Research report
“The beads make the string”
How input of individual stakeholders can improve the quality of public space in a neighbourhood
Case of the Vogelbuurt in Rotterdam Carnisse

RMIT Studio 2013-2014
Transforming Housing Heritage Rotterdam
Tutors: ir. Pieter Graaff - ir. Lidwine Spoor man s - dr. ir. Wido Quist

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Colophon

Susanne de Zwart
Email: susanne.dezwart@hotmail.com

Student nr. 1503936
Graduation Studio RMIT: Transforming Housing Heritage 2013-2014
Technical University Delft, Faculty of Architecture
“By themselves, as a group, the required qualities will not assure a great street, but they are necessary. Overall though, a final ingredient – perhaps the most important – is necessary, and I call it “magic” – the magic of design.”

Preface

This report would not have come into being without the help of other people. I would like to thank them here. Firstly my tutors, Wido and Lidwine, for their comments and supports. My fellow students for the nice groupwork and the personal comments. The people at Veldacademie for letting me and my fellow students work at their studio and especially Pieter and Jurrian for their tips and comments. Aad and Bep at the inhabitants-organisation BOC for sharing their personal experience of the neighbourhood and the inhabitants of the Vogelbuurt themselves for sharing their dwelling-experience over there. With the input of all these people I was able to do my research and create this research report.
Summary

Within the framework of MSc3 graduation project of RMIT at TU Delft ‘Transforming Housing Heritage’, started in fall 2013, the case of the Vogelbuurt in Rotterdam was assigned to find ways to improve this “problem neighbourhood”[1]. Where other students have put their focus on the dwellings and building blocks, I chose to approach the problem from a bigger scale: the scale of the neighbourhood’s public space and subsequently the transition space from public to private.

In the Vogelbuurt, where social bonding is low and inhabitants do not feel responsible for the public space in their neighbourhood, improving the public space and the transition space from public to private can have a double sided benefit: by improving the quality of these spaces, people are invited to use that space, will start to feel responsible and by being in these spaces with others, social bonding can occur.

In order to improve the quality of public space and the transitions spaces, it first has to become clear what exactly those qualities are. Quality of space is something highly subjective, but it can also be caught in “public images”, a general opinion about physical objects that a group of people share. This research report will approach quality of public space in three ways: by using public images – what are generally accepted as being good qualities and which of these are (not) or should be present in the Vogelbuurt – personal images – what the inhabitants of the Vogelbuurt think of the qualities in their neighbourhood that are (not) or should be there – and my own image, that I have as a designer and researcher.

As the inhabitants are the ones that will use the public space and are the experts in their neighbourhood, they should be involved in redesigning it. When individual desires of quality of inhabitants are combined with the outcomes of the research of this report, there can be made a generic plan for the redesign of the public space in the Vogelbuurt. Metaphorically one could say that the individual inputs and desires of inhabitants and along with this research will provide for the beads, and I as a designer will be the one to lace up those beads to form a string.

In this way, this research report will form the basis for the redesign of public and transition space in the Vogelbuurt.

[*] Dutch term: “Probleemwijk” or “Achterstandswijk”: strongly decaying residential area with relatively many social problems (van Dale dictionary, surfdiensten.vandale.nl)
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PART I - INTRODUCTION
1. Personal Motivation

**Position**

Last summer when I was in Vienna, I visited Hunderwasser’s Kunsthaus. There I saw a quote by the architect himself, which I found very intriguing:

“If we do not honour our past, we lose our future. If we destroy our roots, we cannot grow.”

I found this quote very applicable to the built environment. Even if our “roots” do not seem to meet our contemporary needs anymore, we should still not ignore or destroy them. The built environment is the result of layers of history that together make it what it is today. We can only continue that history – “grow” – by adding another layer to what is already there – our “roots”. Also, notice the emphasize on the word “we” in this quote. It is people that live in this environment, have to deal with these roots and make them grow. Society changes, and the urban environment has to change as well to accommodate these changes. Continuity can only exist because of change, and every design is just another step in the ever continuing “recycle process” (Zijlstra, 2013).

In the context of this studio of Transforming Housing Heritage I thus want to do the following: add another layer to the heritage that is already there (roots) by involving those who use it (“we”, the people) in order to continue the life of this heritage by making it accommodate the changes in society (grow).

**Position among other students**

The studio focuses on the Vogelbuurt in Rotterdam Carnisse, an area that is dealing with social problems. Apart from these social problems, the Vogelbuurt neighbourhood does not meet the desires of the living comfort of today. Together with my fellow students, we provide a broad view on the different aspects and different scale levels of the Vogelbuurt. There are students focussing their research on the dwellings themselves, their plans, indoor spaces. Others focus on the building block, including facades and porticos and possibilities for reuse of the construction. Again others are digging into the organisational aspects, like the homeowners associations, or how it is possible to generate funds for adjustments or extensions of dwellings. I myself take an approach on a bigger scale. Apart from the physical undesirables of the dwelling, the non-private space deals with its own problems, due to the fact that it – and especially the public space – is mostly neglected. Research has shown that there is a strong relation between the quality of public space and the quality of living. Urban settings contribute to the making and non-making of communities (A. B. Jacobs, 1993, p. 11). My personal fascination is to address this public space and the transition space from public to private to enhance the image of the neighbourhood by involving the inhabitants and at the same time improve the living quality in the Vogelbuurt, not just for individual dwellers, but for the neighbourhood as a whole.
2. Background Information

History of Rotterdam Zuid
The Vogelbuurt is part of the district of Carnisse, which is located in Rotterdam Zuid (South), the part of the city of Rotterdam on the south side of the river Meuse. There is a clear distinction between the parts of the city north and south of the river. Whereas the northern part of the city dates back to the 13th century (Renes, 2008), the history of the southern part makes its big developments in the 19th century. A short overview of the history of Rotterdam Zuid is given here (Municipality of Rotterdam & et. al, 2011, p. 9).

In 1872 the “Nieuwe Waterweg” is completed. This new connection with the sea makes that Rotterdam harbours can develop substantially. To house all the new workers that are employed in the harbours, new housing areas are developed in Rotterdam Zuid.
After the Second World War, when there is a big shortage of housing, the built environment of Rotterdam Zuid expands even further to cope with the big need for dwellings. Rotterdam is growing and in 1960 becomes the biggest port in the world.
During the 1960ies and 70ies times change: the harbours move further towards the sea, the shipbuilding sector collapses, the oil crisis kicks in and high unemployment rates are the result. But in this period there are also improvements in Zuid, like the erection of a metro line and sport complex Ahoy, but this does not change the general tide. People move away from Zuid and are replaced by foreigners resulting in increase of segregation, poverty, and safety issues.
From 1975 to 1990 the urban renewal movement replaces privately owned buildings by social renting dwellings for very low rents. In other places in Rotterdam new neighbourhoods are built for higher class people. This increases the homogeneity of inhabitants in Zuid: the low income class.
From the 1990ies onwards, tides do change. The “Kop van Zuid” (northern part of Rotterdam Zuid) is redeveloped and the new Erasmusbridge connects north with south. Other areas are refurbished as well, and plans are made to continue this improvement, but it is still a long way to solve all problems in Zuid.
History of the Vogelbuurt

The Vogelbuurt finds its place in history in the urban plan of W.G. Witteveen of 1937. During his time as director of the urban planning authority of Rotterdam, he designed the urban outlines for the new development of Rotterdam Zuid. This plan was filled up in several stages (Komossa, 2008, pp. 205,206).

The area of Carnisse, in which the Vogelbuurt is located, was in its first stages of development when the 1938 the plan "Algemeen Belang I" (General Interest I) of architect J. H. van den Broek was implemented. This plan, consisting of the realisation of 753 portico dwellings, came into being due to the need for cheap dwellings for labourers. The street pattern of Witteveen was kept, but his idea of the closed building block was neglected and replaced by row housing (Hartman, 2012, p. 13).

After the bombing of Rotterdam in 1940 many people lost their homes. The plan "Algemeen Belang II" continued the methods of the first plan, building a thousand dwellings, exact copies of the ones from Van den Broek's first plan, to provide houses for the people who lost their homes. In 1941 part of these houses were erected in Carnisse.

In 1940 there was also the competition "Woningen 1940" (Dwellings 1940) that resulted in what nowadays is the Vogelbuurt. Only two months after the start of the competition, the results were announced: the architects that were going to build the dwellings were ir. H. Kramer, Jos de Jonge, ir. J. A. Brinkman and ir. J. H. v. d. Broek, ir. W. Vermeer and H. Sutterland (De Maasbode, 1940), see figure 2. The latter three designed the dwellings in the part of the Vogelbuurt on which lies the focus of this research.

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*Fig. 2, Newspaper Article 'Competition “Dwellings 1940”' (De Maasbode, 17 December 1940)*
Characterisation of the Vogelbuurt

The area of focus of the Vogelbuurt in this research is bordered by the Dorpsweg in the west, the Lepelaarsingel in the east, the Grutstroaat in the North and the Roerdomplaan in the south. It is a mainly residential area with housing blocks located in rows running from north to south along the Tapuitstraat, Fazantstraat and Korhaanstraat. At one point there is a connection between the residential streets provided for by the Roodborststraat.

This area consists mainly of blocks of portico dwellings of three floors. Each portico is used for six dwellings: it gives access to a staircase which leads to the front doors of two dwellings on each floor. In both the basement and attic there is room for storage of goods (among which bicycles) of the dwellers. Between the rows of building blocks alternate the back gardens belonging to the lower apartments and the streets which facilitate parking. The short edges of the block are mostly closed off by hedges or fences, sometimes by shops.

The streets crossing the Vogelbuurt from east to west, the Grutstroaat and Wielewaalstraat, facilitate other functions apart from dwelling. Here there are shops located, and other functions like schools, health centres, etc. This is also where the bus stops are located.

The atmosphere in the neighbourhood can be described as “stony” as there is a lack of front gardens in the streets. The green atmosphere is cared for by the mostly grown-up trees that line the streets and flowerbeds along the Wielewaalstraat. The Lepelaarsingel in the east cares for green “within short reach” and the Zuiderpark (“southern park”) is just a few minute walk from the neighbourhood as well.

The pictures on the following pages give an impression of the neighbourhood.

Fig. 3, (next page) Architects and impression of the Vogelbuurt
3. Problems and opportunities

Problem statement
Carnisse, or more general, Rotterdam Zuid, is considered as an area of attention by the local and the national government. The area is falling behind on quality of dwelling, employment and education. For these reasons, in 2012 the “National Program Rotterdam South” was initiated. A program that focusses on the three main topics just mentioned and aims to improve them. The program puts its attention to seven “focus areas” of which Carnisse is one (Programmabureau NPRZ, 2012, p. 7).

Although Carnisse, and thus the Vogelbuurt, is part of the National Program, the Vogelbuurt itself also struggles with more specific problems due to its characteristics.

Investments in building stock
Firstly, the majority of the building blocks here are portico dwellings, of which the separate dwellings mostly belong to private owners, which either live there themselves or rent their property out (Steenbergen van & Wittmayer, 2012, p. 4). This is a detrimental condition for investments in the existing stock. Investments are needed as the dwellings are over 60 years old and do not meet contemporary needs of living comfort (Steunpunt Wonen, 2002, p. 15). Nowadays the government has taken the role of facilitator when it comes to transforming housing (environments), leaving initiatives for improvements to other parties, like housing corporations, but these are hardly represented in the Vogelbuurt (Steunpunt Wonen, p. 8). Most owners here are private owners and they are doubting to invest in their property because they are unsure about the future of the neighbourhood and thus whether their investments will be worthwhile or not (Steunpunt Wonen, 2004, p. 5).

The Vogelbuurt as a hotel
That uncertainty about the future in combination with the high flow of inhabitants moving, both owners and tenants, has resulted in the neighbourhood taking the characteristics of a hotel. People often see living in the Vogelbuurt as the start of their dwelling career, with plans of moving as soon as financial situations permit it or as families grow larger and the dwellings become too small. On average the dwellings are sold every five years (Steunpunt Wonen, 2002, p. 10). This results in an attitude of inhabitants not feeling responsible for the neighbourhood. They feel like guests in a hotel, but there is no hotel management. This makes that maintenance of public space is not seen as a responsibility by inhabitants and investments in public space are not initiated nor executed (Graaff, 2012, p. 1). People rather invest in the dwellings themselves, their private space. Because many homeowner associations are inactive or lack financial resources, private owners invest in their own properties separately. Investments like these do occur quite often, for example by extending the apartments on the top and ground floor respectively by adding the attic or basement to their dwelling (Steunpunt Wonen, 2004, p. 13).

Image of the Vogelbuurt
The image of the Vogelbuurt is one of low-quality. Partly because of the physical qualities of the public space – result of the lack of interest just mentioned – but social aspects contribute to this image as well. Housing prices are cheap, which attracts inhabitants with lower incomes and many different nationalities, making that the area loses its heterogeneity in population and social contacts within this population. Also, there are feelings of increasing unsafety (Steunpunt Wonen, 2004, p. 14) and the Vogelbuurt has been in the news in a negative way, for example when a man was shot by the police (Redactie AD, 2013).
**Inhabitants**
The inhabitants of the Vogelbuurt can roughly be divided into two groups: those who are starting their dwelling career and will move on in a few years and those that stay. Contacts between inhabitants vary widely. They can be close contacts or loose ones, but generally one can state that most contacts are found within the portico people share and hardly reach any further (Steunpunt Wonen, 2004, p. 13).

**Pass-through-area**
To summarize: the Vogelbuurt can be characterized as a “pass-through-area”. Figuratively because many inhabitants don’t intend to live their whole lives in the Vogelbuurt, but also literally because people prefer investing in their own dwellings over public space, making the public space indeed a pass-through-area rather than an area which is worth spending time in.

Improvement of the public space of the Vogelbuurt in the conditions mentioned is a challenge, especially because of the many private owners, which makes an overall approach more unlikely.
In addition to this, there is also the model of “defensible space” that can contribute to the feeling of safety in the neighbourhood (Newman, 1972, p. 3): “Defensible space is a model for residential environments which inhibits crime by creating the physical expression of a social fabric that defends itself. All the different elements which combine to make a defensible space have a common goal – an environment in which latent territoriality and sense of community in the inhabitants can be translated into responsibility for ensuring a safe, productive and well-maintained living space.”

Opportunities
But there are not only challenges, there are also many opportunities. As Allen Jacobs states in his book “Great Streets”: ‘The interplay of human activity with the physical space has an enormous amount to do with the greatness of a street. It is difficult or impossible to separate the two, and few try.’ (A. B. Jacobs, 1993, p. 6)

Great streets
This citation shows that there are opportunities for improving the Vogelbuurt by investing in the public space that is most common here: the streets. Making the streets “great streets” will have positive effects on the image of the Vogelbuurt as a low-quality neighbourhood.

Urban settings are also the settings of people’s lives. By investing in the physical features of the streets, not only the negative image can be converted to an image of an area of good quality, but the living quality of the inhabitants themselves will be improved as well (A. B. Jacobs, 1993, p. 11). The group of inhabitants that intends to stay in the Vogelbuurt will have long term benefits of such improvements, the starters will enjoy the start of their dwelling career more and maybe consider to stay longer, increasing the heterogeneity of the place.

As said, inhabitants are willing to invest in their private “hotel rooms” themselves, but then, what’s a hotel without a good lobby?

Livelihood and safety
Improvement of public space will increase liveliness in the streets. There’s a strong connection between invitations and behaviour: if people are invited to use a space – that means, if that space is of good quality for the use intended – people will use that space (Gehl, 2010, p. 9). This can lead to more contacts between inhabitants as well, causing social bonding. In this way, not only the physical qualities of the area are enhanced, but also the social aspects that are influenced by it.
4. Research

Research question
The opportunities mentioned lead to the main intention of my research: find a way to improve the public space of the Vogelbuurt integrally by involving individuals that have an interest in this public space – the owners and inhabitants of the neighbourhood – and thus enhance the area in more than just the physical features. Or, to put it metaphorically: to use single beads to form a string. This leads to the following research question:

“How can the quality of public space in the Vogelbuurt be improved integrally by using the involvement and specific qualitative desires of inhabitants and owners as input?”

Fig. 4, Single beads to form a string: lace up individual qualitative desires to improve the quality of public space in the neighbourhood as a whole
Research method and structure
The main subject of my research will be ‘Quality of Public Space’. To be able to improve the quality of public space in the Vogelbuurt, there first has to be a clear image on what ‘quality’ and ‘public space’ mean in the case of the Vogelbuurt.

Quality is a term that is highly dependent on perception. I thus chose to use the method of Phenomenology: researching by using the perception of users as a starting point: “A phenomenological approach means that dwellers and builders must take into account a place’s qualitative, mostly unmeasurable, aspects” (Nes van, 2012, p. 8). Phenomenology uses interviews, stories or observations with people who are having the experience of the research’s topic to examine the essence of an experience (Connelly, 2010, p. 127).

Before taking off with the main content of the report, there will be “Part II – Public and Private Space” introducing the term “public space” to provide a background for the research on quality that follows. This part will show the importance of public space and transition space and will explain the focus of my research in the Vogelbuurt.

Public and personal image
What is defined as good or bad quality depends mostly on the perceiver – what he thinks or feels is good or bad – and less on physical aspects of the matter that is perceived. But although every individual creates and bears its own image of the physical matter perceived, there seems to be substantial agreement among people (Lynch, 1960, p. 4). Hence, it is possible to make a distinction between the “personal images” and the “public images” that people have when perceiving a certain physical environment. I think that both of them are interesting for my research, and I will thus use both to approach the quality of public space in the Vogelbuurt. In addition there will by a third “image”, which is my personal interpretation as a designer.

Public image
Part III of this research will focus on the public image. Kevin Lynch introduced this term in his book “The image of the city” (1960, p. 4): “Public images are the common mental pictures carried by large numbers of a city’s inhabitants: areas of agreement which might be expected to appear in the interaction of a single physical reality, a common culture, and a basic physiological nature.”

The idea of public images makes it possible to measure the quality of a public space according to its physical elements and thus create a rather “objective” view on quality of public space. This will be the first part of my research.

There is a long list of literature that gives input for a research like this. I made a selection and will define the quality of the public space in the Vogelbuurt by using a ‘quality test’ and subsequently elaborate and criticize on the different elements of this test on two scales: the scale of the streets and the scale of the transition space between public and private space. This will be done by using the selection of literature, to get a clear image of the quality of the Vogelbuurt’s public space. What physical elements that define quality of public space were applied when the neighbourhood was designed, what elements are there now, and what elements should be there in the future to ensure a better quality of public space?

Personal image
Apart from the physical elements that define quality, there are other elements that do so, for example the social meaning of an area, its function, its history, or even its name (Lynch, 1960, p. 46). To get an insight in this more subjective part of quality, personal images are needed. Apart from my own personal experience and interpretation of the Vogelbuurt, this report will also take into account the image of inhabitants of the Vogelbuurt.

