Today's Main City Squares

in North-Western Europe

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Preface

City squares can be found in most North-western European cities; we all know them as open spaces in the city. These spaces are publicly accessible and, for that reason, have a role as civic meeting places. Some squares are more important than others; they form the main place of interaction in the centre of city and, therefore, are referred to as 'main city squares'. While we are walking through the cities, sitting at a terrace, looking at the shopping windows, or just standing still, we observe the atmosphere of the place. However, not every square that has a central role in the city is a successful main square per se.

There is a great difference between city squares in historic cities and those in 'New Towns'; *"Cities that did not develop gradually but are established and planned" (Cambridge Dictionary)*. The geometrical difference between gradually developed cities and planned cities is shown in the image below, where the shape of the centrally positioned squares show a remarkable difference (fig. 1). Spiro Kostof (1991) describes the differences as follows:

"There are two kinds of cities [...] The first one is the planned or designed or 'created' city – Pierre Lavedan's ville créée. It is set down at one moment, its pattern is determined once and registered as an orderly, geometric diagram. [...] The other kind is the ville spontanée – the spontaneous city, also called 'grown' [...] It is presumed to develop without benefit of designers, subject to no master plan but the passage of time, the non-geometric, 'organic', with an incidence of crooked and curved streets and city-forms."

Is there a link between the success of main city squares and the age or shape of the city centre? But what is then the role of city squares in today's society and what makes these squares successful or not? These are questions that will be dealt with in this graduation project.
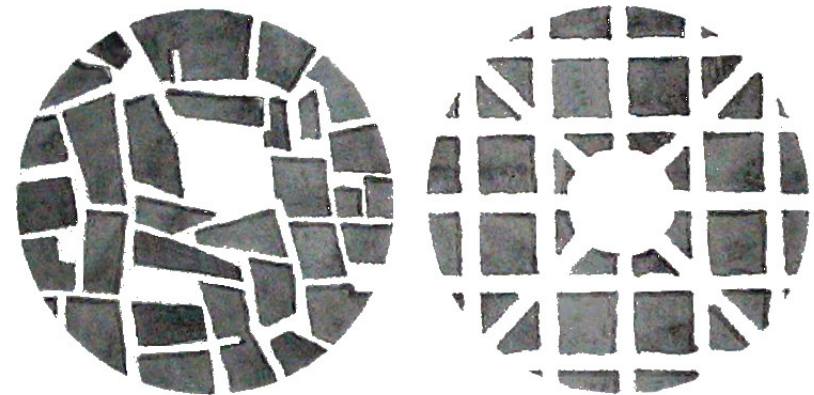

Fig. 1:   The irregular geometries of the 'ville spontanée' versus the ordered framework of the 'ville créée'. *(Kostof, 1991, p.44)*

Contents

Introduction

This document encompasses the result of the graduation project entitled 'Today's Main City Squares'. We will give an overview of the research and design by showing the conclusions and a summary of the analyses. The extended data can be found in a separate document, containing the full reports.

In the following pages, we will introduce you to the subject by stating the problem and the aims of the project. When we have showed the scope of the project and its social and scientific relevance, we will start with the project itself.

Firstly, we will guide you through the separate steps of the project, by showing the methodology. This project consists for a large part of research by case studies, chronologically divided in different phases. In direct relation to this phasing, the methodology is being followed by a brief overview of the result. Where possible, photographs and drawings are made by the author. Maps and sections of the case study locations are printed in the same scale, unless stated otherwise.

We will conclude with general recommendations that have been derived from the research and the design proposal. Here, we focus again on the scope of this project; main squares in north-western Europe. The derived criteria for quality, the core of this project, are also the guidelines for these conclusions.

1.   Problem Statement

There is a hierarchy in urban squares. Most squares are market squares or small local squares, but one or two squares are used and perceived as the main squares of the city and have, therefore, a greater symbolic and civic value. Nowadays, in North-western Europe, these squares are often touristic spots. Also, these main square are, in many cases, being seen as the heart of the city.

But are they really?

Through history, city squares have been a place of interaction, providing space for markets, events and face-to-face contact. Nowadays, however, many daily activities can be done through the Internet, minimizing the need for physical travel. It is clear that the role of main squares has changed over time, but they seem to have maintained their status as important places for public life and the image and identity of cities.

According to Madanipour (2003), personal interaction is still the main form of communication: *"whether following the social forces from outside or bodily impulses from inside"*. Carmona (2003) says that the experience of 'place' is nevertheless important and he adds the following: *"If location in space matters less in locational decisions, then the quality of local 'place' may start to matter more."*

We can see that the development of informational technology and fast ways of travelling have influenced our perception of public space. As both authors have shown us, public space remains important even though it is no longer a necessity for the exchange of information and goods. City squares should be designed in such a way that they attract people to come there.

In order to have a square -or a system of squares- that functions as the pounding heart of the city, the square(s) should function in a certain way. This is being determined by the social-spatial and spatial-functional qualities of these squares. By social-spatial parameters, we understand space-related aspects that influence the public experience and social behaviour. We identify spatial-functional parameters as the spatial organization and urban structure that provides the space with public functions.

From observation and common sense, it seems that main squares in historic towns have a certain value that is missing in many main squares in 'New Towns'. These squares, located in cities that are planned and built in a relatively short time span appear to lack some of the essential elements that give successful main city squares their highly appreciated qualities.

The pictures on the facing page give an indication of these differences. The first two photos (fig. 1.1 and 1.2) are taken in the cities of Brugge and Haarlem; historic cities with a traditional 'Markt' (Market square). The second series shows the main squares of Almere and Zoetermeer; 'New Towns' from the 1970s, with recently renewed city centres (see fig. 1.3 and 1.4). From looking at these pictures, we can recognize differences in architecture, urban elements, shape of the squares and the use of trees. It is clear that the cases of Almere and Zoetermeer lack trees and urban elements such as a bench, fountain or statue – which are evidently present at the traditional main squares. The monotonous, gray atmosphere of the recently planned squares, in combination with their lack of symbolic value, makes these cases the exact opposites of the main squares of Brugge and Haarlem.

We believe that these differences can make a crucial difference in the design of city squares today. This statement is supported by Lenzholzer (2008a) in reaction to a public inquiry on Dutch city squares:

"The spatial setup of many Dutch urban squares is criticized when squares have a too open and empty character. Another problem often mentioned is that squares appear too 'hard and smooth' and 'cold and grey'. [...] it is striking that the ones mentioned often are recently (re) designed squares."

In this project we will attempt to define the social-spatial and spatial-functional qualities of successful main city squares and examine what elements are missing in unsuccessful main city squares. In order to do so, we will investigate main squares in selected 'old' and 'new' towns, following a method that will be described in detail later in this document (see chapter 7; 'Methodology').

Fig. 1.1:   Markt in Brugge. *(by author)*

Fig. 1.2:   Grote Markt in Haarlem. *(by author)*

"…the Natural Setting for the most Important Civic and Religious Buildings, a Place for fine Sculptures, Fountains […] and, above all, a Place where People Meet and Socialize."
(Moughtin, 2003)

Fig. 1.3:   Stadhuisplein in Almere. *(by author)*

Fig. 1.4:   Stadhuisplein in Zoetermeer. *(by author)*

"Moderns Squares are simply Spaces Marked as such on Maps […] Empty Areas within the Web of Streets."
(Zucker, 1959)

2.   Project Aims

This graduation project can be characterized as 'Research driven Design', by which we understand that the final result of the project is a design, based on in-depth research.

In this particular case, the research will firstly be directed towards defining criteria to measure the quality of main city squares. Next, these criteria will be used to find strengths and weaknesses in existing situations. With this knowledge, one of the investigated locations will be selected for the design-phase. The design proposal should provide a solution for the discovered problems, while making use of the gathered knowledge on the quality of city squares. In this project, the research and the final design proposal are of equal importance.

The main goal for the 'Research' part consists of the following two key elements:
- Deriving criteria to define social-spatial and spatial-functional qualities (from theory)
- Identifying 'good' and 'bad' examples of these criteria (in actual cities)

These elements will be studied in the first phases of the project, until P3. The research will consist of literature- and case studies, as will be explained more deeply in chapter 6 'Methodology'.

The 'Design' part of the project has the following two main aims:
- Creating a visual design solution for one unsuccessful case (spatial design)
- Defining general recommendations for the identified 'bad' examples (brief proposal)

The information derived from the research is an essential element in finding the 'missing links' that should be solved, to have a basis of strong characteristics that can be used for the design, and to select the final case for the design proposal.

3.   Research Questions

The main research question that should be answered is the following:

'*How can we define and improve the social-spatial and spatial-functional qualities of today's main city squares in North-western Europe?*'

In order to find an answer to this question, the elements that it contains should be defined separately. To find out what the current situation is, we should first look into history. Also, no quality can be improved if the definition has not been defined first.

The following sub-research questions, therefore, represent the in-between steps:
• 'How can we describe the development of city squares in North-western Europe, concerning their spatial-functional qualities and function in society?'
• 'What spatial, social and symbolic parameters define which squares are main city squares?'
• 'How can we define the social-spatial and spatial-functional qualities of main city squares in North-western Europe?'

Answers to these questions will be based on both literature and actual cases. The methods that will be used are being addressed in chapter 7; 'Methodology'.

4. Scope of the Project

This research concentrates itself on main city squares, located in the centre of a selection of cities in North-western Europe. The level of success of these cases is not being determined beforehand, as it will be part of the investigation. The distinction between historic towns and 'New Towns' is made because of the large difference in their urban patterns, history and symbolic value of their main squares. Although most people think of traditional squares when talking of lively squares, we can not state at forehand that all successful squares are located in historic towns.

In order to broaden the view and transferability of the results, the research will include transnational cities. The countries that will be included in the research are the following: South-eastern England, the Netherlands, Western Germany, Belgium and Northern France. This study area is represented in the map to the right (fig. 4.1) and in this paper referred to as 'North-western Europe'.

The choice of cities that will be included in the research is mostly based on their history, their geographical location and current number of inhabitants. The cities that will be investigated have between approximately 100.000 and 250.000 inhabitants, which is not a strict number but a guidance for selecting cities of comparable sizes. Additionally, each city has its individual characteristics that make it interesting to explore that particular city.

Two types of cities are included in this research; historic towns and 'New Towns'. The traditional cities have various foundation dates; the important element is the preservation of their historic city centres. The 'New Towns' in this research are created in the 20th century and mentioned as 'New Towns' by the International New Town Institute *(INTI)*.
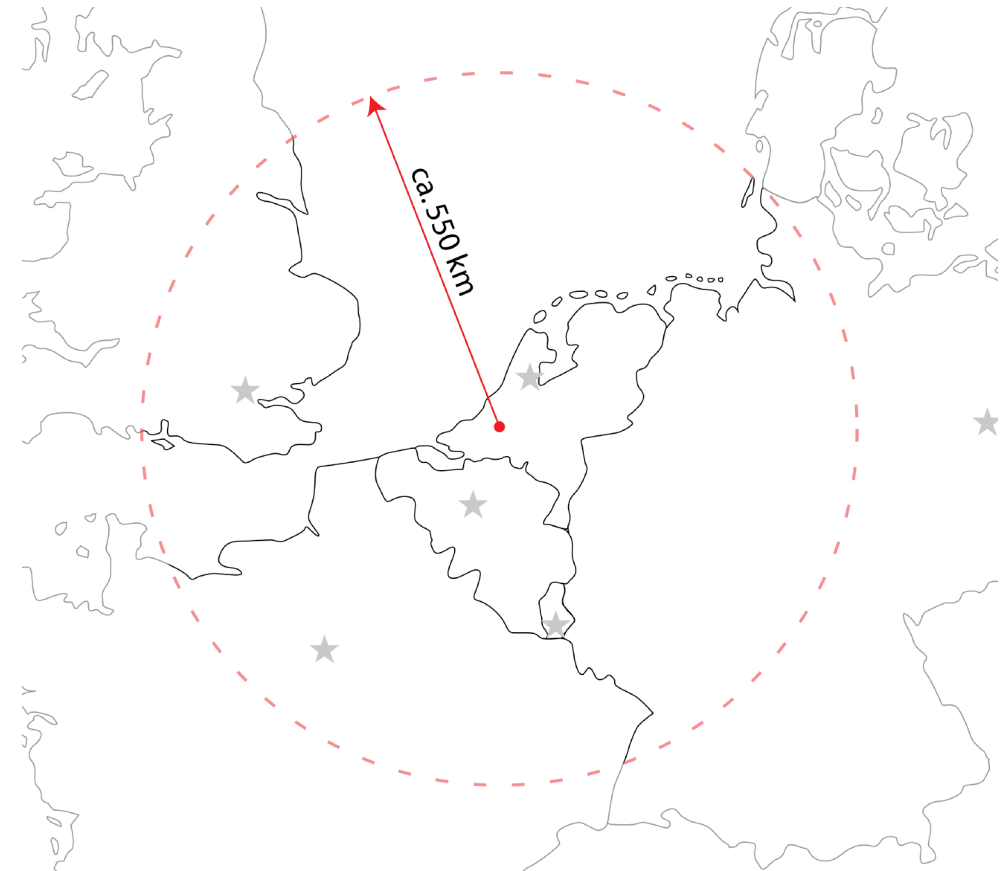

ca. 550 km

Fig. 4.1: North-western Europe; Scope of the project. *(map by author)*

4.1   North-western Europe

The reason why the region of North-western Europe defines the scope of this project is that the countries in this region have many comparable characteristics. We can think of the climatic conditions and geographic elements such as landscape and relation to water. Additionally, these countries share large parts of their cultural, historical and political history. Nowadays, these countries have developed into advanced capitalist societies, with a service- and knowledge-based economy.

According to Pirènne (1970), London and Bruges (Brugge) already had a strong relationship of trade around the 10th century. In the 14th century, North-western Europe was part of the Hanseatic League and, therefore, shared strong trading connections as is shown in the map (fig. 4.2).
The turn of the 19th century was being dominated by Napoleon's Wars, politically reshaping Europe; the current countries of France, Belgium, the Netherlands and a part of Germany were being governed by the French. Since the 18th century, as Sutcliffe (1981) points out, industrialization took hold in Britain. Up to around 1850, according to Hohenberg and Lees (1985), the Industrial Revolution spread out to Continental Europe, causing a rapid growth of cities in this region.
Other important episodes in the history of North-western Europe, are World War I and II. The first spared most major cities, while the latter caused substantial shortage of housing. *(Lenzholzer, 2008)*. 'New Towns' were being created in order to provide enough housing; this resulted mostly in an unbalanced mix of residences and employment. According to Hohenberg and Lees (1985), especially the French 'New Towns' of the mid-20th century have proved to be unpopular. In reaction to WWII, uniting Europe became a priority; in 1957 he EEG (European Economical Community, later European Union) was founded by France, Western Germany, the Netherlands, Belgium, Luxembourg and Italy. Britain joined this community in the 1970s as it firstly feared for its commonwealth *(Santon et al, 2006)*. Recently, the European Union, nowadays consisting of 27 countries, has been given a president; Herman van Rompuy from Belgium.

Fig. 4.2:   Hanseatic League in North-western Europe; around 1300. *(Santon et al, 2006, p.108)*

4.2   Selected Cases

The cities that are selected for the first, general case studies are shown in the maps to the right (fig. 4.3 and 4.4). The image on the facing page is a satellite photograph of the region. If we look closely, we can distinguish the river deltas. The region of North-western Europe includes water, hilly sites and forests, but no high mountains.

As is visible in the maps, the cases are spread out over the North-western European region, corresponding with the defined scope of this project. A group of 11 cities has been selected, of which five 'New Towns' and six historic towns. These cities have been chosen by their location, history, number of inhabitants and individual characteristics.

By these individual characteristics we understand, for instance, that a city's main square is well-known by the public and has been addressed in literature; this can be both positive and negative. Milton Keynes, for example, is a famous 'New Town' but it does have its problems, particularly in terms of pedestrian friendliness *(Van der Hoeven, 2007)*. At the same time, the historic city of Nottingham has a main square that is known to be the hub of social life in this city *(Moughtin, 2003)*.

In this chapter we will briefly introduce the selected cases.

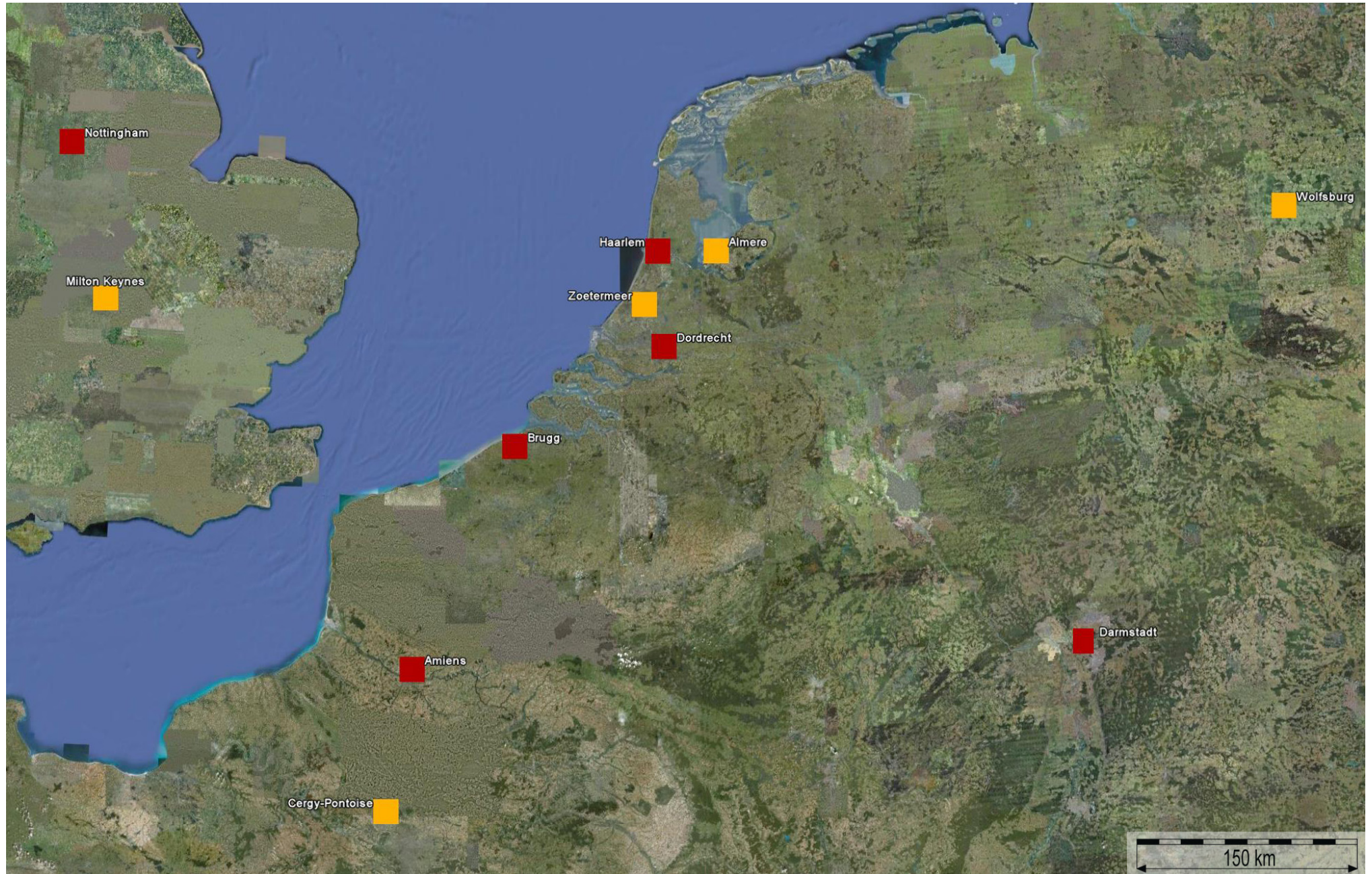Fig. 4.3:   North-western Europe: Scope of the project, including the selected cities. *(map by author)*

Fig. 4.4:   North-western Europe: Selected cities in a satellite photograph. *(Google Earth)*

Selected 'New Towns'

The photographs below (fig. 4.5-9) give an impression of the main squares of the selected 'New Towns'.

In the table, the cities are sorted by the year that they became a city; their origin may, therefore, go further back in history (table 4.1). The city of Zoetermeer, for instance, became a 'New Town' in 1962, but is this year celebrating its 1000th anniversary. The current city has one historic street, called 'Dorpsstraat' (Village street), which reminds of this past - even though this former main street is not part of the modern city centre.

In total, five 'New Towns' have been selected. Most of them became a city in the 1960s or 1970s, but Wolfsburg is a different example. This city has been created in the pre-war period and, therefore, might give different results than the other cities.

NEW TOWNS				
City	**Country**	**City since**	**Inhabitants**	**Source** [Internet]
Almere	NL	1976	185.000	Almere.nl
Cergy-Pontoise	FR	1972	185.000	CergyPontoise.fr
Milton Keynes	GB	1967	231.000	Milton-Keynes.gov.uk
Wolfsburg	D	1938	121.000	Wolfsburg.de
Zoetermeer	NL	1962	121.000	Zoetermeer.nl

Table 4.1: Overview of the selected 'New Towns'.

Fig. 4.5:   Almere *(by author)*

Fig. 4.6:   Cergy-Pontoise

Fig. 4.7:   Milton-Keynes

Fig. 4.8:   Wolfsburg

Fig. 4.9:   Zoetermeer

(Picasa webalbums)

Selected Historic Towns

An impression of the main squares of the selected historic towns is given by the photographs below (fig. 4.10-15).

The order of the cities in the table is by the year that they gained city rights (table 4.2). Six historic cities have been selected, each with a different history. As we can see from the pictures, the city centres are rich of imposing buildings, urban elements and trees.

However, the city of Dordrecht is a different case then the others as it has both a historic and a modern city square. The photograph shows the historic square (fig. 4.13).

HISTORIC TOWNS					
City	**Country**	**Founded**	**City rights**	**Inhabitants**	**Source** [Internet]
Amiens	FR	1st c. B.C.	1113	137.000	Amiens.fr
Brugge	B	9th century	1128	117.000	Brugge.be
Darmstadt	D	11th century	1330	142.000	Darmstadt.de
Dordrecht	NL	11th century	1220	119.000	Dordrecht.nl
Haarlem	NL	10th century	1245	148.000	Haarlem.nl
Nottingham	GB	7th century	1879	289.000	NottinghamCity.gov.uk

Table 4.2: Overview of the selected historic towns.

Fig. 4.10: Amiens

Fig. 4.11: Brugge

Fig. 4.12: Darmstadt

Fig. 4.13: Dordrecht *(Panovisie)*

Fig. 4.14: Haarlem

Fig. 4.15: Nottingham

(Picasa webalbums)

5.   Relevance

Main city squares with a cold, unpleasant atmosphere and only a handful of people using the space do not function as the pounding heart of the city. This phenomenon is especially found in many 'New Towns' - what does not imply that every 'New Town' has failed in the design of its city centre.

However, we do see a trend in this issue.

When we, for example, take a look at the cases shown in the pictures, we cannot deny the emptiness of these large-scaled squares (fig. 5.1-5.3). These are pictures of some of the main city squares in 'New Towns' that will be investigated in this graduation project. In order to solve this apparent issue, more should be done to improve the quality of main city squares.

In the past decades, many researches have already addressed the separate issues of 'successful public space' and 'New Towns'. Examples are Sitte (1889) and Krier (1979), telling us that we should cherish our history and its aesthetical qualities. Forsyth and Southworth (2008) stress the problem of traffic in 'New Towns'; there should be more space for pedestrians. This statement is shared by Van der Hoeven (2007) who tells us about the car-based city centre of Milton Keynes. Criteria for success of public space can be found in literature of, for example, Lynch (1964; 1981) and Montgomery (1998), focussing on both spatial form and social aspects.

The information derived from literature forms the basis for this project and provides a widespread theoretical framework. This project will combine these parameters and make use of actual cases, bringing fresh and contemporary information to our discipline. We feel there is still room to study why main squares in historic towns are, apparently, more successful in conveying symbolic values and fulfilling public functions than their modern counterparts.

In this chapter we will briefly explain the role of the main city square in our society and its relation to our profession; what is lacking in the current body of knowledge and what contribution this project might yield.

Fig. 5.1:   Cergy-Pontoise: Place du Général de Gaulle. *(Picasa webalbums)*

Fig. 5.2:   Wolfsburg: Marktplatz. *(Picasa webalbums)*

Fig. 5.3:   Zoetermeer: Markt. *(Picasa webalbums)*

5.1   Societal Relevance

In today's Western societies, public space is an essential element for social life and personal interaction; shopping, dining, drinking, and even marrying. Thinking of social activities is equal to interaction in public space. Within this, main city squares play an important role. There are many social activities that take place on the main city squares, as we can see in the pictures to the right (fig. 5.4-5.6). The city centre is in many cases the key element that influences the image of the city. Restructuring and redesigning the city centre is a common approach in attempting to improve the sense of liveability of the city itself.

For that reason, we can state that this research is not just related to social issues, but addresses the core of urban societies in North-western Europe. The vitality of a main city square affects the image of the city, its amount of visitors and therefore the flourishing of its shops, cafes and restaurants.

The statement of main city squares being a social matter is being reflected by a large amount of newspaper articles. The newspaper headings below give an impression of related issues in national newspapers; the Dutch 'NRC Handelsblad', British 'The Times' and Belgian 'De Standaard' (fig. 5.7).

Fig. 5.4:   Weekly market *(Picasa webalbums)*

Fig. 5.5:   Terraces *(Picasa webalbums)*

Fig. 5.6:   Music festival *(by Lonkhuijsen, R.v.)*

NRC HANDELSBLAD

Handtekeningen tegen een kleine Grote Markt
(Signatures against a small Grote Markt - 'Large Market square')
GRONINGEN, 12.01.2005, *Karin de Mik*

THE TIMES

Renaissance of the new towns

Developers will reshape the fading New Towns of Stevenage and Bracknell to put people back in the centre

UK, 13.04.2007, *Lucy Alexander*

dS De Standaard

Buurtbewoners willen geen bebouwing op stadsplein
(Local residents do not want buildings on city square)
MORTSEL, 16.09.2008, Kathleen Vervoort

Fig. 5.7:   Newspaper headings: Developments of city squares are being reflected in newspapers and related to the city's inhabitants.
(NRC handelsblad; The Times; De Standaard)

5.2   Scientific Relevance

The addition that this project will bring to the body of knowledge, is a research by case studies; not only identifying key elements for successful main squares, but looking for transferable design solutions to be implemented on main city squares in North-western Europe. These spatial interventions will be based on positive aspects that have been found in the investigated cities and the theoretical background on social-spatial and spatial-functional qualities. Additionally, one location will be chosen for doing a spatial design proposal; with use of conclusions derived from the research.

This project is indebted to a large amount of urban studies that have been done in the past. Public space and the interaction on city squares is a subject that, to a large extend, has been studied by scholars. As this trend has settled at the end of the 19th century (foremost Sitte in 1889), the literature research for this project will be extended into this history. Most literature concerns the broad 'public space' or even the city as a whole and is mainly specified to a certain element, such as the city's image (Lynch, 1964), pedestrian movement (Whyte, 1980) or urban comfort (Lenzholzer, 2008b). When the authors include case studies to fundament their statements, these are mostly projected on a single country or city; Lenzholzer (2008a-b), for example, is referring to the Netherlands and Whyte (1980) carried out his survey in the city of New York.

Additionally, over a century after the publishing of Sitte's 'der Städtebau' (fig. 5.8), many scholars still refer to his work. For example authors such as Krier (1979), Carmona (2003) and Moughtin (2003), provoke that the solution for today is to go back to these historic ideas. Kostof (1991) also refers to Sitte in a positive way, though he adds that we should add elements of our own time and needs – but indeed with preserving the existing quality.

Therefore, we find that it is time to do a specific research on main city squares in the area of North-western Europe; and have a fresh look on the current situation. Not just researching 'city squares' in general, but the main city squares; the core square of the city. By focussing on main squares specifically, the research can be deeper. Elements of which separately has been referred to in literature will be studied as a combination of criteria.

In order to come up with a more general research outcome, we will not just focus on one country. The view will be broadened onto the societies in transnational countries with comparable aspects; North-western Europe (see chapter 4 'Scope of the Project'). Investigating cities in this region will provide diverse information of main squares in different, but comparable settings. Not only a wide range of problems of the current main city squares can be found, but this research will also provide a vision on positive aspects.

Including the popular discussion on 'New Towns' brings an extra dimension to the results. Is there a relation between the design of 'New Towns' and the vitality of main city squares? Solutions might be found in traditional centres, but perhaps there are also successful main squares in new centres. From literature such as Lynch (1964; 1981), Montgomery (1998) and Carmona (2003), we can derive social-spatial and spatial-functional criteria to define the 'success of squares'.

By looking at the social-spatial functions of the square in the 21st century, historic and modern squares are being put in today's daylight.
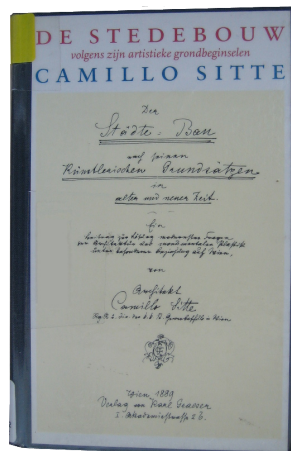

Fig. 5.8:   Camillo Sitte's 'der Städtebau': Many authors refer to this book, written by Sitte in 1889 (translated in 1991).

6.   Involved Disciplines

This project is indebted to the studio 'Mobile Strategies', which is being led by Remon Rooij and Roberto Rocco. The studio focuses on 'mobility environments', in fact, places of human interaction. This project focuses on human interaction on the scale of the city square. Mobility is included in the research in terms of connectivity and accessibility; the relation of bus stops and car parks to the main city squares and the 'walk-ability' of these routes.

The main Chair for this project will be Spatial Planning & Strategy. Not only is this the leading Chair for the Mobile Strategies studio, it also has a strong relation to this project itself. This Chair focuses on social, cultural and economic interactions, which are aspects of which a main city square can be the 'stage'.

