted. The neighborhood started to change their old image, and people living in it started to have images and opinions about it.

Today, 14 years after the disaster, the neighborhood is completely different. It is a neighborhood in which different functions cohabitate, as well as residents with different backgrounds. It is one of the wealthier sectors of the city of Enschede, and many shops and museums have arrived to create a new identity for the neighborhood, replacing the industrial buildings. Certain images and names have been preserved in order to maintain old meanings,

to remember what the old Roombeek was. Old inhabitants cohabitate with new residents; they have lived through the process of reconstructing Roombeek in a different way, from a different perspective. They have opinions on the positive aspects, and things that can be changed.

This research seeks to find what the different perceptions old and new residents have of their own neighborhood and how the history, background, and past can affect how people live, read, and experience their neighborhood in addition to how they move, know, and visit the same place. People see the world from a different perspective; each human being has their own interpretation of the place in which they live. This research investigates this through mental maps (Lynch, 1960), this is a helpfull tool that can help to identify the segregation or integration of space from people's perception. A gentrified neighborhood offers the possibility to study people from different backgrounds in the same place. They cohabitate, but they are different (Greenberg & Shoval, 2014). They have access to the same space, but they live it and experience it in a different way, because they have a different history. Old residents have a deeper connection with the neighborhood, they have been there longer, and know other things; they act according to their past. New residents know only the new neighborhood; they perceive what is currently there, not the changes (Greenberg & Shoval, 2014).

In order to understand and analyze the mental maps of the residents, this research presents a deeper analysis, showing the changes and giving explanations for the current situation through temporal and spatial maps (Hillier, 2010). The relationship between the residents and their environment helps to understand the neighborhood (Greene, Mora, & Berrios, 2011) and how gentrification has affected the people living through the process, creating different spaces of segregation or opportunity.

1.1. Research questions

The main goal of this thesis is to find out about the differences between old and new residents that cohabitate in the same neighborhood; this will be done through the main research question:

"How do old and new residents of Roombeek use and perceive the neighborhood in which they live?"

In order to answer this question, the investigation has been divided into 3 research questions:

1. What are the different patterns of commercial infrastructure in the neighborhood, how have they changed, in relation to the past, and how this relates to new and old residents of Roombeek?

This question seeks to understand the composition of the neighborhood and compare it to the previous situation. This is important because in order to understand the relationship residents have with their neighborhood, the neighborhood must be understood. Understanding the changes in relation to the past is also important because it can provide explanations on why old residents perceive and relate to their neighborhood in a certain way.

2. What are the different movement patterns of old and new residents, and how does this relate to the perception of space?

This question aims to explore the relationship old and new neighbors have with the place they live, how they experience and see the neighborhood, and to explore the feelings related to the neighborhood of the people that live in Roombeek. The movement patterns in daily life can have an impact on the way people perceive the neighborhood, this is related to the place, length of residence and economical background. The comparisons between these groups will show the differences between the groups that cohabitate in the same space, and how one place can have different meanings for different people. Through this question it will also be possible to detect spaces of segregation or potential integration.

3. How does the commercial structure relate to the movement of old and new residents?

While the first question focuses on how the neighborhood has changed, and the second about the feelings of people related with the neighborhood, this question answers how both relate to one another. This question aims to find the connections between the past and the background of the residents with what is located there today. The commercial structure has been chosen as it is an important part on the process of gentrification on how it configures and structures the neighborhoods.

Through these three research questions, this investigation will shed light on how people live in Roombeek, what the differences are between the old original residents and the new gentrifiers, and how the process of living through gentrifications allows for a different meaning than that of the new comers.

Image 1 summarizes this research through a conceptual model. This starts from a state-led gentrification process, in which three actors are involved. The new residents (the gentrifiers), the original residents (the ones living thorough gentrification), and the displaced (the residents that decided not to come back). By analyzing the structure of the neighborhood, the movements and perception of residents, and how they use the commercial structure, this research will answer how the old and new residents use and perceive the space, and how these ideas differ from one another.

1.1. Academic relevance

Literature in gentrification has focused primarily on the gentrifiers, and the changes that come with them. The original residents are usually studied as the displaced. This particular case presents an opportunity to study those living through gentrification, because old residents were offered to remain in the neighborhood without changing their rental status. This scenario presents the chance to compare and analyze the different perspectives of old and new residents cohabiting in the neighborhood (Doucet, 2009).

Gentrification has been mainly studied in bigger cities. However, the relevance of the process is also important for mid-size cities, such as Enschede, a city that has around 160.000 inhabitants. Moreover, studying gentrification in these types of cities is important in countries like the Netherlands, where gentrification is not particularly applicable to central

neighborhoods, but to all urban areas that seek to become more competitive. The procedure of rebuilding Roombeek is also special because it was developed as a participatory process where old residents, shop owners, new residents and entrepreneurs had the possibility to contribute with ideas. At the same time old residents had the possibility to return which prevented possible displacements of working -class people.
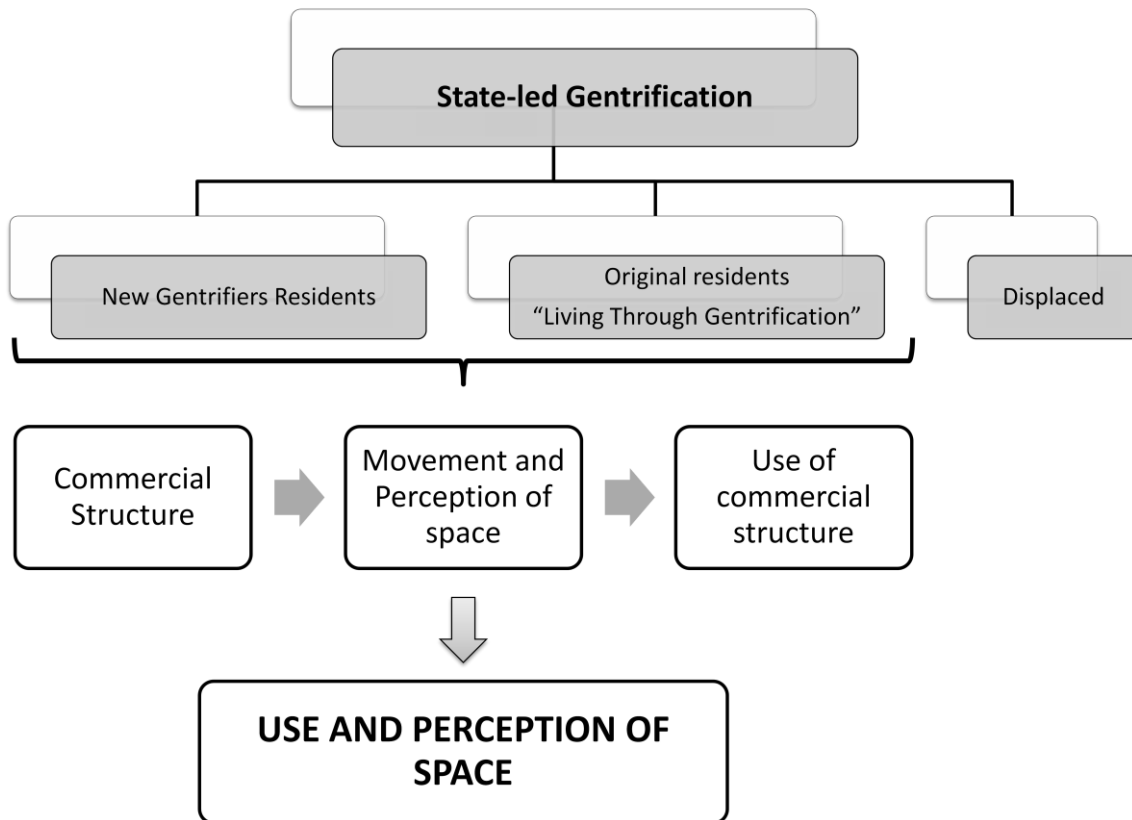
Image 1: Conceptual model of the research

The scale is also an important factor when studying gentrification. Changes in gentrification are usually palpable at the neighborhood level (Figueroa, 1995; van Kempen & Bolt, 2009; Butler, 2003), so in order to understand the process, it is necessary to understand the different parts of one neighborhood. An important part of doing this is the mapping process, which helps to identify patterns and how gentrification distributes inside the neighborhood (Clerval, 2011). Mapping can be a helpful tool to show spatial and temporal comparisons in order to understand the past, current, and maybe future situations of the neighborhood.

Finally, the use of mental maps, a seldom used tool in gentrification theory, allows for the opportunity to show the relationships in the neighborhood between different residents and to detect spaces of segregation or spaces where integration can be possible (Greenberg & Shoval, 2014; Greene, Mora, & Berrios, 2011).

1.2. Social relevance

This research also has social relevance, as it is an analysis of two different groups living in the same neighborhood. Understanding the current situation of a gentrified neighborhood can help the policy making process more efficient, especially when it comes to integration, which is hard to achieve in gentrified neighborhoods (Blokland & van Eijk, 2010). The analysis of mental maps helps to understand where people move inside a neighborhood, understanding where inhabitants feel comfortable and where they do not. Using this kind of information helps to identify where the conflictive parts of the neighborhood are, thus allowing the chance to work on them and solve the problems.

Understanding the process of gentrification through the analysis of both participating groups serves as an example for other neighborhoods which are developed through state-led gentrification. This is especially important in the Netherlands, which has a national mixing policy. This kind of study can help to understand how neighbors feel inside a neighborhood and how they act according to their own needs. This can prevent further displacement of the old residents and businesses and make satisfactory living for all residents in the neighborhood. Moreover, understanding the different perspectives of the neighborhood can help to create one complete image of the neighborhood, instead of the "been-here" v/s the "come-here" image (Spain, 1993).

1.3. Structure of the thesis

This thesis will start with a theoretical framework that will position the research in the existing literature. The revision will start from general topics such as gentrification and go to more specific subjects, like mapping and mental maps. The literature will be discussed and connected to the central topics of this research, gentrification and perception of space.

Chapter 3 will detail the methods used for this research; it will explain how the data was collected and how these were later analyzed.

Following the methods, a context chapter will explain the history and the neighborhood. This chapter is important for understanding further analysis and how the neighborhood has changed from the past and converted into what it is today.

Finally, three chapters of analysis will answer the research questions that have been proposed in the introduction, in order to answer the main question. Each of these chapters is linked to one of the research questions, and they are linked to each other. The conclusion will conclude this research, comparing the results with the existing literature, and proposing new theories according to the new findings.

2. Theoretical Framework

2.1. Introduction

This chapter will analyze the existing literature regarding gentrification and the use of space between old and new residents in one neighborhood. It will start from the general perspective of gentrification and how this evolved to be used as a public policy to revitalize decaying neighborhoods. It will continue with commercial gentrification and how this creates different patterns for old residents and new gentrifier residents. Following this is an explanation on how gentrification is mapped, and the relation between objective elements such as services and amenities, and subjective ones as represented by the mental maps of residents. Finally, it will end with the hypothesis, which will arise based on the theories, and will be used further on in the development of this research.

2.2. Gentrification

Gentrification is a concept that implies an upward class transformation and the creation of affluent spaces (Doucet, 2009; Byrne, 2003). It involves the interaction of two main actors, the original residents living in the neighborhood before the process starts and the gentrifiers, who become involved in the process itself (Doucet, 2009; Butler, 2003). However, depending on the case, it can involve other actors like the government, real estate market, visitors' perception etc. (Beauregard, 1990). Butler (2003) stresses two main causes for gentrification. First, it reflects a change in preferences about living in the city in central locations (Figueroa, 1995), and second, the increasing demand for housing in cities. Gentrification is a complex process that involves more than residents moving in or out; it has many different aspects involving actors that require a further description.

Ruth Glass first studied the process in the decade of the 1960's for the city of London, after which gentrification has been a commonly studied phenomena in the developed countries of America and Europe, and it has expanded lately to some important cities of undeveloped countries (Smith, 2002).

2.2.1. Positive and negative aspects of gentrification

Gentrification has been studied from different perspectives, which has made the process highly polarized. While some authors have shown the negative aspects such as displacement, community conflict, loss of affordable housing, and homelessness, others refer to the positive ones like renewal of the physical fabric communities, local service improvement, and poverty de-concentration (Doucet, 2009; Byrne, 2003). It is important however, to consider that the costs or benefits coming from gentrification will depend on which actors are involved (Lang, 1982); a benefit for a homeowner can be a cost for poorer households (Atkinson, 2002). Atkinson (2002) summarizes in the following table (Table 1) the positive and negatives aspects of gentrification.

As described above, gentrification does result in positive aspects and as such has been a desirable situation in urban policies for some planners. Nevertheless, some scholars point out

that many times in practice, this has secondary effects, resulting in exclusion and segregation (Butler, 2003). This acts as a confrontation between the new middle class, who are trying to find their own new identity, and the lower income inhabitants, who already have their identity attached to the neighborhood (Blokland & van Eijk, 2010). The clash of the two different identities between different groups living in the same neighborhood creates spaces of differentiation, which can open the door for segregation to develop or the opportunity for integration, if the two identities agree to create one single space. These kinds of conflicts between different parties have implications on the urban landscape, which manifests in the way residents use space.

Positive	Negative
•Stabilisation of declining areas •Increased property values •Reduced vacancy rates •Increased local fiscal revenues •Encouragement and increased viability of further development •Reduction of suburban sprawl •Increased social mix •Decreased crime •Rehabilitation of property both with and without state sponsorship •Even if gentrification is a problem it is compared to the issue of urban decline and abandonment of inner cities	•Displacement through rent/price increases •Secondary psychological costs of displacement •Community resentment and conflict •Loss of affordable housing •Unsustainable speculative property price increases •Homelessness •Greater take of local spending through lobbying/articulacy •Commercial/industrial displacement •Increased cost and changes to local services •Displacement and housing demand pressures on surrounding poor areas •Loss of social diversity (from socially disparate to rich ghettos) •Increased crime •Under-occupancy and population loss to gentrified areas

Table 1: Positive and negative aspects of gentrification. Source: Atkinson, 2002

2.2.2. Gentrification and displacement

Displacement is probably the most commonly mentioned negative aspect of gentrification. According to some scholars, gentrification implies displacement (Figueroa, 1995). Local residents can be displaced from their homes directly when they are forced to leave, by exclusion when the prices of the houses go up, by chain when they follow the trend to leave the neighborhood, and by pressure when residents feel threatened by other neighbors moving out (Marcuse, 1986; Byrne, 2003). Moreover, the displacement can also be psychological, when the local residents experience the fear of being displaced by being witness to their neighbors leaving, as well as the media coverage of the process (Doucet, 2009).

The commercial structure of a neighborhood can also be affected by displacement. As gentrification develops, local businesses are replaced by new shops that try to supply the new middle-class residents with a different taste (Ernst & Doucet, 2014).

This particular outcome of gentrification is not always as black and white as some of the literature proposes; and some authors state that displacement because of gentrification is minimal (Byrne, 2003) while it is more of a process, where the local population and the

gentrifiers cohabitate. These are the people living through gentrification, and the study of it implies how both groups have different perspectives of the same place, how the "been-heres created the traditions that shape the community, while the come-heres are attracted by their images of those traditions, and in fact, hold different perceptions of those traditions" (Spain, 1993). Freeman & Braconi (2004) measured displacement due to gentrification for the city of New York. In their results, they realized that local residents in gentrifying neighborhoods are less likely to move out than other low-income residents in non-gentrifying neighborhoods. The latter has to do with the improvements that the process can contribute, such as better retail, public services, more job opportunities, and improvements in the built environment. In fact, the authors stated that local residents living in gentrifying neighborhoods are more willing to spend a larger proportion of their income on their dwelling as compared to other low-income residents in non-gentrifying neighborhoods.

The fact that some studies show that some old working class residents would rather stay in the neighborhood than leave, allows a whole new window of knowledge for investigation. More than just the process being good or bad, there is the possibility to study these interactions, and how gentrification is experienced between two different groups in the same neighborhood. Moreover, it gives the possibility for scholars to study perceptions, image, and the use of space from the perspective of gentrification.

The use of appropriate public policies can help diminish the negative aspects of gentrification and prevent neighborhoods from becoming enclaves of the affluent, taking advantages of all the positive aspects the process implies, such as the economic, political, and social ones (Byrne, 2003). Even though displacement is not always an outcome of gentrification, there is evident shrinking in the pool of affordable housing, which has to be taken into account by policy makers (Freeman & Braconi, 2004), in order to make the city accessible to all of its residents (Uitermark, 2009). However, knowing that displacement is not always an outcome, it is interesting and necessary to understand how different groups with different backgrounds make use of one space, the neighborhood.

2.2.3. Third wave of gentrification

The third wave of gentrification is what is typically known as gentrification today (Smith, 2002). In order to understand it, it is necessary to explain the previous waves of gentrification, which finally led to this stage. Hackworth & Smith (2001) explain the three stages as well as their transition and how the three waves are connected between them; this model was done for the city of New York (Image 2).

The first wave, prior to 1973, can be seen in small neighborhoods and was founded by the public sector. In the following years, until 1978, there was a transition where gentrifiers bought many properties that where devalued, which gave the stage for the second wave in the 1980s. The second wave was private based, and was characterized by a big political struggle, caused by the displacement of the poor residents. At the end of the 1980s, there was another transitional period, marked by the recession. This recession hit so bad in gentrification, that some call it "degentrification". After 1993 this changed, giving rise to the third wave of gentrification, which has been common in European countries and has recently expanded to some undeveloped countries (Hackworth & Smith, 2001; Smith, 2002).

The third wave of gentrification dates back to the 1990s, when, after a recessional pause, gentrification expanded rapidly throughout the inner city and more remote neighborhoods with the support of different actors and developers, as well as the state (Hackworth & Smith, 2001). Its rapid growth is related to state-led gentrification, which usually experiences less opposition and major corporate involvement (Doucet, 2009; Murphy, 2008).

First Wave (1968-1973)	Sporadic Gentrification
Transition (1973-1978)	Gentrifiers buy property
Second Wave (1978-1988)	The anchoring of gentrification
Transition (1988-1993)	Gentrification slows
Third Wave (1993-today)	Gentrification returns
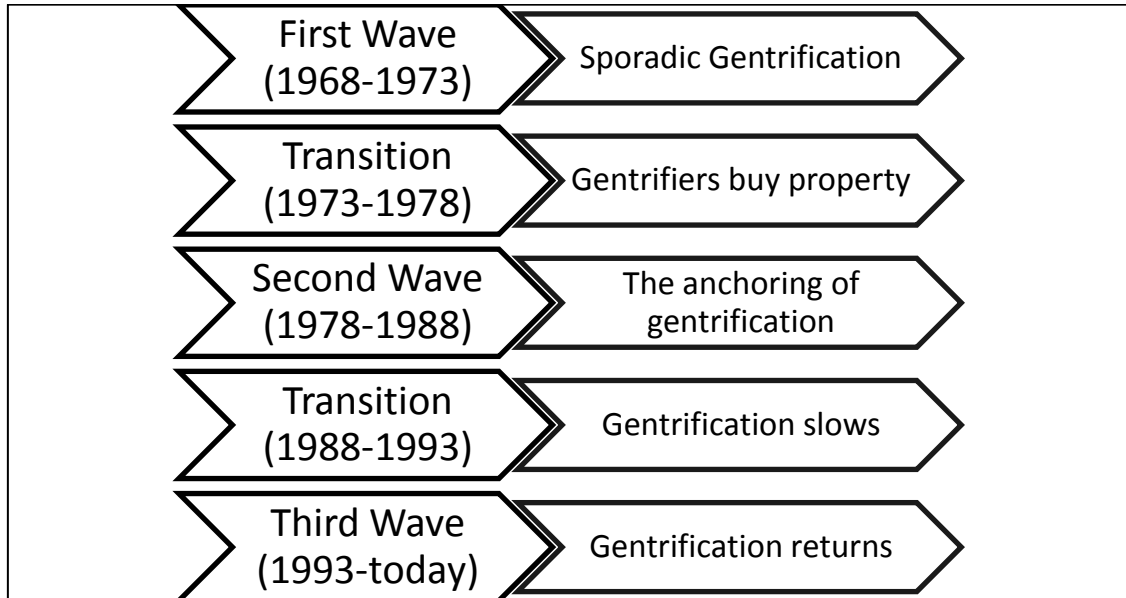
Image 2: Waves of Gentrification. Source: Hackworth & Smith, 2001

The process of gentrification with intervention from the state, often presented as urban regeneration accompanied with gentrification, is present today as a global urban strategy, a consummate expression of neoliberal urbanism (Smith, 2002). This tactic can be seen in many developed countries in order to bring life back to the city center, particularly in old industrial cities that have experienced urban poverty in the center, and nowadays have to transform their image in order to gain competitiveness (Wilson & Wouters, 2003). In Western Europe, third wave gentrification is very important, because it has been the most successful way to achieve urban restructuration (van Gent, 2013).

2.2.4. State-led gentrification

As seen in the previous chapter, state-led gentrification fits inside the third wave of gentrification. Many American and European cities saw how important industrialized neighborhoods started to degrade after deindustrialization. Whole neighborhoods that once supplied the enormous living demand of industrialized workers were filled with poverty and social problems. Different nations realized the importance in terms of locations of many of these neighborhoods and saw gentrification as the best option to reinvigorate these old neighborhoods (van Beckhoven & van Kempen, 2003).

Mixing populations with different socio-economic backgrounds has become a main policy in countries like the Netherlands and the UK, based on the theory that a group with higher income will serve as a role model for lower income residents (Uitermark, Duyvendak, & Kleinhans, 2007). Nevertheless, behind this public policy there are some other commercial implications; the arrival of higher income residents will attract new business and services,

otherwise absent, that will benefit the new and old residents, and the whole neighborhood in general.

One of the most desirable outcomes of mixing is the interaction between residents with different backgrounds. However, evidence has shown that mixing does not mean interaction between the different residents. Actually, residents with similar backgrounds tend to interact with each other, and not with others (Blokland & van Eijk, 2010; Uitermark, Duyvendak, & Kleinhans, 2007). If new shops and services arrive in the neighborhood upon the new residents' demand, this will be specialized to their own tastes, leaving a gap for the old residents. However, if in the previous neighborhood there were no shops at all, old residents can also benefit from the new arrivals to their environment. In conclusion, the use of services and amenities and the possibility of interaction between residents will be subjected to the commercial history of the neighborhood and to the spaces inside a neighborhood different residents recognize as their own.

2.3. Commercial gentrification

In the previous chapter it was mentioned that gentrification is a process that changes not only the residential structure but also the commercial one. There is an evident link between both, since the residents are the users of the amenities inside a neighborhood. The importance of understanding the commercial part of gentrification is because services and amenities are part of the visual image that transforms a neighborhood from a "decaying run-down working class area, to a trendy prosperous middle class neighborhood in very short time (Doucet, 2009)". The commercial infrastructure of a neighborhood reflects the consumptions and identities of the gentrifiers (Ernst & Doucet, 2014), and gives evidence of the transformation that one place is going through.

Consumption patterns and transformations related to them along with changing processes in the population are key elements to understanding gentrification, particularly nowadays, where consumption is an important element used to identify groups and the interaction between them. Because of the latter, this research will focus on the relation between resident and commercial structure.

Changes in a neighborhood related to gentrification tend to be local, not affecting the whole space (Figueroa, 1995). This establishes separate spaces of commerce within one neighborhood, creating a sense of separation and segregation among the residents (Doucet, 2009; Ernst & Doucet, 2014). Price is an important factor in this separation, as shown in the study by Doucet (2009) on the neighborhood of Leith, Edinburgh; in his study he notes that some places are used by all the residents, while others, such as the expensive places, have an up-market clientele instead.

The division of commercial spaces can be physically visible and follow determined patterns (Ernst & Doucet, 2014). Butler (2003) notices this separation in his study of the neighborhood Barnsbury, London, where retail is separated by different streets; "Upper Street to the east represents the affluence of gentrified London with its shops selling cold-pressed olive oil and freshly baked ciabatta, whilst the Cally is rooted in the exclusion of working-class Islington". Considering that gentrifiers tend to go to the up-market shops, and local residents, to cheaper

ones, it would be possible to see different patterns of use inside a neighborhood related to the origin of the residents.

The presence of new commercial infrastructure can have positive aspects according to some authors (Ernst & Doucet, 2014; Atkinson, 2004). Gentrification usually attracts the neighborhood services that were absent, and not only restaurant, boutiques, or other upscale stores, but also discount retail shops that follow the trend after a certain mass has been reached (Byrne, 2003). New stores are perceived as a good change when neighborhoods are isolated from commercial infrastructure and have to move long distances to shop.