To improve the public space and the transition spaces between public and private, inhabitants have to be involved. Interviews and conversations will give insight in what inhabitants, owners and other users define as quality and public space. What qualities do they think were there in their neighbourhood, are there right now and which ones should be there?
And – also very important – to what extent are they willing to participate in improving their neighbourhood. Part IV of this research report will zoom in on both the images of inhabitants of the Vogelbuurt and will as well provide background information on involvement of inhabitants in general and in examples of both the Vogelbuurt and other places.

In short
This research will focus on quality of public space and the transition space between public and private.
After an introduction of the term “public space” and the focus of my research, the two main parts of the research will follow.
Part III is the public image-part which focusses on the physical elements that define quality: the elements that can be quantified and are thus not dependent on perception of individual people. This part will again be subdivided, starting with a quality test, which forms the introduction for two scale levels: the public space of the streets and the transition space from public to private space.
Part IV deals with the personal image which focusses on the non-physical elements that define quality: the opinions of inhabitants of the Vogelbuurt. Also there will be background information explaining the importance of involving inhabitants and there are references to predecessor projects.

By combining the outcomes of the previous parts, a clear view of the quality of public space in the Vogelbuurt, both the physical state and how it is judged by its inhabitants, will be obtained. It is then possible to substantiate which qualities in the Vogelbuurt are there, were there before, should not be there, are desired (again) and which ones can contribute to an improvement in quality once implemented. To conclude, Part V of this report will explain how this research report will serve as a basis for the redesign of the public space and transition space from public to private in the Vogelbuurt.

Fig. 5, Research method
PART II -
PUBLIC AND PRIVATE SPACE
5. What is public space?

Defining public space
When making a separation in kinds of urban space according to levels of privacy, the first distinction to be made is the difference between public and private space. Public space traditionally consists of all streets, squares, canals, etc. but also the interior of public buildings, like churches. Dwellings, on the other hand, are by definition private spaces. The transition between public and private space depends on economic and cultural ideals that differ for different time periods (Komossa, 2008, p. 56).

Apart from a strict distinction between public and private, one can define spaces that can neither be classified as private, nor as public. An example is the “collective space”. If public space is defined by “the domain of publicity”, then collective space is defined by “the space of community”. Collective space presumes that it is used by people of similar social class and from that point of view share, use or manage specific facilities (Komossa, 2010, p. 37). Another example is “hybrid space”, the zone between the private space and the public street, like gardens or private sidewalks (Menting, 2012, pp. 12,24).

Places like this are important for the vitality of public space: about 70% of all optional activities in residential streets takes place in these semi-private areas (Gehl (1986) in: Dorst van, 2005, p. 131).

Changes in public space
According to Manuel de Solà Morales (1992, p. 6) in modern day society the terms “public” and “private” are not valid anymore. Spaces can be both at once: public spaces used for private activities, private spaces that allow collective use, etc. He argues that the importance of public space is not about its size, its physical contents or symbolic meaning. Its importance lies in its function of a space that connects different kinds of private, collective and hybrid spaces so it can function as a whole. He pleads for the absorption of private domains into the public domain.

This is important in a society where the traditional function of city space as a meeting place and social forum for city dwellers has been reduced, threatened or phased out (Gehl, 2010, p. 3). Already in 1961 Jane Jacobs pointed out the threat of the planning ideology of modernism that separates the uses of the city and emphasizes the individual (J. Jacobs, 1961, p. 14). Where the traditional city served as an isotopy (place of multifunctional use) consisting of small heterotopies (place of mono functional use) the contemporary city has many heterotopies that are very big and lack diversity. This leads to a distinct separation of public and private space, resulting in streets that lack vitality, lack interest of users and are used as pass-through areas only (J. Jacobs, 1961, p. 14; Lefebvre, 2003 (1970), p. 128). Jane Jacobs’ call in the sixties for “eyes on the street” is still valid today as there are still streets that lack vitality and interest, not only in the Vogelbuurt, but in many other places as well (see figure 6).
Control
When quoting Newman (1972) and his ideas about public space in the previous chapter, it became clear that people need a feeling of control, a territory, in order to feel safe. Control of space is easy as long as the space is private. For public space, this control is less easy to obtain.
To feel in control of public space, there are two major ways to follow: either literally claim the space, for example by extending the dwelling bordering it, or figuratively claim the space by giving it identity, for example by putting flowers in front of a dwelling on the “public” sidewalk. Recognisable territories mark privacy zoning and make the built environment legible. People extend their territory – give meaning to a space – and feel responsible for this public space they “claimed”. The term “privacy zoning” can thus be described as “the materialisation of control on the social environment and social interactions” (Dorst van, 2005, pp. 115,127).

Conclusion
The arguments above show what is important when it comes to the division and transition of public and private space: to ensure a lively, comfortable and safe living environment, the private space has to become part of the public realm. This shows the importance of the transition spaces and connections between public and private space. These “hybrid” spaces are essential for proper functioning of the public realm and are therefore a big point of attention in this research.
Public and private space in the Vogelbuurt

The characteristics of public, private and transition spaces in the Vogelbuurt will be discussed on two scales on which will be elaborated in the following chapters. In chapter 8 the public space on urban scale will be discussed, chapter 10 will deal with the scale of the building and its details.

Urban scale

Figure 8 shows the division of different levels of privacy in the Vogelbuurt. The neighbourhood is set up as a rather mono functional area, serving the main purpose for which it was built initially: house people. This results in a clear distinction between the private building blocks and the public space surrounding it.

Although the housing is set up in rows, it functions as a closed building block, as the short edge of the building block is closed by either hedges or fences, emphasizing the contrast of the public street versus the private garden behind, see figure 7.

There are some public functions in the Vogelbuurt as well, like shops, a school – with playground – or communal buildings, but they are located on the main access- and district access roads. This makes that the main public space of the area surrounding the private space – the streets in which the dwellings are situated – is highly mono functional.

With exception of the direct-entrance dwellings in the south of the neighbourhood, the Vogelbuurt consists of portico dwellings that lack “hybrid space”: both the porticos and private gardens are closed off for the possibility for public interaction (see figure 7 and 10). As this transition space is the area in which social bounding takes place, the plea of De Solà Morales for mixture of public and private space is very understandable. If private activities are not shifted towards the public space of the streets, the streets will persist in their lack of liveability. As Newman stated: extending the private domain into the public domain also provides increase in feeling of safety and territory – and thus feeling of responsibility. If the private domain is extended, there will be more activities taking place in the public realm. Diverse activities attract different people for different purposes and that is what enlivens an area and its streets (A. B. Jacobs, 1993, p. 304).
Fig. 7, The row block housing in the Vogelbuurt act as closed building blocks

Legend
- private space
- hybrid space
- collective space
- public accessible buildings
- public outside space

Fig. 8, Division of Public and Private space in the Vogelbuurt
**Building scale**

Just like on the urban scale, there can be made a division in levels of privacy within the building block. Here, there can be made a distinction between the spaces that are private for the individual dweller, and spaces that are shared by the dwellers using the same portico, see figure 9.

Let’s start with the portico itself. As soon as inhabitants enter the portico, they enter a domain that is neither public, nor private. From experience on site, my fellow students and I concluded that the portico is a space that dwellers do not consider private at all. When asked if we could enter the portico people always opened the door, even sometimes left after letting us in. Some porticos contain personal items, like paintings, shoes or little flower pots, but most of them are empty, as dwellers do not consider the portico as being a place that belongs to them.

Another of these shared spaces are the attic and the basement, of which the former is hardly used for its purpose – storage – but more often for dwelling extension by inhabitants of the upper two apartments. The basement on the other hand, is in use by all dwellers, especially for bicycle storage, but sometimes also again as part of a dwelling enlargement, this time by the lower apartments.

Furthermore there are the balconies, which deserve special attention. Officially these belong to the private square metres of inhabitants, but they are still in the outside, public space. In the case of the Northern part of the Vogelbuurt they are located in the more enclosed atmosphere of the private gardens, in the southern part though, the balconies are also located at the street side, in “full sight” of the public realm.

To conclude there is the element that is not a space in itself, but that functions as the separation line between the public space and the more private spaces behind: the façade. This element will thus receive focus in this research as well.
Focus
As concluded before, the main focus of this research is to find a way to make the private space and activities become part of the public space. I will thus focus on two points: the public space itself – that has to become attractive for people to spend their private activities in – and the transition space between public and private – where public and private meet and are able to overflow in each other.
To conclude: my research does not mainly focus on those areas marked as “public” but rather on the areas that are not considered as the “private inside space” and the connections between these spaces.

Fig. 10, Lack of “hybrid” space between public and shared private space at portico entrance

Fig. 11, Visiting a portico in the Fazantstraat
PART III -
THE PUBLIC IMAGE
6. What is quality of public space?

As the Oxford dictionary (1989) describes, quality is a comparison of the degree of excellence of something, compared to other things. But that “degree of excellence” is something that is highly perceptive. The interpretation of the physical environment depends on the beholder. The same environment can thus have a different meaning for different persons (Gibson (1986) in: Dorst van, 2005, p. 131). This personal interpretation, along human mobility, provide the biological basis for activities, behaviour and communication in city space (Gehl, 2010, p. 33).

Urban design qualities depend on physical features but are distinct from them. They reflect the general way in which people perceive and interact with the environment (Ewing, Handy, Brownson, & Clemente, 2005, p. 2). According to Steven Holl (Pallasmaa, Holl, & Pérez-Gómez, 1994, p. 41), perception of architecture and the built environment is something even more special:

“Architecture, more fully than other art forms, engages the immediacy of our sensory perceptions. The passage of time; light, shadow and transparency; colour phenomena, texture, material and detail all participate in the complete experience of architecture. […] only architecture can simultaneously awaken all the senses – all the complexities of perception.”

Complexities. Indeed. How can a designer design something for future users, if this perception is so complex. Complex for one person already, let alone a group of future users. How can the designer know how his design will be perceived?
The public image

Going over the text above, one would say that quality of architecture and the built environment is so personal, it is not possible to grasp it. But fortunately, there are people who have tried to do that, to find a way to grasp the perception of the built environment and its quality in more objective aspects.

Apart from the personal image of people, there are the public images, discussed earlier.

If a physical object is likely to evoke a strong public image, Kevin Lynch (1960, p. 8) speaks of high “imageability”. Something is of high imageability if it has identity (distinct from other things), structure (spatial or pattern relationship of the object to the observer and to other objects) and meaning (emotional relation). If a space has a high rate of imageability, it invites (the senses of) the observer to participate in this space. A space in which people participate would thus be one that consists of many distinctive parts (identity) that can be clearly connected (spatially and emotionally). This clearly connecting – recognise and organize into a coherent pattern – is called legibility.

At this point I just want to make a quick reference to my research question and starting points for design this research has to lead to. Back in the beginning I stated that instead of making a generic design for the whole area of the Vogelbuurt, the aim of this research is to find a way to combine individual desires for quality improvement that together can improve the quality of public space as a whole. Now, with the theory discussed above applied, I can state: To make the public space of the Vogelbuurt a place of high quality in which people want to participate – high quality invites users (Gehl, 2010) – the individual desires have to lead to distinctive parts of the design with their own identity, and the framework should make sure these are clearly connected, make it a easily legible whole.
7. Identifying and measuring qualities of public space

Apart from the definition “imageability” there are other ways to rate the quality of public space in an objective way. In 2005 a group of researchers set up the Active Living Research Program for the Robert Wood Johnson Foundation in order to develop operational definitions and measurement protocols for urban design qualities related to walkability; what makes one street more walkable than another (Ewing, Handy, Brownson, Clemente, & Winston, 2006). Their conceptual framework (fig. 12) shows how they relate physical features to walking behaviour, going from objective to subjective.

By using several methods and involving an expert panel the researchers succeeded in providing scientifically verified operational definitions and measurements protocols for five out of the nine urban design qualities they selected. By doing this it was demonstrated that qualitative urban design qualities can be quantified. The Active Living Research Program resulted in an instrument for measuring urban design qualities. The urban design qualities that are represented in this instrument are (Ewing et al., 2005):

1. **Imageability** is the quality of a place that makes it distinct, recognizable, and memorable. A place has high imageability when specific physical elements and their arrangement capture attention, evoke feelings, and create a lasting impression.

2. **Enclosure** refers to the degree to which streets and other public spaces are visually defined by buildings, walls, trees, and other elements. Spaces where the height of vertical elements is proportionally related to the width of the space between them have a room-like quality.

3. **Human scale** refers to a size, texture, and articulation of physical elements that match the size and proportions of humans and, equally important, correspond to the speed at which humans walk. Building details, pavement texture, street trees, and street furniture are all physical elements contributing to human scale.

4. **Transparency** refers to the degree to which people can see or perceive what lies beyond the edge of a street or other public space and, more specifically, the degree to which people can see or perceive human activity beyond the edge. Physical elements that influence transparency include walls, windows, doors, fences, landscaping, and openings into midblock spaces.

5. **Complexity** refers to the visual richness of a place. The complexity of a place depends on the variety of the physical environment, specifically the numbers and kinds of buildings, architectural diversity and ornamentation, landscape elements, street furniture, signage, and human activity.

![Conceptual framework: relation of characteristics to walking behaviour](image-url)
Measuring urban design qualities in the Vogelbuurt

The instrument developed by the Active Living Research Program consists of a field manual with instructions on what to count and measure while walking through the street of your interest. For every of the five qualities there are several questions to be answered. For example: how many people do you encounter while walking the street? Or: how many courtyards are there in the street?

It shows step by step what to do and afterwards the scores are to be put in an Excel sheet that calculates the rating for the five qualities of the test: imageability, enclosure, human scale, transparency and complexity. These outcomes for each quality are based on a scale from zero to five, with zero meaning the particular quality is not present and five that the quality is highly present.

The field manual was used to calculate the qualities of different streets in the Vogelbuurt. A division was made between the northern (N) and southern (S) parts of the Tapuit-, Fazant-, and Korhaanstraat as these streets have different appearance in their northern and southern part. The next page shows the result of these measurements in a diagram that points out the scores of the different streets on different qualities. In the appendix are the score sheets for every street.
Test results
By purely looking at the diagrams that visualise the outcomes of the test (fig. 13), there can be made a distinction in three main categories: the northern residential streets (Tapuitstraat N, Fazantstraat N, Korhaanstraat N), the southern residential streets (Tapuitstraat S, Fazantstraat S, Korhaanstraat S) and the district access roads (Gruttostraat, Wielewaalstraat). The Roerdonplaan and Roodborststraat are exceptions when it comes to grouping in this visual way.

The reason why this grouping occurs is because the streets within the same group share physical characteristics. These are filled up in the test and this resulted in the five qualities being rated similarly. The first two groups, the residential streets, score pretty mediocre on all five qualities. The difference between the northern and southern streets is the score for human scale, which is comparatively low for the northern streets. The remaining four streets score very high on imageability and complexity, but low on enclosure and in the case of the Roodborststraat, very low on transparency.

This test though, does not include everything that is to be said about quality of public space as defined by physical features. This test is just one of the items in the – what seems to be inexhaustible – list of literature concerning the quality of public space and the elements that define it. This literature concerns many physical elements that contribute to the quality of a street, of which not all of them are used in the test – and I do not think it is possible to make such an all-including test in the first place.

In the next chapters I will elaborate on the outcomes of the test and explain the scores for the different qualities for the streets. I will compare the inputs of the test and the physical elements mentioned in a selection of literature to put the outcomes of the test in a broader perspective. I will discuss these physical elements and, with the help of analyses made, point out these elements in the Vogelbuurt. In this way I can explain the physical elements used in the test – and the quality ratings related to it – in a broader context, but also show any shortcomings of the test, if these are there. In the end there will be conclusions and recommendations for particular elements in the Vogelbuurt to increase the five qualities.

All this will be done on two scale levels: the urban level in chapter 8 and the building level in chapter 10. The urban level deals with the qualities of imageability, enclosure, human scale and complexity. The quality of transparency is related to the building facades. This quality will thus be discussed in the chapter concerning the building level.
Fig. 13, Visualised outcomes of Quality Test (Ewing et al., 2006) for the Vogelbuurt
8. Physical elements that contribute to quality: urban scale

In this chapter the various physical elements that play a role in the quality of public space will be discussed. This is done one by one, explaining each element and its contribution to quality, derived from a selection of literature. The work referred to is:


The quality-elements named in these sources will be related to analysis maps of the Vogelbuurt and there will be links to the quality test, explaining how the elements contribute to the outcomes of scores on the qualities of imageability, enclosure, human scale, transparency and complexity.

It was not easy to make a selection of physical elements that contribute to quality to discuss in this chapter. The literature named all discusses these elements in a different way. Ewing et al. are the ones who created the quality test. The physical elements they use as input vary from tangible objects (e.g. small planters) to non-tangible elements like proportions or long sightlines, but for all these elements it is possible to put them down in numbers or percentages, so they can be filled up in the Excel sheet to come to scores for the qualities of imageability, enclosure, human scale, transparency and complexity.

Gehl uses a keyword framework of twelve quality criteria that lead to the qualities of protection, comfort and delight. In this framework, the twelve criteria named each have a short list of elements that contribute to realizing these criteria. Some of these elements are tangible (e.g. benches for resting) but many are physical conditions that are not easy to objectify because the elements that cause them are not named (e.g. “fine views” or “protection for pedestrians”). Still, the latter ones can be related to physical elements that create them.

Jacobs has a long list of both physical elements (trees, benches) and more vague elements that are more difficult to quantify (accessibility, density) but still contribute a great deal to quality of public space. As with the keyword framework of Gehl, here also the less quantifiable elements will be referred to by relating to the physical elements that contribute to them.

By comparing the three sources, a selection was made of physical elements that contribute to quality of public space, see figure 14. These elements will be discussed in the following sub-chapters. For each element will be explained how it contributes to quality of public space, how (and if – in the first place) is dealt with the element in the quality test and how and where these elements are present in the Vogelbuurt. The conclusion states what influence the particular element has (or had) in the Vogelbuurt, and what influence it can have in the future (as part of the design).
Fig. 14, Physical elements that contribute to quality as discussed in this chapter
How ‘people’ are represented in the quality test:
- Imageability: number of people
- Complexity: number of people

The main element that makes a public space of high quality is that it invites people to use it – by being lively. In the following elements that will be discussed in this chapter, there will always be a connection to people, as they are the ones that are attracted by quality, and thus an important measuring factor. But a lively city needs not only the quantity of people, how the city’s public space is used also counts. Apart from its functional properties, like allowing people to go from one place to another, public space can and should provide other opportunities. Public space is there to encourage socialization and participation of people in the community. It should provide opportunities to bring people together, make them act and interact. As seen in figure 17, when there is the possibility for optional activities along the necessary ones – when the quality of the space allows it – people will perform these activities here (A. B. Jacobs, 1993, p. 312).

In the quality test, the amount of people in the streets of the Vogelbuurt is counted to be one of the inputs of the test to define the rating for imageability and complexity. There’s a good reason to incorporate people in the test: people contribute to the visual richness of a place and where many people are, there are possibilities for unplanned spontaneous social activities, which can make a place memorable. A place visited by people, also enriches itself – man is man’s greatest joy – by inviting more people (Ewing et al., 2006, p. 4; Gehl, 2010, pp. 20, 23).