The goal of this project is to develop urban design instruments to define and improve the quality of main city squares. With this, Roberto Rocco will be the main mentor as his specialism is related to urban development tools and strategies, including theory and history of urbanism, within his discipline.

The second Chair is Urban Design, which focuses on the transformation of existing urban areas. This Chair relates design of public space, just as in this project, to infrastructure and urban elements. Maurice Harteveld will be representing this Chair as second mentor.

The third relevant Chair is Architectural Composition, as this Chair defines a relationship between housing typologies and changing spatial and programmatic conditions of neighbourhoods. Within this chair, Jaap Dawson is a person with a passion for the quality of public space, its history and written context and, therefore, the third mentor of this project.

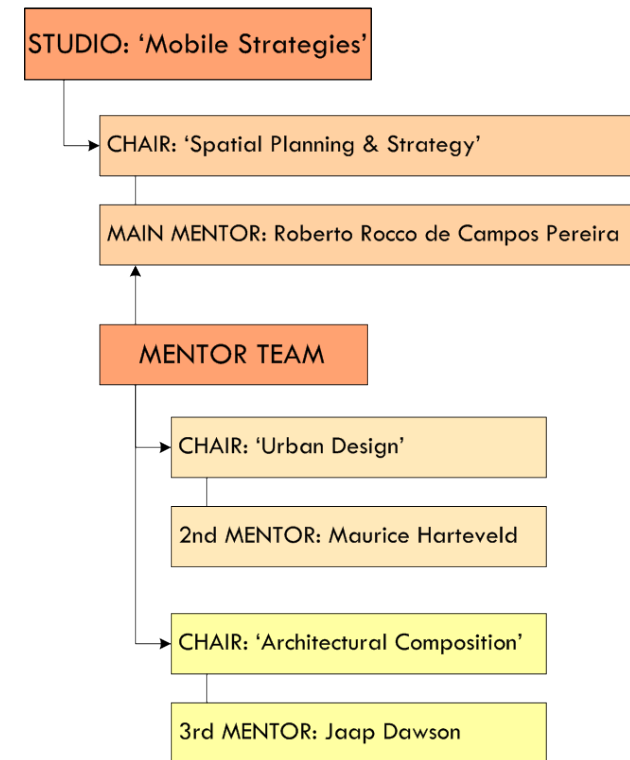The image to the right illustrates the relations of this mentor team (fig. 6.1).

Fig. 6.1:   Scheme of studio and mentor team with their Chairs

7. Methodology

The key element of this graduation project is the exploration of main city squares in North-western Europe, by means of case studies. This will take place in two phases; a general study of 11 cities, researching basic criteria, and an in-depth study of a selection of these cities, where more specific analysis will take place. The first selection of 11 cities can be found in chapter 4.2; 'Selected Cases'.

Literature study takes a prominent place in the research as well. The definition of criteria for social-spatial and spatial-functional quality is a key element in the research by case studies. These principles are being derived from literature and will be tested on the case studies. The results of the case studies will be structured around these criteria and give visual examples of successful and unsuccessful situations. Additional criteria, coming forward during the case studies, are also included in these 'criteria for quality'.

The historical background of city squares will also be investigated by means of literature study. In this study, literature of classic and current authors will be addressed in order to build up a solid theoretical framework as underpinning for the further investigation of city squares in today's society.

In this chapter we will address the methodology per phase of the project. The scheme to the right gives an overview of the mentioned steps (fig. 7.1).
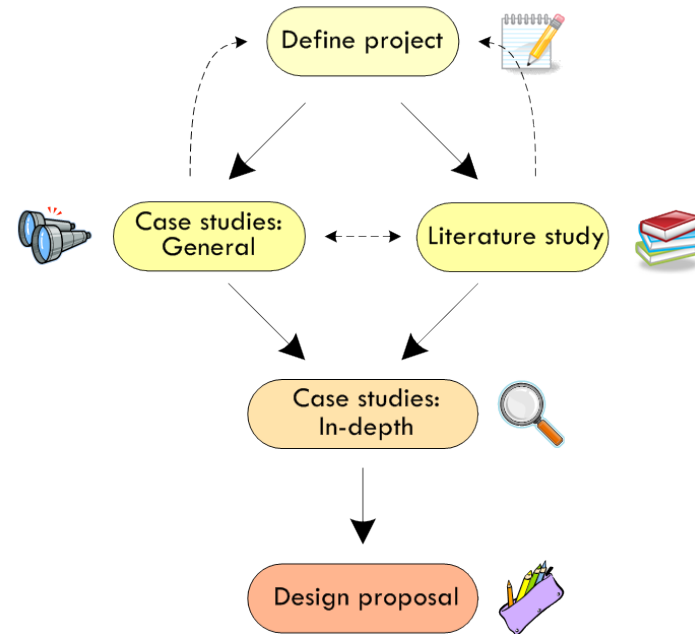
Fig. 7.1:   Scheme indicating the steps of the project

7.1   Literature Study

The first sub-research question of this graduation project is the following:

"How can we describe the development of city squares in North-western Europe, concerning their spatial qualities and function in society?."

We should find out what the original quality of city squares has been, what has changed over time and why these changes have occurred.

We will search for an answer to this question by means of a literature review. Classic literature, but also recent literature will be studied in order to give a well founded response to the question stated (see fig. 7.2).

The literature will also be addressed to investigate the theoretical background for the other sub-research questions. The criteria for social-spatial and spatial-functional quality will be derived from literature and form the basis for the case studies (see fig. 7.3). The theoretical input will give additional information and insights to take into account while preparing the case study research.

The goals, methods and products related to this research method are listed in brief below.

Goals:
• Define original qualities and changes in function of squares in North-western Europe
• Deriving criteria to measure the quality of main squares

Methods:
• Reviewing classic and recent literature on social, economic and urban topics
• Include books, Phd-thesis and articles
• Combine literature of Dutch, English and German language (or translated)

Products:
• Literature review paper
• List and argumentation of 'criteria for quality'
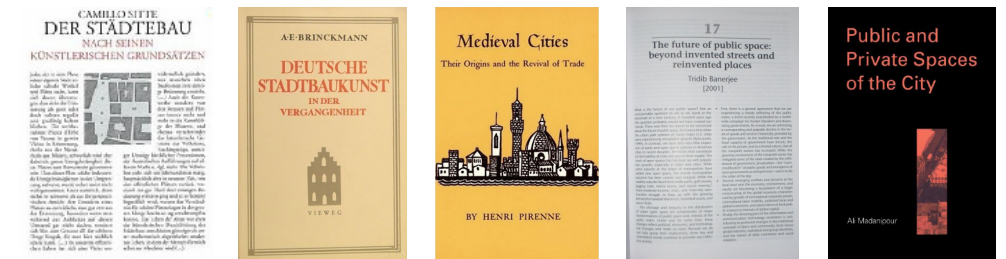

Fig. 7.2:   Some of the literature used for the literature review on the history of city squares; Sitte (1889), Brinckmann (1921), Pirènne (1970) and, more recent, Banerjee (2001) and Madanipour (2003).
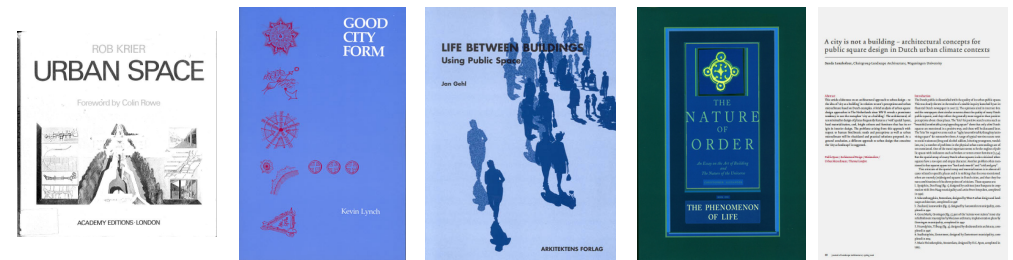

Fig. 7.3:   A selection of the literature used to derive criteria for quality of main city squares; Krier (1979), Lynch (1981), Gehl (1996), Alexander (2002) and articles, such as Lenzholzer (2008).

7.2 Case Studies: General

It is most relevant to use case studies in order to find out what elements define the social-spatial and spatial-functional qualities of main city squares in today's society, as we are searching for the *current* situation. To have a broad view on main squares, there will be 11 case studies in North-western Europe; historic cities as well as 'New Towns' (see chapter 4.2; 'Selected Cases').

In this first, 'general' phase of case studies, the key element will be map-analysis. The first step is defining the main squares of the cities. Then, when the theoretical 'criteria for quality' have been defined, a selection of criteria will be judged for each case. By analysing all the cities the same way, conclusions can be drawn from the found differences and similarities.

With the information that we derive from this shallow analysis a list of potential successful and unsuccessful cases will be made. Some situations will be grouped together as comparable cases, e.g. a similar configuration of squares, street pattern, scale or atmosphere.

A selection of 3 cases will be investigated further in the 'in-depth' case studies. The selection will consist out of comparable cases, of which two potentially successful and one unsuccessful example. This selection of cases will be based on the research and related to the defined social-spatial and spatial-functional criteria for quality.

A brief list of the goals, methods and products for this phase is placed below.

Goals:
• Define main city squares
• Division in potential (un)successful examples
• Select 3 cases for in-depth analysis

Methods:
• Map analysis, literature and Websites of cities; morphology, generators of flow
• Space-syntax analysis; connectivity, urban fabric
• Photographs and sections; architecture, scale, atmosphere
• Compare results in SWOT-analysis

Products:
• Matrix of analysed cities
• Visualization of (un)successful examples; connected to criteria
• Argumentation of the 3 cases to investigate in the next phase

Amiens *Brugge* *Darmstadt*

Dordrecht *Haarlem* *Nottingham*

Almere *Cergy-Pontoise* *Milton Keynes*

Wolfsburg *Zoetermeer*

Fig. 7.4:   City centres of the 11 cases, showing their main squares (red). *(maps by author)*

7.3   Case Studies: In-Depth

The in-depth case studies are an extension of the information found in the general analysis. This research will be done for a selection of 3 cases; Almere, Brugge and Haarlem (fig. 7.5-7.7). The research on the social-spatial and spatial-functional criteria for quality will in this phase be completed.

The location will be visited in order to get a clear picture of the situation. Inhabitants and visitors will be questioned by means of a questionnaire, directed to the peoples' interpretation of the function of the squares. Where do they go when they are in the city centre? Do they cross the square, sit down perhaps? What elements do they like and what do they miss? Personal observation can indicate how many people make use of the square at certain times of the day; by counting people and their activities.

Also, the material related to, for example, functions of buildings and the civic program at the main squares will be specified. By visiting the cities personally, we will be able to investigate the atmosphere and maintenance of the space. This will be expressed in, for instance, sketches such as Cullen (1971); such drawings can put emphasis on important elements in the space (see fig. 7.8).

The list underneath gives an indication of the steps to take in this phase.

Goals:
* Complete research on the 'criteria for quality'
* Final division of successful and unsuccessful examples
* Select 1 case for design proposal

Methods:
* Site visit: observation, questioning visitors, photographing, sketching
* Detailed mapping, map analysis, historic map analysis
* Compare results by each criterion
* Define main 'missing links' and recurring patterns

Products:
* Detailed result in relation to criteria
* Visualization of (un)successful examples; connected to criteria
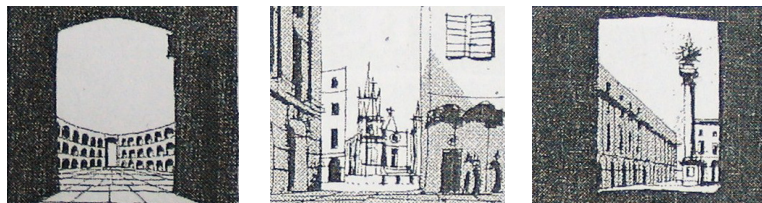* Argumentation of location design proposal

Fig. 7.8:   Drawings ('scenes') indicating important characteristics of city spaces (Cullen, 1971)

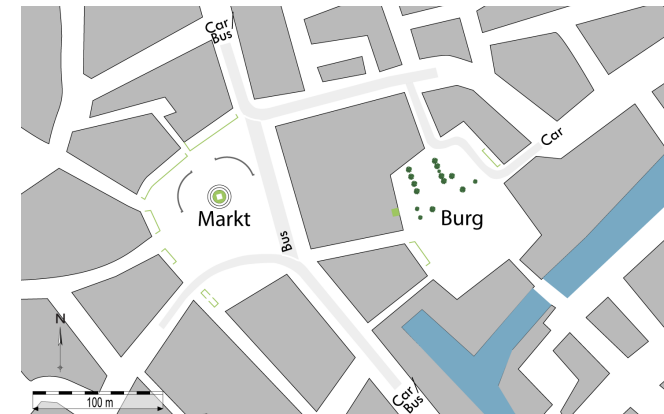Fig. 7.5:   Overview of the case of Almere *(map by author)*

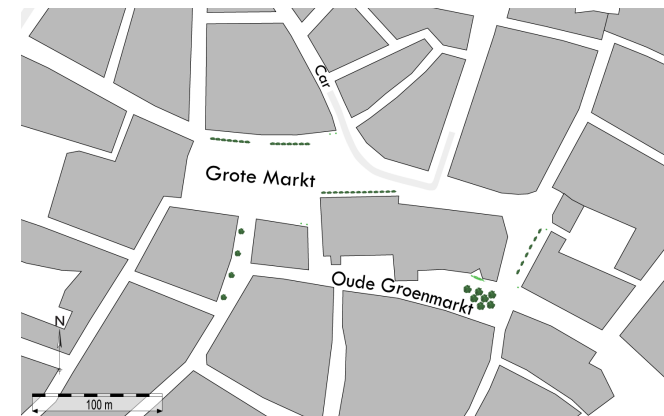Fig. 7.6:   Overview of the case of Brugge *(map by author)*

Fig. 7.7:   Overview of the case of Haarlem *(map by author)*

7.4   Design Proposal

With the information from the case studies, one location will be chosen to do a design proposal. This will be the case of Almere, which has proved to lack several of the criteria for social-spatial and spatial-functional quality (see fig. 7.9-7.11).

A spatial design for this specific case will be created in a visual way. This design aims at the negative aspects of the square that have been found in the research. The aim is to provide a large impact with small interventions.

Additionally, recommendations will be given for general problems in the researched cities. This will be in the form of a specification of common 'missing links' and possible solutions.

The goals, methods and products of this phase are listed below.

Goals:
- Design solution for one unsuccessful case
- Recommendations for cases in general: linked to criteria, 'missing links' & design

Methods:
- Derive good qualities from the researched cases; to solve 'missing links'
- Use existing situation to improve with (small) interventions
- Produce maps, sections, images, 3D-impression for visual design
- Compare proposal to existing cases: define improvements

Products:
- Visualized design solution (one case)
- Overview of main problems and proposed solutions (general)
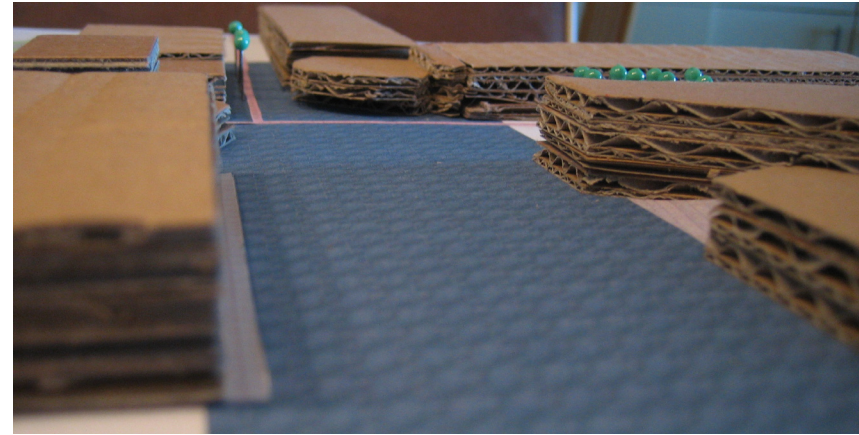

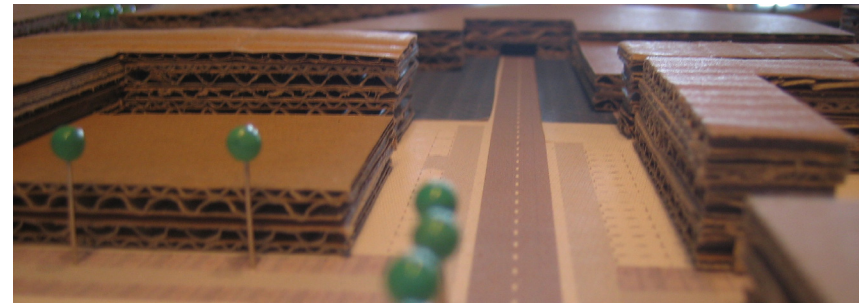Fig. 7.9:   Stadhuisplein in Almere; photograph of model *(by author)*

Fig. 7.10: Bus lane through the centre of Almere; photograph of model *(by author)*
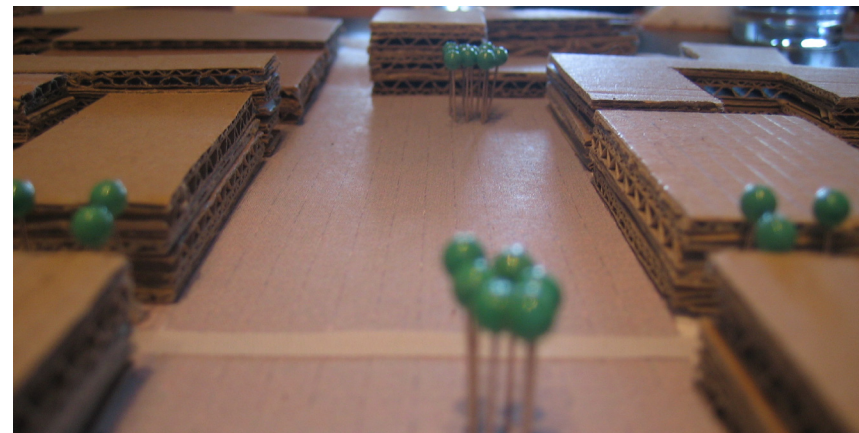

Fig. 7.11: Grote Markt in Almere; photograph of model *(by author)*

8.   Result

In this chapter, we will show a summary of the result per phase of the project. The extensive version of the result can be found in a separate document.

In line with the steps of the project, we will start with the literature review on the history of city squares. The steps in this research, a chronological overview of the history drawn from literature, are included in this document. The content, however, has been shortened in comparison to the complete version.

The next part of the result is the core of this project: the criteria for quality of main squares. Here we introduce the criteria and the literature upon which this data is based.

In direct relation to these criteria, we will elaborate on the case studies. First, we show the conclusions of the general analysis of 11 cases. For this part of the research, a selection of the criteria has been used. Second, we show the result of the in-depth research on 3 cases, selected from the mentioned shallow analysis. Here, we give a brief overview of the situation of these cases, in relation to each of the criteria and their sub-topics.

Finally, we will use the found strengths and weaknesses for the success of main squares in order to improve the situation of one of the case studies. This design proposal is not the core aim of the project; it is solely the implementation of the research of this project.

8.1   *North-western European City Squares through History*

Through history, city squares have been a place of interaction, providing space for markets and people's gathering. Nowadays we notice that this function seems to disappear, even though central squares are often touristic hot spots.

As Rob Krier describes this development:
"In all probability, the square was the first way man discovered of using public space [...] all relics of the Middle Ages have been robbed of their original functions and their symbolic content and in many places are only kept up through the activities of conservationists."
(Krier, R., 1979, p.17-19)

In this literature review, we start with looking for the function of city squares in the past; the elements of which Rob Krier states that we have lost them. In order to find out what has changed, since before Modernity to the current situation, we ask ourselves the following:

'How can we describe the development of city squares in North-western Europe, concerning their spatial quality and function in society?'

The aim of this literature review is to state what the original quality of city squares has been – and what has changed over time. The facts of the changes over time are not only interesting, the conditions for especially the causes of these changes are important. This can be found in the transformation of society, but spatial interventions (in combination with societal influence) should most definitely not be ignored.

From common sense, we can already state that city squares have been created to provide space for people to purchase their goods on the market. Names of squares in today's cities in North-western Europe often refer to these markets: in the Netherlands 'Grote Markt' (large market), in Germany 'Altmarkt' (old market), in England 'Market Square' and so on.

In order to understand the current configuration of these squares, we will start elaborating the process of trade, the 'birth' of North-western European cities and the emerging of public squares.

The full paper can be found in a separate document; in this chapter we will highlight key items that came forward in this research.

The Medieval City

As war is as old as humanity, according to Pirènne, the first structures that man built were protecting walls. These walls enclosed an open space, which in the 8th century was only used for religious or civic ceremonies and when war forged the people to seek refuge with their herds. But, with the march of civilization, this first centre became a city; the administrative, religious, political and economic centre of the tribe's territory. *(Pirènne, 1970, p.57)*

As the economic progress evolved, around the 14th century, the accessibility of the city for trading routes became a necessity. The settlements moved towards the trading routes. This way, the cities lost their geographic protection (e.g. a steep hill), but improved their accessibility. By surrounding the new settlements with towered walls, they found a compromise for the old protectiveness.

As the dual purpose traffic needed to continue passing through the city, the route had to be widened as it passed through the heaviest part of trading (fig. 8.1). When the pressures for greater space became more intense, destroyed or burned out buildings near the trading area were no longer replaced on the same location. This way, the expanding spatial needs of the common trading area became available. The amorphous external form that evolved was the result of this empirical growth and development. The trading area developed into the organization of a true market square. Major buildings were being introduced, such as the city hall, guild hall and church. As a final step, the 'through' traffic was expected to take another route (fig. 8.2). *(French, 1978, p.63-64)*

In later development, the city square became a place for daily traffic and trade, a meeting place, resting place and a place for feasts. An increasing amount of important civic buildings were built at the square. *(Brinckmann, 1921, p. 131)*

According to French (1978), the shape of the market place was organic, empirical and fully practical. Sitte states, comparably, that the designs of these squares were not made behind the drawing board but they developed 'in natura'. As the structures arose from the ground, everything that was visual at that moment was taken into account. The irregularities, as we know them from maps, were not visible for the designers of their time. Therefore, the irregular corners of historic squares often provide a pleasant space. *(Sitte, 1991, p. 63)*
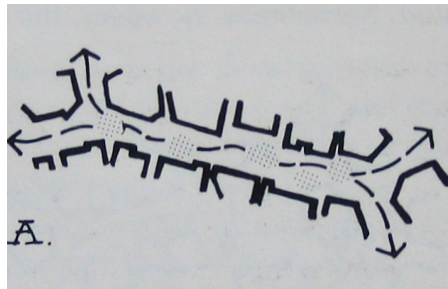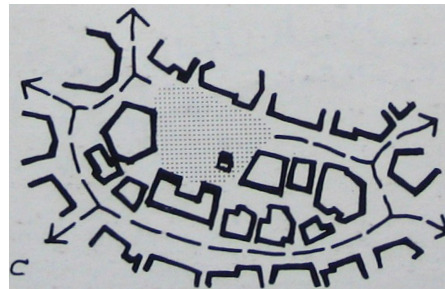
The Industrial City

Cities between the 16th and 19th century already produced industrial goods on quite a large scale. However, with the turn of the 19th century this so-called Proto-Industrial Age gave way for larger industries, as the well-known Industrial Revolution arrived. Since the 17th century, the Baroque era, the idea was promoted that existing cities were outmoded in form. The city was given a new metaphor: the stage. As a result, urban palaces and public buildings were being enlarged and churches were made the focus of streets and squares. *(Hohenberg & Lees, 1985, p. 152-153)*

In the late 18th century and at the beginning of the 19th century, a new standard for the configuration of important buildings at squares developed. Public buildings were being situated alone in the middle of a square *(Kostof, 1992)*. At the same time, major social and economic changes took place. Industrialization attracted large numbers of people from villages and small towns and concentrated them in cities, where the industries were located.

According to Carmona *(et al, 2003)*, cities were nothing more than centres for the flow and exchange of information, and the more important ones were the more involved in this process. So they attracted markets, centres of business decision making, and the rapidly growing information industries such as publishing, education, research, and entertainment. The heart of the city came to be occupied by banks and other financial services.

The invention of the steam-engine passenger railroad was an important innovation which increased mobility. Travelling time became shorter, allowing urban areas to spread out. From early on, this led to social and spatial segregation among the middle and working classes. The cities in Europe suffered form the increased threats of polarization and segregation. One of the means that was used to confront this fragmentation and managing this anxiety was the promotion of public space (see fig. 8.3). Public spaces in the city were being considered as one of its assets that could be used in the social integration of its residents. *(Madanipour, 2003, p. 217-221)*

Fig. 8.1.1: Trading area: Widening of the street. *(French, 1978, p. 63)*

Fig. 8.1.2: Trading area: True market square. *(French, 1978, p. 64)*

Fig. 8.1.3: Promotion of public space; part of society. *(Madanipour, 2003, p. 221)*

The Modern City

The industrial buildings of the 19th century provided the first essential step in the fields of engineering and technology towards modern architecture in the early 20th century. This also led to developments such as a purely functional or constructional orientation which, according to Rob Krier, led to impoverishment of architecture and urban planning. *(Krier, 1979, p.64-72)*

Unstructured development is something that has always existed in urban planning. However, towards the end of the 19th century, planners began to design 'unstructured development' on a drawing board. Functional, constructional and capital concerns were the order of the day. City squares in the 19th century were created in extraordinary size. It seems that large scale was mixed up with monumentality. The squares were regular shaped and connected to just as regular streets. However, according to Brinckmann (1921), the failure of these squares was due to the impossibility of these squares to become an object of architectural strength.

In the 1890s, the international discussion on urban design started to become an organized fashion. This was triggered by Camillo Sitte's 'Der Städtebau' (1889) in which he rejected pompous, rectilinear planning. This description of Sitte's book is given by Sutcliffe, who apparently did not appreciate the functional 19th century planning either. *(Sutcliffe, 1981, p.170)*

The regular shapes that both Brinckmann and Sitte mention, were caused by the functional approach of the 19th century. This is for example represented in the grid-system that planners used, which fits the description of Brinckmann (1921) *"regelmäßigen Platzes und regelmäßigen Straße"* (regular shaped squares and streets).

According to Rob Krier, modern city planning gives nothing more than *"a jumble of buildings"*. This statement is represented in the characteristic sketches underneath (fig. 8.4 and 8.5). The traditional spatial arrangement of cities shows a cohesive urban structure, the modern arrangement shows a composition of isolated sections *(Krier, 1979, p.81)*. Transik states that we can find the principle of enclosure in the traditional cities, which gives open space its definition and connection. This way, workable links between spaces are being created. Modern cities have a fragmentary and confused structure, which creates disorientation. *(Transik, 1986)*
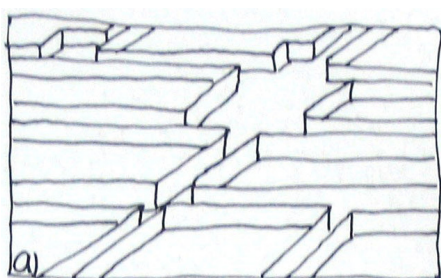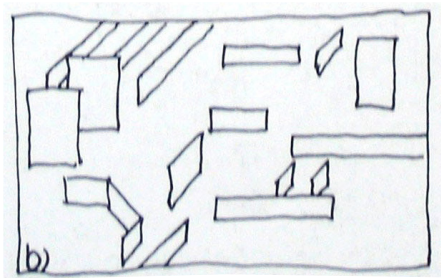
The changes of the 19th century were the foundation for the upcoming utopian idealism and social planning. This search for the creation of new forms to redress the balance of the old found powerful expression in, for example: the garden city movement, the concept of satellite towns, the New Towns of post-war Britain and contemporary flirtations with linear cities. *(Cherry, 1970, p.35)*

However, one of the leading modernists (Le Corbusier) provoked that social needs should be directly interpret into a symbolic geometry. 20th century answers to the dilemma of how to build 'the good city' failed when they went beyond the reformist traditions of the past *(Hohenberg & Lees, 1985, p.330)*. This statement corresponds with Léon Krier's reaction on the modernist theory that architecture *"must be of one's time"*. It is true that all architecture leaves, to a certain extend, a mark on its age. However, this does not work conversely; the age should not necessarily leave its mark on all architecture. *(Krier, 1998, p.71)*

Another change in urban planning that emerged in the 20th century, was the separation of urban functions. Rob Krier tells us that this was an understandable response, as planners had a problem without a historical precedent. This problem can be found in the introduction of the car in combination with the 19th century urban structure which grew intolerably in its complexity. *(Krier, 1979, p. 82)*

Modern city squares are open and almost shapeless, mainly because the primary goal of a modern city is to ease the flow of traffic. As Alexander (1965) points out, city design should be approached in a way that allows a rich diversity of cross connections between activities and places. In order to reach this coherence, it is important to include the different modes of transportation, as the speed of movement differs.

