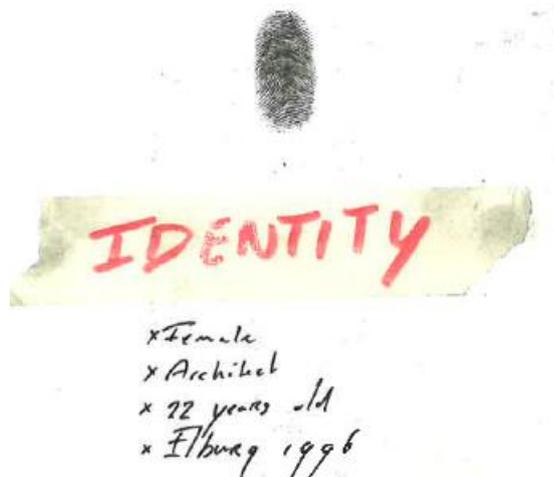


The graduation thesis of

SOFT CITY



Master of Science, Architecture, Urbanism & Building Sciences

By: Christine van der Veen under the guidance of *Birgit Jürgehake* & Leeke Reinders

Graduation studio: Veldacademie

17-1-2019

Preface

Architecture is about more than just its stones, plan and aesthetic appearance. My teacher in high school once said: "We are now going to talk about Architecture: an art movement that has nothing to do with emotion or feeling." At that moment I did not know much about the field, but I knew for sure: that is no architecture. In recent years I have developed a great love and passion for the built environment. In every plinth, roof and window you can already see how architecture can have the greatest influence on the entire lifestyle of people. In addition to the physical influence of architecture on the lifestyle of man, there is, in my opinion, a strong relationship between architecture and identity. The symbolism, organization and the rhythm of a certain space can have an immediate effect on the total experience of the visitor. Architecture cannot be defined solely as an art movement, let alone as emotionless.

The existing heritage already shows a lot of the identity and commitment of people with a certain place. The almost elusive essence, or identity, of a place can be found in the stories, events and materials. You could say that architecture over the years can, as it were, establish itself in the DNA of its environment.

Through my master, I specialized in social architecture. Architecture that is not only about stones and appearance, but also in strong relationship with its user. In the MSc 1: Interiors Buildings Cities I have been allowed to delve into the city of Venice. In this six months I came into contact with the ideas of, among others, Mark Pimlott, Aldo Rossi, Scarpa. Tom Aevermate and Rem Koolhaas.

In the second half of the year I have the design studio Msc 2 Dwelling; a second youth followed. The studio revolves around the problem of elderly housing in the Netherlands. In addition to the design studio, I have studied the relationship between solitude problems and accommodation. During this time I was also allowed to follow the course Bridge Design where the design of a hybrid Ecoduct brought forward an interesting combination of architecture, humans and animals. Landscape fitting, design and technology came together in the design.

Finally, this year I get the chance to graduate at Veldacademie; a studio in which city and people are central to architecture. Under the guidance of Leeke Reinders and Birgit Jurkenhake, research will be carried out in the relaxation field of urban tranquility, the city's salvation and the intimate, in relation to the tension of encounter, liveliness and solidarity in the city.

With God's closeness, I hope to create a beautiful final project that recognizes the human character and that can contribute to an inclusive society

[preface]

1. Introduction

- 1.1. Summary
- 1.2. Problem statement
- 1.3. Research question
- 1.4. Research scheme
- 1.5. Methodology

2. The Soft and Hard city; concept and definition

2.1. What is Soft and Hard City?

<i>The transient space</i>	<i>lived and fixed city</i>
<i>The intermediate space</i>	<i>intrinsic and extrinsic city</i>
<i>The sensitive space</i>	<i>tangible and intangible city</i>

2.3. Where is Soft City now?

2.4. Conclusion

3. Physical characteristics of Soft architecture

- 3.1 Soft architecture
- 3.2 Measurement
- 3.3 Conclusion

4. Analysis and fieldwork

4.1 General data Botu

Short history

People

Housing

4.2 Analysis Public city spaces

4.3 conclusion

5. Conclusion

6. Discussion

7. Literature

summary

Due to the strong increase in densification in cities worldwide and the takeover of infrastructure, the public domains in the city often lose their intrinsic tranquility. In a bustling working city like Rotterdam, the public quiet and social places are under pressure. The focus of this graduation plan lies on the urban neighborhoods Bospolder and Tussendijken, characterized by many different nationalities, ages and backgrounds, which often causes mutual misunderstanding and frustration among residents. From the field analysis and research it emerged that there is a lack of quiet social meeting places in the neighborhood.

In this graduation plan a distinction is made between the hard and the Soft City. The Soft City is characterized by soft architecture that invites its users to appropriate the space and in this way enters into a relationship with its users. The hard city shows itself in the entire planned city; the almost inhuman city. The focus of the graduation research and design is on the 'Soft City': a changeable intermedia between people and architecture.

The addition of a new soft elements, based on the idea of 'the Soft City', could strengthen the identity, peace and connection amongst citizens of the districts and thus offer a solution to the mutual misunderstanding, feelings of insecurity and frustration among residents. The design assignment will result in three interventions of public quiet meeting places at different scale levels in the urban fabric of Bospolder/Tussendijken.

Introduction

Living in the cities is getting more and more intense, as it is expected that nearly two third of total society is living in cities by 2050. This will cause several challenges for planning and designing the public live in cities. Within only a few decades, the city life in public domain has changed character and purpose, and the demands on quality city space have grown accordingly (Gehl, 2006).

The tranquillity in public city live in Rotterdam is highly under pressure by the incoming stream of new citizens (Posad Maxwan, stadsmakerscongres). The open, collective and peaceful places in cities where people have room to connect and experience peace, become rare with the construction of new closed private houses and high-rise buildings. By knowing this, it is not very surprising that research showed that city dwellers are 39% more likely to have anxiety and mood disorders than people who are not living in cities (CBS).

Not only the tranquillity in cities, but also the collective domains are under pressure by the incoming stream of new citizens. The quality of these public places became deteriorated with the arrival of the car, tram and trains. Where people became more connected by infrastructural connections, social connectivity at street level became rare (van der Kooij, 2009). The people of nowadays can often plan and organize life, so we don't need to walk in or use the city's public area (Gehl, 2006). This is why many cities in the USA are suffering from a phenomenon known as 'the abandoned city', meaning that public realm has been neglected to the point that people have dismissed city life altogether (Gehl, 2006).

Therefore, the challenges for future city life will be the creation of space where people can still find these two essentials; encounter and tranquillity. At first sight it seems that these two elements are very contradictory to each other. But on the other hand it could strengthen the unique quality of a space. There is a great value in city places where people can experience peace and share spontaneous encounter. Especially when these place become rare in future dense city live where infrastructural design and private housing take over the collective spaces. In the dense and multicultural city fabric of today, it is the challenge for the urbanist and architect to design places where people are *invited back* into the public domain to experience both elements.

But how do we invite people back into their own public space if the architecture is not willing to change or fold around the current identity of citizens? If we look into literature, many studies explain several strategies for the design of quality urban city spaces. From an anthropological point of view it seems that the architecture of the urban spaces is not retrieved firstly from human senses. The use of human senses into design will become visible in the idea of the Soft an Hard City; the balance of the lived and fixed city, the intrinsic and the eccentric city, the mortal and the immortal city, the tangible and the intangible city.

The Soft City starts with this piece of paper. The idea could reach into a bedroom, doorway, the district, city, the country, the world and even the entire cosmos.

Phrase by the author

Research- and design area

The district Bospolder / Tussendijken is located in the western part of Rotterdam. The area lies between the center and the suburban part of the city. The character of both areas comes together in BoTu; a tension between city and country. The small distance to the centre of Rotterdam makes the accessibility of the area very favourable. The neighbourhood is not only a short distance from the centre, but is also a 10-minute tram ride from Schiedam Centrum.

The district is characterized by an increasing share of non-western origin (Herijkt Gebiedsplan Delfshaven, 2016-2018). At the moment, BoTu's neighbourhood profile shows a multicultural pallet of different backgrounds and multiple identities. Together, the districts Bospolder and Tussendijken count 14.150 inhabitants. Only 20% of them consists of autochthonous and over 80% of immigrant residents (Wijkprofiel Rotterdam, 2016).

The different backgrounds and multiple identity of residents in the neighbourhood can cause mutual misunderstanding and frustration. For this reason, research has been conducted into the connection between groups of different ethnic backgrounds and ages. This revealed that there was a lack of public, quiet and meeting places that focused on the mixed target groups in the BoTu district.

'...the only reason I want to live in this neighbourhood, is my home.'

Armenian resident Tussendijken female (50)

'...there is really nothing for us to do here, everything here is for small children.'

Young inhabitants Bospolder (16)

'...I'd rather not come to the streets of the Bulgarians, they are not to be trusted and are the cause of all nuisance.'

Inhabitant Bospolder female (50)

'...I fear the safety of my children, there is much senseless violence in the neighbourhood.'

Inhabitant Bospolder female (40)

Problem statement

The analysis of the public domains in the district shows that important meeting places in the neighbourhood are mainly filled by infrastructure and standard solutions such as a seesaw. In addition, research shows that there are a lot of collective and private green spaces surrounded by building blocks that are closed to outsiders.

After the arrival of the newly constructed Dakpark in 2018, one of the few 'SOFT spaces' in the district will disappear: Proefpark De Punt. After 15 years, the pilot park has to make way for the new residential block 'The Hudson'; a project that again attracts many high earners to the neighbourhood and has to offer a solution for the 'derelict' state of the neighbourhood.

When social meeting places are increasingly located in sheltered indoor spaces, the current outdoor space functions only as a zone of infrastructure. As a result, public space loses its value for the city (van der Kooij, 2000). The chance of spontaneous encounters are possibly reduced, causing the environment in cities to feel rather anonymous, autonomous and desolate.

The identity, peace and connection in city districts such as BoTu is under pressure and this results in feelings of incomprehension, insecurity and frustration among residents.

It can be established that there is a lack of places where the architect's design actually enters into a relationship with man. This causes a missing-link or broken relationship between architecture and man. Architecture that does not enter into a relationship with its user is considered harsh architecture in this graduation project. The design of a new layer; the SOFT city could partly offer a solution to the broken relationship between people and the city and, above all, from man to fellow man.

Research question

The following research question has been formulated based on the theme 'Soft City' and the previous problem:

How can the 'Soft City' connect the intrinsic human with their environment and in this way provide tranquillity and strengthen spontaneous encounters among city dwellers?

The intrinsic person is about your absolute inner and motivation in life. Connecting the intrinsic person goes beyond just improving social cohesion, kitchen garden solutions and other container concepts in the world of architecture. Places where people are given peace and have a genuine encounter are often undervalued and seem to have almost disappeared in the public domain. Often we digitally and mentally disconnect from resting places where we cannot consume and be stopped; places such as cemeteries, waiting rooms, train and petrol stations.

The modernist districts focus more on 'first and second places'; living and workplaces (Sentel, 2014). The 'third places' (Oldenburg, 1999), places such as pubs, sport facilities and trams are more focused on faster connection, consumption and stimulation than on intrinsic rest. The integration of architecture in a city that touches the intrinsic person, a place where man alone is invited to *be*, and wants to *be*, could provide more awareness, peace and respect among city dwellers in a bustling city and work city like Rotterdam.

In the first chapter a literature overview of the concept 'Soft and the Hard' city is described. What is Soft city? How can we recognize Soft City and when is Soft city the solution to create better public spaces? In the second chapter will be described several examples of old and modern Soft architecture. As a side research under soft architecture, cemeteries are analysed on their physical aspects which provide tranquillity in busy cities

As a conclusion of this research a pattern language (measurements) is given for a designer when creating and soft city spaces. How can we create this Soft city? Which values, material and dimensions can we use to create a sustainable soft city place? Of course this is an ongoing process, never ending but most important when analysing the design field and creating the final design task. It helps recognizing places into hard and soft architecture and eventually in creating the places.

The third part will give an overview of the design field and the analysis of several places in Bospolder Tussendijken.

Finally, the last chapter will show the design process and the final design. The previous problem definition cannot be resolved by improving a number of connection points in the neighbourhood. There is a need for a new city layer that invites the residents to recapture the city. This requires a reciprocal relationship; man takes the city, but always gives something back to the city.

Method

The research methodology can roughly be divided into three directions: architectural research, anthropological /empirical research and literature research. Harsh and soft architecture is analysed through architectural research. Not only will form study be done, but also field- and literature research into Soft Spaces.

In addition, empirical research will be done. This means that reporting is done by means of sketches and photo reports. This research method goes hand in hand with the anthropological research where, through interviews and stories from the neighbourhood, a picture is formed of the current neighbourhood identity, question and problem.

- Architectural research; form study, models and cultural / historical background.
- Anthropological and empirical research: interviews, signatures, stories.
- Literature research: mainly quantitative research.

Research scheme

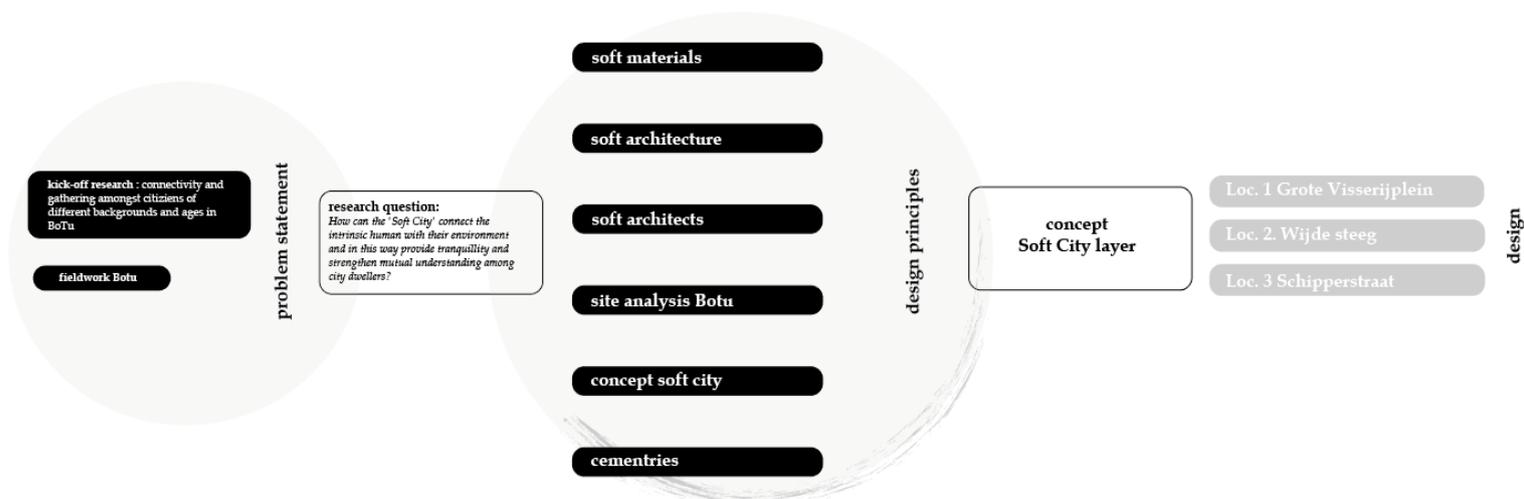




Figure 1. Modern human habitat (painting by author).

1. Soft city; the concept

In short

Soft spaces in cities are, of course, not literally soft. The softness of the places shows in their program, the cognition, connectivity and social aspects of the place. Therefore 'soft architecture' is almost never unambiguous, it can show in different shapes and features of a specific space. Like all other cultural objects, soft city space is not made just once, but is made and remade over and over again. Each time it is represented through another medium and each time its surroundings change, each time different people experience it.

As a result, this idea of soft and hard city places is hardly to capture in one sentence or one definition. Therefore, in the coming literature outline, an overview of several ideas is given which have contributed to an well-augmented position in this discussion. This research can be seen as the backbone of the entire project, and the theory background will be visible in the design.

In advance to the reader, it is significant to mention that it is not the intention to describe soft city *only* as valuable in cities. Both urban appearances of places in soft or harsh architecture have their own values for the cities of today. We do need the harsh architecture to get places with soft architecture in cities and vice-versa. Eventually, the city needs both values to contain healthy city life.

The chapter is divided into three paragraphs which explain and describe the concept of Soft and Hard City. The soft city is first of all the *lived* city, therefore always under influence of citizen's life. The first part describes the soft city as a *changeable* space under influence of the balance between the mortal element and immortal elements in the city. The mortal elements represent live, are changeable and under influence of time. Over the years it became clear how modern cities banished the human life out and how the public space were taken over by machines, new infrastructure and digitalisation. As a result, urban life began to take place more and more in the private domain of the city.

The second paragraph describes how Soft City *can invite its citizens back* into the public domain of the city. By making spaces between the public and the private domain it is possible to encourage spontaneous encounter between strangers. These places need a hybrid relationship between people and architecture. An architecture which act like an unfinished product and challenge people to create their city. By creating these places, nor public nor private, we can see an third place arise; the intermediate place.

The intermediate space is a space of strangers, which are invited to *dwell and feel at ease* besides the space of their home or work place. The third paragraph describes these places and how they are in strong relation with our human senses, and mortal behaviour. These places needs to be save and public enough to feel invited to just *be*, without the need to consume.

Paragraph 1.1.
The transient space; lived and fixed city

The process of making and creating cities spaces for people is something everlasting; the city is never finished and neither is man. The places in cities keep changing according to people's belongings and needs. It should ensure us that the cities of nowadays reflect our culture, traditions and economy.

And yet, there is something irrevocable in architecture (Reinders, 2013). You cannot simply move it, shape it or act on it. It is an stirred tangible form which is acting like a décor for human life. Every corner, street, building, square and park can act like the physical *fixed* environment.

Looking at cities like an urban décor is introduced by Aldo Rossi in his book *l'architettura della città* in 1966. The architecture of cities had a permanent form and was in his vision acting like a 'monument of time'.

Aldo Rossi was a postmodern architect who managed to make a typological system of classification which was based on the identification of archetypal urban elements like the street, courtyard and the house.

In his vision, he stated that the primary elements are expressions of the city's "collective will, and are the result of the city, its history and art, its being and memory."

According to Rossi's observations, the cities are filled up with buildings which are based on our memories and we could almost say that the cities can be defined as open-air museums.

Eventually, Aldo Rossi described the urban décor as Hard architecture; stirred and permanent. The city Venice for example became literally a décor in his work *'Teatro del Mundo'*; a theatre which could float throughout the whole city. The way the theatre floated through the city could maybe be define as soft; its appearance was not permanent and gave easily room for other festivities in the city. However, the theatre was a finished architectural monument, untouchable by people by the water of the canals. In this way the building distances itself from the people; you could only look at it from a distance.



Figure 2. Teatro del Mundo (Krystle, z.d.).

the fixed Hard city

In a time like 1960, where the economic boom and the industrial age came, a lot of people moved from the countryside to the cities. There was a big housing shortage and the modernist thought of an idea of city planning which broke with everything of the past. As a father of the modern times, Le Corbusier, invented his Radiant City; he created an utopia, where small streets and alleys no longer existed (Gold 1998). In his idea for the city of the future, people had to live in order and peace, far away from chaos and bustle of the big city. He hated the small places where disorder and rumour could occur in cities; the future city space had to be clean and free from any chaos.

If anyone, at any time, wanted to pay professionals to make a city planning idea which would kill city life, it could not have done better than the modernists had accomplished.

J. Gehl

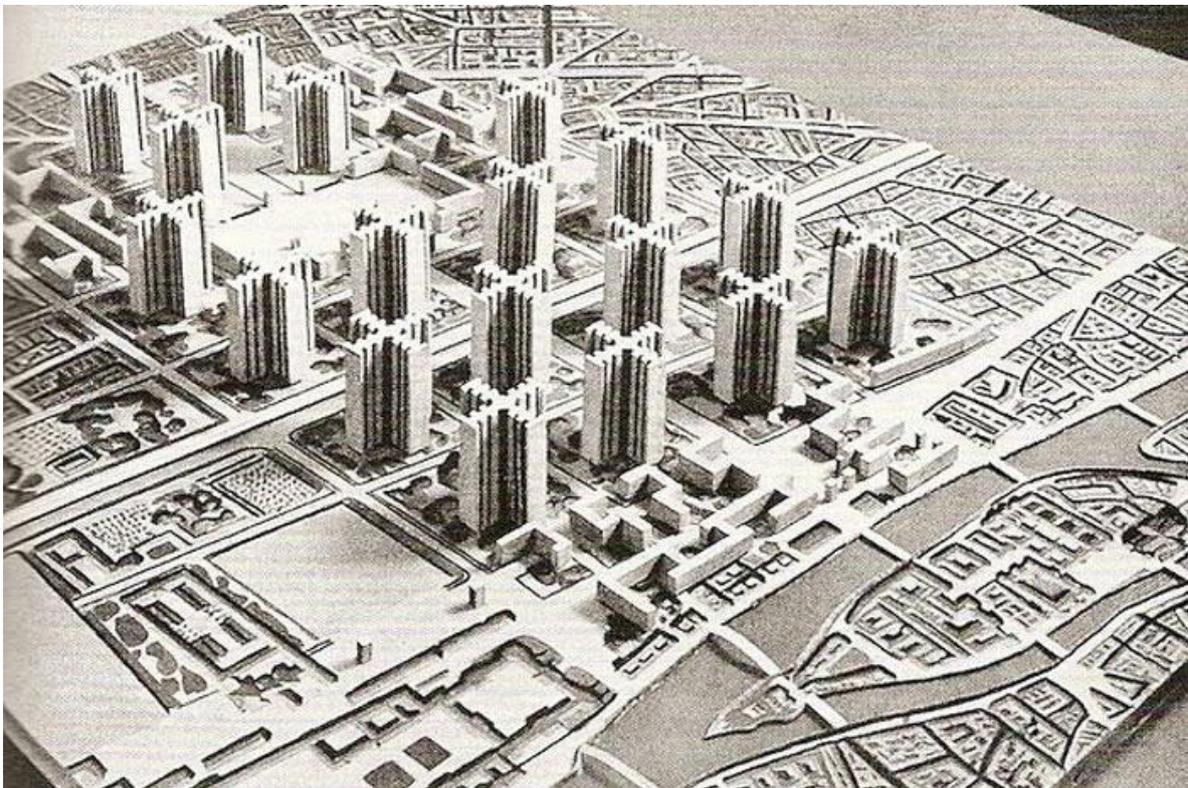


Figure 3. Radiant City (Corbusier, z.d.).

Although Le Corbusier created a fantasy city, the influence of his work on the projects in post war neighbourhood is enormous. The housing was conceived as a machine for living and the city life was out (Gehl, 2010). New York city is a great example of a city acting like a machine. The city which is never asleep, where everything is going fast, exciting and is plastic made. The world that we shaped was not a world for people anymore, it was a world which was created for the cars (Gehl, 2010).

We can see a big shift towards a passive behaviour of citizen instead of active behaviour. One reason to explain this shift can be found in the invention of cars in 1885. The car became the main user of the public streets and banned the people life out. The current

infill of public streets became very functional and infrastructural. Many books discussed the current human conditions in cities and deal with the question how people can still live in the space between the buildings in those cities we created.

'Sometimes I think that, even today we know much more about the habitat of mountain gorilla's or Siberian tigers than we know about a good urban habitat for the Homo Sapiens' (Gehl,2010).'

In his book 'Life between Buildings' Gehl analyzes the essential value of life between the buildings. He indicates that most architecture is made for the fast traffic rhythm in the city rather than for the slow rhythm and human dimension. Man and her city are disproportionate; the billboard advertisements and large glass skyscrapers have outgrown the relationship with humans.