This test though, does not consider why people are using this space. In observing the streets in the Vogelbuurt, most of the people I counted were there doing necessary activities, indeed waiting for the bus (see figure 19), going from one place to another, etc. I went back several times to the neighbourhood, and every time the same image stroke me: people do not spend time in the public space of the residential streets as there are simply no possibilities for activities to take place there. For example, figure 18 shows a deserted Fazantstraat on a beautiful sunny September afternoon. I do have to name the exception of the Korhaanstraat where a man was watering his flowers. This is an example of an inhabitant who extended his private realm into public space, like De Solà Morales described, and is using public space for his private activities.

Figure 15 and 16 show the streets in the Vogelbuurt and how they connect to the surrounding streets. As the district access roads provide bus stops and shops, it is logical that this is where most people were encountered. This contributes to the higher scores of imageability and complexity for the Gruttostraat and Wielewaalstraat in comparison to the residential streets.
Fig. 15, Road types and connections in Carnisse, Vogelbuurt is indicated in red (Gisweb.nl/RET.nl)

Fig. 16, Road types and Public transport (stops) in the Vogelbuurt (Gisweb.nl/RET.nl)

Legend
road type:
- thoroughfare
- main access road
- district access road
- residential street
- play street

public transport:
- bus routes
- bus stop
- tram route
- metro route
Top: Fig. 17, Connection between outdoor quality and outdoor activities (Gehl, 2010, p. 21)

Left: Fig. 18, Despite the beautiful weather, no people are doing activities in the Fazantstraat

Bottom: Fig. 19, A girl waiting at the bus stop in the Gruttostraat (maps.google.com)
The reason why people use the streets is not taken into account in the quality test but should surely be taken into account when designing. The activity number of a street consists of two elements: the amount of people and the amount of time they spend here. And both are important when defining whether a place has quality or not (Gehl, 2010, p. 71).

The presence of people and quality of public space work twofold. As Gehl describes it “First we shape the city, then the cities shape us” (Dalsgaard, 2012). Planning and design can be used to influence how and how often a space is used. We shape the city, but the possibilities for activities decide what we can do there.

**Conclusion:** The amount of people and the activities they perform there are dependent on the possibilities for activities. The more people, the higher the quality of imageability and complexity. There is a difference in the rating of imageability on the residential roads compared to the district access roads, caused by the former having more possibilities for use. From observation it seems though, that optional activities are less present in the Vogelbuurt’s public space. To ensure a lively neighbourhood, the design should incorporate elements that invite people to use the space not only for necessary, but also for optional activities.
Diversity of functions

How ‘diversity of functions’ is represented in the quality test:

- **Imageability**: number of courtyards and plazas, number of major landscape features, buildings with identifiers, presence of outdoor dining
- **Human scale**: number of pieces of street furniture and other street items
- **Complexity**: presence of outdoor dining, number of pieces of public art, number of basic and accent building colour

Diverse use is what enlivens a street. If there are many different functions, people will come to the place for many different purposes (A. B. Jacobs, 1993, p. 304).

The inputs of the quality test that result in the imageability score are, among others, based on the amount of buildings with identifiers, presence of outdoor dining, the presence of courtyards and nearby major landscape features (the latter two will be discussed in the next paragraphs). These are all different elements, which mark different functions. Diversity of functions not only contributes to imageability, it also increases complexity as it is closely related to diversity in appearance. The quality test rates complexity by again measuring the presence of outdoor dining, but also the amount of basic- and accent building colours and the presence of street furniture. The latter one also contributes to the quality of human scale. Diversity of functions will contribute to the variety of appearance and thus to the quality of complexity, imageability and human scale.
Fig. 22, “Living Field Map” (courtesy Veldacademie Rotterdam) showing functions in the Vogelbuurt
In the Vogelbuurt this variety in functions and appearance is seen mainly in the district access roads, where buildings with different functions are located, for example the primary school, or the shops (see figure 22). It is seen that the Wielewaalstraat, Gruttostraat and Roerdomplaan have many different functions apart from the monotonous dwelling function of the residential streets, resulting in higher scores of imageability and complexity. Figure 23 and 24 show a comparison of a residential street’s appearance in colours and presence of street furniture and the district access roads. It is clear that the variety in appearance, partly caused by variety in function, is much lower in the residential streets.

This separation of residential and non-residential functions according to streets was part of the original plan of Van den Broek when he designed a “standard way” of filling up the urban plan of Witteveen in the Carnisse area. The residential streets served only the residential function. Where these streets met the district access roads, Van den Broek used different ways to accentuate the end of the building blocks – for example closing the block with garage boxes or by placing small plantation – but mostly by putting a function on the end of the block in the form of shops (Hartman, 2012, pp. 17-21). See figure 20 and 21.

The element “presence of outdoor dining” is a very important element. This function invites people to use the public space for optional activities instead of necessary activities. Also, sitting and enjoying a cup of coffee will make people spend longer time in public space then waiting for the bus. To speak with Jan Gehl: “Now people have the time and the resources to enjoy the city and city life from the vantage point of café chairs.” (Gehl, 2010, p. 146)

**Conclusion:** Diverse use enlivens a street by attracting people for necessary and – more importantly – optional activities and contributes to the qualities of imageability and complexity, partly due to the diversity in appearance it brings along. In the Vogelbuurt, diverse functions are present, but they have always been concentrated along the non-residential streets. To enliven the residential streets as well, a mix of functions and variety in appearance would contribute significantly.
Fig. 23, Diverse use brings along diverse appearance in the district access roads (maps.google.com)

Fig. 24, Monotonous function of dwelling does not contribute to imageability and complexity
Proportions

How ‘proportions’ are represented in the quality test:
- **Imageability**: buildings with non-rectangular shapes
- **Enclosure**: number of long sightlines, proportion of street wall, proportion of sky
- **Human scale**: number of long sightlines, proportion of windows in street wall, building height
- **Transparency**: proportion of street wall, proportion of windows in street wall
- **Complexity**: number of buildings

It is seen that proportions play a significant role in quality rating of streets: all five qualities come into being by taking at least one aspect related to proportion into consideration.

“Great streets have definition. They have boundaries, usually walls of some sort or another, that communicate clearly where the edges of the street are, that set the street apart, that keep the eyes on and in the street, that make it a place.” (A. B. Jacobs, 1993, p. 277)

To start with the quality of imageability, I repeat that diversity in appearance is needed. The lack of buildings with non-rectangular shapes reduces the quality of imageability. This explains the difference in the ratings for imageability between residential and mix-use streets in the quality test.

When walking in city space, there have to be things that engage the eye in order to make a street interesting. This is achieved when there are many different surfaces and elements (A. B. Jacobs, 1993, pp. 282, 298). Walks become more interesting and meaningful if there are details. Distances seem shorter and time passes quickly. However, when there are no interesting edges, where facades are monotonous, walks are not satisfying and provide an impoverished experience. (Gehl, 2010, p. 77). Facades with vertical articulation make walking distances seem shorter and more interesting.
They function as reference points, like markings on a ruler, giving a sense of scale (A. B. Jacobs, 1993, p. 297). Facades designed with long horizontal lines make distances seem longer.

In the Vogelbuurt this last comment is very applicable to the residential streets: because of the flat facades and repetition – the absence of non-rectangular shapes – the horizontal lines in the facades are emphasized and have a very monotonous appearance, see figure 25. There is a difference between the northern and southern residential streets though. The southern streets are shorter in length, and have balconies that add to a sense of scale. Long sightlines that are emphasized reduce the quality of enclosure and human scale, which explains why the southern streets have higher ratings for these qualities than the northern parts.

A positive part of the on-going facades in the residential streets is that they form a totally enclosed street wall. Whereas the long sightlines lower the quality of enclosure and human scale, the closed street walls higher the ratings for enclosure and transparency [*]. This explains why the rating for enclosure for the residential streets, despite the long sightlines, is still relatively high compared to the amount of enclosure in the non-residential streets, which have many side-streets that make “holes” in the street wall. Another good quality of the residential streets is the building height. For the quality test goes: the higher the buildings, the lower the quality of human scale. H. Blumenfeld and H. Maertens (in: (A. B. Jacobs, 1993, p. 278)) concluded that a building height of three stories and width of 36 feet (appr. 11 metres), with a street width of 72 feet (appr. 22 metres), are the maximum dimensions for a building of human scale. Apart from the prescribed width of 36 feet, the residential streets in the Vogelbuurt come indeed very close to these “human scale dimensions”. This proportion of building height versus street width is included in the quality test by using the “proportion of sky”.

The rating for complexity is calculated using the number of buildings that one passes when walking the street. Because of the monotonous, on-going façade, the different dwellings in the residential streets appear to be one building, which explains the low rating for complexity, compared to the non-residential streets, where it is possible to distinguish different buildings.

**Conclusion:** In contrast to the east-west running streets, the residential streets in the Vogelbuurt are very monotonous in appearance. The lack of details and on-going repetition of the same elements make that walking distances seem long and provide an impoverished experience. The closed street wall though, does provide a high quality of enclosure. When redesigning the public space, there should be diversity in appearance, making that spending time in the public space of the Vogelbuurt becomes interesting and meaningful, with higher qualities of imageability, human scale and complexity, but the street wall should not be opened up too much. The proportion of building height versus street width has a positive effect on the quality of human scale, and should thus be preserved.

[*] Transparency and proportion of windows in street wall will be discussed in chapter 9 and 10
Street furniture

How ‘street furniture’ is represented in the quality test:
- **Imageability**: buildings with identifiers, presence of outdoor dining
- **Human scale**: small planters, pieces of street furniture and other street items
- **Complexity**: presence of outdoor dining, number of pieces of public art

To make a street interesting, there have to be things that engage the eye. This is achieved when there are many different surfaces and elements. In this way, details contribute significantly to the experience of public space. (A. B. Jacobs, 1993, pp. 282, 298). Studies have shown that our senses need stimulation every four to five seconds to ensure a reasonable balance between too few and too many stimuli. If these stimuli are present often, a high imageability rate is achieved (Gehl, 2010, p. 77).

Apart from contributing to the quality of human scale, street furniture – such as planters, benches, lighting, etcetera – also contributes to the qualities of imageability and complexity. Unfortunately, the quality test only incorporates the presence of street furniture itself to calculate the quality of human scale, and only the presence of outdoor dining for the other two qualities. Other kinds of street furniture though, apart from the ones present with outdoor dining or identifiers like commercial signs, also contribute to imageability and complexity. A chance is missed there in my opinion.

**Flowerpots**

The quality test shows a clear distinction in rating the quality of human scale when comparing the northern residential streets to the southern ones. The major reason for this is the length of the streets, which is significantly larger in the northern streets. This length makes that sightlines are long, contributing to a lower rating in human scale. But apart from that, there is another reason to explain the difference in human scale rating between the northern and southern streets, which also explains the difference between the southern streets themselves. This difference is caused by the presence of street furniture, which, for example, is present a lot in the southern part of the Korhaanstraat. The flowerpots in front of the façade – see figure 27 – clearly divide the on-going vertical surface so it is more legible, more human scale (Dorst van, 2005, p. 129).

In his original plans, Van den Broek also incorporated flower baskets under the windows – see figure 28 – but these were never implemented. Figure 29 and 30 show a little Photoshop experiment that shows the big impact of such small elements like flowers beneath the windows.

**Conclusion**: The flowerpots in – namely – the Korhaanstraat contribute to the quality of human scale in the Vogelbuurt. In redesigning the public space, these should be incorporated again as they invite people to use the public space and give it a higher quality appearance. The original design of incorporated flower baskets is worth looking into.
Fig. 27, Flowers at the front facade in the Korhaanstraat

Fig. 28, Original design of flower baskets at the windows by Van den Broek (archive)

Fig. 29, Photoshop experiment: Van den Broek facade in its original state

Fig. 30, Photoshop experiment: Van den Broek facade with flower baskets
Benches
Other elements that contribute to several qualities are benches. They invite people to sit, rest and pass time, creating opportunities for people to meet in the public space (A. B. Jacobs, 1993, p. 300).

When walking in the Vogelbuurt though, it is noticed that there are hardly any benches to be found. While walking the streets, one can see benches at the following places: at the bus-stops in the bus-shelter (figure 29), in the semi-private garden of the elder people’s home in the Gruttostraat and there are a few chairs outside the snack bar in the Wielwaalstraat. In the residential streets I noticed one bench and two chairs put outside by residents (of which I was not even sure they always stood there, see figure 30), but that is all. This can be explained by the lack of one of the most important environmental qualities needed for a place to be a nice place to sit: a view. There should be attractions such as water, flowers, art, and of course people (Gehl, 2010, p. 140). The view people have now, when sitting in front of the façade, is a landscape of parked cars. There are chairs located on the balconies though, but not in the public space of the streets. Apart from the lack of view, this can also be understood as that people do not consider the space in front of the façade of their dwelling having the right to be used by them – at least not for seating.

**Conclusion:** Currently there are hardly any places to sit down in the Vogelbuurt’s public space, but just putting benches in the streets will not ensure that the streets will be livelier. As soon as the environment allows good conditions to sit though, benches will invite passers-by to stay in a space rather than walking past. In the redesign, places to sit should be incorporated, but also there should be designed a reason – a comfortable environment with a view – to sit down.
Parking

Another kind of street furniture is one that is mobile: cars. Although the quality test does not take this into account, parking plays a significant role in the visual image and thus quality of the street, see figure 31. This is very visible in the streets of the Vogelbuurt, especially compared to the original situation when cars were not yet as common as nowadays, see figure 32 through 37.

People with cars like to park their cars as close to their destination as possible (A. B. Jacobs, 1993, p. 305). This may be a good thing for reachability of the dwellings by residents; parking also takes a lot of space that could be used for other things – to provide space for people instead of their vehicles, which will increase liveability.

The relation mentioned before between invitations of public space and behaviour also works for parking: streets have the amount of traffic (and parking) that the space allows (Gehl, 2010, p. 9). Build more parking space and it will be filled just as much proportionally as the smaller parking space before. But fortunately, it also works the other way around: fewer parking space – fewer parked cars. This has to be handled reasonably of course; one cannot just all at once prohibit all parking. But by regular observation it shows that there are always some free parking spots in the streets, it is not 100% occupied, and thus there is some unused space.

Apart from that, the Vogelbuurt is one of the few spots in the area where parking is still free of charge. Many cars parked here do not even belong to people living in the neighbourhood. Also, many inhabitants who have a car or van for their work, apart from their regular car, park these vehicles in the streets (BOC, 11 October 2013). When a solution is found to exile these cars, even more space becomes available for other use, without reducing the parking space for inhabitants.

Fig. 31, Photoshop experiment: top: original, bottom: Tapuitstraat without cars
Moving parking to other places then directly in front of the dwelling also brings opportunities. When cars are parked directly in front of the dwelling, people do not spend much time in public space. When the car is parked, for example, at the end of the street, the inhabitant has to walk longer and be part of the public space longer. This car-free public space is of good quality – partly due to the absence of the parking itself – inhabitants will enjoy this walk. During this walk, chances for social interaction increase, both because more time is spend in the public space and because the inhabitant uses a bigger part of the street, passing the private realms of other inhabitants, which would not occur when his car was parked in front of his dwelling (Dorst van, 2005, p. 318).

**Conclusion:** Parking plays a significant role in the visual image of the streets of the Vogelbuurt, especially compared with the original image of the streets. Fortunately, there is a relation between the possibility to park and how much people park. If there is little possibility, parking will decrease and space comes free to put to use for elements that improve qualities in the streets. Also, a little walk from the dwelling to the car increases chances for social interaction. These things should be taken into account when redesigning public space.
Fig. 34, Carnissehuis Gruttostraat in 1952 (Does de, 2003, p. 47)

Fig. 35, Carnissehuis Gruttostraat in 2009 (maps.google.com)

Fig. 36, Fazantstraat (year unknown) (TaMagia & Beek van, 2011, p. 43)

Fig. 37, Fazantstraat in 2009 (maps.google.com)
Conclusion: Lighting influences security, orientation and visual qualities, the latter not only at night-time but also at daytime. The lighting present in the Vogelbuurt is adapted to the streets in which they are located, but they are not really spectacular in adding to for example imageability. In the redesign, lighting should be incorporated not just as a functional element, but also as an element that can add to visual quality.

**Lighting**

Lighting in public space has a big influence on orientation, security and visual qualities when it is dark outside (Gehl, 2010, p. 180). But also during daytime, streetlights have an impact on the appearance of the streets. They can add to a feeling of human scale by dividing long streets in equal parts: they are grasped by the eye and followed. On the other hand, they also emphasize the linearity of the street (A. B. Jacobs, 1993, p. 299) This is not always desired though, like in the northern residential streets of the Vogelbuurt.

Apart from their function, street lights can also contribute to the image of the street during daytime: “The best streetlights are well designed in and of themselves and, simple or ornate, they give enjoyment” (A. B. Jacobs, 1993, p. 299). Referring to this, it is interesting to see what difference in appearance a streetlight can make. See figure 32 and 33 on page 46 and compare the original streetlight in front of the Clemenshuis to the one that is now there.

In the Vogelbuurt, there can be made a distinction in three different types of streetlights: high street lights (pole) at the district access roads, low street lights (pole) in the residential streets and, in the southern residential streets, additional overhead lights hung from wires attached to buildings, see figures 38, 39 and 41. The latter one have the additional function of marking the centre of the street, creating a receding line for the eye to follow, day or night (A. B. Jacobs, 1993, p. 299). A special kind of streetlights is located in the Roodborststraat, see figure 40. As this area was badly lit and there are no entrances – which makes the street less used – people felt unsafe here. It was thus concluded that there should be extra lightning at night (BOC, 11 October 2013).

In the quality test, lighting is not taken into account as the test is designed to be executed during daytime. I think it would be interesting though, to design a test for night hours also. There will probably be a big difference, especially in the Vogelbuurt, as people at night do not have (as many) purposes to be out on the streets here and thus the imageability and complexity qualities will produce lower ratings.
Legend
- high lamppost
- low lamppost
- lamppost with additional lighting
- hanging lamp

Fig. 39, High lamppost at the Gruttostraat and low lamppost at the Fazantstraat

Fig. 40, Additional lighting at a lamppost in the Roodborststraat

Fig. 41, Outdoor lighting (source: Gisweb)
Green and brown spaces
How 'green and brown spaces' are represented in the quality test:
- Imageability: courtyards, plazas and parks, major landscape features, historic building frontage
- Human scale: small planters

When looking at an aerial picture of the Vogelbuurt, one will find it striking how much green there is, compared to the green that is visible when walking through the streets (fig 44 and 45). This is caused by the big contradiction of the space between the building blocks which form the streets and the space for the gardens (fig 42). Most of the green in the Vogelbuurt is located in the private gardens of dwellers, not accessible and hardly visible for passers-by due to high fences and hedges. This is quite a pity, as access – or at least visual access – to these areas really changes the atmosphere of the streets. As seen in figure 36, in earlier times the visual connection between streets and gardens was present. Nowadays people have closed off their private gardens with fences and hedges, not only from the streets (fig 7), but also between the gardens themselves (fig 43). Making private gardens part of the experience of walking in the streets would not only benefit the quality of the streets, it also fits in the strategy of extending the private activities into the public realm.