Since the mid-twentieth century, squares in the city centres were increasingly used for mobility; rising car ownership generated a need for parking space. Many squares were serving as car parks (fig. 8.6). Sometimes these squares were also used for commercial purposes but, because of the functional demands, people did not feel invited to stay at the squares for amusement. Up to the early 1960s, Dutch town planners did not consider that public spaces could be used for both commercial and recreational purposes. *(Lenzholzer, 2008)*

Fig. 8.1.4: Traditional City *(Krier, 1979)*

Fig. 8.1.5: Modern City *(Krier, 1979)*

Fig. 8.1.6: Market square used as car park (Arnhem, NL) *(Gelders Archief. IN: Lenzholzer, 2008)*

The City of Today

That much of the cities' history can still be found, is made clear in the following quote:
"As unlike as the modern metropolis and the medieval walled town appear, their regional roles and sometimes even their international linkages have remained remarkably similar. Even though airplanes and cars have replaced water coaches and horse convoys, many of the medieval interurban routes still flourish." (Hohenberg & Lees, 1985, p.339-340)

Even though parts of our current cities indeed still relate to their history, much is lost. This was caused by warfare and, for example, the Modernist approach. However, a growing body of literature advocates sustainable development and sees environmental quality in terms of vibrant streets and squares. *(Moughtin, 2003)*

Around 1950, Modernist movements claimed to have the definitive solutions to all the problems of the built environment. Today, one truth is evident: without traditional landscapes, cities and values our environment would be a nightmare on a global scale *(see Krier, 1998; Madanipour, 2003)*. Today, as compared to most historical periods of the past, the importance of public space in cities seems to have diminished. Public space appears to have lost many of the functions it once performed in the social life of cities. *(Madanipour, 2003)*

From origin, the city square had a role as the disseminator and creator of news. Nowadays, digital communication has pre-empted this function of the square. Due to modern water systems, the public fountain is no longer a needed object on the square. Mass marketing and consumption drained the square's pivotal role in economic life. Furthermore, as the complexity of urban societies grew, exchange of ideas, goods and services among individuals became largely mediated through abstract impersonal media. *(see Kostof, 1992; Madanipour, 2003)*

Squares in New Towns were often set out to create some of the wealth and authenticity of historic squares. Today's 'designer squares' reject the role of a neutral space for the artful display of architecture, civic monuments and people. Formal schemes are developed for new towns, obedient to abstract rules of composition applied to the plan as a whole *(Kostof, 1992)*. The planned centres of the British new towns exhibit few of the qualities of the traditional British town or city centre. Public spaces in new town centres do not compare with the great European public squares and streets. *(Moughtin, 2003)*

Decisions about growth patterns are, according to Trancik (1986), often made from two-dimensional land-use plans, without considering the three-dimensional relationships between buildings and spaces and without a real understanding of human behaviour. In this all too common process, urban space is seldom even thought of as an exterior volume with properties of shape and scale and with connections to other spaces. Therefore, what emerges in most environmental settings today is unshaped 'anti-space'. This statement is shared by Bacon (1967), who states that we have lost the vision that can be found in medieval architecture. Urban planners and designers care little that important buildings stand almost as miscellaneous features among areas confused and dehumanized by automobile spaces and by ill-placed and ugly street lights and signs.

Conclusions

We can state that the spatial quality of city squares changed in the following order:
• Medieval: Irregular shaped square with an open middle.
• 18th - 19th century: Buildings in the middle of the square.
• 19th - 20th century: Large-scaled, rectilinear geometry.
• Late 20th century: Formal, designed like buildings.

The changing function of squares in society can be concluded as follows:
• Medieval: Trading, occasional fairs.
• 18th - 19th century: Social activities to bring people together.
• 19th - 20th century: Commercial activities and car parking.
• Late 20th century: No necessary need to use public space.

We can conclude that we should work on an urban structure that forms a coherent unity, is recognizable and gives room for both public and private space.

Relation to Graduation Project

This graduation project addresses the social-spatial and spatial-functional qualities of city squares in the society of the 21st century. In this investigation, both historic squares and recently designed squares are being investigated.

This literature review shows, for example, the differences in development of medieval squares and squares in new towns. This information can be used in order to understand the line of decision making in the design of New Towns and, in contrast, of the historic towns. From the reactions of the addressed authors we can already see that rejecting traditions from the past and creating design is not the solution for creating highly valued public space.

Another topic that is important in today's design, is the relationship between motorized traffic and pedestrians. As we have seen in chapter 3.3 'The City Centre & Traffic', it is important to include the diverse modes of transportation in the design. The first attempts to create pedestrian dominated public space resulted in a separation of this space from the urban fabric. This is an interesting phenomenon to research in the case studies of the graduation project.

Finally, we should include the statement that the use of public space is not a necessity anymore. As digital technology makes it possible to communicate on a distance, city squares should attract people in a different way. This problem is addressed in the chapter 'The City of Today', but an answer has not been given. This is an element that will be dealt with in the graduation project itself; solutions might be found in the case studies and the research on criteria for quality of main city squares.

8.2   Quality of Main City Squares

A main city square should function as the 'pounding heart' of the city; a public place which inhabitants and visitors enjoy, where they feel at home and like to stay for a while. Deciding that a certain city square, or a system of squares, is the city's main square is not enough; the place should function as such.

In order to define the quality of a main city square, we should focus on a range of factors, which together form the overall experience of a place. These aspects will be judged as separate elements, showing both positive and negative outcomes. A successful main city square contains many positive aspects, but may also have elements with room for improvement.

The quality of a main city square is being determined by social-spatial and spatial-functional factors. By social-spatial parameters we understand space-related aspects that influence the public experience and social behaviour, including symbolic meaning and cultural value. We identify spatial-functional parameters as the spatial organization and urban structure that provides the space with certain public functions. Combining these elements gives us a complete picture of the situation from the position of the public.

Some squares will have strong characteristics where others have weaknesses, while changing one of these aspects might influence the others. This phenomenon shows opportunities, but also threats. For example, a main city square with a shortage of parking spaces will, hypothetically, have a larger parking problem when the main square becomes more popular. However, improving the walking routes towards the square might help decreasing the parking problem.

The mentioned social-spatial and spatial-functional parameters can be brought back to a set of criteria. In this project we have combined key literature on the subject of successful public space and quality of place; such as Alexander (2002), Carmona (2003), Gehl (1996) and Lynch (1964; 1981). The derived theoretical information will be implemented on actual cases, bringing fresh and contemporary data to our discipline.

Now we know why we need criteria to define the quality of main city squares. In this chapter, we will introduce this set of criteria and explain each aspect individually. Additionally, we will define how to check each element in actual cases and give an indication of the relationships between them. In the next phase, we will show the outcomes of the research on cases studies in this project; their differences and similarities in relation to the criteria, with directions for spatial design interventions and the value for further research.

Criteria for Quality of Main Squares

The research on the quality of main city squares will be structured by a set of criteria. These criteria, representing social-spatial and spatial-functional parameters, have been derived from literature that was already present in the body of knowledge of our discipline. On the following pages, the defined criteria will be explained, with declaration of the related sources.

This part of the research is shaping the theoretical framework of this project. Most literature related to our subject is focusing on the broad item of 'public space' or is specified to a certain element. In this chapter we will combine the available data into a concise set of criteria for quality of main city squares.

The keywords comprising the defined criteria are the following; Spatial organization, Accessibility & Connectivity, Civic program, Identity, Liveliness and Safety & Comfort. Each criterion will be described on the following pages, including the addressed theoretical studies. This explanation will be followed by a division in sub-topics; to be used for the research on case studies.

Literature

Sitte, 1889
At the turn of the 20th century, the Modern Movement came up; a movement that ignored historical principles. Camillo Sitte (1889) objected to the modern practise, while eulogizing historic settings. With his principles for city planning, Sitte focuses on both visible form and public experience. The book was being translated and spread out across Europe, starting an international discussion on urban form.

Lynch, 1960; 1981
In 1960, Kevin Lynch wrote about the process of exploring city form; in 1981 he has written a summation and extension of his vision. His performance dimensions and meta-criteria for the form of cities are related to the experience of the public and the costs for its maintainers. Lynch discusses the city as whole in relation to its form or, in his first book, its image and stresses that people recognize the space and feel at ease.

Krier, 1979
Rob Krier, almost a century after Sitte, praises historical building. As, in his time, an explosive population growth has just flattened off, he writes that planners should occupy themselves with urban renewal. Also, we should *"carry out corrective work on our inhuman new towns, short of pulling them down completely"* according to Krier (p. 85). In his opinion, Sitte's architectural tools have a validity which is independent of time and style. The spatial type of the historic squares should be rediscovered, planned in the right place and with the appropriate approaches.

Carr et al, 1992
The first behaviourally based urban design occurred in the early 1970s; planners started to include perception and expectations of the users in their design study. Accordingly, Stephen Carr (et al, 1992) focuses on the human perspective; the role that public spaces have in the lives of people. This has lead to design for comfort and experience; making people feel at ease and providing them with stimulating elements.

Gehl, 1996
Since the mid-twentieth century, city centres are increasingly being used for mobility; rising car ownership generated a need for parking space. In relation to this, Jan Gehl states that a pleasant place includes protection, for example, safety from vehicular traffic. Additionally, he states that one should be protected from climatic conditions, but, more importantly, the microclimate in the space itself should be habitable.

Montgomery, 1998
John Montgomery states that physical space, sensory experience and activity should be combined. This statement is based upon his review of his predecessors, among which Jane Jacobs, Christopher Alexander and Kevin Lynch.

White, 1999
E. White tells us about places in the cities for pedestrians, linked with paths and to be entered through portals. This is not so much meant literally, as it is a sense that people should have; to arrive at a place as a destination. Interestingly, White mentions historic town markets, developed into the current main city squares and spaces planned for important events in the history of the town, but he does not include the 'new town' concept. However, his ideas on the success of places cover a wide range of criteria and we might as well be able to use them on newly designed spaces.

Alexander, 2002
Christopher Alexander has written a series of books concerning *The Nature of Order*. In these books, he shows a new perception of our surroundings, in all levels of scale. Alexander is not literally making a distinction between historic and modern design, however, in many ways he makes clear that modern design lacks essential elements. The key elements he mentions are applicable to design in all its disciplines and are based on the senses of people; their feeling.

Carmona et al, 2003
Matthew Carmona summarizes the information from predecessors, among which Lynch (1960), Jacobs (1961) and Montgomery (1998). Accordingly, Carmona concludes that the experience that people have at a place is very important; a notion that started in the 1970s.

Moughtin, 2003
Cliff Moughtin writes that there is some danger in transferring design concepts of a past era into the current, although he does reject the philosophy of the Modern Movement. Moughtin clearly recognizes the differences of our time, as well as the influence of location; cultural and climatic differences. However, the symbolic meaning of a space is important and mainly found in historic settings. Although this seems to match the ideas of Krier (1979), we should notice that there is a conflict; Krier tells us that we should return to concepts from the past.

Bevolo et al, 2007
Bevolo et al has written from a different point of view; this book is related to the company of Philips and is, therefore, focused on lighting. It is connected to the 'City.People.Light' program, focussing on the exploration of citizens' futures. The book gives the result of a primary research on an analysis of social and cultural trends.

Forsyth & Southworth, 2008
In the Journal of Urban Design, Ann Forsyth and Michael Southworth have written an article on 'Walkability'. They state that pedestrian access, over the past century, has been declined in most cities; since the introduction of the car. In their opinion, walk-ability is the foundation for the sustainability of a city. For decades urban designers have advocated more walkable cities; first with little success, but recently the situation is improving.

Lenzholzer, 2008a
Sanda Lenzholzer opens her article with the statement that the Dutch public is dissatisfied with the quality of its urban public spaces; especially recently (re)designed squares (based on a study by an influential Dutch newspaper). Lenzholzer discusses the importance of microclimate at squares, and relates this to the criticism on minimalist squares. Instead of designing a "city as a building", we should design a "city as a landscape".

Ewing & Handy, 2009
Reid Ewing and Susan Handy have studied commercial streets in order to find urban design qualities related to walk-ability. One of the key authors in their paper is Lynch (1960), mainly to make the connection to 'image-ability'; the quality of a place that makes it recognizable. Ewing and Handy's research focuses on the physical characteristics of commercial streets and their edges and they have, therefore, defined spatial design features that can contribute to the quality of these streets.

Further discussion on those subjects can be found in, for instance, Jane Jacob's *The Life and Death of Great American Cities* (1961), Hillier & Hansons *The Social Logic of Space* (1984) and other titles from the authors Jan Gehl, Rob Krier and Christopher Alexander.

Spatial organization

Description

As the name suggests, this criterion is related to the spatial composition of the square and its direct environment. We combine shape, scale and design in relation to the surrounding area and geographical situation. This criterion includes the physical form as well as the perception from the visitor on eye-level; as that is how the space is actually being experienced. Additionally, the architectural style is placed within this topic, as style and scale are in many situations related to each other.

Sub-topics
- Surface (shape and scale of horizontal open space),
- Scale (proportion of open space and building heights),
- Configuration (position and relation to surroundings),
- Experience on eye-level (view of pedestrians),
- Design style (space, architecture, urban elements).

Literature
- Sitte, C. (1889),
- Cullen, G. (1971),
- Lynch, K. (1981),
- Montgomery, J. (1998),
- White, E. (1999).

> "The **Size** and **Shape** of a Square and its Surrounding Buildings Creates the **Physical Space**"
> *(Sitte, 1889)*
>
> "When a Town Lacks **Character** and **Structure**, the Failure can Nearly Always be Traced to some Impediment in the **Relationship** of **Form** and **Function**"
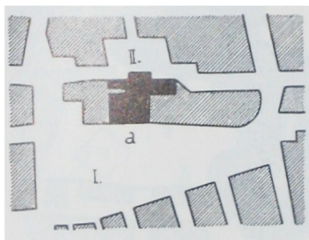> *(Cullen, 1971)*

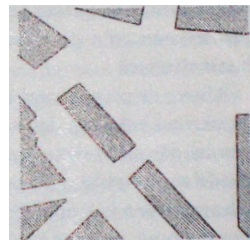Fig. 8.2.1: Corresponding squares. *(Sitte, 1991, p.81)*

Fig. 8.2.2: Leftover spaces. *(Sitte, 1991, p.96)*

Theoretical background

Camillo Sitte (1889) tells us that streets and squares should be considered in three dimensions; as volumes. The size and shape of a square and its surrounding buildings creates the physical space. According to Sitte, the larger the space, the smaller is the function of it; as buildings and monuments will finally be conquered by the large space. In his age, 'square-fear' was firstly noticed. This is a feeling of fright when you have to cross a large, empty square.

Old city squares can be irregular shaped and look good, while uneven corners in modern squares always have a negative impact. This is, according to Sitte, being caused by designing modern squares behind a drawing board, while old squares are shaped "in natura"; every aspect that is visual from the street has been encountered.

Urban elements, such as fountains and statues, should not be built in the middle of the square or at natural communication axes (lines used by people and traffic, connecting to streets and entrances of public buildings). The best place, Sitte says, is to the side of the square. The same can be said about the placement of buildings, as they should not block the view by standing in the middle of the square.

According to John Montgomery (1998), well-functioning places are a combination of visual order and a degree of disorder. Rather than being opposites, this way the space is manageable but not predictable. There is no simple calculated answer to an optimal city density, as this varies with the diversity of characteristics of place and the mixture of activities. Vitality can not be reached by only density in itself, but it is an essential condition.

Open space should compensate the amount of built environment; people need parks and city squares. With this, the scale of the square should be in accordance to the height of the buildings. Larger spaces attract larger businesses, but a lively city scene is often found in the surroundings of a larger amount of small elements, small business and commercial diversity.

There are no strict rules concerning the scale of a space in relation to building heights, but they should be in proportion. This is being determined by street width, building height, relative distance, and sense of grandeur or intimacy. Also, the access of natural light and ventilation play a role, as this differs according to the shape and size of the space. Architectural style should also be included, as this influences the meaning and atmosphere of its surrounding space.

Kevin Lynch (1981) also includes the shape and size of spaces in his work. Form and capacity of spaces should match the pattern and quantity of activity that people might do in this space. The people's behaviour might change in the future, and therefore the space should have a certain degree of adaptability.

White (1999) has a comparable statement: "Great urban rooms are beautiful. They offer us the gift of their own unique elegance." Except from the beauty and complexity or grace of a plaza, the configurative elements are powerful as well. The place's location, scale, composition and surfaces, furniture, ornamentation and landscaping together form the supportive setting for human action.

Surface
Looking for the shape of the open space.

Products:
•   Map showing shape of open space (square with connecting streets).

Methods:
•   Map analysis; borders surrounding the open space,
•   Personal observation; check position and width of streets.

Scale
Looking for proportions between open space and building heights.

Products:
•   Section across main square(s),
•   Section across connecting road(s).

Methods:
•   Map analysis; position of sections and width of open space,
•   Personal observation; check width of paths and heights of buildings.

Configuration
Looking for the positioning in the city centre.

Products:
Map of the city centre.

Methods:
•   Historic map analysis; define the main square(s) and the borders of centre,
•   Map analysis; open space, buildings, green and water in the city centre.

Experience on eye-level
View from a pedestrian sitting and/or standing at the main square.

Products:
•   Sketches of key view from eye-level.

Methods:
•   Map analysis; borders surrounding the open space,
•   Personal observation; check position and width of paths.

Design Style
Looking for synergy and conflicts (e.g. architecture, furniture, sculptures…)

Products:
•   Photograph(s) of prominent building(s),
•   Photograph(s) of key elements indicating age.

Methods:
•   Literature study; analysing historic data; age of the square and surrounding buildings,
•   Literature study; analysing planner's intentions; urban design of recent square(s),
•   Personal observation; elements indicating the present design style(s).

Accessibility & Connectivity

Description

Accessibility, connectivity, approach and integration in the city's urban fabric have a strong influence on the perception of a main city square. If people can not reach the square easily, or when the square is not integrated in the (pedestrian) network of the city, there will be little visitors. The same can be said about car and public transport connections; if the walking distance between car parks or public transport nodes is long or unclear, less people will visit the square. A main city square should be well connected within the urban fabric of its city in order to function as the most important square of the city. Additionally, a strong relationship with public buildings, preferably direct connections, attracts people to the square; as public buildings are major destinations in the city centre.

Sub-topics

* Car parking (walking distance and routes),
* Public transport (walking distance and routes),
* Walk-ability (accessibility of pedestrian routes),
* Approach (clarity of pedestrian routes towards square),
* Integration in larger urban fabric (car routes from the square).

Literature

* Lynch, K. (1981),
* Montgomery, J. (1998),
* White, E. (1999),
* Moughtin, C. (2003),
* Forsyth, A. & Southworth, M. (2008),
* Ewing, R. & Handy, S. (2009).

> "Urban Space Participates in a **Network**
> that is Larger than the Space Itself"
> *(White, 1999)*
>
> "Streets in Historic Towns lead **Naturally** to the Centre,
> the Main Square, where one Feels that he has **Arrived**"
> *(Moughtin, 2003)*

Theoretical background

White (1999) states that urban space participates in a network that is larger than this space itself. Successful urban space, according to White, is well situated geometrically, experientially and aesthetically in the city's path system. In other words, the space should be recognizable in the city structure, in visual and physical sense. With this, the larger context is the key element for the definition of a 'good place', which includes the significance of the routes that connect to this place.

Cliff Moughtin (2003) refers to historic towns, stating that most of these have streets that lead naturally to the centre, the main square, where one feels that he has 'arrived'.

Both Kevin Lynch (1981) and John Montgomery (1998) state that good urban places should provide the possibility to get in contact with other persons, they are 'judged by their street life'. Within this, the multi-purpose and diversity of the elements comprise an important factor.

Another element considering 'accessibility' is the mental distance between the square and other destinations or transportation hubs. Forsyth and Southworth (2008) call this phenomena 'walkability'; a short distance to a destination, without major barriers. This should be the case for everyone, including children, elderly, handicapped and women on high heels. The pedestrian infrastructure should be visibly displayed, such as sidewalks, marked pedestrian crossings and street furniture. Stores, coffee shops and mixed housing are elements that enable a 'walkable' environment. This is also the case for tree-lined streets or streets of architectural interest. Green spaces along the way should be well-maintained and provided with clear pedestrian paths. Transportation nodes should be directly connected to this route.

Continuing on 'walkability', Ewing and Handy (2009) have studied urban design qualities of physical characteristics of streets and their edges. They have defined five key design qualities: imageability (Lynch, 1960), enclosure, human scale, transparency and complexity. These qualities should be related to the edges of the street, indicating the physical quality. A 'walkable' street, according to Ewing and Handy, is distinct and recognizable, has a room-like quality, has physical elements matching the size and proportions of humans and their walking speed, has (display) windows in its bordering façades and shows a variety in the physical environment.
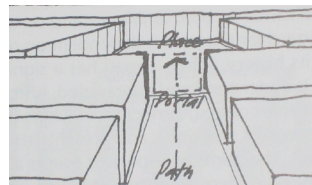

Fig. 8.2.3: Places are connected by paths, the portal is where one enters the space. *(White, 1999)*

Car parking
Walking distance and car routes to and from car park(s).

Products:
• Map with parking garages, car routes and walking options.

Methods:
• Map analysis; position of car parks and car routes.

Public transport
Walking distance and tram/bus routes to and from public transport hubs.

Products:
• Map with tram/bus stops, routes and walking options.

Methods:
• Map analysis; position of train station, bus/tram stops and routes.

Walk-ability
Accessibility and mental distance of main pedestrian routes.

Products:
• Map showing most important pedestrian routes,
• Photographs / drawings of found strengths and weaknesses.

Methods:
• Map analysis; define main pedestrian axes,
• Personal observation; identify strengths and weaknesses (e.g. steps, loose bricks).

Approach
Clarity of pedestrian routes and focal point(s) towards the main square.

Products:
• Map with key route(s) for approach,
• Photograph(s) showing strengths and/or weaknesses.

Methods:
• Personal observation; walk route(s) and see if there is a focal point.

Integration larger urban fabric
Possible car routes from (near) the main square.

Products:
• Map of space-syntax analysis from the square.

Methods:
• Space-syntax analysis; following 5 steps of car routes from the square.

Civic program

Description

A city square can have beautiful looks, many seats and trees and great connections in the city's urban fabric. But what would that main square be without events and organized activities? This can be translated into festivals and events on a national scale, but also smaller activities and a weekly market should be included. As people shape the city, there should be activities organized to let them intermingle and enjoy the space a different way than everyday.

Sub-topics
• Market (frequency and location),
• Festivals and events (recurring and passing),
• Social and cultural activities (frequency and variety),
• Subsidy communal activities (by municipality),
• Target groups (attracted people).

Literature
• Jacobs, J. (1961) IN Montgomery, J. (1998),
• Carr, S., et al (1992),
• Montgomery, J. (1998),
• Moughtin, C. (2003).

Theoretical background

Stephen Carr (et al, 1992), mentions three types of activities in public space: passive engagement (e.g. people-watching), active engagement (socializing) and discovery (e.g. human activity).

John Montgomery (1998) says that a vital urban area should provide a minimum of two primary purposes, attracting multiple secondary activities. Referring to Jane Jacobs (1961), these activities should be spread out over the day, having people present in public space and in the adjacent buildings.

Cliff Moughtin (2003) writes that a city square can be called successful when it sustains activity. But it should have a dominant function by which it is known and can be classified; the surrounding buildings should provide diversity in use. The overlap with the previous statement is the diversity of functions and continuous activity. But a difference can be found in the declared function of the space itself; multiple purposes versus one dominant function.

> "Public Space is the **Common Ground** where People carry out the Functional and Ritual **Activities** that Bind the **Community**"
> *(Carr et al, 1992)*
>
> "A City Square can be called Successful when it **Sustains Activity**"
> *(Moughtin, 2003)*

Markets
Frequency and location of local market(s).

Products:
• Photograph(s) showing size and atmosphere of the market(s).

Methods:
• Methodical web search; define location and frequency of market(s) (e.g. website municipality),
• Visit tourist information office; find out location and frequency of market(s),
• Analyze online photographs; size and atmosphere of market at main square(s).

Festivals & Events
Frequency and location of passing and recurring events.

Products:
• Description of the size and atmosphere of these festivals and events.

Methods:
• Methodical web search; define location and frequency of events (e.g. website municipality),
• Visit tourist information office; find out location and frequency of events,
• Analyze online photographs; size and atmosphere of events at main square(s).

Social & Cultural activities
Frequency and variety of public activities at / near the main square.

Products:
• Description of the public activities.

Methods:
• Methodical web search; define location and frequency of activities (e.g. website municipality),
• Visit tourist information office; find out location and frequency of activities,
• Analyze online photographs; size and atmosphere of activities at main square(s).

Subsidy of activities
Funding or subsidy of public activities (if any).

Products:
• Description of the available funding or subsidy (if any).

Methods:
• Methodical web search; find out if subsidy is available (e.g. website municipality),

Target groups
Attracted target groups to public activities.

Products:
• Description and/or photograph(s) showing diversity of attracted people.

Methods:
• Personal observation; analyze the typology of the people present.

Identity

Description

A main city square should be recognizable and attractive. All squares are different; they can have diverse identities and still all be highly appreciated. But a main square with a lack of character is not attractive to people, as it does not provide a clear function or direction. A main city square should distinguish itself from other squares; it should express its importance.

Sub-topics
- Symbolic value (historic, civic and cultural importance)
- Atmosphere (perception),
- Image (by municipality and visitors),
- Details in design (levels of scale),
- Urban elements (their presence and quality).

Literature
- Lynch, K. (1981),
- Montgomery, J. (1998),
- White, E. (1999),
- Alexander, C. (2002),
- Moughtin, C. (2003).

> "Good Place has Distinguishing Qualities that Establish a **Unique Identity**"
> "Successful Places have Strength of **Character**"
> *(White, 1999)*
>
> "The Property Creates **Life** by Helping Centres to **Intensify** Each Other"
> *(Alexander, 2002)*

Fig. 8.2.4: Strong centres and a combination of multiple levels of scale. *(Alexander, 2002)*

Theoretical background

People filter information by their values, beliefs and ideas, as well as on cultural values beliefs and ideas; according to John Montgomery (1998). One's image of a place is constructed by perception on personal, group and cultural level. Also the activity in the space and the surrounding built form plays a role in creating this image. The identity of a place is its more objective form, which influences this image.

Kevin Lynch (1981) also states that a settlement is perceived and mentally differentiated by its residents and the connection of one's values to the mental structure of the place. This is found in the match between environment, personal sense and cultural background.

Moughtin (2003) and White (1999), in their approach to the sense of identity of a space, write both that a good place distinguishes itself and that a public square is (still) one of the most important elements in the design of cities. A city is being decorated as well as given distinction by its public squares. Placing the most important civic and religious buildings adjacent to the square also contributes to its identity. A place can be differentiated from other places by its architectural elements, landscape, activities, atmosphere and history. Successful places have strength of character and personality; they have a sense of place and symbolic meaning. Cliff Moughtin (2003) focuses on the symbolic meaning of city space; he claims it is the most important function. A great plaza creates an experience that leaves little possibility for critical judgement. It is a primitive reaction that is similar to the way in which we perceive the human body.

According to Christopher Alexander (2002), an object has life when it contains different levels of scale. By 'life' in this sense, we understand the identity of the square as a whole, its surrounding buildings and their details. Alexander tells us that a design should consist of strong centres, with definite jumps between their sizes. The levels should work together in order to form a whole and, therefore, a multiplicity of levels of scale should be represented. A centre should be strong in itself, while placing a diversity of centres together emphasizes the whole; *"The property creates life by helping centres to intensify each other."*

Symbolic value
Looking for historic, civic and cultural importance.

Products:
• Opinions of inhabitants and visitors,
• Description of the place's history and symbolic value.

Methods:
• Questionnaires; asking people for their opinion on the square's symbolic value,
• Literature study; common historic, civic and cultural importance.

Atmosphere
People's perception of the space, day- and night-time.

Products:
• Opinions of inhabitants and visitors,
• Photograph(s) of (people using) the space,
• Description of personal experience of the place's atmosphere.

Methods:
• Questionnaires; asking people for their opinion on the square's atmosphere,
• Personal observation; personal perception of the square's atmosphere.

Image
View on the city square by visitors.

Products:
• Opinion of inhabitants and visitors,
• Description of the general image of the place.

Methods:
• Questionnaires; asking people for their opinion on the square and direct surroundings.

Details in design
Looking for levels of scale, appearance.

Products:
• Photograph(s) of key buildings and elements.

Methods:
• Personal observation; appearance of buildings and elements at the square.

Urban elements
The presence and quality of urban elements.

Products:
• Map with the position of urban elements,
• Photograph(s) showing their quality (e.g. design and use).

Methods:
• Personal observation; define location, design and use of urban elements.

Liveliness

Description
City squares are created for people's interaction and therefore they is meant to be lively; used by many people. And, the presence of people attracts other people to 'enter' the square and stay, enjoy the surroundings, shops, cafes, restaurants, architecture, and so on. In this way, the square is comparable to the recognizable attraction of a restaurant: seeing people behind the windows enjoying their meals invites other people to come in.

Sub-topics
- People (their presence and activities),
- Public furniture (its presence and quality),
- Dominant functions (at the square and inside adjacent buildings),
- Changes of activities (presumable changes over 24 hrs and year-round),
- Relation indoor-outdoor (use of street, transparency of façades),
- Public network (private, semi-public and public space and buildings).

Literature
- Lynch, K. (1960; 1981),
- Carr, S. et al (1992),
- Montgomery, J. (1998),
- White, E. (1999),
- Carmona, M. et al (2003),
- Moughtin, C. (2003).

> "Urban Vitality is mostly about Providing Possibilities for **Transaction**"
> *(Montgomery, 1998)*
>
> "The Space should **Encourage** People to Come and **Participate**"
> *(White, 1999)*
>
> "Successful Places are Characterized by the **Presence** of **People**"
> *(Carmona, 2003)*

Theoretical background
As Matthew Carmona (2003) states, successful public spaces are characterized by the presence of people. But we have to keep in mind that people could easily choose to go elsewhere. Thus, if a square is not attractive, there will be less people and they only cross the space because they simply need to go to the other side. Also, the absence or poor quality of street furniture to take a rest on, stimulates people to go elsewhere.

John Montgomery (1998) also writes that public space for social and cultural transaction, through day and night, is of great importance. Urban vitality, according to Montgomery, is mostly about providing possibilities for transaction to take place, developing a pattern of increasing complexity and length of time. Pubs, cafés and restaurants should, for example, be encouraged to use the pavement in front of their establishment. With this, activity, transactions, people-watching and eyes on the street will be enlarged.

This is also being recognized by Carr (et al, 1992), mentioning three types of activities in public space: passive engagement (e.g. people-watching), active engagement (socializing) and discovery (e.g. human activity). This last element, discovery, has been pointed out before, by Kevin Lynch (1964). People are not simply observers of the city; their activities are the core of moving elements in the static surroundings. All mobile animals (including people) structure and identify their environment; by means of visual sensations such as colour, shape and light, and by other senses like smell, sound and touch. Also, Kevin Lynch (1981) writes that 'vitality' is the degree to which the form of a settlement supports vital functions. This goes as far as the biological requirements and capabilities of human beings.