Nowadays, people in cities seems to be formed by their fixed surroundings in cities. The spaces became more and more fixed, restricted and framed by many cityplanners and architects. We invented signs for any activity; here you may walk, not walk, play only under 18, ect.

The hard city is therefore the planned city; a city that is fully committed to its users and can be regarded as a ready-to-use product. We could almost speak of 'consumption architecture'; architecture as a pre-chewed finished product.

Man is no longer inspired, stimulated or invited to make the architecture his own. In 1961 Cullen argues in his book 'The concise Townscape Hereness' how periodic activities in the public domain can be permanently woven into the urban pattern. He shows that the temporary activities are essential for the cityscape.

But we how do we live in them? How do we touch the city, and when does the city touch us? How do we still create an healthy, social and human-friendly habitat in a city which is filled up with hard architecture? Or, in other words, how do we create Soft City?

It has a lot to do with the *balance* of hard and soft architecture in cities. The outbalance of soft and hard architecture started in the Modern times where standardisation tried to ensure that any unique element of life was out (Gehl, Cities for people). Soft architecture allows people to change their surroundings. It is inviting human life back into their own habitat by making public places *transient*; they are formed by people's behaviour and use. Every hard place can have soft element and functions, and vice-versa. It is in the way we use and live the place which determine if the balance is more soft or hard.

The term 'Soft City' is an idea that has been known amongst researchers and scientists for several years. In literature, the term is introduced by Raben (1975) with his book 'Soft City'. The Soft City according to Raban was more a poetic way of thinking; he argued for a so-called 'soft city'; a city that awaits for the 'imprint' of the identity of its residents. First we shape the cities- than they shape us. It is a *transient* process which is highly under influence its citizens.

A city which is formable by its citizens seems like an utopia and far away from the realistic world. Although it seems poetic, you could say that the changeable processes in the cities are maybe more real and memorable than its buildings. The place where you weekly buy

your bread or the place where you go to get your hair done can mean more to you than any iconic skyscraper in the world.

Those iconic buildings and places stay in our mind like fixed 2D picture of an commercial; intangible places. They became literally immortal in our minds and history books. Their surroundings are fixed like a monument and seems to affect people's behaviour as well.

We can determine an distinction between the *lived* and the *fixed* city; the lived city is constantly changing and using the city according its belongings (Reinders, 2013).

The lived Soft City

The life in cities, the mortal elements, are as important as our fixed and immortal surrounding. Although the idea of *The radiant city* was to create more air, light and space for everyone, it showed a clear image of the human environment which was far away from nature and mortal life. The human environment turned into standard rooms made of glass and steel. Like the big central parks in Le Corbusier design gave room for a spot of nature, but that was it.

To explain this better Heidegger shows us a natural distinction in elements; the mortal and the immortal elements in life. The mortal elements can die, but they possess life. They are soft, it is in nature, people and animals. With the modern cities like the radiant city of le Corbusier it seemed that people had lost its relationship with nature, the mortal elements.

Eventually the relation between space and people's live is something what brings the buildings and places alive, not only the program but the people's use of buildings determine eventually its purpose.

The Florentine architect Michelucci called this architecture earlier in the 1970s 'architectura vivante'; lively architecture (van Bergeljik 1991). Michelucci was a well-known Italian architect and professor in the 70s, whose architecture was not influenced by doctrine and opportunism, but was the result of his self-willed research into architecture for his fellow man (van Bergeljik 1991).

'Modernity does not exist, only simultaneity'
quotation Michelucci

'Airplane architects', called Michelucci the architects who offered ready-made solutions for every problem, but had little interest in the growth of his own work and who viewed the city from an almost clinical distance.

This is not only about creating a city or making a space, but also about the reciprocity of architecture. As an example of lively and reciprocal architecture, the city could give the resident a sidewalk and the resident is invited to make something of it. The resident takes the space and can already shape her with a simple flower pot. As a reciprocal service, the street becomes greener, proper and the resident bears more responsibility for the maintenance of her street. In this simple example you can already see how the Soft City can be of great importance to the home feeling of people in the city.

Over the years our cities have grown enormously; they are manmade by many architects, city-planners and citizens. When we look into the future, two third of the whole population will live together in cities in 2050. We have to deal with new challenges; housing shortage, durability, but moreover loneliness.

What seems to be forgotten in dense cities is the enormous increased value of the collective places in between the buildings; the places where we have spontaneous encounters. These in-between places can be defined as *intermediate* spaces, they are nor public nor private. In intermediate places we are free to take space, feel comfortable and safe. Because of this they have an intimate or intrinsic character. In cities they are extremely valuable and offer the change for spontaneous encounters with other citizens. The places where anything can happen; they offer a blank canvas for any citizen.

All social encounters are activities that depend on the presence of others in public spaces (Gehl, 1936). Social activities include greetings and conversations, but as well passive contacts like seeing and hearing people. The encounter of people occur spontaneously, as a direct consequence of people moving and being in the same spaces. They develop in connection with other activities because people are in the same space, meet, pass by one another, or are merely within viewed.

In this part of the paragraph about the intermediate space, a distinction is made between the *intrinsic* and the *extrinsic* encounters in cities. The *extrinsic* encounters in the city go no further than appearance, the skin or surface of each man. A quick touch of each other lives, the sight of your neighbour, the 'hello' to the milkman. It is a world of strangers which has its quality's; no one knows your real story, troubles, dreams and desires.

On the other hand, there is as well great value in intrinsic encounters; the moment where you can be vulnerable and share your deeper stories and problems. This requires a safe space, a space where you feel save to stay and share your intrinsic part with your fellow man. In the Soft City, the space invites you for the intrinsic encounter, as described above. It slows you down and allows you to take a step back in time and overthink your life.

The 'Micro world', as described by Gehl, has a lot in common with the intrinsic world; it is warm, sociable and human-scale world in cities. If you look at the way we have lived, historically, people seems to have always lived in groups like clans, extended households, villages, neighbourhoods and family groups. It is a very modern phenomenon that we live in very tiny households and completely on our own (Gehl,1936). Today a lot of citizens deal with the loneliness and alienation of the collective space. The varied transitional forms between being alone and being together has disappeared. The boundaries between isolation and contact became harder- people are either alone or else with others. Therefore, the way people live together in cities and villages seems to be part of the past.

'we need, apparently, to relearn how to touch each other amicably, and are prepared to spend money and a night out on that rather simple human exercise.' (Raban; pg 5.)

Raban (born in 1942) is a British travel novelist and critic who has won several awards for his books. His writings shows us a revealing mirror to the modern city, a place where it seems that we live cheek-to-cheek without really knowing our fellow man. The modern city, of small apartments and densely occupied communications routes like trains, pavements, lifts, supermarket, and walkways seems to makes us live hugger-mugger (Raban, 1974). Everyone acts on 'appearances', only on the *surfaces* of people. He declares that in cities we have good reason to put up mask and shrink from strangers (Raban, 1974).

What Raban describes in his book is how hard it is to really get into contact with your fellow man. How people *behave* and *act* in the public domains in cities has a lot to do with their surroundings; the way the architecture of a place can be defined as harsh or soft will eventually influence the way people behave in cities.

Just as cities can invite city life, there are many examples of how a single space or even change in furniture and details can invite people to a totally new pattern of use (Gehl, 2010). Where Soft city will invite you to stay and mingle with strangers, will Hard City force you to go and don't meet fellow people.

The places where we can still *touch 'each other amicably'* can be defined as soft architecture. The softness of these place, the way people are invited to meet, is crucial for the social cohesion in highly dense city-areas. They are ever-changing and inviting to people; it is the *intermediate*; the space in- between where these *surfaces* touch each other.

The architecture of places do as well have intrinsic and extrinsic character which can affects people's behaviour. The *surfaces* of the city, is protecting the inside from the outside, the intrinsic from the extrinsic city; it is only a fleece, shot, screen, skin, curtain wall or perforated wall.

In 'Prinzip der Bekleidung' Semper stated, according to his own ideas, the origin of architecture:

'architecture is the satisfaction of the first need: the shelter of the skin through another skin, bark or fur'

As simply beautiful Semper described the first purpose of architecture as a protective skin, how complex it is today. Public city places mirror the complexity; there is an intrinsic and eccentric play going on at every corner, street and square. As well as a play of soft and hard architecture. As we look at cities of today, the distinction between inside and outside, intrinsic and eccentric, cannot be easily made; the skin became changeable, mysterious and spontaneous, determined by its users. We do not have only strict private and public domains in modern cities.

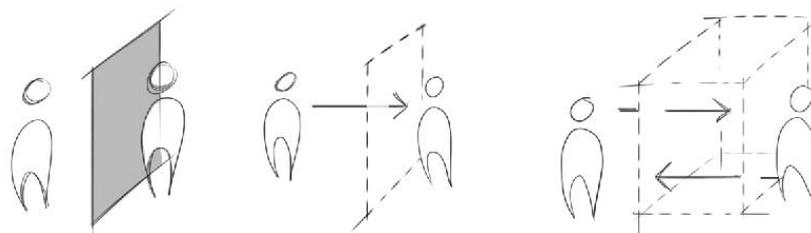


Figure 4. The evolution of the intermediate space for spontaneous encounters (drawings by author).

Throughout the years man explored the space in-between the inside and the outside. We invented balconies, patio's, stairs, doorways, gates, atriums, terraces, courtyard, portico, loggia, and sidewalks (Burber, 1959). All these places can be determined as an *intermediate* space; a space which is inviting you to mingle your intrinsic world with the extrinsic surface of the city. The unplanned space where everything can happen; especially spontaneous encounters.

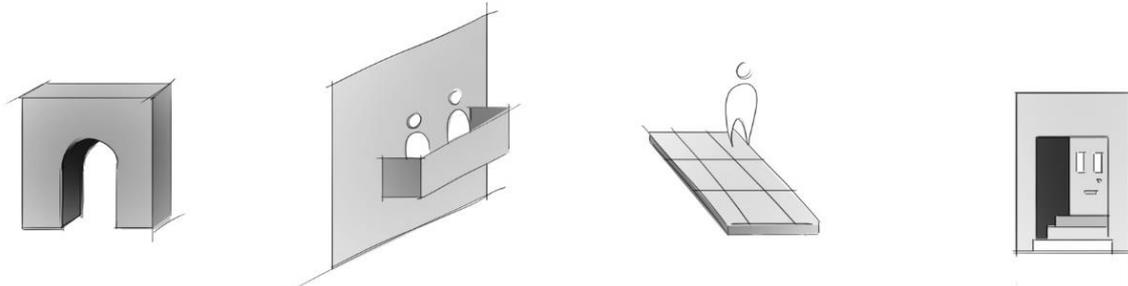


Figure 5. The in-between spaces; the portal, balcony, sidewalk and doorway (drawings by author).

According to Altman we can speak of these places as hybrid city spaces; places which change constantly by the influence of the time and use. It is *in-between* the public and the private domain; the vague border, or space where people are invited to *be* and *own* their space. At the image below a picture is shown of the city Venice. The picture is not unfamiliar for many city's; people's clean laundry; socks underwear and bed sheets, it is hanging straight into the extrinsic city. A beautiful play of intrinsic and extrinsic city.



Figure 6. Washing lines Venice (no author, z.d.).

This idea of public interior is well argued by Mark Pimlott, an architect, teacher at TU Delft and writer of the public domain in cities. In his book 'the public interior as idea and project' and 'without and within' he describes several public places which became by character and use of exchange an important interior of the city. These places are no longer defined as strictly intrinsic or extrinsic; the space can be defined as an intermediate space where the surface and strict borders are undefined and porous. One example of his studies is traditional Japanese villa. Traditional Japanese houses are made mostly out of light wood and sliding walls. The floor consists of a strict pattern of the size of a bed. This means much freedom for the use of every room ; it can be used like a living room, sleeping room or else. The walls of the villa are flexible and moveable and because of this there is no painting or ornamentation at the wall. By moving the walls, the 'painting' is created by the surrounded nature.

The mentioned architectural types are highly visible in the small and authentic cities in Italy. The squares, houses and streets are fully designed with these in-between spaces. A great example is the Forum Romanum, where people came together for market, voting, religion and pleasure. The whole space contains 'places', where the visitor is invited to connect, talk, sit and have spontaneous encounters (picture below). Even today, the place consists of half-broken temples and statues, but it still works like a great place to walk and encounter.

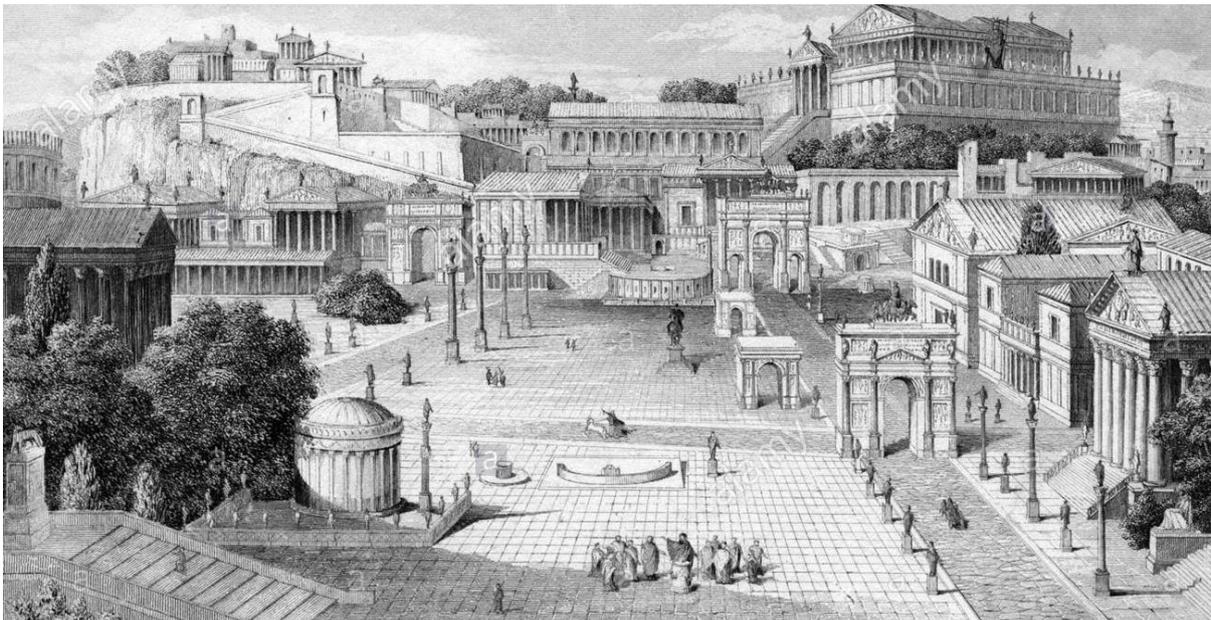


Figure 7. Roman Forum Reconstruction (Alamy, z.d.).

As a visitor, you walk into the public interior of the city. A place which perhaps lost his original function but kept his soft architecture. At these places, at the border in-between the intrinsic and extrinsic, the architecture *becomes* soft. They give room for spontaneous encounters in cities, mingling with strangers and are inviting the visitor to claim the space for a while. Place for intrinsic, intimate and quick extrinsic encounters in city live which are both valuable for normal city live.

Why do we feel at ease, stressed or in love with places? How is a place inviting you to stay or rather forces you to go further? It has a lot to do with the typical 'sense' of a space. When hard city is strict and protects the intrinsic part of the city, you feel less at home than in a soft environment. The sense of a place is hard to capture or to analyse; everyone can feel at home in a different environment. It has something to do with the way we are *dwelling* at places which are not privately owned.

Home Sphere of the private place- personal- enclosed-protective- I-we in our individuality- inside

Outside The outside- the different place- other people- the fellow man

To dwell

The sphere of the private and personal domain is easily recognizable in people's behavior. We cherish the place from home, it is a place where you can be vulnerable and where you can design the entire space according to your identity. The feeling of being at home somewhere, being rooted in a place is so strong that the lack of the place can cause nostalgia for the disease. Yet homesickness is not only limited to the building where our bed is. You could say that feeling at home is not limited to where our bed is.

The bed is thus the individual space par excellence, the elementary space of the body (the bed-monad), the one which even the man completely crippled by debts has the right to keep: the bailiffs don't have the power to seize your bed.

G. Perec

The domain of dwellings extends over buildings; it is not limited to the dwelling place (Heidegger, 1971). The truck driver is at home on the highway, but does not have its shelter there. The chief engineer is at home in the power station, but he does not dwell there. These buildings house man as Heidegger describes in his small book about housing.

"He inhabits them and yet does not dwell in them, when to dwell means merely that we take shelter in them (Heidegger, 1971).

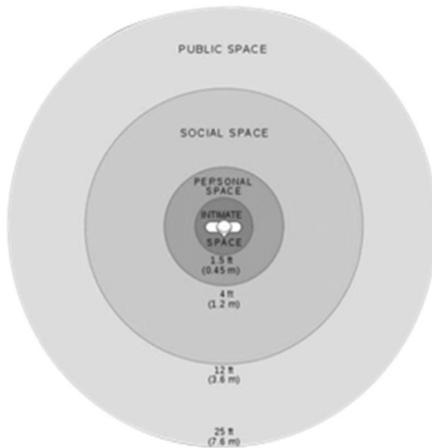
Places where you dwell, but don't have your bed, are described by Oldenburg as so-called Third places. These places are as important (maybe even more) as your first (home) and second (work) place. They act like a home away from home. The great distinction between the house and a third place is that third places are public, and houses private. Oldenburg mentions in his book for example how the coffee places in Vienna and the small bookstores, hair salons and pubs in England act like a third place; they are part of the daily life routine of people in the cities.

They are as important, maybe more important as the first place, the place where your bed stands. It is interesting to see where and how those places are integrated in the current city fabric. Are we still aware, when making and creating cities, of the high value that these private spheres contain? These places allow citizens to connect with others and just enjoy of being in the moment and most of all *living* in cities.

Soft places can be defined as these places where you can find a nice conversation, and feel known, where you have the feeling of intimacy.

The way people feel at home and comfortable at places is visible in the way we behave. Soft City invites you to *be* at a certain place, while hard architecture will ask not to *dwell* (in Heidegger's words). We need both in the public life; there would be chaos when everyone dwells at every place. When a space is claimed by a person, another is excluded which is not the aim of a third public place. The balance of soft and hard places and the borders in-between must be carefully designed.

proximity



The sphere of intimacy is defined by Hall and Altman in his book about the **proximity**. He makes a distinction between the intimate, personal, social and public spaces. The circle around the persons in the diagram shows the level of intimacy. The social space is estimated at around 4 meters; a quite small space we use for intimate contact. The small places where we feel safe enough to have social contact. They are defined by shelters, places to hang, stairs, windows, balconies and other architectural types which are mentioned in the paragraph before.

Figure 8. Proxemics diagram according to Altman (Wikipedia, 2019c).

In the traditional Japanese and Russian houses there is a distinction made between the hard and the soft zone inside the house. The hard zones are mostly used for serviceable functions. They contain mostly hard, slick and plastic materials which are easy to clean. In their private zone, the comfortable zone, they use most of the time literally soft materials like carpet and they are used to take their shoes off (Alexander, 1977).

The sense of places

Sometimes the soft city is not a tangible place, but makes the character, the stories and the memories of people a place soft. This can also be described as the sense of a place, the atmosphere. The sense of the space is only measurable by people. Using the human senses of the body as a tool for design is used by many well-known architects like Peter Zumthor, Tadeo Ando and Vitruvius.

The emotional relationship between architecture and man is also strongly reflected in the work of Japanese architect Tadeo Ando. His buildings are characterized by the use of atmospheric materials such as concrete, water and light that can leave an huge emotional imprint on its visitors.

He may be a large user of concrete, but where man comes into direct contact with the interior of the building (floor and doors) he often uses wood, a material that is well maintained and in this way enters into a relationship with her user.

The so-called relationship or 'give-and-take' between people and architecture is also clearly reflected in Zumthor's work; a well-known architect in the field of light and atmosphere. In the reference work of his work he argues the quality of true architecture:

'...Quality architecture to me is when a building manages to move me, touched me, given me a sense of relief or helped me in some way...'

'...These were spaces you would enter and begin to feel you could stay -that you were not just passing through...'

In the above theories and ideas the essential value of the Soft City emerges in a different way than we have seen in the transient and the intermediate spaces; the mutual power and influence of architecture on man and vice-versa. The concept of the inviting soft architecture of the Soft City, from this anthropological perspective, will be taken as the starting point in this graduation plan.

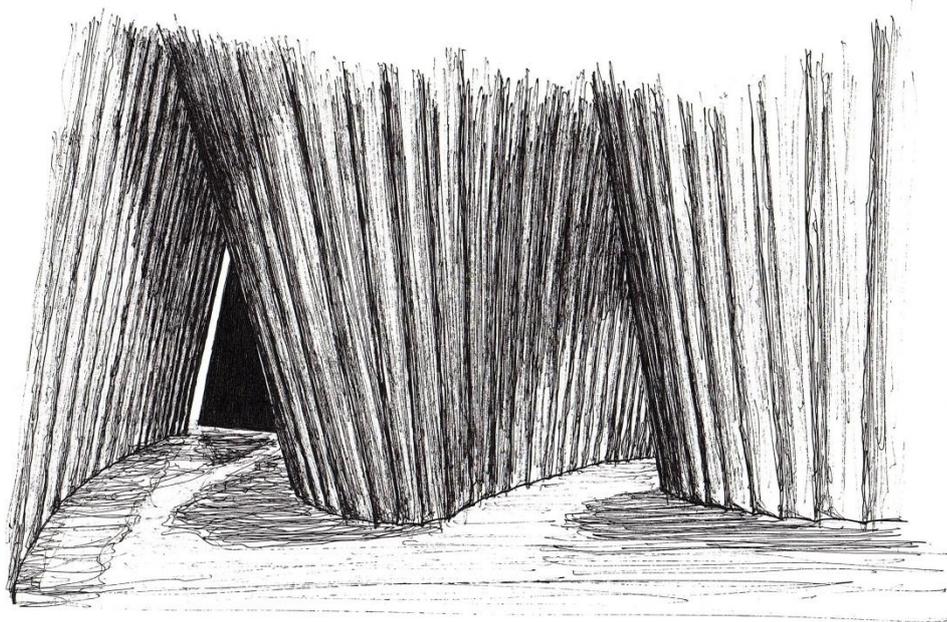
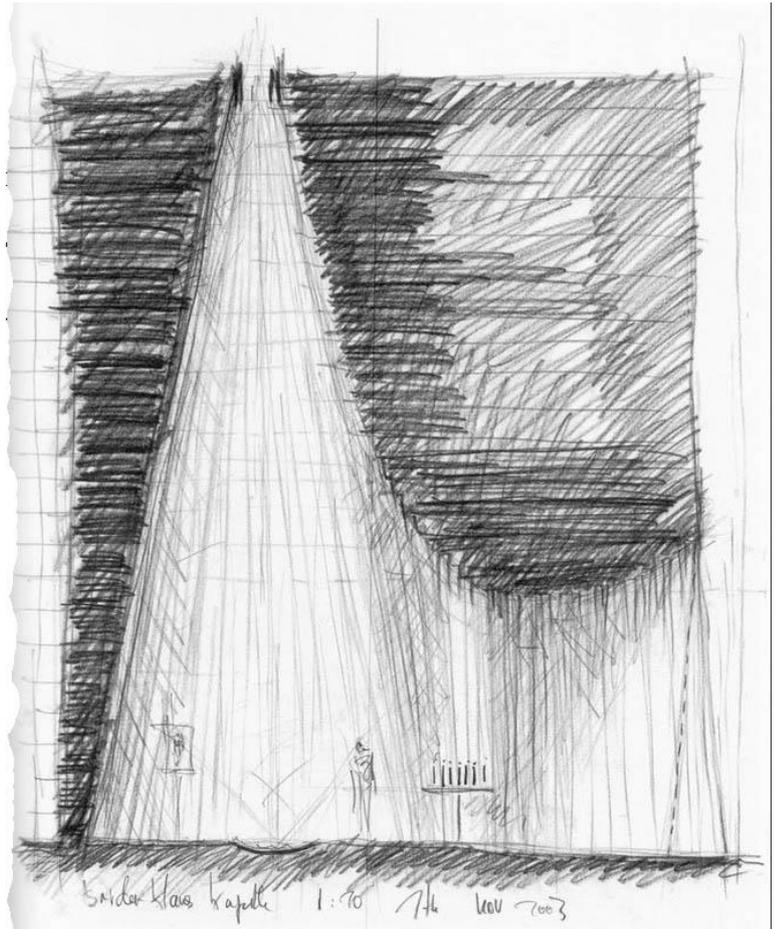


Figure 8 & 9. Bruder Klaus Field Kapelle (no author, 2017).

where is the soft city now?