In the original plans for the southern part of the Vogelbuurt though, there were plans for lawns in front of the portico dwellings, see figure 46. This is not there today (anymore) though. A Photoshop experiment in figure 47 shows what the impact would be on the streets if these lawns were still there. It is seen that it has a tremendous impact on the “brown” image of the street, adding quality to the streets.

Apart from their aesthetic value, green elements in public space have a symbolic value. They make a public space inviting for recreational use, mark special places, give a sense of sustainability and health (Gehl, 2010, p. 180). Green is a psychologically restful, agreeable colour. Green elements allow a break in what else would be a monotonous continuation of a street. They provide a place to pause and reference points along the path (A. B. Jacobs, 1993, pp. 293, 301).

When walking in the streets of the Vogelbuurt, one will find it a relatively “brown” environment because of the lack of front gardens and the direct connection between the brick walls of the buildings and the pavement of the streets. The Vogelbuurt was indeed not designed to have a green atmosphere. Green facilities were to be found around the neighbourhood, at the Lepelaarsingel (east) and later the Zuiderpark (south), as they still are today (see figure 49).
Fig. 44, Aerial view Vogelbuurt (maps.google.com)  
Fig. 45, 'Brown' street atmosphere

Fig.46, Original plans for lawns in front of the dwellings at the Dorpsweg (archive, Rotterdam)

Fig.47, Photoshop experiment: top: original, bottom: Tapuitstraat with lawns
In the quality test there are three elements that take into account the green space for rating quality: the number of courtyards, plazas and parks, the vicinity of major landscape features, and small planters – discussed in the previous chapter. They contribute to the qualities of imageability and human scale.

Courtyards, plazas and parks are hardly present in the Vogelbuurt. There is the square around the school and the semi-private garden around the elder people’s homes at the Gruttostraat and Roerdompelaan. The major landscape feature in the case of the Vogelbuurt is the Lepelaarsingel, which is visually connected to the streets running from east to west, see figure 48. A sightline connecting a street to a major landscape feature contributes heavily to the quality of imageability. This explains why these four streets rate higher on imageability than the residential streets.
When it comes to the monotonous brown appearance of the residential streets in the Vogelbuurt, one can distinguish the brick facades (which will be discussed further on in this report) and the paving of the street. This paving may seem the same, but there is quite a variety, see figure 50 and 51. In the residential streets it is noticeable that the paving of the cross parking varies from the pavement of the street and long term parking. I for myself assume that the cross parking was added later, also because there is no curb dividing the parking from the sidewalk, like there is on the other side of the street. The paving is at some points rather messy, where it seems that someone just used some leftover paving to pave a piece of the street. The presence of pavement though, fits the atmosphere of the residential streets as informal and of slow traffic. One does not feel restrained to walk on the streets. The district access roads (Gruttostraat and Wielewaalstraat) are covered with asphalt, to meet the needs of faster traffic and makes clear that the asphalt is not meant for pedestrians to walk on. This difference in paving creates a clear distinction in atmosphere of the street and the kind of traffic that is wished for.

**Conclusion**: The Vogelbuurt is characterized as having a rather “brown” public realm and “green” private realm. The difference in paving of the residential streets versus the district access roads clarifies the difference of function when it comes to traffic use. This clarity should be maintained, though the “messy” paving, which does not fit the whole, should be taken care of. In the vicinity the Lepelaarsingel (and in lesser amount, Zuiderpark) contribute to a green environment. Most of the residents though, do not have a visual connection with these major landscape features, as the residential streets do not provide sightlines towards it. The green they can have (visual) access to are the private gardens, but they are now very enclosed. As being part of the strategy of extending the private realm towards the public space, these private gardens have great potential for enlivening the streets and giving meaning to the public realm.
Fig. 51, Overview in plans of different materials and their application in the streets in the Vogelbuurt
Trees

How ‘trees’ are represented in the quality test:
- Enclosure: number of long sightlines, proportion of sky
- Human scale: number of long sightlines

Because the Vogelbuurt’s public space is rather “brown”, the green elements that are located in the streets make a big contribution to how one experiences the streets. These elements are the trees and small planters and flowerpots of which latter are already discussed under “street furniture”.

The map in figure 52 shows where the trees in the neighbourhood are located and in what phase of life they are. As is to be seen, most trees are grown up and have quite a crown, contributing to the atmosphere created by light and shadow in the streets and the amount of enclosure of the street.

In the quality test, there are three elements that together define the rating for enclosure: the proportion of street wall, the proportion of sky visible and the amount of long sight lines. In the Vogelbuurt, the latter two are greatly influenced by the trees that are present. They fill the space and provide a roof for it; they can reduce long sight lines when planted in the right way and make the space feel room-like. People see it as a quality when space is defined like that (Ewing et al., 2006, p. 4). The trees in the Vogelbuurt provide for many qualities, but they mostly they do not reduce long sight lines and thus do not contribute to the rating of enclosure and human scale. They do provide a sense of scale though, like the markings on a ruler mentioned earlier.

Legend
- young tree
- grown up tree
- old tree
- end phase
- unknown (private garden)
- size of crown

Fig. 52, Trees in the Vogelbuurt by age and crown (source: Gisweb)
Sadly enough, the quality test does not take trees into account in rating other qualities. Apart from defining space, trees have many other characteristics that give a space quality, adding to imageability, complexity and human scale. Especially in a stone-materialised neighbourhood as the Vogelbuurt, trees are of great importance for these qualities.

Just imagine that the streets in the Vogelbuurt – especially the residential streets – did not have any trees in them. There would be nothing to modulate the light, cast moving shadows on the façade, nothing to engage the eye (A. B. Jacobs, 1993, p. 293). The streets would be very monotonous, with repetition of similar facades again and again. This is what the streets looked like right after completion of the building blocks, when the trees were not planted yet (see image 53). A little Photoshop experiment in figure 54 shows what would be the consequences if there were no trees in the streets right now.

Also, trees help giving identity to the streets in the Vogelbuurt, as there are different tree types in the different streets. Map 55 and 56 give an overview of the different trees in the Vogelbuurt. The street sections provided in figure 57 show what effects the trees have on the streetscape.
Fig. 55, Trees in the Vogelbuurt and surroundings by type (source: Gisweb)

Legend
- Tilia (Linde, linden, ash)
- Fraxinus (es, platan, maple)
- Platanus (esdoorn, platan)
- Acer (kersenboom, cherry tree)
- Prunus (paardenkastanje, chestnut)
- Aesculus (eik, oak)
- Ulmus (ipe, elm)
- Robinia (acacia, alder)
- Alnus (els, whitebeam, hawthorn)
- Sorbus (meelbes, apple tree)
- Malus (perenboom, pear tree)
- Pyrus (hazelaar, fibert)
- Corylus (haagbeuk, hornbeam)
- Carpinus (hemelboom, locust)
- Ailanthus (okkernoot, wingnuts)
- Fagus (beuk, beech)
- Liquidambar (amberboom, sweetgum)
- Pinus (den, pine)
- Taxodium (cypress, remaining species)
On the main access- and district access roads there are two rows of trees, one on each side of the road, appropriate to their greater width, which give them more allure, as these are more important streets than the residential streets in both their connecting (see fig 16, prev.ch.) and their mix use of functions (see fig 22, prev.ch.). The residential streets have mostly one kind of tree that is specific for that street, giving them identity compared to the other, highly similar residential streets. Exceptions are the southern parts of the Tapuitstraat and Korhaanstraat as to where it comes to the amount of trees. Although not being a district access road, here there are two rows of trees, a different type on each side of the street. This part of the Vogelbuurt was designed by architect Van den Broek, who had a clear view on modern building and the principles of light and sun that come with it (Komossa, 2008, p. 100). As is seen by the balconies, this part of the Vogelbuurt differs from the northern part by the orientation of the balconies: all towards the west to receive the most of sunlight, instead of facing the private gardens. This principle of lighting was continued in the planting of trees in the street. The eastern streetside has higher trees that bring a green atmosphere. The western side is planted with ornamental – lower – trees that do contribute to the green atmosphere, but do not block the sunlight for the facade that is behind it (Verhees, 1998, p. 38).

**Conclusion:** In the Vogelbuurt there can be made a rough division of types of green: the private gardens, the surrounding green at the Lepelaarsingel and the green in the streets – the trees. In a rather brown and monotonous environment these trees are of great importance in giving colour, giving identity to a street and providing material for the eye to wonder around. They contribute to the qualities of imageability, enclosure and human scale and should thus be included in any redesign of the public space in the Vogelbuurt.
Fig. 57, Sections of streets in the Vogelbuurt. How trees give identity to streets.
9. Transparency and Privacy zoning

The space between the public realm and the private realm is of great importance when it comes to the extension of the private realm into the public realm. These spaces define to what amount people consider a space to be public or private, and thus in what amount and how they use it. When it comes to this, there are two things that are important: transparency and privacy zoning. These two terms are closely related and will be the point of focus in the coming chapters.

Transparency
The outcomes of the quality test resulted in the rating of five qualities of public space. The qualities of imageability, enclosure, human scale and complexity have now been discussed. The quality of transparency will be dealt with in the coming chapters.

The street wall, or edge, is where the exchange points of different realms of privacy are located (Gehl, 2010, p. 75). Transparency is about the ability of people to guess what is behind the street walls – behind a window inside a building. If the street wall has openings – in the sense of that buildings are located away from the sidewalk – people cannot guess what is there. If they know, they will feel more comfortable: People are invited – if only psychologically – behind those walls (Ewing et al., 2006, p. 4; A. B. Jacobs, 1993, pp. 285, 286). It also works the other way around: people inside can be part of what is going on outside, get involved in public life, if there is transparency.

There are subtle ways to achieve transparency, doors and windows are not always required. A.B. Jacobs uses the example of blank-walled passageways in Venice (1993, p. 287), where there are no windows and very few doors, but because there are tree branches hanging over the walls, one can be taken psychologically into the garden beyond.

The quality of transparency is highly dependent on the number and characteristics of openings in buildings. In the quality test the rating for transparency is calculated using three elements: the proportion of windows at street level, the proportion of street wall and the proportion of active use. The higher these proportions, the higher the level of transparency.

What the quality test does not take into account though, is the transparency provided by the extension of the private realm into the public realm. If people extend their private realm, by putting personal items outside, or by always leaving the curtains open, transparency increases as well. For the passer by it is clearer what is going on beyond the street walls. The amount and way into which people extend their private realm is called privacy zoning.
Privacy zoning
The goal of this research is to use physical design to improve not only the physical qualities of a space, but also the social qualities that are influenced by it. Interaction with neighbours takes place in the direct dwelling environment. This social interaction taking place here makes it possible for inhabitants to think of their dwelling environment as “theirs”. The physical qualities of the street should facilitate possibilities for social interaction though. Social contacts are only possible when inhabitants can be in control of their level of privacy. The desired level of privacy depends on the person, but also the needs of that person on a certain moment. The physical environment should thus be able to cope with these differences in desires; it should offer possibilities for both making social contacts as well as possibilities for seclusion. When these possibilities and thus the control over privacy zoning are not possible, social contacts are missed or avoided. When the transition from public to private is too harsh, people tend to isolate their private space from the public space. The hybrid zone or transition zone will soften this transition and thus invite people to extend their private realm. Research has shown that over 80% of informal contacts take place in the front gardens: the inhabitant stays “safe” within his own territory and is still easily approachable. To be in control of privacy zoning, the physical environment should be legible as a system of different zones of possibilities for social interaction. The public space, the hybrid zones, the private dwelling, etc. It is utterly important that all these different zones are recognisable and of good quality to spend time in (Dorst van, 2005, pp. 286, 287, 290, 294).
10. Physical elements that contribute to quality: building scale

In the previous chapters is explained that the quality of public space has a major influence on the quality of living. Not only the public space itself is important in this case, but also – or even more – the transition space from public to private.

To improve the quality of public space, the physical qualities should be addressed. These physical qualities of public space are just the beginning though. They should invite people to extend their private activities into the public realm. And this extension begins in the transition space from public to private – an area that thus needs focus of attention in design.

In the Vogelbuurt we have seen that this transition space is scarce. Whereas other residential areas have transition areas that are part of the public space – eg. open porticos or front gardens – areas like this are mostly absent in the Vogelbuurt. As the majority of the dwellings in the Vogelbuurt are portico dwellings, this dwelling type will be the focus of this chapter. The transition spaces between public and private space in the Vogelbuurt’s portico dwellings are:

- **Facades**: the strict separation between the public street and the private inside of the dwelling
- **Porticos**: the space shared by the inhabitants of six apartments, but that is not (visual) accessible for those people present in the public space
- **Balconies**: private square metres belonging to the dwelling, but located in the public realm

These three elements are the focus of this chapter.

![Fig. 58, Three focus points of transition space: 1. Facade 2. Portico 3. Balcony](image)
Fig. 59, Physical elements that contribute to quality as discussed in this chapter
Facades

Street facades have a decisive influence on life in city space. This is where indoor and outdoor life can interact, where public and private meet, where activities inside the buildings can move out into the common space of the city. Jan Gehl (2010, pp. 75,136) calls these street facades the “edges of the city”. People are attracted by these edges as they are the place from which we can master the space: we are facing what is happening and our backs are covered. The edges of the city are thus very important to pay attention to.

Openings

In the quality test one sees rather similar ratings for the quality of transparency in the different streets. In the Vogelbuurt, the street walls are rather closed and in many cases it is clear what is going on behind the facades: the buildings are either residential or there is a shop inside. The more openings, the more transparent a street is. This explains the low transparency of the Roodborststraat, where there are only a few windows facing the street, and the slight difference between the northern residential streets and the southern ones, as the latter have a bigger proportion of glass in their façade, see figure 60.

The Roodborststraat needs extra attention as the cause of the low transparency rate – very low amount of openings – results in a feeling of inhabitants to feel less responsible for this area, but also feel less safe here. There should be “eyes on the street” (J. Jacobs, 1961). This can be provided for by opening up the blind facades at the short edges of the building block, or by providing functions that make that people spend time in this area.

Another thing that lowers the amount of transparency is vacancy of buildings. When the openings show an empty room, or when the windows are cladded with paper, it is not clear, not transparent what is going inside. The same goes for windows that are covered with curtains or blinds which “are just as opaque as any masonry wall” (A. B. Jacobs, 1993, p. 286). This is something that is not taken into account in the quality test, as it only asks for input for the presence and proportion of windows, not whether they are covered or not. If this was put in the test as well, the transparency of the residential streets would be lower, as by observation there are quite some windows in the residential streets that are covered by curtains. For the Tapuitstraat and Fazantstraat a quick counting of windows was done, showing whether they are closed off by curtains, are partially closed off by curtains or not closed off at all. The pie charts in figure 62 show that around half of the windows on the ground floor are closed off. This has nothing to do with orientation or window properties (depending on architect). The high amount of closed off windows can be explained by the absence of hybrid space which makes that people feel they are really close to public space and thus want to “protect” their public realm (Dorst van, 2005, p. 286).

Conclusion: With exception of the Roodborststraat, the openings in street walls and facades make that the streets in the Vogelbuurt score decent on the quality of transparency. This score is not all-including though, as it does not take into account windows that are covered. In redesigning public space, one should take into account that inhabitants need a transition space between public and private space to be invited to open their curtains and thus increase the quality of transparency. The Roodborststraat deserves extra attention, as the lack of “eyes on the street” makes this an area where people feel less safe and feel less responsible for. Opening up the blind facades and providing functions in this area will increase transparency and feeling of safety.
Fig. 60, Openings versus closed facade for the tree types of portico dwellings in the Vogelbuurt

Fig. 61, Low transparency in the Roodborststraat

Fig. 62, Openness of windows in the Tapuitstraat and Fazantstraat

Fig. 63, Closed, half open and open window
**Functions**

Pedestrians experience the ground floors of dwellings most close and intense. The upper floors are not part of their immediate field of vision. These are viewed from a considerably greater distance, and for the same reason our perception of them lacks detail and intensity (Gehl, 2010, p. 76). The functions and layout of the ground floor is thus very important in the experience of the street, so here should be the main focus when it comes to extending the private realm.

By comparing functions that are located behind the façade in residential functions, one can distinguish the more public functions of kitchen and living room and the more private functions of bedroom and bathroom. The bathrooms in all cases are not located at the façade but the location of kitchen, living room and bedroom differs for the different dwelling types.

The layout of the dwelling plans in the Vogelbuurt differs per architect, which results in different functions along the facades, see figure 64 and 65. Where in the northern part – the dwellings by architects Vermeer and Sutterland – the kitchen is always located at the side of the garden, where also the balconies are located, in the southern part – by Van den Broek – this positioning does not depend on where the streets are, but on the orientation of sun.

In the northern part, due to the layout of dwelling plans based on the location of streets and gardens, in every street the same functions will appear at the street façade. In the original layout both the living room and small bedroom are located at the street side and the kitchen and larger bedroom at the garden side. Nowadays the larger bedroom is often part of the living room, which results in only one bedroom at the street side. When extending the private realm into the public realm, one finds great opportunities to do this at the location of the living room. The bedroom on the other side is a private space one does not want to extend towards the public domain.

In the southern part, Van den Broek positioned the kitchen and living room on the west side of the building block, so these spaces, where most time is spend during daytime, can mostly profit from the sun. This results in streets where on both sides of the streets, different functions are located behind the façades. The west side of the street has both the large and small bedroom behind the street façade, although the large bedroom is often in use as extension of the living room. The east side of the streets has both the kitchen and living room behind the façade. Due to the more open character of kitchen and living room – compared to the bedrooms – the east façade brings great opportunities for extending the private realm into the public realm. On the west side this the location of bedrooms makes it less likely to extend the private realm here. On the garden side it has great opportunities though. A more public function instead of the private garden would be thinkable here.

**Conclusion:** When assuming that the layout of functions within the dwellings stays unalternated, in the northern part of the Vogelbuurt the location of the living room at the street side façade makes it realistic to extend the private realm into the public realm. The location of the bedroom on the other hand, makes that not the whole width of the dwelling façade can be opened up. In the southern part the juxtaposition of both “open” private functions – kitchen and living room – at the same façade makes that this provides great opportunities for opening up and extending the private realm. This can be done for both the street side as well as the garden side, where in the latter case the garden can achieve a more public function.
Legend
- kitchen/bedroom (bedroom can be living room)
- living room/bedroom/kitchen/living room
- bedroom/bedroom (one bedroom can be living room)
- master bedroom (or extension of living room)

Fig. 64, Scheme: location of functions behind facades

Fig. 65, Functions behind facades
Construction

If one wants to extend the private realm into the public realm by opening up the façade, adding new spaces to it or removing parts, it is important to know the construction of the existing and subsequently what the possibilities are for intervening.

The facades in the Vogelbuurt consist mainly of brick, sometimes interspersed with natural stone at the location of the porticos. The openings were originally filled with wooden window frames, but many window frames have nowadays been replaced by plastic ones.

The construction of the three types of dwellings is pretty similar. In all three cases the load bearing walls are positioned perpendicular to the façade, with floors – either consisting of joists or concrete slabs – spanning parallel to the facades (see fig 67). Also, the balconies are placed on concrete beams, which are again resting on the load bearing walls. This makes that the façades themselves only have to support their own weight. Making openings in the façade for extension is thus relatively easy concerning the load bearing construction.