Places to meet and socialize are related to commercial infrastructure as well. The concentration of shops in a neighborhood becomes a place where people can meet, the center of the neighborhood. This can be seen as a positive aspect, and also as an advantage to allow integration among residents. Doucet (2009) shows that for the neighborhood of Leith, the shopping center remains an important local market, serving as an important focal point for the community. For the Netherlands as well, bars remain an important meeting place for old residents (Ernst & Doucet, 2014).

The presence of new amenities and services can also be seen as a positive trend, because it generates job opportunities (Doucet, 2009; Freeman & Braconi, 2004). Generally, the new opportunities will not require much education, so jobs are directed to the working class, avoiding a conflict between new and old residences, as new middle-class residents will not compete for these jobs (Byrne, 2003).

Commercial gentrification also attracts consumers to the neighborhood, creating more monetary income (Byrne, 2003). This is because new inversion attracts people from outside the neighborhood, but more important, because gentrifiers seek to spend leisure time and money inside their own neighborhood (Blokland & van Eijk, 2010). At the same time, the concentration of the new middle class, residents, and outsiders, attracts even more investment to the neighborhood (Rose, Germain, Bacqué, Bridge, Fijalkow, & Slater, 2013).

Ernst & Doucet (2014) noticed in their Netherlands study that attitudes towards amenities in gentrified neighborhoods vary according to the stage of gentrification. At the beginning, changes can be welcomed, as they bring about services that were absent before, but as original working-class amenities and retail are displaced, local resident perception usually changes. The conflict arises when gentrifiers generate a critical mass and modify the neighborhood for their own advantage (Spain, 1993).

Sullivan & Shaw (2011), argue that original residents are more likely to have a favorable view of the changes if the following conditions are met: new retail provides desired goods and services, residents feel comfortable shopping there, and there is minimal displacement of established businesses (Sullivan & Shaw, 2011). The authors categorize the reactions of residents in three types: exclusion and resentment, complete acceptance, and bohemian acceptance. Residents that experience exclusion and resentment feel that the new shops do not cater to their needs and income. When residents feel acceptance, it is usually because they see a positive change and improved aesthetic. Bohemian acceptance is related to people that desire diversity as a lifestyle, they tend to view the changes positively (Image 3).

Understanding commercial space can be helpful to fully comprehend the process of gentrification in a neighborhood. It is related to how residents use space and their own neighborhood, and it can explain the integration and displacement from it. Commercial gentrification is closely related to residential space, and in comparing commercial and residential gentrification, many differences in the processes between different neighborhoods or cities can be seen.Studying commercial gentrification allows different patterns of usages to be seen, differentiating not only between residential, commercial, services, etc., but also between types of users, like old residents, gentrifier residents, and outsiders.
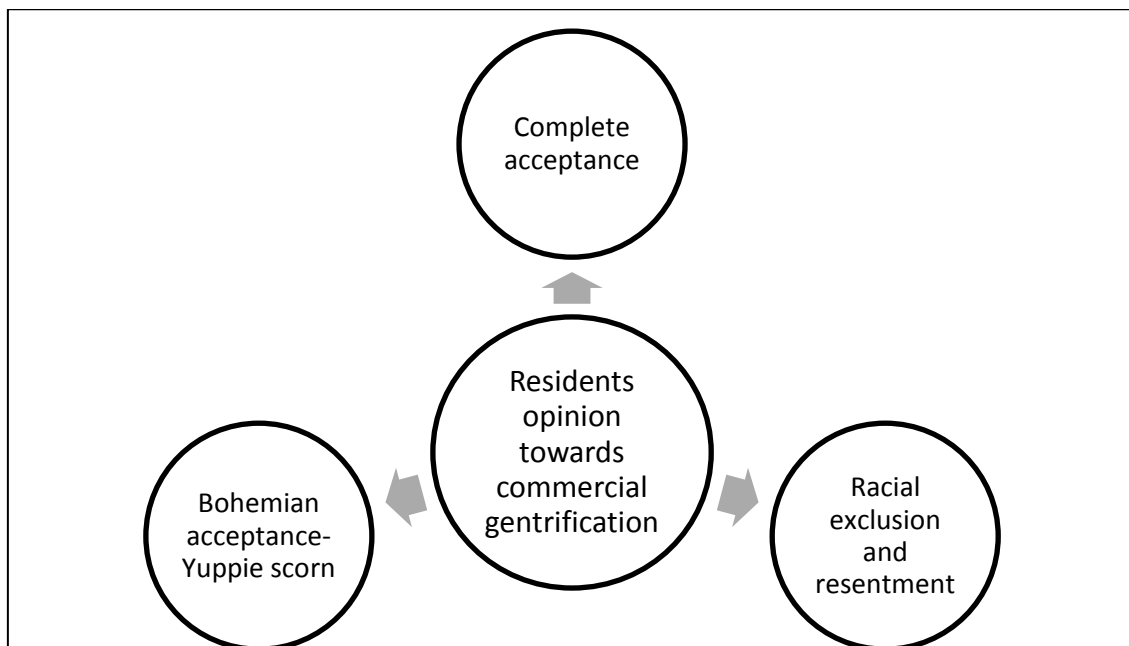
Image 3: Residents' opinion towards commercial gentrification. Source: Sullivan & Shaw, 2011

2.4. Mapping gentrification

A city is the construction of multiple personal spaces of people living in it. It influences the forms of collective identity and territory, while at the same time people create and modify urban space by the choices they make (Greenberg & Shoval, 2014; Abegglen, 2011).

Gentrification is the expression of larger social, economic, and political relations. It will express the particularities of a certain place or neighborhood that will be reflected in the urban space (Smith, 2002). Despite the fact that they are built on the basis of diversity and integration, it is possible to see different patterns of allocation and segregation inside a neighborhood (Blokland & van Eijk, 2010; Spain, 1993); "streets bound the area and each represents one of the two communities" (Butler, 2003). Spatial information that arises from phenomenon take the form of specific locations, which represent different variables, which displayed together can help identify and understand spatial patterns (Hillier, 2010).

The most commonly mentioned example is the difference between local residents and gentrifiers in the educational system, where the gentrifiers usually prefer to send their kids somewhere else, outside neighborhood, because the schools in the neighborhood are attended by less affluent children. The middle-class usually has the possibility to choose, while

the working-class has only the most affordable option (Butler, 2003; Robson & Butler, 2001). Choices in school, as shown by Robson & Butler (2001), are related to the use of space, as they present a pattern, where working-class is marked by practical and immediate, and middle-class has a wider range of choices, without accounting for other factors such as distance.

Although studies in gentrification have adopted this perspective on differences between residents, as well as many others, mapping and displaying the results graphically has not been common practice (Clerval, 2011). This can be useful when visualizing the process, and to make temporal as well as spatial comparisons. With the help of GIS technology, it is possible to manage different layers of information, that otherwise could not be possible or more difficult to acquire, that lead to a spatial conclusion. Moreover, visual support makes the results easier for the interpreter to read, as well as for future readers to understand the research.

Mapping presents the opportunity to show the gentrification process using different scales. Clerval (2011) shows for the city of Paris how gentrification has developed throughout the years, giving as a result a synthesis map that serves as a model to explain future trends; however smaller scales can also show important results. Some authors (van Kempen & Bolt, 2009; Figueroa, 1995; Hillier, 2010) have shown that gentrification acts at a smaller scale than a whole neighborhood, presenting interesting results and patterns of allocation; interaction for example, occurs at the street level. Mapping at a neighborhood scale allows not only planners to visualize on which places they should focus, making more target and specialized decisions, but also specifies what is being talked about when someone refers to gentrification in a particular area.

The use of mapping techniques enables scholars to identify spatial pattern and urban phenomenon such as segregation, as well as temporal and spatial sequences. This can lead to interesting results in gentrification, since it is a process that involves different stages. All these can be mapped; it is thus possible to compare a place before gentrification, through gentrification, and after gentrification. In addition, some maps can help identify future situations by interpolating past situations, which can be very helpful when planning the future of a place. The creation of synthesis maps also permits the comparison between different places or neighborhoods.

The creation of maps in a gentrified neighborhood shows a picture of that place at a particular time. The representation of different groups, services, amenities, and all that is presented in the neighborhood allows the visualization of how different parts of neighborhood interact. If the commercial infrastructure of a neighborhood presents a determined pattern for low class residents and for middle class residents, mapping allows one to see if there is an actual relation to where the consumers live.

The process of creating a map involves many activities and a deep analysis of the society that is being studied. "It is a process that encompasses a social network, a collaboration process, and cartography; it is a way of representing cultural and physical attributes" (Dance, 2011). All maps somehow represent how a particular society looks at a particular time and at a particular place from someone's point of view.

It is important to stress that the process of mapping depends on the maker, as well as the interpretation of it. It can be a useful tool that can help visualize gentrification; nevertheless the most important part of the process is in the interpretation the author gives to it (Hillier, 2010; Clerval, 2011).

2.4.1. Mental maps

The process of mapping has many objective aspects, the ones that are tangible such as shops, restaurants, streets, and all of the elements that yield a neighborhood or a city. However, besides this and the relations that can be created among the different elements, there is the way residents see the environment. Mental maps refer to how people perceive, experience, and represent the world that surrounds them (Ben-Ze'ev, 2012). "This image depends not only on the information perceived through the five senses (seeing, hearing, tasting, and touching), but also on the way this information is stored and evaluated" (Abegglen, 2011). Space is perceived by its inhabitants in different ways, because this relates to memories and past experiences (Lynch, 1960); therefore, each human it is going to have their own world (Haynes, 1980). Thus, there is a strong relationship between behavior, conception, and construction of space.

People organize information so that it fits with previous knowledge, values, and unique experiences; therefore, people with similar backgrounds are going to act in similar ways (Haynes, 1980; Dance, 2011; Abegglen, 2011). This similarity on mental maps refers to people that belong to the same group, this can be age, sex, culture, occupation, temperament, or familiarity (Lynch, 1960); the human ability to understand spatial relations will depend on biological growth as well as cultural influences (Abegglen, 2011).

Through mental maps is how humans convert space into place, giving different meanings and finding the feeling of "home" (Abegglen, 2011). Therefore, an important part of how human beings perceive their environment is time, so they can read and understand what surrounds them. Different meanings, or mental maps, will arise as people look from different perspectives and experience space at a different time and for longer or shorter periods.

The organization of information is also related to power and wealth (Abegglen, 2011). While studying gentrification, especially segregation inside segregated neighborhoods, analyzing the different mental maps among different residents, regarding the socio-economic status, can give interesting results. According to this theory, not only people from different backgrounds, such as age or ethnicity, can perceive the space different, but also people that have a different income, and thereby have access to different things, such a more expensive home and transportation in addition to different amenities and services.

Studying the mental maps, is important because it helps create an understanding of why people use spaces in a certain way and follow certain behavior related to experience and perception (Greenberg & Shoval, 2014). Mental maps are the way in which human beings code, save, and interpret the information; they represent the way to see the world and personal experiences (Downs & Stea, 1973).

The behavior of human beings is related to their perception of the world, so mental maps will influence the decision-making process, in how to move from one place to another, or in taking

a certain type of transportation. The way in which humans perceive the world will act as a boundary, inside of which life will take place (Greenberg & Shoval, 2014).

Studies like Butler's (2003) have shown how in gentrified neighborhoods segregation patterns between old residents and gentrifiers are present. In this scenario, mental maps can facilitate an understanding of segregation within a neighborhood. Residential segregation has been linked mainly to the dwelling; nevertheless, some authors propose that an important part of residential segregation has to do with the places where residents spend time (Lysaght & Basten, 2003; Shoval, 2008). Ruiz-Tagle (2012) proposes the study of segregation in a more dynamic way, taking into account how people interact and construct spaces, the practices, and how people appropriate them.

New gentrifier residents have a completely different background than old residents of a neighborhood. They come from a different place, have different incomes, and have different histories, which makes them perceive the world in a different way. This manifests in the way they use the neighborhood. They inhabit one shared space, but with different characteristics. They create micro-boundaries where they move in which they practice their daily life. These boundaries may or may not cross, depending on how comfortable the residents feel in another environment. Residents also perceive and read the surroundings, creating rules and codes that can only be perceived from residents with similar backgrounds.

The use of mental maps in urban geography, especially in gentrification, is not very common. However, Geenber, & Shoval (2014) presented remarkable results applicable to urban geography for the city of Jerusalem in Israel when they studied Jewish secular, Palestinian-Muslim, and Jewish Ultra-Orthodox women. The authors studied how women from different backgrounds perceive and use space, and how this in turn is reflected in the territory through the creation of cultural boundaries.

Greene et al. (2011) identified, for the city of Santiago, Chile, how old and new residents use space in a gentrified neighborhood with mental maps. The authors analyzed the use of space in social and domestic activities, showing interesting results. They realized that, in general, old and new residents shop in similar places, and that some of the everyday activities take place both inside and outside the neighborhood. While old residents tend to stay inside the neighborhood, new residents go about their activities in other places as well. The latter can be related to the access to goods that wealthier people may have, allowing them to move further in space (Abegglen, 2011). Greene et al. (2011) attribute the different uses of spaces to "people's subjective conception of their neighborhood boundaries, which plays a role in the use of space, in everyday activities, celebrations, and in the social construction of neighborhoods".

In terms of segregation, mental maps can be useful for defining which spaces are used by the gentrifiers and the old residents, respectively. Previous chapters showed how a gentrified neighborhood commercial structure follows a certain pattern depending on the type of shops. On one side (from demand perspective) consumer patterns depend on the available services, but on the other side, these induce and modify them, that is to say, they attract new commercial offer which not all residents can adapt to. If this were the case, residents that do not belong to the area would not feel comfortable there; contrary, they would feel at home in

the place where they belong. If old residents do not usually go to places where gentrifiers shop, this would be a place of segregation, however if the old residents, as well as the gentrifiers, feel comfortable, this would be a potential space for inclusion.

It is possible to argue, by the results presented in previous studies with mental maps, that the structure of the city will be related to how individuals perceive space. This can only be concluded by overlapping different layers of information, such as the mental maps and spatial structure. Such a differentiation would show different perceptions in segregated spaces, coming from one group or the other, referring, in gentrification spaces, to the gentrifiers groups and to the old residents.

On a different scale, methodologies like this could be helpful in order to understand the different patterns inside a neighborhood that are created by residents with different backgrounds. If the commercial infrastructure follows different patterns of allocations, depending on the consumer choices of the gentrifiers or old local residents, it would be possible to track how these groups move inside the neighborhood. Moreover it would be interesting to see if they follow different tracks concerning which places they attend, and even if they coincide in certain places. The latter could be helpful especially for planners, who could be one step closer to achieving integration, and thus increasing the positive aspects of gentrification by actually knowing the scenario in which people have the chance to meet and interact.

2.4.2. Elements of a city

Mental maps can be elaborated through the image people have of the elements of the city. Every city has an image that is created through different elements. Elements can be read and interpreted by individuals in many different ways. However, as previously stated, there is a consensus between individuals with similar background. Elements are physically objective; nonetheless the meaning that people give to them can vary according to groups or time (Lynch, 1960).

Elements have an influence on how people read and perceive the city. Some elements will have a structure which is easier to read, while others will be harder (Haynes, 1980). Lynch (1960) "coined the term imageability to describe that quality of cities which makes them memorable and evokes strong images in most observers. An imageable city is one whose component parts are easily identifiable and easily grouped into a coherent pattern" (Haynes, 1980). Every city will have imageable parts, while other parts will be hard to remember by individuals. This applies to neighborhoods as well. It is likely that a neighborhood will be more imageable by its inhabitants than from outsiders. Visitors can easily remember some parts of a certain neighborhood, while inhabitants will think other parts are equally or more important.

In gentrified neighborhoods, old residents will have another image of the neighborhood, as they experienced it before; they will find other elements important, related to previous experiences. New residents, on the other hand, will not have access to the same image, because they were not in the neighborhood before and they will read and experience the neighborhood based on their own recent experience.

Lynch (1960) describes five elements of a city which are important in order to understand how people see and perceive space:

1. <u>Paths</u>: are channels along which the observer customarily, occasionally, or potentially moves. They are lineal elements like streets, walkways, transit lines, canals, and railroads. A path can only consist on the part of streets where pedestrians circulate; this will be streets that have special characteristics, such as a commercial street or special facade (Al-Kodmany, 2001).

    Paths will also relate to the familiarity individuals have with the place. According to Lynch (1960), at a regional scale, people see the city in terms of topography and generalized characteristics; on the contrary, people that are more familiar rely on smaller landmarks.

    In a gentrified neighborhood, old residents know the neighborhood better, so while new residents only move through paths where most of the stores and well-known locations are, old ones should have the ability to make better use of the topography of the place. Moreover, in gentrified neighborhoods where the commercial infrastructure is separate for gentrifiers and old residents, as in Barnsbury, London for the study of Butler (2003), paths will vary for both types of residents, depending on the places they usually shop.

2. <u>Edges</u>: are linear elements which are not considered a path by the observer, but are boundaries between two phases, or linear breaks in continuity: shores, railroad cuts, edges of developments, walls. Some edges may be barriers which close one region off from another; they may also be seams, lines along which two regions are related and joined together. Edges are important organizing features, especially in the role of holding together generalized areas, like a neighborhood for example.

    In a neighborhood, edges are an important symbolism for the entrance gate (Al-Kodmany, 2001). Depending on what are considered the boundaries of the neighborhood, old and new residents will use it them different ways. This is the case for the study done by Greene et. al (2011) in Santiago, in which they showed how perception of the boundaries of the neighborhood has an effect on the use of it and helps individuals differentiate their surroundings.

3. <u>Districts</u>: are the large sections of the city of which the observer mentally enters "inside of", and which are recognizable as having some common identifying characteristics. The physical characteristics that determine districts are thematic continuities that may consist of an endless variety of components: texture, space, form, detail, symbol, building type, use, activity, inhabitants, degree of maintenance, topography, etc. They are identifiable from the inside, but also used from the outside as a reference. Districts have edges or boundaries; they can be strong or more uncertain. Some districts have notable characteristics that make them obvious even for visitors; others will have subtler characteristic which will also be known or noticed by inhabitants or people that are familiar with the neighborhood.

    Neighborhoods are an example of districts; they represent an area, unified by commonness, which share the same cognitive elements (Al-Kodmany, 2001). However, in gentrified neighborhoods it is possible to identify different neighborhoods. This is because of the segregation of the two different groups coexisting. Different

commercial streets or different residential areas could give rise to different districts in a gentrified neighborhood.

4. <u>Nodes</u>: are points, more specifically, the strategic spots in a city where an observer can enter, and which are the intensive foci to and from which he is traveling. They may be primarily junctions, places of break in transportation, a crossing or convergence of paths, moments of shift from one structure to another or the nodes may be simple concentrations, which gain their importance from condensation of use or physical character, such as a street-corner hangout or an enclosed square.

   The junction, or place of break in transportation, has compelling importance for the city observer. Because decisions must be made at junctions, people heighten their attention at such places and perceive nearby elements with more clarity than normal.

   Nodes relate to important parts of a neighborhood. In gentrified areas, this relates to the feeling of belonging and to the places residents attend. While making the difference between new and old residents, nodes can change, giving a different structure to the mental maps. Conversely, nodes can also be a point of encounter for residents of different backgrounds, as it can be a point they have in common inside the neighborhood.

5. <u>Landmarks</u>: are points of reference considered to be external to the observer. They are physical elements that can vary widely in scale; they can be within the city or at larger distances. Landmarks become more easily identifiable, more likely to be chosen as significant, if they have a clear form, if they contrast with the background, and if there is some prominence of spatial location.
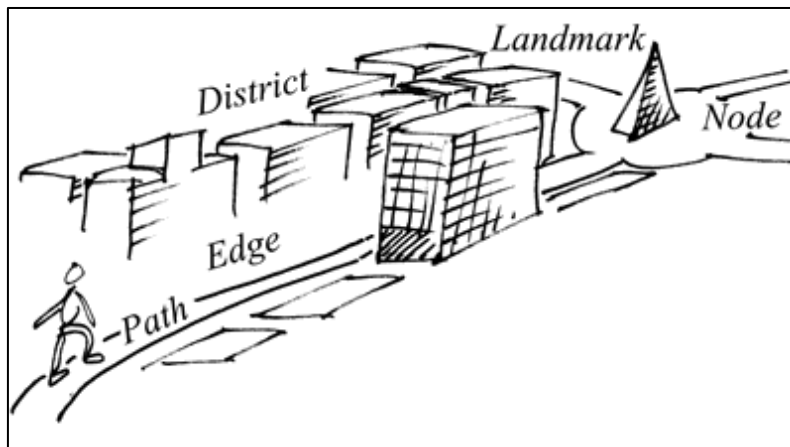
Image 4: Elements of a City. Source: Lynch, 1960

The elements of a city are important parts of every individual mental map of the place where they live. Even though some mental maps tend to be similar, they are in essence different, because people have different perceptions of the world. "Subjectivity increases as the scale of analysis decreases; most people will agree on regional landmarks, or edges, but there will be more differences of opinion on local markers and almost complete subjectivity on individual edges, paths, districts, etc. (Al-Kodmany, 2001)". This is the case that applies for gentrified neighborhoods, where at a smaller scale, it is possible to identified different mental maps, especially when it comes to residents with different backgrounds, old and new residents.

This structure, elaborated by Lynch, is historically situated within the perception of space of an industrial society, where the social practices tend to be "stable" in space and time; people worked and lived in the same place their whole lives. This constructed regular patterns with a center and boarders. Post-industrial society on the other hand is organized in a more complex way in relation to space. Social networks and time are diverse and more diffused in space, having a much larger scale. This relates to how original residents and gentrifiers organize space and their daily living inside the neighborhood. This should be taken into account when reading the mental maps, giving insight into the different explanations for the results.

2.5. Conclusion, hypothesis and expectations

This chapter was an overview of the existing literature in gentrification and mental mapping. From a general perspective, it is possible to understand the process of gentrification as an upward mobility. However, what are the actual consequences of gentrification in a neighborhood? The empirical evidence has shown that displacement is a consequence, but not always. Moreover, the positive outcomes are such that it has been used as a public policy in many developed countries. Consequently, what are the results of the process when different residents live in a gentrified neighborhood? How is it different from other neighborhoods?

The arrival of new middle class residents creates an impact in the neighborhood. This starts with the arrival of a group of residents with a different taste and lifestyle. Furthermore, this migration process also implies the arrival of different services, such as shops, amenities, leisure, etc., thought fit for an upper class market. How are the different elements in the neighborhood used by the different groups? Different people with different backgrounds act in different ways; this is applicable to age, sex, religion, and many others. In gentrification, people can be grouped according to their socio-economic background, their way of acting, perceiving, moving, and experiencing the neighborhood will be subjected to this. People will consume space, time, and leisure in different ways. One way of studying this is through mental maps. Mental maps give the possibility to understand space through the perspective of different residents. It is known that gentrified and old residents have different lifestyles, but how does this manifest in space, the neighborhood? Do they actually have different commercial clusters? Do they live in different parts inside one neighborhood? Do they use space in a different way?

If there is an actual differentiation in how different residents use space, and this can be seen in people's mental maps, it is possible to talk about segregation, where residents from a different background living in the same neighborhood make use of different parts of it, making the task of mixing even harder. However, if residents use the same shops and move in the same spaces, even though they perceive it from a different perspective, inclusion would be possible. The use of mental maps gives the possibility to understand how different residents perceive, live, and use their neighborhood.

From the preceding theoretical framework, several hypotheses can be taken from previous studies regarding residents with different socio-economic backgrounds. These will be used in this research, and applied to the case of Roombeek:

1. **Displacement of old shops to give space to new ones specialized for new gentrified residents**: it has already been mentioned in this chapter how the commercial structure of a neighborhood changes upon the arrival of a new group. This attracts new shops, which are thought fit for a public with a higher income. The arrival of these shops displaces the previous services.

2. **Arrival of shops creates a new pattern of localization which is related to the way residents make use of space**: the arrival of new shops creates the differentiation between new more specialized shops and the old ones, suited for the original residents. The locations of these shops will follow a pattern, which relates to how gentrification develops, and will be located on different streets than the olds shops. New and old residents shop in different spaces, creating a sort of segregation in the shopping behavior.

3. **Residents with different backgrounds will have different mental maps of the same neighborhood**: old and new residents have different histories; therefore, they will perceive space differently. This can be applied to different aspects of life, but in a neighborhood in particular, old residents have experienced the space in a different way. They have been there longer and have seen its transformation; they give different meanings to different places. For a new resident, the meanings will differ, and what is important can be completely different.

4. **Old residents will tend to stay in the neighborhood while old residents move around the city**: new residents usually maintain their network in their former neighborhoods; in addition, they have more resources to move around and consume outside the neighborhood as well. The old residents, on the other hand, stay in the neighborhood, and there they do most of their activities.