White (1999) mentions a similar statement: a good public space is habitable. Success in habitability is measured by continuous human presence; liveliness through time. The space should encourage people to come and participate. In order to have a city square that has this continuous liveliness, to some extend, there should be a mixture of activities and destinations offered.

Cliff Moughtin (2003) tells us that a city square can be called successful when it sustains activity. But it should have a dominant function by which it is known and can be classified; the surrounding buildings should provide diversity in use.

People
The presence and activities of people.

Products:
- Matrix showing the present people, their location and activities.
- Opinions of inhabitants and visitors for going to the main square.

Methods:
- Personal observation; counting people and their activities.

Public furniture
The presence and quality of public furniture.

Products:
- Map showing the position of public furniture.
- Photograph(s) showing the typology and quality of the present furniture.

Methods:
- Personal observation; define location and design of public furniture.

Dominant functions
Main functions at the square(s) and adjacent buildings.

Products:
- Map showing the location of shops, restaurants/cafés, civic and cultural buildings.

Methods:
- Personal observation; define dominant functions in the surrounding buildings.

Relation indoor-outdoor
Transparency of façades and connection to the public space.

Products:
- Map showing main square with entrances to buildings.

Methods:
- Personal observation; define openings in façades and entrances.

Changes of activities
Presumable changes over 24 hrs and year-round.

Products:
- Photograph(s) showing the space at a certain moment,
- Description of presumable changes during the day and year.

Methods:
- Analyze online photographs; impression of differences of activities,
- Predicting situation; describe presumable changes on basis of present situation.

Public network
Links between main square, open spaces and public buildings.

Products:
- Map showing open spaces (e.g. parks, squares and public buildings).

Methods:
- Map analysis; location of open spaces and built form,
- Personal observation; presence of semi-public space and public buildings.

Safety & Comfort

Description

When people do not feel at ease in public space, they will move somewhere else. This can be a matter of safety (both mentally and physically) and urban comfort (sun, shade, wind, places to rest). Everyone will recognize the unpleasantness of an open bus stop when there is wind an rain, or worse; a demolished bus stop. The same goes for a city square; people prefer to enjoy the positive sides of the climate and be protected from the negative.

Sub-topics
- Climatic conditions (sun, shade and windiness),
- Greenery (its presence, quality and function),
- Maintenance (cleaning, violence and repair),
- Lighting (its typology and frequency),
- Physical safety (from vehicular traffic).

Literature
- Lynch, K. (1981),
- Carr, S. et al (1992),
- Gehl, J. (1996),
- White, E. (1999),
- Bevolo, M. et al (2007),
- Lenzholzer, S. (2008a).

> "The Degree of **Maintenance** is an Important Factor in the Quality of Public Space"
> *(Lynch, 1981)*
>
> "The Pleasantness of a Place **Protects** One from Danger"
> *(Gehl, 1996)*

Theoretical background

As Carr (et al, 1992) says, comfort is a basic need for human beings. Comfort and even relaxation can be met when a place gives access to the sun, provides sufficient seating, is free of traffic and is protected from natural elements.

Jan Gehl (1981) states, likewise, that the pleasantness of a place protects one from danger, physical harm, criminality and vehicular traffic. If there is no protection from vehicular traffic, both the scope and character of outdoor activities is being restricted. This goes for both the feeling of security and the actual traffic safety. Also, protection from weather is a necessity for creating an enjoyable place. Crucial to outdoor comfort is not just the climatic factors, but the microclimate in the space itself.

Continuing on this microclimate, Sanda Lenzholzer (2008a) writes that most negatively criticised squares have a harsh microclimate, caused by e.g. peak temperatures of stony surfaces or downwash and turbulence near large buildings. Besides the actual temperature, thermal perception can be influenced by the colour scheme of the pavement, surrounding buildings and urban furniture. If the furniture is suited for the climate (e.g. the dampness of the Dutch climate) the furniture will become unusable, which also has a very strong impact on the liveability of city squares.

Also Kevin Lynch (1981) tells us that the degree of maintenance is an important factor in the quality of public space.

The opinion of White (1999) connects to everything that is written above, as he states that good public places promote a climate of safety in relation to their direct surroundings and the broader community beyond. Successful places are sensual, they invite people to take the site in and touch the space in many ways.

Another aspect of public space, contributing to people's feeling of safety and comfort, is lighting. Bevolo (et al, 2007) have included this in their book on future urban lighting concepts: good public lighting can transform cities at night; it can provide a sense of amenity. Careful planning can boost the aesthetic qualities of a city and permit icons and landmarks to stand out. Well-planned lighting can make a city more legible and thus make it easier for people to use it after dark. People prefer safe movement at night, visual orientation and visual comfort; this asks for sufficient lighting. Poorly maintained lighting provides less light and signals that the area is not considered to be important.

Climatic conditions
Influence of sun, shade and windiness.

Products:
• Description of personal experience,
• Photograph(s) to indicate the situation.

Methods:
• Personal observation; occurrence of nuisance by shade and wind.

Greenery
Presence, quality and function of greenery at the main square.

Products:
• Map showing the location and identity of greenery,
• Description of quality and function of the present greenery.

Methods:
• Personal observation; identify presence, quality and function of greenery.

Maintenance
Looking for cleaning activities, violence and repair.

Products:
• Photographs of elements indicating the level of maintenance.

Methods:
• Personal observation; observe maintenance and littering (if any).

Lighting
Typology and frequency of street lights.

Products:
• Photograph(s) showing the typology of the lights,
• Photograph(s) showing the frequency of the light (at night).

Methods:
• Personal observation; define presence of street lights and its effect when dark.

Physical safety
• Safety from vehicular traffic.

Products:
• Photograph(s) indicating safe / dangerous crossings,
• Map showing safe / dangerous crossings.

Methods:
• Personal observation; presence and safety level of pedestrian crossings.

8.3   Case Studies: General Analysis

By means of literature study and personal sense, we have derived six criteria for quality of main squares. In this phase of the research, a selection of these criteria will be used in order to measure the potential social-spatial and spatial-functional quality of eleven cases. With this information, three cases will be selected for in-depth study in the next phase.

The six criteria, with their sub-topics, are mentioned below. In this first, shallow analysis, we will only address four of the criteria; Spatial organization (SO), Accessibility & connectivity (AC), Identity (ID) and Liveliness (LI). The reason for doing so, is the limited time span of this graduation project. The exploration of each case's qualities has been done through mapping, research on Websites and online photographs. Additionally, some of the cases have been visited in person in order to gather the essential data.

In this document, we will only show a summary and the conclusions of the research. Extended data can be found in a separate report.

The included elements are the following:

1. Spatial organization
- Surface (shape and scale of horizontal open space),
- Scale (proportion open space and buildings heights),
- Configuration (position in city centre).

Not included in this phase:
- Experience on eye-level,
- Design style.

2. Accessibility & Connectivity
- Car parking (walking distance and routes),
- Public transport (walking distance),
- Approach (pedestrian routes towards square),
- Integration larger urban fabric (car routes).

Not included in this phase:
- Walk-ability.

3. Civic program
Not included in this phase:
- Markets,
- Festivals & events,
- Social & cultural activities,
- Subsidy of activities,
- Target groups.

4. Identity
- Details in design (levels of scale).

Not included in this phase:
- Symbolic value,
- Atmosphere,
- Image,
- Urban elements.

5. Liveliness
- Dominant functions (inside buildings),

Not included in this phase:
- People,
- Public furniture,
- Relation in-/outdoor,
- Changes of activities,
- Public network.

6. Safety & Comfort
Not included in this phase:
- Climatic conditions,
- Greenery,
- Maintenance,
- Lighting,
- Physical safety.

Almere

Summary

Almere is a city in the centre of the Netherlands, built on reclaimed land in 1976. The city was originally planned as a solution for housing shortages in the western provinces of the Netherlands, particularly in the city of Amsterdam *(INTI)*.

The city centre of Almere has two central squares, the Grote Markt and the Stadhuisplein, designed with the purpose to serve as the main squares of the city (fig. 8.3.1 and 2). Both squares are large-scaled and rectangular shaped. The image to the right shows a section across the Stadhuisplein; an empty open space (fig. 8.3.3).

Fig. 8.3.3:   Section of the Stadhuisplein, scale is circa 1:500. *(by author)*

Fig. 8.3.1:   The city centre of Almere, with its two rectangular shaped main squares in the middle. *(map by author)*

SWOT-analysis

The SWOT-analysis shows the results from the general analysis of this city, related to the researched criteria for quality. These criteria are the following: Spatial organization (SO), Accessibility & connectivity (AC), Identity (ID) and Liveliness (LI).

Fig. 8.3.2:   Map with the borders of the main city squares. *(map by author)*

		Strengths	Weaknesses
Opportunities	SO	Central **position** in city and city centre	Unpleasant **proportions**
	AC	Many **paths** leading to the squares Many **parking** garages in the centre **Train** station close by	ND
	ID	ND	The squares can have distinct **identities**
	LI	**Town hall** is situated at the main square	Residence **entrances** at backside of shopping streets
Threats	SO	**Large-scaled** main squares; emptiness	**Link** between the squares insufficient and narrow Bus lane severs the **link** between the squares **Sloping streets** due to underground parking
	AC	Grote Markt positioned at end of **pedestrian axis** **Bus stop** at Stadhuisplein	Poor integration in larger urban **network** No focal point for **approaching** the squares No clear **car route** through or around the centre
	ID	**Town hall** is designed with blind façade	ND
	LI	Strong division of **functions**	ND

Amiens

General summary

The city of Amiens was founded in the 1ˢᵗ century B.C. and gained city rights in
1113. Amiens is a flat city; the heights of the buildings are levelled, with the excep-
tion of two towers. One of these is the tower of the historic cathedral 'Notre-Dame
d'Amiens'; the largest cathedral in France. *(Amiens Office du Tourisme)*
Amiens has two main squares; the small Place Hôtel de Ville, with the town hall and
an underground parking garage, and Place Gambetta; a larger square with steps,
greenery and terraces (fig. 8.3.4 and 5). As we can see in the section, the square has
a field of grass in the centre, and height differences at the sides (fig. 8.3.6).

Fig. 8.3.6:   Section of Place Gambetta, scale is circa 1:500. *(by author)*
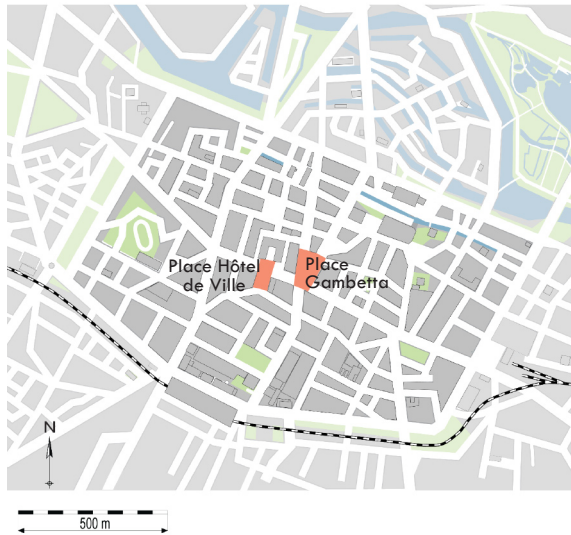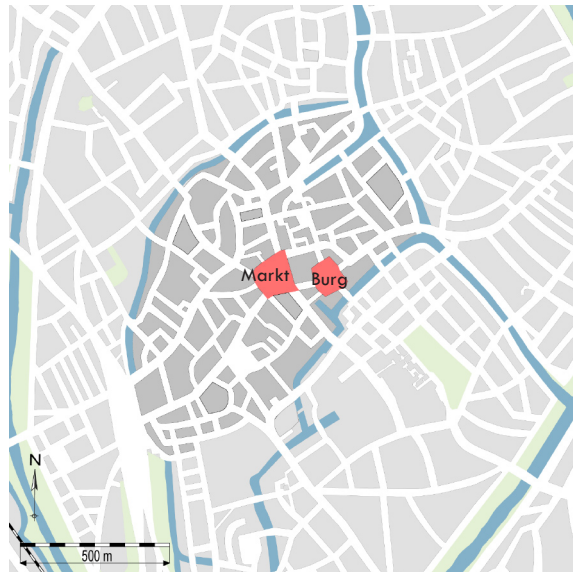

Fig. 8.3.4: The city centre of Amiens, with the two main
squares in the middle. *(map by author)*
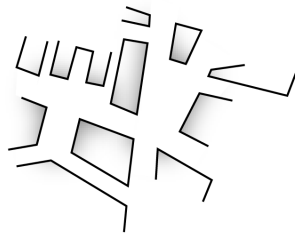
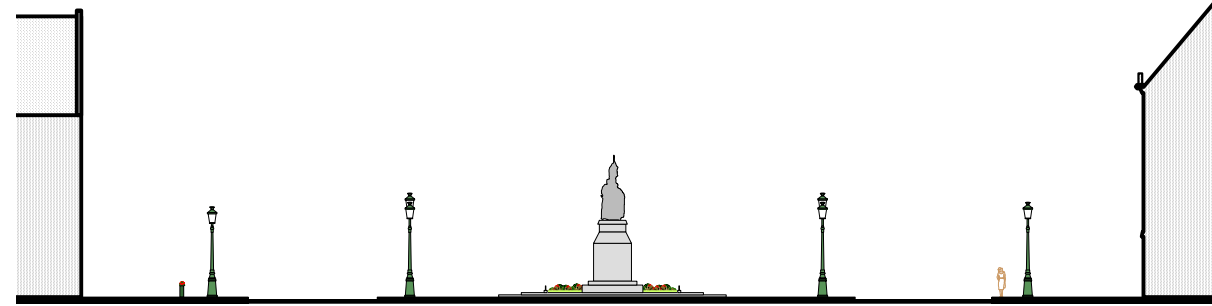Fig. 8.3.5:   Map with the borders of the main
city squares. *(map by author)*

SWOT-analysis

The SWOT-analysis shows the results from the general analysis of this city, related to
the researched criteria for quality. These criteria are the following: Spatial organiza-
tion (SO), Accessibility & connectivity (AC), Identity (ID) and Liveliness (LI).

		Strengths	*Weaknesses*
Opportunities	**SO**	Central **position** in city and city centre Good **proportions** of open space and built form	**Height** due to underground parking well used
	AC	Many **parking** garages in the centre and nearby Very well integrated larger urban **network** Continuous **car route** around the city centre **Pedestrian axis** crossing both squares	Relatively small **pedestrian zone** Poor **link** to the city's main attraction (Notre-Dame)
	ID	**Diversity** in building types **Town hall** with levels of scale in detailed design	Little **distinction** due to levelled building heights
	LI	Connection of **residents** to the public street **Town hall** is situated at Place Hôtel de Ville	ND
Threats	**SO**	ND	ND
	AC	Multiple **bus stops** at the main squares	No **focal point** for approaching the squares
	ID	ND	ND
	LI	Concentration of **mixed functions** at the squares	ND

Brugge

General summary

The city of Brugge (Bruges) is located in the west of Belgium. The city was founded in the 9th century and gained city rights in 1128. The structure of the city is shaped by canals and winding streets. *(Toerisme Brugge, 2009)*

In the historic centre of the city we can find the largest city square, Markt, and Burg, a slightly smaller square (fig. 8.3.7 and 8). The squares are located very close to each other, and together they form the main squares of the city. The Markt, as we can see in the section, is a large open space with a statue in the centre (fig. 8.3.9).

Fig. 8.3.9:   Section of the Markt, scale is circa 1:500. *(by author)*

Fig. 8.3.7: The city centre of Brugge, with the two main squares in the middle. *(map by author)*

SWOT-analysis

The SWOT-analysis shows the results from the general analysis of this city, related to the researched criteria for quality. These criteria are the following: Spatial organization (SO), Accessibility & connectivity (AC), Identity (ID) and Liveliness (LI).

<table>
<tr><td colspan="2"></td><td>*Strengths*</td><td>*Weaknesses*</td></tr>
<tr><td rowspan="8">*Opportunities*</td><td>**SO**</td><td>Central **position** in city and city centre
Strong **connection** between the squares
Good **proportions** of open space and built form</td><td>ND</td></tr>
<tr><td rowspan="5">**AC**</td><td>Many **parking** garages in the centre
Multiple **tram stops** at the main squares
Large number of **walking** options
Clear **focal point** for approach
Very well integrated larger urban **network**</td><td>Friedensplatz positioned at end of **pedestrian axis**</td></tr>
<tr></tr><tr></tr><tr></tr><tr></tr>
<tr><td>**ID**</td><td>**Town hall** with levels of scale in detailed design</td><td>The squares can have distinct **identities**</td></tr>
<tr><td>**LI**</td><td>Important **public buildings** situated at the squares
Concentration of **mixed functions** at the squares</td><td>Residence **entrances** at backside of shopping streets</td></tr>
<tr><td rowspan="4">*Threats*</td><td>**SO**</td><td>**Large-scaled** main squares; risk of emptiness</td><td>Unclear **boundaries**</td></tr>
<tr><td>**AC**</td><td>No clear **car route** through or around the centre</td><td>ND</td></tr>
<tr><td>**ID**</td><td>ND</td><td>ND</td></tr>
<tr><td>**LI**</td><td>ND</td><td>ND</td></tr>
</table>

Fig. 8.3.8:   Map with the borders of the main city squares. *(map by author)*

Cergy-Pontoise

General summary

The city of Cery-Pontoise is located in the north of France. The city was created in 1972; combining two villages. This New Town was created in order to accommodate the incoming population of Parisians. The new centre, positioned in-between the two former villages, is being dominated by a large-scaled shopping mall. *(Pontoise office du tourisme)*

This mall area, situated on top of a main road and the railway, includes two large squares (fig. 8.3.10 and 11). These squares have a prominent position in the centre and, there-fore, can be seen as the main squares. The Grand' Place is provided with many trees, even though it is elevated (fig. 8.3.12).

Fig. 8.3.12: Section of the Grand' Place, scale is circa 1:500. *(by author)*
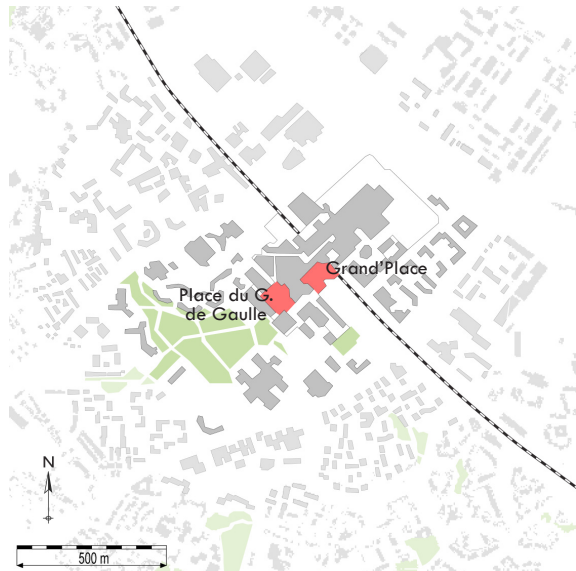
Fig. 8.3.10: The city centre of Cergy-Pontoise, a shopping mall in-between the two former villages of Cergy and Pontoise. *(map by author)*
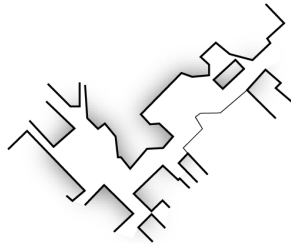
Fig. 8.3.11: Map with the borders of the main city squares. *(map by author)*

SWOT-analysis

The SWOT-analysis shows the results from the general analysis of this city, related to the researched criteria for quality. These criteria are the following: Spatial organization (SO), Accessibility & connectivity (AC), Identity (ID) and Liveliness (LI).

		Strengths	Weaknesses
Opportunities	SO	Central **position** in city and city centre Strong **connection** between the squares	ND
	AC	Underground **parking** at the squares **Bus** and **train** station close by Strong connection to **main roads** **Pedestrian axis** crossing both squares	Few **walking** options
	ID	ND	The squares can have distinct **identities** Design of **cultural centre** little inviting
	LI	**Cultural centre** is connected to both main squares	Residence **entrances** at backside of shopping streets **Offices** located in and around the centre
Threats	SO	ND	Unclear **boundaries**
	AC	ND	Poor connections to the rest of the **city** No focal point for **approaching** the squares
	ID	ND	Rows of **similar looking** shops
	LI	Strong division of **functions**	ND

Darmstadt

General summary

The city of Darmstadt is located in the south-west of Germany. The city was founded in the 11th century and received city rights in 1330 *(Darmstadt 'City of Science')*. The city structure of Darmstadt is formed of an even street pattern combined with prominent architecture. *(Brinckmann, 1921)*

Two city squares, Friedensplatz and Marktplatz, in the centre of Darmstadt, are situated around the city's castle. Important public buildings are located at a third square close-by; Luisenplatz (fig. 8.3.13 and 14). The section shows the profile of the Friedensplatz (fig. 8.3.15). Green strips indicate the edges of the square, with at one side a tram line, and at the other a canal bordering the castle.

Fig. 8.3.15: Section of the Friedensplatz, scale is circa 1:500. *(by author)*

Fig. 8.3.13: The city centre of Darmstadt, with the main squares in the middle. *(map by author)*

SWOT-analysis

The SWOT-analysis shows the results from the general analysis of this city, related to the researched criteria for quality. These criteria are the following: Spatial organization (SO), Accessibility & connectivity (AC), Identity (ID) and Liveliness (LI).

		Strengths	Weaknesses
Opportunities	SO	Central **position** in city and city centre Strong **connection** between the squares Good **proportions** of open space and built form	ND
	AC	Many **parking** garages in the centre Multiple **tram stops** at the main squares Large number of **walking** options Clear **focal point** for approach Very well integrated larger urban **network**	Friedensplatz positioned at end of **pedestrian axis**
	ID	**Town hall** with levels of scale in detailed design	The squares can have distinct **identities**
	LI	Important **public buildings** situated at the squares Concentration of **mixed functions** at the squares	Residence **entrances** at backside of shopping streets
Threats	SO	**Large-scaled** main squares; risk of emptiness	Unclear **boundaries**
	AC	No clear **car route** through or around the centre	ND
	ID	ND	ND
	LI	ND	ND

Fig. 8.3.14: Map with the borders of the main city squares. *(map by author)*

Dordrecht

General summary

The city of Dordrecht is located in the south-west of the Netherlands. The city was founded in the 11th century and gained city rights in 1220. The city developed along a crossing of rivers and originally had its 'city entrance' at the river side; this changed when the cares became more important. Therefore, in the 1960s, a new city centre was designed. *(Welkom in Dordrecht)*

Since this renewal, the Statenplein is the official main square of Dordrecht; a large-scaled modern square surrounded by shops (fig. 8.3.16 and 17). The former main square, Grote Markt, is nowadays hardly functions as a public square at all. However, a small-scaled historic square, Scheffersplein, is still bustling with activity; it is situated in-between the old and the new main city square (fig. 8.3.18).

Fig. 8.3.18: Section of the Scheffersplein, scale is circa 1:500. *(by author)*

Fig. 8.3.16: The city centre of Dordrecht; a modern main square (right) and a smaller historic square. *(map by author)*
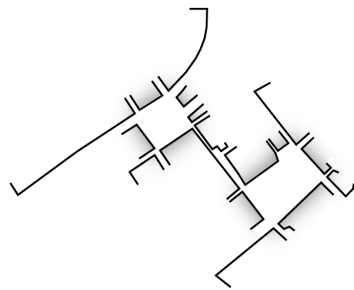
Fig. 8.3.17: Map with the borders of the main city squares. *(map by author)*

SWOT-analysis

The SWOT-analysis shows the results from the general analysis of this city, related to the researched criteria for quality. These criteria are the following: Spatial organization (SO), Accessibility & connectivity (AC), Identity (ID) and Liveliness (LI).

		Strengths	Weaknesses
Opportunities	SO	Central **position** in city centre Good **proportions** of Scheffersplein	ND
	AC	Many **parking** garages in the centre **Bus stop** at the Scheffersplein Large number of **walking** options **Pedestrian axis** crossing Scheffersplein	Statenplein outside of **pedestrian axis**
	ID	**Diversity** in building types	The squares can have distinct **identities**
	LI	Concentration of **mixed functions** at the squares	Residence **entrances** at backside of shopping streets
Threats	SO	**Large-scaled** Statenplein; risk of emptiness	Unpleasant **proportions** of Statenplein **Link** between the squares insufficient and narrow
	AC	Continuous **car route** through the city centre	Poor connections to the rest of the **city** No focal point for **approaching** the squares
	ID	ND	Rows of **similar looking** shops at Statenplein
	LI	No **public function** in Statenplein's focal building	ND

Haarlem

General summary
The city of Haarlem is located in the west of the Netherlands. The city was founded in the 10ᵗʰ century and received city rights in 1245. *(Historie van de stad Haarlem)* Haarlem has a clear main city square; the Grote Markt (fig. 8.3.19 and 20). This square is positioned in front of the Church 'Sint Bavo'. At the side of this church, there is another square; the Oude Groenmarkt. These squares work together as they are well connected and share the main restaurants and cafés of the city centre. The Grote Markt is shown in the section; a lively square with good proportions and presence of trees and urban elements (fig. 8.3.21).
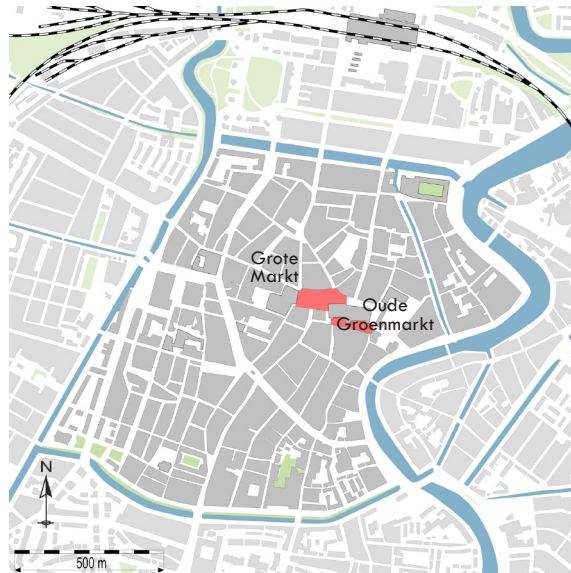
Fig. 8.3.19: The city centre of Haarlem, the Grote Markt and the smaller Oude Groenmakrt. *(map by author)*
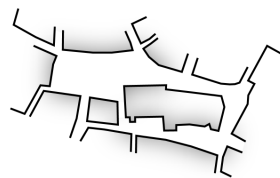
Fig. 8.3.20: Map with the borders of the main city squares. *(map by author)*

Fig. 8.3.21: Section of the Friedensplatz, scale is circa 1:500. *(by author)*

SWOT-analysis
The SWOT-analysis shows the results from the general analysis of this city, related to the researched criteria for quality. These criteria are the following: Spatial organization (SO), Accessibility & connectivity (AC), Identity (ID) and Liveliness (LI).

		Strengths	Weaknesses
Opportunities	SO	Central **position** in city and city centre Strong **connection** between the squares Good **proportions** of open space and built form	ND
	AC	**Pedestrian axis** crossing both main squares Large number of **walking** options Clear **focal point** for approach Good integration in larger urban **network**	Oude Groenmarkt outside of **pedestrian axis**
	ID	**Town hall** with levels of scale in detailed design **Diversity** in building types	ND
	LI	Most residence **entrances** at public side Concentration of **cafés** and **restaurants**	ND
Threats	SO	ND	ND
	AC	Continuous **car route** through the city centre Large part of the centre **accessible** by car **Pedestrian axis** is being divided by Grote Markt	**Bus stops** at walking distance Few **parking** garages nearby
	ID	ND	ND
	LI	**Separation** of shopping and dining	ND

Milton Keynes

General summary

The city of Milton Keynes is located in the south-east of the UK. Milton Keynes is a New Town that was created in 1967, in order to accommodate an incoming population of Londoners. There are some historic villages that have become part of the city; they are proud of their history and dry to preserve their own identity. *(History of Milton Keynes)* The centre of Milton Keynes contains two important squares; the Queen's Court and the Market Square (fig. 8.3.22 and 23). The latter is being crossed by a viaduct of a main road. The Queen's Court is shown in the section; cosy proportions, with trees and water (fig. 8.3.24). However, the square is surrounded by levelled buildings and there are no public functions at the square.

Fig. 8.3.24: Section of the Queen's Court, scale is circa 1:500. *(by author)*
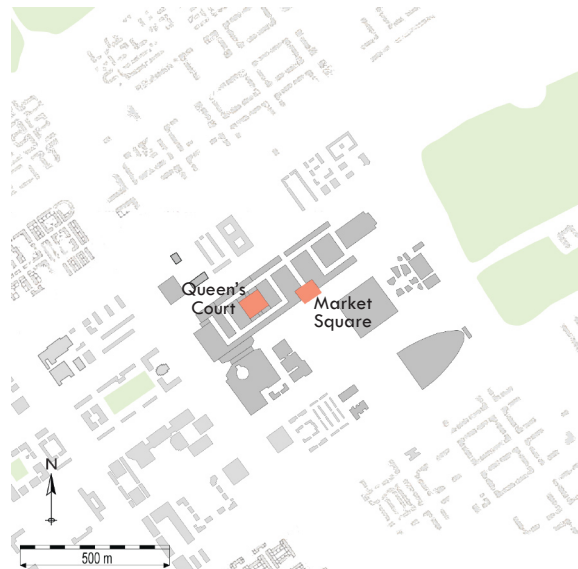
Fig. 8.3.22: The city centre of Milton Keynes, with the two main squares. *(map by author)*
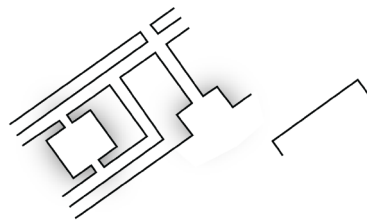
Fig. 8.3.23: Map with the borders of the main city squares. *(map by author)*

SWOT-analysis

The SWOT-analysis shows the results from the general analysis of this city, related to the researched criteria for quality. These criteria are the following: Spatial organization (SO), Accessibility & connectivity (AC), Identity (ID) and Liveliness (LI).