Although none of the floors is distributing its weight on the façades, the way the floor and façade meet is different for the three building types. Van den Broek makes a clear distinction between floors and facades. He continues the façade, without interruptions made by the floor. He applies this both in the dwellings and porticos and even leaves an open space between floor and façade in the portico, so the façade continues from top to bottom (see fig 66). Vermeer and Sutterland do not make such a clear distinction between façade and floor. They continue the floors into the façade, both at the dwellings and porticos. Unless Van den Broek, they do not have the concept of an on-going vertical façade that clearly marks the portico (this will be discussed more elaborately in the sub-chapter “porticos”).

Conclusion: Due to the fact that the facades are not the load bearing, it is relatively easy to open up the facades. While designing one should take into account the different approach of Van den Broek versus Vermeer or Sutterland who respectively see the floors and facades as separate elements or as one functioning whole.
Fig. 67, Load bearing structure for different dwelling types (drawings by Chi Yi Liao (adjusted by author))

- Van den Broek Type A
- Van den Broek Type B
- Sutterland Type
- Vermeer small type
- Vermeer big type

Legend:
- Black: Load bearing wall
- Brown: Self supporting brick facade
- Gray: Reinforced concrete slab
- Light gray: Joist
- Yellow: Wall plate
- Orange: Concrete lintel
- Blue: Reinforced concrete beam
Porticos

The portico dwellings in the Vogelbuurt are part of a larger history of efficient housing models for large amounts of people. As mentioned in the introduction, the Vogelbuurt came into being as part of the reconstruction after the bombing of Rotterdam when there was a shortage in housing. The history of the portico dwelling goes back to the same circumstances, when there had to be built many houses for many people.

History (Leupen & Mooij, 2008, p. 144)

In the end of the 19th century the industrial revolution asked for housing for the many proletarians. To save space, this housing took form as stacked apartments. Stacking apartments was also common for mansions, where two maisonettes would be stacked, both accessible by their own front door, the upper apartment reachable with a separate staircase. Whereas for buildings with two or three floors, it was still possible to provide separate staircases for every apartment – although this took quite some space – the higher the buildings, the more space the staircases would take. The solution for this problem of space in the case of smaller apartments was the “Haagse portiek” [*], which provided a separate entrance for the ground floor apartments, but had a shared, open staircase for the apartments on the first and second floors. Consequence of this was that the opening in the façade was now seen over two floors instead of one, as was the case with the separate entrances.

In the first half of the 20th century, the “Haagse portiek” was criticized by functionalist architects who wanted clarity and repetition in floor plans, something that was not the case for the “Haagse portiek”. This led to the “modern portico” which has a central front door that gives access to a common staircase, which then again leads to the front doors of the separate apartments. Every apartment is now equal in plan and in the façade the portico is visible over all floors.

Although the original meaning of the word portico refers to a space that is open to the space surrounding it, the name “portico” is still used for the shared staircase, even though it is now closed off from the street.

[*] Dutch term: “Haagse portiek”; “The Hague portico”. Name derived from the type of portico which is very common in the city of The Hague
Transition spaces
The levels of privacy in and around the porticos in the Vogelbuurt have been discussed briefly in chapter 5 where they were characterized as public outside space, shared space in the staircase and the space of the private dwelling. In Carnisse there are many examples of portico dwellings giving access to six apartments, just like in the Vogelbuurt, but their levels of privacy are not the same.

The porticos at the Pleinweg and Van Swietenlaan (fig 69) have an open staircase, but they also have this minor in-between space separating the front doors of the ground floor apartments from the public sidewalk. The balcony in the Van Swietenlaan also introduces the transition from public to private space by functioning as a canopy marking the entrance of the building. These elements make that the front doors are part of the public realm, visually connected and accessible, but the in-between space is also part of the private realm of the apartments: the private realm extends into the public realm, which makes that the inhabitants of the ground floor apartments put plants in this in-between space. Also, the front doors seem to function as “guards” for the staircase behind which makes that this staircase feels more private then when there is an absence of the front doors, like the example in the Flakkeesestraat (fig 70). The absence of front doors near the entrance of the portico makes that the inhabitants do not consider the space as being theirs, so they do not extend their private realm. This can cause undesired use by people other than the inhabitants, which might have been the reason why many of the porticos in the Flakkeesestraat are closed off.

When the porticos in the Vogelbuurt are compared to other porticos in Carnisse it can be concluded that the transition from public space to the porticos in the Vogelbuurt is very strict: there is a strict separation between portico and public space – no niche or canopy introducing the portico – nor a decent option for people in the public space to (visually) connect with what is going on inside the portico. I will elaborate on this in the description of the porticos in the Vogelbuurt that follows.
Porticos in the Vogelbuurt
The buildings in the Vogelbuurt within the scope of this research are designed by three different architects: Van den Broek, Vermeer & Van de Tak and Sutterland (see figure 71 through 73).

The portico of Van den Broek is very light, due to the great amount of glass that is used. Van den Broek himself described the porticos as “extension of the street” and “lanterns along the road” (Komossa, 2010, p. 71). The latter one may be true, but the “extension of the street” does not really apply here. The ground floor is mostly closed off by the solid door and the glass above it is (originally) not transparent but translucent. The low transparency of the portico in combination with the raised first floor levels makes that the distance between inside and outside is enlarged. It is seen though, that many alterations executed to modernise the portico result in a more transparent look, with transparent glass and even glass in the door. Compared to the other two types of porticos, the ones from Van den Broek are indeed very transparent, in the sense that the difference in material in portico – glass – and the rest of the façade – brick – make a clear distinction between portico and dwellings. Although Sutterland is the only one who applied transparent glass in his portico design, the amount of glass is relatively small and does not make the portico transparent or distinct from its surroundings. Due to the juxtaposition of windows of the portico and dwellings, it seems that the brick façade continues in front of the two different functions. Sutterland does not emphasize the portico as a whole, but only its entrance by using equal windows for both portico and dwellings and emphasizing the entrance with a frame of natural stone.

Vermeer’s portico is very non-transparent, with little amount of glass and glass that is mostly translucent, both in the original and alternated versions. The vertical articulation of the portico though, makes the separation of functions clear, although not as obvious as is the case at Van den Broek’s portico. The use of natural stone and non-rectangular shapes in combination with the topping of a dormer window makes that the portico is clearly distinct from the dwellings, but in a more subtle way then is the case at Van den Broek’s portico.

Fig. 71, Portico by Van den Broek. Clockwise: plan, facade, 3D scheme, new facade and original facade
Fig. 72, Portico by Vermeer. Clockwise: plan, facade, 3D scheme, new facade and original facade

Fig. 73, Portico by Sutterland. Clockwise: plan, facade, 3D scheme, new facade and original facade
As it is easier to change the openings in the facade than the brickwork, alternations in the Van den Broek portico are executed more often and also have a bigger visual influence due to the size of the surface that is changed at once. Alternations in in the Vermeer or Sutterland portico do not strike the passer-by as much as alternations in the Van den Broek one, as the appearance of window frames here are often preserved or replaced by one with similar appearance. And even if they are strikingly different (see the example of Sutterland in fig 73) they do not have such a big influence as alternations in the Van den Broek façade.

Although the porticos look very different from the outside, the inside, at least in materialisation, hardly shows any difference between them (with exception of the porticos that have been refurbished and thus do not contain the original elements anymore). As students we discussed that this is probably because the buildings of the different architects were part of the same plan and built simultaneously by the same contractor. The yellow tiles and materials used for flooring and handrail of the staircase are the same in all three porticos.

Sightlines

Fig. 74, Portico by Van den Broek. Clockwise: facade first landing seen from inside, dwelling front door, portico front door seen from outside and seen from inside
Fig. 75, Portico by Vermeer. Clockwise: facade first landing seen from inside, dwelling front door, portico front door seen from outside and seen from inside.

Fig. 76, Portico by Sutterland. Clockwise: facade first landing seen from inside, dwelling front door, portico front door seen from outside and seen from inside.
There are some apparent differences between the insides of the different portico types though. An important one is the orientation of the doors (see fig 71 through 73). Where in the porticos of Van den Broek and Sutterland the doors to the dwellings are positioned 90 degrees angled as compared to the front door of the portico, the Vermeer portico has its front doors in the same direction as the portico entrance door. Also, the location of the portico entrance door is different – either in the middle or to the side – and in case of the Sutterland portico, the staircase is mirrored. Depending on these features, sightlines both from and towards the dwelling differ per portico, see fig 77. This results in different experiences of privacy. In case of the Van den Broek and Sutterland portico, sightlines between inhabitants at their front door or the ones entering or being in the portico hardly cross each other. The view the inhabitant has is the front door of the neighbour. Inhabitants thus do not have an overview of the portico when opening their front door, which results in a weaker connection with this space, but there is the aspect of social control of the neighbours. The Vermeer portico in this sense is exactly the opposite. Dwelling entrance and portico have a strong connection, and neighbours have a greater sense of privacy. The benefit of this is that there is a small version of “eyes on the street”, but in this case “eyes on the portico”. This can be exploited more, but only on the condition that the front doors should be somehow transparent. This is the withdrawal in all porticos: the portico does not function well as a transition space because there are no visual connections with between portico and dwelling.

**Conclusion:** compared to the porticos of Van den Broek and Sutterland, the Vermeer portico has a stronger connection between portico and dwelling, as sightlines from the dwelling at first glance oversee a big part of the staircase and in case of the right ground floor dwelling, there is even a view on who is entering the portico as well. By making visual connections between portico and dwelling, the portico can function more as a hybrid space.
Levels of privacy
One can look deeper into the levels of privacy in the porticos in the Vogelbuurt by looking at the walking routines of inhabitants. As the basement provides room for storage and the attic is only reachable with a ladder, the latter one is hardly used by inhabitants in their daily routine. This makes that the inhabitants of the apartments on the ground floor normally only use a relatively small part of the shared spaces in the building. They will use the basement and the first few steps of the staircase to reach their front door, but – unless they go and visit their neighbours – will not use the rest of the portico. Figure 78 shows that the lower part of the portico is thus used more intensely then the upper part, which is only used by the inhabitants of the upper two apartments. People who do not live up here do not use this part of the portico in their daily routine. This results in a relation between the height of the portico and the level of privacy: the higher in the portico, the less people will use it, the more private it is. This can be put into use when considering the possibilities for converting the portico in a more hybrid space. For example, if the two dwellings on the upper floor are being merged into a bigger dwelling, the upper part of the portico can function as the “front garden” of this dwelling, providing a hybrid space.

Another element that is worth mentioning is the dimensions of the porticos. Just like the dwellings themselves, the porticos are pretty small in dimensions according to modern day standards. This results in a lack of hybrid space on the scale of the portico. Just as the portico entrance directly meets the street, on a smaller scale the front doors of the dwellings directly meet the space that other inhabitants use to get to their dwellings. In a public or shared space it has to be clear for the passer-by that a space he passes belongs to a certain dwelling. On the other hand, the inhabitant needs his place to manoeuvre, to put down his grocery bags when looking for his keys, etc. (Dorst van, 2005, p. 290). In the case of the porticos in the Vogelbuurt, there is little space for inhabitants to extend and display their territory, simple because the space is used to walk.

Conclusion: When redesigning the porticos and applying the principles of providing good circumstances for inhabitants to control their privacy zoning in a sequence of transition spaces, there has to be paid attention to every transition zone, in this case not only the transition from public to portico, but also from portico to dwelling. In case of the latter, a crucial element is that there needs to be provided more space.
Balconies

Apart from the contact between inside and outside due to openings, there are the sightlines to and from different places within public space. Visual contact between people in public space is important to the experience of intensity and contact opportunities for everyone involved (Gehl, 2010, p. 149).

Good examples of such visual contact in the Vogelbuurt are the balconies. There is a difference in orientation of the balconies in the northern part and the southern part of the Vogelbuurt (see fig 82). In the northern residential streets, the balconies are always located above the private gardens, while in the southern streets the orientation of the balconies stays west (more sun) so their location alternates: some of them are located above the gardens, some are located above the streets. In the latter case it is possible to have visual contact between what is going on in the streets and what is going on inside the dwellings, as the balconies are an extension of the private inside space of the dwellings. This visual contact can even evolve into personal contact; see figure 80. Contact like this is less common in the northern part of the Vogelbuurt, where only the balconies on the end of the building blocks have visual contact with the public streets.

Balconies are a good example of privacy zoning. They provide a hybrid space that is neither totally part of the public space, nor of the private space. Although balconies are not accounted for in the quality test, they definitely contribute to the quality of transparency.

What is noticeable is that the balconies on the street side are only present on the first and second floor, not on the ground floor. On the garden side of the dwellings though, both in the northern and southern part of the Vogelbuurt, there are always the platforms in front of the door leading to the back garden. These platforms can be seen as balconies as well, although they are connected with the garden below with a few steps (see fig 79). If it were not for the garden to be the private property of the inhabitants as well, these platforms would form a perfect hybrid zone. Slightly raised above the surrounding space it is the transition zone between inside and outside.

Considering this, it would not be strange to think of the private gardens to fulfil a more public function, as these hybrid zones are present anyway.

The fact that the dwellings in the Vogelbuurt are raised above the street due to the half-sunken basements has the same benefit: there is a greater distance between public and private space. People inside are positioned higher than passers-by, making it easy for them to look outside on the streets (even when seated) while it is more difficult for the ones outside to look in. But still there is the absence of the hybrid zone on the street side, which makes that people tend to close off their windows by curtains or blinds anyway. If the façade on the street side provides the same kind of platform as the back gardens, there will be a great transition zone from public to private, keeping passers-by at a distance while for inhabitants it would still be possible to visually control what is happening on the streets (see fig 81). Being in control of the physical environment does not only consist of making changes (making the environment personal) but also of being in control of the possibilities to be involved in the environment (Dorst van, 2005, p. 100). Also, people tend to use private outside space – the extension of their territory – to do private activities. In this way chances of social contact between inhabitants and passers-by increase.

Conclusion: Balconies and other raised outside spaces increase the possibilities of privacy zoning. Because they allow private activities to come outside, the level of transparency increases. People feel safe in their private outside space, are more eager to use this than the public outside space and thus chances for social contacts between inhabitants and passers-by increase. Balconies or raised platforms thus provide great opportunities in the redesign of the Vogelbuurt, not only at their current location, but definitely also on ground level on the street side.
Fig. 79, Platform at backside of dwelling functioning as transition zone between inside and outside.

Fig. 80, Visual contact leading to personal contact on the balconies.

Fig. 81, Feeling of privacy. Top: no privacy due to equal height of inside and outside floors and lack of in between space. Middle: increase of privacy by raising inside floor (current situation in Vogelbuurt). Bottom: most amount of privacy and possibilities for extending territory due to presence of transition zone (suggestion for situation in Vogelbuurt).

Legend:
- balcony street side oriented
- balcony garden side oriented

Fig. 82, Orientation of balconies in the Vogelbuurt.
Balcony use
The balconies are an extension of the private realm of inhabitants. This contributes to transparency and liveability, especially when these balconies are located at the street side. In the Vogelbuurt one can see many different kinds of use of the balconies. People put chairs on the balconies for seating, laundry lines for drying clothes, they attach flowers to them or just come out for to watch the streets and see if there is someone to chat with (fig 80 and 83). In this way the balconies are used or show signs of usage, providing a lively and legible environment.
Not all balconies are used though, or they are used to store goods. This is a pity because it makes the sight of the street less attractive. To change this, balconies should be made attractive to spend time on. Most important in this is that there should be a nice view (Gehl, 2010, p. 140). By improving the public space, people will be attracted to use their balconies and put attributes there (chairs, flowers, etc.) that show that use, even if the people themselves are not there.
Another thing to be mentioned is that it is possible that people do not feel comfortable with the transparent properties of the railing of the balconies. When seated, people can prefer to view only, not to be viewed AT. For this reason there are quite some balconies that are cladded with all kinds of materials, which gives a messy appearance. This can be taken care of though, for example at the Lepelaarsingel, where as result of an Opzoomer project (see chapter 13) the whole block now has the same cladding on their balconies (fig 84). A solution like this does not only provide for a coherent appearance, it also shows the involvement and collaboration – the social aspects – of the inhabitants.

Conclusion: Many balconies in the Vogelbuurt are put to use in various ways, providing for a high level of liveability and transparency. This use should not only be maintained, but also encouraged, as there are also balconies that are not in use or used as storage. To change this, there has to be provided a good reason for inhabitants to use the balcony: a fine view. This will be provided in the public space.
Also, while designing, the materialisation and transparency of the materials used in the balconies should be considered, as there are people that do not like to sit “in full sight” of the public realm. These materials should not form a messy, but a coherent whole, that can also function as a physical sign of social bounding.
Fig. 83, The Vogelbuurt shows a variety of use on the balconies: seating, laundry, storage... but also empty balconies.

Fig. 84, Similar balcony cladding in the Lepelaarsingel as result of an Opzoomer-project.
Construction

It is shown that balconies and raised platforms function very well as extension zones of the private realm. In the redesign, these elements should definitely be exploited. A look into the construction of the balconies and platforms present in the Vogelbuurt is very useful to get insight in the current situation and possibilities for adjustments.

The balconies and platforms of Sutterland have a different layout according to the floor they are located on (fig 85 and 87). The ground floor has a platform with on 45 degree cut side and straight steps leading to the garden on the other side. The first floor balconies have two 45 degrees cut sides, which makes them trapezium shaped. The second floor is a big exception, as it has an on-going balcony that continues all around the closed building block. This is nowhere else to be seen in the Vogelbuurt. Another exception compared to the other building types is that the balconies of the dwellings are all accessible from both the bedroom and kitchen.

The balconies and ground floor platforms of Vermeer are the simplest type when it comes to differences and similarities: both the balconies and platforms of the ground floor are similar in size and construction, with the only difference being the steps on the ground floor. They are located straight above each other (fig 85 and 86).

The balconies and ground floor platforms of Van den Broek show similarity in appearance and construction, but differ in size (fig 85, and 88 through 90). The platform on the ground floor is always located on the garden side, the balconies either above this platform or at the street side.

What all balconies have in common is that they are constructed out of concrete. They rest on two reinforced concrete beams that then again pass on their forces to the load bearing walls (see sub-chapter “façade”). To make the balconies attractive for more intense use, there can be the wish of extending them, as the balconies – especially the ones on the first floor of Sutterland – are rather small for current day standards. One can choose apply the same concept of brackets leaning on load bearing walls, but has to take into account that this will cause more cold bridges. Solutions avoiding this are recommended and should be sought when it is decided to extend the balconies.
Fig. 86, Vermeer. Top: ground floor platform, bottom: balcony

Fig. 87, Sutterland. Top: ground floor platform, bottom: balcony

Fig. 88, Van den Broek. Top: ground floor platform, bottom: balcony (drawings by Benjamin Kwant)

Fig. 89, Van den Broek. Detail of ground floor platform

Fig. 90, Van den Broek. Detail of balcony
11. Conclusions and recommendations

With help of the quality test and the literature work of Jan Gehl and Allen B. Jacobs it has now become clear what elements contribute to the public image of quality of public space and in what extend they are present in the Vogelbuurt.