When we look at the city according to Raban, a quite anonymous and depressive image of the life in city is described. Although it seems an extreme illusive image, it is not very off from our behaviour in public realms today. In big cities like London, 55 percent of the citizens declares has felt lonely in 2018. Even in Tokyo, loneliness is such a problem that people are renting friends to keep them company. In the Netherlands 47% of the people declared to be lonely sometimes.

The way cities are designed today can also contribute to the level of loneliness, including the trend of replacing public spaces with more blocks of unaffordable flat (Madanipour, 2010). The public spaces mirror the complexities of urban societies; cities has become collections of individuals, public open spaces have changed from being embedded in the social fabric of the city to being a part of more impersonal and fragmented urban environments (Madanipour, 2010).

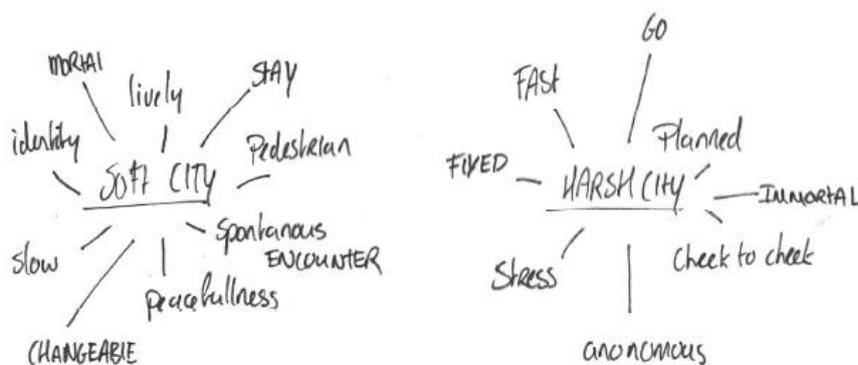
Nothing was more beautiful in old houses than the staircases.
Nothing is uglier, colder, more hostile, meaner, in today's apartment buildings.

We should learn to live more on staircases. But how?

G. Perec

The increasing growth of citizens and decreasing places of spontaneous encounters and mingling with strangers in the city have an direct effect on people's feelings of loneliness. The availability of public space, truly public space in which we feel joint ownership along with other citizens, is decreasing in cities, declares Colin Ellard a cognitive neoroscientist at Canada's University of Waterloo which is doing research into the impact of places on body and brains.

'As cities increase in density, many more of us are living in high-rises. Depending on how they are designed, such buildings can be really alienating'



As a first definition, we can define soft city as a changeable space which forms itself around you ; '*define who you are and the city will soon form a form around you*' (Raban 1975). It is the *lived* City. The city where life takes over the planned architecture, and shapes it into a form which is fitting current life.

The Soft City contains all the *mortal* elements in the city; they will not last forever, they change every day, narrate and life every place in a unique way. The soft places in cities leave room for interpretation and these places are inviting its citizens to stay and take place. Therefore the soft city is **changeable**, it is the life which take over the play in the hard décor of the city.

The Hard City contains all the places under influence and made of the *immortal* elements in the city; they are fully planned, **fixed** and lack an imprint of the human senses. The hardplaces in cities are efficient; they give boundaries for its purposes, and are most of the time forcing you to go from A to B as quickly as possible. The hard city leaves no room for spontaneous behaviour, or encounter. It can be seen as a permanent background, a décor, of the life of the citizens. The hard city is more stirred and unchangeable, it acts like a monument in our minds like Aldo Rossi described. It is lacking a reciprocity relationship with the people of the place.

Instead of making all places stirred and fixed we have to think of a way we can restore the balance between the fixed elements and the unfixed. Offering places for people to change and adapt, allows more responsibility into public environments which helps to maintain public space.

In the Soft City the boundaries between public and private become vague which can encourage spontaneous encounter and behaviour. There is a space in-between which allows people to adapt for an impermanent time. The in-between space encourage more intrinsic and extrinsic encounters in the cities. The place for encounters in cities can be establish by making spaces accessible for people to **meet**, talk, sit down and have a break. Think of archetypes like open windows, stairs, enclaves, patios and balconies. It offers people a human-friendly environment where spontaneous contact is key. The hard city has strict boundaries between the public and the private. It does not allow people a place to meet or talk, it is more a anonymous city for a glance, and full of untouched surfaces.

The third places in the city, mentions by Oldenburg, are a great example of these places nowadays which are public but has the character of home. He describes the coffeehouses and bookshops as great places to dwell. The character of the Soft City is therefore more intrinsic but public; it gives many people place to root at a certain place by making it their own. It invites you to just **be** at a certain place, enjoying the interior of the city. To take the time and space to step back, think and see from the whole perspective.

Soft City



changeable

PLACE



inviting

to
BE



encourage

to
MEET

Hard City



fixed

PLACE



forcing

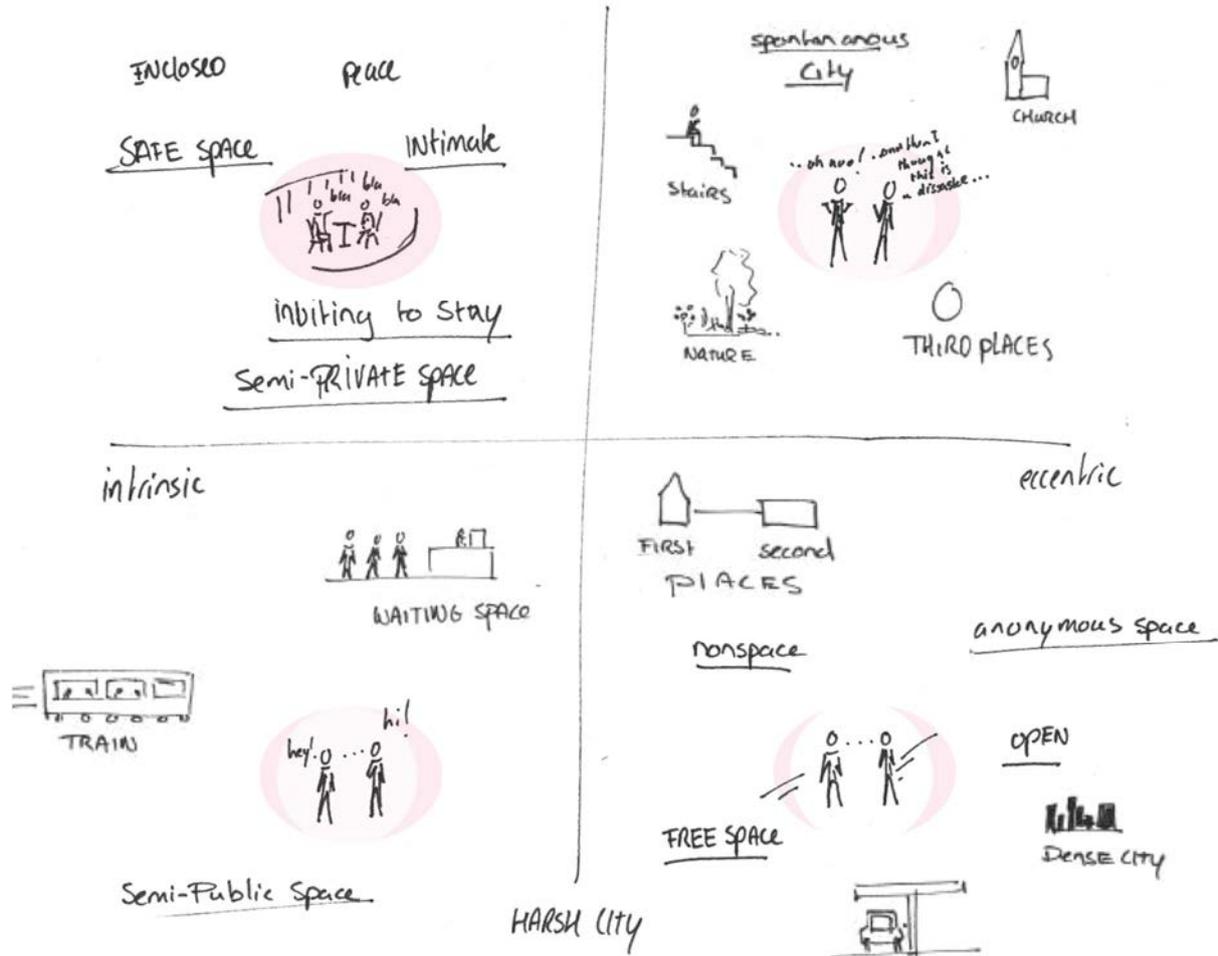
to
GO



discourage

to
MEET

Soft City



2. Soft architecture

There are many soft and hard city places to describe which are remarkable good working in cities. Although it is not possible to describe all the projects in the world, this thesis will focus on a few examples which has been visit or collected by the author herself to emphasized the importance and value of great meeting and peaceful places in cities.

Mostly interesting is to see how architects and city planners unlock the hidden spaces in cities, the common resources of cities. Why are they good examples of soft architecture and how can such spaces can be maintain in the city of the future.

The aim is to make the concept specific, to point out the soft elements, sort of expose the soft city of these example project and to translate this information into a soft city pattern.

In the second chapter the concept of soft city will become specific in architectural design tools and measurements. It will provide the designer as well a tool to decide whenever a place needs soft or hard architectural elements. It will give the designer tools to analyse and eventually helps to design a soft/hard city space. When is a place determined as a Soft City Space? How can a designer make a city place more soft or hard? How can we provide spaces for intrinsic and soft activities and what do we need for extrinsic activities?

As an conclusion, a soft city landscape is made.



Piazza del Campo Siena

Il Piazza del Campo in Siena is perhaps the best working square in the world. The place dates from the Middle Ages and is designed like a theatre. The shell-shaped surface is sloping towards the Palazzo Pubblico. The remarkable slope of the floor invites you to sit down. The campo is divided into nine elements referring to the nine districts of Siena. It is known for its urban design and architectural beauty.

Figure 11. Piazza Del Campo (Rotchscharship, 2010).

When you enter the square, you walk through a narrow alley where many stalls are housed. The visitor enters the open square from this small space, which makes the square even larger.

The sun crawls over the square like a sundial and the people crawl with it.

People sit down in the middle of the square, a behaviour that is special in such a wide open space as a square. It has everything to do with the way this square has been designed like a theatre.



Figure 12. Piazza del Campo-Siena (Paschini 2017).

When you visit the square on a sunny December day, the effect of the theatre is reflected in the behaviour of the people. Many people are sitting, talking, watching and hanging on the square. The shell shape of the square ensures that the visitor feels guaranteed.

The square is beautifully protected by its surrounding buildings. On the square there are elements that invite you to hang on to. These stone pillars also prevent large traffic from entering the square.

A Palio is organized twice a year; the horse races. The Palio dates from the Middle Ages; and is so connected to the city that they are often mentioned in the same breath. The square transforms into a trail where a rider fights for the honour of each district.

During the festival many people are crowded into the centre of the square. At the night before the game each districts come together to celebrate. The shape of the square is perfect for the rotation of the horseraces.

After the games the squares turns back into original form. The way this campo change during the year makes this places soft. As well the way it provides shelter and a place for people to sit down and relax. It is a place which during all the years since the middle ages survived. It is because of its special relationship to people and the attraction to just enjoy being at this old square in Sienna.

Figure 13. Palio di Siena (no author, z.d.).



The kiosk of Sevilla

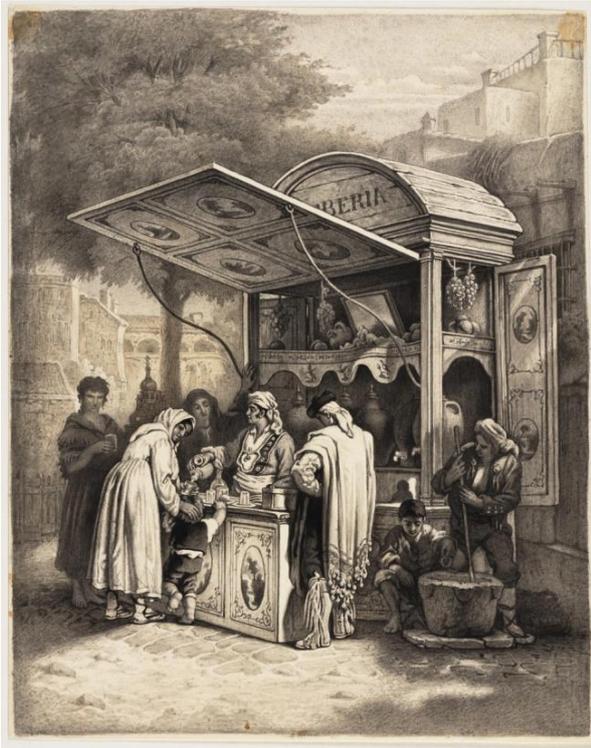


Figure 14. Lemonade stand Sevilla (Postma 1819-1894).

At the picture an old lemonade stand from Sevilla is visible. The prent dates back from 1819-1894 drawn by Gerrit Postma and preserved in the Teylers Museum in the Netherlands.

The stand is adaptable and changeable, it acts like a big locker or closet. A shop inside out, a stand, information point for all the rumours of the area, that is what a kiosks in the urban areas can mean. Unfortunately they became more rare nowadays and are already threatened with extinction in Germany.

Drinking a lemonade, or in Italy a coffee while standing on the street is a behaviour of people we see normally not often in the Netherlands.

It happens occasionally at market days or food truck festivals. At train stations we see at the platforms some of these little shops. These buildings are most of the time a roof with a glass sliding wall to make them more accessible for any passenger.

In America we see these little shops often filled up with newspapers and magazines. These places act like little bookshops. A great example of the third places Oldenburg described. The archetype can be described as soft because they can establish more spontaneous contact amongst citizens. They are small, present at the street but they function in a serviceable way. It is not only our climate which prevent direct life and communication at street level.

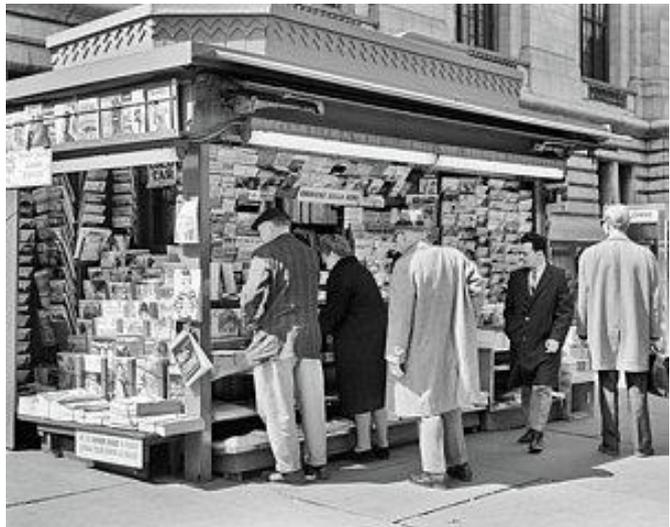


Figure 15. 1960s People At Newsstand 42nd Street Beach (fineartamerica,2018).

These little shops needs to be appreciated in society, because they offer us a break of daily routine and give perhaps the opportunity for a nice spontaneous conversation.

Paley park is situated at one of the most busy streets in New York offering the people a quiet urban area. By cutting a building out of the street new space emerged for a oasis next to a busy street in the middle of New York. It acts like a pocketpark; tiny but its value as a peaceful meetingplace very valuable for the neighborhood.

The little garden is carefully designed with several elements which makes the place soft; the

waterwall will provide calm sound that overrule the sounds of the street. The walls further covered with vertical green and trees give the feeling of a natural shelter. The chairs which are placed at this little park are moveable; they allow people to sit whenever they like.

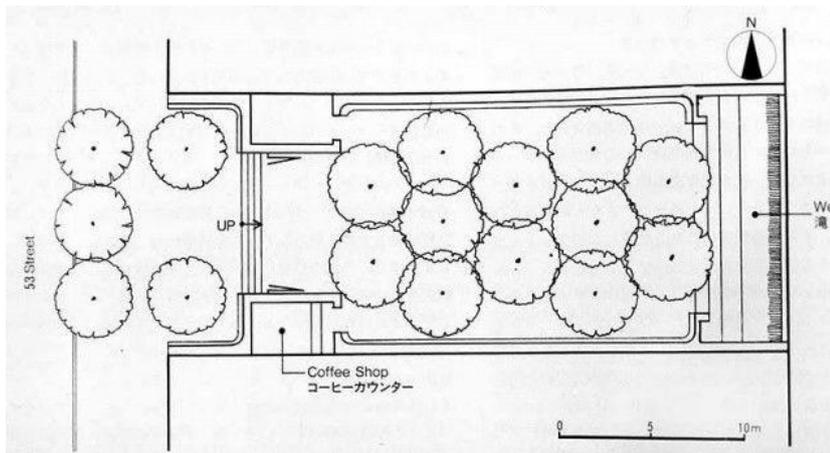


Figure 16. Paley Park (no author, z.d.).

The place is subtle bordered from the outdoor world by a small step up, which gives people the feeling of stepping out of the busy street into this enclave of peace. A small coffeeshop, a beautiful example of Oldenburg's 'third place' is included in this urban oasis. The garden acts like an extension of the terrace of the coffeeshop, without the pressure to consume. At night the place can be closed by a moveable fence at the street side.

Figure 17. Paley Park (Introspects, 2018).



The bathhouse of Budapest

Budapest is a city known for its beautiful bathhouses. When you visit the city, you notice a different behavior than most of the regular swimming pools. People don't come here just to swim and bath. Play, relaxing conversation, and above spontaneous meeting, is the most important element in this bathhouse.



Figure 18. Badhuis Budapest Szechenyi (no author, z.d.).

Of course a regular swimming pool is hardly comparable with an classic thermal bath like the one in Budapest.

It is an archetype which dates back from the Roman empire. They are used over the years for very relaxing, healthy and social activities. The thermal baths of today, which house more facilities like steam cabins, herbal baths and saunas, are more like the classical bathhouses in Budapest and the Roman empire.

But these functions are not directly what makes these places soft architecture. You do not need an expensive bath to create the social encounter like in Budapest. An social event is established by only providing a wall directly in the water. Even today, by visiting the terms of Budapest myself, the small stone walls in the water cause people to lean against it and play a game of chess in the water. Water attracts people for playful activities. By its cooling effect it is an important element in heat up cities of today.

In the picture at the right we can see the old design of the Schouwburgplein in Rotterdam. The shallow basin was often used for paddling and attracted children and elderly to play and rest. In Budapest we can see this activity back in the people sitting at the stairs, and most of all in the elderly men in front of the picture.



Figure 19. Schouwburgplein (Oud,2017).

The flying grass carpet

In the text before, the old design of the Schouwburgplein is already described. The new design, by Adriaan Geuze, was based on the historical character of port city of Rotterdam. Elements like the large cargo cranes and the wooden floorboards are directly translated from the port . The square became famous for its innovative choice of materials and identity reinforcement in her city. Afterwards, however, the square was also overloaded with criticism; the square was laid out with inhuman large elements, and enhanced feelings of agrophobia.

Nowadays, a huge colorful artificial grass carpet is settled down on the Schouwburgplein for a temporary period. The carpet is also known as "The flying Grass Carpet" from studio Hunk design. The concept has been a huge success for years in various cities around the world and the carpet has fled across the world. Because of the softness of the artificial grass, people feel invited to sit down and relax in the busy city center in Rotterdam. The material, but also the use of color and the human scale and ensure that people conquer places on the huge carpet. By adding house plants, the square is transformed into a colorful public playroom.

The carpet in Rotterdam in the image is characterized by the different colors and motifs that are based on the iconic buildings from Rotterdam. The carpet's appeal to people is huge.

Figure 20. The Giant Flying Grass Carpet (Doeleman, z.d.).



Nobody escapes death, everything that has life becomes acquainted with death at some point. Cemeteries are a special piece of a soft city; they expose the intensely intrinsic part of man in the middle of the city. In these places people can release their emotions, and the intrinsic comes into contact with the hard city. They are therefore not directly places where people come to relax.

However, in many other places of the world, cemeteries are part of daily life. In Venice, the cemetery has been given a place on an island. The island is open to the public and is often visited by people for a walk to simply escape from the bustle of the city. In Sweden the cemeteries are part of continuous cycle routes. The route is closed at night, but during the day the character of the place is more like a park, part of daily life.

The sketches show the image that typifies cemeteries; they are symbolic places often surrounded by beautiful gardens and narrative tombstones. Personal items are often placed at the grave in the middle of the public space.

They make you aware that life is not eternal, and take you away from the bustle of the city. Even the graves are not eternal, after the body has turned to dust, they are cleared again to make room for others. The transient city, the intermediate relationship with people and place and the sense of space can be felt in each element.

The protection of the many incentives in the city makes you slow down. A kind of Slow Citta, where you, as a person, come in contact with nature again. Everything has its temporality, returns to dust. The small places on cemeteries are very special, they always give the visitor the place to retreat and sit down. These small spots are cleverly designed, they may be lowered, sheltered by greenery or around a focal point.

Prior to shaping the Soft City concept, this research into cemeteries showed the high importance of spaces where people are allowed to just be in the moment, where they are allowed to claim a small piece of ground and make it their own. The elements which have a direct calming effect on people and were essential in creating the concept of Soft City are translated into general design tools. The direct translation of a cemetery was eventually not an option; the big difference is that Soft city encourage spontaneous contact amongst citizens, cemeteries are the places where you meet the people that passed away, not directly your fellow man. We need spaces with the same mental aspects, lively cemeteries, where dead is not included.