Taking these hypotheses as a starting point, this research intends to analyze the perception and mental maps of the old original residents from Roombeek and the new gentrifier residents, in order to understand how space in the neighborhood is being used. Different perceptions and different uses will show results on what the boundaries, districts, landmarks are and which different elements neighbors perceive in their own neighborhood. The results are expected to vary among the different residents, however what of the most interest is if they will have spaces in common, have potential spaces of integration, or if they will avoid each other, giving space for segregation.

3. Research Methodology

3.1. Introduction

The following chapter will present the methods and techniques used during this research. With a deductive focus, taking into account the existing theory regarding gentrification and the use of amenities presented in the previous chapter, as well as studies realized with mental maps, this study presents new findings regarding the process of "living through gentrification". The techniques regarding mental maps have barely been used in the gentrification literature. However, the use of it reveals in other studies in Jerusalem (Greenberg & Shoval, 2014) how groups with different backgrounds have different mental maps of the same surroundings, and how they use space in different ways. Considering that gentrification is a process that involves interaction between different groups, and that these groups tend to act in a dissimilar way, this study uses mental maps to see how this materializes in space. This study is in line with other research that has already shown that different groups use space differently (Butler, 2003; Ernst & Doucet, 2014; Spain, 1993); however it uses another technique as a starting point, analyzing how residents actually move through space.

The investigation follows the structure of a qualitative research, using interviews held with residents, shop owners, businesses, artists, and experts in the field of reconstruction as the main source of information. In addition to the interviews, GIS software was used as a tool in order to complement and analyze the data. The use of GIS technology is also an uncommon tool in gentrification studies. This adds to the research by giving a spatial context in order to analyze and interpret the data.

3.2.   Research methods and techniques

The research methods for this investigation have been divided into desk study and field work. Desk study was conducted both before and after the field work, in order to prepare information that was important for the interviews and in the processing stages later. Methods relating to desk study at the beginning of this research refer to the recompilation of layers of information for the creation of maps that were to be used in the field. In the field phase, qualitative methods were conducted, such as semi-structured interviews.

The methods were used in order to answer the research question. In the next paragraph the methods will be explained following the structure of these questions.

Research Question 1: What are the different patterns of commercial infrastructure in the neighborhood, how have they changed, in relation to the past, and how this relates to new and old residents of Roombeek?

This research questions started with desk work. In this first phase, information regarding the neighborhood previous to the disaster of 2000 was necessary. This information is a recompilation of information that was found in books concerning the history of the neighborhood, as well as information found during interviews that were held with old residents and experts related to the reconstruction process.

To obtain the information about what can be found today in the neighborhood, information from the municipality, as shapefiles for GIS, were used as a starting point. Maps created from existing information were used later to run a cadastre through the whole neighborhood. In this cadastre, the information from the maps created during the desk work phase, was confirmed and complemented. Different shops, businesses, and services were put in their proper positions on the map, and many other amenities that were not present on the map were added to form a complete registration of what is presently in the neighborhood.

A GIS density analysis was done to the services present in the neighborhood. This helped to identify different clusters of businesses with certain characteristics. This was done to the whole city of Enschede in order to understand why Roombeek is an important place for the city's economy, as well as understanding the economical function of the neighborhood itself.

In addition to the cadaster, semi-structured interviews were held with some of the shop owners, artists, and workers from the neighborhood. The contacts for the interviews were done in the field, by asking the person for their availability for an interview. Some other interview contacts were made through the "snowball" method, thorugh contacts made in the first interview. Finally, the rest of the contacts were made through internet, finding people that are related to the neighborhood. The following table summarizes the interviews while the following map shows where the interviews took place (Table 2 and Map 1). The interviews included questions related to the neighborhood, date of arrival, business, type of customers, products, etc. (For full interview see appendix 1).

One additional interview of an old resident of the neighborhood was also done in order to understand the previous structure of Roombeek. The interviews were done in English when possible, and when not, in Dutch and translated later. All interviews where then transcribed.

ID	Name	Type	ID	Name	Type
1	New Artist	Business/Artist	8	Woman's Clothes	New Shop
2	TV Enschede FM	Business/Artist	9	Flowers Shop	Old Shop
3	Social Media Couching	Business/Artist	10	Electronic Shop	Old Shop
4	Prismare	Business/Artist	11	Fish Shop	Old Shop
5	Twentesewelle	Business/Artist	12	Old Artist	Business/Artist
6	Café Le Mans	New Shop	13	Engineering Art	Business/Artist
7	Kid's Clothes	New Shop			

Table 2: Interviews with shops, businesses and artists.

With information gathered from the cadastre and the density analysis, the neighborhood was analyzed through a temporal and spatial comparison. As a result, a synthesis map was realized with the characteristics of the old Roombeek compared to the new one.

Research Question 2: What are the different movement patterns of old and new residents, and how does this relate to the perception of space?

To find the answer to this question, semi-structured interviews were given to old and new residents. For this study, an old resident refers to those people who lived in the neighborhood before the year 2000, that is, before the disaster and later reconstruction. New residents are the others who came to the neighborhood after the reconstruction.
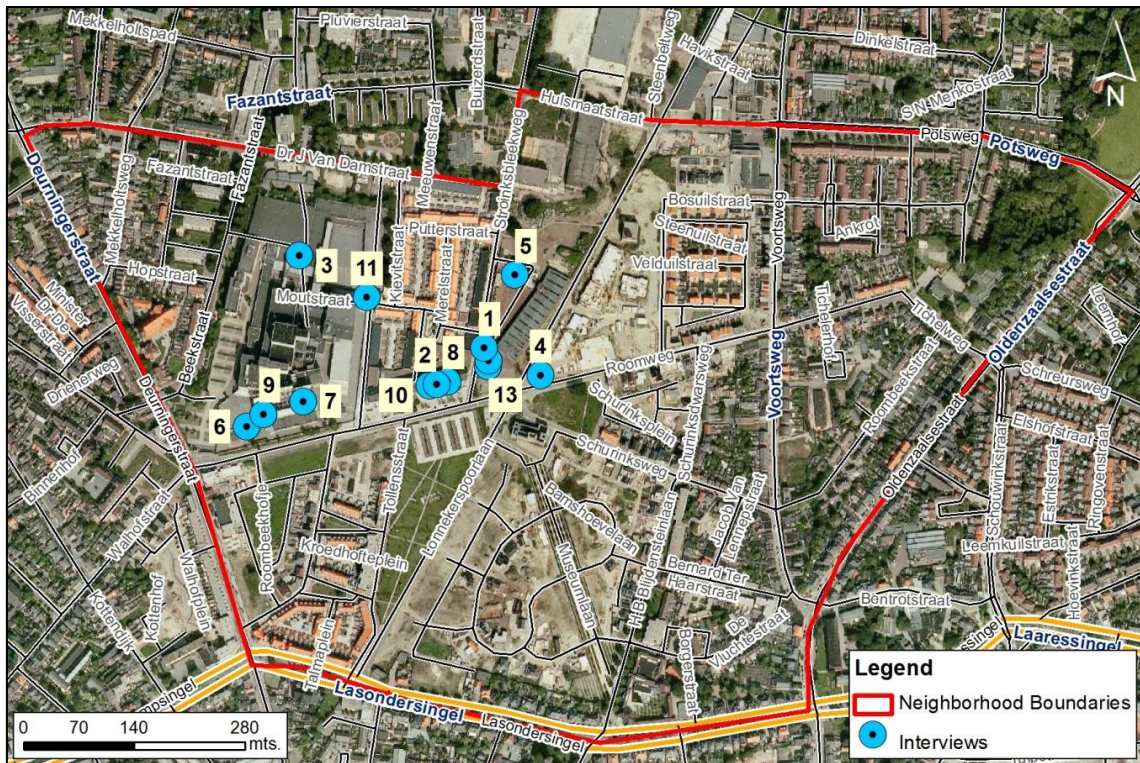
Map 1: Locations of interviews with shops, businesses, and artists.

The old residents were recruited in the first instance with help from Huis van Verhalen, located in the neighborhood of Roombeek, and functioning since the disaster in the year 2000 to help residents. However, in order to extend the network, some other neighbors were contacted through a network constructed with a "snowball" method, with help from shop owners, artists, and businesses owners. Other old residents were contacted through a company (USHI) that helped people build their houses during reconstruction. Neighbors that live in social houses from the Roomveldje quarter were approached through letters and in person, but contact was initially not possible; after much insistence, people from the municipality helped with the contact of three participants from the Roomveldje.

New residents were contacted through USHI, the same company that helped new residents develop their houses in the neighborhood. Others were contacted through the "snowball" method with the help of shop owners, artists, and business owners; the rest were contacted through the internet with the help of social media tools.

Both groups of residents were interviewed with the same semi-structured interview, in which they were asked questions about their neighborhood, mental mapping, shopping, and leisure, among others (For full interview see appendix 2).

The residents chose the location of the interview. The interviews were held in English when possible, and in Dutch when not. The interviews where then transcribed and translated when necessary. The information related to the mental mapping was digitalized and introduced in the GIS. The location of the residences of the interviewees can be seen in Table 3 and on Map 2.

ID	Name	Age	Profession	Type	ID	Name	Profession	Age	Type
1	Julia	32	Manager	**New Resident**	12	Peter	Shop Owner	49	**Old Resident**
2	Bob	27	PhD Students	**New Resident**	13	Hedy	Entrepeneur	34	**Old Resident**
3	Eduard	32	Artist	**New Resident**	14	Hanna	Retired	78	**Old Resident**
4	Gertie	68	Retired Social Worker	**New Resident**	15	Henk	Teacher	39	**Old Resident**
5	Barnie	57	University Lecturer	**New Resident**	16	Rosanne	Retired	69	**Old Resident**
6	Nicole	42	Unemployed	**New Resident**	17	Robert	Social Worker	41	**Old Resident**
7	Hein	48	Consultant	**New Resident**	18	Esther	Retired	73	**Old Resident**
8	Karel	55	University Lecturer	**New Resident**	19	Marike	Retired	76	**Old Resident**
9	Stefanie	37	Teacher	**New Resident**	20	Dino	Truck Driver	64	**Old Resident**
10	Wob	48	Artist	**New Resident**	21	Janna	Secretary	54	**Old Resident**
11	Brigitta	57	Unemployed	**Old Resident**	22	Pier	Retired	85	**Old Resident**

Table 3: Interviews with residents
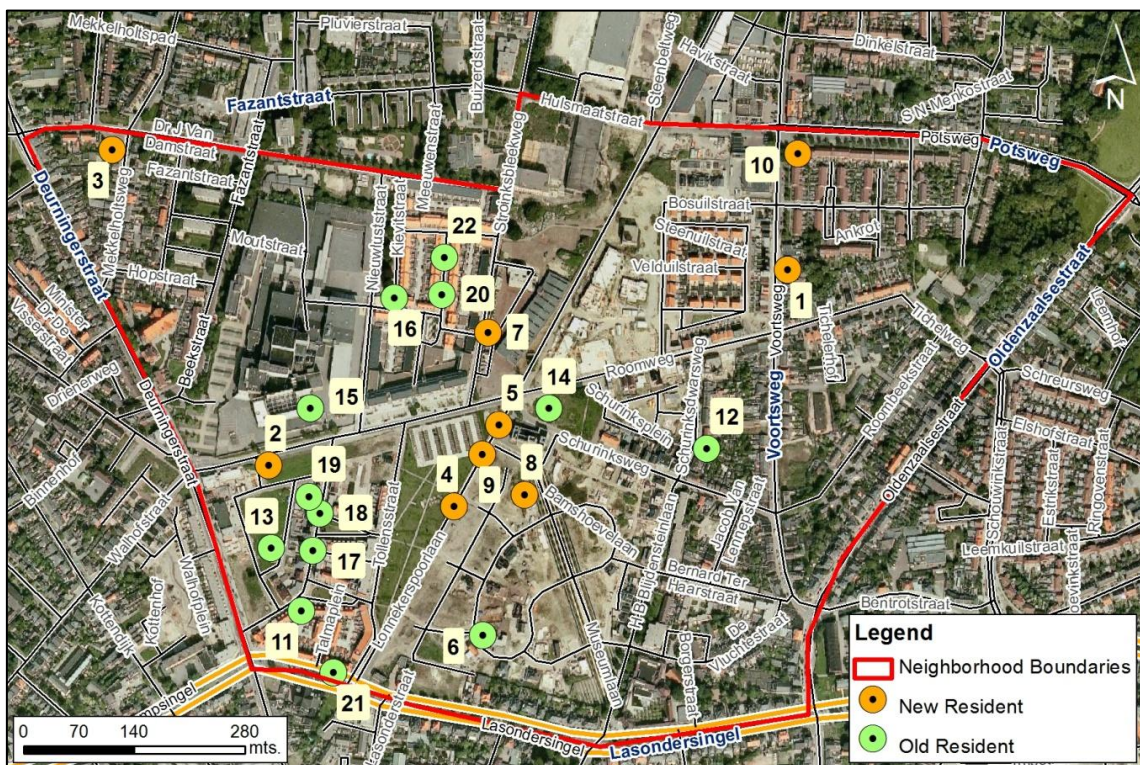
Map 2: Locations of interviews with residents.

The interviews were codified in Nvivo while the mental maps where digitalized and introduced in the GIS software. The data was analyzed with the revised literature from chapter 2, and as a result, different maps were created to show the existing situation (Hillier, 2010). According to Hillier (2010) the use of GIS can help in the process of analysis by showing different patterns that arise by using more than one layer. As in the study from Greenberg et al. (2014), the maps are used to show the perceptions of the residents. As a result, a synthesis map was created to show the current situation of the neighborhood taking, into account the perception of both old and new residents.

Research Question 3: How does the commercial structure relate to the movements of old and new residents?

To answer this question it was necessary to use information created during the previous research questions. The information regarding commercial structure of the neighborhood was used in combination with the mental maps and information from the interviews to analyze the different uses residents give to the neighborhood, and how this relates to shops, businesses, and services in the area.

With the information from the commercial structure of the neighborhood, a network analysis was realized using GIS software in order to understand the spatial practices and the proximity of commercial areas to residents (Hillier, 2010). The network analysis was realized considering a walking speed of 4,2 kilometers per hour. This distance can vary depending on the speed people walk; however, this speed was used as an average in consideration with the new residents who are younger and the old ones which tend to be older. A walking distance was chosen over biking because people use this means of transportation to realize most of their activities in the neighborhood.

In addition to the resident interviews, further interviews were conducted with experts that were involved during the reconstruction process. This refers to:

- Mr. Pieter-Jan Klok: a researcher from the University of Twente who was involved in the process of monitoring the neighborhood.
- Mrs. Marga Brunninkhuis: from the company USHI, who helped old and new residents build their homes through consultancy.
- Mr. Pi de Bruijn: the architect that was responsible for the entire reconstruction process.
- Roelof Blekker: alderman at the moment of reconstruction. In the interview, he states the purposes of the neighborhood and how the process was lived.

In the interviews the purposes of the neighborhood and the experiences during the process were described. This was used to make comparisons between the intention of the rebuilding process and the perception from some of the residents.

3.3. Limitations of the research

It is necessary to account that the researcher of this interview did not speak Dutch at the time of the interviews, which in a city like Enschede, is a constraint, since many people refuse to or do not speak English. Although most people agreed to do the interview in English, their basic English levels sometimes limited the answers and the way people were able to express themselves about their thoughts or feelings about the neighborhood. Some of the interviews that could not be done in English were done in Dutch and recorded to be later translated. It is necessary to consider that during this translation process, some information regarding emotions or feelings can be lost, as the exact words or expressions can be difficult to translate to another language.
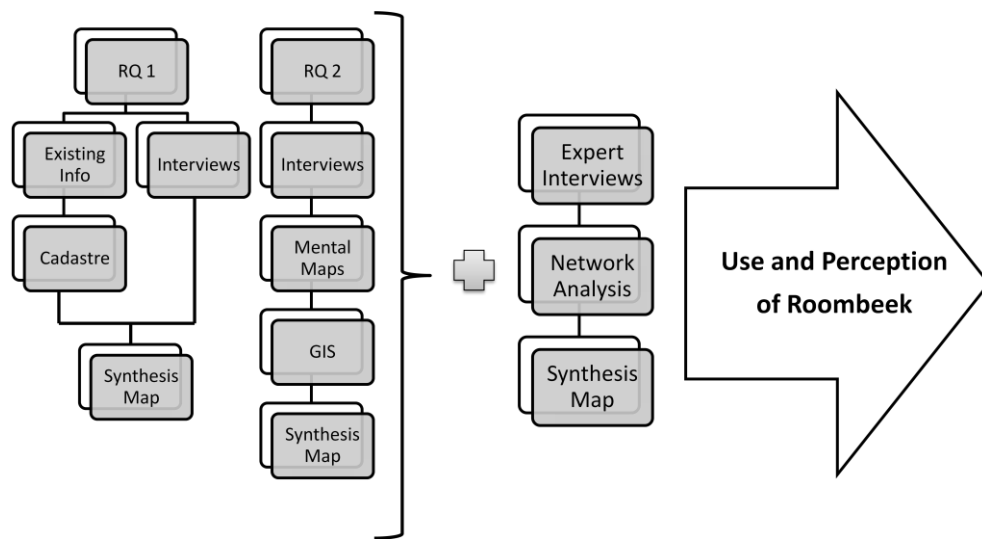
Image 5: Conceptual model of the Methods

In terms of language, this was also a limiting when trying to contact the residents for the interview. Especially the old residents, who were either old or from a low socio-economic group,, did not speak English. For almost every group however, it was possible to contact people to do the interview in Dutch or English. Nonetheless, the most deprived groups, which belong to the Roomveldje quarter and represent the lowest social-economic group that rents houses, had less representativeness because of their negative attitude towards participation in the study. This group was first contacted with a letter that was delivered through mail, in which the researcher introduced herself and asked for some residents to help with some interviews. This letter was written in Dutch, and the possibility for interviews was presented in Dutch or English. After the researcher received no reaction from their side, the residents were approached by people from Huis van Verhalen, which knew them from the time of the disaster. For this occasion, the institution organized a meal, to which some of the residents from that quarter attended. They said that they were not interested in having an interview, and had a little talk, from which it was possible to gain some information. However, the part regarding the mental maps was not possible because they never agreed to talk formally. A third approach was done with the municipality, which was doing a "branding study" in the neighborhood, at the coinciding time, with many residents from the Roomveldje quarter; they agreed to help contact some old residents, resulting in the possibility to interview three of them.

3.3.1. Reliability and validity

The criteria to apply reliability and validity to qualitative research are different from those of quantitative research. Reliability, validity, and generalization are usually easier applied to quantitative investigations; however, Bryman (2012) proposes different ways to adapt the criteria to qualitative research.

LeCompte & Goetz (1982) describe the criteria to measure the reliability and validity of qualitative research. Accordingly, external reliability is the degree to which a study can be replicated (Bryman, 2012). Even though this is difficult criteria to meet, because similar situations are never equal, adopting the same criteria for this research is possible for other investigations that meet similar conditions, especially such neighborhoods that have different populations cohabiting in the same neighborhood.

The internal reliability means that when there is more than one observer, members of the research team agree about what they see and hear. For this research, interviews were conducted together with other colleagues. For interviews conducted in English the criteria is met; nevertheless for those in Dutch, it was not possible to agree, because of language constraints. In this case, the translations of the interviews were not discussed with other members of the investigation.

External validity refers to the degree to which findings can be generalized across social settings (Bryman, 2012). This can present a problem for this research because it is a single-cased study and a particular case due to the disaster and reconstruction conditions, however, this also makes it an interesting event, because is different to other cases in the Netherlands and other countries.

The interviews were arranged through a "snowball" method, which as a result may not be representative of the whole neighborhood of Roombeek. The creation of networks inside the neighborhood can lead to bias in the answers of people with similar ideas.

4. Case study: Roombeek, Enschede

4.1. Introduction

This chapter will give an overview of the neighborhood of Roombeek. It will focus on the history and creation of the neighborhood before gentrification, and how it developed to be what it is today. It will focus on historical facts and the reconstruction process after the fireworks explosion in 2000. The information here will serve as a base for the empirical results in chapters 5, 6, and 7, which will show how the people that live in Roombeek experienced all the changes the municipality designed for the redevelopment of the neighborhood.

4.2. Location and general information

Enschede is a city in the east of the Netherlands, located next to the German border. Roombeek is one of the neighborhoods located in the north, as a continuation of the city center (Map 3). The city has a population 158.585 inhabitants, of which 4.511 live in Roombeek.

Map 3: City of Enschede and Roombeek.

Roombeek it is located around 1,3 kilometers away from the train station; and it is connected directly to the center through three main arteries, Deurningerstraat, H.B. Blidensteinlaan, and Oldenzaalsestraat (Map 4).
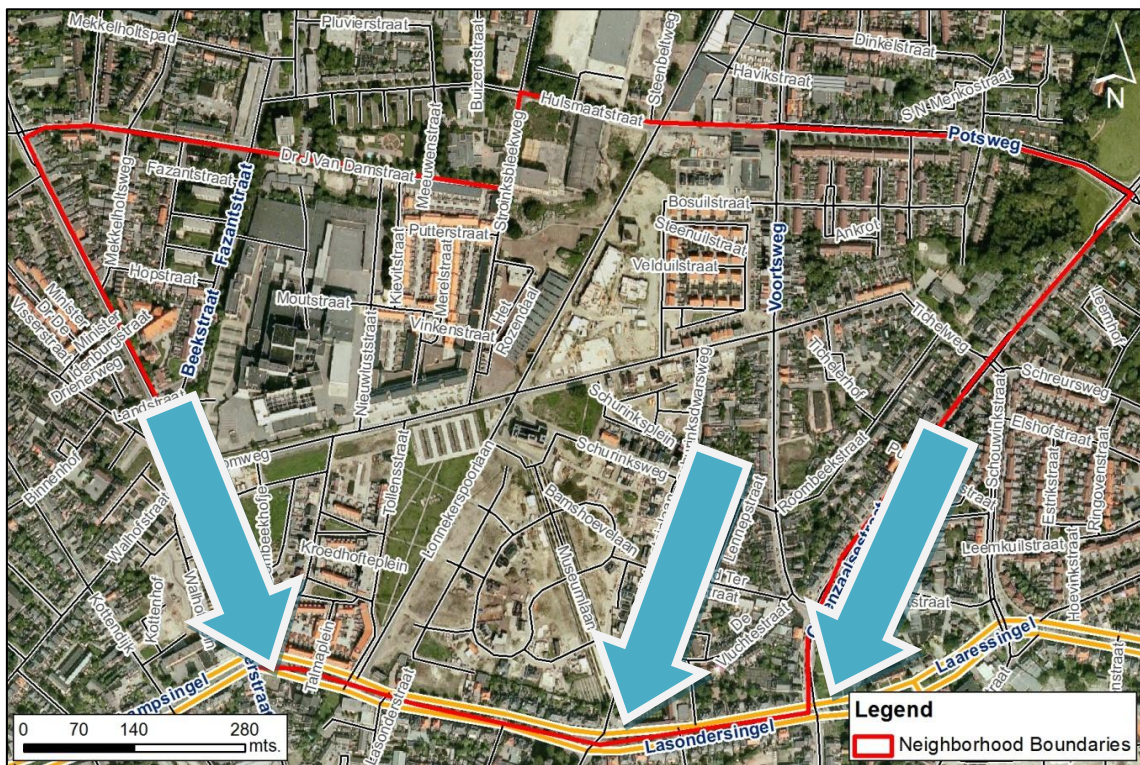
Map 4: Connection of the neighborhood with the city center.

After a fireworks explosion in the year 2000, the neighborhood underwent an important reconstruction process which made it one of the newest neighborhoods in the city of Enschede. During reconstruction the municipality also decided to convert the neighborhood into an important economic and cultural center, the reason for which it is today home of a commercial outdoor center, Twentsewelle, and the Rijksmuseum.

4.3. History of Roombeek

In the 19th century, Enschede was an important textile city in the Netherlands. Roombeek became a desired location because of the railroad from Enschede, which travelled through the villages of Lonneker and Oldenzaal, making connections easier and faster. The successful business opportunities attracted many workers from various parts of the country, as well as from outside. The growing demand from workers for living space influenced the decision to build houses on the surroundings of the factories. At the beginning of the 20th century, almost 70% of the people living in the neighborhood worked in one of the factories (de Lugt & Rijkeboer, 2003).

In the middle of the century, because of global tendencies, the industry started to decline, changing the image of the neighborhood completely. The neighborhood started to have social problems, there was a lack of cohesion, most of the residents were unemployed, there were problems related with alcohol and drugs, and there was a large flow of people coming in and

going out. People that had jobs left the neighborhood because of its poor image and Roombeek became known as a crossing site for those looking for longer-term accommodation (de Lugt & Rijkeboer, 2003).