The outcomes of the quality test made a clear visual division possible according to the column charts. This chapter provides an overview with conclusions and recommendations for redesign for the streets as grouped according to these charts. For each group will be discussed what should be done to raise the scores or to keep the high scores that are already there for the qualities of imageability, enclosure, human scale, transparency and complexity.

**General recommendation: inviting transition space and public space**

*This will increase the qualities of imageability, complexity, human scale and transparency*

Before going into detail for every street, I want to discuss the general recommendation that is to be implemented in all the streets of the Vogelbuurt: create inviting transition space and public space. This is something that is not taken into account in the quality test, but is most important. Whereas this test does count the amount of people on the streets, it does not count how long people spend time there and what they are doing – whether they are performing necessary activities or optional activities.

To ensure liveliness and feeling of safety in the streets and to provide possibilities for social contacts, people have to be present. And they will only be present if the public space invites them to be part of this space. This can be achieved by providing diversity in use which attracts people to do both necessary and optional activities here. Extending necessary activities, like walking from the dwelling to the car that is parked around the corner instead of in front of the dwelling, makes people spend time in public space for a little longer than usual. Optional activities will always account for a longer time spent in public space and thus chances for social contacts increase. This diversity in use should be provided for in the space between public and private space and in the public space: by extending the private realm into the public realm, by moving private activities into public space.

- More people in transition spaces and public space raise the quality of imageability and complexity.
- Diverse use brings along diverse attributes and appearance, which increases the quality of imageability, complexity and human scale.
- Extending the private realm into the public space creates transparency by showing active use and simultaneously increases chances for more social contact.
Fig. 91, Average scores of the outcomes of the Quality test in the Vogelbuurt
Conclusions and recommendations for improving quality in the Northern residential streets:
Tapuitstraat N, Fazantstraat N, Korhaanstraat N

Imageability.
Present average score: 3.45 out of 5
Recommendations to increase the score for quality of imageability:
- **Increase the number of courtyards, plazas and parks and maintain the green elements that are already there.**
  There is the possibility to create courtyards and parks in the public space and create (visual) relations with the green that is already there in the private gardens. The green that is already there in the streets, in the form of trees, should be maintained.
- **Create visual relations with the major landscape features.**
  Where possible there should be designed (visual) relations with the Lepelaarsingel and any park to be designed within the plan.
- **Maintain a substantial amount of historic building frontage.**
  The rating of imageability is higher with historic building frontage, this element should be preserved.
- **Increase number of buildings with identifiers and non-rectangular shapes.**
  To decrease the monotonous in appearance in the residential streets there should be diversity in shapes and material, to give the different parts of the building blocks their own identity. This can be done by extending the buildings into the public realm or by removing parts of the building blocks. Providing other functions then dwellings that have their own identifiers also increases imageability.
- **Increase the number of people in the streets.**
  Provide inviting transition space and public space so people will be invited to do both their necessary and optional activities here (see general recommendation)

Enclosure.
Present average score 3.58 out of 5
Recommendations to increase the score for quality of enclosure:
- **Lower the number of long sightlines.**
  This can be provided for by planting trees that blocks the long sightlines, or by adding or extending buildings that do so.
- **Maintain the high proportion of street wall.**
  The closed street wall adds significantly to the quality of enclosure and transparency and should thus not be interrupted too much
- **Maintain the small proportion of sky.**
  The relatively small proportion of sky as a result of the distance between and height of buildings in the street in combination with the grown up trees should be preserved.

Human scale.
Present average score 2.51 of 5
Recommendations to increase the score for quality of human scale:
- **Lower the number of long sightlines.**
  (see “enclosure”)
- **Increase the proportion of windows at street level.**
  This can be done by opening up the façade at street level, both at the location of dwellings and the portico. Also, people should feel comfortable to open their curtains. This opening up of the façade should be done in combination with providing hybrid space, in order for people to keep their possibilities for privacy zoning.
- **Do not raise the building height significantly.**
  The average three level building heights do not influence the rating of human scale too much. The higher the building height though, the lower the rating of human scale.
- **Manage number of small planters, street furniture and other street items**
  Small planters and street furniture put there by inhabitants add to the feeling of human scale but are hardly present right now. They should be provided for, preferably by inhabitants, as a way of extending their private realm into public space.
Street furniture in the form of cars should be lowered if possible. They occupy space that is put to better use when people can use it for activities in the public realm. Lighting should be incorporated in the design not just as a functional element, but also as an element that can add to visual quality, even at daytime.

**Transparency.**

Present average score 3.34 out of 5

Recommendations to increase the score for quality of transparency:
- *Increase the proportion of windows at street level.*
  (see “human scale”)
- *Maintain the high proportion of street wall.*
  (see “enclosure”)
- *Increase the proportion of active use.*

At the moment there are quite some apartments vacant. By improving the physical qualities and subsequently social qualities of the Vogelbuurt, people should be attracted to come and live here and thus provide active use again. Another option is to provide a different function then dwelling in the vacant apartments, which increases diversity and subsequently adds to the scores of other qualities.

**Complexity.**

Present average score 3.25 out of 5

Recommendations to increase the score for quality of complexity:
- *Increase the number of building colours.*

The monotonous on-going facades in the streets have very little variation in colours. The pavement that has similar colours to the facades adds to this lack in variety. To increase complexity, variation in material and colour has to be provided.
- *Increase the number of pieces of public art*

Public art is a special kind of street furniture that increases complexity. It contributes significantly to the quality of complexity and should thus be provided.
- *Increase the number of people in the streets.*
  (see “imageability”)

**Conclusion**

The major conclusion that applies to the northern residential streets is that they fall short in diversity of both functions and appearance. The repetition of facades, the long sightlines and absence of (visual) connection to green spaces makes that the streets score mediocre on qualities that can be higher. Due to the harsh separation of public and private space, privacy zoning is not really possible.

To improve the variety in appearance and functions the redesign should provide for variety in building shapes, colours, material (also “green” material) and connections between different public and private spaces. The façade, porticos and balconies play an important role in this. By providing physical alterations like extending or removing building parts (which can also reduce long sightlines), privacy zoning can appear, which makes it possible for inhabitants to extend their private realm into public space, together adding to diversity in appearance and use and increasing transparency. Another recommendation is to connect to the green spaces in the Vogelbuurt, the gardens and Lepelaarsingel, by providing openings that allow for (visual) connections.
Conclusions and recommendations for improving quality in the Southern residential streets: Tapuitstraat S, Fazantstraat S, Korhaanstraat S

Imageability.
Present average score: 3.44 out of 5
Recommendations to increase the score for quality of imageability:
- **Increase the number of courtyards, plazas and parks and maintain the green elements that are already there.**

There is the possibility to create courtyards and parks in the public space and create (visual) relations with the green that is already there in the private gardens. The green that is already there in the streets, in the form of trees, should be maintained.
- **Create visual relations with the major landscape features.**

Where possible there should be designed (visual) relations with the Lepelaarsingel and any park to be designed within the plan.
- **Maintain a substantial amount of historic building frontage.**

The rating of imageability is higher with historic building frontage, this element should be preserved.
- **Increase number of buildings with identifiers and non-rectangular shapes.**

Although half of the facades have balconies that provide depth and shadow in the façade, due to repetition the appearance is still very monotonous. There should be diversity in shapes and material, to give the different parts of the building blocks their own identity. This can be done by extending the buildings into the public realm or by removing parts of the building blocks. Providing other functions then dwellings that have their own identifiers also increases imageability.
- **Increase the number of people in the streets.**

Provide inviting transition space and public space so people will be invited to do both their necessary and optional activities here (see general recommendation).

Enclosure.
Present average score 3.80 out of 5
Recommendations to increase the score for quality of enclosure:
- **Maintain the absence of long sightlines.**

The short length of the street concluded by the Wielewaalstraat and Roerdamplaan is an advantage that should be maintained.
- **Maintain the high proportion of street wall.**

The closed street wall adds significantly to the quality of enclosure and transparency and should thus not be interrupted too much.
- **Maintain the small proportion of sky.**

The relatively small proportion of sky as a result of the distance between and height of buildings in the street in combination with the grown up trees should be preserved.

Human scale.
Present average score 3.54 of 5
Recommendations to increase the score for quality of human scale:
- **Maintain the absence of long sightlines.**

(see “enclosure”)
- **Increase the proportion of windows at street level.**

Compared to the northern streets the proportion of windows is relatively high, but it can be higher, both at the location of dwellings and the portico. Also, people should feel comfortable to open their curtains. This opening up of the façade should be done in combination with providing hybrid space, in order for people to keep their possibilities for privacy zoning.
- **Do not raise the building height significantly.**

The average three level building heights do not influence the rating of human scale too much. The higher the building height though, the lower the rating of human scale.
- **Manage and maintain the number of small planters, street furniture and other street items**

Small planters and street furniture put there by inhabitants add to the feeling of human scale. The first ones are fairly represented in especially
the Korhaanstraat. Just like these planters, other street furniture should be provided for, preferably by inhabitants, as a way of extending their private realm into public space. Street furniture in the form of cars should be lowered if possible. They occupy space that is put to better use when people can use it for activities in the public realm. Lighting should be incorporated in the design not just as a functional element, but also as an element that can add to visual quality, even at daytime.

**Transparency.**
*Present average score 3.46 out of 5*

Recommendations to increase the score for quality of transparency:
- *Increase the proportion of windows at street level.*
  (see “human scale”)
- *Maintain the high proportion of street wall.*
  (see “enclosure”)
- *Increase the proportion of active use.*
At the moment there are quite some apartments vacant. By improving the physical qualities and subsequently social qualities of the Vogelbuurt, people should be attracted to come and live here and thus provide active use again. Another option is to provide a different function then dwelling in the vacant apartments, which increases diversity and subsequently adds to the scores of other qualities.

**Complexity.**
*Present average score 3.24 out of 5*

Recommendations to increase the score for quality of complexity:
- *Increase the number of building colours.*
The monotonous on-going facades in the streets have very little variation in colours. The pavement that has similar colours to the facades adds to this lack in variety. To increase complexity, variation in material and colour has to be provided.
- *Increase the number of pieces of public art*
Public art is a special kind of street furniture that increases complexity. It contributes significantly to the quality of complexity and should thus be provided.
- *Increase the number of people in the streets.*
  (see “imageability”)

**Conclusion**
As the northern residential streets, the southern ones also fall short in diversity of both functions and appearance. The repetition of facades and absence of (visual) connection to green spaces makes that the streets score mediocre on qualities that can be higher. Due to the harsh separation of public and private space, privacy zoning is not really possible. A difference with the northern part are the balconies on the street side, which should definitely be incorporated in the redesign, both for increasing transparency as providing diversity in appearance.
To improve the variety in appearance and functions the redesign should provide for variety in building shapes, colours, material (also “green” material) and connections between different public and private spaces. The façade, porticos and balconies play an important role here. By providing physical alterations like extending or removing building parts privacy zoning can appear, which makes it possible for inhabitants to extend their private realm into public space, together adding to diversity in appearance and use and increasing transparency. Another recommendation is to connect to the green spaces in the Vogelbuurt, the gardens and Lepelaarsingel, by providing openings that allow for (visual) connections.
Conclusions and recommendations for improving quality in the district access roads: Wielewaalstraat and Gruttostraat

**Imageability.**
Present average score: 4.82 out of 5
Recommendations to maintain the high score for quality of imageability:
- Maintain the number of courtyards, plazas and parks and maintain the green elements that are already there.
The courtyards that are already there in the streets are relatively small though; there could be more courtyards or parks. The private gardens of the residential streets that end here are a good opportunity to provide more (visual) connections with courtyards and/or parks. The green elements present in the streets in the form of trees add highly to imageability and should be maintained.
- Maintain visual relations with the major landscape features.
The visual relation with the Lepelaarsingel is clearly present and should be maintained to keep the quality of imageability high.
- Maintain a substantial amount of historic building frontage.
The rating of imageability is higher with historic building frontage, this element should be preserved, especially in the Gruttostraat where there is the elder people's home which is a very dominant non-historic building.
- Maintain the number of buildings with identifiers and non-rectangular shapes.
The diversity of functions like shops and community buildings highly add to the quality of imageability due to their diversity in appearance. This element should be preserved.
- Increase the number of people in the streets.
The number of people in the streets is relatively high, compared to the residential streets, but many people come here for necessary activities. They should be invited for optional activities as well (see general recommendation).

**Enclosure.**
Present average score: 2.09 out of 5
Recommendations to increase the score for quality of enclosure:
- Lower the number of long sightlines.
The great width of the streets that continue for long length (also outside the Vogelbuurt) make that the streets score low on enclosure. This can be reduced by planting trees that blocks the long sightlines, or by adding or extending buildings that do so. Space for this is provided on the broad sidewalks.
- Increase the proportion of street wall.
The great width of the streets and the many side-streets make that the street wall is very open. This can be reduced by adding elements (buildings, plants, street furniture) on the broad sidewalks.
- Maintain the small proportion of sky.
Despite the width of the streets, the proportion of sky is still relatively small due to the double rows of grown up trees. This should be preserved.

**Human scale.**
Present average score: 2.92 of 5
Recommendations to increase the score for quality of human scale:
- Lower the number of long sightlines.
(see "enclosure")
- Maintain the proportion of windows at street level.
Due to the many commercial functions in the streets, the proportion of windows in the street wall is high, this should be maintained.
- Do not raise the building height significantly.
The average building heights does not influence the rating of human scale too much. In the Gruttostraat the highrise does not have much influence due to the many other lower buildings, but the proportions between building heights is worth looking into.
- Manage and maintain number of small planters, street furniture and other street items
Due to the small amount of residential functions, there is not much street furniture put there by inhabitants. Small planters and street furniture is present though, provided for by the government. This adds to the quality of human scale, but is not very personal. The street furniture provided by the shops is scarce, raising this will contribute to human scale provided for by people who are involved in the space on regular basis. Lighting should be incorporated in the design not just as a functional element, but also as an element that can add to visual quality, even at daytime.

Transparency
Present average score 3.22 out of 5
Recommendations to increase the score for quality of transparency:
- Maintain the proportion of windows at street level.
  (see “human scale”)  
- Increase the proportion of street wall.
  (see “enclosure”)  
- Increase the proportion of active use.
At the moment there are quite some shops vacant. Although the recession probably has some influence on this, by improving the physical qualities and subsequently social qualities of the Vogelbuurt, people should be attracted to run their shops here and thus provide active use again.

Complexity
Present average score 4.19 out of 5
Recommendations to increase the score for quality of complexity:
- Maintain the number of building colours.
The many different functions provide for many different colours. This should be maintained.
- Increase the number of pieces of public art
Public art is a special kind of street furniture that increases complexity. It is not present in the district access roads, but the spacious streets provide good opportunities to place art here. It contributes significantly to the quality of complexity and should thus be provided
- Increase the number of people in the streets.
  (see “imageability”)

Conclusion
Compared to the residential streets, these two streets score high on imageability and complexity. This is caused by the visual connection with the Lepelaarsingel and the relatively high mix of use, which takes care for different functions, different building shapes, colours, presence of people. These characteristics should be maintained to ensure the high score of these two qualities. An opportunity lies in connecting the streets with the gardens of the residential streets.
What should be taken into account when redesigning the public space is to improve the quality of enclosure and human scale caused by the width of the streets. This width though, opens opportunities to fill the now unused space with elements that provide possibilities for optional activities. This will not only contribute to the liveliness of the street along with increase of imageability, complexity and transparency, but can also add to the quality of human scale and enclosure as new elements are added in open space.
Conclusions and recommendations for improving quality in the Roodborststraat

Imageability

Present score: 4.59 out of 5

Recommendations to maintain the score for quality of imageability:
- Increase the number of courtyards, plazas and parks and maintain the green elements that are already there.

There is the possibility to create courtyards and parks in the public space. Especially because this street does not serve a major function for traffic, it is a serious opportunity to turn this street into a park and connect it with the gardens that are now closed off by fences. The green that is already there in the streets, in the form of trees, should be maintained.
- Maintain visual relations with the major landscape features.
  The visual relation with the Lepelaarsingel is clearly present and should be maintained to keep the quality of imageability high.
- Maintain an amount of historic building frontage.
  The rating of imageability is higher with historic building frontage. The frontage that is there though, are mostly blind facades. Alternations of the facades are recommended, despite their historical value.
- Increase number of buildings with identifiers and non-rectangular shapes.
  As said, the facades in the Roodborststraat hardly have any windows, which makes that they almost completely consist of brick. This monotonous appearance should be taken care of. This can be done by opening up the façade, by extending the existing buildings into the public realm or by adding new elements with identifiers. Providing other functions then dwellings that have their own identifiers also increases imageability.
- Increase the number of people in the street.
  The number of people in the street is very low. In terms of accessibility, the Roodborststraat does not have a function so little people use the street for passing, just mainly for parking. This street thus has great opportunities to be converted into a place that attracts people, without having to care about the possibilities of cars to pass. It can be a pedestrian friendly area.

Enclosure.

Present score 2.34 out of 5

Recommendations to increase the score for quality of enclosure:
- Maintain the absence of long sightlines.
  The short length of the street concluded by the Tapuitstraat and Lepelaarsingel is an advantage that should be maintained.
- Increase the proportion of street wall.
  The many side-streets make that the street wall is very open. This can be reduced by adding elements (buildings, plants, street furniture) in the open space that comes free when the street is converted into a pedestrian friendly area.
- Maintain the small proportion of sky.
  The grown up trees reduce the proportion of sky but due to the absence of street wall the proportion is still relatively big. The trees should thus be preserved and maybe even complemented with more trees if one wants to reduce the proportion of sky. On the other hand, if the Roodborststraat is to become a park-like environment, enclosure should not be one of the qualities anyway. It can be the open space in the enclosed neighbourhood.

Human scale.

Present score 2.70 of 5

Recommendations to increase the score for quality of human scale:
- Maintain the absence of long sightlines.
  (see “enclosure”)
- Increase the proportion of windows at street level.
  Because the Roodborststraat is the place where the on-going building blocks are cut up, there are hardly any windows facing the street, also not on street level. On top of that, half of the building block ends is formed by garages that are low in human activity. This asks for a big intervention, to increase both human scale and transparency in this street. The facades should be opened up, show activity within the building block, and these activities should be invited to extend into the public space.
- **Do not raise the building height significantly.**

  The average three level building heights do not influence the rating of human scale too much. The higher the building height though, the lower the rating of human scale.

- **Increase number of small planters, street furniture and other street items**

  Due to the small amount of residential functions, there is not much street furniture put there by inhabitants. With exception of lampposts (with extra lighting to reduce the feeling of insecurity at night) and two small playground items, there is no street furniture at all. Lighting should be incorporated in the design not just as a functional element, but also as an element that can add to visual quality, even at daytime. Street furniture should be provided to invite people to use the space and should be put there by inhabitants themselves, as an extension of their private realm, so they will feel responsible for this space.