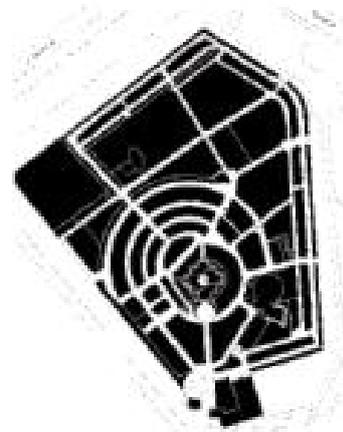
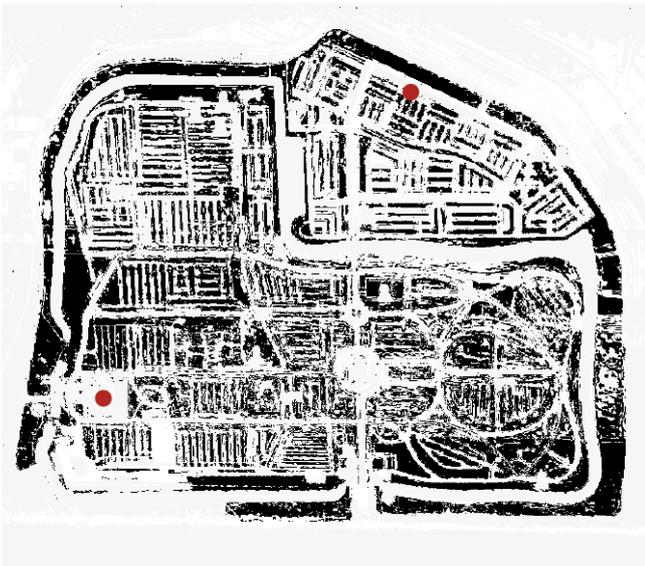
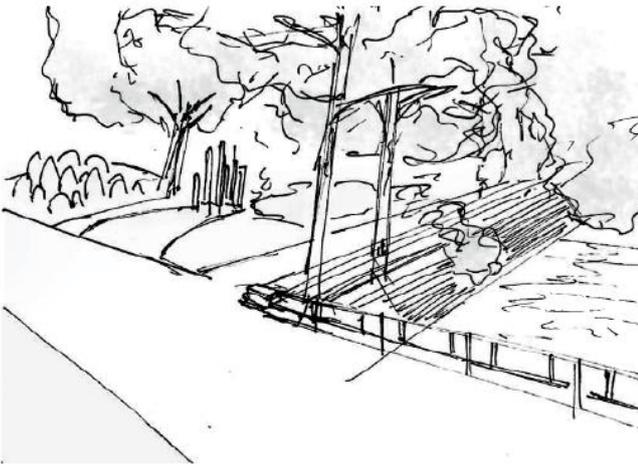
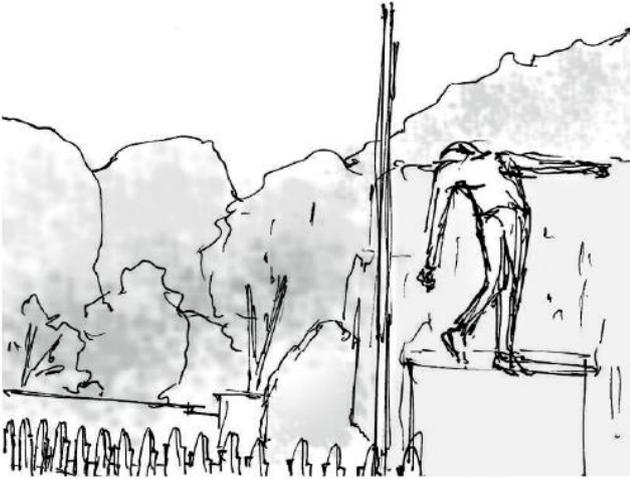


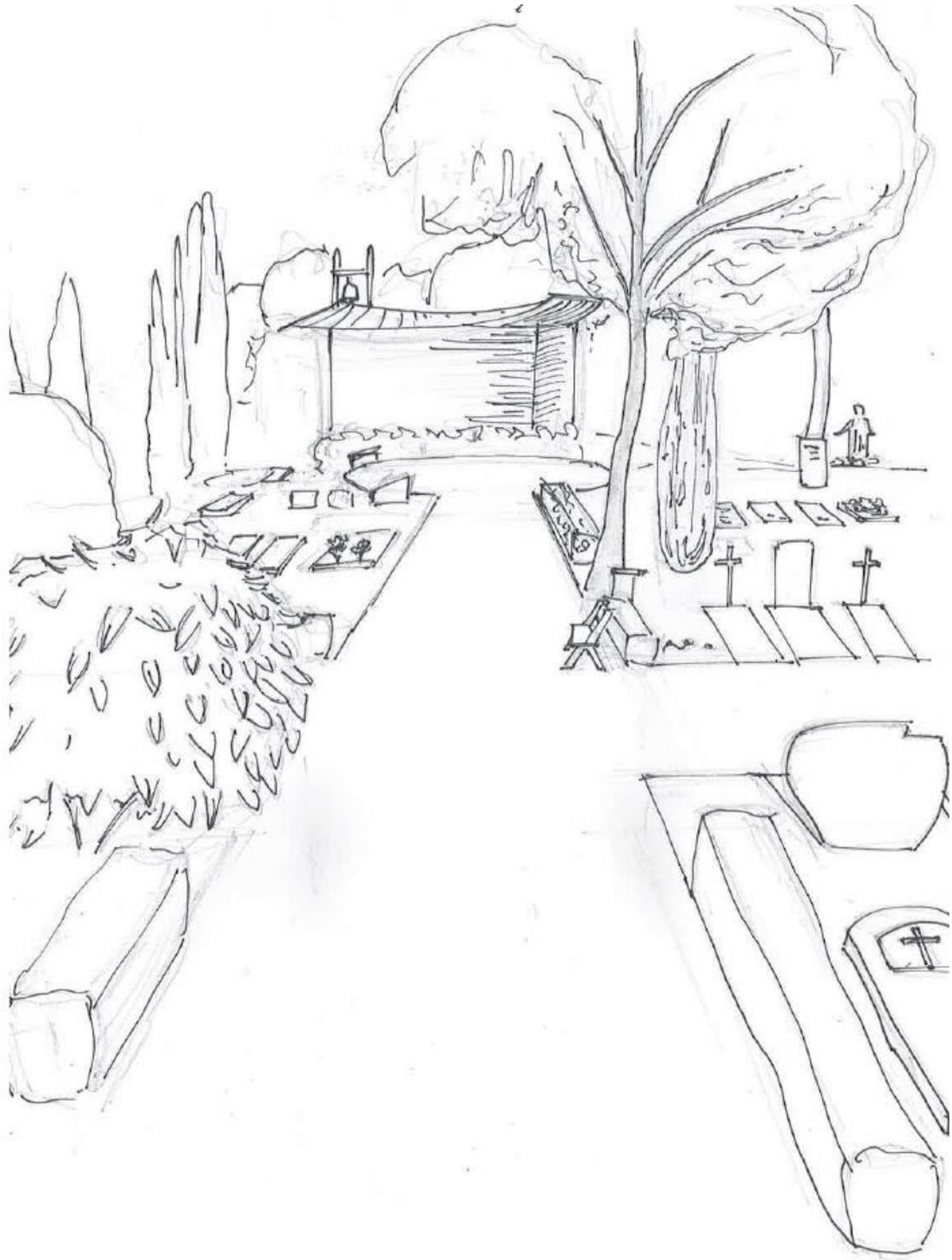
Figure 21. cemeteries design tools (drawings by author, 2018.).

Figure 22. Crooswijk (drawings by author, 2018.).



Figures 22-28. cemeteries (drawings by author, 2018.).





Figures 29. Catholic Cemetery (drawing by author, 2018.).

measurements

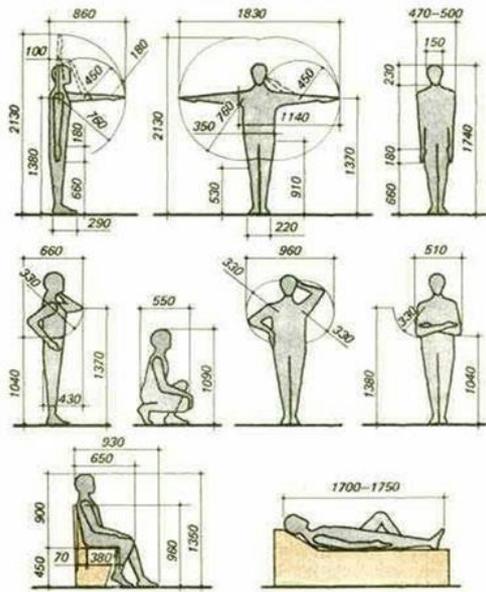


Figure 30 Human Scale (Van Donzel, 2018)

In the previous paragraphs Soft City is described as the place where people are invited to adapt the place, have spontaneous encounter, feel at ease and relax. These places change by the interaction with people's activities and because of this they can feel like your second home. Citizens take responsibility for these places-they are part of daily routine. But what do we need to create good soft spaces where people are invited to spontaneously meet, relax and interact with the place? How can places become soft, by adding, removing or by the infill of new design solutions?

It is about the balance between soft and hard elements which determine whenever a place can be described as soft or hard.

people

The first design measurement of a Soft City space is People. There is a key for every design to consult the people of a specific design place first about their thoughts, to observe their behaviour and their belongings. When we start designing from a human perspective, we are no longer creating monuments, but lively architecture like Miccelucci stated.

Eventually, people will have to live in the designs we are creating for public city spaces and they are the key for a rooted design which contain an interaction between people and environment. A relation can only be sustainable when there is a give and take between those two. People will take place when an environment is 'Human proof' not only Hufter proof. We are creating these Hufter-proof spaces so that people cannot demolish them, but what about the stone and fixed environment that can harm human's life? We have to look at places on eye level of humans and take in consideration that we make cities to live in, not to survive in. Nadine Roos, architect Hunk design stated; the government must have some trust in in the power of the people. When we believe in their strength and caring for public places we can create beautiful public places. Think from their senses and their action, that is where soft city is about.

Figure 31 Human Scale (by author, 2019)



Orientation

The orientation is even as important for a good working soft city space. When we are creating spaces to establish more spontaneous contact and being in the open air we have to be aware of the elements of nature which provide our comfort at places. The comfort of places is for each place different; In warm countries, like Saudi Arabia, the soft space will rather be created from the desire for shade and cold places. We see these elements back in the architecture of the cities which are made with thick stone walls and shutters to protect people for the hot circumstances.

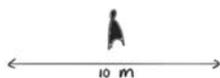


The given elements of the weather determines our climate circumstances and will also eventually determine our behaviour in public places. In the Netherlands, we have to deal most of the time with the rain, and quite cold weather. Throughout the year places which are orientated towards the sun are therefore more used than places in the shadow.

Figure 32 human orientation (by author, 2019).

But, when summer comes, the shadow places becomes more attractive than any other place. Soft architecture is creating shelters, by implementing soft elements, to bring people together hiding away for the rain or heavy sun. An great example of temporary shelter is the umbrella which can provide a shelter for the sun and the rain.

dimensions

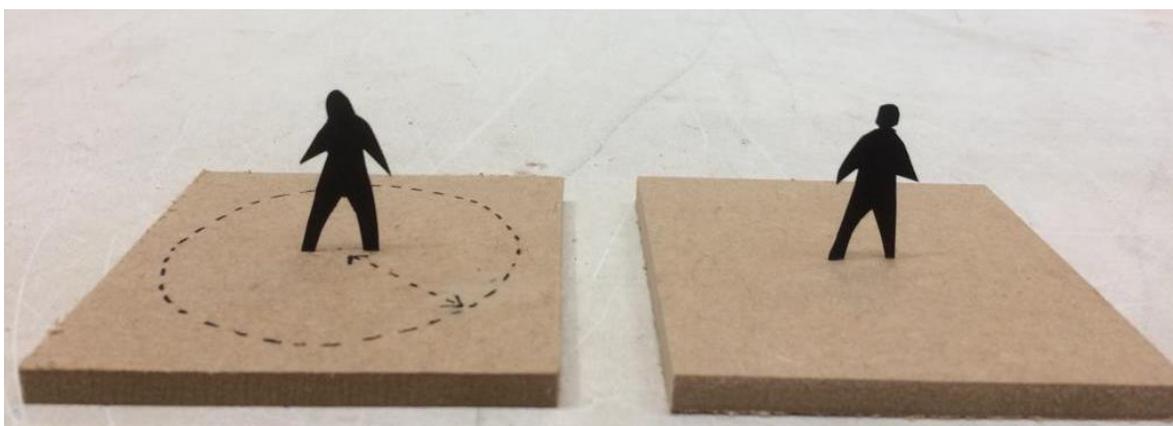


In the standardization and fast built years after the war, encouraged by the modern times, a lot of detailing and colour disappeared in the built environment. In Gehl's book *Cities for people* we need to create differences in spaces within the diameter of 10 meters around people.

Figure 33 human dimension (by author, 2019).

When there is no indifference in space within 10 meters, the human scale will soon get lost in space. The best dimension of an in-between space is determined by Uric van Ulden in his book *'De Stoep, ontmoetingen tussen huis en straat'*. He stated that an in-between space needed a minimum dimension of 2 meters was necessary for people to take the space and show their identity.

Figure 34 Human Scale (by author, 2019).



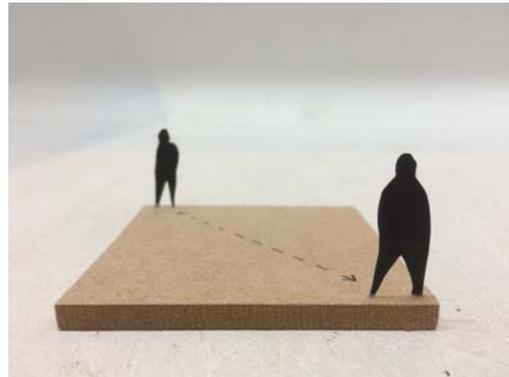
position

Position is visible in the way we orientate ourselves towards each other. In further research Jan Gehl developed concepts about the position of people in space that creates more changes to meet and interact with each other. These positions are translated into 3d model diagrams and will show methods which can establish better human cities.

Short distance



great distances



face to Face



Back to Back



One level



multiple levels

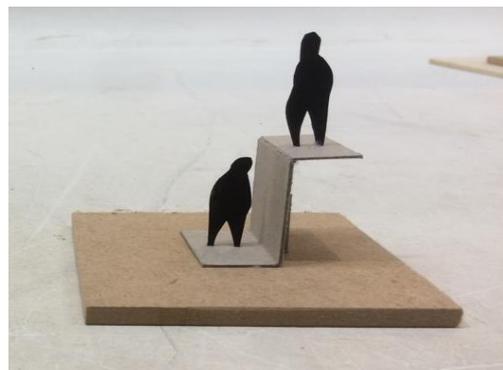


Figure 35-41 Human Scale (by author, 2019).

The way Gehl stated his concepts is quite limited; it is face to face or back to back. But of course there are many more ways of positioning toward each other to establish any contact. In the next diagram we can see different types of positions in seating elements. The first diagram is the direct face to face orientation. This position almost forces immediate contact, which is not always the preferred way for spontaneous contact. For the best open conversation, the 90 degree angle in diagram two is proven as the best way in orientation. The third diagram shows an disorientated way of position in seating's; it keeps the people individual seated, with the ability to face each other. In this way we can choose for contact, but are never forced into a conversation. The fourth diagram shows a closed circle, which keeps the conversation in a closed group. With larger groups, this position is good when having the ability for a group conversation, but more intimate and private conversation are harder to have.



Figure 42 Human Position (by author, 2019).

Changeable program

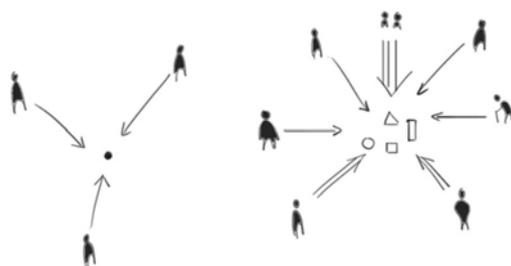


Figure 43 changeable program (by author, 2019).

To establish a healthy exchange between people and place it is important that a place is thought of as a transient place with a changeable program of activities. The multiple use and activities of places can make a place more attractive in any use, by more different kind of people with more spontaneous contact as result.

A flexible program develops through time and seasonal settings, in other words it is *changeable*. This will ensure that a place can be used under any circumstances. When winter comes, the use of a square or any city-place will be determined by other aspects than in a summer setting. When a place is getting soft, it can change under the influence of people, and climate circumstances. It is an *unfinished architecture* which is inviting different kinds of people for spontaneous contact.

Whenever there are people, in buildings, in neighbourhoods, in city centres in recreational areas, and so on- it is generally true that people and human activities attract other people (Gehl, 1962 p 23).

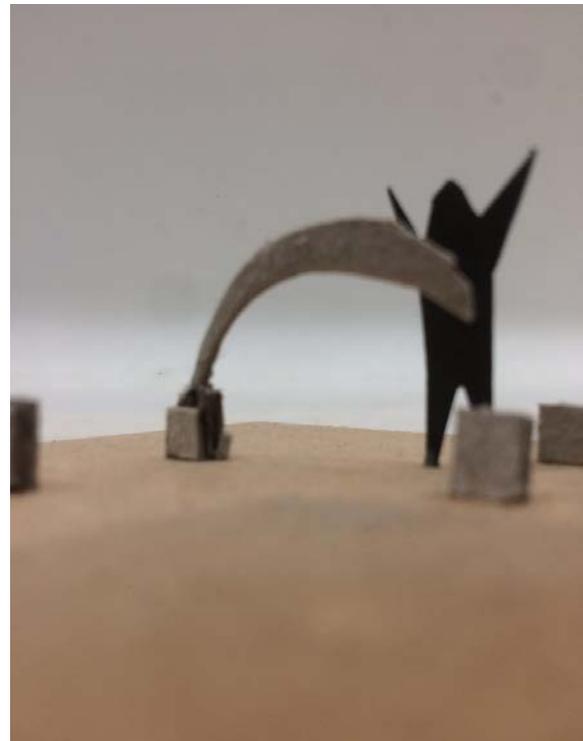


Figure 44 people attracts people (by author, 2019).

The value of many large and small functions that are attached to the opportunity of being in the same space as and seeing and hearing other people is underlined by a series of observations investigating people's reaction to the presence of other people in public spaces (Gehl, 1962 p 23). People attracts People. But to attract different people towards places, a place needs to have a flexible program which can fits people's supply's.

A good example of a square with future flexible program is the Schouwburgplein in Rotterdam. With the new project 'The 7 square Endeavour' they are trying to make a program for the square throughout the whole year which fits the different backgrounds and ages in Rotterdam.

Figure 45 & 46 attractive activities (by author, 2019).



Nature; presence of water, greenery, light



Based on the Biophilic architectural design we can state that the presence of water, greenery and light have a peaceful and well-being influence on people. In a city where attention is directed and intense environments, over time it can result in mental fatigue and depleted cognitive resources (Kellert et al., 2008; van den Berg et al., 2007).

Figure 47 greenery (by author, 2019).

Strong connections with nature can provide opportunities for mental restorations, during which time our higher cognitive functions can sometimes take a break. Empirical studies reported that experiences of natural environments provide greater emotional restoration with lower instances of tension, anxiety, anger, fatigue confusion an total mood disturbance than urban environments with limited characteristics of nature (Alcock et al., 2013; Barton & Pretty, 2010; Hartig et al., 2003; Hartig et al., 1991). Only visual contact with nature can already make a difference and have a distressed influence on people.



Figure 48 present of water (by author, 2019).

Safety



In a safe space people are more willing to stay, take a place to sit or meet. Unsafe places will rather force you to go elsewhere. A simple measurement to determine if a space is safe enough is to look whenever the places is visited by children, women and elderly.

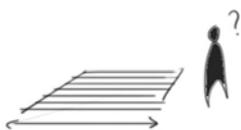
Figure 49 safety (by author, 2019).

But how do we make safe spaces without directly placing security camera's? The first tactic is to separate the fast traffic from the slow traffic (pedestrian world). In a safe space people are protected for the fast infrastructural flows like trains, busses, and cars. This can partly declare why our present behaviour of city spaces became passive –when cars took over the public streets, the safety of places declined for the slow moving citizens.

The second tactic is to use social control, multiple eyes and responsibility from users and surrounding inhabitants.

In the book 'architecture and the body' by Kent C. Bloomer and Charles W. Moore another theory is that the weakest part of the body, the back of the body, must be secured by place to *feel* secure. In the back of the body there are no eyes, based on human instinct we need shelter in the back of the body. At the Schouwburgerplein this went quite wrong. The benches are places with their back towards the the lively street; for people sitting there is no play to watch and the back of the body is not secured.

Unfixed elements



The way elements are positioned in spaces determines a lot how we are allowed to live in a certain place. When every element is fixed, it confines for example exactly the place where you are allowed to sit and what your view is. The benefit of unfixed elements is as well that they can be used and interpreted by different people in multiple ways. By unfixed elements the function and use can be interpreted by its user

Figure 50. Unfixed elements (by author, 2019).

A bench does not have exactly to look like a bench, to be used like a place to sit. Because of this, the range of users of a certain place will become larger than before. As more different people will be attracted or addressed by a certain object the change with meeting other people will be increased.

Material

When materials are porous and low in density; they are generally softer and warmer to touch. Buildings made of flawless, hard and smooth surfaces leave us totally unrelated to them (Alexander,1977). As early explained, people are part of the mortal world. This is why natural materials like wood is easier to relate to. We tend to stay away from the immortal material not only because they are psychologically strange. In fact they are physically uncomfortable to lean against or sit on; they have no give; they don't respond to us.

The material wood has a lower thermal conductivity than the steel material. With direct contact, steel will therefore always feel colder than wood. Steel in particular extracts heat from the body faster. As a result, a steel bench will always feel colder than your own body temperature. On the other hand steel will be piping hot when heated in the sun. When we look at materials like stone and concrete, they have the capacity to warm up slowly and retain their heat for longer. The mass ensures that, for example, the temperature in churches in the summer is surprisingly cool and pleasant.

In the more intimate zones, soft materials like felt, cheap nylon, carpet, straw matting, wood, pillows and carpets can be used (Alexander, 1977). These materials are more natural; they show the mortal world. According to Alexander it is important to make a clearly edge between the soft and hard world, perhaps even a step so that people can take their shoes off when they pass from the public to the intimate (Alexander, 1977).



Figure 51. Material shelter (by author, 2019).

View



If the choice is between sitting in a private backyard or in a semi-private front yard with a view, people will often choose the front of the house where there is more to see (Alexander, 1977). When looking at good city places for indirect eye contact it is clear that the view will influence partly the use of terraces and other sitting places. Research shows that rooms without a view were experienced by people like a prison to live in (Alexander, 1977).

Figure 51. View (by author, 2019).

A good view is not something which is easily been created- it is subordinated to existing built environment. It starts with the awareness of viewing the city and built environment at eyelevel instead of designing from a helicopter view. An example is the awareness of blind walls at base levels in cities. The blind walls are most of the time a logically result of placing the basement or car parking place at the ground level in buildings. As a result 'dead' walls are created which influence the view at eye level. Ornamentation, colours and details at ground level are helping the human eye to orientate him/herself; they are more adapted to the human scale. The average measurement eye level of a human is at 1.65 m (Haak, 2005). The eyelevel of people can reach in vertical level 60 degrees and in horizontal level 120 degrees.



If we look at the city according to Aldo Rossi, we can determine the city as a stage. Every place, corner and arcade can function like a huge stage for people to 'have a play'. The city can defined into three elements of the theatre; the stage, the foyer and the tribune.

Figure 52. Something to look at (by author, 2019).

The places where you spontaneous meet people is the foyer. The places where you can sit in rest can be designated as the tribune. A good working theatre give room for all the three elements. There must be a great place to sit, inviting to have your play, but most of all *a good view*.

Smell



The smell of a space can ensure that a public space does not work as a meeting or accommodation space. When a space contains too much litter or, for example, is faced by fish shop it will influence the behaviour of people. The smell of cities is often heavier in summer times than in winter time. Caused by the warm temperature, smell will strongly carried through the air and can have an unpleasant effect on people.

Figure 52. Smell (by author, 2019).

On the other hand, smell can also attract people towards places. When a food truck smells that delicious it can have an positive effect at people's circumstances as well.

Noise



The noise or sound of a place can be destructive and constructive for the atmosphere of a place. In nature we are used to Non-Rhythmic sounds. However in cities the sounds are mostly rhythmic- think about the sound of coming trams, the cars and other traffic. Most of the time citizens don't hear the noise of the street anymore; your brains are used to the sounds and the sound can be ignored.