4.3.1. Commercial structure of the neighborhood

In the past the Roomweg was a lively street that concentrated many shops in the neighborhood. The street was a meeting point for social life; each quarter had its own small bakery, butchery, greengrocery, hair salon, etc. All this came to an end for several simultaneously occurring reasons; Roomweg went through a process of reconstruction, which stopped it from being a main artery and connection of the city. Cars had to detour, so shops lost many customers. For the same reason, the street changed its social connotation; people did not meet there anymore, and others started using it to realize other businesses, like car reparation. Then, the presence of the supermarket Nieuwe Weme, which had everything people need it in one big place, made it so that it was not necessary to go to many shops anymore. However, the most important reason was the decline of the industrial economy, which had a huge impact on the economy of the neighborhood, the customers of the small shops. That is how all business left Roombeek, and what was once a lively neighborhood, started to decay slowly (de Lugt & Rijkeboer, 2003; Architekten Cie., 2002).

The Bamshoeve building separated the Schurinksweide from the rest of Roombeek, Roomveldje, Kroedhöfte and Talmaplein (Image 6), creating two different neighborhoods. They had direct connections to the city of Enschede, so they did not need to use other streets or facilities in Roombeek. People felt like they were living in a better neighborhood without the problems of the rest of Roombeek. The neighborhood became an isolated part of the city, where nobody from the outside needed to go (de Lugt & Rijkeboer, 2003; Architekten Cie., 2002).

The industrial buildings that once were the heart of industrial Roombeek were now abandoned. Different kinds of unknown businesses started to occupy these facilities, converting the neighborhood into something different, something that was unfamiliar for people. In an attempt to regularize the situation of the unoccupied buildings, the space was rented to artists for use as workshops for a very small price. This is what gave the old Roombeek its image of a neighborhood ruled by social problems, low rents, students, unknown businesses, and many artist workshops (de Lugt & Rijkeboer, 2003; Architekten Cie., 2002).

4.3.2. The fireworks disaster

One of the companies that came to use the old industrial buildings was S.E. Fireworks. In the year 2000, the company experienced a huge explosion in its deposits. In the accident, 23 people died and more than 900 were injured (Denters & Jan Klok, 2010). A great portion of the neighborhood was destroyed, from the Roomweg to the residential spaces outside. Some of the houses in the periphery suffered less damage and part of the Schurinksweide was protected by the Bamshoeve.
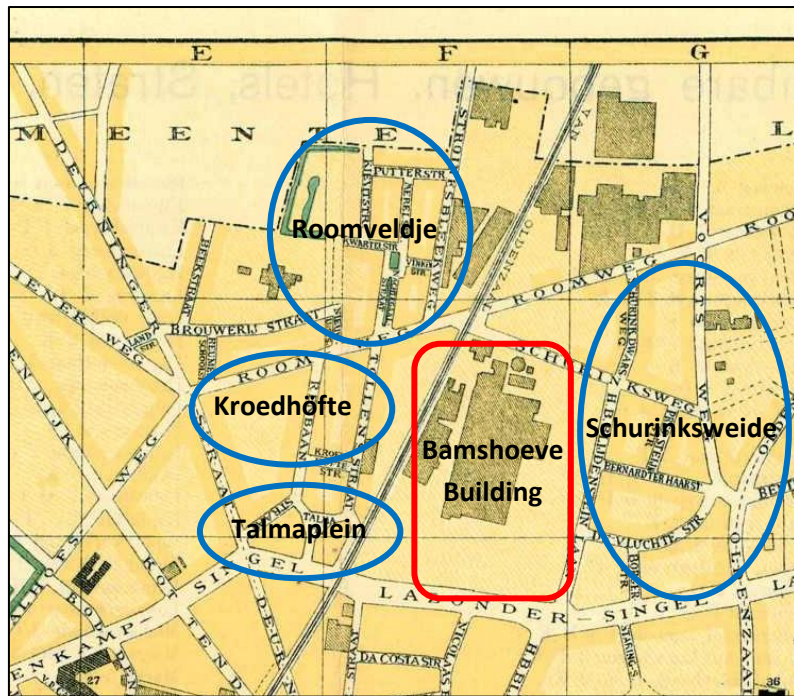
Residents of the neighborhood, who lost everything, had to be rapidly relocated and in no time, Roombeek was practically empty. The companies in the neighborhood also had to be relocated (Denters & Jan Klok, 2010). The perimeter of the catastrophe was closed and neighbors could not reach their homes for many months. Many of them moved in with family or to provisional houses in other parts of Enschede, as well as close-by towns. The neighborhood was completely erased from the city, and for many months, Enschede had to function without the connection of Roombeek.

4.4. Reconstruction of Roombeek

At the moment of the catastrophe, Roombeek had about 1.500 residents living in 650 homes. More than half of these homes were built between 1910 and 1920, and 54% qualified as social housing; the rest were privately owned, mostly occupied by their respective owners (Denters & Jan Klok, 2010). The municipality of Enschede decided to rebuild the neighborhood with a participatory process. This became a challenge considering most of the residents did not have a high level of education and were very upset because of the disaster.

Before the fireworks explosion, the municipality had already planned for an urban renovation in the neighborhood of Roombeek, which had been applied to some parts of the neighborhood in the north. Therefore, the reconstruction of the neighborhood presented an opportunity to start from scratch and allow citizens to participate in the process. The project was directed by the architect Pi de Bruijn, who was elected because of his background in urban projects, and because he is originally from the region.

The project was constructed in such a way that old residents could return to the neighborhood. However, the intention was also that new residents would also move into the

neighborhood, using the space left from the industries. Old residents that were home owners got the possibility to build on a new plot for what was called "land for land". Many of them decided to build close to their former residence, while others had the chance to build in new residential areas. The municipality gave the opportunity to citizens to design their own houses, which is not a usual practice in the Netherlands. For rental residents, the corporation offered to retain the rental agreements after the redevelopment, with the benefit of giving new modern houses, which would look exactly like the industrial old ones from the outside. They also got the chance to participate in the design of the new houses, especially in the interior of the dwelling (Image 7).

Image 7: Reconstruction of old parts of the neighborhood. Rented and home-owner houses.

One of the most important objectives of the architect Pi de Bruijn was to keep everything that could be saved, that applied to residential buildings as well as industrial ones. For residential rental housing the architect wanted to preserve some of them, however the people decided to have all new houses. For industrial buildings, however, the remains were part of the new designs. This includes parts of the Grolsch factory, Rozendaal, SE Fireworks, Balengebouw, Nino Watertoren, Tetem, and Menko.

Before the fireworks disaster, the neighborhood was divided into residential and industrial areas. The redevelopment plan presented eight different uses (Map 5). Living and Working encompasses the residential areas, which includes old and new areas on the terrain of the former Bamshoeve factory. On the terrain of the Grolsch factory there are two new areas that were absent in the previous neighborhood. The clustered activity is intended for businesses and the retail zone is a commercial center which aims to attract shops to the neighborhood. The plans also considered a cultural cluster in the heart of the neighborhood. Next to this is an educational cluster, and services related to health. Finally, the houses adjacent to the main arteries could also be developed as small businesses (Architekten Cie., 2002).

Map 5: Design of the reconstruction
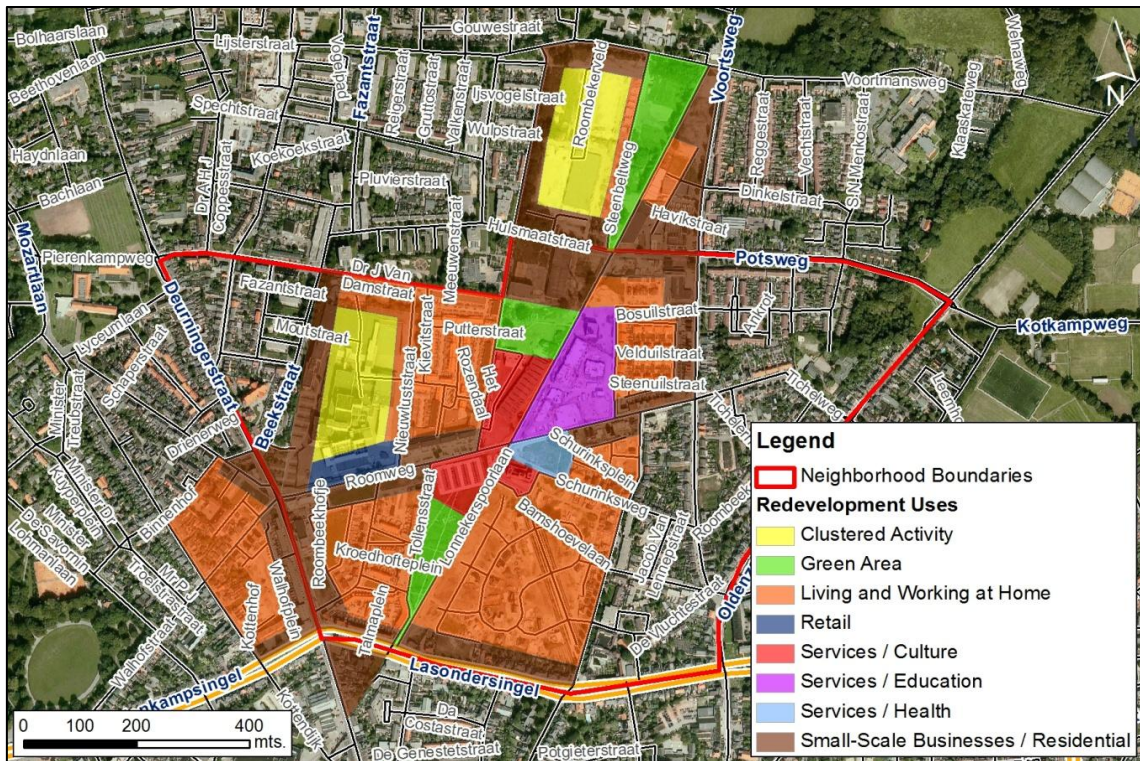
4.4.1. The Bamshoeve

One of the major changes, and one that deserves a chapter of its own, is the development of the Bamshoeve area. The former Bamshoeve factory was divided into plots, designed for and sold to new residents. In this land, every owner could build and design their own house. However, the rules for design were very strict, in the sense that every design had to be approved by Pi de Bruijn. This was a major change in the neighborhood, as the area was designed for upper class residents and the houses were much bigger with large differences between the people.

Bamshoeve can be easily divided into three parts. One part is the Lonnekerspoorlaan, which had extremely strict rules of construction, in which the houses had to be close together and of a certain height, width, and color. This part of the neighborhood resembles houses in Amsterdam. A second part of the neighborhood, which is the complete opposite in style, is the Museumlaan. Here, houses did not have any rules for construction, however, the design had to be done by a famous architect and approved by Pi de Bruijn. The rest of the Bamshoeve was for houses with different designs and less rules for construction (Image 8).

4.4.2. Green areas and cultural cluster

An important part of the redevelopment plan was to place all the cultural facilities of Enschede in Roombeek. Before the explosion, the Rijksmuseum was located on the southern border of the neighborhood. During the accident it did not suffer major damages, so it stayed there on the corner of Lasondersingel and H.B. Blijdensteinlaan. Because the Rijksmuseum was already located in the neighborhood, it presented a good opportunity to bring other cultural facilities to Roombeek; this area was designed as the heart of the neighborhood in the Roomweg, where the Twentesewelle museum would be located. The architect created the Museumlaan,

which was intended to connect both museums, creating a sort of "open air museum" in between with all the houses constructed by famous artists.

Image 8: Houses in Bamshoeve. Lonnekerspoorlaan, Museumlaan, and the rest of Bamshoeve.

The cultural cluster included other facilities like small workshops for artists and other cultural buildings that came to be occupied later by Tetem gallery Rozendaal, and the ArtEZ. The Balengebouw is one of the most important buildings in the area, located right where the Museumlaan ends. This former factory was completely renovated to fit the new necessities of the neighborhood. However, it is one of the few buildings that is still empty in the neighborhood. Its future use is still unknown, but there is speculation that its future use will be related to culture.

Image 9: Cultural uses in Roombeek. ArTEZ, Twentsewelle, and Balengebouw.

Another important cultural building in the neighborhood is Prismare. This center provides cultural activities for the neighborhood and also for the rest of the city such as theater, dancing lessons, workshops for handicapped people, a Turkish center, etc. It is thought to be the heart of Roombeek, and it organizes different events during the year to bring the community together.

The green areas were an important part of the reconstruction. Old residents that participated in the process asked to have water in the neighborhood. The municipality brought the actual Roombeek River up and made it part of the landscape, through the entire neighborhood. Parks to remember the fireworks disaster were also created in different locations, and the place where the fireworks factory was, was left as a memorial (Image 10).

4.4.3. Other important aspects regarding the reconstruction

For the rest of the neighborhood, the municipality intended to build new residences. These were originally designed to be high rise buildings; however, the people opposed that idea because there were no other tall buildings in the neighborhood before. The result was the construction of some low rise buildings on the main street of the neighborhood, the Roomweg.

Another important issue for the municipality and the residents was the connection through public transportation. Connection points were constructed on the Lonnekerspoorlaan, the location of the former railroad track. The residents initially opposed this idea because they did not want noise in the neighborhood, however they came to an agreement and today the neighborhood is one of the best connected in Enschede.

It is hard to say how many of the old residents came back or still live in the neighborhood, because many of the residents have kept moving. However, the municipality estimated that close to 70% of them returned to Roomveldje while 40% to other parts of the neighborhood. In rental houses, residents keep paying what they paid in the past, which is less than the normal renter in that area. Some of the old residents that were home owners live today in the Bamshoeve because of the principle of "land for land", however most of them decided to stay close to their old residences. The rest of the buildings are occupied by new middle class owners who paid market price, one of the most elevated in Enschede.

4.5.   Conclusion

Roombeek is a neighborhood that has gone through an important reconstruction process. The explosion of the fireworks factory presented an opportunity to renovate a neighborhood that was already in the renovation plans of the municipality of Enschede. This plan was designed to attract a higher income population to a neighborhood that was known for being the most deprived in the city.

The reconstruction meant more than rebuilding what was already there or attracting new residents; it consisted of constructing a completely new image of Roombeek. This is a new residential area, with green spaces, good connections, businesses, a commercial center, and a cultural cluster. The neighborhood was completely rebuilt to create a space that looks nothing like the previous neighborhood. Even though most of the buildings had to be kept and the old houses had to look alike, the neighborhood today satisfies a completely different function than

before. Today Roombeek aims to have a regional function and to attract people from all around the country.

5. From industry to multiple uses

5.1. Introduction

Roombeek is a neighborhood that has gone through a huge reconstruction involving not only the arrival of new people, but also the change of its entire structure. It is not common to have areas of this size inside the city where developers can rethink a completely new space. This presented an opportunity for many to develop a central area of a city that for many years was left in oblivion. After the fireworks disaster in the year 2000, the municipality faced the challenge of redeveloping this area that was completely destroyed. The reconstruction lasted several years; almost everything must be rebuilt, which is one of the main differences between a normal redevelopment and this particular case. Even though the process lasted several years, it can be said that from one day to the next, people saw a whole different neighborhood in front of their eyes, leaving the old image behind.

This chapter will explain the changes of the neighborhood, focusing on its economic background, making a spatial and temporal comparison of how the neighborhood was and how it is today. It starts with a description of what the neighborhood used to be, created with the images of people from the neighborhood, in addition graphic material will be used to show this spatially. It will follow with what the neighborhood is today and will finish with a reflection of the development and the future of the neighborhood.

5.2. Images of an old Roombeek

Before the year 2000 Roombeek, was a neighborhood that still had the buildings of an industrialized past. Most of the factories, which were not in use anymore, formed part of the daily landscape where residents developed their life. In map 6 and Table 4 it is possible to see the structure of the neighborhood before the fireworks disaster. An area equivalent to 42% of the neighborhood was industry, and the rest was left to the houses that were built to supply living demands for industrial workers in the 1900's.

Plot	Name	Type	Plot	Name	Type
1	Grolsch Bierbrouwerij	Industrial	9	Machinefabriek Thole	Industrial
2	Rozendaal	Industrial	10	SE Fireworks	Industrial
3	Cord Finish	Industrial	11	Papierhandel de Paauw	Industrial
4	Tetem-Gebouwen	Industrial	12	Het Oosten	Industrial
5	Kringloopwinkel Het Goed	Industrial	13	Bamshoeve	Industrial
6	Menko	Industrial	14	Rijksmuseum	Industrial
7	t'Menko	Industrial	15	Chinese Restaurant	Commercial
8	Verenigings gebouw	Industrial	16	Supermarkt Nieuwe Weme	Commercial

Table 4: Industries present in the area before redevelopment.
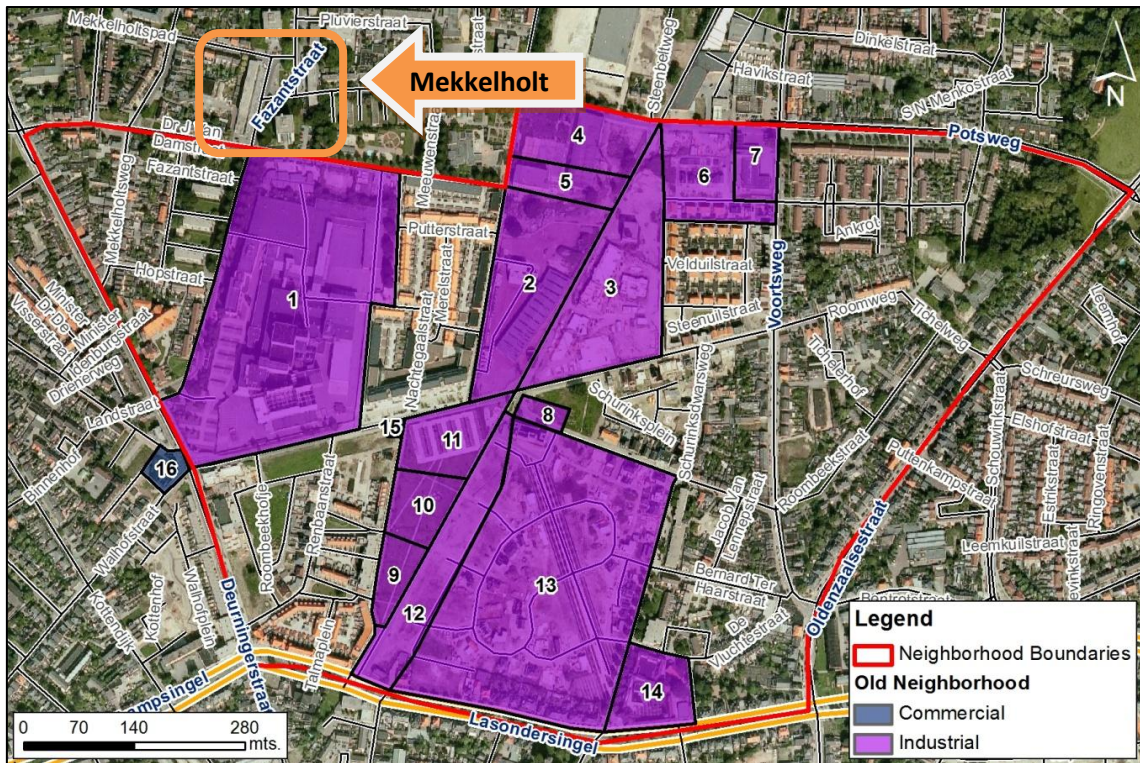
Map 6: Old neighborhood of Roombeek.

Two big industrial buildings were located in the neighborhood, the Bamshoeve and the Grolsch factory, names that have been given to different quarters inside the neighborhood today. There were no shops inside the neighborhood. The only supermarket was Nieuwe Weme on the western boundary and it was completely destroyed in the fireworks explosion. Further, there was just one supermarket located in the neighborhood.

When the textile industry decayed, many of the buildings were left empty, so they started to have other functions like "unknown businesses" and workshops for artists. Peter, an old resident and old shop owner describes how this affected the image of the neighborhood:

"There were a lot of old factories here that were empty, there were a lot of small businesses in there, but you really didn't know what they did or what they didn't do. You didn't know what material they were working with or not working with. That wasn't good for the old neighborhood" (Peter, old resident)

"These were old textile factories, artists, and small businesses that were located in there" (Hanna, old resident)

"It was depressing; there were large factories that were abandoned for many years, broken glass, trees growing on the roof, things like that, and it was not an interesting environment. You had large factories here with all kinds of small businesses, not all too good of businesses, fringe of the economy, shall I say" (Karel, new resident)

The empty factories served other purposes as well, workshops for artists for example, which also gave a different bohemian image to the neighborhood. Wob is one of them; he decided to

return to the neighborhood because he already had a network of contacts there. He explains how the artist life was back then:

> *"The factory was closed down, so that is where we had our studio. It was a spinnery, where they make textile; it was closed, and it was abandoned, so the artists took it over. Most people that lived there were either working here, or had their small business here, small things connected to textile. The people were alike, similar. It was kind of lively, free"* (Wob, old resident)

Eduard, a new artist that now works in the neighborhood, also talks about the different image the neighborhood had in the past:

> *"The old neighborhood was also really charming, cheaper; it was cozy, with people that were really involved with each other, a sort of old style cohesion"* (Eduard, new artist)

Nevertheless, most of the old residents and people that knew the neighborhood well from before would agree that the panorama was very depressing back then, with not too many things to do, or places to go, which led to a lot of people hanging out on the street:

> *"You don't want to know what it looked like before; it was old, a lot of, you know, less developed people"* (Flower shop, old shop owner)

> *"It was a really old neighborhood, like every working city. There was a lot of unemployment, and a lot of unemployed people living here"* (Peter, old resident)

In the old neighborhood there were no shops (Map 6), so people had to either go to the Nieuwe Weme for their daily shopping or move someplace else.

> *"It was mainly that shop [Nieuwe Weme]; the neighborhood was small houses with not much green space"* (Hein, new resident, former resident of an adjacent neighborhood)

Of course, the proximity to the city center made it a feasible option to go there to buy other things. Nevertheless, an important commercial center, located close to Roombeek was Mekkelholt. This area is located just north of the neighborhood limit (Map 6) and was home for many of the shops that are located in Roombeek today.

Mekkelholt is a neighborhood located north of Roombeek. It is very similar to what Roombeek used to look before the fireworks disaster in 2000. It has a residential area with industrial houses constructed around the 1910 and 1920's. Along the border with Roombeek, it has a commercial center with the same name, Mekkelholt, and it has been there since before the catastrophe (Image 11). This center was actually affected during the reconstruction because it was going to be replaced by the new center in Roombeek. Roelof Blekker, alderman of the city of Enschede and responsible for the reconstruction, refers to why they decided to replace Mekkelholt with the new commercial center:

"We had two [shopping centers] in Enschede North, the bigger area and the smaller one that was getting a bit old. We had extensive studies about what is good for Enschede North and the conclusion was to downsize and diminish and get away from Mekkelholt, build a new one in Roombeek. We expected so much housing, so many people; do they need a shopping center, yes or no? A lot of studies were made and the conclusion was it was good to build one in Roombeek. So, we went to the owners and shop holders of Mekkelholt and said that we want to downsize Mekkelholt and build a new shopping center in Roombeek and said that they could come to Roombeek. The owners and the housing corporation also agreed to diminish Mekkeholt to redevelop the housing there and to also have the chance of getting new apartments in Roombeek"
(Roelof Blekker, ex alderman Enschede)

Even though the final decision was to remove Mekkelholt—the municipality mobilized all the shops to the new spaces in Roombeek's shopping area—the center is still not gone. Today its purpose has been changed to provide multiple art and "spiritual" services:

"Yes, we have been bought out from there, just like the baker, fish shop, and post office. That had to be demolished. Enschede wanted a new shopping center here, and also in Deppenbroek, and shopping center Mekkelholt would disappear"
(Flower shop, old shop owner)

5.3. New uses in Roombeek

After the fireworks disaster, much of the architecture of the neighborhood was destroyed, this included residential houses and industrial buildings. It was not required that they intervene in all of Roombeek, but only the inner circle, which was the most affected area. In order to do so, the redevelopment plan assigned different uses to the zones, getting the functions of a central area for the entire city of Enschede.