**Transparency.**

Present score 2.17 out of 5

Recommendations to increase the score for quality of transparency:

- **Increase the proportion of windows at street level.**

  (see “human scale”)

- **Increase the proportion of street wall.**

  (see “enclosure”)

- **Increase the proportion of active use.**

  At the moment there is no active use at all to be seen in the Roodborststraat. The garage boxes and fences do not contribute to active use. It is a must to provide possibilities for use by inhabitants, by providing street furniture or adding new buildings with new functions, but also by opening up the facades of the dwellings, so there is a visual connection with the inhabited apartments.

**Complexity.**

Present score 3.11 out of 5

Recommendations to increase the score for quality of complexity:

- **Maintain the number of buildings.**

  In contrast to the residential streets, buildings in the Roodborststraat are easy to distinguish. This should be maintained.

- **Increase the number of building colours.**

  The blank brick facades with just a few windows have very little variation in colours. The pavement that has similar colours to the facades adds to this lack in variety. Green elements provide for some variety, but to increase complexity, more variation in material and colour has to be provided.

- **Increase the number of pieces of public art**

  Public art is a special kind of street furniture that increases complexity. It is not present in the Roodborststraat, but if the street is turned into a pedestrian friendly area it provides good opportunities to place art here. It contributes significantly to the quality of complexity and should therefore be provided.

- **Increase the number of people in the streets.**

  (see “imageability”)

**Conclusion**

Most noticeable in the Roodborststraat is the low rating for the quality of transparency – a result of the lack of windows that face this street. Due to this lack of “eyes on the street” this is an area where people feel less safe and feel less responsible for. Positive elements, like the high imageability scores caused by the visual connection with the Lepelaarsingel and variety in street wall should be maintained. As in the district access roads there are bad (visual) connections with the private gardens. As these border the Roodborststraat, it would be nice to connect them, especially because the street is not needed for cars and shows opportunities to be converted into a pedestrian friendly area. The street scores low on enclosure and human scale, caused by the many openings in the street wall where the perpendicular streets meet the Roodborststraat. Like in the district access roads, enclosure and human scale can be increased by filling up the open space with elements that provide possibilities for optional activities. Simultaneously the low complexity score can be increased by providing diversity in appearance and function when adding these elements, which will also attract people.
Conclusions and recommendations for improving quality in the Roerdomplaan

Imageability.
Present score: 4.88 out of 5
Recommendations to maintain the score for quality of imageability:
- Maintain the number of courtyards, plazas and parks and maintain the green elements that are already there.
The courtyards present in the streets can be made more inviting and accessible for non-inhabitants, but their size and quality is good.
- Maintain visual relations with the major landscape features.
The visual relation with the Lepelaarsingel is clearly present and should be maintained to keep the quality of imageability high.
- Maintain an amount of historic building frontage.
The rating of imageability is higher with historic building frontage. The northern part of the street has historic building frontage, the southern part has not. The northern part should be maintained.
- Maintain number of buildings with identifiers and non-rectangular shapes.
There is a clear distinction between the northern part of the street (mainly residential) and the southern part (mainly other functions). Especially the southern part has many non-rectangular shapes and identifiers.
- Increase the number of people in the street.
The number of people in the street is not as high as one would expect in a street housing this much different functions. The point is that these functions do not use outside space (medical centre) or have their outside space bordering another street (school, childcare). The latter one could extend their outside realm so that it borders the Roerdomplaan.

Enclosure.
Present score 2.41 out of 5
Recommendations to increase the score for quality of enclosure:
- Maintain the absence of long sightlines.
The short length of the street concluded by the Dorpsweg and Lepelaarsingel is an advantage that should be maintained.
- Increase the proportion of street wall.
The many side-streets make that the northern street wall is very open. The southern part lacks a street wall, as there are large open spaces in front of the buildings. These are in use as green spaces though, and visually as well as physically accessible: a good quality. The quality of enclosure should be increased using other options than condense the street wall.
- Maintain the small proportion of sky.
The relatively small proportion of sky as a result of the dense “roof” of both grown up and young trees should be preserved.

Human scale.
Present score 3.21 of 5
Recommendations to increase the score for quality of human:
- Maintain the absence of long sightlines.
(see “enclosure”)
- Increase the proportion of windows at street level.
The buildings on the south side of the street do not have many windows at street level, but mostly on higher levels, reducing both transparency and human scale. The buildings should be opened up more at street level, especially because they are non-residential functions and should be inviting for visitors.
- Do not raise the building height significantly.
The average building height is equalled out by using both the 2 level houses on the north side of the street as the higher buildings on the south side. The average height is thus low, but proportions are not equal between the two street sides. The open space in front of the higher buildings makes this less disturbing though.
- Increase number of small planters, street furniture and other street items.
There are many small planters as the houses on the northern side all have a front garden, which is mostly well kept. In addition to this there are flower pot and benches put there by the government. These elements should be maintained.

Transparency.
Present score 3.07 out of 5
Recommendations to increase the score for quality of transparency:
- Increase the proportion of windows at street level.
  (see “human scale”)  
- Increase the proportion of street wall.
  (see “enclosure”)  
- Increase the proportion of active use.
This proportion is very high; at the moment of visit none of the buildings were vacant and for all of them it was clear what their function was.

Complexity.
Present score 4.31 out of 5
Recommendations to maintain the score for quality of complexity:
- Maintain the number of buildings.
  In contrast to the residential streets with portico dwellings, buildings in the Roerdomplaan are easy to distinguish. This should be maintained.
- Maintain the number of building colours.
  The different buildings with different functions all have their own material expression which makes that there are many different building colours. This should be maintained.
- Increase the number of pieces of public art
  Public art is a special kind of street furniture that increases complexity. It is not present in the Roerdomplaan, but it would for example fit nicely in the courtyards in front of the higher buildings on the southern side of the street.
- Increase the number of people in the streets.
  (see “imageability”)

Conclusion
The Roerdomplaan can be seen as a combination of a district access road and the Roodborststraat. It has the diversity in use and appearance of the former, but has a lack of transparency like the latter. This is lack of transparency is caused by the fact that the street wall is very open on the southern side, as there are relatively large-scale buildings located here that take distance from the street. This distance is filled with nice gardens and courtyards, but not all are accessible for public. This makes that enclosure and human scale scores are low. It would not take much effort to make these courtyards accessible for public and would increase the quality of the street. The width of the street itself is not as wide as on the district access roads, so little open unused space is left to convert into other use. Connecting the gardens and courtyards with the streets (and adding new elements) will thus increase human scale and enclosure scores. The visual connections with the front gardens of the residential buildings on the north side should be maintained.
The qualities of imageability and complexity show high scores. The elements that provide for this – visual connection with Lepelaarsingel, diversity in use and appearance – should be maintained.
Like in the residential streets, it is seen that parking takes into account quite a part of the use of public space. The multitude of functions on the southern side of the street makes that these parking spaces are also used by visitors of the facilities, apart from the residents in the streets. The low density of dwellings and the parking spaces on the back side of the facilities though, make that there are still vacant parking spaces. These spaces could be put to function that invites people for optional activities.
PART IV - THE PERSONAL IMAGE
12. Reasons for involvement of inhabitants

As described in the introduction in the chapter "opportunities", involving inhabitants in the design process has many benefits. By involving owners and inhabitants in the plans, they will know what is going on, instead of being told by others what will happen in “their” area, increasing benevolence. Research has shown that inhabitants that participated in transformation processes were more satisfied with the results than the ones that did not. Just by being part of the process inhabitants are already more satisfied, without even taking the design itself into consideration (Marissing van, 2008, pp. 20, 22).

Another reason to involve inhabitants in design processes is that they are the experts in the area; know what is going on and they are the ones who will have to live in this area after improvements.

In his book ‘The practise of everyday life’ Michel de Certeau states with this quote that there is a gap between the way designers design a space to be used, and the way the space will actually be used by its users:
“The presence and circulation of a representation (taught by preachers, educators, and popularizers as the key to socioeconomic advancement) tells us nothing about what it is for its users. We must first analyze its manipulation by users who are not its makers. Only then we can the difference or similarity between the production of the image and the secondary production hidden in the process of its utilization”(Certeau de, 1988, p. XIX).

What he calls the “secondary production” is the adaption of the design by its users to mould it in a way it can be used as desired. To avoid unnecessary adoptions, a design should be intended to be used in the same way as it will be used after realisation. The best way to achieve this is to involve the people that are actually going to use the space in the design. In the case of the redesign of the public space in the Vogelbuurt, those users will be the inhabitants.

Creating social bounding

Another reason for involving inhabitants in the design – that is immediately a goal in itself in case of the Vogelbuurt – is that by participating, inhabitants can get to know each other, causing bounding with both other inhabitants and the neighbourhood. In practice, strong social bounding between inhabitants is still acknowledged as one of the main conditions for a pleasant and liveable neighbourhood (Marissing van, 2008, p. 40).

Keams and Forrest (2000) distinguish five dimensions of social cohesion: 1. common values and a civic culture, 2. social order and social control, 3. social solidarity and reductions in wealth disparities, 4. social networks and social capital and 5. territorial belonging and identity.

In a neighbourhood like the Vogelbuurt, which is labelled as being a “problem area” the main reason for this lies in social conditions. As a designer one has to acknowledge that architecture and the built environment cannot solve all social problems, but it can at least contribute by providing opportunities to increase social cohesion.

The fifth dimension of social cohesion is within the field of architecture and urban design. It includes the amount in which inhabitants feel bounding with their neighbourhood. The way in which inhabitants experience their neighbourhood has to do with identity of “their” living environment. With globalisation spreading, identity of one’s own space has become more important. In a world in which borders are vanishing, people are in need of a safe and secure place and want to feel connected to that space. When people share such feelings of a place, social bounding increases (Marissing van, 2008, p. 48).
Economic background
Currently we are dealing with economic recession. This makes that the government saves money and considers very well where to spend money. This had led to decrease of funds of local municipalities as well. In these times of economic bad times, the government and its lower organs implement policies that encourage “active citizenship”, taking responsibilities and an increase of “self-reliance” and “together-reliance”. The new way of working is to not focus on “help” for citizens, but to focus on “support” (Steenbergen van & Wittmayer, 2012, p. 15). Apart from the other benefits of involvement of inhabitants already discussed, this approach is thus very contemporary and very applicable in these economic times.
13. Personal images of the Vogelbuurt

The first step in involving the inhabitants in the design of public space in the Vogelbuurt is to get a view on what people want in their streets. What are the things they are satisfied about already and what should be improved according to them? Apart from what people think and what they want, there should also be paid attention to how people use a space (Graaf, Spoormans, & Quist, 2013). For example, people can say that they find there is a lack of green space in their neighbourhood, but as soon as is asked if they would use that green space if it was there, it is not unlikely that people will answer something like “no, I do not like to take walks in the park”. This was also taken into mind when talking to inhabitants.

Talking to inhabitants
Subject of the conversations with inhabitants was how people feel about their neighbourhood and street, what they think are good and bad elements and how they use the public space. An important question asked by us was how people are participating in their neighbourhood and – more importantly – how they would like to contribute to improving their neighbourhood. Figure 92 shows a word web displaying the answers most used by inhabitants when asked what they think about their neighbourhood. The bigger the size of the words, the more often the answer was given.

The first thing that is noticeable is the great variety and contradiction in answers. On the whole it seemed that people agreed that the Vogelbuurt has “gone backwards” the last years, but the way people deal with this differs. Some people say that they feel less safe than before, especially after some incidents in the vicinity, like the shoot-out that took place. They feel that the “new” inhabitants (referring to foreigners) are not sociable in their behaviour, and that the Vogelbuurt is no longer the “volksbuurt”[1] it used to be. These are mostly also the people that have little contact with their neighbours (“We say ‘hi’ when we meet in the staircase, but that’s it”). Other people are very satisfied about their neighbourhood. They have good contacts with neighbours, find it a “pleasantly busy” area and do not bother too much about the “little a-social behaviour of neighbours”. They do not have plans to leave and enjoy living in their neighbourhood.

On the whole there can be made a distinction between two extremes: people that enjoy living in their neighbourhood, are satisfied and have social contacts, and the ones that feel the area is not nice to live in, unsafe, with a-social neighbours. Between these extremes there are the people who think of their neighbourhood as “quiet”, a place where they can live “cheap and comfortable” and say that there is “not much I want to change”.

Getting in contact with inhabitants
To get insight in the behaviour and wishes of the people in the Vogelbuurt, we went to site with a group of fellow students to talk with inhabitants on October 18th 2013. While being there, our experience was that many people were not willing to talk to us about their neighbourhood. Many times we were told that people did not like to talk to us because they were not interested or because they did not feel like participating in “another one of those researches” (we were clearly not the first ones with interest in the Vogelbuurt). We figured that an important aspect is the fact that when you ring a doorbell in the portico dwellings, people answer it by using the intercom, instead of opening the door, and thus find it easier to reject a conversation.

These rejections – in combination with the fact that we only talked to a selection of inhabitants of the Vogelbuurt – makes that it has to be pointed out that these conversations with inhabitants do not give an exclusive view on personal images of the Vogelbuurt. These personal views are just a selection of the many views in the neighbourhood, and then also from the people that were willing to talk to us.

The varied outcomes of the conversations though, make that we did achieve a variety of personal images on the Vogelbuurt.

[1] Dutch term: working-class area/district, sociable neighbourhood inhabited by people with common background
Fig. 92, Word web displaying most common answers of inhabitants when asked about their neighbourhood. The bigger the size of the words, the more often the answer was given.
But indeed, the neighbourhood has “gone backwards”, that is what most people agree about. We asked if they were willing to contribute to improving their neighbourhood. The answers were very mixed, in coherence with the rough distinction made above: some people are very enthusiastic about their neighbourhood, like to help improving. Others do not feel like putting effort in improvements, either because they do not want to spend their time on it, or because they feel like “improvements would not work”.

**Relation to former research**
The outcomes of the conversations agree to conclusions of former research carried out in the Vogelbuurt and Carnisse. In the documents “De Rollen omgedraaid”(Steunpunt Wonen, 2002), “Particuliere participatie” (Steunpunt Wonen, 2004) and “Carnisse in transitie?”(Steenbergen van & Wittmayer, 2012) there is also the sketch of the image of Carnisse and the Vogelbuurt of an area that is “going backwards” and needs to be put on the right track again. These documents state that there ways to improve the neighbourhood again, also by involving inhabitants. I myself also believe this is possible, especially with the outcomes of the conversations confirming that there are also inhabitants that want to (participate in) improve their neighbourhood.
14. Predecessors of involvement of inhabitants

There are numerous examples of involving inhabitants in improving the quality of a neighbourhood. Also in the Vogelbuurt and Carnisse this has been done before, either on the initiative of inhabitants themselves or with commission of the municipality. This chapter discusses some examples.

**Rotterdamse Straataanpak**

The “Rotterdam Streetapproach” is a program set up by the Rotterdam municipality and consists of two sub-programs: “Opzoomeren” and “Mensen maken de stad”. The goal of the street approach is to increase participation, social cohesion and active citizenship. The policy is carried out by the boroughs, in the case of the Vogelbuurt, the borough of Charlois, to which Carnisse belongs (Hereijgers, 2001, p. 4).

“Opzoomeren” is a term founded in 1989 when the inhabitants of the Opzoomerstraat in Rotterdam decided that their living environment should be revived and refreshed. They joined forces and with the help of municipality and media, the project became renowned and started serving as an example of how inhabitants can improve their neighbourhood. It has now spread all around Rotterdam (BOC, 11 October 2013).

How it works is that people can apply for a small fund for the idea they have to increase participation and social cohesion in their neighbourhood. This can be for a big clean-up-activity, but also for small investments (Boelen, Kaptein, & Jong de, 2011, p. 51).

In the Vogelbuurt some examples of “Opzoomer actions” are barbecue parties during summer, Christmas trees in the streets, the flowerpots in the Korhaanstraat, or the installation of additional lighting of porticos (BOC, 11 October 2013). Figure 93 shows a picture of the “Opzoomer train”, the mascot of the Opzoomer initiative, in the Vogelbuurt.

The Opzoomer actions in the Vogelbuurt show that inhabitants are willing to participate in improving the quality of their neighbourhood. The Opzoomer initiative takes care of both the physical elements of the neighbourhood as the social elements.

*Fig. 93, Opzoomeren in the Vogelbuurt (TaMagia & Beek van, 2011, p. 45)*
The central goal of “Mensen maken de stad” (people make the city) is (Hengeveld & Janssens, 2010): “encouragement of social cohesion and active citizenship, focusing on the streets. Specifically: on short term initiating, helping develop, support and facilitate of a durable culture of social and normative cohesion in streets.”

The normative part refers to covenants that inhabitants of a street set up together, according to what the inhabitants of that particular street find important. This covenant is printed on a sign and applied in the street. Figure 94 shows an example of such a sign in the southern part of the Fazantstraat. It says:

- We greet each other
- We welcome new inhabitants
- We participate in street activities
- We enliven the street with flowers and take care of the green facilities
- We feel responsible for each other’s safety, keep an eye on the street and install additional lighting.

This initiative shows that the people of the Fazantstraat are willing to improve both physical as well as social conditions in their street. The focus points on the sign show what is of importance to them. Issues that came forward earlier in this research report are recognisable here, like the low social bonding between neighbours and especially “new” foreigners, the “stony” atmosphere in the streets and the feeling of unsafety. The inhabitants of this street are aware of these issues and try to tackle them.

Fig. 94, “Mensen maken de stad” sign with “street rules”
“Plantjesmarkt”
The inhabitants of the Vogelbuurt found that their neighbourhood was “stony” in appearance and liked to add more green elements. In reaction to this, the municipality of Charlois commissioned Urbanerdam – consultants for advice and guidance in the field of housing and urbanism – to organise a plant market in the Vogelbuurt.
On this yearly event, inhabitants of the Vogelbuurt can buy plants to enliven their neighbourhood. The municipality provides the plants and pots, the inhabitants plant them. According to an employee of Urbanerdam, it is clear that this event makes that people feel more united. In the end, only a small amount of inhabitants participates (around five per cent) but a mixed public is reached and one year the plant market was even extended with a “play-on-the-street-day” organised by inhabitants.
This event is successful for two reasons: because the inhabitants themselves came up with the initiative and there’s a low threshold for participating, both concerning cost and effort (Boelen et al., 2011, pp. 44,45).

Because the municipality comes to the people, the inhabitants themselves do not have to put much effort in participating. This idea will be applied in my approach as well (see next chapter) where I will explain how to involve inhabitants in the design process.

Vogelbuurt toontje hoger
The project “Vogelbuurt toontje hoger” (Tuning up the Vogelbuurt) was initiated in 2002 with the idea that inhabitants and owners who want to invest in their neighbourhood should be accompanied and facilitated. The municipality did research on how to do this, which resulted in a project focussing on points like “creating goodwill”, bring inhabitants together in a panel, involve experts to help inhabitants, create communication with the municipality, etc. In short, people were informed on how to invest and how to communicate according to that. Unfortunately, investments were mostly done within the dwellings themselves. According to the report “Vogelbuurt toontje hoger”, for the investment in public space there is a lack of structure to make investments possible for inhabitants (Steunpunt Wonen, 2002, 2004).