Figure 52. Noise (by author, 2019).

In the Netherlands, it seems that one in four of the Dutch people experience noise nuisance due to traffic noise. Sounds that are loud, have a sharpening character or suddenly occur (fast rise time) produce faster noise nuisance. Laboratory studies have also shown that short-term exposure to noise triggers a series of typical stress responses such as pupil dilatation, blood pressure rise, sweat secretion and changes in the hormonal system

In case of meeting and staying at places we can determine that a maximum of 60 dB is tolerated to have a normal conversation.

Touch



The sense of touch in the city can be explained as literally touching the physical environment. The choice of material is key in this sense. As Alexander stated in his book 'The pattern language' there are materials, like wood, fabric and with physical aspects that give an cold or warm touch.

Figure 52. Touch (by author, 2019).

Jane Jacobs describes the city as an intricate street ballet; it is always unfolding in the rhythms of people's movement through the city and their relations to other people's bodies as the move.

Somehow people will manage to pass each other often very closely, but without touching, and without bumping into each other. But touching goes further only the physical sense, it is as well about the way we touch each other amicably.

At places with short distances, it is more possible to touch each other amicably. Warm personal and intense communication will rather take place at short distances (Gehl, 2010).

intimate distance 0 to 45 cm
at the intimate distance we can exchange strong emotions.

personal distance 45 cm to 1.20 m
At the personal distance we have contact with close friends and family members.

social distance 1.20 m to 3.70 m
at social distance we normally have conversations about work, vacation memories, and other types.

(distances for encounters according to Gehl, 2010).

Conclusions

When a place is getting soft, it can change under the influence of people, and climate circumstances. It is an unfinished architecture which is inviting different children or people for spontaneous contact. A changeable program will ensure multiple users and more changes or spontaneous contact among people. A bench does not have exactly to look like a bench, to be used like a place to sit. As more different people will be attracted or addressed by a certain object the change with meeting other people will be increased.

When we are creating spaces to establish more spontaneous contact and being in the open air we have to be aware of the elements of nature which provide our comfort at places. A good orientation towards the sun (or in the shade in warmer countries) ensures that people sit down earlier. When materials are porous and low in density; they are generally softer and warmer to touch. Materials like wood and stone have a lower thermal conductivity than the material steel. This is why steel always distract more body temperature than stone or wood. Natural materials are closer to the mortal world and are therefore easier for people to relate to.

In terms of human dimensions, we need a difference within 10 meters around us to identify with our surroundings. Otherwise people will soon get lost in the anonymous space. Our social distance is not larger than 3.70 meters and therefore narrower spaces will create more opportunities for deeper social contact. At large squares, people will soon have social contact at the edges; there people feel more save, sort or secured by surrounding buildings. Especially in cities, the 'stage' where city live happens is most interesting to watch and have indirect encounter through eye contact. People will often choose the spots to sit and chat with a good view with their backbone secured.

At safe spaces people are more attracted to stay longer. To create these spaces it is needed to separate the fast traffic from the slow traffic (pedestrian world). The feeling of safety also increases when more people are taking responsibility for spaces. The second tactic is to use social control, multiple eyes and responsibility from users and surrounding residents. Third tactic is more sensitive; secure the weakest part of the human body the backbone.

The smell of too much litter in a space can ensure that a public space does not feel save to work as a meeting or accommodation space. When a space contains too much litter, the smell will immediately influence the behaviour of people. Every place needs human responsibility to maintain clean and healthy to be. This is possible when people are more allowed in adapting spaces or the public domain. It feels like theirs, and it will be cared for as their sidewalk.

Based on the Biophilic architectural design we can state that the presence of water, greenery and light have a peaceful and well-being influence on people. Just by placing greenery at eyelevel it can have a distressed effect on people.

After a longer period of time, the human brain becomes accustomed to rhythmic sounds, the sounds are ignored by your brain. It is precisely the non-rhythmic sounds that are noticed and can be experienced as disturbing. Despite the "thinking away" of sound, this has an inseparable effect on increased mental stress.

Chapter 3 BoTu

The method of a soft city and a hard city is tested in the post-war neighborhood of Bospolder Tussendijken in Rotterdam. The neighborhood is currently in the news due to major social problems. With its 'Resilient Botu' 2025 vision, the municipality of Rotterdam wants to tackle this neighborhood by creating *'social impact by design'*. It was precisely this neighborhood that was therefore interesting to test for hard and soft city. The methodology can serve as an example for social development in other socially poor neighborhoods.

As part of the graduation program an research report is made with field analysis and data about the neighbourhoods Bospolder & Tussendijken. This research is done by two graduation students, Vera van Wijk and Christine van der Veen commissioned by the Veldacademie Rotterdam. It was a starting point for the problem statement and the idea of making soft city in this area.

The first paragraph of this thesis will give the general information which is gathered about this neighbourhood and used in the final design assignment. First, it will describe the current situation in Bospolder Tussendijken; the history, people, housing, important third places, challenges on the field of connectivity amongst the citizens and the future strategies by the government for the neighbourhood 2025.

In further research different spaces in the area are tested on soft and hard architectural elements, which are mentioned and described in Chapter 2. The research revealed that this neighborhood requires a good implementation of soft meeting places at certain crucial points in the neighborhood.

Therefore, as a conclusion three locations are chosen to apply the soft city layer. At these locations the research will be more specific to decide whenever soft architecture must be added, injected or hard elements must be removed.

Figure 53. Map Botu in context (van Wijk, 2019).

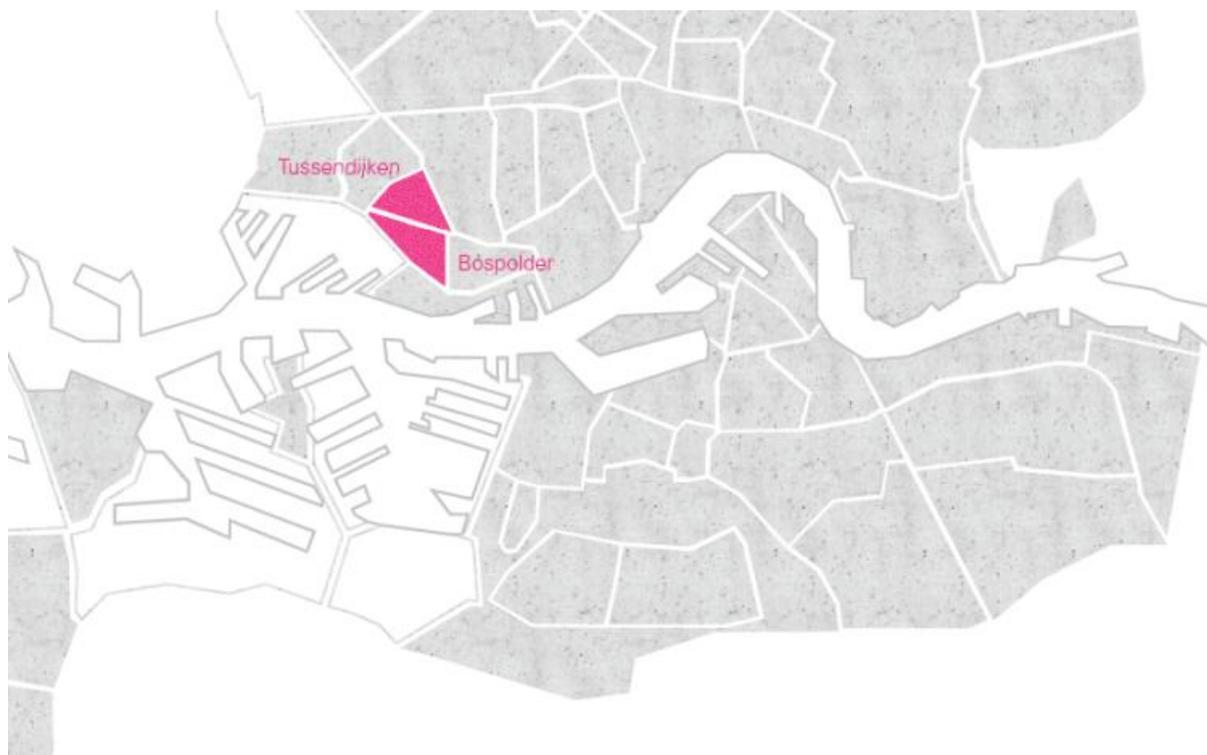




Figure 53. Map Botu (by author, 2019).

3.1 introduction

The neighborhoods Bospolder and Tussendijken are located in the western part of Rotterdam. The area forms a transit between the urban center, the historic authentic Delfshaven and the new bustling M4 haven Rotterdam. The character of both areas come together in Bospolder Tussendijken; a field of tension between city and water.

The neighborhoods Bospolder Tussendijken are often called in one breath and are also known among the name BoTu. Although they are often seen and treated become like one neighborhood, there are really two neighborhoods. The neighborhoods are separated by the a busy shopping street the Schiedamseweg. The Schiedamseweg is one of the main road and the neighborhood Bospolder Tussendijken and contain all the important public transportations (image). The immediate location to the center makes the accessibility of the area very beneficial. Both on foot, by bike or in public transport is in the heart of Rotterdam within reach. Schiedam is with public transportation within only 10 minutes.

History

Bospolder Tussendijken is a city district that dates back from before the war. The neighborhood has been built on since 1910 and a substantial part of the neighborhood was filled with social housing, designed by architect J.J.P. Oud (Oud, Taverne, & Broekhuizen, 2001). J.J.P. Oud was a modernist, one of the founder of the popular art movement De Stijl. His work is visible in more post-war areas in Rotterdam (picture below). The architectural appearance of his buildings are typical modernistic; a lot of repetitive elements and functional ideas. The facades shows a lack of ornamentation and show us a good example of hard architecture; a strict boundary between the intrinsic an extrinsic world.

Although it seems a quite negative statement to make, it is not intended to. In the time the neighborhood was built there was a big housing shortage for families and there was a need of functional architecture which could house all the new citizens. The people where happy to have a home after all. But when the time passed, even the architect J.J.P. Oud himself was aware of the hard buildings he created. Therefore, he asked Theo van Doesburg to 'decorate' his buildings in Spangen with some color.

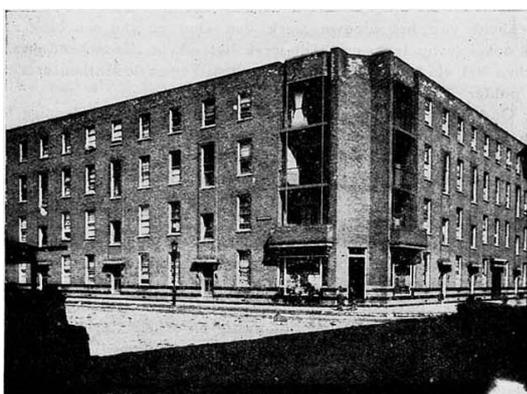


Figure 53 &54. J.J.P. Oud (Wikipedia, 2019a-b).

Figure 55. De Stijl (no author, z.d.).

In 1943, part of the neighborhood was hit by the bombing of the Allies, with 326 deaths. The bombing left a large gap in the middle of the Tussendijken neighborhood. As a result, the 1943 park was created here in memory of this bombing. The destruction also gave room to the Visserijplein, where a large market now takes place twice a week. Both places have become an important meeting place in the neighborhoods where young and old come together. A cultural center has been built on the square in which the library, living room for the neighborhood, sports facilities and contact point of the municipality are housed.

The neighborhood was rebuilt in the 1950s and this 50s style is clearly reflected in the architecture of the neighborhood and the current state of the existing housing supply. They show a hard border between the private and public domains in Botu (image). The architectural style is fairly traditional for this time; the building block are repetitive and often encloses a private or collective garden. This means that there is a lot of gardens, meeting and relaxation areas behind closed gates and buildings.

The neighborhoods were known as the "wild west" of Rotterdam, a lot of crime and poor housing caused a lot of inconvenience. The stories of residents about the neighborhood 30 years ago, in which 112 calls normally became almost normal, do justice to the label of the former "Wild West" of Rotterdam.

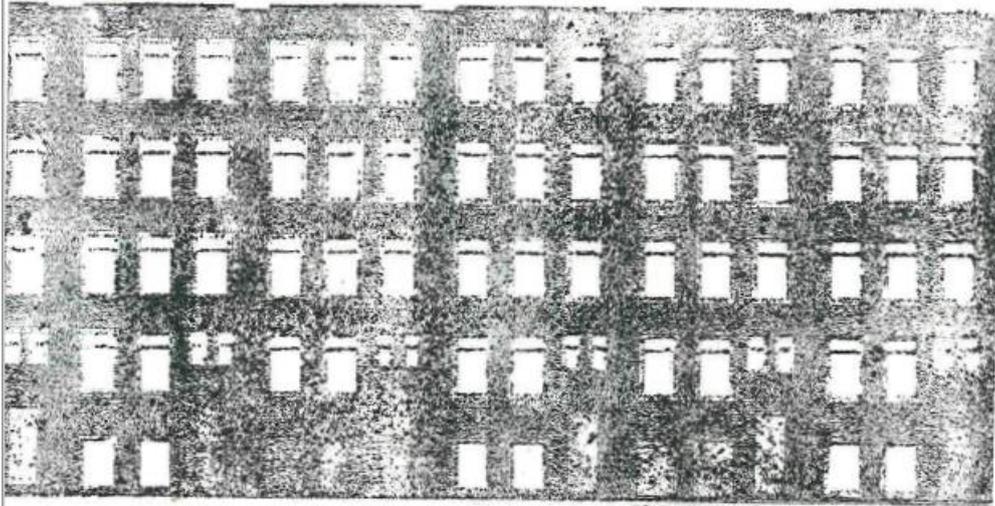
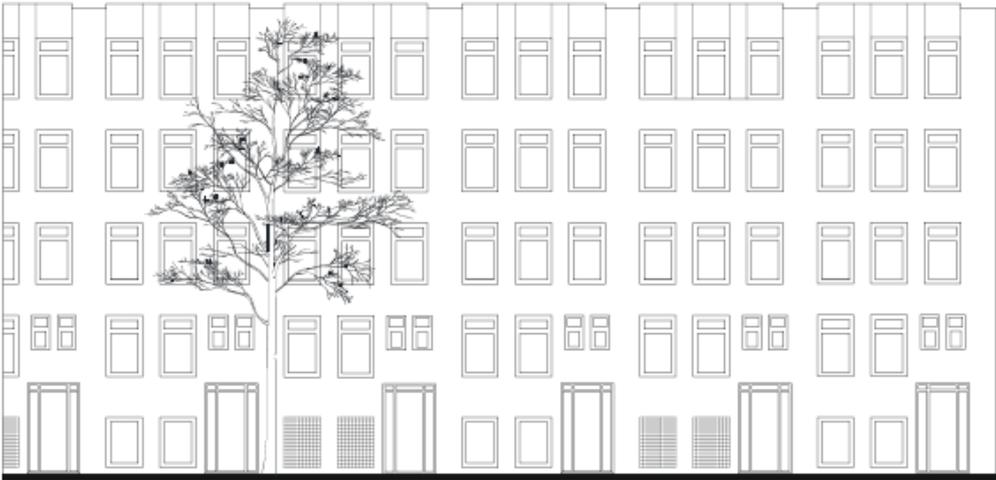
Figure 56. Het Vergeten bombardement 1943 Bospolder (no author, z.d.).



Since the 1980s, many homes have been demolished and space has been made for new construction. This attracted new people to the neighborhood with a higher income and ensured a mixed composition than before. Compared to the other neighborhoods in Rotterdam, Bospolder-Tussendijken is among the weakest socio-economically. (Revised Delfshaven Area Plan 2016-2018). But in comparison with the Wild West past, the neighborhood made a huge positive progress.

'I was used to calling on 112 several times a month. Of course that wasn't normal, but it happened so often that I didn't notice it anymore'. Resident Jackie Broekhuijzen.

Figure 57. Ink print facades (by author, 2018.).



3.2. Housing

Calling the housing supply in Bospolder and Tussendijken monotonous might go a step too far, but compared to the rest of Rotterdam, the neighbourhoods lack a bit of variation in the current housing stock. The ratio between social rental and owner-occupied homes is particularly striking. In Bospolder more than eighty percent of the homes are social housing and in Tussendijken this is almost ninety percent. This is twenty percent above the average for Rotterdam. The supply in owner-occupied homes is therefore very limited (Municipality of Rotterdam, 2018-a).

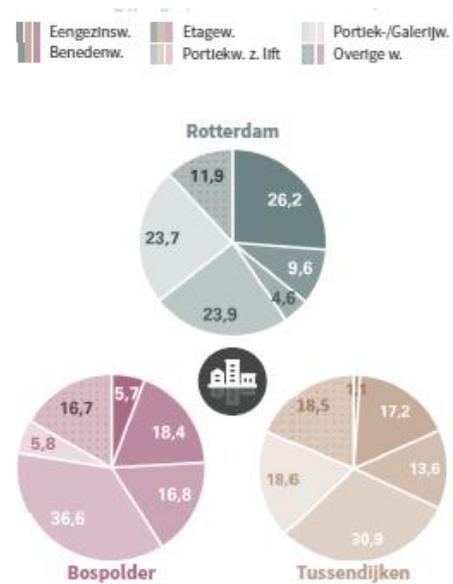


Figure 58. housing typologies (Rotterdam.buurtmonitor, 2018).

In BoTu there are relatively more smaller homes with fewer rooms than homes with a large surface area (120 m² or more) and more rooms. Although the surface area is fairly average, there is more often talk of overcrowding. More than half of all homes in Bospolder fall into the category of 50,000 to 100,000 euros and in Tussendijken this is 65 percent of all homes. The number of available homes is falling rapidly after the 150,000 euros and there are homes, single-family homes and homes accessible by elevator.

The figures with regard to the size of the houses are reasonably in line with the Rotterdam average, with the exception of a small deviation here and there (Chart 6). In BoTu there are relatively more smaller homes with fewer rooms than homes with a large surface area (120 m² or more) and more rooms.



Afbeelding 7: Woningtype, Bron: arcgis, 2016



The higher density in housing can have negative consequences for the residents. The overcrowding of housing in cities has a direct increasing effect on anxiety and moodswings of people living in cities. The spaces in-between are more and more important to be used like a third place for people to relax and meet. At the Hudsonstreet (edge of the neighborhood) new houses are even planned to build.

Figure 59. housing typologies (arcgis, 2016).

3.3. People

The diversity amongst cultural backgrounds is remarkable in the areas Bospolder and Tussendijken. The neighborhood is characterized by a constant increasing proportion of residents with a non-Western origin (Re-evaluated Delfshaven Area Plan 2016-2018, z.d.). At the moment, the BoTu neighborhood profile shows one multicultural pallet in different backgrounds and multiple identities. The percentage differences among the different groups is getting smaller. So is the average percentage of natives in the municipality Rotterdam still more than 50 percent, while in BoTu only one quarter is native (Figure 59). Especially residents with a Moroccan or Turkish background larger numbers represented in the two neighborhoods.

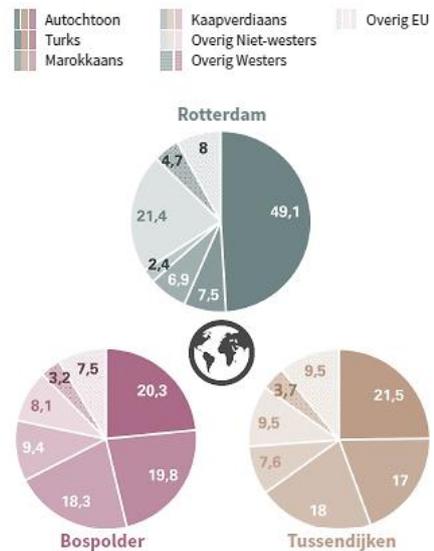


Figure 59. People's background (Rotterdam.buurtmonitor, 2018).

This means a melting pot of cultures and identities, that everyone knows their own customs and wishes. This big one diversity can make a neighborhood stronger and diversity increase in facilities. This is particularly evident in the facilities located on the Schieweg where many various shops and restaurants. A large group with many different people can also lead to collisions. Everyone has a different background with other mindsets and lifestyles. This in itself does not have to mean anything negative, but the chance of conflict grows as a result.

Age

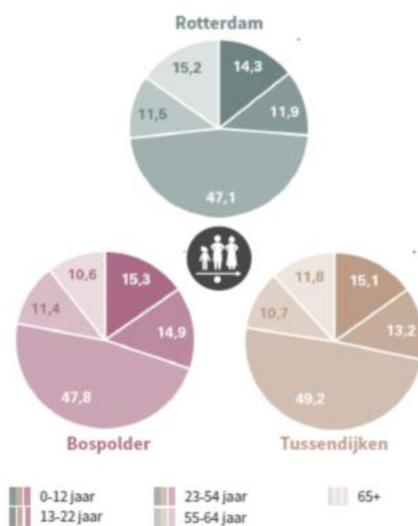


Figure 60. ages (Rotterdam.buurtmonitor, 2018).

In terms of age groups in the neighborhood, the percentages are fairly similar compared to the Rotterdam average (Figure 60). However, the percentage of youth, with ages between 13 and 22 years, is a little higher. The neighborhoods are therefore relatively young in terms of composition. This is also reflected in the household composition figures. In particular, more families with children live in Bospolder, in contrast to Tussendijken; there are more single-person households there. In addition, families are often larger in size. The number of children per household is higher than the average for Rotterdam, where the Bospolder district stands out again.

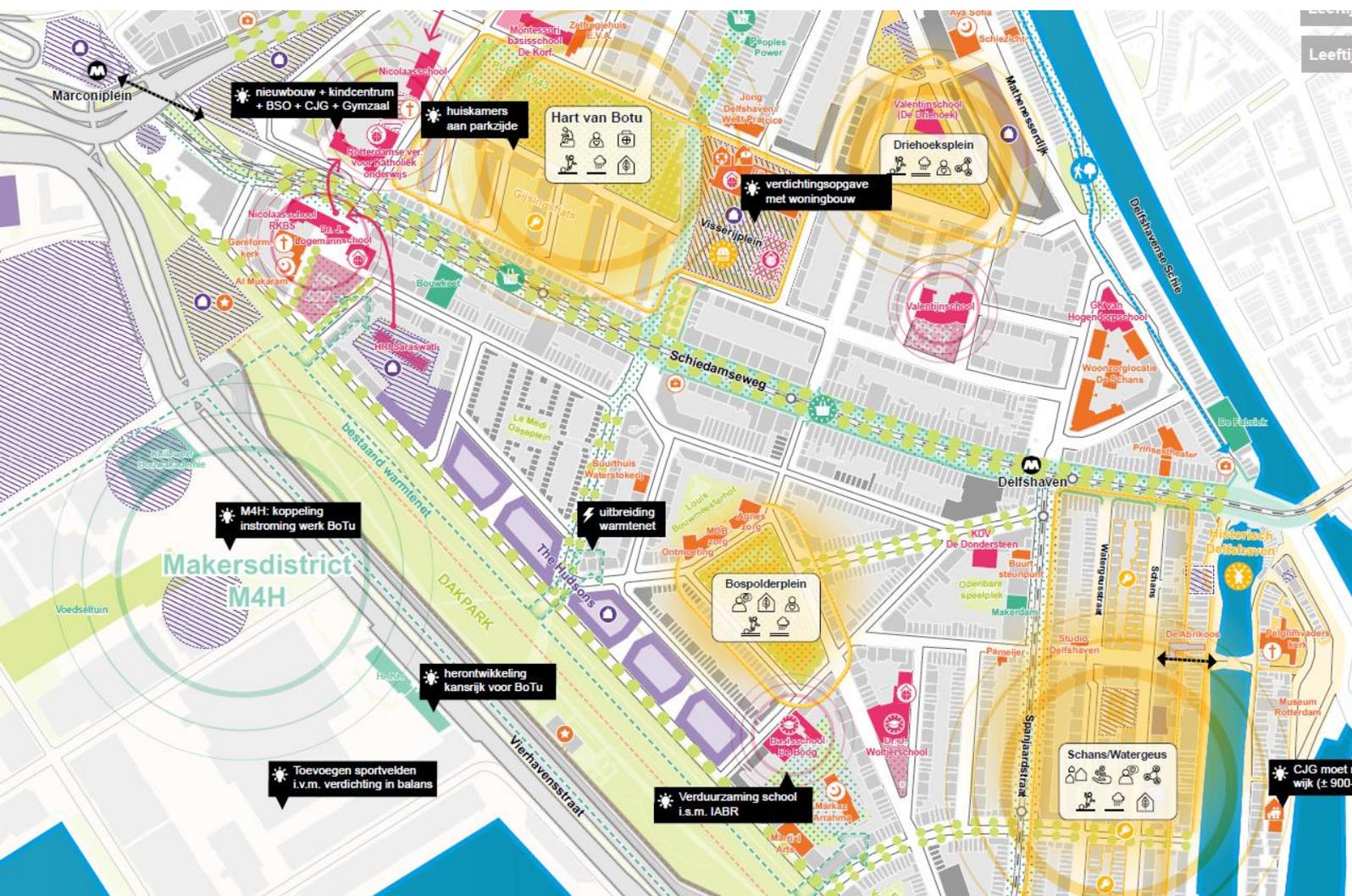
3.4. Botu 2028

On 8 February 2019, the municipality presented a new plan for the coming years by Bospolder Tussendijken. The map below shows how the neighborhood will develop in the future from the perspective of the municipality. The focus will be on improving the heart (Visserijplein), the other squares and the connection from the Watergeus area. Through social impact By Design, with the participation of the residents, more encounters will be encouraged. In fact, compared to the social index of the Rotterdam average, Botu is far below the average numbers. There is a great demand to create plans together with residents that improve social contact and the living environment in the neighborhood.