Before reconstruction, the city of Enschede already had two important points of commercial agglomeration in the center and in the north, in Deppenbroek (Map 7). Considering this previous structure, the creation of an economic cluster in Roombeek acts as a connection between the most populated part of Enschede (the north) with the city center. This linear commercial connection between the north and the center was also important not only for the neighborhood of Roombeek, but also the neighborhoods in-between:

"[Roombeek] it is connecting the inner city to the outskirts of Enschede, because it is pretty close to the center. It has the potential to become a second center, and it stretches the city center a little bit. It used to be, where the rail station is, a very

unclear neighborhood, and it was sad for people to sit here; they had beautiful houses and an ugly space, then beautiful again and now it is more gentrified; it is for the good of the people living here, people there; it is more livable" (Hein, new resident)
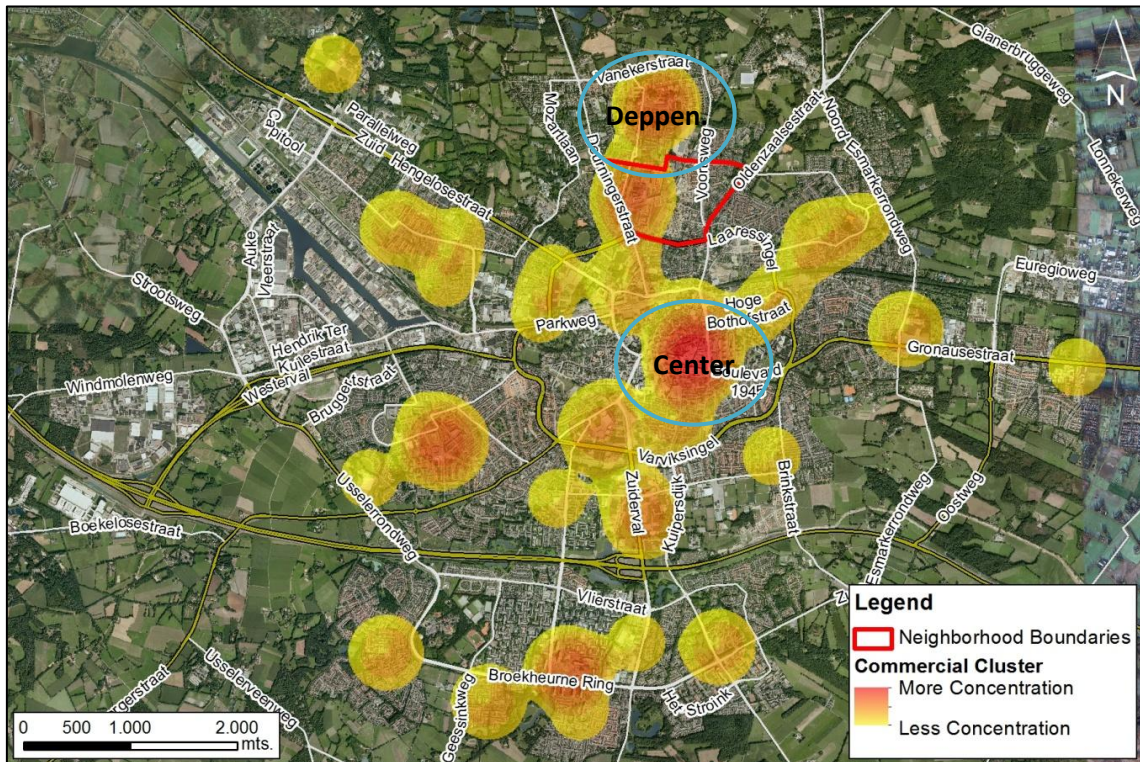
Map 7: Commercial Cluster of the city of Enschede

The disappearance of the industrial buildings gave the new neighborhood a lot of space to create all the facilities that were missing. The municipality thought that the neighborhood should not only attract shops, but also the possibility for different uses, such as businesses, culture, and retail (Map 5 in chapter 4).

After the reconstruction, different businesses, shops, and buildings have slowly arrived to the neighborhood. The first companies arrived in the year 2006, and today there is still a lot of space empty for the latest development, the Brouwerij, where the Grolsch factory was previously located. The commercial structure of the neighborhood follows a well-defined pattern (Map 8) related to the plans the municipality laid out. Retail can be easily found in the center of the neighborhood, on the Roomweg and also in the Mekkelholt center. However, the shops in Mekkelholt are different than the original ones, since these moved to Roomweg. Culture is concentrated in the former Rozendaal factory and it contains most of the cultural facilities of the city of Enschede. At the intersection of the Potsweg and the Voortsweg there is a concentration of consultancy services. At the southern limit, there is a cluster of financial and legal services. Finally, to the east, some of the old shops, like snack bars, remain from the past. Controversially, this is the part that corresponds with Schurinksweide, and it was not included in the reconstruction program because it was not destroyed by the explosion. Nevertheless, this part of the neighborhood, particularly the street, Voortsweg, has developed some small businesses related to culture, like art galleries and theater schools.
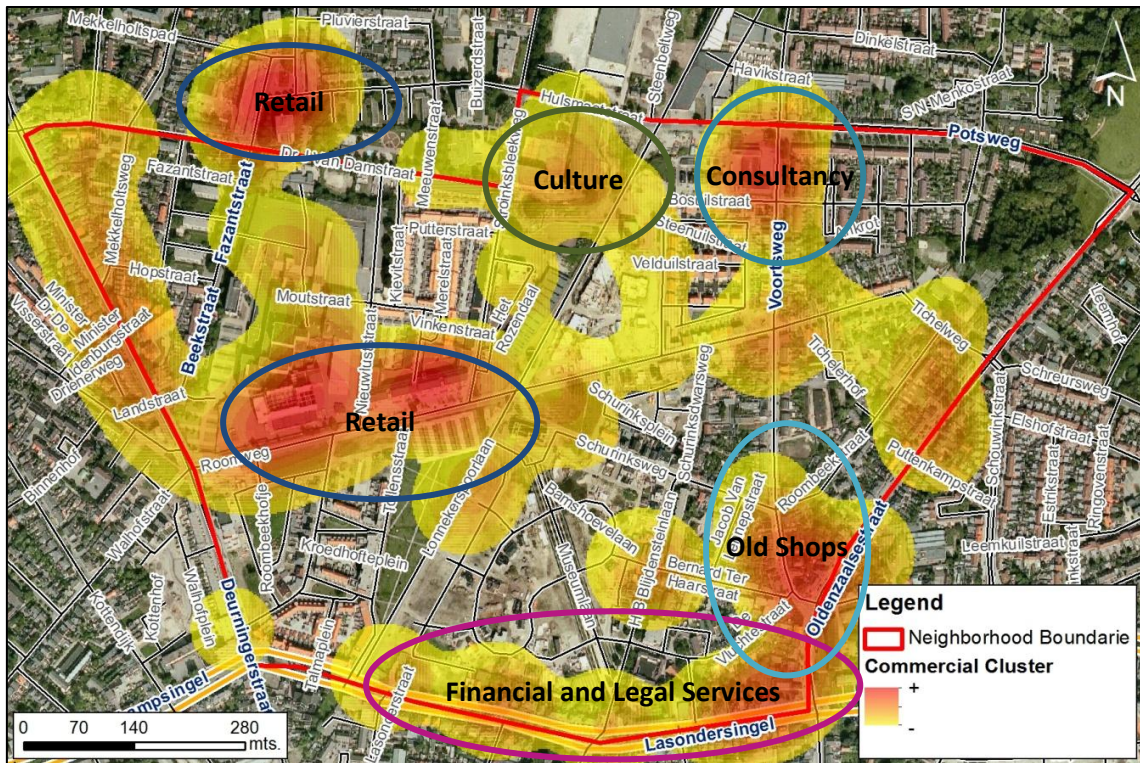
Map 8: Commercial cluster of Roombeek

Roomweg is the center of the neighborhood, with all the shops located in two commercial centers that were planned together but developed at different times. The Brouwerij contains two supermarkets (Jumbo and Emté), a post office, Hema, and some other shops and cafés, while to the right is the older shopping center with some shops, a café, and the local radio station. The creation of these two centers at different times created a sort of competition between the owners, as Peter refers to it:

> "That's the problem with businesses today, they can't work together. They all think 'you are my competitor, my enemy', and that is so stupid! They should be working together, all the time" (Peter, old resident)

The structure of the neighborhood follows a clear pattern, which is the result of a strict planning process. In this sense, it has hardly anything in common with the case Butler (2003) presents for Barnsbury, London, where the location of the new and old shops is influenced by market forces. Even though there is a similarity when it comes to the separation of new shops and old shops, where the new ones are located on the Roomweg and the old ones on the Voortsweg, this case has the particularity that the new shops are being used by some of the old shop owners that were located in the other part (or close to) of the neighborhood before. The following chapters will discuss the relation between the shops and the residents of Roombeek.

5.4. Different neighborhood, different demand

The redevelopment of the neighborhood has had a visual impact since the factories have disappeared and new residences have taken their place. The latest, of course, also has had an impact on how people consume. Initially, this occurred because there was a bigger demand related to the increase in the number of residents but also because the people that came to the neighborhood were upper class, and had major income, and different tastes.

Some of the old shop owners that were located in Mekkelholt moved to the Roomweg. They are very aware of the differences resulting in the change from a deprived neighborhood to an upper class one. Even though the distance between one center and the other is just 500 meters, and both distances are perfectly reachable by foot, major changes can be distinguished. When the decision to demolished Mekkelholt reached the owners, some of them decided to leave and start somewhere else, but the others were determined to stay because their customers were already in the neighborhood, and for them start in someplace else was even harder:

> *"You just had no choice, because all of my customers lived here. If I go to another neighborhood, I have to change my clientele. Then it is just the question of whether I would be surviving or not"* (Electronic shop, old shop owner)

> *"We really didn't have much to say about it. They told us we would go through this and that and showed us some pictures and what do you think?"* (Fish shop, old shop owner)

> *"We have been bought out from there, just like the baker, fish shop, and post office. That had to be demolished. Enschede wanted a new shopping center here, and also in Deppenbroek. And shopping center Mekkelholt would disappear"* (Flower shop, old shop owner)

Most of the shops that decided to stay were able to keep their old customers in Roomweg, however, a small percentage do not go there because it is out of their shopping circle. On the other side, the new neighborhood has given them many opportunities. The process of positioning themselves in the new neighborhood and as a business was slow:

> *"I do have more customers now, nothing at the beginning. It was a process to build our public again at the beginning. Now we have more customers than we had there, but it took a while"* (Fish shop, old shop owner)

> "*Most customers moved with us, but there are also new customers*" (Flower shop, old shop owner)

In their new location, all old shop owners agree, in fact, that the demand has changed. Nevertheless, this is a characteristic that has also been noticed in shops coming from other parts of the city, where they noticed the difference in the demand for the products they sell:

> *"In comparison with what was there, it is more exclusive now, but also the normal stuff is there of course, but I have exclusive demands now and then, so it's nice; it is a mix of people"* (Fish shop, old shop owner)

"It is a nice neighborhood, one with many young people, different people and many families with double incomes. At our old place, we closed for three weeks in the summer, then business was just dead" (Flower shop, old business)

"People that live here have a little bit more money to spend on kid's clothes, so we try to get some more expensive brands. The winter season will come with six new brands" (Kid's clothes, new owner)

"They are buying different clothes. I had another shop in a different neighborhood; the average size, for example, was two times bigger than here. So the people were fatter, and it was a poorer neighborhood, so that is an example of how it is different; it is more modern, what I'm selling here, it is not especially more expensive. But it is a different store, more modern" (Women's clothes, new owner)

This has had an impact on the prices as well:

"Before, a bouquet of flowers for 15 Euros was a lot of money; here, it is very normal; here 20 or 15, it is normal" (Flower shop, old shop owner)

It is expected, based on the literature revision, to find displacement in the commercial structure of a gentrified neighborhood. In Roombeek however, many of the old stores, instead of going out of business or being displaced, have adapted to the new demands. The owners agree that they now have to work more than before, and they do not get vacations as they did in the past. However, they have learned how to adapt and take advantage of this new exclusiveness. They keep selling the old products; however, they are always on alert for new demands, especially exclusive demands, in order to attract the new residents.

The latter is also related to the pattern of localization of the shops. New shops and old shops are not separated from one another following a pattern like the one mention by Butler (2003), because the same shops are the ones trying to supply to both a lower and an upper class.

This development has also attracted new shops to the neighborhood, which have taken on the challenge to live through the process of reconstruction and start from the ground up. The new location is expensive compared to the rest of the city; however, it has a lot of potential because of the new people and their income. The shops arrived because of the bigger space; nevertheless, the price is a major concern because it is too expensive when compared to the rest of Enschede. The latest project, the Brouwerij, was not easy to start. The space was too expensive and no shops could afford to be located there. The situation improved when they changed owners, allowing negotiation for the rental price. Today the shops still do not have a certain future, because they do not know what is going to happen pricewise. They are aware of the high prices of Roombeek and that the situation is only favorable for them because of the economic crisis. They hope, because of the benefits of being located in Roomweg instead of someplace else in Enschede, they will be able to negotiate to keep their low rents in the coming years.

Even though most of the shop owners, old and new, are happy with their current location, they think there are some things that have to be changed. Interviewees agreed that the

neighborhood needs more promotion. They are already getting a lot of attention and public because of the cultural promotion. Whenever they have events organized, the demand is higher than on a regular day; however, they are almost never part of this, so they cannot get prepared for the coming audience. The cultural public comes to the museums and then they leave, because they have no idea about the characteristics of the commercial center:

> *"The major complaint is that this is being marketed as a shopping center but it isn't. It's very simple. If you go around, there are some basic stores. The supermarket is ok, but people complain that it's missing a small toy store for example, no gift shops, and many things. People come around and say, oh yes it is ok, but it is very quiet"* (Kid's clothes, new shop)

> *"It needs to be more alive here"* (Flower shop, old owner)

Parking space was also mentioned many times. Even though parking is free in the area, they are worried about the future because of all the people that live in the area and the visitors they have.

> *"Make sure to have a lot of parking places. They get visitors [new residents], some of them have a caravan which they put everywhere"* (Flower shop, old owner)

However, the field observations showed that the parking space was never full, and there is a major garage that offers a free parking space for two hours because of the low demand for parking in the area. Without a doubt, the most important change for entrepreneurs in the neighborhood is the urgency to attract more shops in the project. Many of the shops in the Boruwerij are empty. Most of them attribute the low demand for space to the crisis and the high prices, which have had a major impact on business. The shop owners think that until this space is fully used, the area will not reach its full potential. The area was intended to be the second largest commercial space in the city of Enschede, however the shop owners agree that the cluster serves to a neighborhood demand:

> *"More activities are needed, the customers of Jumbo and Emté should become my customers as well, if not it will never be the city center here; it will always remain a neighborhood shopping center"* (Flower shop, old owner)

Image 12: Brouwerij, Parking building and Flower shop.

5.5.   ICT, the emergence of a new cluster

Besides the new commercial center the municipality planned for the neighborhood, there is another cluster that is hard to leave unnoticed. This cluster consists of the businesses related to ICT and communication. Companies like these are located in what the municipality designated as "Clustered Activity" (Map 5). In the neighborhood, there are two zones with these characteristics; however, the only one that has developed is the one in the Brouwerij complex, in the back part of the commercial area. It is also worth mentioning that the former Menko building also clusters some of these activities (Image 13).

Image 13: ICT and Communications companies in Roombeek.

The presence of this sector was included in the municipality's plans for reconstruction. Enschede in general, is an important city for ICT development, as compared to the rest of the country. This is due to the proximity of the University of Twente, which has an important focus on this activity. Businesses related to this sector are usually located close to the university, a space which was recently extended because of the increasing demand. This might be the same reason why the municipality thought about developing these kinds of businesses in the area, because the growing business of ICT and the available space inside of the city in Roombeek. People in the neighborhood find it strange to have this kind of economy in a normal residential and commercial neighborhood. Actually, many of the interviewees think this development is the answer to the crisis. Nonetheless, the uses were intended in the first plans the municipality had for Roombeek.

For ICT companies, the results of being located in a cluster with companies that realize similar activities are very important. However, being located in this neighborhood is not their main concern. Their arrival to the neighborhood has to do with space, parking, and modern buildings:

> "The space was available and it was a good time to be in Roombeek, because it is
> not really easy to find space in Enschede; it is usually really small" (Meino, ICT
> business owner)

The presence of ICT has attracted other developments related to the business, for example, printer services, as well as the local broadcaster of Enschede:

"There are a lot of companies from ICT and communications here in this area; it creates an image of this neighborhood. It [Roombeek] has an image of a vibrant neighborhood, a good place for communication companies, like this" (Mark, TV Enschede FM)

The presence of the ICT cluster is important for the shops because it attracts public, and in some cases they work together. Every year students from Saxion University come to the neighborhood so they can visit all the businesses when looking for an internship.

As for the shops, the companies located in the neighborhood also have some demands concerning the development of Roombeek; it is surely not finished yet:

"The creative part, it looks very nice. They spent so much money that it really improved. There were many people before and now I think it is a good neighborhood. It is nice; it is fancy; I think it is positive. It is not finished yet; they made a nice start, but they are still working" (Meino, ICT business owner)

One of the major concerns is that the empty space should be in use, even though in most of the cases they attributed the lack of use to the economic crisis. For them, a higher concentration is actually better for business.. They also think more promotion should be done for the neighborhood, especially to sell it as an ICT concentration, to attract more companies.

The presence of these kinds of businesses is also important for the development of the commercial area, because workers are major consumers of the facilities. Interviewees agreed that they usually make use of the fish shop and the supermarket for lunch, and sometimes they use this area for their regular grocery shopping. Nevertheless, they think some shops area missing, especially some coffee places or bars where they can sometimes take the customers or go grab a beer after work.

5.6. The cultural Roombeek

The intent of the Roombeek redevelopment plans was to cluster all the cultural activities of the city of Enschede together. That is how the Twenstsewelle museum moved to the neighborhood, replacing cultural activities in the city center. The Museumlaan was thought to connect this with the Rijksmuseum, in a cultural lane that would have temporal exhibitions. The idea was to create a circuit connecting the city center, from the station, to the heart of Roombeek, where the Twentsewelle is located. This area is also home to many schools, the cultural center Prismare, as well as the art building Tetem and the ArTEZ. In front of the museum, there are many workshops for various artists (Image 14).
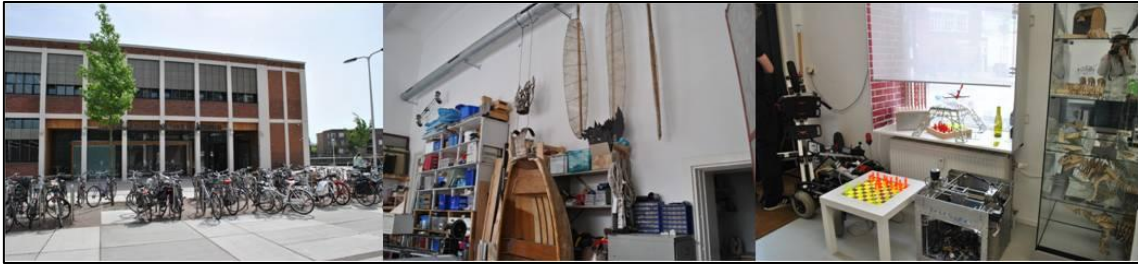
Image 14: ArTEZ and artist workshops.

Activities between the Twentsewelle and Rijksmuseum are frequent; they try to work together and present exhibitions that can attract public to both museums:

"We have combination tickets, so you can visit both museums for half the price. We do a lot of things together. Next year, we will have a big exhibition; one part is in the Rijksmuseum and the other in our museum" (Twentesewelle)

The temporal exhibitions through the Museumlaan are rare, and even though people usually take that path to go from one museum to the other, the same exhibitions have been in an "abandoned state" for a while already. The museums have a regional, and even a national, influence. Weekly, different buses with tourists arrive to the zone so they can visit the museum, have dinner in a local restaurant, and then leave. There is not an actual connection between visitors and the rest of the neighborhood.

Due to the closeness of the Twentsewelle with the residential part of the neighborhood, the museum has tried to create different instances where they can share with the local people. They have an open night once a year, in which they invite residents to the expositions as a way to maintain cordial relations with their neighbors. However, besides that, there is not so much contact with the residents of the neighborhood:

"Most of the people that live there [Roomveldje] are the former inhabitants, and mostly people that don't go to the museums. We have a neighborhood evening every year, 300 people visit, mostly people from this neighborhood. We had our opening in 2008, and we had a meeting in the museum before the queen came, and for them it was like "You came in before the queen". There were about 500 people from the neighborhood visiting; it was a big success. You don't change their minds; they don't go to museums, but it is nice that you do it because you are in the mental map of these persons too, and otherwise they wouldn't know this is a museum" (Twentsewelle)

"Not bothering people with your story but showing that this is our house, and it is your house too, so please come in, and it works. There has never been any vandalism in this museum, and when you sit apart from the people that live around you, even if you are an experienced international museum, then things go wrong" (Twentsewelle)

Prismare is one of the most important institutions in the neighborhood. It started in the beginning, right after the explosion, as a way of helping people after the disaster. Besides

realizing cultural activities, they try to bring together different residents through the activities they have: meals, workshops, markets, etc. They cluster together the Turkish community and have places for the disabled. They have a regional influence, as they attract people from Enschede, as well as the adjacent towns. It is a well-known place, and an institution that is more related with the past of the neighborhood:

> *"This was built because of the disaster. Not only for the people that lost their houses, but also the Turkish community, and also other communities, and some schools came together. And that is what Prismare is. We also have a theater, a room where you can dance, make music. Everything for everybody"* (Prismare)

At the back of Twentsewelle is where Tetem and the ArTEZ School are located. They frequently have temporal performances, with students, and it is a place that attracts population from the whole city of Enschede. In front of the same museum is where the artists are located. Some of the artists in the neighborhood were there before the fireworks explosion, in the empty factories, and they have become very active in the neighborhood, while others have arrived there more recently, as the municipality attracted them to create this cultural cluster.

> *"There are a lot of people [in the workshops]... my neighbor, she had a workspace in one of those factories, and I also think my neighbor that way [points], and a third one... I know a third one.... they all got other places"* (Klaas, new artist)

All the cultural activities are located close together, in the same block. However, there is no interaction between them. Both museums work together attracting their own public. Prismare's function is to bring the community together. Tetem and the ArTez work on their exhibitions and artists, even though they have a community together, they hardly ever do activities together, except for sharing the same building:

> *"No...in the last 5 years we haven't done anything [together]. Oh that is not true, there was an open day where you talk during the workshops, all these places went [the artists]"* (Klaas, new artist)

The cultural activities in the neighborhood play an important role in attracting people. If they could work together, this could strengthen the cultural image. Considering the different influences they have and aspire to have, it would be interesting to see the potential all these activities would have as a whole.

5.7. Where is the neighborhood going?

Before the 2000 fireworks explosion, Roombeek was just a neighborhood with an industrial past; this affected the morphology and performance of the neighborhood. The neighborhood did not offer any activities, or attract many people to come in. Even though the change in the neighborhood is due to the redevelopment after the explosion, it was possible to see new activities in the neighborhood. The empty buildings of old textile industries gave space for alternative artists to start their own shops. This opportunity also became a threat, as many of the new businesses were "illegal" or "unknown". However, Roombeek never got to see the end of this story because the blast came first. If one thinks of a normal gentrification process,

this probably would have been the fate for Roombeek, a central location, with space for new alternative developments. Nevertheless, a disaster drastically changed the plans, and the municipality had to rethink a completely new neighborhood, with many empty spaces, which translated into a huge world of possibilities.

Redeveloping the neighborhood meant not only reconstructing what was already there, it signified creating a new image and identity for a neighborhood that was known for being the most deprived neighborhood in the city of Enschede. Creating a plan for what a place should look like does not always transpire in an ideal manner in reality. It is possible to see in Enschede, and by the interviews with the people that have lived through this process, the difficulties it implies. Old and new shops have had to adapt to the process, and be willing to change when necessary.

Even though the municipality had an image of the new Roombeek, which has been in part achieved, the process is far from being complete. A great influential factor is the economic crisis; but even leaving this aside, there are many things that can still be done. In first instance, it is necessary to promote the neighborhood, in order to change the habits of people. The neighborhood has to show itself in a competitive environment, show what it has and why it is better than other parts of the city. The construction of this commercial space in Roombeek was thought to attract people from outside the neighborhood, and until that is achieved, shops are hardly going to be full.

Roombeek is known for having this cultural and economic development for a few years already, but there the integration between all the aspects of the neighborhood is still missing. It is hard to define the real identity of the neighborhood because so many different uses meet in one place without interaction. The fact that the businesses are the users of the shops or the cultural place, does not make them interact. One major theme which was mentioned multiple times in the interviews was the necessity of working together as all the services in the neighborhood want to attract more people, businesses, and public, which has to be done together. Each activity on its own has enormous potential, which can be magnified through joint effort.