		Strengths	Weaknesses
Opportunities	SO	Central **position** in city and city centre	Unpleasant **proportions** of Market Place Market Place partly **covered** by large viaduct **Central location** within shopping mall
	AC	Many **parking** places nearby **Bus stops** close by **Car route** through or around the centre Very well integrated larger urban **network**	Few **walking** options
	ID	ND	The squares can have distinct **identities**
	LI	ND	**Offices** located in and around the centre Few **public buildings** nearby Few cafés and restaurants close by
Threats	SO	**Large-scaled** Market Place; risk of emptiness	Unclear **boundaries** **Link** between the squares insufficient Road severs the **link** between the squares
	AC	ND	No focal point for **approaching** the squares Weak connection with **pedestrian axis**
	ID	ND	Little **distinction** due to levelled building heights Rows of **similar looking** shops
	LI	ND	No **functions** directly at the squares

Nottingham

General summary

The city of Nottingham is located in the centre of the UK. The city was founded around the 7th century and gained city rights in 1879. *(Nottingham museums and galleries)*

Nottingham has one main square, the Old Market Square (fig. 8.3.25 and 26). This large square is positioned in the north-western part of the city centre. This square has been the main square for centuries and distinguishes itself by its size, functions and position in the city's network. The square is lively and encompasses a fountain, steps and trees.

Fig. 8.3.27: Section of the Old Market Square, scale is circa 1:500. *(by author)*

Fig. 8.3.25: The city centre of Nottingham, the Old Market Square is located in the upper left corner. *(map by author)*
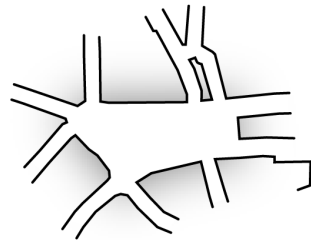
Fig. 8.3.26: Map with the borders of the main city square. *(map by author)*

SWOT-analysis

The SWOT-analysis shows the results from the general analysis of this city, related to the researched criteria for quality. These criteria are the following: Spatial organization (SO), Accessibility & connectivity (AC), Identity (ID) and Liveliness (LI).

		Strengths	Weaknesses
Opportunities	SO	Good **proportions** of open space and built form	ND
	AC	Many **parking** garages in the centre Large number of **walking** options **Pedestrian axis** crossing the square Clear **focal point** for approach	Relatively poor integration larger urban **network**
	ID	**Council house** with levels of scale in detailed design **Diversity** in building types	ND
	LI	**Council house** positioned at main square	Few **cafés** and **restaurants** at the square
Threats	SO	**Large-scaled** square; risk of emptiness	**Positioned** in north-western corner of city centre
	AC	**Bus** and **tram stops** at the square	No continuous **car route** through the city centre
	ID	ND	ND
	LI	**Separation** of shopping and dining	ND

Wolfsburg

General summary

The city of Wolfsburg is located in the north-east of Germany. The city was founded in 1938 in order to create an industrial living area related to the KdF-Wagens car factory. It is a characteristic example of a planned city and it has the intention to have a cultural identity. *(Stadtentwicklung Wolfsburg)* The city has an elongated centre, with two squares at the southern end (fig. 8.3.28 and 29). These squares, Marktplatz and Hollerplatz, together form the main squares of Wolfsburg. The northern and southern edges of these squares have an unclear boundary; they blend with the wide profile of the pedestrian street. A line of trees distinguishes this continuous path from the squares; in the section, this is the tree at the right side (fig. 8.3.30).

Fig. 8.3.30: Section of the Marktplatz, scale is circa 1:500. *(by author)*

Fig. 8.3.28: The city centre of Wolfsburg, with the two main squares together in the south-western corner. *(map by author)*
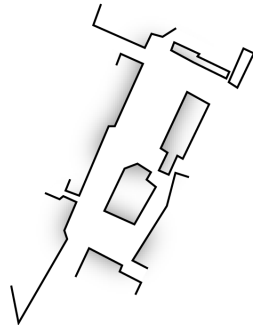
Fig. 8.3.29: Map with the borders of the main city squares. *(map by author)*

SWOT-analysis

The SWOT-analysis shows the results from the general analysis of this city, related to the researched criteria for quality. These criteria are the following: Spatial organization (SO), Accessibility & connectivity (AC), Identity (ID) and Liveliness (LI).

		Strengths	Weaknesses
Opportunities	SO	Strong **connection** between the squares Good **proportions** of open space and built form	ND
	AC	Many **parking** places nearby **Bus stops** close by **Pedestrian axis** crossing the squares **Car route** around the centre	Relatively poor integration larger urban **network** Few **walking** options
	ID	ND	The squares can have distinct **identities** Design of **town hall** little inviting
	LI	Concentration of **mixed functions** at the squares **Town hall** is situated at the main squares	Few **cafés** and **restaurants** at the squares
Threats	SO	**Large-scaled** Marktplatz; risk of emptiness	**Positioned** at southern edge of the city centre Unclear **boundaries**
	AC	ND	No focal point for **approaching** the squares
	ID	ND	ND
	LI	ND	ND

Zoetermeer

General summary

The city of Zoetermeer is located in the south-west of the Netherlands. At this location, an 11th century village was positioned; in 1962 the New Town of Zoetermeer was being developed. The city has preserved a historic street, the Dorpsstraat, which is located just outside the modern city centre. *(Zoetermeer 1000 jaar)*

The new city centre of Zoetermeer has two important squares; the Stadhuisplein and the Markt (fig. 8.3.31 and 32). These squares are located in the middle of the city centre and planned to be the main squares of the city. The largest of the two, the Markt, is an empty open space functioning as a market place and car park. The Stadhuisplein is much smaller, with a permanent stage (8.3.33).

Fig. 8.3.33: Section of the Stadhuisplein, scale is circa 1:500. *(by author)*
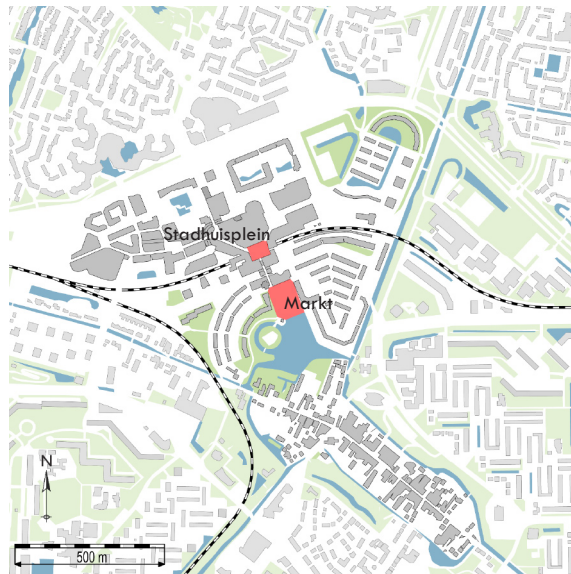
Fig. 8.3.31: The city centre of Zoetermeer, with the historic Dorpsstraat in the south. *(map by author)*

Fig. 8.3.32: Map with the borders of the main city squares. *(map by author)*

SWOT-analysis

The SWOT-analysis shows the results from the general analysis of this city, related to the researched criteria for quality. These criteria are the following: Spatial organization (SO), Accessibility & connectivity (AC), Identity (ID) and Liveliness (LI).

		Strengths	*Weaknesses*
Opportunities	SO	Central **position** in city and city centre	Markt **situated** at lakeside **Historic street** located across the lake Unpleasant **proportions** of connecting street
	AC	**Pedestrian axis** crossing Stadhuisplein Clear **focal point** for approach Continuous **car route** around the city centre **Train station** at the squares	Few **walking** options Markt outside of **pedestrian axis** Relatively small **pedestrian zone**
	ID	ND	Design of entrance **town hall** little inviting The squares can have distinct **identities**
	LI	Concentration of **mixed functions** at Stadhuisplein **Town hall** is situated at the main squares	ND
Threats	SO	**Large-scaled** Markt; emptiness	**Link** between the squares insufficient
	AC	ND	Very poor integration larger urban **network**
	ID	**Bus stops** at walking distance	ND
	LI	ND	No **functions** at Markt except for town hall

Conclusions

The eleven previous SWOT-analyses are being summarized in the two tables below; one table showing the historic towns and one showing the new towns. The structure of these tables is similar to the previous ones, while the results are again related to the researched criteria for quality; Spatial organization (SO), Accessibility & connectivity (AC), Identity (ID) and Liveliness (LI).

Looking briefly at both tables, we can clearly see strong distinctions between the two. The upper left corner (strengths-opportunities) shows strong marks in the table of the Historic towns, while the New towns score lower on all criteria. The Historic towns, on the other hand, have to cope with slightly more issues threatening these strengths. However, the weaknesses are stronger represented in the table of the New towns; both on the side of opportunities and threats. Interestingly, the city of Dordrecht, with both a historic and a modern main square, scores less positive than the other Historic cities. The city of Nottingham, the only case with just a single main square, scores relatively low as well.

Focussing on the dissimilarities between the scores of Historic and New towns, we should explain what causes these differences. We will address the results separately for each criterion. Note that the results are only based on the elements that are included in this general analysis.

Spatial organization

The historic cities score very well on this criterion; there are many strengths, while hardly any weaknesses. The strengths can be found in the central position of the squares in the city centres and good proportions of the open space and built form. Also, most of the historic cities show strong connections between their main squares. The weaknesses and threats can be found in the large scale of some main squares and the indistinctness of some squares' boundaries. For the city of Dordrecht, the proportions of the Statenplein and the weak link between the 'old' and 'new' square appear on the negative side of the table as well.
The new towns also show some strong factors, but for this criterion they score higher on weaknesses and threats. Most of the cases have centrally positioned main squares, but the link between the squares appears to be a problem. Like the city of Dordrecht, the proportions of open space and built form are in some cases unpleasant; a narrow link with relatively high buildings (Zoetermeer) or a large-scale square with relatively low buildings (Almere, Milton Keynes).

Accessibility & Connectivity

Interestingly, both the historic and the new towns score well on this criterion. However, looking into the individual data, they groups of cities score high on different aspects of this criterion.
The historic cities show positive aspects such as; a large amount of walking options, a clear focal point for approach and a main pedestrian axis crossing the square(s). The availability of car routes and parking garages, however, are elements that are less represented in those cases. Interestingly, the city of Amiens is provided with underground car parking.
In most of the new towns, there are many parking garages nearby. Also, car routes are well represented, as well as public transport hubs. The new towns of Almere and Zoetermeer score low on integration in urban fabric, while Milton Keynes has excellent connections on this large scale. The connectivity for pedestrians in Milton Keynes is, however, very poor.
This explains that all cities all have strengths and weaknesses for this criterion, although they are very different.

Identity

On this criterion, the historic towns clearly have many strengths and opportunities. The design of the key buildings at the squares includes, in most cases, details in many levels of scale. Approaching these buildings reveals more elements of their design, while its entrance is strongly represented. Also, most historic cities show a strong diversity of building types. Except for the case of Dordrecht, with its similar looking shops, no threats have been identified.
The researched new towns show some opportunities and threatened strengths, but most results on this topic are rather negative. Key issue is the poor design of the main buildings at the squares. These key buildings are little inviting; mainly due to a blind façade or hidden entrance. In some cases, levelled building heights diminish the opportunity for generating identity to the squares.

Liveliness

In all of the researched historic cities, an important civic building is located at the main square; mainly the town hall. This is also the case in many of the new towns, except for Cergy-Pontoise and Milton Keynes; both cases with their main squares located in a large-scaled shopping centre. An important factor for generating liveliness is the presence of residences. These are present in most cases, but their relation to the street is often poor. In most historic cities, the residence entrances are situated at the public street; in most new towns they are hidden in a back street.

Historic Towns

		Strengths	Weaknesses
Opportunities	SO	Amiens, **Brugge**, **Darmstadt**, *Dordrecht*, **Haarlem**, Nottingham	Amiens, Brugge, Darmstadt, *Dordrecht,* Haarlem, Nottingham
	AC	**Amiens**, **Brugge**, **Darmstadt**, ***Dordrecht***, **Haarlem**, **Nottingham**	Amiens, Brugge, Darmstadt, *Dordrecht,* Haarlem, Nottingham
	ID	**Amiens**, **Brugge**, Darmstadt, *Dordrecht,* **Haarlem**, **Nottingham**	Amiens, Brugge, Darmstadt, *Dordrecht,* Haarlem, Nottingham
	LI	**Amiens**, **Brugge**, **Darmstadt**, *Dordrecht,* **Haarlem**, Nottingham	Amiens, Brugge, Darmstadt, *Dordrecht,* Haarlem, Nottingham
Threats	SO	Amiens, Brugge, Darmstadt, *Dordrecht,* Haarlem, Nottingham	Amiens, Brugge, Darmstadt, *Dordrecht,* Haarlem, Nottingham
	AC	Amiens, Brugge, Darmstadt, *Dordrecht,* Haarlem, Nottingham	Amiens, Brugge, Darmstadt, *Dordrecht,* Haarlem, Nottingham
	ID	Amiens, Brugge, Darmstadt, *Dordrecht,* Haarlem, Nottingham	Amiens, Brugge, Darmstadt, *Dordrecht,* Haarlem, Nottingham
	LI	Amiens, Brugge, Darmstadt, *Dordrecht,* Haarlem, Nottingham	Amiens, Brugge, Darmstadt, *Dordrecht,* Haarlem, Nottingham

New Towns

		Strengths	Weaknesses
Opportunities	SO	Almere, Cergy-Pont., Milton Keynes, *Wolfsburg*, Zoetermeer	Almere, Cergy-Pont., **Milton Keynes**, *Wolfsburg*, Zoetermeer
	AC	Almere, **Cergy-Pont.**, **Milton Keynes**, ***Wolfsburg***, **Zoetermeer**	Almere, Cergy-Pont., Milton Keynes, *Wolfsburg*, Zoetermeer
	ID	Almere, Cergy-Pont., Milton Keynes, *Wolfsburg*, Zoetermeer	Almere, **Cergy-Pont.**, Milton Keynes, ***Wolfsburg***, **Zoetermeer**
	LI	Almere, Cergy-Pont., Milton Keynes, ***Wolfsburg***, **Zoetermeer**	Almere, **Cergy-Pont.**, **Milton Keynes**, *Wolfsburg*, Zoetermeer
Threats	SO	Almere, Cergy-Pont., Milton Keynes, *Wolfsburg*, Zoetermeer	**Almere**, Cergy-Pont., **Milton Keynes**, *Wolfsburg*, Zoetermeer
	AC	Almere, Cergy-Pont., Milton Keynes, *Wolfsburg*, Zoetermeer	Almere, Cergy-Pont., Milton Keynes, *Wolfsburg*, Zoetermeer
	ID	Almere, Cergy-Pont., Milton Keynes, *Wolfsburg*, **Zoetermeer**	Almere, Cergy-Pont., **Milton Keynes**, *Wolfsburg*, Zoetermeer
	LI	Almere, **Cergy-Pont.**, Milton Keynes, *Wolfsburg*, Zoetermeer	Almere, Cergy-Pont., Milton Keynes, *Wolfsburg*, Zoetermeer

Legend: None, Some, or **Many** elements in individual SWOT-analysis.

8.4   Case Studies: In-depth Analysis

This second part of the research by case studies is an extension of the result of the general analysis. Again, we will only show the conclusions of the actual analysis; the complete result can be found in a separate document.

In this in-depth analysis, we will look at a selection of three cities in order to find a result for all the 'Criteria for Quality'. In order to find sufficient data, these cities have been visited in person. The selected cities are the following: Brugge and Haarlem; historic cities which showed up in the general analysis as potentially successful, and the city of Almere; a New Town which had a rather negative score in the first analysis. The cities are being introduced on the facing page.

In this part of the research, we will refer to each of the criteria and their sub-topics. In order to make the result retrievable, each city is first analysed separately; referring to each criterion.

The maps and sections published in this document are on the same scale for each of the cities. Weather conditions for the days that the cities have been visited are comparable; partly clouded, but dry and with sunny intervals. Temperatures during day time were around 15 to 20 degrees Celsius. Photographs taken by the author have been made with use of the same camera.

The 'Criteria for Quality' that have been used in this part of the research are the following:

1. Spatial organization
- Surface (shape and scale of open space),
- Scale (proportion open space and buildings),
- Configuration (position in city centre).
- Experience on eye-level (view from pedestrian),
- Design style (space, architecture, urban elements).

2. Accessibility & Connectivity
- Car parking (walking distance and routes),
- Public transport (walking distance and routes),
- Walk-ability (accessibility of pedestrian routes),
- Approach (clarity of pedestrian routes towards square),
- Integration larger urban fabric (car routes from square).

3. Civic program
- Markets (frequency and location),
- Festivals & events (frequency and location),
- Social & cultural activities (frequency and variety),
- Subsidy of activities (funding of public activities),
- Target groups (attracted people).

4. Identity
- Symbolic value (historic, civic, cultural importance),
- Atmosphere (people's Perception, day and night),
- Image (perception of visitors),
- Details in design (levels of scale),
- Urban elements (presence and quality).

5. Liveliness
- People (presence and activities),
- Public furniture (presence and quality),
- Dominant functions (inside buildings),
- Changes of activities (presumable changes),
- Relation in-/outdoor (transparency of façades),
- Public network (publicly accessible space).

6. Safety & Comfort
- Climatic conditions (sun, shade, wind),
- Greenery (presence and function),
- Maintenance (cleaning, violence and repair),
- Lighting (typology and frequency),
- Physical safety (safety from vehicular traffic).

Selected Cases

This part of the project contains an in-depth analysis on a selection of the previous 11 'general' case studies. This selection has been made as a result of the previous information; main city squares in a New town and Historic towns, of which the former seems to be less successful then the latter.

In this chapter, we will show a brief overview of the selected cases for this research; the New town of Almere as potentially 'unsuccessful' and the Historic towns of Brugge and Haarlem as potentially 'successful' cases. The 'unsuccessful' case of Almere has been chosen on the bases of its problems; the 'successful' ones are selected on their expected capacity to provide an approach of improvement for the Almere case. This element of transferability can only be reached when the cases already have some comparable characteristics with each other. Therefore, we selected three selected cities with each two centrally positioned main squares.

Almere

The main city squares of New Town Almere consist of two large-scaled, rectangular shaped squares. The squares are positioned close together, but due to the single connecting road and the crossing of a bus lane, the relation between the squares is weak. Additionally, the Grote Markt (left) mainly serves functions such as cafés and restaurants, while the Stadhuisplein lacks these functions.

Furthermore, the squares do not have a clear focus point that can lead people to the squares. None of the buildings surrounding the squares provide it with cultural importance and any symbolic value lacks. The name 'Grote Markt' refers to large markets of the past; a past that this New Town has never had.

Fig. 8.4.1: The city centre of Almere, with its rectangular shaped main squares in the middle. *(map by author)*

Brugge

The city of Brugge (Bruges) has a long and famous history. Its Markt and Burg, the two main squares, are well-known by the inhabitants and visitors. These squares, and the buildings upon it, have a great symbolic value because of its rich architecture and long history.

The squares are built in a relatively large scale, which is being divided by the present elements. People enjoy the squares and use their many terraces, which makes them lively spaces.

Both of the squares are important nodes in the pedestrian network as well. They have a strong connection with each other, both directly and indirectly by the pedestrian network.
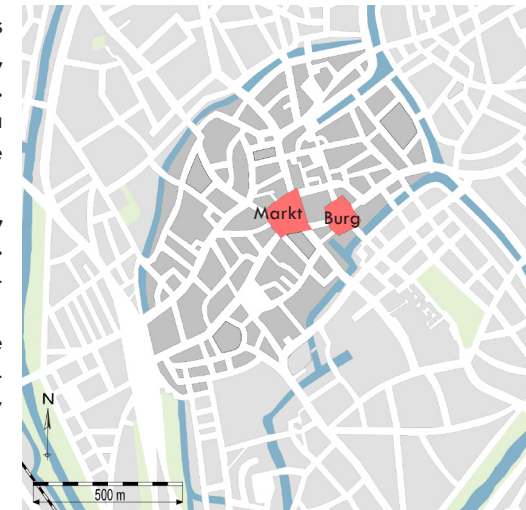

Fig. 8.4.2: The city centre of Brugge, with the two main squares in the middle. *(map by author)*

Haarlem

The Grote Markt in the historic city centre of Haarlem is a true place of interaction for both inhabitants and visitors. Most of the cafés and restaurants of the centre can be found at this square and the square next to it; Oude Groenmarkt.

Even though the core of the city centre is a pedestrian zone, the city squares are well integrated in the urban fabric of the city. This is mainly because of the one car accessible street that cuts through the centre; Gedempte Oude Gracht. This is the broad, diagonal street in the map.

Fig. 8.4.3: The city centre of Haarlem, the Grote Markt and the smaller Oude Groenmakrt. *(map by author)*

Spatial organization

Surface

All of the three cities have two main squares. However, the shape, size and positioning of these squares is different for all of them (see fig. 8.4.4a-c).

The city of Almere has two large, rectangular shaped squares. These spaces are connected by one straight road, located at a corner. The main squares of Brugge are large-scaled as well, but these are almost circular shaped. There is one direct connection between the squares and several other routes. As for the city of Haarlem, the squares are much smaller and there is a larger different between the size of both of them. Again, there is one direct connection and multiple other routes. An interesting similarity between Brugge and Haarlem, is that their is one key building standing in-between the squares; a dominant building that can be passed at all sides. This element is lacking in Almere; the building positioned in-between the squares has no dominant function and one cannot directly walk around it.
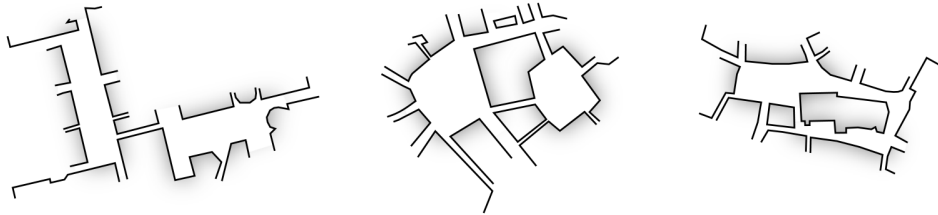
Fig. 8.4.4a-c: The borders of the main city squares; Almere (a), Brugge (b) and Haarlem (c). *(maps by author)*

Configuration

The main squares of all three cities are centrally positioned in the city centre (see fig. 8.4.5a-c). We have not found a significant difference in configuration between the cases. However, when we compare the positioning of the squares towards each other, we can see that the squares of Almere seem to be less related. These squares are projected in a different angle and linked with their corners, while the squares of Brugge and Haarlem are each positioned in the same line of direction.

Fig. 8.4.5a-c: The borders of the main city squares; Almere (a), Brugge (b) and Haarlem (c). *(maps by author)*

Scale

For comparing the proportions of the squares, we will look at the sections of the largest squares of each city. These sections are placed below; the short edges of the Grote Markt in Almere (fig. 8.4.6), the Markt in Brugge (fig. 8.4.7) and the Grote Markt in Haarlem (fig. 8.4.8).

As the Markt of Brugge is almost circular shaped, we can imagine that the visible section is similar the other way around. For Almere, the visible section is about one fifth of the square's length; while Haarlem's section should be only doubled in order to show the long side of the square. In terms of square meters of surface, the squares of Brugge and Almere do not differ much; in their shape and proportions, however, they look opposites. The square of Haarlem has a comparable width to the square of Almere, but the buildings in Haarlem are more diverse and most of them have an extra floor. Both of the cases of Brugge and Haarlem have urban elements dividing the space and giving it identity; while Almere's square is nearly empty. There are straight lines of large-scaled lampposts along the length of the square and some small groups of trees at the short edges.

Fig. 8.4.6:   Section of the Grote Markt in Almere, scale is circa 1:500. *(by author)*
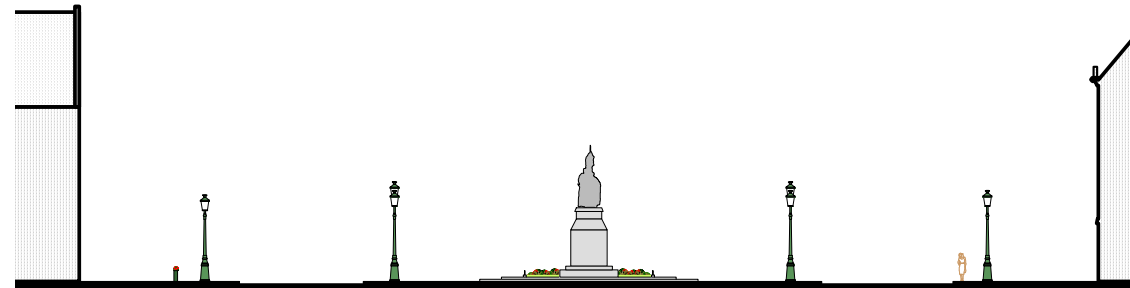

Fig. 8.4.7:   Section of the Markt in Brugge, scale is circa 1:500. *(by author)*

Fig. 8.4.8:   Section of the Grote Markt in Haarlem, scale is circa 1:500. *(by author)*

Experience on eye-level

Standing at the edge of the squares, each case provides a different feeling; a different experience. The case of Almere, the Stadhuisplein, gives a feeling of 'Emptiness' (fig. 8.4.9). This square is large-scaled, surrounded by straight, concrete buildings and open space almost without urban elements. The Markt in Brugge shows an entirely different setting; in the centre of the square we find a large statue on a pedestal. This image attracts the attention of any visitor (fig. 8.4.10). The city centre of Haarlem is being dominated by the church; the building positioned between both squares. Trees are lined up to give direction, while the pavement marks a road at the edge of the square (fig. 8.4.11).
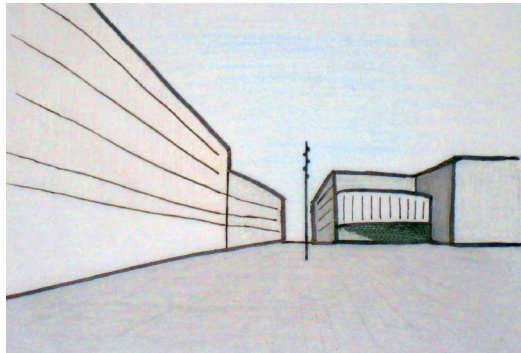
Fig. 8.4.9: Stadhuisplein in Almere; an 'Empty' feeling. *(by author)*
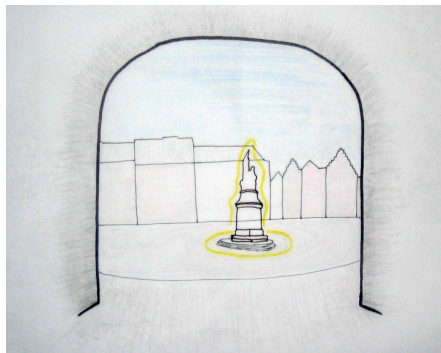
Fig. 8.4.10: The Markt in Brugge; a feeling of 'Centrality'. *(by author)*
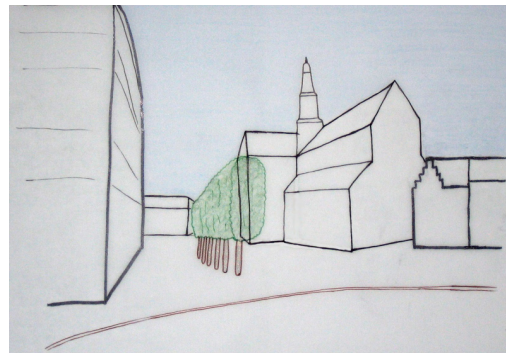
Fig. 8.4.11: The Grote Markt in Haarlem; church, trees and pavement give 'Direction'. *(by author)*

Design style

Over time, the 'World view' of planners and designers has changed radically. As we have seen in the cities of Brugge and Haarlem, the main squares have been created in early centuries; developed gradually, fitting the need for space. As buildings and urban elements were being created on-site, the design was directly experienced from ground level. Its positioning was based on the view of a pedestrian; creating a coherent setting of open space and built form for the people. Changing of people's lifestyle and ways to travel have, obviously, brought changes to this. The need for parking spaces and sidewalks with driving lanes influences the looks of our city centres.

However, there is a more influential development.

When Modern design was introduced, space was considered to be the 'thing' that was left after the buildings were being placed. In fact, the image of 'buildings in open space' is the opposite of our traditional setting; buildings bordering open space. Well-known scholars refer to this development, already starting with Camillo Sitte (1889). With use of maps, Sitte shows us the difference between corresponding squares and planned leftover spaces (fig. 8.4.12 and 13). The first image shows enclosed spaces, both facing the town hall. The latter shows separate buildings with undefined open space between them.
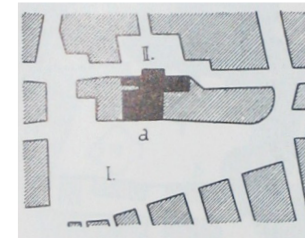

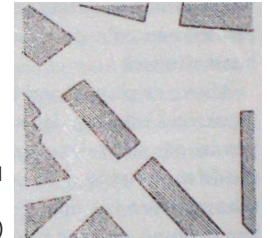Fig. 8.4.12: Corresponding squares with the Town hall in-between. *(Sitte, 1991, p.81)*

Fig. 8.4.13: Wedge-shaped leftover spaces. *(Sitte, 1991, p.96)*

More recent is the statement of Rob Krier (1970), giving us 3D sketches of the façades of these different cases (fig. 8.4.14 and 15). Here, we can see that the façades of the traditional city work together in order to provide guidance at streets and borders at squares. Its modern counterpart is a *"jumble of buildings"* according to Krier.
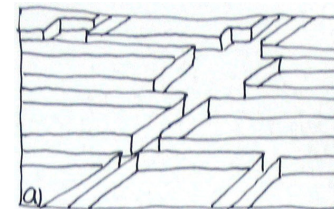

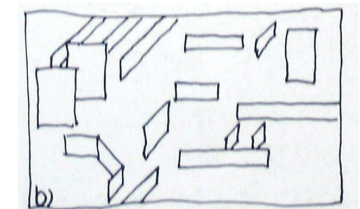Fig. 8.4.14: Traditional City *(Krier, 1979)*

Fig. 8.4.15: Modern City *(Krier, 1979)*

In the case of Almere, we can see a similar situation. The designing office of O.M.A. has designed straight axes with separate, mainly autonomous, buildings placed along these lines. The Grote Markt came out as an exact rectangle, while the Stadhuisplein lack clear corners marking the space (see fig. 8.4.4a).