In the future, we will look for ways to combat urban heat stress through better water collection. The Visserijplein, Driehoeksplein and Bospolderplein in particular are places that need to be addressed at this point. The housing project of "The Hudson" can be seen at the edge of the neighborhood in purple. There are even ideas to further compact the Visserijplein with housing. This creates tensions as the residents are attached to the market square. In the near future, the sport and game element will also be introduced at the Visserijplein.

The connection with the water channel will be strengthened by an additional breakthrough. However, this is strongly prevented by the residents; the existing connection is already bad and, according to them, an extra would not benefit the situation.

Figure 60. Botu 2028(Municipality Rotterdam, 2019).



3.5. Interviews

The Residents: children (6-15 years)

Children are often a direct and honest group of residents when it comes to interviews. This group is not easily afraid to tell their unsalted opinion. The size of this group is 14% in woodland polder / intermediate dykes (Buurtmonitor, 2018).

"... there is nothing for us to do here, only for the small children yes! we only want to play football ' 14 year old, living in Bospolder.

In the conversations with the residents, there was first spoken with a group of 6 young children in the age category of 12/14 years. They confirmed our suspicion about the facilities for the somewhat older children around 12-15 years old. They indicated that most facilities were aimed at the youngest target group. In the park 1943 there is room made for play equipment for the little ones and a panna cage. The former football field should have made way for these facilities. The rooftop park turned out not to be a place they often went to. They missed a place in the neighborhood to just sit and where they banned from. The residents group that they had the least involvement with were the Bulgarians; they took all their hanging / sitting areas.

"That is not so bad .."; says his friend; "... we can still sit here, but it is not very safe in the evenings."

This is because the lighting in the park is no longer working. This led to a greater sense of insecurity among the younger target group. What is striking is that we have not been able to speak to many girls around 12-15. This population group was present in the street to a much lesser extent than the boys. This could also have to do with the lack of facilities for this target group or a cultural difference.

The Residents: young adults (15-23 years)

Young adults are an important target group when it comes to the socio-economic situation of Bospolder / Tussendijken. They are at the start of their development into adulthood in society in BoTu. This age group can also serve as an example or role model within the neighborhood for the youngest target group.

The group covers around 48% of the total population in the neighborhood (Buurtmonitor, 2018). In practice, however, you hardly see this group in the streets of Bospolder / Tussendijken.

The Bouwkeet is a maker's space in the neighborhood, free practical lessons are given to the youngest age category. An employee spoke to us and indicated that these lessons could indeed have a positive development on the practical development and social skills of the young people in Botu. It is striking that the lessons are given to the youngest target group (up to 15) and adults. The group of young adults (15-23) remains unreachable.

An initiative that has in the past focused on this target group is the water distillery. The water distillery was originally intended for the (hanging) youngsters in this age category. The idea was that the youngsters would redecorate the place and thus earn their own community center. In theory it could be a good idea for the nuisance and crime caused by the youngsters of this age category.

However, in the end it turned out that the young people themselves ruined the initiative. Mostly committed by themselves; it went from bad to worse. From stealing to threatening the owners of the property. At one point the young people said that the owner should just leave, because it was "their" building. The owner did not expect that this would get out of hand. Precisely because they had left the young people totally free in management, things went wrong. Clear agreements and rules should have been drawn up in advance to prevent misunderstandings in management and ownership.

The Residents; adults (23-54)

The responses from the interviews under the age category (23-54) are very diverse. The group has varying interests: children, safety and liveliness in the neighborhood.

"... the only reason I want to live in this neighborhood is my house."
Armenian woman living in Bospolder.

In the first interview we spoke with an Armenian woman of around 50 years old. She is the mother of two sons and a successful entrepreneur's daughter. Her image of the neighborhood was quite negative when it comes to the connection and social cohesion in the neighborhood. She had put a lot of effort into improving this situation, but to no avail. According to her, many groups lived next to each other at Bospolder & Tussendijken,. She had tried to "help" these groups, but there was no appreciation. If she wanted to grab a terrace, she would go to the center anyway, because there was no nice place to sit here. She missed as well a place for art exhibition. The only reason she continued to live in this neighborhood was her own house. She could not point to any other place in the neighborhood that she used, except for the bench in the park that she was currently using.

In addition to the Armenian woman, talks were also held with an Islamic woman at the triangle square. Her faith and additional traditions mainly determined the rhythm of the day; she prays five times a day and she also took care of her children as a housewife. The neighborhood was not safe according to her. There was a lot of pointless crime; police cameras were blown up and cars burned, especially around the festive season. It was special that she knew many people from the surrounding neighborhood. The Muslim women in the neighborhood often come together on the triangle square. This place has an important social destination for this target group. What was striking was that there was not much diversity in this group; they were all Muslim mothers. Here you can also see that a certain group visits each other.

The Residents: Elderly people (55+ years)

The elderly in the neighborhood can fall under the vulnerable resident group. Certainly when planning infrastructure, we must already take into account the deteriorated mobility of the elderly. Yet there is also a group of vital elderly in Bospolder Tussendijken, which is still fully in tune with society. They form a source of information and knowledge about previous times. In the Netherlands, however, 40 percent of the elderly suffer from feelings of loneliness (National Elderly Fund, 2012).

It is therefore very important that, despite age or decline, this group of residents continues to feel involved in the neighborhood. In Botu, the size of this group is 11.4% of the total resident group (Buurtmonitor, 2018). In BoTu there was talk with a man around the age of 58 of Surinamese descent. The man was worked as a port employee, but is now declared unfit due to two operations his eyes. Despite the loss of both parents and the fact he was very positive that he often visited the psychiatrist in life. He indicated that he was previously in Rotterdam South had lived since there was no room for him then in Botu. Now, however, he lived there, close to his others family and that made him very happy. He recovered a lot the Pier 80 community center to meet his friends there for a game of football. The man was very fit; he walked also hard with a group and met regularly with them the Euromast. The man indicated that he was very satisfied with the neighborhood, initiatives and people.

3.6. Conclusion

Bospolder Tussendijken is a city district that dates back from before the war. The neighborhood has been built on since 1910.

The neighborhood was rebuilt in the 1950s and this 50s style is clearly reflected in the architecture of the neighborhood and the current state of the existing housing supply. The architecture style of modernity is therefore reflected in many houses in the area; they show a hard border between the private and public domains in Botu. In 1943, part of the neighborhood was hit by the bombing of the Allies, with 326 deaths. The bombing left a large gap in the middle of the Tussendijken neighborhood. As a result, the 1943 park and the market square was created here in memory of this bombing.

These places have become important meeting places in the neighborhood in the heart of the neighborhood, namely Park 1943 and the Visserijplein. The residents are from very different backgrounds (only 20% are native Dutch). Mixing the different population groups is not yet easy; they mainly live side by side and separately from each culture. This is not necessarily a problem, but it does cause prejudice and frustration around population groups such as Bulgarians and Poles. Compared to the average in Rotterdam, it is a very young neighborhood with many families. In the interviews it became apparent that the neighborhood still lacks places where they can sit at a nice terrace for a while and the a place for art exhibition. The youths were very disappointed by the disappeared football field in the 1943 park. In addition, there is a demand for designs that could bring the older population together.

In the future, the district will focus on tackling public spaces to strengthen social interaction. By means of a bottom-up approach, the municipality wants to stimulate meeting and recreation together with residents. In addition to this approach, the neighborhood will be more compacted with housing projects. At the Hudson Street (edge of the neighborhood) new houses are equally planned to build. Due to the increase in residents, this causes increased pressure on the meeting places in the neighborhood.

The higher density in housing can have negative consequences for the residents. The overcrowding of housing in cities has a direct increasing effect on anxiety and mood swings of people living in cities. The spaces in-between are more and more important to be used like a third place for people to relax and meet.

The softness of the places shows in there program, the cognition, connectivity and social aspects of the place. Therefore 'soft architecture' is almost never the same, it can show in different shapes and features of a specific space. Like all other cultural objects, soft city space is not made just once, but is made and remade over and over again. Each time it is represented through another medium an each time it surroundings change, each time different people experience it.

No place can be only defined as harsh or completely soft; every place has their own hard and soft elements. In the diagrams of the analysis shows whenever a place is more soft or more harsh. As a conclusion, the balance for the whole neighbourhood in soft and harsh architecture will become visible.

'define who you are and the city will soon form a form around you' (Raban 1975).

It is the lived City where places can become soft. The city where life takes over the planned architecture, and shapes it into a form which is fitti current life. At every corner, or sidewalk there is an interesting play between the mortal and the immortal world. The balance of these two elements; changeable and fi ed determine whenever a place can be called soft, or hard City.

At these spontaneous and liveable places encounters in cities can been encouraged. The softness of city places, the way people are invited to meet, is crucial for the social cohesion in highly dense city-areas. They are ever-changing and inviting to people; it is the intermediate; the space in- between where these surfaces touch each other. An distinctio is made between the intrinsic and the extrinsic encounters in cities. The extrinsic encounters in the city go no further than appearance, the skin or surface of each man. A quick touch of each other lives, the sight of your neighbour, the 'hello' to the milkman. It is a world of strangers which has its quality's; no one knows your real story, troubles and desires.

Sometimes the soft city is not a tangible place, but makes the character, the sense of intimacy a place soft. It is in the way a space can make you feel at ease and at home. In Oldenburg's book about Third Places, he talks about the places where people do not work or sleep but just enjoy being. These places have an impact on people, they are inviting you to stay and take your home for a little while. A second place, as described by Oldenburg, can become as much important as a fi st place.

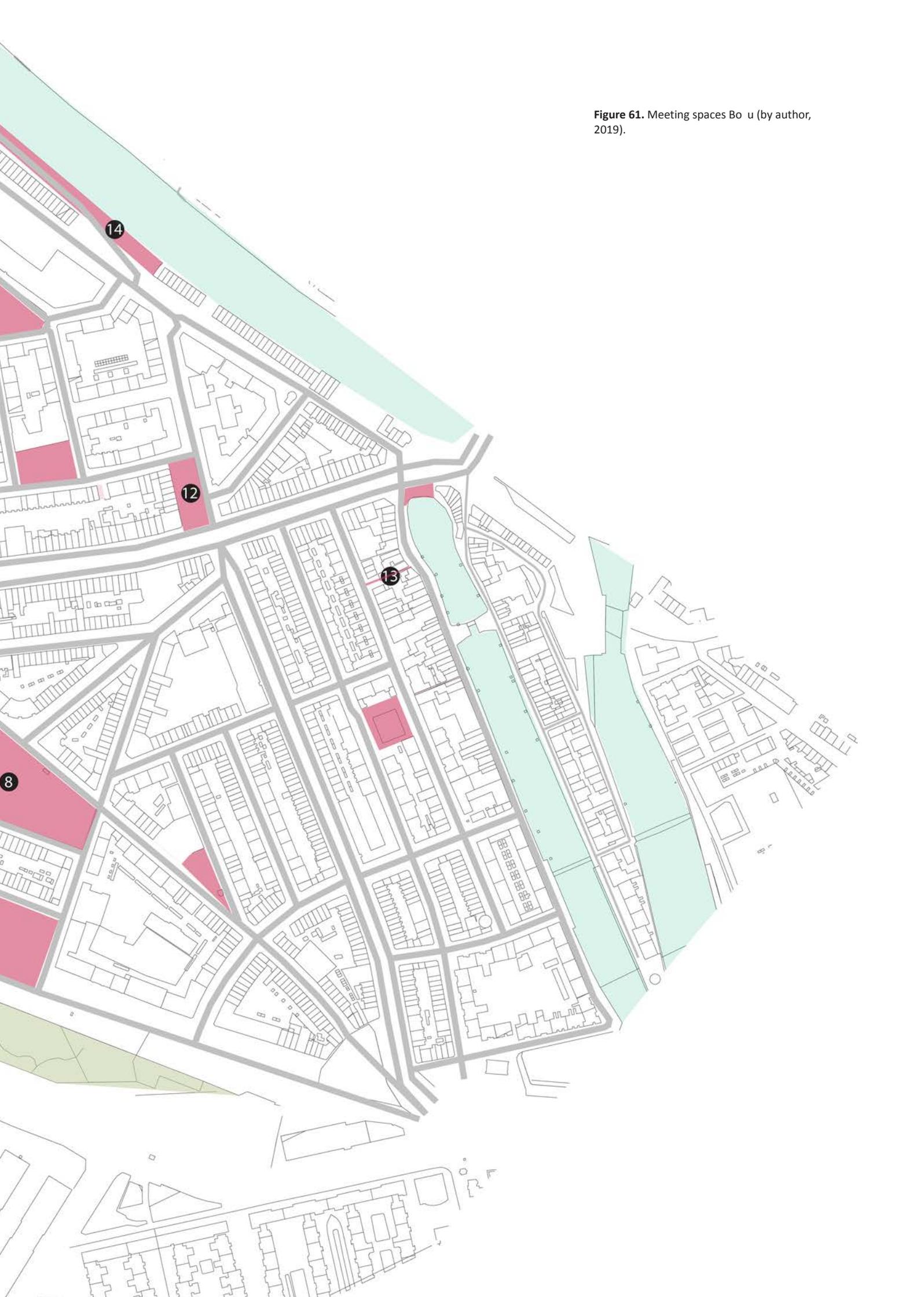
'The truck driver is at home on the highway, but he does not have his shelter there; the working woman is at home in the spinning mill, but does not have her dwelling place there'
Heidegger ().

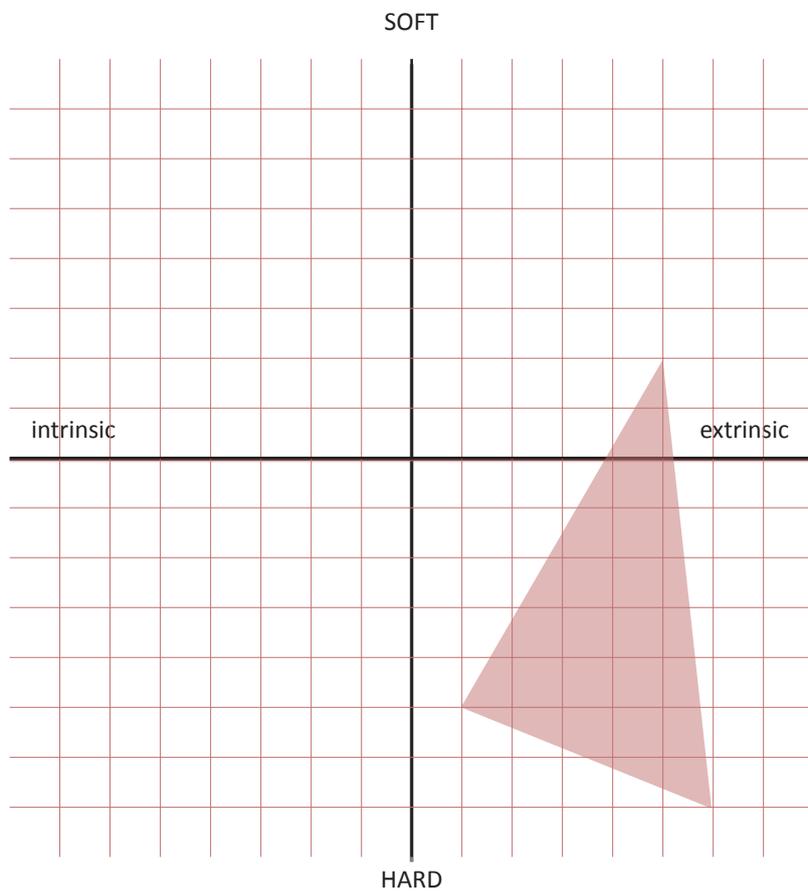
In the analyses the current soft city elements and architecture will be discovered at eyelevel. The points of measurements, mentions in the second chapter will be used as criteria. From appearance a different point of view at the architecture and public places in the neighborhood BoTu.



1. Visserijplein
2. Park 1943
3. Gijsingslaan
4. Bouwkeet
5. Le Medi
6. Schipperijstraat
7. Louis Bouwmeesterhof
8. Bospolderplein
9. Punstraat
10. Proefpark de Punt
11. Dakpark
12. Metrostation Delfshaven
13. Wijdesteeg
14. Schiekade
15. Schiezicht

Figure 61. Meeting spaces Bo u (by author, 2019).





All figures Analysis and photos (by author,2019).

1. Visserijplein

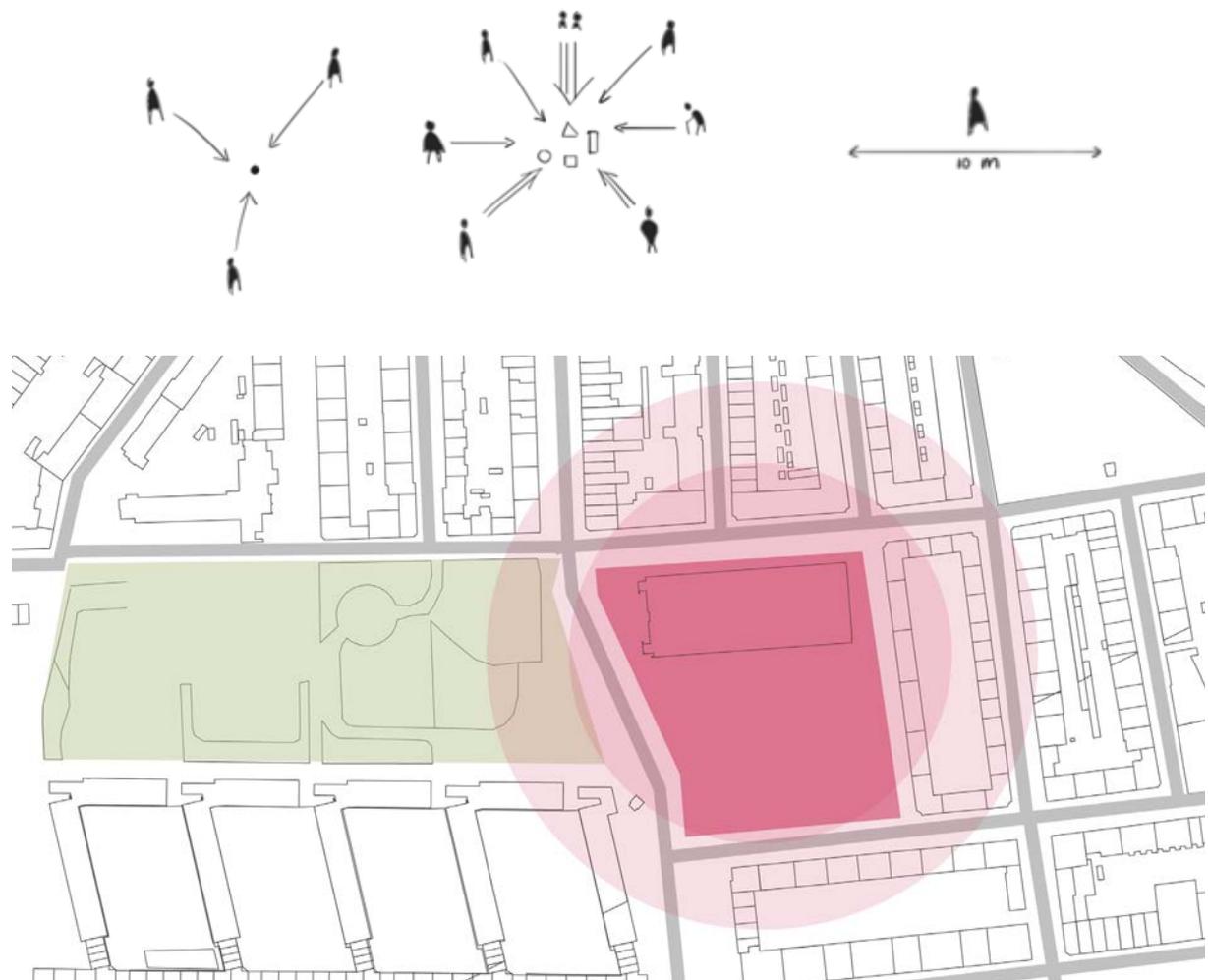
The Visserijplein is located in the heart of the neighbourhood, an important meeting place for many different population groups in Bospolder and Tussendijken. Due to the bombing in 1943, a hole was created in the middle of the neighbourhood, leaving space for a square in the middle of the neighborhood. The buildings around the square are mainly residential; the place was never intended as a square. In the future, the square will have to be tackled considerably with regard to water collection and heat stress.

It is striking how the square changes throughout the week. During the week, the square is experienced as a stone desert, a hard and extrinsic place in the neighborhood. On Thursday and Saturday, however, the square is a bustling place of meeting and people

Trees have been placed at the edges of the square. Design studio West 8 has added a bunch of steel for electricity points during the market days. As a result, an imbalance is visible in the mortal and immortal elements of the square.

The size of the square shows that people hardly dare to go over the square, they stay at the edges. At the edge of the square is the building where the library, Pier 80, sports and the municipality is housed. The soft functions make the square more inviting for meeting and contact with residents.

During the week, the function in Pier 80 is mostly used by many different target groups. However these soft functions are not visible in the architecture of the square. At the entrance and at the edge of the square are usually some residents chat. A big contrast with the rest of the square. In terms of space which invite people to stay, the public space is rather extrinsic and hard than soft city space





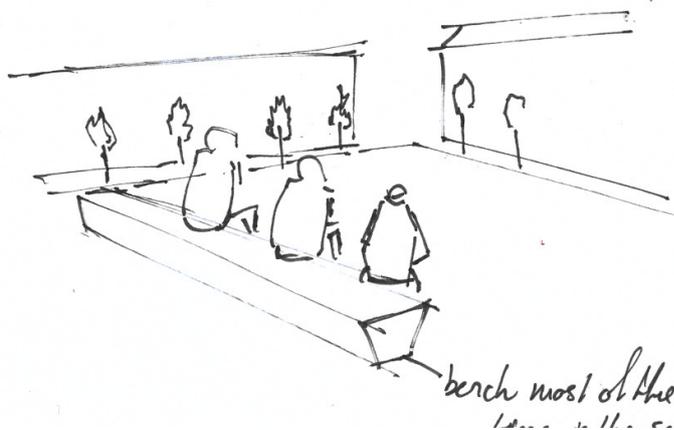
The market is one of the oldest in all of Rotterdam and forms an important piece of Botu's identity. The food that is being sold shows something of the mixed diversity in the neighbourhood; piles of hot peppers, avocados and mangos are sold at a low price. A celebration of colors, sounds and colors.