From our conversation with the inhabitant’s organisation BOC we learned that this project was not a success and that there is not much visible result nowadays (BOC, 11 October 2013).
On the website of Urbanerdam (former Steunpunt Wonen) it says “Four years after the project, we learned a lot concerning how to deal with neighbourhoods with many private owners and small home owners association. Social structure has improved significantly, owners are more aware of their home owners association and people have more knowledge concerning this. A small group of owners is actively investing in their dwellings and home owners association” (Urbanerdam, 2007).

The last quote in combination with the comments of the members of BOC shows that inhabitants of the Vogelbuurt are indeed willing to invest, but not much is seen of this in the public space. According to Urbanerdam this is because of “lack of structure to make investments possible”.
My goal is to provide this structure, or in any case a design, so inhabitants themselves do not need to come up with a plan, but can design this plan with help of a student in architecture and the input of their fellow neighbours.
Van Swietenhof
Another example I would like to address is not located in the Vogelbuurt, but a few blocks around the corner in the eastern part of Carnisse: the Van Swietenhof, see figur 95. This “court” came into being when inhabitants of the Van Swietenlaan thought of a new destination for the old and neglected playground between the housing blocks. The average age of the inhabitants had increased and instead of a playground, people thought of converting it into a communal garden. They went to talk to the borough of Charlois and they agreed in converting the place, sponsoring it by their “participation fund”. Meanwhile the Van Swietenhof is a foundation, funded by the borough of Charlois and is kept moving by the voluntarily input of inhabitants. Many events take place here, like a pumpkin market, a flower market, people come to have lunch or come by to just enjoy the garden (Van Swietenhof, 2009).

This example shows how initiatives of inhabitants can convert public space from a pass-through area into a place where people want to stay. Because the initiative came from the inhabitants, they are willing to participate, and take care of the place after its realisation. The Van Swietenhof is a perfect example of a public space which helps the community to bind.

Fig. 95, Inhabitants in the Van Swietenhof (flickr.com)
Conclusion
The examples above support the idea of participation of inhabitants in improving quality of public space in the Vogelbuurt. They show that inhabitants of the Vogelbuurt are aware of the social problems in their neighbourhood and are willing to participate to take care of these problems, both by taking care of the physical as well as the social environment. What is also shown though is that people need guidance when it comes to interventions on a bigger scale, as shown in the outcomes of the "Vogelbuurt toontje hoger" project. One is willing and able to invest in the private dwelling, but need (more) guidance for interventions in public space. What is also shown, for example in the Van Swietenhof project, is that when people are involved, they are enthusiastic about interventions, and willing to invest their time and money, also after the intervention has been completed. Funds for interventions and maintenance can be achieved by asking inhabitants to invest (time and money) and by looking for funds (like the participation fund).
PART V - TOWARDS A DESIGN
14. Design direction

This research report has given an overview – with the help of both public and personal images – what qualities are already there in the public space of the Vogelbuurt and what qualities should be improved when redesigning the public space.

The conclusion of this report is that to improve the quality of public space, attention has to be paid to both the public space itself and the transition from public to private space. This transition space is hardly present now, so when this space is designed, together with the improved public space it will have to form a whole that invites inhabitants to extend their private realm into the public realm (see figure 96). In this way private activities are brought into the public realm which makes that inhabitants feel responsible for these spaces. They will take care of it and while they do this they will not only take care of the physical aspects of public space and transition space; livability in the streets is also increased and chances for social contacts are possible. I thus want to focus my design on both the public spaces and transition spaces and make them a whole.

Focus
In the Vogelbuurt the public spaces and transition spaces I am most interested in are on building scale the facades, portico and balconies and in the public space the area that surrounds the building blocks: the residential streets on the one side and the gardens on the other. The third location that interests me is the Roodborststraat, as this street has high potential to function as a place that can cause social bounding in the neighbourhood, a place that belongs to all inhabitants. To summarize: my design will focus on the following scales:
1. Building scale: façade, portico, balcony
2. Street scale: transition from building to public space, both on the street side and garden side
3. Neighbourhood scale: Roodborststraat as bounding element

For starters I want to focus my design on the area around the Roodborststraat which is concluded by the Gruttostraat, Lepelaarsingel, Wielewaalstraat and Dorpsweg (see fig 97). During my design process I will see in what amount of detail I can extend my design to the other parts of the Vogelbuurt as well.

Method
The starting points for design will be derived from the “public image”-part of this research report. The Vogelbuurt is analysed, it is clear what qualities are there and what physical elements should be applied to increase these qualities. With this input, some first sketches for design can be made.

As explained, the personal image is important as well. This is partly included in this report, but the major input from inhabitants will come when discussing the design.
I want to do this by gathering a small group of enthusiastic inhabitants who would like to improve their neighbourhood and who are willing to discuss about that with me. From the interviews in the neighbourhood and the conversations at BOC we found a few people who indicated that they were willing to cooperate with us students. The plan is that these people will help us find other people that are willing to cooperate so a discussion panel can be formed.

With this group of inhabitants I will discuss my design options. I will first explain my focus and direction of design and then provide some sketch designs (examples in fig 98) for the three focus points mentioned above. These sketch designs I will base on this research report. I want to start with some “extreme” options, for example turning the Roodborststraat into a big parking garage, so the residential streets can be bicycle- and pedestrian-only areas. By showing these sketches I want to evoke a discussion, so in this example, people will tell me what they think of parking in the streets, whether they would like to use the Roodborststraat for something else, etc. While discussing, if inhabitants come up with options, I can go deeper into this, by sketching what they are mentioning. I want to have a basic set of drawings of the Vogelbuurt (plans, elevations, etc.) so I can use my sketch role to immediately continue on the suggestions of inhabitants.
After such a discussion with inhabitants, I have gained insight in what people think about their neighbourhood and what design directions they agree to. I can then process the findings of this discussion in more serious designs, which can be discussed in the next meeting. I am not sure yet how many meetings and in what intervals there should be, I will have to find that out during the process.

Fig. 96 Privacy zoning before and after redesign

Fig. 97, focus area: privacy zoning before and after redesign
Design product
My design product will consist of a toolbox of interventions concerning
alternations in the public space and transition space of the Vogelbuurt. This
toolbox provides options, from minor to major interventions that can be put
into practise by inhabitants themselves, either individual or by a group of
inhabitants.

For example, I design a few options for the ground floor apartment to
extend their dwelling by implementing a front garden in the street, building
a bay window, etc. The owner of this particular dwelling can himself
decide whether he wants to do this or not. If the neighbour living above is
interested, he might be willing to cooperate with his downstairs neighbour
and also build a bay window, or use the extension on the ground floor to
function as a balcony.

Another example, on the scale of the portico is that inhabitants extend their
portico into the streets and use the space to extend the private realm of their
front doors in the portico.

For the neighbourhood scale there can be the example of the
Roodborststraat being converted into a communal garden, from which
inhabitants can choose to take care of a particular part, for growing their
own vegetables or flowers. They can do this by themselves or shared with
others. I will then design the layout of the garden, with parts that cannot be
alternated and parts that can be pointed out to be converted to the function
of the desires of the inhabitants.

The way I see my final design product is an urban plan for the streets of the
Vogelbuurt, in which some parts are fixed by design and some parts are
open to be alternated by the initiatives of inhabitants. The possibilities for
these initiatives are worked out in design by me as well, on architectural
scale. Figure 99 shows a sketch example of what the final design might look
like.

The urban plan is the string that laces up the beads, provided both by the
inhabitants and me.

Fig. 98, Examples of what the sketch designs used at the discussion group could look like
Fig. 99 Example of what my design product could look like
Literature

Images without reference are made by the author or fellow students in the graduation studio of the author.

BOC (11 October 2013). [Conversation with Aad Barendregt and Bep van Beek at Bewoners Organisatie Carnisse].


Menting, J. (2012). *Hybrid zones, the ideal place for contact. Design for communication in streets with no hybrid zone*. Delft University of Technology, Delft.


APPENDIX
Score sheets of quality test for the ten streets in the Vogelbuurt that were tested
### Measuring Urban Design Qualities Scoring Sheet

**Street: Tuptitstraat Hoornd**

<table>
<thead>
<tr>
<th>Step</th>
<th>Recorded Value</th>
<th>Multiplier</th>
<th>(Multiplier x Recorded Value)</th>
<th>Add Constant</th>
<th>Final Score</th>
</tr>
</thead>
</table>

#### Imageability
1. Number of courtyards, plazas, and parks (both sides, within study area)  
   0.43  
   0.00
2. Number of major landscape features (both sides, beyond study area)  
   0.72  
   0.00
3. Proportion historic building frontage (both sides, within study area)  
   0.97  
   0.97
4. Number of buildings with identifiers (both sides, within study area)  
   0.11  
   0.00
5. Number of buildings with non-rectangular shapes (both sides, within study area)  
   0.08  
   0.16
6. Presence of outdoor dining (your side, within study area)  
   0.64  
   0.00
7. Number of people (your side, within study area)  
   0.02  
   0.00
8. Noise level (both sides, within study area)  
   -0.18  
   -0.18

**Imageability Score:** 3.47

#### Enclosure
1. Number of long sight lines (both sides, beyond study area)  
   0.31  
   -0.31
2a. Proportion street wall (your side, beyond study area)  
   0.72  
   0.72
2b. Proportion street wall (opposite side, beyond study area)  
   0.94  
   0.94
3a. Proportion sky (ahead, beyond study area)  
   -1.42  
   -0.35
3b. Proportion sky (across, beyond study area)  
   0.00  
   0.00

**Enclosure Score:** 3.56

#### Human Scale
1. Number of long sight lines (both sides, beyond study area)  
   0.74  
   0.74
2. Proportion windows at street level (your side, within study area)  
   1.18  
   0.39
3. Average building heights (your side, within study area)  
   0.03  
   -0.01
4. Number of small planters (your side, within study area)  
   0.05  
   0.19
5. Number of pieces of street furniture and other street items (your side, within study area)  
   0.04  
   0.08

**Human Scale Score:** 3.21

#### Transparency
1. Proportion windows at street level (your side, within study area)  
   1.22  
   0.43
2. Proportion street wall (your side, beyond study area)  
   0.67  
   0.67
3. Proportion active uses (your side, within study area)  
   0.53  
   0.53

**Transparency Score:** 3.34

#### Complexity
1. Number of buildings (both sides, beyond study area)  
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   0.09
2a. Number of basic building colors (both sides, beyond study area)  
   0.23  
   0.23
2b. Number of accent colors (both sides, beyond study area)  
   0.12  
   0.23
3. Presence of outdoor dining (your side, within study area)  
   0.42  
   0.00
4. Number of pieces of public art (both sides, within study area)  
   0.29  
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5. Number of people (your side, within study area)  
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**Complexity Score:** 3.28
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### Measuring Urban Design Qualities Scoring Sheet

**Korhaanstraat Noord**

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### Measuring Urban Design Qualities Scoring Sheet

**Korhaanstraat Zuid**

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<td>0.72</td>
<td>0.72</td>
</tr>
<tr>
<td>2b. Proportion street wall (opposite side, beyond study area)</td>
<td>1</td>
<td>0.94</td>
<td>0.94</td>
</tr>
<tr>
<td>3a. Proportion sky (above, beyond study area)</td>
<td>0.37</td>
<td>-1.42</td>
<td>-0.53</td>
</tr>
<tr>
<td>3b. Proportion sky (across, beyond study area)</td>
<td>0</td>
<td>-2.19</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Add constant 2.57</strong></td>
<td><strong>2.51</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Human Scale</strong></td>
<td><strong>2.51</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Number of long sight lines (both sides, beyond study area)</td>
<td>1</td>
<td>-0.74</td>
<td>-0.74</td>
</tr>
<tr>
<td>2. Proportion windows at street level (your side, within study area)</td>
<td>0.45</td>
<td>1.50</td>
<td>0.68</td>
</tr>
<tr>
<td>3. Average building heights (your side, within study area)</td>
<td>3</td>
<td>-0.03</td>
<td>-0.01</td>
</tr>
<tr>
<td>4. Number of small planters (your side, within study area)</td>
<td>0.05</td>
<td>0.14</td>
<td>0.01</td>
</tr>
<tr>
<td>5. Number of pieces of street furniture and other street items (your side, within study area)</td>
<td>0</td>
<td>-0.21</td>
<td>0.00</td>
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<tr>
<td><strong>Add constant 2.61</strong></td>
<td><strong>3.70</strong></td>
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<tr>
<td><strong>Transparency</strong></td>
<td><strong>3.70</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Proportion windows at street level (your side, within study area)</td>
<td>0.45</td>
<td>1.50</td>
<td>0.68</td>
</tr>
<tr>
<td>2. Proportion street wall (your side, beyond study area)</td>
<td>1</td>
<td>0.67</td>
<td>0.67</td>
</tr>
<tr>
<td>3. Proportion active uses (your side, within study area)</td>
<td>1</td>
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<td>0.53</td>
</tr>
<tr>
<td><strong>Add constant 1.71</strong></td>
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<td><strong>Complexity</strong></td>
<td><strong>3.46</strong></td>
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<td></td>
</tr>
<tr>
<td>1. Number of buildings (both sides, beyond study area)</td>
<td>2</td>
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<td>0.10</td>
</tr>
<tr>
<td>2a. Number of basic building colors (both sides, beyond study area)</td>
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<td>0.23</td>
</tr>
<tr>
<td>2b. Number of accent colors (both sides, beyond study area)</td>
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<tr>
<td>4. Number of pieces of public art (both sides, within study area)</td>
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<td>5. Number of people (your side, within study area)</td>
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<td><strong>Add constant 2.61</strong></td>
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<td>Measuring urban design qualities scoring sheet</td>
<td>Auditor: Suzanne de Zwart</td>
<td>Date &amp; Time: 20 Sept. 2013, 1 pm</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>---------------------------</td>
<td>----------------------------------</td>
<td></td>
</tr>
<tr>
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### Imageability

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<tr>
<td>3</td>
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<td>0.33</td>
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**Total Imageability score**: 4.66

### Enclosure

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**Total Enclosure score**: 2.03

### Human Scale

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**Total Human Scale score**: 2.90

### Transparency

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**Total Transparency score**: 3.19

### Complexity

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**Total Complexity score**: 3.11

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<th>Measuring urban design qualities scoring sheet</th>
<th>Auditor: Suzanne de Zwart</th>
<th>Date &amp; Time: 20 Sept. 2013, 1 pm</th>
</tr>
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<tbody>
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<td>Street: Noordstraat</td>
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### Imageability

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<th>(Multiplier x Value)</th>
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**Total Imageability score**: 4.59

### Enclosure

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<td>-0.00</td>
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<td>0.8</td>
<td>0.73</td>
<td>0.63</td>
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**Total Enclosure score**: 2.34

### Human Scale

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<tbody>
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<td>-0.00</td>
</tr>
<tr>
<td>0.05</td>
<td>1.00</td>
<td>0.06</td>
</tr>
<tr>
<td>3</td>
<td>-0.003</td>
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<tr>
<td>0.05</td>
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<tr>
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**Total Human Scale score**: 2.70

### Transparency

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</thead>
<tbody>
<tr>
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<tr>
<td>0.6</td>
<td>0.67</td>
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</tr>
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**Total Transparency score**: 2.17

### Complexity

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<tbody>
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</tr>
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<td>2</td>
<td>0.12</td>
<td>0.24</td>
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<tr>
<td>0</td>
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<td>0.00</td>
</tr>
<tr>
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<td>0.00</td>
</tr>
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**Total Complexity score**: 3.11
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<th>Recorded Value</th>
<th>Multiplier</th>
<th>(Multiplier x Recorded Value)</th>
<th>Total Score</th>
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<tbody>
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<td>Imageryability</td>
<td>Number of courtyards, plazas, and parks</td>
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<td>0.41</td>
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<tr>
<td></td>
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<td>0.72</td>
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<tr>
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<td>Proportion historic building frontage</td>
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<tr>
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<td>Number of buildings with identities</td>
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<tr>
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<td>Number of buildings with non-rectangular shapes</td>
<td>6</td>
<td>0.18</td>
<td>0.88</td>
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<td>Presence of outdoor dining</td>
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<td>0.54</td>
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<td>0.00</td>
</tr>
<tr>
<td></td>
<td>Number of people</td>
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<td>0.20</td>
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</tr>
<tr>
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<td>Noise level</td>
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<td>-1.62</td>
<td>-1.62</td>
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<td>Total Imageryability Score</td>
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<td></td>
<td>+2.44</td>
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</tbody>
</table>

| Enclosure | Number of long sight lines | 1 | -0.31 | -0.31 | -0.31 |
| | Proportion street wall (front side, beyond study area) | 0.3 | 0.72 | 0.22 | 0.22 |
| | Proportion street wall (opposite side, beyond study area) | 0.2 | 0.94 | 0.19 | 0.19 |
| | Proportion sky (front, beyond study area) | 0.2 | -1.42 | -0.28 | -0.28 |
| | Proportion sky (across, beyond study area) | 0.3 | -2.19 | -0.66 | -0.66 |
| | Total Enclosure Score | | | +2.57 | 2.15 |

| Human Scale | Number of long sight lines | 1 | -0.74 | -0.74 | -0.74 |
| | Average building heights | 0.6 | 1.10 | 0.66 | 0.66 |
| | Average building heights (front, beyond study area) | 0.2 | 1.20 | 0.64 | 0.64 |
| | Number of small planters | 3 | 0.55 | 0.17 | 0.17 |
| | Number of tall structures and other street items | 3 | 0.20 | 0.60 | 0.60 |
| | Total Human Scale Score | | | +2.61 | 2.94 |

| Transparency | Proportion windows at street level (front side, within study area) | 0.6 | 1.22 | 0.73 | 0.73 |
| | Proportion street wall (front side, beyond study area) | 0.3 | 0.67 | 0.20 | 0.20 |
| | Proportion active uses (front side, within study area) | 0.9 | 0.53 | 0.48 | 0.48 |
| | Total Transparency Score | | | +1.71 | 3.25 |

| Complexity | Number of buildings (front side, beyond study area) | 8 | 0.55 | 4.40 | 4.40 |
| | Number of basic building colors (front side, beyond study area) | 2 | 0.22 | 0.44 | 0.44 |
| | Number of accent colors (front side, beyond study area) | 3 | 0.12 | 0.36 | 0.36 |
| | Presence of outdoor dining (front side, within study area) | 0 | 0.47 | 0.00 | 0.00 |
| | Number of pieces of public art (front side, within study area) | 0 | 0.20 | 0.00 | 0.00 |
| | Number of people (front side, within study area) | 10 | 0.31 | 3.1 | 3.1 |
| | Total Complexity Score | | | +2.61 | 4.31 |
Left:
Bird’s eye view over the southern part of the Vogelbuurt, designed by Van den Broek (NAi archives)

Right:
Urban plan Vogelbuurt, Kadaster, 28 August 1941 (Municipality archives Rotterdam)
Top: Van den Broek back facade platform, elevation (Municipality archives Rotterdam)

Right: Van den Broek back facade platform, section (Municipality archives Rotterdam)
Top: Sutterland back facade platform, elevation and section
(Municipality archives Rotterdam)

Right: Vermeer portico staircase, section (not scaled)
(Municipality archives Rotterdam)