Accessibility & Connectivity

Car parking

In Almere, car parks are placed underneath the southern part of city centre. This underground parking makes the main squares easily accessible by car, but it is the reason for the pedestrian streets to have a slope. Also, as people are not obliged to park at the edge of the centre they walk the shortest possible way to the to where they need to. This way, occasional crossing of the squares is limited. In Haarlem and Almere, however, there are less parking garages available and they are mainly located at the edge of the centre. In combination with one way streets, the centre is less accessible by car; but people tend to walk across the city centre and, therefore, see more of it.

Public transport

In Almere and Brugge, their is an important bus stop at the main square. In Haarlem, the bus stops are at a distance of the main squares, but their are many walking options. In the case of Almere and Haarlem, the train station is within a short walk from the main squares. For the case of Brugge, this distance is longer as the train station is located just outside the city centre.

Walk-ability

The urban design for the city centre of Almere encompasses two pedestrian axes, connecting to perpendicular roads (fig. 8.4.16). Comparing this result to the cases of Brugge and Haarlem we find an interesting conflict; these historic cities have one key pedestrian axis with a diversity of connecting routes.

In the city centre of Brugge are only two signposts; placed where the pedestrian axis crosses the squares (fig. 8.4.17). The city of Haarlem has more signposts, but these are also placed along the main axis and at the squares. The city of Almere, however, has signs placed at many corners in the pedestrian network. Apparently, pedestrians easily get lost in the street network in the city centre and, therefore, many signposts are needed. As we will see in the topic on the facing page, the centre of Almere lacks a focal point for approach. Walking in the city centre, people need a referencing point and streets they can recognize. The availability of circuits is essential as well. However, the case of Almere provides little opportunity to use different circuits; the centre is longitudinal with little routes connecting both axes.
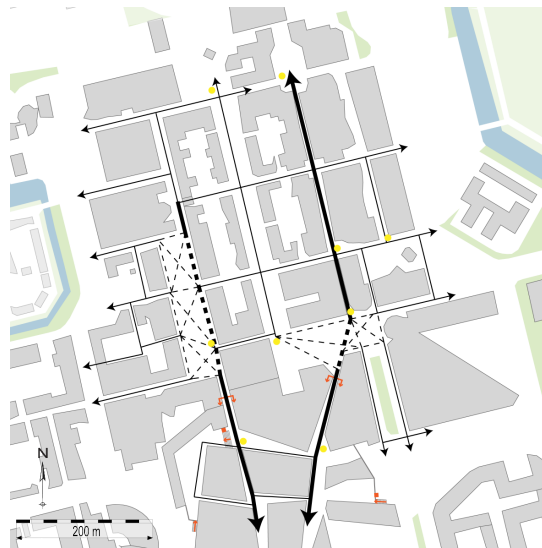
LEGEND
— Main route
— Other routes
- - - Walking options
● Signs

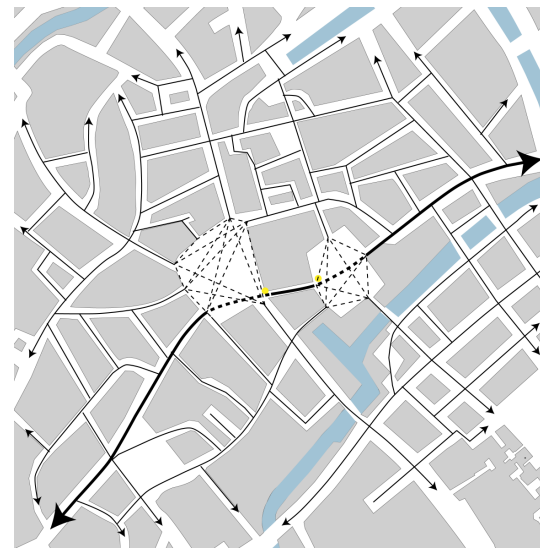Fig. 8.4.16: Almere; main pedestrian axes, other walking routes and signposts. *(map by author)*

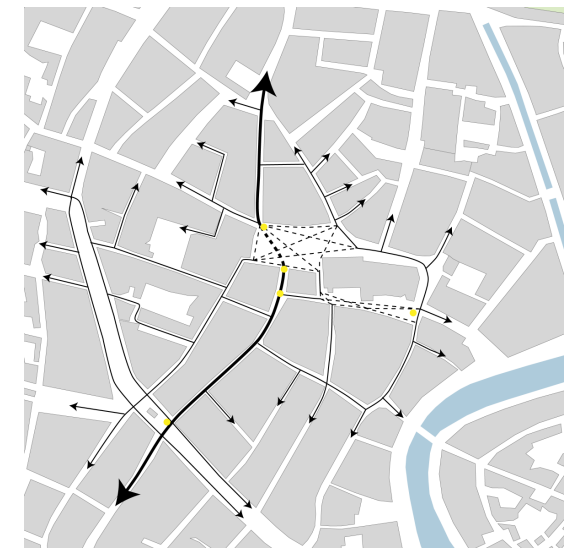Fig. 8.4.17: Brugge; main pedestrian axis, other walking routes and signposts. *(map by author)*

Fig. 8.4.18: Haarlem; main pedestrian axis, other walking routes and signposts. *(map by author)*

Approach

For all of the three cases, we will look at the approach of the squares from a corner. In the case of Almere, this corner of the square is attached to the bus lane (fig. 8.4.19). Walking along this road, it is not clear that we can find a square to our left. For the case of Brugge, the former market hall (Belfort) provides a clear focal point (fig. 8.4.20). Also, the pavement leads directly to the public square itself; in contrast to the case of Almere. The case of Haarlem is comparable to Brugge, however, there is no individual focal point (fig. 8.4.21). We can see the side of the town hall and the open space unfolds itself in front of it.

Fig. 8.4.19: Almere: Bus lane with sidewalks and residences at each side, the square is located at the left side. *(by author, map no scale)*

Fig. 8.4.20: Brugge: Route from the Vlamingstraat: the tower of Belfort provides a clear point of focus. *(by author, map no scale)*

Fig. 8.4.21: Haarlem: Route in the direction of the Grote Markt; diverse façades lead towards the open space. *(by author, map no scale)*

Integration larger urban fabric

All squares are relatively well integrated in the road network of the city (see fig. 8.4.22). However, the city centre of Almere is mainly connected to the eastern side of the city, while the centres of Almere and Haarlem have more evenly divided connecting lines. The city of Brugge, with its narrow historic streets, encompasses many one way streets in the centre. Therefore, the area to the west of the centre is less connected when looking from the position of the main squares. The city of Haarlem, on the other hand, shows less connections in the centre because these streets are not accessible for cars.

We can conclude that it is not a necessity to let the streets inside the city centre accessible for vehicular traffic in order to provide connectivity on the larger scale. One way traffic and car-free streets are both solutions for making the inner centre more pedestrian friendly, while maintaining the connections to the outer roads.

LEGEND
- Main square
- 1st step
- 2nd step
- 3rd step
- 4th step
- 5th step

Fig. 8.4.22: Space syntax analyses of Almere (top), Brugge (centre) and Haarlem. *(maps by author)*

Civic program

Markets

As the names suggest, the weekly market in Brugge takes place at the square called 'Markt' and in Haarlem at the Grote Markt. The market in Almere, however, is not located at the Grote Markt but at the 'Stadhuisplein' ('Town hall square', see fig. 8.4.23). The existence of a modern square with a historic name could be interesting, but the use of the Grote Markt in Almere neglects its precursors.

Fig. 8.4.23: Market at the Stadhuisplein (Town hall square) in the city centre of Almere. *(photo by author)*

Festivals & events

In all three of the researched cities, there are often festivals and events taking place in the city centre. We have not found a significant difference between the cases.

Social & Cultural activities

All if the three cities put effort in organizing social and cultural activities. However, we see that there is more publicity of these activities in the local newspapers of Brugge and Haarlem then there is in the local newspapers of Almere. Also, it seems that the main squares of Almere are not always accepted or recognized as the actual meeting places of the city. When public activities take place in the city, the main squares should be a suitable setting for them.

Subsidy of activities

For the cities of Brugge and Haarlem we can see that both professional and self-initiatives are being supported by the municipality. The city of Almere could provide more (financial) support to initiatives of inhabitants. However, at this point we cannot be definite. This project encompasses a brief view into the situation of the cities; a thorough research on the city's financial situation is not included.

Target groups

The degree of variation in ethnicity differs for each of the cases. The city of Almere encompasses most immigrants, while the city of Brugge mainly has native inhabitants. Meanwhile, the city of Brugge is the most touristic one of the three. Elderly are little present in both Almere and Brugge, while we have seen many older people at the squares of Haarlem.

As for the public activities at the squares of the three cities; these are all meant for a varying crowd. Some events attract more youngsters, while others are visited by mainly adults. We have not found a significant difference in this, except that the city of Haarlem for an important part aims to attract the youth. The reason for this, is that this city cherishes its inhabiting students and it profits from their presence. As there is no high-level university present, the city is competing with the many bachelor colleges in the surroundings. The city of Almere, however, lacks any institute for higher education and it struggles to let the inhabiting youth participate in the city's activities.

Identity

Symbolic value

The questionnaire about the city of Almere and Haarlem included the symbolic value that the squares have to the interviewees. The comparison of the answers for both of these cities will take place in the conclusions of this document. In order to come to a fair result, the people who answered not to be familiar with the place have been excluded from the results. For the city of Almere, a group of 22 people answered that they know the Grote Markt, while only 21 people know the Stadhuisplein. For the city of Haarlem, a group of 45 people answered that they know the Grote Markt, and 34 people know the Oude Groenmarkt. Looking at the graph, we have to keep this difference in mind (fig. 8.4.24).

The results clearly show that most of the interviewees do not give any value to the main squares of Almere, while the main squares of Haarlem score high on Historic and Cultural value. In the analysis of the main squares of Brugge, we have seen that these squares are also valued with Historic and Cultural importance. In contrast, Architectural value and some personal Memories are the only scores for the Stadhuisplein in Almere. The Grote Markt in Almere does gain some Historic and Cultural value.
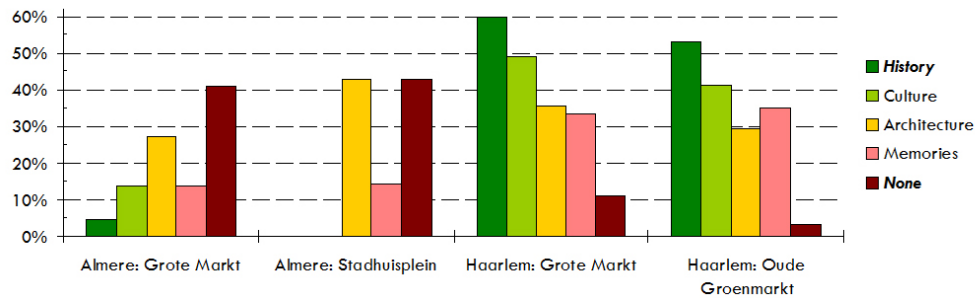

Fig. 8.4.24: Symbolic value of the squares of Almere and Haarlem; answered by people that are familiar with them. *(Questionnaire by author)*

Atmosphere

The experience of the atmosphere of the square is split up into two parts: day time and evening/night time. As not all the respondents have experience during both of these time periods, we have filtered the answers again. From the group of interviewees, 34 people have been at the Grote Markt in Haarlem in the evening or night time and only 26 at the Oude Groenmarkt. Only 15 of the interviewees have been at the squares in Almere in the evening or at night time; we have to keep this in mind when looking at the results.

The results clearly show that the main squares of Haarlem are mainly graded with 'Cosy' and 'Welcoming' both during the day and night, while the main squares of Almere score relatively high on 'Lonely' and, during the day, 'Cosy' (fig. 8.4.25 and 8.4.26). During the day, two people find that the squares of Almere have a 'Threatening' atmosphere; at night, this number has increased to five people. In the case of Haarlem, none of the respondents find the squares 'Threatening' at day time, to three people at night time. For the case of Brugge, we can conclude from personal observation that the squares are 'Cosy' and 'Welcoming' during the day, never 'Lonely' and sometimes slightly 'Threatening' at night time.
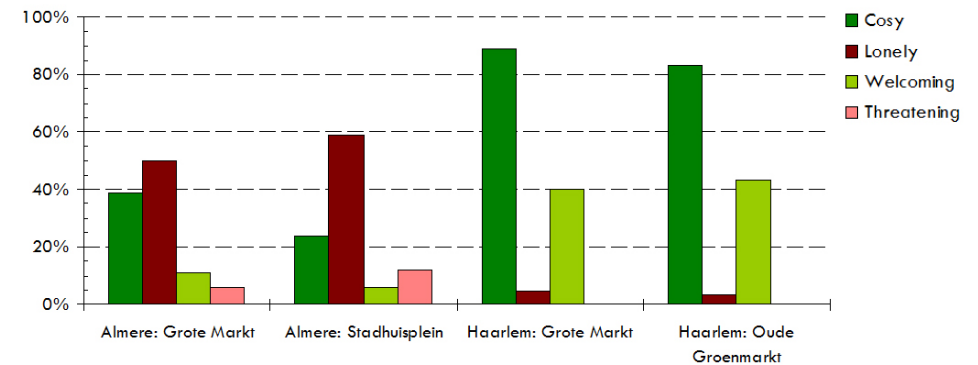

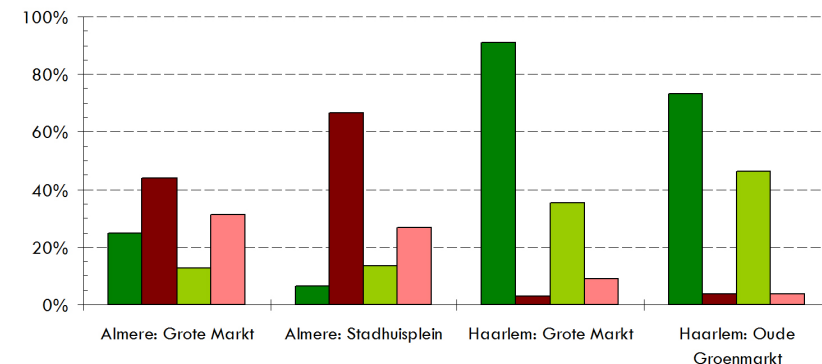Fig. 8.4.25: Atmosphere of the squares at day time. *(Questionnaire by author)*

Fig. 8.4.26: Atmosphere of the squares at night time. *(Questionnaire by author)*

Image

The statistical results on the image of the city's main squares is created by means of the questionnaire among 70 people. From the group of interviewees, 45 people are familiar with the Grote Markt in Haarlem and 34 people know the Oude Groenmarkt, 22 people said to know the Grote Markt in Almere and 21 know the Stadhuisplein; the others have been filtered out of the results. The respondents were asked to give their opinion on the squares by voting for preset keywords. The statistical results in the graph shows these answers for the people's interpretation of the image of the squares (fig. 8.4.27).

Both of the squares of Almere clearly score higher on the negative judgement of 'Emptiness' than the squares of Haarlem. Each of the squares in Haarlem have, apparently, their own image; the Grote Markt is the true 'Heart of the city', while the Oude Groenmarkt is mainly a 'Meeting place'. In the case of Almere, however, this distinction is less clear. Only half of the people that are familiar with the Almere case, see the Grote Markt as the 'City's heart'; and even less give this mark to the Stadhuisplein.

When asked to fill in why they would not visit the squares, for Almere the highest scores were the following; it is an 'Unknown place' (25%) and 'Not cosy' (11%). For Haarlem, most of the people answered that they had 'No reason' not to go there (80%) and some said that both the Oude Groenmarkt (14%) and the Grote Markt (8%) are an 'Unknown place' for them. On the other hand, reasons to visit the squares are more varied. The key answer for Almere was 'No reason at all' (80%), followed by 'Market' (10%, at Stadhuisplein) and 'Dinner' (7%, at Grote Markt). For the case of Haarlem, the most popular answer was 'Terrace' (44%) followed by 'Lunch' and 'Meeting people' (both 23%).
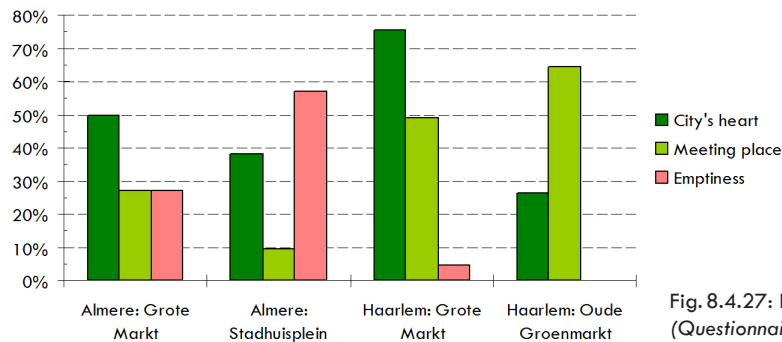

Fig. 8.4.27: Image of the squares. *(Questionnaire by author)*

Another question that was asked to the respondents, was wether or not they thought the squares were touristic attractions. Even though the city of Almere is trying to promote itself as an attractive place, only one of the 70 interviewees answered that the main squares in Almere are touristic. This is a clear difference with the large groups of tourists that we have observed in Brugge and the score in this questionnaire for the case of Haarlem. The Grote Markt in Haarlem has been mentioned as 'Touristic' by 38% of the complete group of interviewees. However, even though the entrance of the church is located at the Oude Groenmarkt, only 4 out of 70 people mentioned this small square as 'Touristic'.

Details in design

Identity for a main city square is, for a large part, being influenced by its surrounding building, the composition and elements in the space. According to Christopher Alexander (2002), these objects should encompass many levels of scale; a series of centres working together. These details of the design, in this case of a key building at the main square, are essential for creating "life". For the case of Almere, the town hall at the Stadhuisplein lacks these details; there are few levels of scale with large jumps between them (fig. 8.4.28). In Brugge and Haarlem, however, we notice fine detailing working together with larger elements of the design.
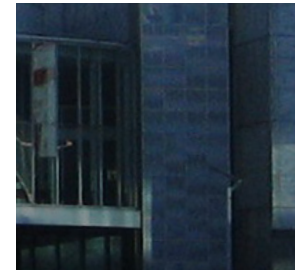

Fig. 8.4.28: Almere: Town hall at the Stadhuisplein. *(by author)*

Fig. 8.4.29: Brugge: Former market hall at the Markt. *(by author)*

Fig. 8.4.30: Haarlem: Town hall at the Grote Markt. *(by author)*

Urban elements

The only sculpture placed at the main squares of Almere can be found at a corner of the Grote Markt. It is a piece of art work with no other function than a visual one (see fig. 8.4.31). At the squres of Brugge and Haarlem, however, there are several sculptures and statues. Also, the steps of these elements are often used as a place to sit.

At the Grote Markt of Almere, the trash bins are perfectly lined up in the centre of the square. A large amount of pillars and concrete blocks are used to border the squares (see fig. 8.4.32). In the city centre of Brugge and Haarlem on the other hand, less pillars are used; for the same purpose. Also, the design is less disturbing. In Brugge and Haarlem, people use the pillars frequently as a place to lean or sit on.

Fig. 8.4.31: Sculpture in Almere (left), Haarlem and Brugge. *(photos by author)*

Fig. 8.4.32: Pillars at the squares in Almere (top), Brugge and Haarlem. *(photos by author)*

Liveliness

People

For this topic, we will combine the people that have been counted for all the cases. The graph shows the average percentage of activities of the people between 11.30 AM and 8.30 PM for each case (fig. 8.4.33). We will compare the percentages, as the number of people is very far apart; the maximum at one square in one moment in Almere is 296, in Brugge 955 and in Haarlem 364 people. More interesting are the actual activities of these people; are they staying or moving? From the graph, we can see that most people in Almere are walking; while people in Brugge are mainly sitting at the terraces. In Haarlem, however, there are just slightly more people sitting at the terraces than walking around. Also, the city of Almere has the least people sitting down in public space; this is being caused by the low number of places suitable for sitting on. We can conclude that the main squares of Almere are a place of Movement and the main squares of Brugge a place of stay. The main squares of Haarlem show more or less the average of both.
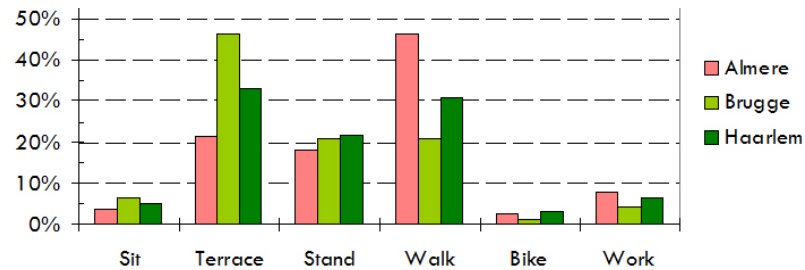
Fig. 8.4.33: Average activities of people at the squares of Almere, Brugge and Haarlem. *(Questionnaire by author)*

Public furniture

The Stadhuisplein in Almere has only one small terrace, while the other square, Grote Markt, has many terraces. The only alternative place to sit at the squares in Almere are some concrete blocks (fig. 8.4.34). In the case of Brugge and Haarlem there are terraces at both of the main squares. Also, there are edges and steps where people like to take a rest on (see fig. 8.4.35 and 36). These popular edges, mainly belonging to a building or statue, are clearly lacking at the main squares of Almere.

Fig. 8.4.34: Almere: Concrete blocks as alternative place to sit. *(by author)*

Fig. 8.4.35: Brugge: The steps of the stature are the most popular place to sit. *(by author)*

Fig. 8.4.36: Haarlem: The steps at the fountain are the most preferred place to sit. *(by author)*

Dominant functions

The case of Almere shows one square with mainly cafés and restaurants and the other square with shops and some civic functions. The squares of Brugge both have a mixture of functions, among which cafés and restaurants are the many. The squares of Haarlem both have cafés and restaurants as their key function. Brugge and Haarlem both have most of the shops located in the streets connected to the squares. In Almere, however, shops are strongly represented in the whole area.
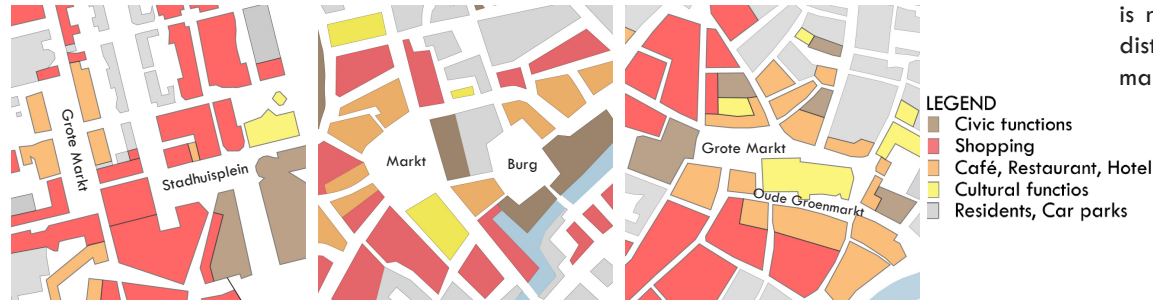

Fig. 8.4.37: Functions of buildings at ground floor level; Almere (left), Brugge and Haarlem. *(by author)*

Changes of activities

From the typological diversity of these entrances we can draw conclusions on the activities at the squares. Looking at the graph, we can directly see that the balance in the centre of Almere is different from the cases of Brugge and Haarlem (fig. 8.4.38). In both Brugge and Haarlem, about a third of the entrances are in use as shops. Also, the combination of hotels, restaurants and cafés encompass a third of the total number. In Almere, however, over half of the entrances are taken by shops only. The orange colour for this case only reaches up to a little under 20 percent. On an average day, shops are only open during day time; while cafés and restaurants have broader opening times. Also, restaurants and cafés place terraces at the squares, bringing liveliness; in summer time, but with terrace heaters they prove to be popular in colder days as well.
Another interesting difference is the presence of offices located at the main squares; in Brugge and Haarlem these are not present in the surroundings of the squares. The number of residences seem to be comparable for the three cases. However, we should keep in mind that most of the housing entrances in Almere are located in a separate street and only a few at the squares. The main reason for this, is that some cafés and restaurants at the squares use their top floors as offices and storage rooms; while they could be used as residences.
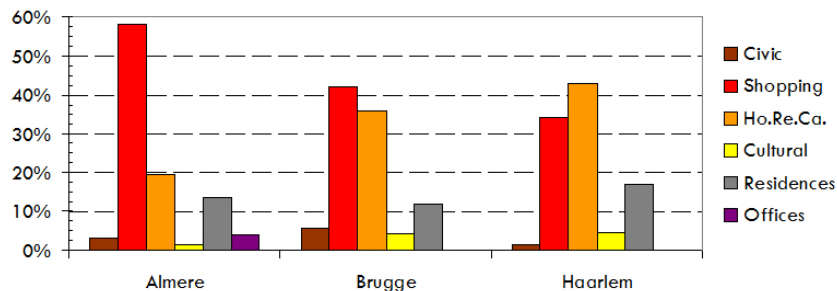

Fig. 8.4.38: Typology of entrances at the squares and the surrounding streets. *(by author)*

Relation in-/outdoor

In the separate chapters, we have shown a map of each of the main squares and the streets that they are connected to. The size of the squares and the amount of entrances differ in all of the cases; Almere counts 124, Brugge 186 and Haarlem 147 entrances. As the case of Haarlem has the smallest area in terms of square meters, we can conclude that the entrances in Almere are relatively wide spread. This occurrence is related to the amount of closed façades; the Almere case shows the most -with distinction. For the case of Brugge, the only closed façades can be found at the former market hall and the Bruggemuseum. In Haarlem, the church has a closed façade.

Public network

Looking at the open spaces and publicly accessible buildings of the three cases, we notice differences between all three (see fig. 8.4.39). The one that most stands out, is the case with the most public and semi-public space; Almere. If we had not put in the names of the squares, it would have been difficult to find the squares in-between the broad streets. Especially the Stadhuisplein. This situation is comparable to what Léon Krier (1998) tells us about the over-presence of public and semi-public space in city plans (fig. 8.4.40). The cases of Brugge and Haarlem have more enclosed spaces, surrounded by public buildings. The building blocks in the city centre of Brugge, however, have a smaller layout. We can recognize this structure in Krier's 'Optimum' example of the division of space.

Fig. 8.4.39: Functions of buildings at ground floor level; Almere (left), Brugge and Haarlem. *(by author)*
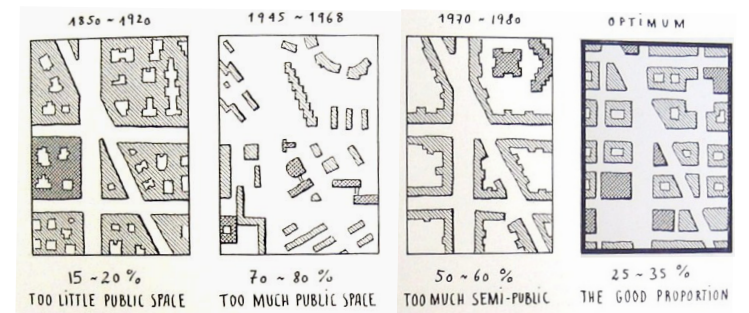

Fig. 8.4.40: Line of development of public-private space. *(Krier, 1998, p.147)*

Safety & Comfort

Climatic conditions

The case of both Brugge and Haarlem showed that there terraces at the smallest square of the two had shade during a large part of the day. In Almere, however, both squares are large-scaled with relatively low buildings, therefore, these squares have few only few hours of shade. Wind conditions are less fortunate in the centre of Almere; the straight, wide streets in combination with the open landscape nearby creates windiness at the Stadhuisplein. In the case of Brugge, the wind is often directed from the west; the sea side. This is the most enclosed side of the square, but some strong wind can occur along the bus line at the Markt; in the north-south direction. In Haarlem, we did not notice disturbing wind streams during our visits. This square has the most enclosed façades of the three cases, which will limits the influence of the wind.

Greenery

The three cases show clear differences in greenery. The case of Almere has the Stadhuisplein without greenery, and the Grote Markt with dense groups of trees spread out over the square (fig. 8.4.41). Brugge has the Brug with one park-like side and a paved side without threes. The statue at the Markt is surrounded by a circle of low greenery (fig. 8.4.42). The Grote Markt in Haarlem has lines of trees, giving direction for pedestrians and bordering the space for the market stands (fig. 8.4.43). The Oude Groenmarkt has a group of trees with a wide set-up, bordering the edge of the square.

Fig. 8.4.41: Almere: some groups of trees at the Grote Markt. *(by author)*

Fig. 8.4.42: Brugge: greenery around the statue at the Markt. *(by author)*

Fig. 8.4.43: Haarlem: line of trees at the Grote Markt. *(by author)*

Maintenance

Cleaning of garbage bins in the middle of the day is an average situation in the city center of Brugge, however, in Almere and Haarlem we have not noticed this activity in the afternoon. The reason for this difference can, most probably, be found in the fact that the centre of Brugge is a meeting place for more people than the other cases.

For all cases we have found some positive and negative aspects in terms of cleaning and repairing activities by the municipality and of violence and littering by visitors. We cannot say that there is a disturbing difference between the cases.