The image above shows Ilan's market stall. As a former RET employee, he knows many people from the neighborhood. Many hands are shaken with brothers, mother and sister-in-law. The man is very friendly, he gave me a sack of tomatoes for free. A canopy would be ideal for us, he says, it is always a hassle with rain and wind.

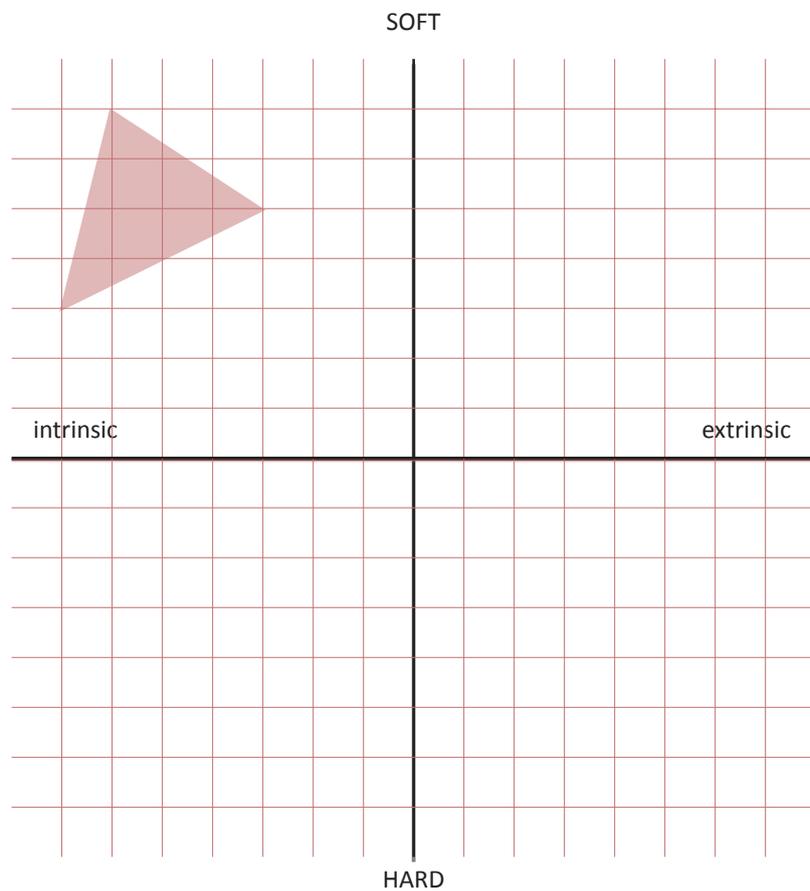
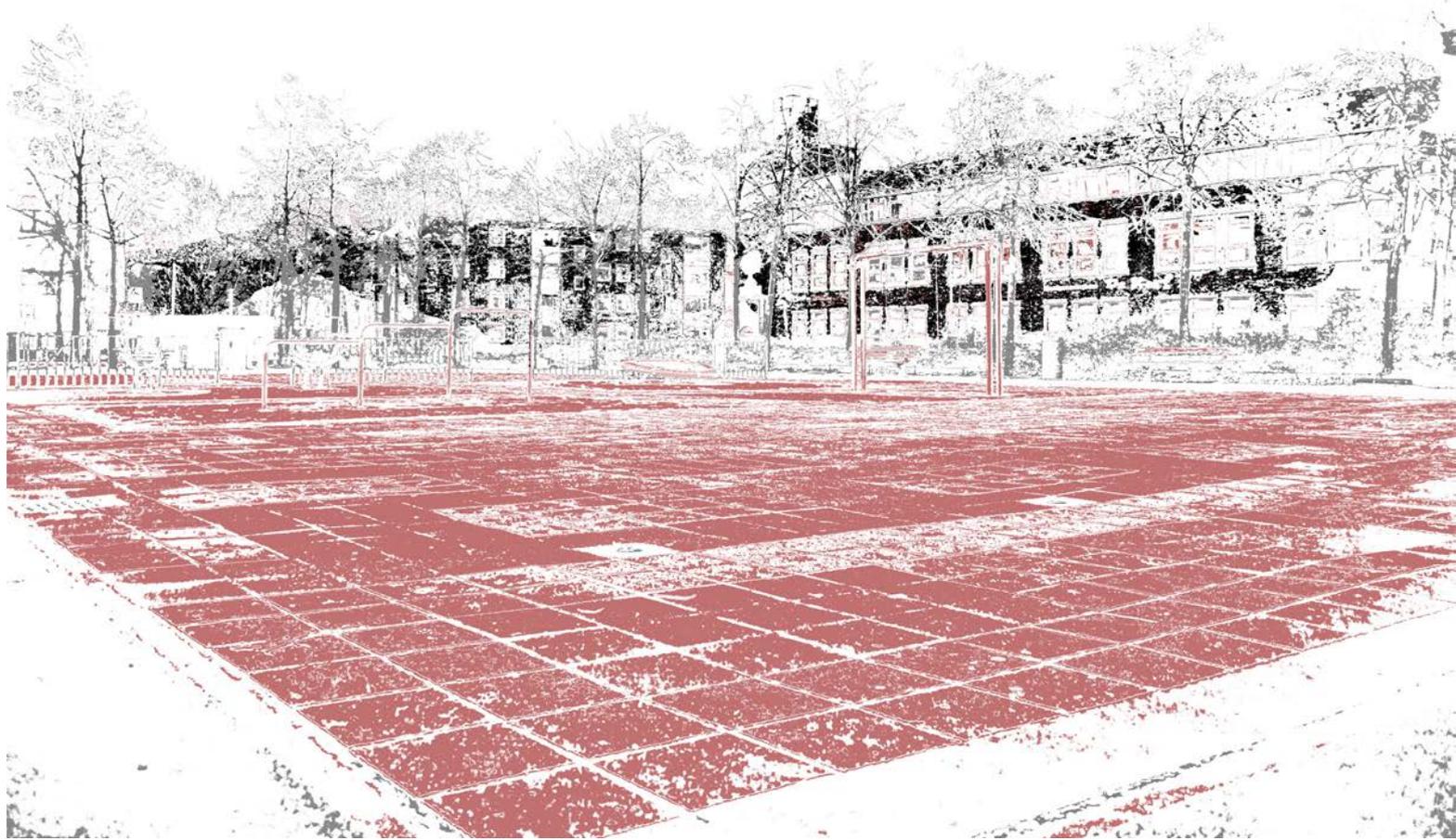




In the middle of the hustle and bustle of the crowd, a coffee cart has been placed so that people can drink a cup of tea or coffee during the market.



In addition to the market, there are many activities that invite you to sit down. At the edge of the square a wall is placed and people sit there most of the time. In addition to market, there is also a great demand for seating areas where people can meet.

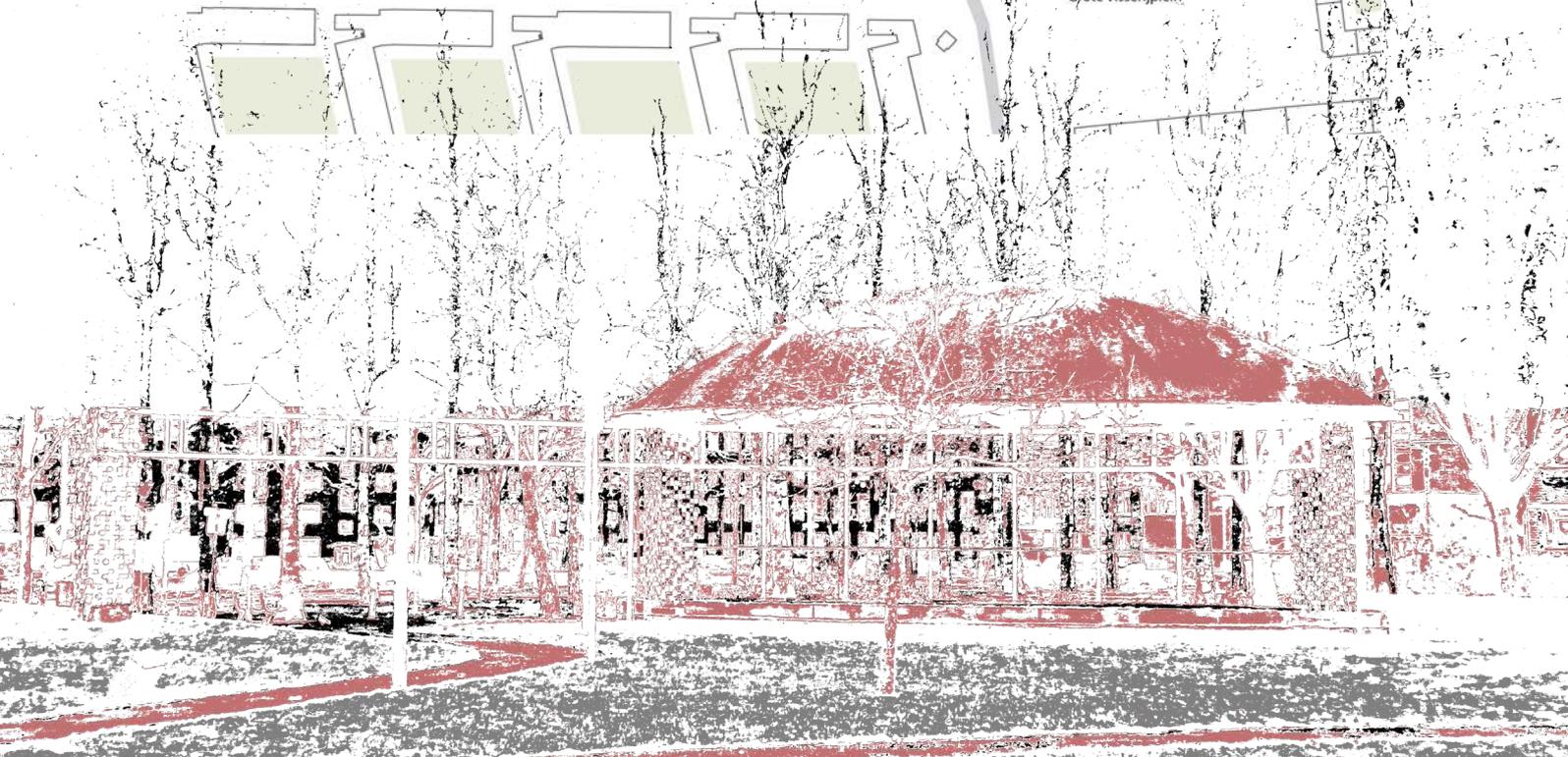


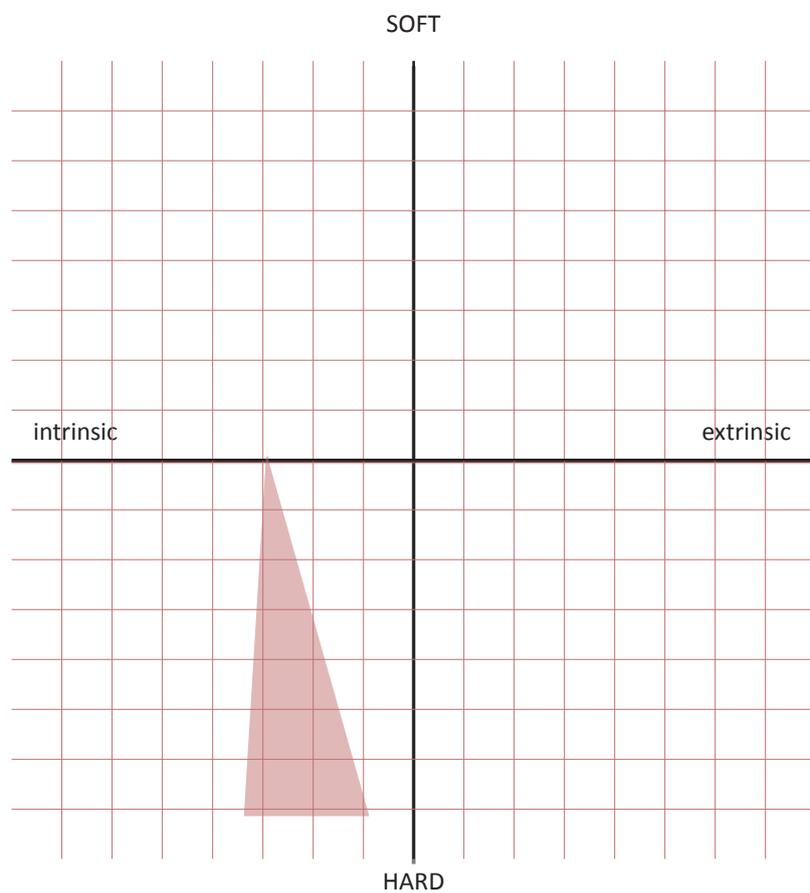
2.Park 1943

Park 1943 is close to a school accommodation and the Besouk neighborhood initiative. These two adjacent functions often make use of the park. The park serves as a green oasis in the neighborhood; it is reminiscent of Central Park in New York. There are many soft functions in the park; there is a park stage, cable car, playground, and playground. The vegetable garden is an important meeting point. Volleyball nets can be hung on the square. The large soccer field has been replaced by a smaller panna cage with small goals and sports equipment. The older children are disappointed by the situation; they miss the big football field from before.

A nice terrace where people could drink a cup of coffee would be ideal. The older target group in particular can achieve more thanks to this. People miss more places to sit, the Bulgarians would have stolen most places. The large 1943 monument in the park refers to the forgotten bombing.

During a day the park changes; the children bring the park to life around noon. The surrounding greenery ensures an improved balance of the mortal elements in the neighborhood. In the year the park is used for commemoration, the big neighborhood festival and presentations to the neighborhood. Due to the appropriation of the surrounding functions, this park really feels like the neighborhood; it has a more soft and intrinsic character.





All figures Analysis and photos (by author,2019).

3. Gijsingslaan

At the Gijsingslaan are communal gardens/parking lots in the middle of high rising flats that were realized after the bombing. The spaces feel undefined and are not very attractive in terms of program. This can be explained because there is a lack in differences for human scale. There is a lawn with 1 steel bench between the flats. When we look at this place from the soft city perspective, we see that the positioning of the bench is already wrong. Since there is nothing to look at; no liveliness only the surrounding apartments, almost no use is made of them. The place is therefore more hard architecture with an intrinsic character.

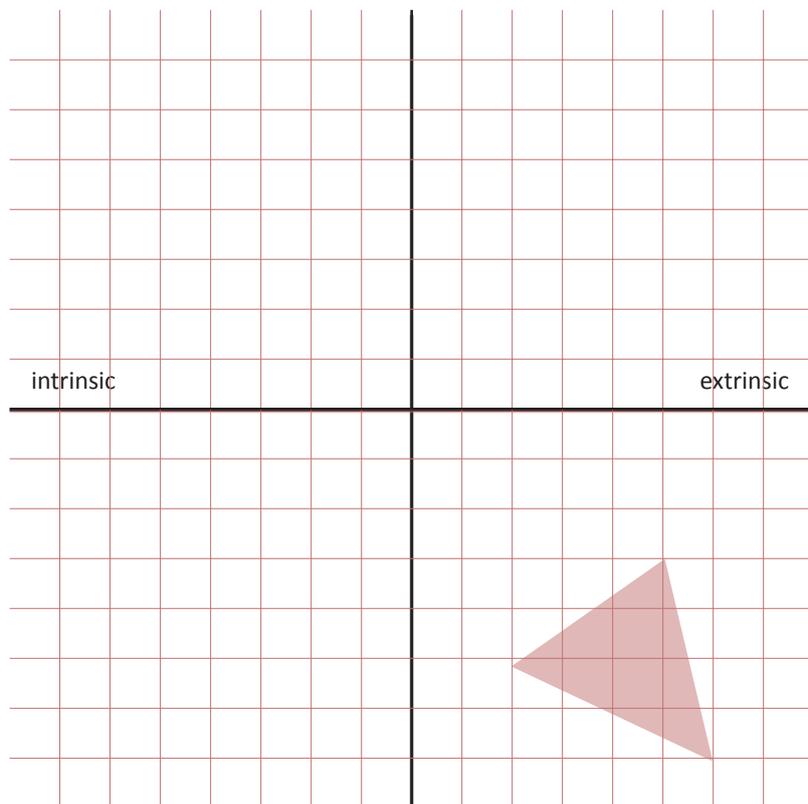
The balconies are small places that people can make their own and ensure that many eyes are focused on the inner garden. This provides a more face-to-face orientation on the green. The gardens make a well-kept impression; green is well maintained, although that is not difficult with just a lawn to maintain.

If we look at the statistics, a large proportion of the elderly people in Botu live in these flats. The communal spaces between the flats are therefore very important for mutual contact. Park 1943 is located behind the flats, offering space for sports and games for younger children. The bustling activities stop in the gardens right next to the park. The future vision of Botu therefore looks at optimizing these public places and realizing public living rooms on the edge of the park.





SOFT



HARD

All figures Analysis and photos (by author,2019).

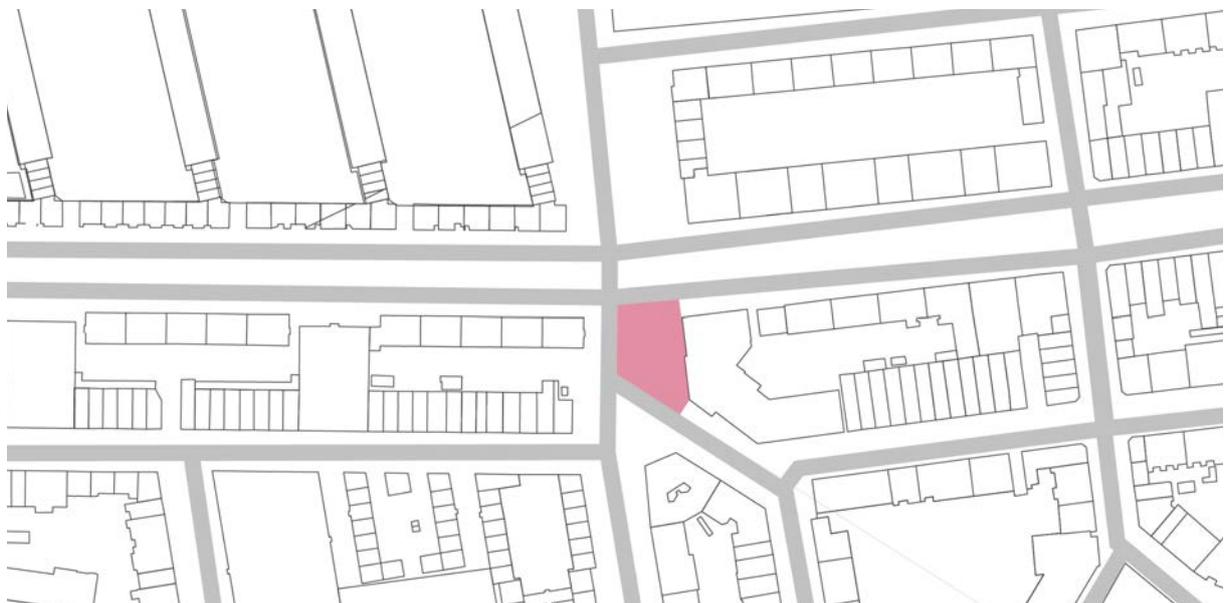
6. Schipperijstraat

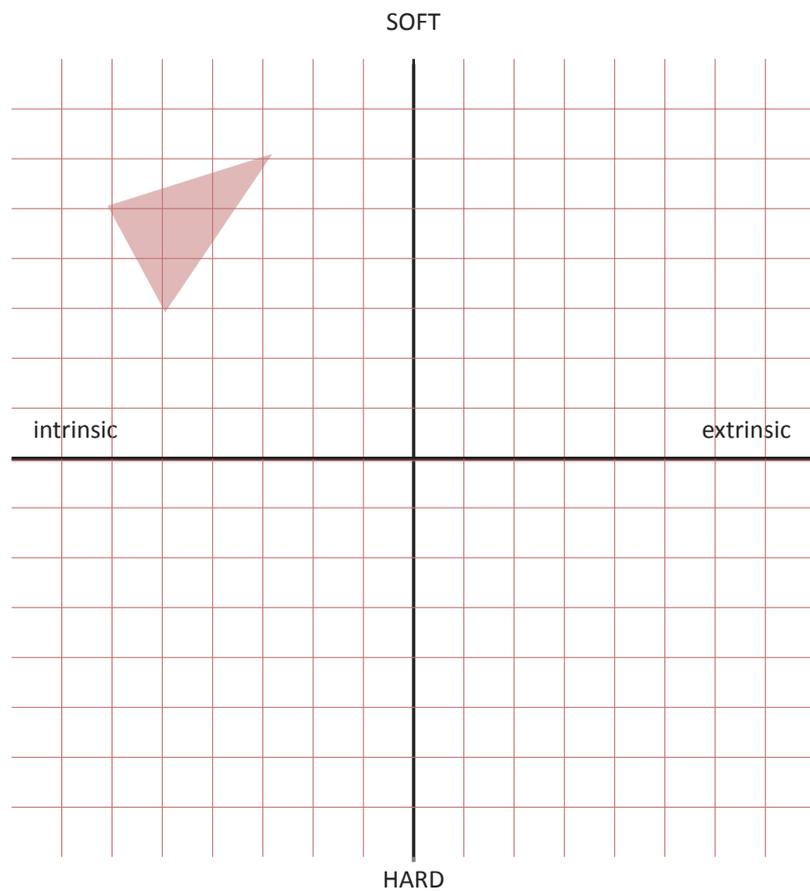
The Schipperijstraat is a quite harsh meeting place, the furniture consists mainly of a handful of steel chairs that can rotate and two benches. There are five older trees on the square that ensure that the square is always in shadow.

The Schipperijstraat is an important meeting place during the week. The square is located on the busy Schiedamseweg next to the Visserijplein; a crucial junction between the two neighbourhoods where people can take a break between shopping and visiting the market.

The dimensions, however, are rather soft than hard, the square is around the 20 by 35 meters width. During the market days it also works as a great place for meeting and to take a break from the market. The missing transition zone shows that the surrounding buildings are rather hard; back to back. The existing balconies are back in the facade and the plinth of the pharmacy is completely dead and closed. This makes the character of the place extrinsic; due to the back to back orientation, the place falls under no one's responsibility and lacks the appropriation of a place that can be seen in other places in the neighbourhood.

The adjacent houses are fairly new and of the more expensive segment. "It cost me a lot of money and I was very lucky," says an older resident. The Schipperijstraat is also right next to the new Le Medi residential block; famous for its architectural design based on Eastern architecture. The older man knows many people who pass by. However, they do not want to sit down, the market is the most important goal today.