Roombeek is now a commercial center, an ICT cluster, and a cultural center, but it is not the three of them at the same time. This neighborhood has the huge task to create its image and sell everything it has to offer to the city and the country, as one complete space.

Map 9 shows a synthesis map of the economic development of Roombeek. In the map it is possible to see the areas that did not change after the disaster (orange lines) and the ones that had to be reconstructed (Black dotes). The different colors show the areas that became available because of the former industrial buildings. These areas can be divided into retail and business, cultural, business and residential. The green arrows show the existing interaction between retail shops and business offices; this corresponds to the Brouwerij building. The red arrows show the interaction that should exist between the different cultural facilities, but does not yet exist today. Finally, the white arrows show the future development the area should undergo in order to present a more powerful image and achieve its regional intentions by having a connection between all its functions, creating one single image of Roombeek.
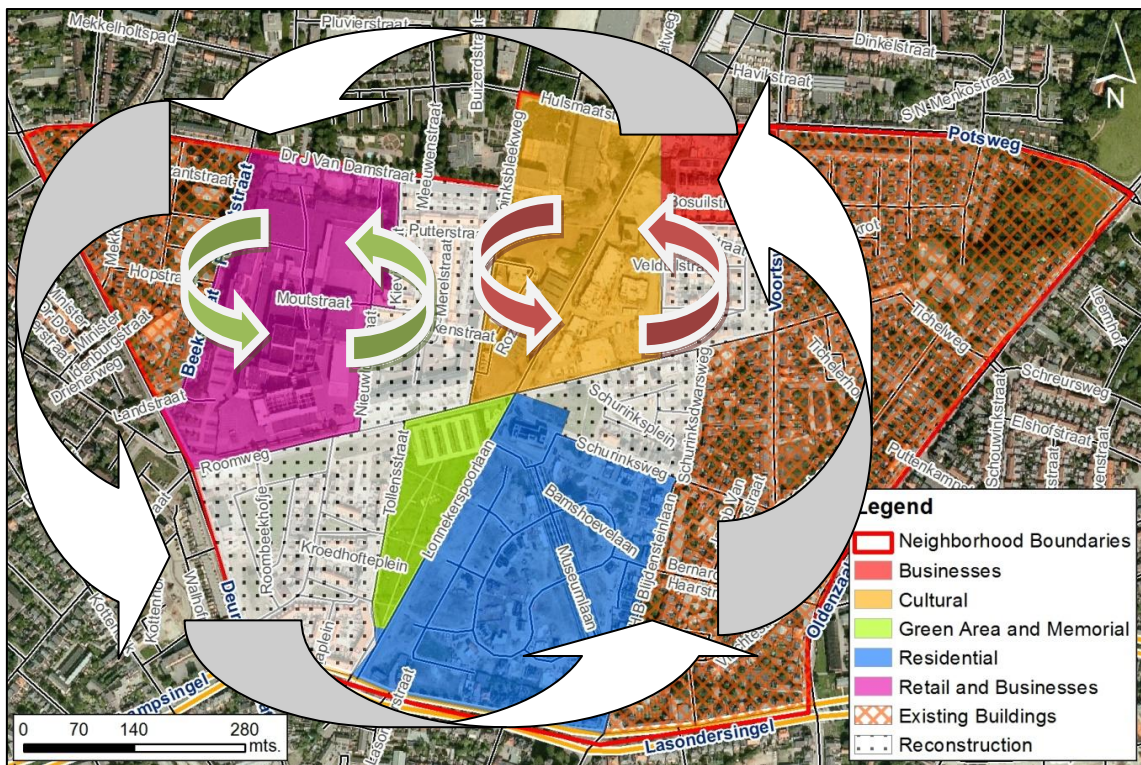
Map 9: Synthesis map of the economic change of Roombeek.

6. Mental Spaces

6.1. Introduction

This chapter will focus on the mental map of the residents of Roombeek. Through them, it will be possible to understand how the neighborhood is structured and how different neighbors act depending on their background and history. It will be shown how both old and new neighbors perceive Roombeek and the differences in reading and understanding what a neighborhood is. The influences of its history and the unique process of the neighborhood on the perception of its residents will be explained. Finally, a discussion will be presented entailing how the mental maps can help integration in a mixed neighborhood like Roombeek, and where these actions can be developed.

It was of importance to first start with the intentions of the municipality, and in particular the lead architect after the reconstruction. The process was created to fit the existing identity of the neighborhood, but at the same time attract an upper class population. In order to do this, it was important for the architect, Pi de Bruijn, to maintain the image of the neighborhood. This was done without disturbing the meaning of the neighborhood through symbols. Symbols are an important mechanism used to maintain the identity and image of a place. In Roombeek this was done by keeping the street patterns, street names, building names, and even some parts of the old buildings. For architect Pi de Bruijn, it was extremely important to keep as much as possible of the old neighborhood, including residential houses and industrial buildings. For houses, even though they were going to be rebuilt, they had to keep the same structure and physical image. As for the industrial buildings, they would form part of the landscape, as a reminder of what it used to be.

An important mechanism for understanding the image old residents had in their mind, and to see what they found important, was the use of a model that recreated the old neighborhood:

> "I'll tell you one detail of what I did. I made a model of the area, big, bigger than a table, of the existing area that they lived in, and I made a new model with the same area, but after the disaster with the big empty place in the middle. So the two models were in the room, in the meeting room, huge models, and I said that is the area as it was before the disaster and this is the area as it is now" (Pi de Bruijn, architect of reconstruction)

During this process, the neighbors talked about the streets they moved around and which spaces were meaningful to them. When it comes to the factories, at the beginning they wanted to get rid of them, of that painful part of their past; however, they were convinced they should remember the history, their past; it was important for the future:

> "They said my uncle worked in that factory; he was there forty years, his back was broken, so please cut it down. I said no, I told you why: for your son and your grandson. If this building is gone you can tell them the story, but it will be a blank, abstract story. If the building is still there, as I propose to you, you can tell your son and your grandson later, 'that is the factory where my uncle broke his back'. It

is much stronger to be able to point to the building, even if you hate it; you have it there still and you can relate to it; your story will be much more authentic and vigorous if the building is there and you can say 'that's the building'. I think, in general, existing buildings build a story book" (Pi de Bruijn, architect of reconstruction)

It is obvious that the creation of the new neighborhood with images of the old one has had an impact on the old residents, but it has also affected the perception of the people that have arrived to the neighborhood, the new residents.

6.2. Perception of boundaries

Residents of Roombeek perceive the boundaries of their neighborhood and the different parts of it in different ways. This is closely related to their background and to the locations of their houses. There is a relation between how residents perceive the neighborhood and the role the government had during the reconstruction process. Also of importance are the physical characteristics of the parts of the neighborhoods, which allow people to bring together similar spaces, read, and understand the neighborhood.

6.2.1. What is Roombeek

Roombeek is a neighborhood with well-defined boundaries by the municipality of Enschede. Dividing a city by neighborhoods helps with the tasks of planning and ordering. Usually neighborhoods have their own identity based on their historical creation; however, they can also be similar to adjacent neighborhoods, when they have alike functions. The perception of a neighborhood is not always the same as the official one. It can vary according to the history and relation a person has with the neighborhood.

Residents of Roombeek have different perspectives on what the neighborhood is; this can be seen in what they consider the boundaries of Roombeek as compared to the official ones. Map 10 shows these different perspectives. There is a clear differentiation between the perception of the neighborhood between old residents and new residents, but also between fellow new residents.

Old residents have a smaller perception of the neighborhood; this can be related to the old distribution of the neighborhood, as well as the reconstruction process. On one side, the old neighborhood was divided by big industrial buildings (chapter 4.3.1), which created the perception of two different neighborhoods, Roombeek and Schurinksweide. In map 10, it is possible to see that a great part of Schurinksweide is perceived as another neighborhood. In addition, after the fireworks explosion, the area that needed to be reconstructed was smaller than the whole neighborhood (Map 5), so neighbors, who were active during this process, perceive their neighborhood as the part that had to be redeveloped:

"I will limit myself to the inner ring of destruction. Some say Walhofsplein should be included, but I don't think so. The borders are Van Damstraat, Veldhuisstraat, Hulshofstraat and Merelstraat. The Mariakerk was not in the destroyed area. The Vogelwijk was within the fence. The Roomweg was within the fence, a forbidden area" (Brigitta, old resident).

New residents do not have a connection with the old neighborhood, so their perception is related to what is there today. New residents can be divided into two categories; residents from the Bamshoeve (blue lines) have a different perception of the limits. The Bamshoeve can be easily differentiated from the rest of the neighborhood because of its big houses, each of them with a particular style. This part of Roombeek also has a little community, where they usually do activities together:

> "I don't know exactly. I think this is Roombeek. This is Makkelholt, Deppenbroek,
> Schurinksweg, but also I think this is Roombeek too... yes... no… I don't know. But
> we also have a community here. We have many contacts! That is the reason we
> are pioneers. We saw the houses built, the people, you say hello, oh you come
> here, nice!" (Gerarda, new resident)

The boundaries for residents in the Bamshoeve are more related to their own community. However, they are aware of some of the old parts of the old neighborhood, such as Talmaplein. which is located in front of them. The latter can be explained because residents of the Bamshoeve were also active during the reconstruction process. In a different way than the old residents, these new pioneers were aware of the ideas for the new plans, which attracted them there in the first place.

The other new residents instead, the ones that live outside the Bamshoeve, have a perception of a bigger neighborhood. These residents had no participation in the reconstruction process. Their perception is more linked with images, the identity they read about the neighborhood. Even though Roombeek has been reconstructed, it has been done in such a way that it assimilates to the old 1900 neighborhood. In this way, new residents that are not aware of the

process of reconstruction, consider everything that has similar characteristics part of the neighborhood. This includes adjacent neighborhoods with a similar history (Image 15). The difference in the perception of the neighborhood between new residents can be explained because people's mental representations of the neighborhood are related to the area's spatial characteristics (Greene, Mora, & Berrios, 2011).

Image 15: Houses with similar characteristics in adjacent neighborhoods.

In terms of dimensions, new residents located outside the Bamshoeve perceive an area close to one square meter as their neighborhood, as compared to old residents and residents from the Bamshoeve, who perceive an area close to half a square meter. According to Greene et al. (2011), measuring the dimensions of people's perceptions of a neighborhood reflects how far they walk without feeling they are leaving their neighborhood.

It is important to note that for all residents the streets Lasondersingel and Deuringerstraat constitute two important edges, since these has always been the south and west limit, respectively. Contrary, the limits to the east and north tend to be vaguer. In this sense, there is a clear distinction on where the center of Enschede starts, to the south. Moreover, the concentration of commercial infrastructure on these streets (Map 8) creates clear boundaries.

6.2.2. Districts inside Roombeek

Divisions inside the neighborhood are also perceived. These are related to how people read different functions inside Roombeek. Districts, as Lynch (1960) refers to, are places with similar identities. There is a close relation to how different residents see these differences and the way the reconstruction was done. In this sense, it is necessary to take into account the different uses thought for the neighborhood (Map 5) as well as the locations of different socio-economic groups (Map 11).

Map 11: Socio-economic divisions of Roombeek.

In general, old residents have a very thorough knowledge of their neighborhood. They are aware of the different zones and the different uses of each part (Map 12). The fact that old residents know the names of the different parts can be related to the fact that after the reconstruction, the names of the industrial buildings did not change. In fact, the new neighborhood has the same structure as the old one, and the new residential zones that are located in old industrial parts have preserved the names of the buildings that were in the exact same spots. This has a clear effect on old residents, and where they are able to distinguish between the Bamshoeve, Menko, Brouwerij, and old industrial buildings, as well as the residential parts that have maintained their name, Roomveldje and Talmaplein.

> *"Here is the Kroedhöfte. This is the shopping area and Ceecee, the Creative campus; that is creative entrepreneurs who work there together. I think they even made it like that in the zoning plan. There should be a cluster and a 1 plus 1 = 3 type of synergy. Some of the companies are IT companies in this area. Then there is the Roomveldje, and then the Bleken. These were the original places where people used to bleach freshly produced cotton. This is the Bamshoeve, these are the rich people. Kroedhöfte is like average and this Roomveldje…well…these are the unemployed people living on welfare. The thing is, it feels like this, it gives the impression like this. Then the last part is the Bosuilstraat. The plan was ready, before the disaster, to build this over there. These houses were built by a project developer and you can see it; all houses are the same. In the rest of Roombeek, everyone could build what they wanted, at least in the owner occupied parts. The Bleken are special for recreation, no houses over there"* (Hedy, old resident)

Besides the names, old residents discriminate between the different functions of the neighborhood. The Cultural area, commercial area, rich people, and the old neighborhood are commonly mentioned. This is also related to the participatory process, which made old residents aware of the plans for the neighborhood.

Map 12: Division of Roombeek by an old resident.

Just like the old residents, people in the Bamshoeve also know the different parts of the neighborhood. Even though they did not live in Roombeek before, their participation in reconstruction makes them aware of the different names and different characteristics of the neighborhood:

> *"We have the cultural mile, and you have a landmark here, the museum, and the houses themselves, and this new building, the new museum, the Rozendaal, the Tetem, the art academy; that is all connected; this creates a cultural artery. Then you have the schools, and Prismare, that could be part of the cultural, and then the schools. Then you have the shopping part, shops and offices, and this is actually what Pi de Bruijn had in mind when he thought about the functions. You also have the recreational part, green space. The water is also part of the green space"* (Hein, new resident)

Although the perception of the boundaries of new residents from the Bamshoeve is limited to their community, they are aware of the functions of the rest of the neighborhood. This reaffirms the fact that they consider their neighborhood their community, while still conscious of the closeness to other parts of Roombeek, which are actually part of their daily life. Residents from the Bamshoeve recognize the different functions of Roombeek (Map 13), which are in line with the reconstruction plans of the municipality of Enschede. There is a clear

distinction between the old part of the neighborhood and the new ones, as well as the different clusters.

Map 13: Division of Roombeek by a new resident from the Bamshoeve.

The new residents located outside the Bamshoeve distinguish between the different functions of the neighborhood; however, their recognition is more linked with its characteristics than actual names (Map 14). They clearly differentiate the old part from the new part of the neighborhood, where the rich people live. This is interesting, considering that the whole neighborhood is new. So their differentiation, as the boundaries of the neighborhood, is related to the physical appearance of the parts of Roombeek.

Unlike the boundaries of the Roombeek which are usually defined by main arteries, the districts of Roombeek are defined by similar characteristics. It is clear for all residents that the functions of the neighborhood are clustered together, which makes it easier for them to define the identity of each part:

"This here is the fancy living, the yuppies, the rich. Here is the old neighborhood, and this is the Grolsch area, the development. This is the cultural area, the school area" (Wob, new resident)

"I consider this to be the center of Roombeek because of Prismare. You also have here the Twentsewelle. But there are a lot of different people living here, and different houses" (Julia, new resident)

"In the shopping area you can find all the shops you need to do your daily shopping. The memorial place is more related to things that happened to the neighborhood, they haven't built anything there. The expensive houses are very

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nice places; there is a lot of architecture. People are really free to build whatever they want, so very nice houses, and not only in this area but also along this street. All houses are different, not the same" (Bob, new resident)

Map 14: Division of Roombeek by a new resident.

6.3. Spaces of integration and segregation

In the previous chapter, it was shown how residents divide the neighborhood according to similar characteristics. Nonetheless, not all people will feel the same in these spaces; there are places in which people feel comfortable, spaces open for integration, and places where people will feel uncomfortable, known as spaces of segregation. The feelings related to space will depend on the background of the resident, and where these people feel welcome or unwelcome.

In this scenario, old residents can be divided into two groups, the ones that live in the Roomveldje and other old residents. This group usually feels at home close to where they live, which are the places that possess the same characteristics as their own dwelling. Old residents usually know their neighbors, and occasionally do activities together.

> *"We try to integrate with some activities, barbeques on the summer, also some in the winter. This part [Talmaplein] makes its own activities. If you have kids in the same school, they have friends that live in the Bamshoeve, so there is contact. But the contact... I see my neighbor, if she need something in the middle of the night I will help her, and if I call her she will too, and also in other neighborhoods. We also do our thing, so we are not every day together, or not every week. We trust each other, if there is something to do, we will help each other"* (Robert, old resident)

Old residents also have a closer connection with spaces that are designed to remember the disaster, which are the green areas with monuments.

According to the literature, it would be expected that old residents feel uncomfortable in areas where the rich people live; however, they feel comfortable and visit the area sometimes as a leisure activity. Moreover, what is more impressive is the fact that old residents feel uncomfortable where other old residents live, in areas such as the Roomveldje (Map 15). Even though their backgrounds and their histories are similar, after reconstruction a division formed in the neighborhood. This is mainly related to the reaction different old residents had to reconstruction. While residents from Talmaplein adapted and took the positive changes from the experience, residents from the Roomveldje felt threatened by too much attention.

> *"I'll start with red: Roomveldje. That's easy, I don't feel comfortable there. We don't go there, it's a no-go area. After we had some troubles with Huis van Verhalen, I have the feeling that people look suspiciously at me when driving through there. I cannot get rid of the feeling. They still know me from the time that I was coming there with groups. It is a pity, I knew people there. There were people who came here. One has died, but for the rest, the contact is shattered. But, there are in some places aggressive people there, which makes it so sad. I feel them looking. But, you know, it is easy, I get older and I think: I don't need this. There are so many places where I find myself comfortable, nobody tells me to go there, so I don't go. Most comfortable is my house; I feel good in most places, but mostly at my home. The rest is yellow. That is my area"* (Brigitta, old resident)
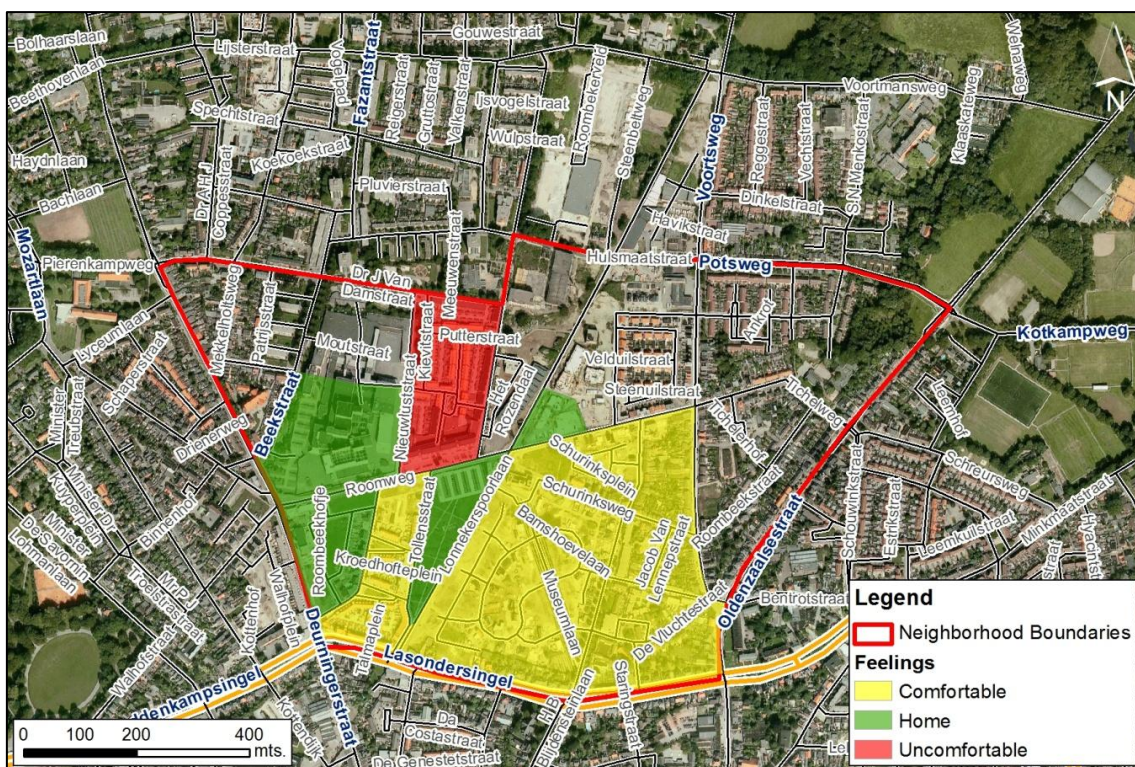
Map 15: Feelings about Roombeek by an old resident

For the same reasons that Brigitta exposes, residents from the Roomveldje were hard to reach. However, the interviews that were held show different results. The first resident feels comfortable in the whole neighborhood, both the new and old parts:

> *"Everywhere, I know people in the neighborhood. I speak a lot and I know a lot of people. That comes very natural to me. This neighborhood is quite small, so for me it feels like one area, and I feel good and at home everywhere. Really, I would say the neighborhood is an extension of my house. Really, no bad feelings about any place here in the neighborhood"* (Dino, old resident)

However, he is aware of the problems between the different parts of Roombeek, which includes the part where he lives:

> *"That I feel at home doesn't mean there aren't problems sometimes. I was involved in giving tours through the neighborhood and then we went through some of the streets behind here in Roomveldje, for example the Kievitsstraat. We crossed the little square and then came this way here. At that little square there, you have a couple of people there who are really terrible. When we walked there with the people they were feeling angry, they felt like they were being looked at, like: "we are not monkeys" and so on. It happened like that during tours; there were many many tours in the past, now a bit less"* (Dino, old resident)

Another resident instead has feelings related to what the literature would suggest, she feels uncomfortable in the Bamshoeve, where the new neighbors with more money live. This is a place where people different to those in the Roomveldje live:

> *"What I really don't like in the neighborhood is the bus lane and the Bamshoeve. The bus lane I disliked a lot in the past, and even now sometimes. Last year we were contacted by the Bamshoeve and Schurinksweide to organize a flea market together. But we had already arranged everything and had the permission and made all arrangements and were ready to go. We wrote back, it's short notice, we have arranged everything for this year already. What about next year? Then we wrote them this year and got the reply: No, we will not be joining. And then you suddenly get a letter in your mailbox, an invitation for the flea market of Bamshoeve and Schurinksweide. There were only 10 market stalls over there, on the Museumlaan"* (Rosanne, old resident)

Finally, a third resident from the Roomveldje feels uncomfortable where the first redevelopment of Roombeek started, in Menko. For him, that area has no identity and all the houses look alike. Bamshoeve is good, because it is a nice area to be in:

> *"I don't like the former Menko area, it all looks the same and sometimes I get more or less lost. These houses are built on the former Menko area; they are nice houses certainly, but it is very VINEX. I don't like it; it's boring there ("een dooie boel"); all the street names are the same; you can go through it like from here and here. I also tend to get lost there because everything is so similar. I had to*

look for an address here to meet someone and then I got this feeling like I wouldn't want to live here ever" (Pier, old resident)

It is common for residents of the Bamshoeve to feel at home there, especially because they feel like that is their neighborhood and their community, where they realize activities together. For the rest, they usually feel comfortable, either because they do not have problems with the community or because they perceive the other parts of Roombeek as being outside of their neighborhood. However, some residents from the Bamshoeve feel uncomfortable in the Roomveldje (Map 16), while the others did not say so, they emphasized the difference of that part and the problems the community has experienced with them:

"I have the impression that a lot of the people that used to live here came back to live here, but I don't know. I wouldn't want to live there at all, even though it is like 15 meters from my house, because I live here, it is a one minute walk. There are different rules. There people really want to be a close community, and they like it when you respect that, but when you go there, you see that they have their own community;, they don't like people making photos there " (Hein, new resident)
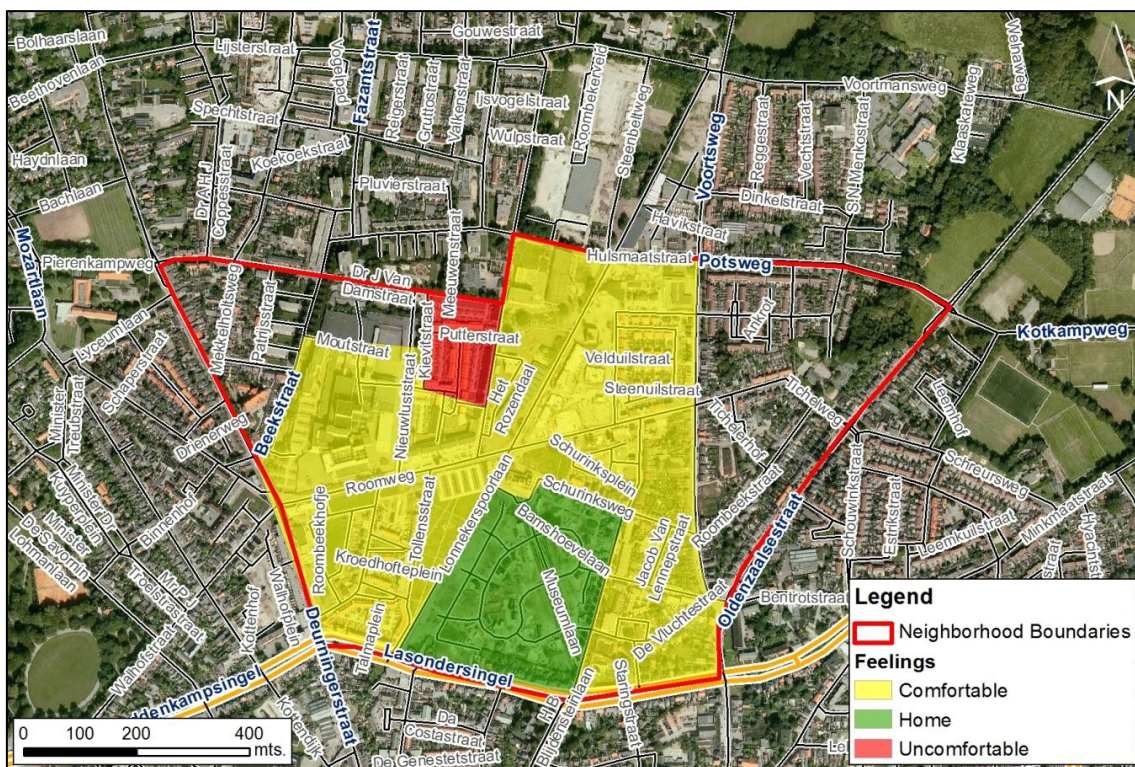
Map 16: Feelings of a new resident from the Bamshoeve

The situation for new residents that do not live in the Bamshoeve is different. They feel at home close to their homes because they know the people around, and in all the adjacent places, where they have to move around to do their daily activities (Map 17):

"This is the real home area; it is related to all the places we go, the shops, the school, the playground, and my house. There are all kinds of nice things here. This

is also an important route, because I visit my friends there and also my partner's family" (Eduard, new resident)

Areas described as comfortable are adjacent to the home but with similar characteristics, places they probably recognize but do not have to travel to on a daily basis. For places where they feel uncomfortable, the responses vary. On one side, there are places where residents do not necessarily feel unwelcome, but places that are different to their close neighborhoods. This is the case in Map 17, where uncomfortable refers to the old part of Roombeek, what was not renovated. On the other side, there are also responses in which uncomfortable relates to the different behavior of people, which is the case for the Roomveldje (Map 18):

"They are a certain kind of people, they are the old residents. So they are like a community, because they have lived there for years" (Julia, new resident)

Map 17: Feelings of a new resident from outside the Bamshoeve.