Lighting

When the sky turns dark, people's experience of the space is largely influenced by the effect of the street lights. Looking at the images below, keeping in mind that they have been taken with the same camera under similar circumstances, the difference is shocking (see fig. 8.4.44-46). At the Grote Markt in Almere, the street lights are lined up at the long edges of the square. We can hardly rediscover the groups of trees that we have shown before; this causes a feeling of discomfort. In contrast, the images of Brugge and Haarlem show a yellowish glow across the squares. Some buildings are highlighted with spotlights. All together we experience these settings as comforting and, perhaps, romantic. The brightness of the light is enough to reveal the space, yet soft enough to provide a warm and cosy atmosphere.

Physical safety

In all three cases, there are roads at an edge of the squares. For the case of Almere, however, there is also a road crossing the Grote Markt (see fig. 8.4.47). The red circles in the map indicate unsafe crossings; significant crossing points which lack traffic lights, warning signals or road bumps. In Almere, the link between the two squares is indicated with the mark 'unsafe'. Here people cross the bus lane, but the bus is the one with priority. In Brugge, there is also a bus lane at the square (Markt). However, here pedestrians have priority. Also, at the edges there are crosswalks, while the bus lane is narrowed down to a single lane. In Haarlem, the only crossing with a street at the Grote Markt is bordered by pillars. The dashed lines indicate roads that are rarely used; these are only accessible for vehicles with permission to drive through.
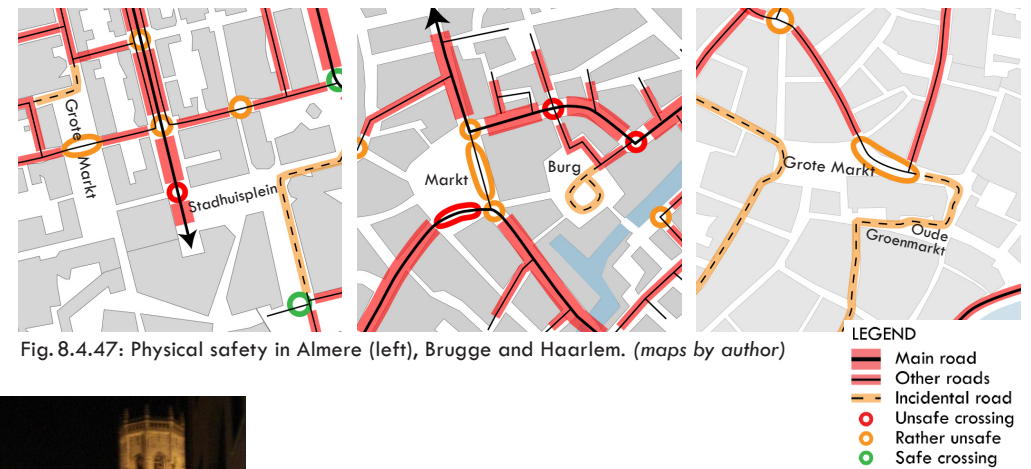

Fig. 8.4.47: Physical safety in Almere (left), Brugge and Haarlem. *(maps by author)*

LEGEND
— Main road
— Other roads
--- Incidental road
○ Unsafe crossing
○ Rather unsafe
○ Safe crossing

Fig. 8.4.44: Almere, Grote Markt; lighting at the long sides of the square, darkness near the trees. *(by author)*

Fig. 8.4.45: Haarlem, Grote Markt; the square is lightened with yellow coloured light, while spotlights emphasise the tower of the church. *(by author)*

Fig. 8.4.46: Brugge, Burg; lampposts around the square and illuminated buildings *(by author)*

8.5   Design Proposal

The fundaments for successful examples for each of the topics are not only based on the in-depth analysis. Some successful examples have been found in the cases from the general analysis, other come from literature.

Underneath, we have listed the criteria for quality as they will be addressed in this document. The topics printed in **bold** are the ones that should be improved in the Almere case. For these elements, successful examples from other cases are included. Additionally, a suggestion for improvement in Almere is provided in the form of a design proposal.

This part of the graduation project should be seen as the 'test' of the research. The defined criteria for quality are being used in order to improve one of the less successful cases from the analyses. Also, successful examples show how each topic can complement the overall situation.

In this summarized version of the final report, we will give an overview of the current situation in comparison to the design proposal as a summary. The full documentation can be found in the extensive version of the report.

1.   Spatial organization
- **Surface** (shape and scale of open space),
- **Scale** (proportion open space and buildings),
- Configuration,
- **Experience on eye-level** (view from pedestrian),
- Design style.

2.   Accessibility & Connectivity
- Car parking,
- Public transport nodes,
- **Walk-ability** (accessibility of pedestrian routes),
- **Approach** (clarity of pedestrian routes towards square),
- Integration larger urban fabric.

3.   Civic program
- **Markets** (frequency and location),
- Festivals & events,
- Social & cultural activities,
- Subsidy of activities,
- Target groups.

4.   Identity
- **Symbolic value** (historic, civic, cultural importance),
- **Atmosphere** (people's Perception, day and night),
- Image,
- **Details in design** (levels of scale),
- **Urban elements** (presence and quality).

5.   Liveliness
- **People** (presence and activities),
- Public furniture,
- **Dominant functions** (inside buildings),
- **Changes of activities** (presumable changes),
- **Relation in-/outdoor** (transparency of façades),
- **Public network** (publicly accessible space).

6.   Safety & Comfort
- Climatic conditions,
- **Greenery** (presence and function),
- Maintenance,
- **Lighting** (typology and frequency),
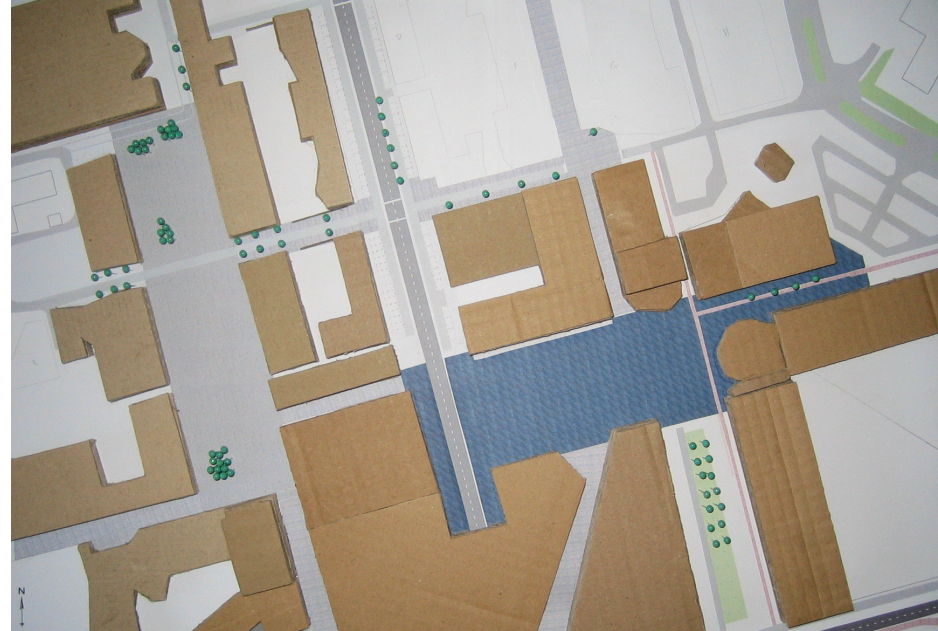- **Physical safety** (safety from vehicular traffic).

Fig. 8.5.1:   Model of the Almere case; current situation. *(by author)*
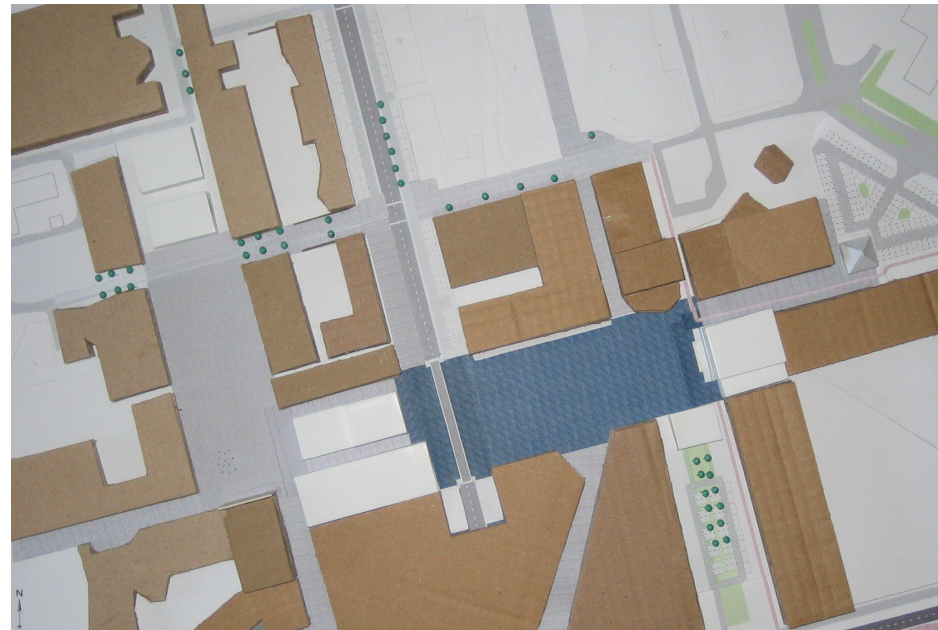

Fig. 8.5.2:   Model of the Almere case; design proposal. *(by author)*

Spatial organization

Surface

In order to improve the shortcomings in the Almere case, we propose several interventions. The Grote Markt (left), should be shortened in order to strengthen its physical relation to the Stadhuisplein. The building in-between the two squares should be transformed in a separate volume, linking the two squares in stead of separating them. The borders of the Stadhuisplein (right) are currently unclear; the rounded entrance to the town hall (right corner) will be transformed into a square-shape, facing the square. Adding a volume into the gap in the lower right corner strengthens the square's borders further.
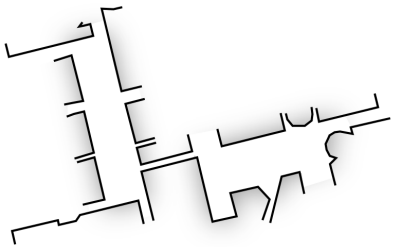

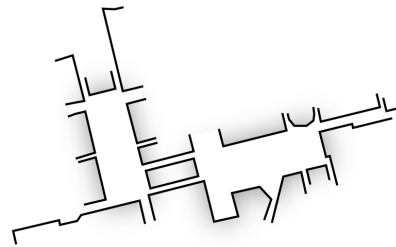Fig. 8.5.3: Current borders of the main city squares of Almere. *(by author)*

Fig. 8.5.4: Proposal for the borders of the main city squares of Almere. *(by author)*

Scale

The section for the Grote Markt in the current situation showed a width of about five times as narrow as the square's length. The width of the square, in terms of built form, has not changed. The length of the square, however, is now about three times longer than its width. Also, with placing lines of trees and more balanced lampposts, the experience of the space and its size has come to a more human scale.

The scale of the Stadhuisplein seemed overwhelming mainly because of its emptiness. In the proposal, we have placed two lines of smaller lampposts dividing the width of the square into acceptable pieces. The fountain to the right provides a place to stay, while the running water gives the space a changing element.

Experience on eye-level

Walking around at the main city squares of the city of Almere, we sense the emptiness of the space and its surrounding buildings. The sketch below indicates this feeling of emptiness (fig. 8.5.8). The Stadhuisplein is an empty square with no focal point nor urban elements; except for the lampposts. The dark area in the middle of the picture is actually the entrance to the town hall.

The view of the pedestrian will be changed through the topics of Details in design, Urban elements and Greenery. The image below shows an impression of this proposed situation (fig. 8.5.7).
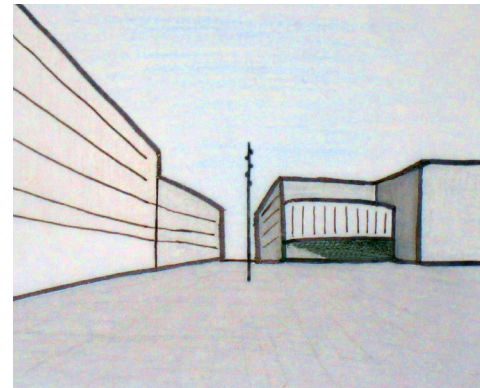

Fig. 8.5.8: Stadhuisplein; a feeling of 'emptiness'. *(by author)*

Fig. 8.5.7: Proposal for new view for the pedestrian at the Stadhuisplein; urban elements and design changes. *(by author)*

Fig. 8.5.5: Proposal for the Grote Markt in Almere, scale is circa 1:500. *(by author)*

Fig. 8.5.6: Proposal for the Stadhuisplein in Almere, scale is circa 1:500. *(by author)*

Accessibility & Connectivity

Walk-ability

The centre of Almere should have one single pedestrian axis, while providing more possibilities for circuits. The axis can be made recognizable by putting emphasize on the continuity of its route and by downgrading the current parallel route. This can be reached by making the direct connections to the main axis more attractive with, for instance, continuous pavement, lines of trees and open façades; while the streets further away will have regular pavement and less public facilities.

When the main axis is easy to find, less signposts are needed. By adding extra links between the two main squares, the walking routes across the Stadhuisplein are better spread out. Also, the connection between the squares is being strengthened.

In the topics Surface, Approach, Dominant functions, Relation in-/outdoor and Greenery we will show related interventions.
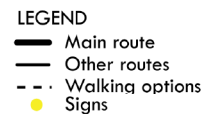
LEGEND
— Main route
— Other routes
--- Walking options
● Signs

Fig. 8.5.9:   Current pedestrian routes in Almere. *(by author)*

Fig. 8.5.10: Proposal for pedestrian routes in Almere. *(by author)*

Approach

A walking promenade along the bus lane, provided the typical pavement and lines of small trees, will invite the people to use this route (fig. 8.5.12). Placing a statue at the square and in sight of this pathway, creates a focal point. It will be sufficient to place the pedestrian promenade between the Stadhuisplein and the 'Green axis'; parallel to the proposed length of the Grote Markt.

Furthermore, the approach of the squares will be improved through the topics of Urban elements, Greenery and Physical safety.

Fig. 8.5.11: Approach of the Stadhuisplein; bus lane with sidewalks at each side, the square is positioned to the left. *(by author)*

Fig. 8.5.12: Proposal for approach of the Stadhuisplein; impression of new pedestrian promenade along bus lane and a statue as focal point. *(by author)*

Civic program

Markets

In historic cities, main squares often have the word 'Market' in their name, as this is where the market has taken place for centuries. In the city centre of this New town, there is a general market twice a week; on Wednesdays and Saturdays. Even though one of both main squares is called 'Grote Markt' (large market), the actual market activities take place at the other main square; the Stadhuisplein (see fig. 8.5.13).

Fig. 8.5.13: Market at the Stadhuisplein (Town hall square) in the city centre of Almere.
(by author)

The Grote Markt should be used as the actual market place. By shortening the length of the square, adding lines of trees and downgrading the crossing road, the square can become a well-ordered space with a cosy atmosphere.

See the topics of Surface, Scale, Greenery and Physical safety.

Identity

Details in design

The most prominent element of the town hall should be its entrance. For that reason, we will propose to rebuild the part of the building which serves this purpose; the current circular part of the building. Currently, the entrance is located underneath a cantilever part or the building, with the entrance doors placed diagonal towards the open space (fig. 8.5.14).

In the new situation, however, we propose to place the entrance lifted above ground floor level, facing the length of the square (fig. 8.5.15). The entrance should have a high ceiling, preferably of two floors, while the height difference with the old part of the building can be solved indoors. In terms of details in design, the façade should have a strong and clear top-edge and the entrance doors highlighted and brought forward. The relation to the windows and the façade is important as well; too large scale jumps are placing the façade out of proportion. The relation between the old and new part of the building can be realized by the use of the existing window heights, horizontal lines and the use of materials or their colours.

Fig. 8.5.14: Stadhuisplein; facing the town hall (stadhuis). *(by author)*

Fig. 8.5.15: Proposal for the Stadhuisplein; new entrance of the town hall, new pavilion (left), tourist office and fountain. *(by author)*

Urban elements

Key changes for the Almere case are, in this topic, the introduction of a fountain and a statue at the Stadhuisplein and the transformation of the existing sculpture at the Grote Markt. The line of pillars at the Grote Markt will be replaced by trees and pillars with iron chains between them. This way, the square remains accessible for authorized traffic (e.g. for vans at market days).

At the Stadhuisplein, the positioning of the new urban elements should be determined first. The main purpose of the statue is provide a focal point; both from the direction of the bus lane as from the Stadhuisstraat (link with the Grote Markt). The fountain is mainly a place to rest and meet people; it should be near main walking routes without blocking the passage. Therefore, we have created a map with important walking routes and sight lines (fig. 8.5.16).
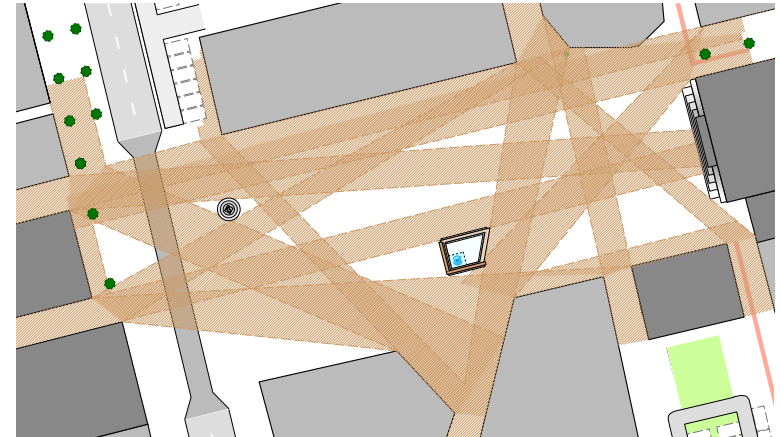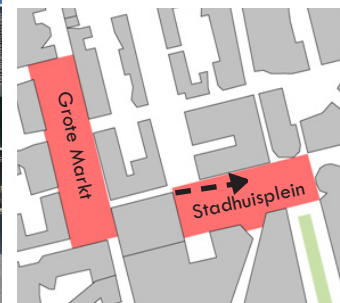

Fig. 8.5.16: Map of the Stadhuisplein; main walking routes in the proposed situation. Scale is circa 1:2000. *(by author)*

Liveliness

Dominant functions

The case of Almere shows an unbalance in the division of functions around the main city squares; about two third of the entrances are shops. The graph shows the changes we should bring to the dominance of these functions (fig. 8.5.17).

Also, the Stadhuisplein lacks restaurant and cafés and it has few entrances in relation to the length of its bordering façades. Therefore, we propose to change some of the large shops into smaller cafés and restaurants.
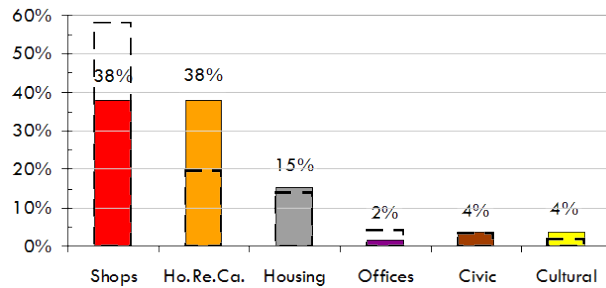

Fig. 8.5.17: Proposal for changes in entrances typology. *(by author)*

Public network

The interventions that have been introduced in the topic of Surface influences the public network as well. The Grote Markt is being shortened, while the links to the northern part of the centre have a more narrow profile (fig. 8.5.19). An extra public accessible connection between the squares is being introduced as well. The eastern part of the Stadhuisplein has received clear boundaries. The public functions stay concentrated at this square. The bus lane, to the left of the square, continues to intermingle with the space of the Stadhuisplein. As we have seen in the topic of Approach, this situation can be improved with use of the pavement.

LEGEND
- Private building
- Public building
- Private space
- Public space
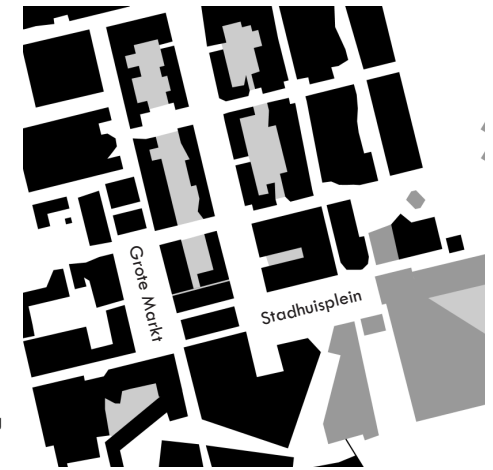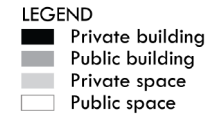
Fig. 8.5.19: Public network proposal. *(by author)*

Relation in/outdoor

Some of the closed façades near the main squares should be opened-up in order to attract people to use these routes. As an example we show the important route along the bus lane (fig. 8.5.18a).

Currently, the function of the few present entrances is residential; there is one door giving access to multiple apartments. The space at the ground floor is in use as storage space for the inhabitants.

The situation could be improved by locating commercial functions at ground floor level (fig. 8.5.18b). The storage rooms can be relocated at the first floor; taking the space of some apartments. New residences can be build on top of the parking garage at the opposite side of the bus lane. This way, the profile and proportions of the street are being improved as well.

Fig. 8.5.18a-b: Proposal for opening-up the façades along the bus lane; the map (left) shows the current location of entrances and closed façades, while the image shows the proposed situation. *(by author)*

Safety & Comfort

Greenery

The trees in the proposed situation should have a distinct identity.

At the Grote Markt, lines of trees will be introduced in order to border the market space from the terraces. For this purpose, we would propose the use of slated Platan trees. The road that originally crossed the Grote Markt will be downgraded, while the existing line of trees is being extended across the square. The type of tree in this line is currently the Popular; a tall, narrow tree. Therefore, this type of tree is suitable to place in front of the new bordering buildings as well; creating a continuing line of trees across the Grote Markt.

Fig. 8.5.20: Current situation of the Grote Markt; groups of trees. *(by author)*

Fig. 8.5.21: Proposal for the Grote Markt; lines of trees. *(by author)*

Lighting

The main squares of Almere are experienced as dark spaces in the evening. The lampposts are relatively tall.

Also, there are not enough lampposts to illuminate the whole of the square and its façades. At the Grote Markt, the lampposts are placed to the side of the square, while the groups of trees in the middle form dark areas.

The atmosphere can become more friendly already by having more warm, yellow-coloured light. Changing the light bulbs will be enough for that matter. Some façades (e.g. the town hall) could be highlighted with spot lights as well.

Fig. 8.5.22: Current (left) and proposed lamppost. *(by author)*

Physical safety

At the Grote Markt, the road currently crossing the square through the middle will be closed for regular vehicular traffic. Only authorized traffic can make use of the road, among which vans at market days. The road at the current northern end of the square, currently an incidental road, will take over the function of the previously mentioned road. Also, the road crossing the main pedestrian axis (to the right of the bus lane) will become a road for authorized traffic only.

The most important intervention at the Stadhuisplein is making the crossing with the bus lane pedestrian friendly. The bus lane will be narrowed down, providing space for one bus at a time, while the pedestrians have priority.
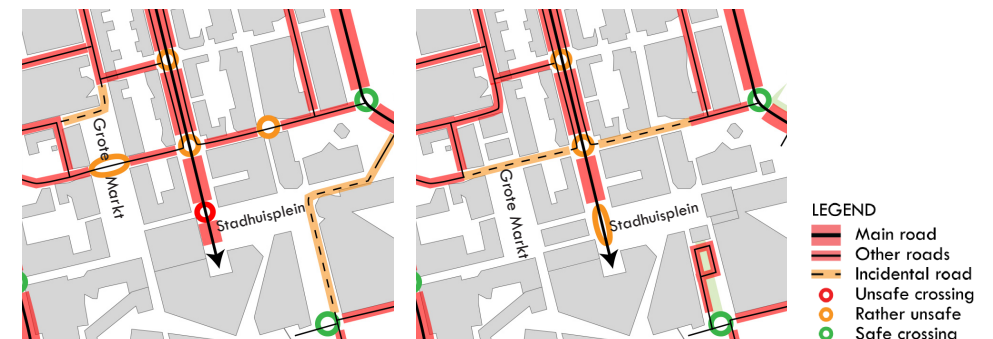

LEGEND
— Main road
— Other roads
— Incidental road
○ Unsafe crossing
○ Rather unsafe
○ Safe crossing

Fig. 8.5.23: Physical safety in Almere; current (left) and proposal. *(maps by author)*

Overview

Together with this report, we have provided a 3D model which contains both the current situation and the interventions. With this model, we show how small interventions can have a large impact on the quality of the main squares (see fig. 8.5.26-27). This is also one of the main conclusions of this research; design should be developed from the experience of the space. As we have seen in the literature review and experienced in the case studies; modern design encounters the atmosphere and pedestrian's experience too little.

Looking at the result, one should keep in mind that the goal of this part of the project is to improve the situation of Almere's main squares by proposing small interventions. These interventions are related to weaknesses found in relation to the developed criteria for quality. The basic structure of the city centre will remain intact.

The maps to the right show a quick overview of the spatial changes (fig. 8.5.24-25). In short, the spatial changes are related to the built form, trees, urban elements and roads. This is what we can see from the maps. However, the functionality of the space and the buildings, together with lighting and places to rest are all integrated in this proposal as well.

The social-spatial and spatial-functional criteria for quality of main city squares are working together to create a pleasant space.

Fig. 8.5.24: Map of the Almere case; current situation. Scale is circa 1:3000. *(by author)*
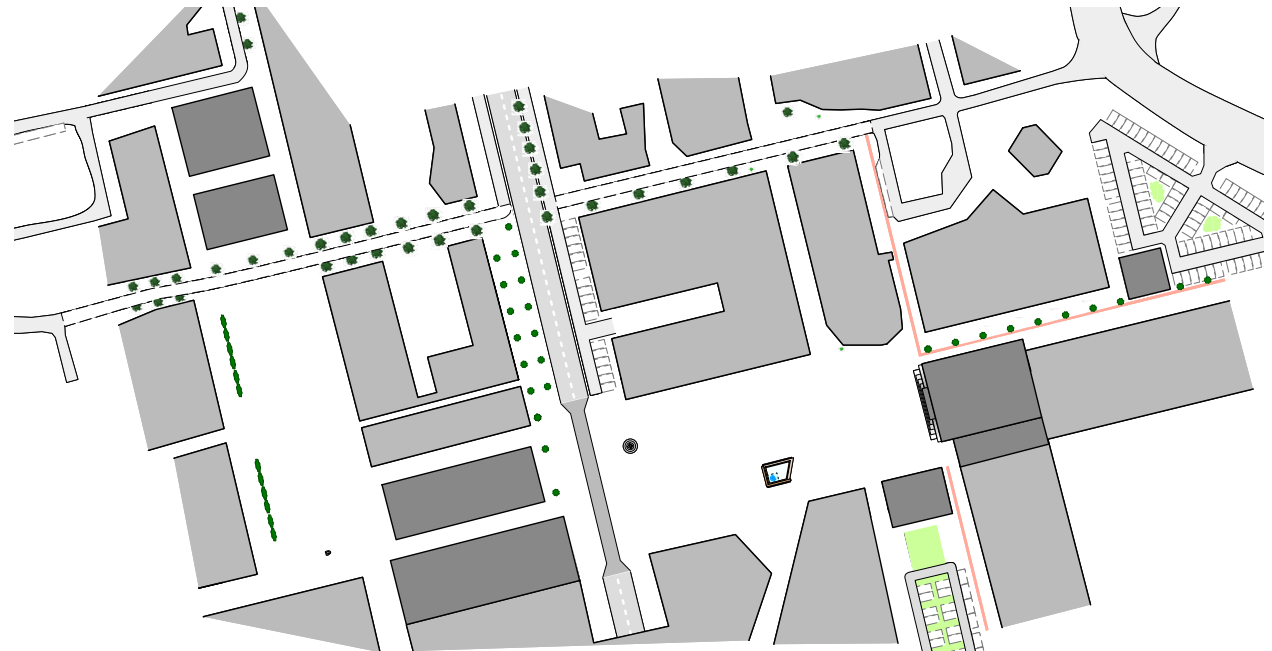

Fig. 8.5.25: Map of the Almere case; design proposal. Scale is circa 1:3000. *(by author)*
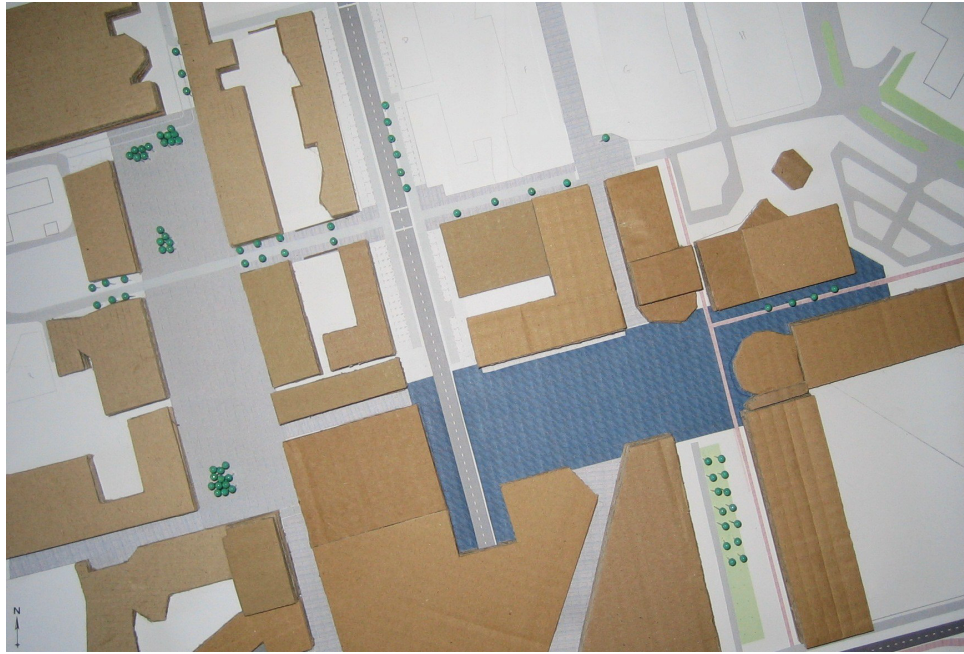
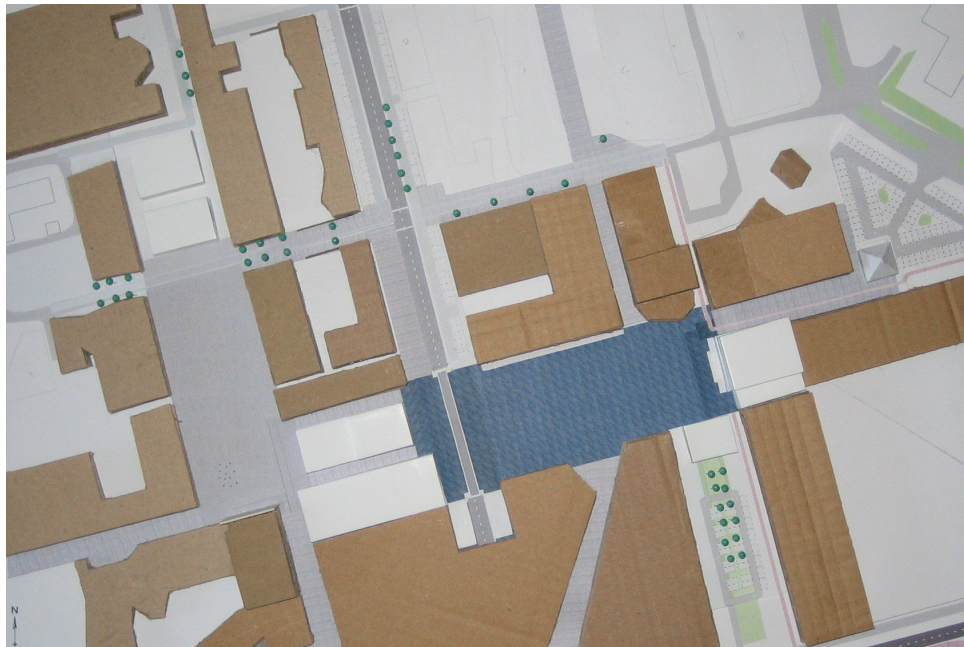Fig. 8.5.26: Model of the Almere case; current situation. *(by author)*

Conclusions

In this part of the graduation project we have used the case of Almere as a 'test' for the research. We have used the criteria for quality in order to improve one of the less successful cases from the analysis, while successful examples show how these element could have a positive input. Using the criteria for quality as a checklist, we have proposed small interventions in direct relation to these criteria. We can indeed see that the Almere case can improve extensively by implementing interventions for its weaknesses. The elements for improvement of the Almere case, that we have found in the analysis, are listed below.

The most disturbing elements in Almere's current situation can be found in the topics of Spatial organization, Identity and Liveliness. This corresponds with the results of the General Analysis as well. For each of the weaknesses a successful example from one or two other cases has been given. With this information, changes for the Almere case have been proposed.

Main interventions include the pedestrian friendliness of the bus lane; the pathway along the bus lane and the crossing at the Stadhuisplein. Also, the weak link between the two squares was a key issue; this can be solved by replacing the blocking building. Emptiness can be solved by introducing functional urban elements, sufficient lampposts and spreading of mixed entrances.

The criteria for quality have proved to be both useful as a tool for research of the current situation, and for developing interventions for improving the situation.

Fig. 8.5.27: Model of the Almere case; design proposal. *(by author)*

Conclusions

In the beginning of this document, we have asked the following research question:

'How can we define and improve the social-spatial and spatial-functional qualities of today's main city squares in North-western Europe?'

This question consists of two key elements in relation to main squares; how to *Define* and *Improve* their qualities. From literature, we have derived a list of criteria for quality of main squares; a step where the rest of the project is based on. Next, we have analysed several cases in order to find out whether they meet these criteria in a positive way. And finally, we used the weak scores on these criteria to improve the situation.

An extra element in this research is the discussion whether New Towns and traditional towns differ in their social-spatial and spatial-functional quality. Indeed there is a clear difference in their scores on the criteria for quality and yes, they have proved to be less successful than historic squares. However, New Towns also have good results on some topics, and with small interventions the situation can be drastically improved. That is what the design proposal, as a test case, proves; the criteria for quality can be used as a checklist. But we should keep in mind that the scope of the project is middle-large towns in North-western Europe; it has not been tested on other cases.

In this part of the document, we will summarize the steps of the project and give an overview of the results. We will show the conclusions in relation to the aim of this graduation project.

Summary

We will give a brief summary of the steps of this project with a general view on the result for each phase. On the following pages, we will show each of the phases in brief. For each step, the aim, methods and result will come forward. The phasing corresponds with the chapters in this document. The steps in this project are the following;

- History of city squares in North-western Europe,
- Quality of main city squares: deriving criteria,
- General analysis: eleven case studies,
- In-depth analysis: three case studies,
- Design proposal: one test case.

The first two steps are based on literature study, while the last three consist of research on actual cities. This combination provides a solid basis of both theory and practise, making it possible to relate all data to the present situation.

North-western European city squares through history

The aim of this literature review is to state what the original quality of city squares has been – and what has changed over time. We formulated the following question for research:

'How can we describe the development of city squares in North-western Europe, concerning their spatial quality and function in society?'

Firstly, medieval city squares are being addressed, as this is when the first North-western European market squares were created; organic and practical squares with an open centre. The next chapters continue to the 19th century; the industrial revolution, modernism and the origin of urban design as a discipline. In this time, squares were being promoted in order to rebind the community – a reaction to increasing segregation. Planners started to design public space on a drawing board, which eventually developed into large-sized geo-metrical squares. In the 20th century, cars are dominating public space which halfway the century results in car-free urban designs. Nowadays, our daily activities can be done through Internet, which minimizes the need for physical travel. However, personal contact and the experience of 'place' remain important.

This literature review shows, for example, the differences in development of medieval squares and squares in new towns. This information can be used in order to understand the line of decision making in the design of new towns and, in contrast, of the historic towns. From the reactions of the addressed authors we can already see that rejecting traditions from the past and creating design is not the solution for creating highly valued public space.

Another topic that is important in today's design is the relationship between motorized traffic and pedestrians. The first attempts to create pedestrian dominated public space resulted in a separation of this space from the urban fabric. This is an interesting phenomenon to research in the case studies of the graduation project.

Finally, we should include the statement that the use of public space is not a necessity anymore. As digital technology makes it possible to communicate on a distance, city squares should attract people in a different way.

Quality of main city squares

The quality of a main city square is being determined by social-spatial and spatial-functional factors. By social-spatial parameters we understand space-related aspects that influence the public experience and social behaviour, including symbolic meaning and cultural value. We have identified spatial-functional parameters as the spatial organization and urban structure that provides the space with certain public functions. Combining these elements gives us a complete picture of the situation from the position of the public.

This part of the research is shaping the theoretical framework of this project. Most literature related to our subject is focusing on the broad item of 'public space' or is specified to a certain element. We have combined the available data into a concise set of criteria for the quality of main city squares.

The keywords comprising the defined criteria are the following; Spatial organization, Accessibility & Connectivity, Civic program, Identity, Liveliness and Safety & Comfort. Each criterion is divided into five to six sub-topics; to be used as tools for the research on case studies.

In this project we have combined key literature on the subject of successful public space and quality of place; such as Alexander (2002), Carmona (2003), Gehl (1996) and Lynch (1964; 1981). The derived theoretical information is, in the next phase, being implemented on actual cases; bringing fresh and contemporary data to our discipline.

Case studies: General analysis

To have a broad view on main squares, we have done eleven case studies in North-western Europe; historic cities as well as New Towns (see chapter 4.2; 'Selected Cases'). In total, five New Towns have been selected; Almere, Cergy-Pontoise, Milton Keynes, Wolfsburg and Zoetermeer. Most of them became a city in the 1960s or 1970s. Six historic cities have been selected, each with a different history. These cities are Amiens, Brugge, Darmstadt, Dordrecht, Haarlem and Nottingham.

In this first, 'general' phase of case studies, the key method for research was map-analysis. The first step was to define the actual main squares of the cities. For the eleven cases, the main squares varied between a single central square to a system of two or three squares.

Only a selection of criteria was included in this phase of the research; Spatial organization, Accessibility & Connectivity, Identity and Liveliness. The reason for doing so, was the limited time span of this graduation project. Only a selection of the cases will be visited in person, in the next phase; in order to provide a judgement on all of the criteria.

The historic cities score very well on the criterion of Spatial organization; their strengths can be found in the central position of the squares in the city centres and the good proportions of the open space and built form. Also, most of the historic cities show strong connections between their main squares. Most of the New Towns have centrally positioned main squares as well, but the link between the squares appears to be a problem.

Interestingly, both the historic and the New Towns score rather well on the criterion of Accessibility & Connectivity. However, looking into the individual data, they groups of cities score high on different aspects of this criterion. The historic cities show positive aspects such as a large amount of walking options, a clear focal point for approach and a main pedestrian axis crossing the square(s). The availability of car routes, bus stops and parking garages, however, are elements that are less represented in those cases. The results in the New Towns show the opposite of these results.

For the criterion of Identity the historic towns clearly have many strengths and opportunities. The design of the key buildings at the squares includes, in most cases, details in many levels of scale. Also, most historic cities show a strong diversity of building types. Except for the case of Dordrecht, with its similar looking shops, no threats have been identified. For New Towns, the key issue is mainly the poor design of the key buildings at the squares. These buildings are little inviting; mainly due to a closed façade or hidden entrance.

Also, the criterion of Liveliness is represented more positively in the historic towns. In all of the researched historic cities, an important civic building is located at the main square; mainly the town hall. This is also the case in many of the new towns, except for Cergy-Pontoise and Milton Keynes; both cases which have a large-scaled shopping centre as their centre.

With the information derived from this shallow analysis, potential successful and unsuccessful were selected for the next research phase. Note that the results so far are only based on the elements that were included in this general analysis.

Case studies: In-depth analysis

This second part of the research by case studies is an extension of the result of the general analysis. In this in-depth analysis, we have looked at a selection of the cities in order to find a result for all of the criteria for quality. In order to find sufficient data, these cities have been visited in person.

In this in-depth analysis we have researched the following three cases: Brugge and Haarlem; historic cities which showed up in the general analysis as potentially successful, and the city of Almere; a New Town which had a rather negative score in the first analysis. The 'unsuccessful' case of Almere has been chosen based on its weaknesses; the 'successful' ones are selected on their expected capacity to provide an approach of improvement for the Almere case. This element of transferability could only be reached when the cases already have some comparable characteristics with each other. Therefore, we selected three cities with each two centrally positioned main squares.

For this part of the research, we have used 'fieldwork-books' for each of the three cases individually; to be used as a guideline for visiting the cities in person. This document contained the complete list of empirical data needed for giving a concise overview of the situation. A series of maps was included together with the same list of requirements for making notes, photographs and sketches. Also, a format for counting people was included; in order to be sure of gathering comparable data. Visits to the three cities have taken place in a time span of five weeks; in order to keep the differences in weather conditions limited. Another important part of the research, was a questionnaire among inhabitants and visitors of the cities. Due to the geographical location, only the cases of Haarlem and Almere were included in these interviews. A total of 70 respondents have answered a questionnaire dealing with the social aspect of this research. About ten percent of the interviewees were questioned at the squares; the largest part was reached through an online survey.

In the case of *Brugge*, the main squares are large-scaled but well proportioned and strongly connected. The squares have strong borders and many connecting roads. Both squares are positioned centrally in the historic city centre and are part of the main pedestrian route. At the Markt, a large statue catches the attention; positioned in the middle of the circular shaped square. There are few parking garages and many roads are for one way traffic only. The bus lines, however, is crossing the centre and there is an important bus stop at the Markt. From the main squares, there are many walking options and circuits possible. The tower Belfort, located at the Markt, functions as a clear focal point for approach. Both squares are used for diverse events and public activities. Brugge's centre is famous for its historic buildings and it has, therefore, a place on the world heritage list of Unesco. There are many urban elements at the squares, as well as public benches. The squares are being visited by many people, both during day and night. Cafes and restaurants can be found at both squares; especially at the Markt. Entrances are evenly spread out across the borders of the squares; there are few closed façades. Greenery can be found in plant boxes bordering the terraces, and in the form of trees at the Burg. At the Markt, there is low greenery around the statue. Both squares are illuminated at night in a pleasant way, with important buildings highlighted with spotlights. The city centre has a relatively small pedestrian zone and a dangerous crossing at the Markt.

The case of *Haarlem* shows much smaller squares, with a strong connection between the two. The borders of the squares are clear and the squares are centrally positioned in the centre. The largest square, the Grote Markt, is part of the main pedestrian axis. The buildings in the centre are of less height than in Brugge, but they are in proportion; while urban elements and trees divide the space further. The centre is for a large part car-free, while parking garages are located around the centre. There is an important crossing with the main pedestrian axis, but it is pedestrian friendly. From the pedestrian axis there are many walking options available. As the name suggest, the Grote Markt is also the weekly market place. Also, the main squares are in use for public events and activities. From the mentioned survey, we have found that the identity of the main squares is very positive; both during day and night. This corresponds with the actual numbers of counted people. Public benches can only be found at the Grote Markt, but public steps are more popular places to sit. Both main squares have cafés and restaurants as dominant functions, while entrances are evenly spread. The only closed façades here can be found at the northern side of the church, but trees and bike racks cover this area. Greenery is represented in different types of trees; lines of trees to border the space at the square and, in the street, to lead the way. At the Oude Groenmarkt, a group of trees borders the edge of the square. At night, the squares are glowing in a yellowish light.

The case of *Almere* shows, for many topics, different results from the other two cases. Its main squares are large-scaled, rectangular and placed perpendicular to each other. The borders of the Stadhuisplein are unclear; the corners diminish in the wide-profiled streets. The connection between the squares is insufficient; a single street at the corner, surrounded by relatively tall borders. The car route through the centre is not particularly clear, but there are many parking opportunities in the parking garages. The bus lane is crossing the centre, separating both main squares. This crossing is one of the most dangerous ones in the centre. The centre is designed with two main pedestrian axes, with signposts at every other corner. There are rather few walking options and the possibilities for making circuits are limited. There is no focal point for approach and the square called Grote Markt is not in use as the market place. There are public events and activities in the city of Almere, but mainly not specifically located at the main squares. From the mentioned survey, we have found that the identity of the squares is very poor and negative. At night, the squares are considered to be dangerous; corresponding with the experienced darkness and very few people present. The town hall is located at the Stadhuisplein, but its relation to the square is limited, as well as its details in design. Also, there is no place to take a rest at the Stadhuisplein; no benches, urban elements nor steps. The division of functions is very strong; cafés and restaurants are located at the Grote Markt, while the largest part of the other entrances are for shopping. Entrances in general are poorly present at the Stadhuisplein, and there are many closed façades in its direct surroundings. Also, there are no trees at this square, while there are unidentified groups of trees at the Grote Markt.

With the information derived from both the general and in-depth case studies, the Almere case was selected to do a proposal for improvement - with use of the criteria.

Design proposal

This part of the graduation project should be seen as the 'test' of the research. The defined criteria for quality are being used in order to improve one of the less successful cases from the analyses. Also, successful examples show how each topic can complement the overall situation. The fundaments for successful examples for each of the topics are not only based on the in-depth analysis. Some successful examples have been found in the cases from the general analysis, others come from literature.

We have used the criteria for quality in order to improve one of the less successful cases from the analysis, while successful examples show how these element could have a positive input. Using the criteria for quality as a checklist, we have proposed small interventions in direct relation to these criteria. We can indeed see that the Almere case can improve extensively by implementing interventions for its weaknesses. The elements for improvement of the Almere case, that we have found in the analysis, are listed below.

The most disturbing elements in Almere's current situation can be found in the topics of Spatial organization, Identity, Liveliness and Safety & Comfort. This corresponds with the results of the General Analysis as well. However, all of the criteria had some sub-topic that had a negative score. For each of these weaknesses, a successful example from one or two other cases has been given. With this information, changes for the Almere case have been proposed.

Main interventions include the pedestrian friendliness of the bus lane; the pathway along the bus lane and the crossing at the Stadhuisplein. Also, the weak link between the two squares was a key issue; this can be solved by replacing the blocking building. Emptiness can be solved by introducing functional urban elements, sufficient lampposts and spreading of mixed entrances.

Result

This final part of the report shows the overall result of the graduation project. As the derived criteria for quality are the core of this project, each of the criteria will be discussed separately. The relation to literature and actual cases in North-western Europe will be brought forward.

Furthermore, it is interesting to question ourselves how we can use these criteria and the found results in practise; what can we learn from this project. The set of criteria has been derived from relevant literature from our discipline. But they are also related to actual cases of main city squares in the present society. From the analyses we have derived examples of all the criteria and their sub-topics; both successful and less successful situations.

In practise, we can use these criteria to measure the quality in actual cases in North-western Europe. Outside of this area, the criteria will still be relevant but they might not cover all of the needs for cities with, for instance, a different climate. Not only can we measure main squares for each sub-topic, we can also derive elements for improvement. By analysing different cases in the same way, a degree of transferability is being reached; cases can be compared and successful elements implemented in less successful cases. Designing the main square from scratch, for instance in a New Town, we should also keep these criteria in mind. The view from (future) users should have a central role in the (re)design of city squares.

The complete list of criteria with their sub-topics are placed to the right.

1. **Spatial organization**
   - Surface (shape and scale of open space),
   - Scale (proportion open space and buildings),
   - Configuration (position in city centre).
   - Experience on eye-level (view from pedestrian),
   - Design style (space, architecture, urban elements).

2. **Accessibility & Connectivity**
   - Car parking (walking distance and routes),
   - Public transport nodes (walking distance and routes),
   - Walk-ability (accessibility of pedestrian routes),
   - Approach (clarity of pedestrian routes towards square),
   - Integration larger urban fabric (car routes from square).

3. **Civic program**
   - Markets (frequency and location),
   - Festivals & events (frequency and location),
   - Social & cultural activities (frequency and variety),
   - Subsidy of activities (funding of public activities),
   - Target groups (attracted people).

4. **Identity**
   - Symbolic value (historic, civic, cultural importance),
   - Atmosphere (people's Perception, day and night),
   - Image (perception of visitors),
   - Details in design (levels of scale),
   - Urban elements (presence and quality).

5. **Liveliness**
   - People (presence and activities),
   - Public furniture (presence and quality),
   - Dominant functions (inside buildings),
   - Changes of activities (presumable changes),
   - Relation in-/outdoor (transparency of façades),
   - Public network (publicly accessible space).

6. **Safety & Comfort**
   - Climatic conditions (sun, shade, wind),
   - Greenery (presence and function),
   - Maintenance (cleaning, violence and repair),
   - Lighting (typology and frequency),
   - Physical safety (safety from vehicular traffic).

Spatial organization

As the name suggests, this criterion is related to the spatial composition of the square and its direct environment. We combine shape, scale and design in relation to the surrounding area and geographical situation. This criterion includes the physical form as well as the perception from the visitor on eye-level; as that is how the space is actually being experienced. Additionally, the architectural style is placed within this topic; as style and scale are in many situations related to each other.

From literature, we do find that the spatial organization of the square and its surroundings is indeed an important element. For instance, the following scholars tell us:

> "The **Size** and **Shape** of a Square and its Surrounding
> Buildings Creates the **Physical Space**"
> *(Sitte, 1889)*
>
> "When a Town Lacks **Character** and **Structure**,
> the Failure can Nearly Always be Traced to some
> Impediment in the **Relationship** of **Form** and **Function**"
> *(Cullen, 1971)*

Other literature that we have used to come to this criterion, are Kevin Lynch (1981), John Montgomery (1998) and E. White (1999). The measurable sub-topics that we have derived from this information, are the following: Surface, Scale, Configuration, Experience on eye-level and Design style.

In the case studies, we found that the proportion of open space and building heights is not always in balance. The New Town of Zoetermeer, for example, has two main squares; a small one surrounded by tall buildings and a large one with an open border. A square that is too large with unclear borders does not provide a pleasant enclosed space, while a too small square will feel crowded. Also, the positioning of the main squares is, in some cases, to the edge of the city centre. This way, the square might not have a strong role in the centre's public network. This is, for instance, the case in the New Town of Wolfsburg; the main squares are located at the southern edge of the centre and connected to few roads. The case of Nottingham, however, also has the main in a corner of the centre, but the many roads leading to the square ensure the square's activity. Also, in the case of a system of main squares, the squares should be connected together. The case of Almere, for example, has two main squares positioned perpendicular to each other. Besides their weak link, the experience on eye-level at these squares is very poor as well.

Therefore, in the design proposal we suggested to shorten the largest square and to strengthen the connection between the squares. Giving the town hall an imposing entrance together with narrowing the wide streets and placing urban elements and trees, the experience for pedestrians has improved as well.

Accessibility & Connectivity

Accessibility, connectivity, approach and integration in the city's urban fabric have a strong influence on the perception of a main city square. If people can not reach the square easily, or when the square is not integrated in the (pedestrian) network of the city, there will be little visitors. The same can be said about car and public transport connections; if the walking distance between car parks or public transport nodes is long or unclear, less people will visit the square. A main city square should be well connected within the urban fabric of its city in order to function as the most important square of the city. Additionally, a strong relationship with public buildings, preferably direct connections, attracts people to the square; as public buildings are major destinations in the city centre.

The influence of accessibility and connectivity is reflected in a wide range of literature. For instance the following:

> "Urban Space Participates in a **Network**
> that is Larger than the Space Itself"
> *(White, 1999)*
>
> "Streets in Historic Towns lead **Naturally** to the Centre,
> the Main Square, where one Feels that he has **Arrived**"
> *(Moughtin, 2003)*

Other literature that we have used to come to this criterion, are Kevin Lynch (1981), John Montgomery (1998), Forsyth & Southworth (2008) and Ewing & Handy (2009). The measurable sub-topics that we have derived from this information, are the following: Car parking, Public transport, Walk-ability, Approach and Integration larger urban fabric.

In the case studies, we found that most historic cities are mainly pedestrian-oriented, while New Towns are better accessible by car. This does not mean, however, that all historic cities are difficult to reach by car. The case of Amiens, for example, shows great integration in the larger urban fabric and there are many car parks in the centre; even a parking garage underneath one of the main squares. For the New Towns, the good accessibility of the centre by vehicular traffic influences the pedestrian friendliness in a negative way. The pedestrian network is, in most cases, smaller than in the average centre of a traditional city.

Therefore, in the design proposal we suggested to improve the pedestrian network by adding zones with pedestrian priority. Also, an important crossing of the bus lane at the main square should be made more pedestrian friendly. New and improved connections provide more possibilities for people to walk in circuits.

Civic program

A city square can have beautiful looks, many seats and trees and great connections in the city's urban fabric. But what would that main square be without events and organized activities? This can be translated into festivals and events on a national scale, but also smaller activities and a weekly market should be included. As people shape the city, there should be activities organized to let them intermingle and enjoy the space a different way than everyday.

The social importance of city squares is coming forward clearly in literature from our discipline. For instance the following:

> "Public Space is the **Common Ground** where People carry out the Functional and Ritual **Activities** that Bind the **Community**"
> *(Carr et al, 1992)*
>
> "A City Square can be called Successful when it **Sustains Activity**"
> *(Moughtin, 2003)*

Other literature that we have used to come to this criterion, are Jane Jacobs (1961) and John Montgomery (1998). The measurable sub-topics that we have derived from this information, are the following: Market, Festivals & events, Social & cultural activities, Subsidy of activities and Target groups.

Public activities and events, we learned from the case studies, are often taking place at the main city squares. This is the most clear in the historic cases of Brugge and Haarlem. The largest of the two squares is indeed the main hub for public interaction and organized events. In the case of Almere, however, it seems that not one of the main squares is the place for the activities per se. The most disturbing example is the square called Grote Markt that is not in use as the market place.

As the organization of public events and the available subsidy are elements just outside the direct reach of our profession, we suggested the following. Both main squares should have a clear, individual purpose; the Stadhuisplein as the formal square with civic buildings and the Grote Markt as the true market square.

Identity

A main city square should be recognizable and attractive. All squares are different; they can have diverse identities and still all be highly appreciated. But a main square with a lack of character is not attractive to people, as it does not provide a clear function or direction. A main city square should distinguish itself from other squares; it should express its importance.

Scholars in our discipline have written extensively about this topic. The following lines give an impression of its meaning:

> "Good Place has Distinguishing Qualities that Establish a **Unique Identity**"
>
> "Successful Places have Strength of **Character**"
> *(White, 1999)*
>
> "The Property Creates **Life** by Helping Centres to **Intensify** Each Other"
> *(Alexander, 2002)*

Other literature that we have used to come to this criterion, are Kevin Lynch (1981), John Montgomery (1998) and Cliff Moughtin (2003). The measurable sub-topics that we have derived from this information, are the following: Symbolic value, Atmosphere, Image, Details in design and Urban elements.

In the case studies, we found that traditional city squares have key buildings with a prominent design; while the New Towns in the research showed the least detailed designs with unclear entrances. Symbolic value and Image are topics that came out very positive in cities with a long history, but this does not mean that New Towns are unable to gain this sort of value. However, a disturbing example is the case of New Town Zoetermeer; it has a historic shopping street, but its new centre ignores its existence. Fancy architecture, according to the judgement of interviewees, cannot replace the comforting quality and strong identity of traditional cities.

Therefore, we should find other ways to provide these centres with that appreciated value of historic city centres. In the design proposal for the case of Almere, we found that cultural elements, such as museums, are poorly represented in the surroundings of the main squares; the opposite is the case at the main squares of Brugge and Haarlem. The city of Almere is built from scratch, but it does have a history that is worth to be known; perhaps even *because* of that. Visitors and tourists, however, are not being informed sufficiently. Therefore, a museum about this history, a statue related to this and a clear and publicly accessible tourist office at the main square will help to improve this situation.

Liveliness

City squares are created for people's interaction and therefore they is meant to be lively; used by many people. And, the presence of people attracts other people to 'enter' the square and stay, enjoy the surroundings, shops, cafes, restaurants, architecture, and so on. In this way, the square is comparable to the recognizable attraction of a restaurant: seeing people behind the windows enjoying their meals invites other people to come in.

The following lines show the relevance of liveliness and its related elements; this is a selection of expressions from literature:

> "Urban Vitality is mostly about Providing Possibilities for **Transaction**"
> *(Montgomery, 1998)*
>
> "The Space should **Encourage** People to Come and **Participate**"
> *(White, 1999)*
>
> "Successful Places are Characterized by the **Presence** of **People**"
> *(Carmona, 2003)*

Other literature that we have used to come to this criterion, are Kevin Lynch (1960; 1981), Stephen Carr *et al* (1992) and Cliff Moughtin (2003).The measurable sub-topics that we have derived from this information, are the following: People, Public furniture, Dominant functions, Changes of activities, Relation in-/outdoor and Public network.

From the first analysis, we already concluded that some so-called main squares lack civic facilities such as a town hall. This is the case for Milton Keynes and Cergy-Pontoise; these New Towns have a large-scaled shopping mall surrounded by offices, which functions as the planned city centre. In the in-depth case studies, we have counted the actual number of people present at the squares and we noted their activities. For each of the cases we could see clear ups and downs at the same times of the day. An impressive difference, however, was the balance between moving and staying people; in the case of Almere, it came clearly forward that most people present at the squares where walking - while a main city square should be a place of stay. We can trace back this result to, for instance, the fact that the balance in diversity of facilities is lacking; there are mainly shops and almost all terraces are located at one of both main squares.

Therefore, in the design proposal we suggested to improve this mixture of facilities. The Stadhuisplein should have less closed façades and more cafés, restaurants and terraces. The size of the rectangular shaped Grote Markt should be shortened, while we add the possibility to walk circuits through the centre; giving people the opportunity to interact.

Safety & Comfort

When people do not feel at ease in public space, they will move somewhere else. This can be a matter of safety (both mentally and physically) and urban comfort (sun, shade, wind, places to rest). Everyone will recognize the unpleasantness of an open bus stop when there is wind an rain, or worse; a demolished bus stop. The same goes for a city square; people prefer to enjoy the positive sides of the climate and be protected from the negative.

The experience of the place, in terms of safety and comfort, are for instance being expressed by the following quotations:

> "The Degree of **Maintenance** is an Important Factor in the Quality of Public Space**"**
> *(Lynch, 1981)*
>
> "The Pleasantness of a Place **Protects** One from Danger"
> *(Gehl, 1996)*

Other literature that we have used to come to this criterion, are Stephen Carr *et al* (1992), E. White (1999), M. Bevolo *et al* (2007) and Sanda Lenzholzer (2008a). The measurable sub-topics that we have derived from this information, are the following: Climatic conditions, Greenery, Maintenance, Lighting and Physical safety.

In the case studies we found many differences in, for example, the use of greenery. There are always trees or low greenery at or nearby the squares, but this does not always have a clear function or relation to the square. The case of the prewar New Town of Wolfsburg is an example of clear use of trees; the difference between the continuing, broad street would disappear into the main squares if there was not place a line of trees along the route. In Almere, however, there is one main square without greenery while the other square has some undefined groups of trees. Not only miss these trees a clear function, there is also lack of lighting; at night these areas are dark spots with an endangering atmosphere.

This is one of the reasons for suggesting to improve lighting conditions. Another is the cold colour of the light; a blue glow in contrast to the yellowish glow in traditional cities. The groups of trees should be replaced by line of trees, indicating the border of the weekly market and the terraces. Lines of trees along the (new) pedestrian route should be extended towards and across the Stadhuisplein, in order to strengthen the relationship between street and square and to show people the way. In the present situation, all lines of trees along the streets end tens of meters away from the square.

Acknowledgements

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