It is interesting to note the perception Julia has regarding the Roomveldje, as the "old residents"; however, she does not mention other areas such as Talmaplein where old residents and social housing are also present. The latter strengthens the idea of how the Roomveldje is a closed community which is also hard to deal with. Even though it is not mentioned by all the new residents, most of them are aware and can perceive this division between the neighborhood, especially between the old residents of Roombeek.

6.4.   Conclusions on mental mapping

Different people have different mental maps, and this is applicable to the residents of Roombeek. As seen in the literature revision (chapter 2.4.1), people with similar backgrounds have similar mental maps. It is possible to see in Roombeek that there is a clear distinction on how new and old residents perceive their neighborhood. The relationship between residents' perceptions is more related to the quarter inside Roombeek in which they live, such as new residents from the Bamshoeve, new residents from other parts of the neighborhood, old residents from Talmaplein, or old residents from the Roomveldje.

One major factor on the perception of space is related to public policy and the process of reconstruction. The participatory aspect of the process had a huge impact on what the neighbors perceive as their neighborhood. Considering that a neighborhood is a unit with similar characteristics, it would be logical to think of the neighborhood as everything that looks alike, or at least similar. However, most of the residents of Roombeek are aware of their whole neighborhood, despite the huge differences between upper class residents and working class residents. Nevertheless, there is a clear distinction of the different parts of the neighborhood and their respective functions.

Old residents' mental maps are clearly influenced by the past. Considering this, working with names and images that revoke the old Roombeek played a key factor during the process of reconstruction. Old residents have a good understanding of their neighborhood by relating it to old industrial buildings and old streets. Furthermore, the memorials that are dedicated to the fireworks disaster are important parts of the landscape and create images that are relevant for these neighbors.

New residents can also be divided according to their background. On one side, there are the Bamshoeve residents, who were active during the process of reconstruction. They had to build their houses, meet the architect, the neighbors, the plans, and everything that allowed them to have a deeper connection with the neighborhood. They decided to live in Roombeek because of the project, to become part of this new development. Other new residents, instead, arrived to the neighborhood because they had the possibility to do so, after it was already finished. They saw and experienced the neighborhood from a different perspective. Their connection with the neighborhood is more related with the literature. They perceive the neighborhood as a unit with similar characteristics. It is clear that the redevelopment of Roombeek also plays a role in their image of the neighborhood, because this is a case that is not unnoted by any Enschede resident, however, by not being actually involved in the process, their relation with the neighborhood is different.

Map 19 is a synthesis map that shows the perception of the neighborhood through mental maps. Even though perception is different between the residents, the neighborhood can be easily divided into different categories. There is a generalized consensus of the functions and characteristics of these parts. The division is closely related to the redevelopment project, which talks about the capacity of the residents to understand homogenous areas. Each of these categories has its own identity and characteristics. It is interesting to note, that when it comes to dividing the neighborhood, it is all done within the redeveloped area (Map 6); for the rest, these are all old areas with similar identities. This landscape is probably akin to the old Roombeek. Without shops, or other purposes besides residential and industrial, the landscape should have been a homogeneous working area. It is also interesting to note that this is also the perception of the residents that live in this old neighborhood, meaning that all residents perceive the changes in the same area, and conceive the core of Roombeek as the same part.

Map 19: Synthesis map of perception of the neighborhood through mental maps.

The divided structure of Roombeek also separates the neighborhood into different communities. However, through mental maps it is possible to recognize potential spaces for interaction and integration. In order to do this, there are two important elements must be identified, landmarks and districts. When it comes to landmarks, there are a few buildings which are mentioned repetitively among the residents. Prismare is one of the buildings that is normally used by old and new residents. However, the connection with this institution is stronger with people that either have children or are old residents from Roombeek. Even though new residents without children know the place, they do not have any interest in attending this type of facility:

> *"Yes [I go to Prismare], they have a little theater, but not always, only when it is interesting. They don't have activities for me"* (Gerardad, new resident)

Therefore, Prismare would be a potential space for the integration of other residents, which are not attending today.

Other important landmarks in the neighborhood are the Rijksmuseum and Twentesewelle. Both museums are often visited by upper class residents. However, when the opportunity is presented, old residents also visit and participate in their activities. This is shown through the open night experience at Twentsewelle. By working together and having different activities oriented to old residents, the potential interaction between old and new neighbors is possible:

> *"I participate most in the friends of Rijksmuseum, I am a member. We also had this exercise with maps to see which neighborhoods were coming to the museum. I can tell you that our neighborhood as a whole does pretty well. I guess, also, if you look at the micro scale that there would be few friends here [old neighbors], and more friends here [new neighbors]. You could say yes, that is the money, but I wonder, if we were to invent something with zero contribution, how many people would go when it is for free. I would try to influence the museum to be more open; why don't they do a German or Turkish translation? It should be there for everyone, the audio guide for example. The museum and the Turkish center should work together. It would be great to have an exhibition of Turkish artists in the museum; I don't see a reason not to do that. I think these kinds of interventions could help everybody to feel this is their place"* (Hein, new resident)

Finally the memorial is usually mentioned by the old residents, because it is a place that connects them with the past. For the rest of the neighborhood, it is not a very important area. Even though the municipality invested a lot of money in green areas when reconstructing the neighborhood, new residents prefer to go to other green areas outside Roombeek:

> *"Normally, in a park you would expect festivals and things like that. But it is mostly a green area [the park of the memorial], not a place to meet people, as you would expect in the center of this neighborhood. Although it's a place where you can have things, it doesn't invite you to do it, I mean it is just a green dome; you can't do anything. You have other places that offer more activity; it is not pleasant"* (Wob, new resident)

Adapting the place to attract different neighbors, or perform other kinds of activities would be a solution to attract neighbors with different backgrounds and strengthen its function as a park, which is attractive to all residents of Roombeek.

Through the mental maps it is also possible to see the different places where people feel comfortable or uncomfortable. Roomveldje was usually mentioned by old and new residents as a place where they feel uncomfortable, converting this district into a space of segregation. People do not feel comfortable going there, so they will not go even though if any intervention is done in that place to promote integration. However, Talmaplein and Bamshoeve are two places where all residents feel comfortable. Considering this, these are two potential locations where it is possible to work on the integration of different neighbors. However, one important place, where all residents feel comfortable, is the shopping area. This area has even more potential because it is neutral, and it is recognized by all residents as a good place. This relates with the findings of Doucet (2009), where the local market, the shops in this case, becomes an important place for people to meet, the center of the neighborhood.

Image 16: Landmarks in Roombeek. Prismare, Memorial, Rijksmuseum.

Even though some new and old residents mentioned aspects related with criminality in the neighborhood, none of them declared feeling uncomfortable in these areas. An important place that was mentioned in this matter was the Museumlaan, a place where residents mention people sit to use drugs and alcohol. Even though all of the residents, new and old, have heard these stories, not all of them believe it.

Numbers from the municipality of Enschede inform that drugs, alcohol, violence, and bicycle theft are higher in Roombeek than the rest of the city. There is also a common feeling of insecurity among the neighbors, which is higher than the actual number of incidents (WENS, 2012). Old residents believe that the neighborhood is worse that it was before. They relate this increase in crime to the new residents who have changed the image of the neighborhood, from a deprived area where there was nothing to see, to a higher income cluster, where there is more to take.

Another problem that was mentioned but did not appear in the mental maps as an uncomfortable place was the issue of speeding on some of the main streets. Car accidents are common inside the neighborhood, especially on streets such as Roomweg and Voorstweg, which are long and straight (WENS, 2012). Residents, especially those with children, feel that this should be a major concern.

7. Residents' movements

7.1. Introduction

In previous chapters it was shown how the neighborhood has changed, becoming a place with multiple functions. How residents perceived these changes and the space was also analyzed through mental maps. This chapter will relate to the previous chapters by analyzing the existing relationship between residents and the neighborhood, and the occupational pattern they create as they use space.

As for the mental maps, the way neighbors move and use the neighborhood relates to their background and history. This chapter will deepen the understanding of that relationship, exposing the different patterns and explanations.

7.2. Shopping activities

Even though Roombeek is located close to the city center and to the commercial area of Deppenbroek, all residents interviewed declared to shop at Jumbo for their daily needs. Jumbo is preferred among residents because it is close to their homes, within walking distance, and provides almost all the products they need for daily living.
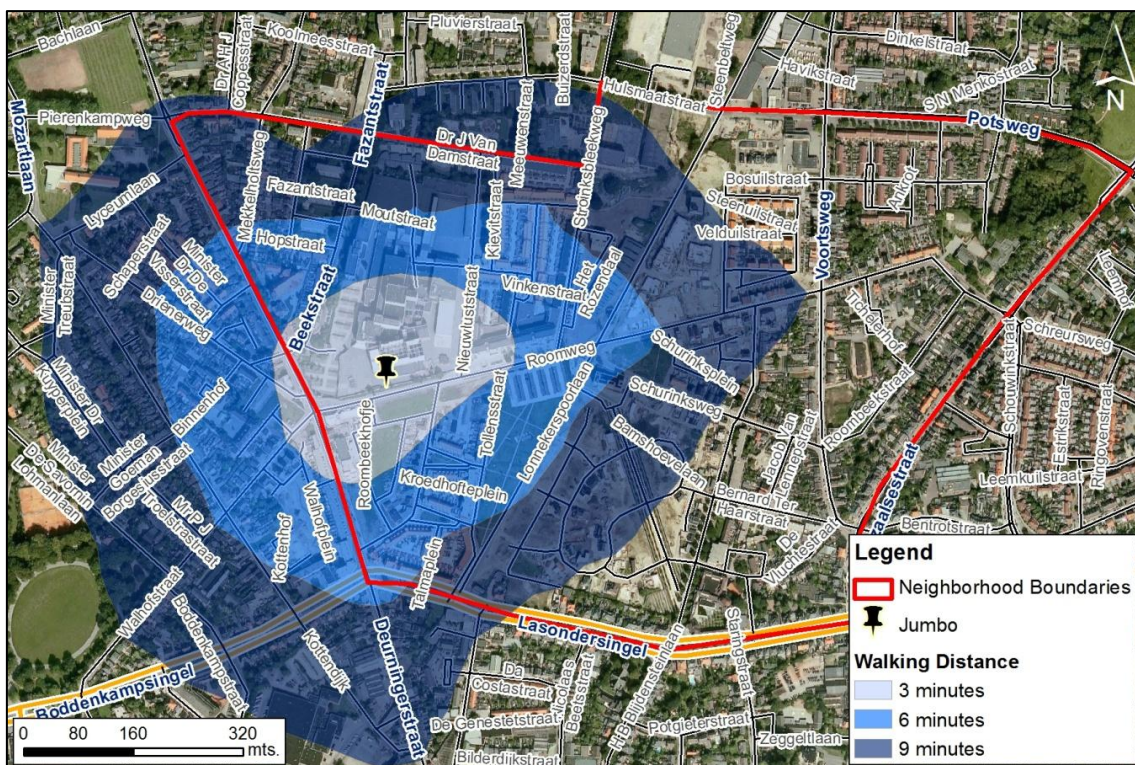
Map 20: Walking distance to/from Jumbo.

Through a network analysis, it is possible to see the distances to and from Jumbo for 3, 6, and 9 minutes walking (Map 20). This can also be considered as the shopping distance for the rest of the shopping facilities, as they are all clustered together. Old residents from Roomveldje

and Talmaplein live closer to the shopping facilities while residents from the Bamshoeve live a bit further away. There is a bigger influence to the west of the neighborhood and to adjacent neighborhoods. To the east, where Schurinksweide is, the distance is bigger, and residents have to walk more than 10 minutes to reach the supermarket. However, there are no other supermarkets located closer to this area, which still makes Jumbo the best option for all the people in the neighborhood of Roombeek:

> "I only go here because I work 6 days a week, so I don't have the time to go to the city. I do it here at the Jumbo or Etos" (Peter, old resident)

> "Most of the time I do it at the local supermarket, Jumbo, and sometimes I go to the city center to the market place. Most of the time I do it here at the Jumbo" (Bob, new resident)

In general, residents travel to the supermarket by foot; this is explained by the distance, which is on average less than 500 meters. Some of the residents travel by car when they have to buy more things. This is an easy option considering all the parking facilities close to the shopping area are free. This is also a reason for people outside the neighborhood to shop in Roombeek:

> "Sometimes [I shop in Roombeek] because the parking is free and you can put your car in front of the shops, so it is easier" (Kai, old resident that moved out)

At the start of this research there was another supermarket, Emté, next to the Jumbo, however midway through this investigation this store went out of business. In the interviews, just one person declared to shop at Emté instead of Jumbo, sometimes, and just to get liqueur, which Jumbo does not sell. The preference for Jumbo among residents explains the displacement of Emté.

Besides the supermarket, there are other shops that are normally used by old and new residents alike, these are Hema, Etos, the bakery, and the post office. These shops can also be found in the city center, and their presence in the neighborhood prevents residents from having to move further to do their daily shopping.

As an alternative to the neighborhood, some residents go shopping in Deppenbroek. This commercial center is close-by, and is located 1,5 kilometers to the north. It has some small shops, two supermarkets, SuperCoop and Albert Heijn, and a big pharmacy, Kruidvat. This alternative was particularly mentioned by new residents, and the reasons were because it has better products, or it is within the same distance:

> "I do all my grocery shopping nearby, two places, one is Albert Heijn [Deppenbroek] and the other is Jumbo. Both are really close, it depends on the needs we have. Jumbo is the cheapest one, but Albert Heijn has better products" (Hein, new resident)

> "Well, my house is here, it is very convenient for me [to go to Deppenbroek]. The main reason I go there is because it's very close. But in the city center, you find other products, sometimes better; they have a good bakery; that is why I buy my bread there" (Wob, new resident)

Image 17: Deppenbroek, Emté and Jumbo

The previous scenario is in line with the literature, which states that new residents move to other places to look for more specialized products. This was also the case for some new residents who go to Jumbo for their basic groceries but move to the city center to acquire more specialized products:

> "Yes [I shop in the neighborhood]. I mean I am not a shopper, but I do my things also in the city. I don't like to go in and out of shops, I have a list. But, I like to shop at little shops, the bread, the fish, and the flowers. Jumbo is for the rest. Also for the cheese, I go to the center. I don't like the Jumbo for special things. I like to buy my things in little shops" (Gertie, new resident)

Other shops that were commonly mentioned by old and new residents are the flower shop and the electronic shop. These are not commonly consumed, but residents from Roombeek go there occasionally when they need something. The rest of the shops, especially clothes shops, were never mentioned. Neither old residents, nor new ones, shop for their clothes in the neighborhood. They all stated that they go to the city center or in some cases to other cities in the country. Reasons for this were mainly the price and the kind of offer, which it is not for the people of the neighborhood:

> "It is a pity because I wanted to support the people that have their shops there but it is very expensive... it is above my budget. The shops there are not my taste, the children's clothes and the other things. Sometimes I go, because I think it is important to support them" (Nicole, new resident)

As the existing literature proposes, only one of the interviewed residents shops in their old neighborhood, because she knows the area and the products; however, the rest of the new residents have changed their shops to the neighborhood:

> *"It is near my old neighborhood, that is the Lidl, and it is not in Roombeek. It is a habit, and also assortment and price. I like the shop too. I know where the things are"* (Julia, new resident)

A reason for this is that Roombeek has all the basic facilities, and is better equipped than other shopping areas of the city of Enschede, which makes it a good option for new residents.

Old residents' habits are not related with past activities, which were probably done outside the neighborhood because there were no shops in the old Roombeek. They are in complete acceptance with the changes to the neighborhood (Sullivan & Shaw, 2011) since these brought the neighborhood services that before were absent. Only one resident from Roomveldje declared a feeling of exclusion and resentment, because the shops were not for the old residents, however, this resident also shops at Jumbo:

> *"When I look at the surroundings and the people that live here, I think the shops are out of place. There are a lot of working class people here with a limited budget and the shops here are rather expensive. The clothing shops, the travel agent, you name it"* (Rosanne, old resident)

In general, old and new residents have similar shopping patterns. Their shopping movements are determined by convenience more than price or products. Some new residents though, move to other parts of the city looking for quality. Even though some shops have changed their products to reach an upper class demand, none of the interviewees shop in the neighborhood except for the basics. In Roombeek there is a general shopping pattern where the neighborhood is used for basic consumption, while other products are acquired in the city center, this applies for old and new residents. This can be explained by the location of Roombeek, which is only 1 kilometer north of the city center. For people in the neighborhood, it is really easy to go there bike or foot, making this commercial area a prolongation of the central area.

7.3. Leisure activities

When examining leisure activities, there are noticeable differences between old and new residents. Old residents have a better connection with the neighborhood and with spaces that remember the old neighborhood. They usually go for walks on the green areas inside the neighborhood and spend time in Prismare participating in some of the many activities they offer. Prismare is often mentioned by new residents with children too, because it offers after school activities and it is close to school and home. Prismare plays an important role in bringing together the different groups of the neighborhood and the city of Enschede. The center aims to have a regional function attracting people from the city of Enschede and also people from close-by cities:

> *"It is a mix [the people that comes to Prismare], because we offer so many things, the theater, zumba, other things; there is a mix of people, culture; they live in Enschede, the region, but we also have people from here, children"* (Prismare)

Even though the municipality of Enschede put a lot of money into the green areas of Roombeek, new residents are not active users of them. They usually go running or cycling in other green spaces of the city, like Gerrit Jan van Heekpark, or to the outskirts of the city, where there is more space for athletic activities:

"Here [outside Enschede], I do a lot of running and cycling. Unless I go to the swimming pool; that is in the city" (Wob, new resident)

"When we have guests from outside Enschede, we walk around in the neighborhood, we show them the Museumlaan. It is nice to do, after all it is nice that the groundwork was laid in cooperation with the people in the neighborhood" (Hedy, old resident)

New residents are active users of the cultural facilities of the neighborhood; they go to Twentesewelle, Rijksmuseum, Tetem, and participate in many of the art expositions that are held in Roombeek. Even though old residents declared to have been in the museums, this was a one-time activity, and they do not participate often in cultural activities, except for the ones held in Prismare.

Other activities, such as restaurants or bars, were stated by new residents to be practiced outside the neighborhood. Even though the museum has a nice restaurant orientated to upper class consumers, Rozendaal, this is hardly ever visited by the new residents:

"Twentesewelle has a restaurant, but it is nearby [too close], I can eat here [in my house]. I go to the city" (Gertie, new resident)

Image 18: Rozendaal restaurant, memorial of the disaster, Twentsewelle, and Prismare.

In general, going out to restaurants was not mention by old residents. However, they occasionally visit the Lunch Kamer or Roomblik, a restaurant managed by handicap people. New residents have visited restaurants in the neighborhood, but it is not a common practice. Some old and new residents mentioned a restaurant that was located in Prismare, but it is not there anymore.

Analyzing leisure activities, it can be noticed that new residents usually have more mobility; they often visit the city center and go out to restaurants. Instead, old residents' mobility is more attached to the neighborhood, where they have a connection with the green areas and go for walks around Roombeek. This is not to say that old neighbors do not go outside the neighborhood, however when they were asked about their leisure activities they immediately gave answers related to Roombeek.

Aspects such as mobility can be related to income issues, however in a city the size of Enschede, where the residents can easily move by bike, this should not be a constraint. The reason to explain the greater mobility of the new residents can be different habits. They come from different parts of the city, so going out to the city center could have been related to their previous location. However, the major difference between old and new residents is age, so for new residents it is easier to move, while some of the old residents have constraints because of their age.

7.4. Conclusion: neighborhood use and patterns

By analyzing the shopping and leisure habits of residents in Roombeek, it is possible to distinguish the use of the neighborhood and the possibility for some patterns of activities. Map 21 shows the synthesis of this chapter, differentiating by activity and by old and new residents.

The results show that instead of having a different shopping pattern inside the neighborhood for old and new residents, they all shop in the same place, Jumbo, as expected. Both types of residents do their daily basic consumption activities inside the neighborhood. There is no differentiation between old and new facilities or between lower and upper class inside the neighborhood. However, this could change after the speculation of a Lidl supermarket that will be located at the former Emté location. If this is the case, there could be a differentiation, where lower class residents would tend to shop in the cheaper supermarket, Lidl, while upper class residents would stay at Jumbo.

In terms of shopping, differences can be made when thinking about more specialized products. While old residents shop for all their groceries in the neighborhood, new ones move to the city center or Deppenbroek to acquire specialized products that cannot be found in Jumbo. The mobility of the new neighbors nevertheless, is in relation with the quality of the products, and has no with the relation to their former residence, as expected. However, there is a chance that shopping in the center of the city was their previous habit, and this has not changed after moving to Roombeek.

Besides daily shopping, other stores are not used by the old residents, presenting a contradiction between what the owners of the shops want and what residents consume. In previous chapters, it was shown how shop owners have changed their products to fit the newer demand; however, there is no demand for these shops according to the interviews. This can give light to the fact that there are other people from outside the neighborhood that consume in Roombeek, or that these shops are destined to fail. By the end of this research, rumors were circulating about some of these shops going out of business.
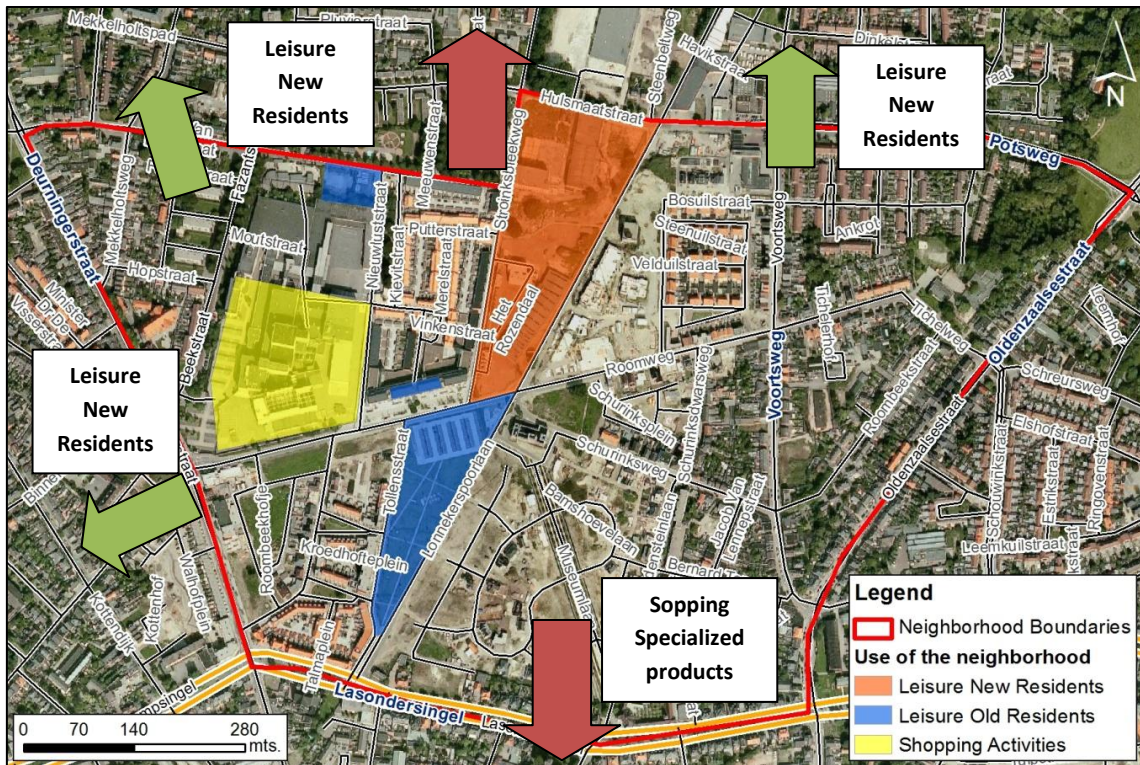
Map 21: Use of the neighborhood

In terms of leisure activities, old neighbors' mobility is also reduced. They mention going out for walks, showing the new neighborhood around, and spending time at the memorials and Prismare. While new residents also spend time in the neighborhood, they do it for cultural activities. In addition, they also have major mobility, going to places like the city center for restaurants or to other green areas in other neighborhoods or outside the city.

The fact that old residents spent more time in the neighborhood in places that relate with the fireworks disaster, is in relation to the plans of the municipality and architect, Pi de Bruijn, whose intention was to generate this link between the neighborhood and their old inhabitants; these are places where old residents feel comfortable and like to hang out.

8. Conclusions and recommendations

Roombeek can be defined as a neighborhood that experienced state-led gentrification. However, this process is different than the others that took place in the Netherlands due to the explosion that destroyed an important part of the neighborhood, allowing the municipality to rebuild it from the ground up. The presence of old industrial buildings in the area gave way to enough space to redesign the neighborhood and attract a wealthier population. The municipality embraced the disaster as an opportunity to bring to life an old industrial neighborhood, in accordance with the description from Wilson & Wouter (2003) and Van Gent (2013).

The process of rebuilding Roombeek is also different than other cases in the Netherlands and the world because it was designed as a participatory process where old residents and shop owners, as well as new residents and entrepreneurs had the possibility to contribute with ideas of their own. At the same time, old residents had the possibility to return, which prevented the possible displacement of working-class people. The results of this project have left important physical effects on the urban structure of the neighborhood, as well in the way old and new residents perceive Roombeek.

8.1. The gentrification of Roombeek

The gentrification process in Roombeek can be described as a positive one when compared with the parameters presented by Atkinson (2002) in the theoretical framework. The arrival of new people with a higher income stabilized the declining area, attracting more middle class residents to the former industrial areas, but also to old parts of the neighborhood, including those that were not part of the reconstruction. This increased the property values, resulting in Roombeek being the most expensive neighborhood in the city of Enschede today. It can be said that this process reduced the vacancy rates, as former industrial buildings are now occupied by new residents; however, there is still some space available for new houses. Most of the people attribute the remaining empty space to the economic crisis. One of the positive aspects mentioned by Atkinson (2002) that is not satisfied by this project is the decrease in crime. In this case, the arrival of wealthier people resulted in an increase in crime, leading to it being described by the police as a "notably bad" neighborhood (WENS, 2012).

Most of the negative aspects of gentrification are not found in Roombeek. Displacement has been prevented by ensuring the same rental prices for old residents. Residents that did not return did it for other reasons, mainly psychological ones related to the disaster. There was no fear of being displaced because of this policy; residents feel secure in their dwellings. In general, there are no feelings of resentment; however, there are some conflicts observed between residents from the Roomveldje and the rest of the neighborhood. Nevertheless, since other old residents have the same feelings, this is less related to gentrification. Local services were also not displaced and they are experiencing a sort of adjustment to the area.

Besides the latter, some negative aspects of Roombeek can also be observed. There is a loss in affordable housing since the housing corporation decided to not build as much social housing again. Even though old residents had the right to come back, potential new residents, with the same background as the old residents, cannot access the neighborhood because of the high prices of the new dwellings. At the same time, the adjacent areas of the neighborhood, which were not reconstructed but are close to the new Roombeek, can feel the pressure of this increase in price, resulting in higher prices even in the unreconstructed areas. Finally, even though the neighborhood presents a mix of people, at a micro scale diversity does not exist; there are micro neighborhoods with very similar characteristics. This can be compared to Hoogvliet, Rotterdam, where the situation is "characterized as social tectonics, by which they mean that relations between different social and ethnic groups in an area are parallel rather than integrative" (Uitermark, Duyvendak, & Kleinhans, 2007), or as Butler (2003) describes it for the city of London, gentrification is experienced in a bubble.

This process of state-led gentrification can be compared to that of other Dutch cities. In the study carried out by Ernst & Doucet (2014), there was a positive feeling about the changes in the neighborhood, as they attract services that were absent before. However, for the Indische Buurt in Amsterdam, there is a difference between native Dutch residents and ethnic minorities. This is not comparable with the case in Roombeek since most of the population that lives in the neighborhood are native Dutch and there are no differences between ethnic minorities. Nevertheless, there are similarities to how the Dutch people respond to the change which "improves the aesthetics, enhances community, and attracts desirable newcomers" (2014).

For Hoogvliet in Rotterdam (Uitermark, Duyvendak, & Kleinhans, 2007), there are also similar results, especially for those on the governmental side. The positive aspects of commercial gentrification are promoted as economic growth for the neighborhood, being perceived as a positive result from residents as it brings services that were absent before.

8.2. Physical structure of Roombeek

An important part of the reconstruction of Roombeek is how the neighborhood changed its physical appearance. From a working-class industrialized neighborhood, it converted into a place with multiple functions. Places where old industrial buildings were located gave space to upper-class residences, culture, and businesses. The municipality worked on the physical image of the neighborhood, attracting a new demand for housing as well as a demand for many shops in the center of Roombeek.

The commercial part of Roombeek was created after the reconstruction. Before that, the neighborhood did not have any shops and residents had to travel to adjacent neighborhoods or to the city center for their daily consumption. After the disaster, the nearby commercial area, Mekkelholt, had to change its commercial function in order to make way for the new commercial area in Roombeek. Shop owners that were located in the Mekkelholt in the past, had to adjust to the new area. In this sense, it is not correct to talk about displacement in the way Ernst & Doucet (2014) describe for shops in gentrified neighborhoods. In Roombeek, two different processes are observed. In the first instance, old shop owners were relocated to the

new area, making them part of the gentrification process. Second, these shops, instead of being displaced by new ones for the middle-class demand, are trying to adapt to new conditions by updating their products to more sophisticated ones. Through this, they are trying to keep themselves open to the demands of both working and upper-class residents. The term "living through gentrification" could be applied for shop owners as they are adapting to the changes.

In accordance with the results of Freeman & Braconi (2004), the original residents of Roombeek feel satisfied with the commercial changes in the neighborhood. For old residents, the commercial changed are an advantage, considering that the neighborhood had no previous commercial history. As Sullivan & Shaw (2011) propose, the neighborhood presents favorable conditions for the acceptance of the changes, and residents feel comfortable shopping there. The concentration of shops in Roomweg attracts different sorts of shops, and not only special ones for middle-class residents. This relates to Byrne's (2003) findings in which the changes also attract discount shops. This is the case for Roombeek, where there is now talk of a future Lidl that will open where supermarket Emté was located before.

The patterns of allocation of the commercial structure of Roombeek were different to what was expected. Different than the results of Doucet (2009) and Butler (2003), there is no separation by price in the use of the neighborhood. Instead, the neighborhood can be divided into the new part, Roomweg, and the old unconstructed part, Schurinksweide. However, none of these parts are exclusively for the upper-class or the working-class, both types residents are users of the new facilities in the neighborhood. In Roombeek, the commercial infrastructure of the neighborhood does not reflect the consumption and identity of the gentrifiers, differing from the results of Ernst & Doucet (2014). Instead, a pattern that is visible and was clearly recognized is the division of the neighborhood by its functions: commercial, residential, business, and cultural areas.

Shopping behavior is very similar between old and new residents. Jumbo is commonly mentioned as the place to get groceries, while other goods such as clothes are acquired in the city center. Some new residents, in addition, travel to the city center or Deppenbroek to find some specialized products. Leisure activities present different behavioral patterns; while old residents tend to stay in the neighborhood and spend time in the green areas or Prismare, new neighbors often go to the city center or to the outskirts of the city of Enschede. Compared to the study on schools by Robson & Butler (2001), there are no real differences in shopping behavior, but for leisure activities, the middle class has the possibility to choose from more options, while the lower class chose according to the more convenient option. These results are also similar to Greene et al. (2011), which found that old residents stay put, while new ones have more mobility.

One of the most interesting findings of this research is the difference in opinion between shop owners and residents of Roombeek. While shop owners talk about a change in demand and products they sell, residents, new and old, declared to only do basic shopping in the neighborhood, and that the offer of other stores, especially clothes stores, was not for them, because it was not their taste or because it was too expensive. This might be in relation to the fact that in the neighborhood there are other functions, such as businesses that might be using

the facilities, as well as people coming from outside the neighborhood. In the latter scenario the neighborhood would be fulfilling the objective of having a city function; on the contrary, opinions of residents show that a lot is missing in order to achieve this objective.

The positive aspects of commercial gentrification are mainly perceived by the local population and for basic shopping in Roombeek. In this case, it is different than the aspects presented by Byrne (2003), who state that the neighborhood should attract people from outside the neighborhood. Even though these were the intentions of the municipality of Enschede, shop owners declared that this does not happen. On the other side, according to Blokland & van Eijk (2010), commercial gentrification seeks to have gentrifiers spending more time in the neighborhood. This is the case for daily shopping as well as for cultural activities; however for other activities, especially for other shopping needs and for restaurants, gentrifiers still go to the city center because the offer in the neighborhood is not good enough.

8.3. Perceptions of a neighborhood

Analyzing the mental maps of the residents of Roombeek led to interesting results, which allowed the analysis of the neighborhood at different scales. The results emphasize the importance of work at a local scale, as proposed by Figueroa (1995), Van Kempen & Bolt (2009), and Hillier (2010). At a neighborhood scale, the neighborhood meets the expectations of mixing different populations; however, when analyzing at a smaller scale, one of the first things that arises is how the neighborhood is extremely divided by old and new residents, and also between different old residents and different new residents. This reveals that, also in Roombeek, mixing does not necessarily end up in integration.

Mixing measures are used in order to prevent enclaves of affluent people (Byrne, 2003), but this is exactly what happened in Roombeek at a smaller scale. On one side, there are the residents from the Bamshoeve who interact mainly among themselves, residents from Talmaplein, residents from Roomveldje, from Menko, etc. This is in line with the findings of Blockland & van Eijk (2010) and Uitermark et al. (2007), which reveal that residents with similar backgrounds interact with each other. As stated by Figueroa, changes in the neighborhood related to gentrification are local and not applicable to the whole space; this is seen in the reconstruction area, but also when considering the Schurinksweide, which does not form part of the reconstruction process.

Residents from different parts of the neighborhood are very aware of the various parts of the neighborhood and their functions. The fact that each human has their own mental map (Lynch, 1960) reveals differences in how or what they call, know, or relate to regarding the different parts of Roombeek. As exposed by Haynes (1980), Dance (2011), and Abegglen (2011), people with similar backgrounds, effectively, act in similar ways. In general, old residents have a similar perception of the neighborhood, which differs from both the Bamshoeve and new residents. This perception of space is related to previous history, which in this case is the participatory process, or the history and connection original residents have with the old Roombeek. In this sense, how the municipality dealt with elements of the city that had meanings for the old neighbors was very important.

Mental maps are an important tool for analyzing the segregation of the neighborhood in a more dynamic way, as proposed by Ruiz-Tagle (2012). Spatial information that arises from phenomenon takes the form of specific locations, which represent different variables, which displayed together can help identify and understand spatial patterns (Hillier, 2010). It was found that segregation is not related to the places that people spend time, as is also shown in the results by Lysaght & Basten (2003), and Shoval (2008), instead segregation is directly related to the dwelling of the different residents. Old and new neighbors recognize the places where they feel comfortable and the places where they do not like to go. Impressively, one of the most undesirable places for old and new residents was the Roomveldje, a place where old inhabitants live, and where almost 70% of the rental families returned. This can be described as a problematic space in the neighborhood, as other residents do not like to go there, converting it into a place of segregation.

For the rest of the neighborhood, residents perceive the differences between dwellings; however, these differences do not make old or new residents uncomfortable. Apart from the Roomveldje, residents feel comfortable in almost all of Roombeek, or at least what they recognize as such. These are spaces of potential integration, because there are no problems between the residents. Besides the Talmaplein and Bamshoeve, important spaces where this possibility for integration exists are the cultural and shopping areas of the neighborhood.

Because no shopping patterns were found for old and new residents, there is no segregation in these spaces; these become an important setting where people can meet and interact. The shopping center and the cultural area become then the center of Roombeek, a place that is important for meeting (Doucet, 2009).

8.4. Hypothesis

In regard to the hypotheses presented at the beginning of the research, the results were different than what was expected.

1. **Displacement of old shops to give space to new ones specialized for new gentrified residents**: shops in the neighborhood have been adapting to the process of gentrification, as they first moved from the old Mekkelholt commercial cluster to the new one in Roomweg, and changed their products to meet the new demand. This adaptation can protect the shops from future displacement, as is what happens in other gentrified neighborhood. Shops, as the residents, "live through gentrification".

2. **Arrival of shops creates a new pattern of localization which is related to the way residents make use of space**: as old shops "adapt" to the new situation, there are no visible patterns of allocation related to new shops for the gentrifiers and old shops for the old residents. However, other patterns are visible which are in relation to the leisure activities.

3. **Residents with different backgrounds will have different mental maps of the same neighborhood**: as expected, there is a difference on how old and new residents perceive space; moreover, there is a difference between different old residents and different new residents. These differences are related to past experiences and the

relation the residents have had with the neighborhood in the past or during the reconstruction process.

4. **Old residents will tend to stay in the neighborhood while old residents move around the city**: old and new residents have similar behavior when it comes to shopping activities, even though new residents are more mobile as they also consume some specialized products in other parts of the city. For leisure activities however, the results present more mobility for new residents, as they practice, besides the cultural activities in Roombeek, others in the city, such as diner, drinks, and sports.

8.5. Final Remarks and recommendations

The case of Roombeek offers an important perspective on state-led gentrification as well as the use of mental maps to understand a neighborhood. The participation process for both old and new residents should result in a better integration of the neighborhood, especially between the residents and the functions of the neighborhood. However, this is not the case for Roombeek. Instead, this is a neighborhood formed by smaller neighborhoods which barely have any interaction. Through the use of mental maps, it was possible to identify areas were all residents go and areas that they try to avoid. This can be helpful for the municipality of Enschede when applying more specialized policies of integration.

At the same time, the use of GIS tools enable the graphic visibility of the process, making spatial and temporal comparisons, as well as a synthesis map to show what are the opportunities and weaknesses of the neighborhood lie. Mental maps can be introduced as a layer in order to be compared with what physically exists in the neighborhood.

Although gentrification in Roombeek was generated as a participatory process, the results are very similar to other cities in the Netherlands. While some of the aspects can be controlled such as the commercial displacement, the segregated dwellings show inevitable patterns that arose from the process. Controlling commercial aspects has an effect on how people perceive and receive the changes, feeling less threatened by the new residents; nevertheless the dwelling segregation has a direct effect on how people interact inside Roombeek.

The use of mental maps can be a helpful tool for participatory processes like this, which should have been used in the previous phase of planning to identify interest points for the population. Related to this, it is also very important to preserve images and symbols important for old residents, which have an impact on how they feel in the new neighborhood; however, these images should also be linked somehow to new residents in order to make spaces important to all residents of a neighborhood.

When taking into consideration the redevelopment of a new area, it is also important to consider the whole neighborhood, and how the residents perceive and experience it. The Roombeek experience shows how, through the reconstruction of the inner core after the disaster, the neighborhood was divided in people's mental maps. The history of the neighborhood should also be taken into account. In Roombeek, Schurinksweide was always perceived as far away from the rest of Roombeek; this situation was worsened by the renovation process that excluded this area. A possible solution for this could be to strengthen

different areas with services for the community; however, this would have to be done carefully so that it does not lead to segregation in the services of the neighborhood.

Finally, it is very important to consider the impact that the redevelopment process has had on people's mental maps, especially on those that were part of the process. It is very important to have a well-developed idea of the image and identity of the neighborhood at this stage of gentrification, in order to have a greater impact on the residents and the integration of the community. Better reconstruction policies could have led to the better integration of the community, that today form part of Roombeek. Instead, there are many closed communities that have no interaction with one another.

The use of mental maps reflects how the space is experienced in a different ways for the different residents of Roombeek. The results show no powerful relations between the new and old residents, but personal interpretations of the same reality. Additional spatial information gives interesting results on how people use, perceive, and interpret the place in which they live.

This research opens up opportunities for further research in neighborhoods like Roombeek where the shops adapt to the new demand instead of being displaced. It would also be interesting to found out what function neighborhoods like Roombeek have for the whole city, as they attract more population from outside, having an impact in the commercial structure as well as on the residents that live there.

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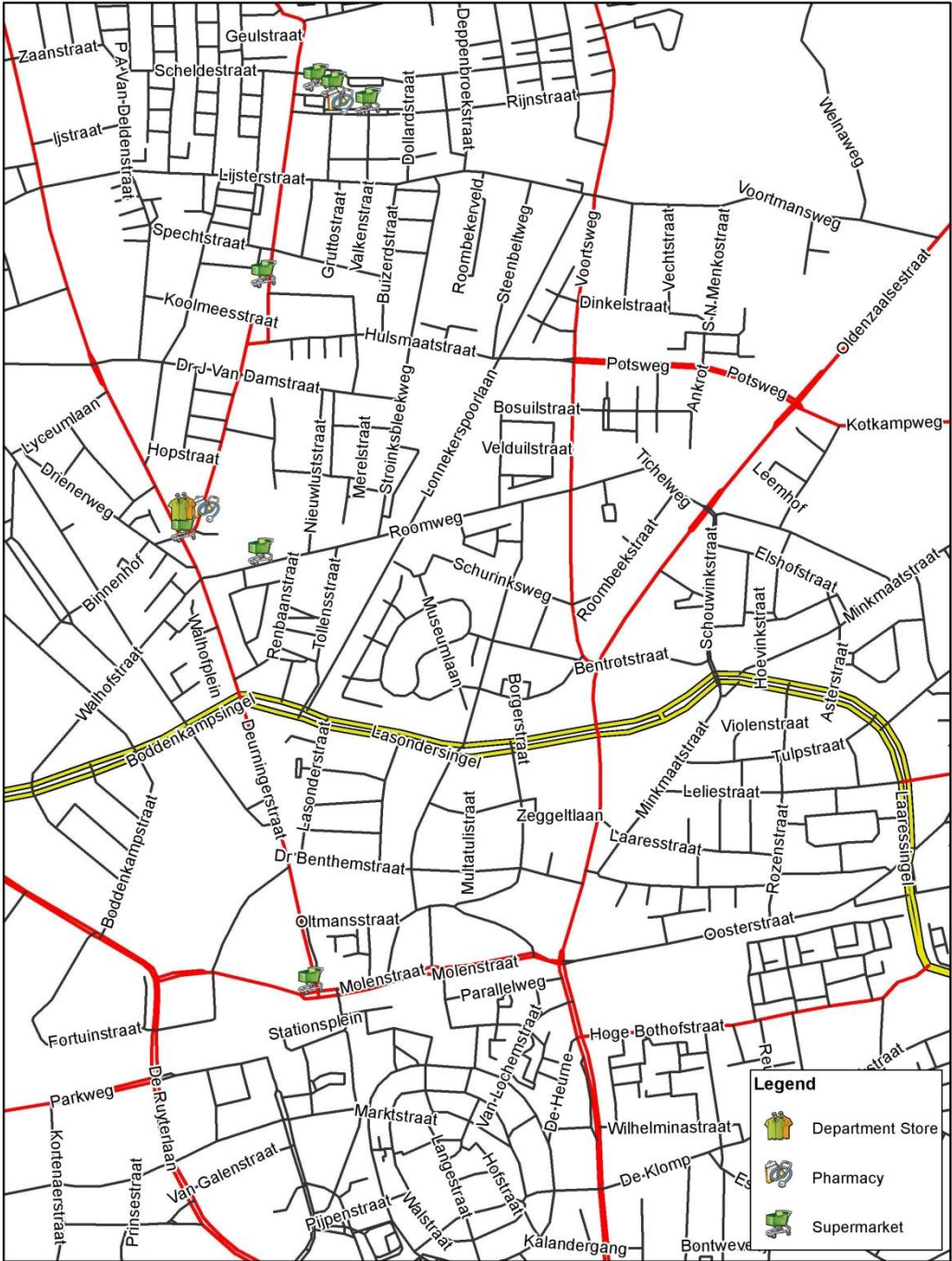
Appendices

Appendix 1: Interview shops owners, businesses and artist

- ➢ What does your business do?
- ➢ For how long have you been in the neighborhood of Roombeek?
- ➢ Where were you located before?
- ➢ Why did you decide to move your business here?
- ➢ What are the positive aspects of being here compare to before?
- ➢ What are the negative aspects?
- ➢ Do you think the neighborhood presents better possibilities now after reconstruction?
- ➢ Why is the neighborhood better than others in Enschede?
- ➢ What is the image from your perspective the neighborhood shows to the outside?
- ➢ How would you describe the neighborhood to someone that is coming from outside?
- ➢ Where do you live?
- ➢ How do you travel to work?
- ➢ Would you like to live in Roombeek?

Appendix 2: Interviews Residents

- ➢ How long have you lived in the neighborhood?
- ➢ Which neighborhood/city did you live before?
- ➢ Why did you decide to move here?
- ➢ If you compare old Roombeek, can you mention the three most striking differences for you?
- ➢ Can you mention the things you find most pleasant in this neighborhood
- ➢ And the things you find least pleasant
- ➢ Can you draw the boundaries of Roombeek? **(SHOW MAP 1)**
- ➢ Which neighborhood/city do you work?
- ➢ How do you travel to work?
- ➢ In which neighborhood do you do your grocery shopping?
- ➢ Show in the map where do you do your grocery shopping **(SHOW MAP 1)**
- ➢ Can you recognize the shops that are represented in the map? **(SHOW MAP 1)**
- ➢ How do you travel to do your grocery shopping?
- ➢ Why do you do your grocery shopping there and not someplace else?
- ➢ If outside the neighborhood, why don't you do your shopping in the neighborhood?
- ➢ Can you point out and name other stores that are in the neighborhood and are not represented in the map? **(SHOW MAP 1)**
- ➢ Do you shop in any of them?
- ➢ Where do you do your leisure activities?
- ➢ Can you point any of them in the map? **(SHOW MAP 1)**
- ➢ Are you familiar with places in the neighborhood that provide leisure activities? **(SHOW MAP 1)**
- ➢ What types of leisure activities are present in the neighborhood? Restaurants, museums, expositions, cultural center, Prismare, other?
- ➢ Do you do other activities in the neighborhood? **(SHOW MAP 1)**
- ➢ Divide this map into whatever categories you want and assign to each category a name **(SHOW MAP 2)**
- ➢ Can you explain each category
- ➢ Show with colors in this map where do you feel at home, where do you feel comfortable and where do you feel uncomfortable **(SHOW MAP 2)**
- ➢ Do you think the neighborhood has improved compared to the past, after reconstruction?
- ➢ Do you see a difference in people living in this neighborhood before and after the fireworks disaster?
- ➢ Are you satisfied with the quality of the house?
- ➢ Are you proud of living in Roombeek?

Map 1

Map 2