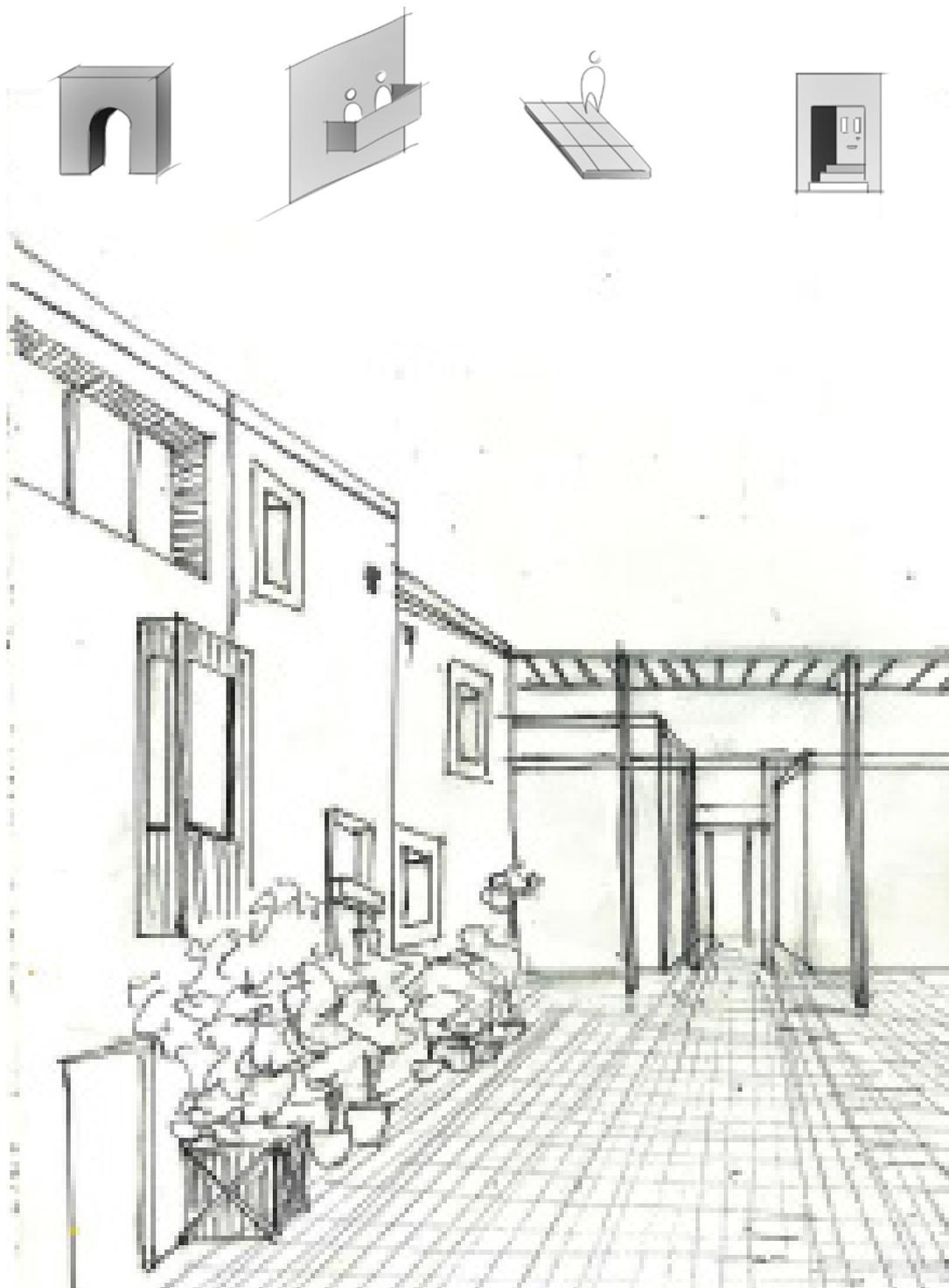


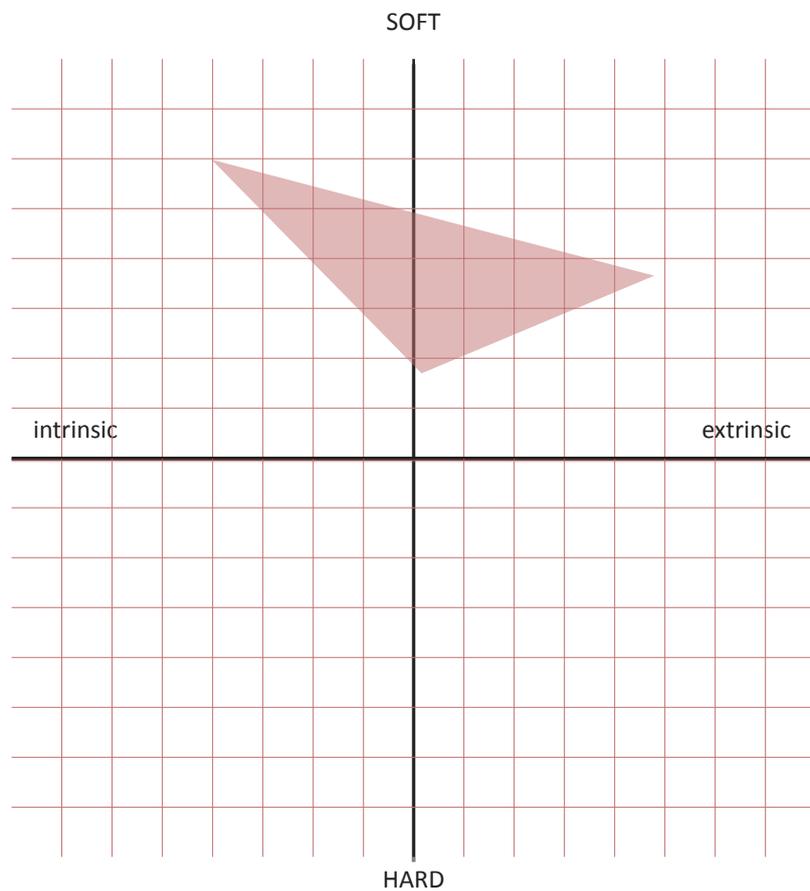


5. le medi

The new le medi residential block is a special place of a soft city. The residential block is open to the neighborhood and is full of soft elements. The sidewalk is separated from the fast traffic so that the sidewalk can be denied. The street is therefore full of flower pots, which determines the image of the colorful street. Flower boxes are often hung on the French balconies. Because this place is so soft, it feels like you're walking in someone's backyard. This ensures that le medi act like an island in itself in the neighborhood. The gates close at night when the site is really closed. The contact with the residents is very close, you should like that when you come to live here.

It is a good example of the intermediate space, where the residents are given room for appropriation. The colors of the facades and the use of materials is unique. It is inspired by the Mediterranean atmospheres.





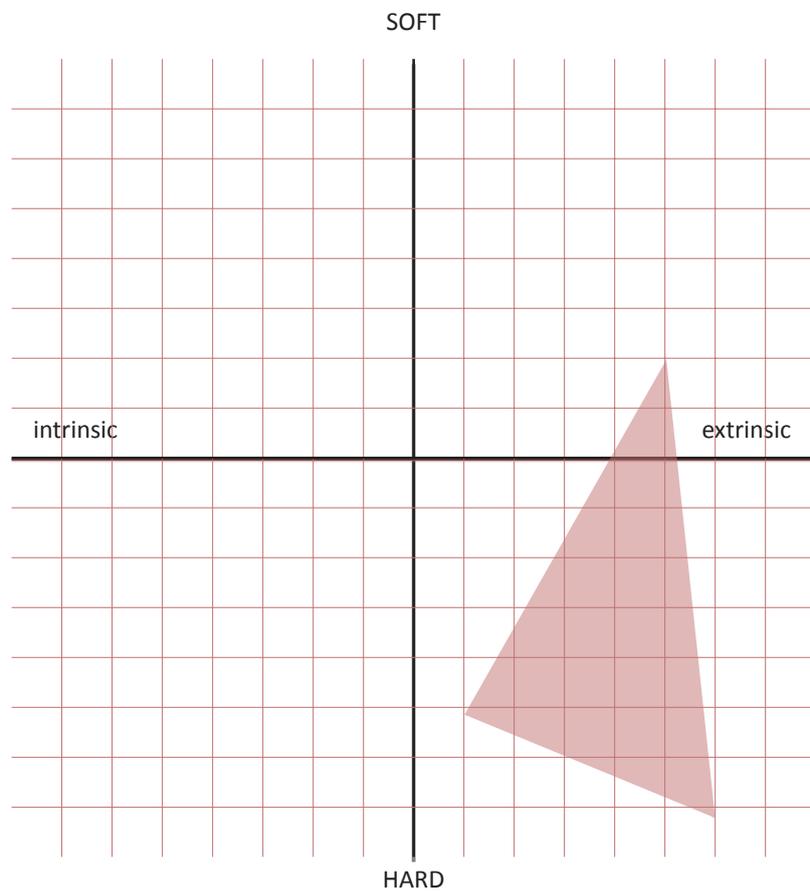
All figures Analysis and photos (by author,2019).

7. Louis Bouwmeesterhof

The Louis Bouwmeesterhof is characterized by different porch houses that surround this court. The buildings are a cacophony of colours and elements, especially at the back. An important walking route runs through the court for many residents who want to take the shortest route to the supermarket. This is an important route for the elderly in particular. The broad sidewalk is therefore a soft element in the city.

There is a lot of social control; as a visitor you will soon be noticed by surrounding residents. The open stairwells and balconies ensure that many eyes are focused on this square. Both characteristic elements from the soft city. There is a lot of planting in this court which is visible in the grey tone in the picture. The benches are placed to the continuous route making it an attractive place for a quick and peaceful encounter. Special about this place is the balance between hard and soft. The soft elements present makes it into one public place with an intrinsic character. The place may not be suitable for a differentiated program or activities and would even be quickly overlooked in this neighborhood. However, the experience of the place is like stepping into someone's living room; you come into contact with the intrinsic part of the city.





All figures Analysis and photos (by author,2019).

8. Bospolderplein

The Bospolderplein is located just behind the Hudsonstraat and Proef park De Punt experimental garden. The square is known for its play function; during the break around 12:00, the entire square is filled with children from the surrounding school. That is why there are two storage spaces on the square where toys can be stored for the lunch break. It sounds like a soft square, but if we look at the total experience of the square under the influence of the use of materials, elements, other activities scale, orientation, greenery and the program (in addition to the children playing during the break), this square feels rather hard and extrinsic than soft, safe and intrinsic.

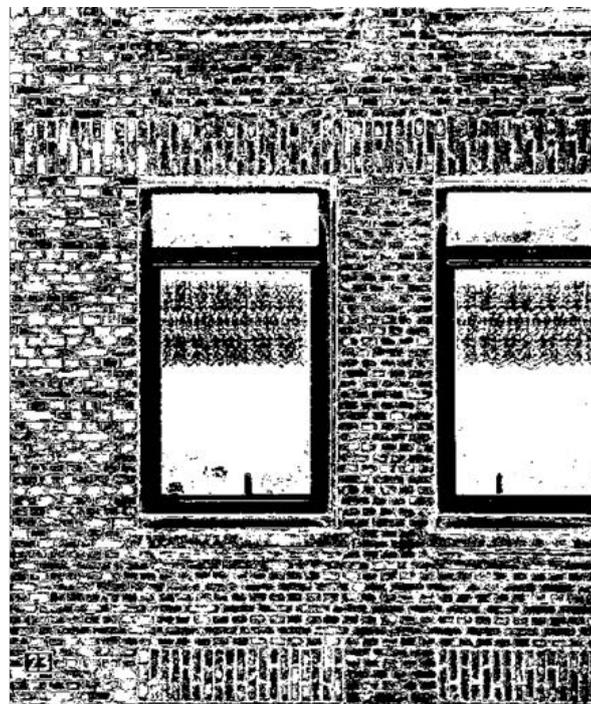
The dimensions of the square are huge; when visiting the place a resident shouted a greeting from one side to the other neighbor. It shows something of the inhuman scale in this square, and the lack of a smaller place. The elements of the square are mainly placed at the edge of the square, under the shady trees. The package consists of seesaw, swings, and a climbing frame.

Therefore this place mostly attracts the youngest and works less as a meeting place for other ages.

The seats are made of concrete and are fixed towards the playground. Unfortunately, in addition to the children playing during the break, there is more a dead than lively square to watch. The square looks somewhat neglected; trash bins are damaged by people and the playing fields are abandoned in the early morning and afternoon hours. It is surrounded by a sleek tree gallery that shields the place from the fast traffic

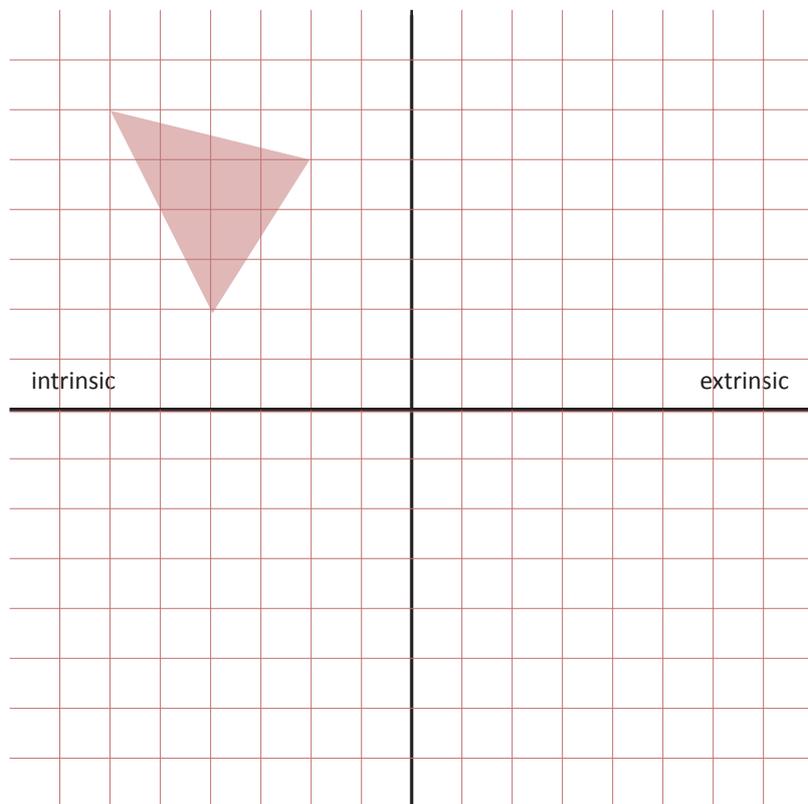
It is functionally furnished; the asphalt fields are ideal for a game of basketball or football. This makes it one of the most important places in the neighborhood for children. You could say that, due to the fixed program of activities the place became hard in use and appearance.

In warmer weather an ideal playground for children, but residents also indicate that the site is struggling with a major heat stress problem in the summer. The boundary between surrounding buildings and the square is hard. There are few or no ornaments, balconies or railings that contribute to a transition zone from the houses to the square.





SOFT



HARD

All figures Analysis and photos (by author,2019).

9. Punstraat

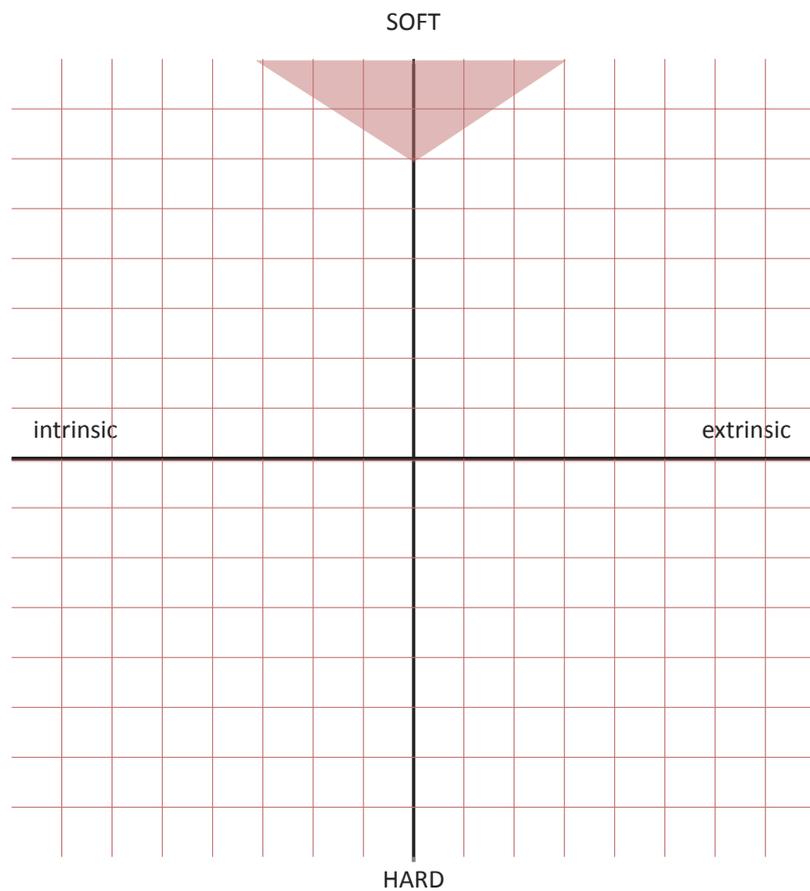
In the analyse at the left an image is shown of the Punstraat in Bospolder. The houses are a product of densification in the area and dates back from 2006. The intermediate zone is highly visible in this street. This small transition is marked by a different coloured stone; warmer red coloured brick. The material contributes to the colonization of the space; it is claimed by the owners with potted plants, busses and chairs. A changeable space which allows the citizens to adapt and furnish. In front of the houses there is a wide sidewalk which is bordered by trees and sitting equipment. This border ensures that the space is inviting to walk for slow traffic like pedestrians, children's and elderly.

If we look at the details of the space, a lot of patterns in balcony railings and hanging potted plants are added to the facades. The presence of a lot of detailing in material and elements has a positive influence on the small human experience in the place.

Due to this hybrid space where the identity of citizens is shown, we can see a more intimate atmosphere which has a reinforcing influence on the social cohesion in this street. The atmosphere in the street is therefore more intrinsic; the street act like a public living room of the adjacent houses.

The balance between the mortal and the immortal environment is more balanced towards the immortal world; a lot of greenery like trees and self-placed plants of the citizens are placed in this environment. At the other side of the street, Proefpark de Punt is situated a place which has a highly educational and social value for the neighbourhood.



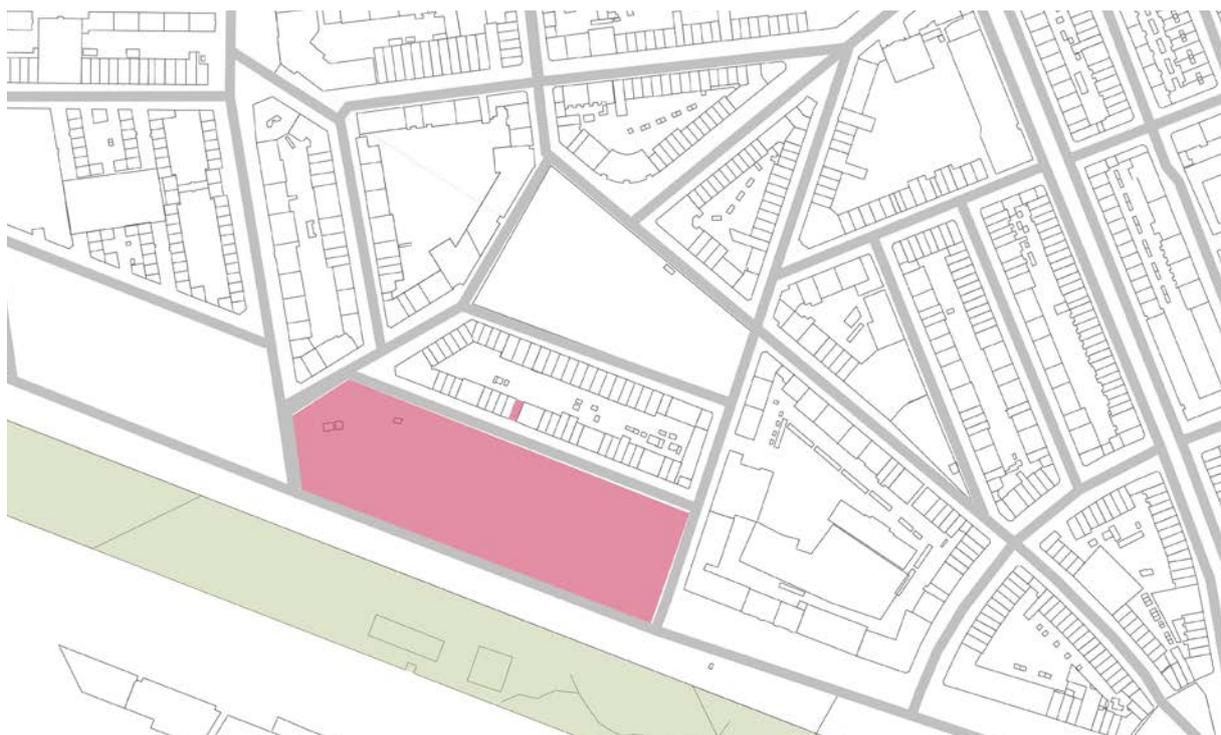
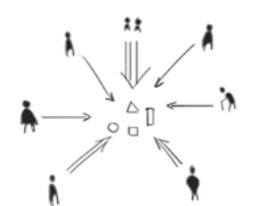
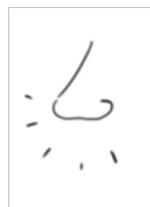


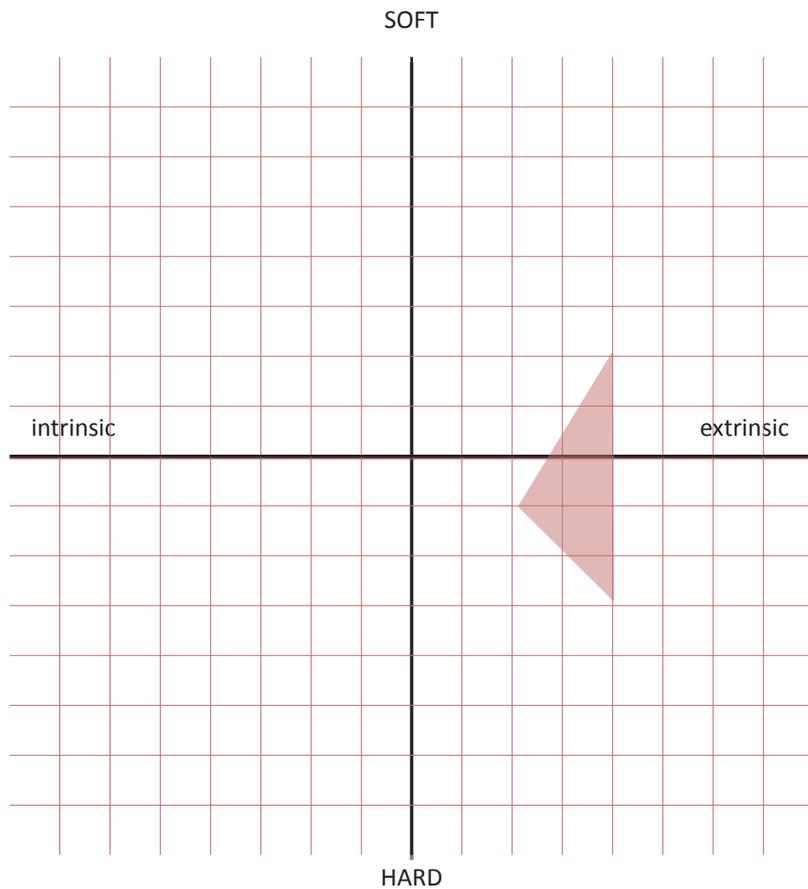
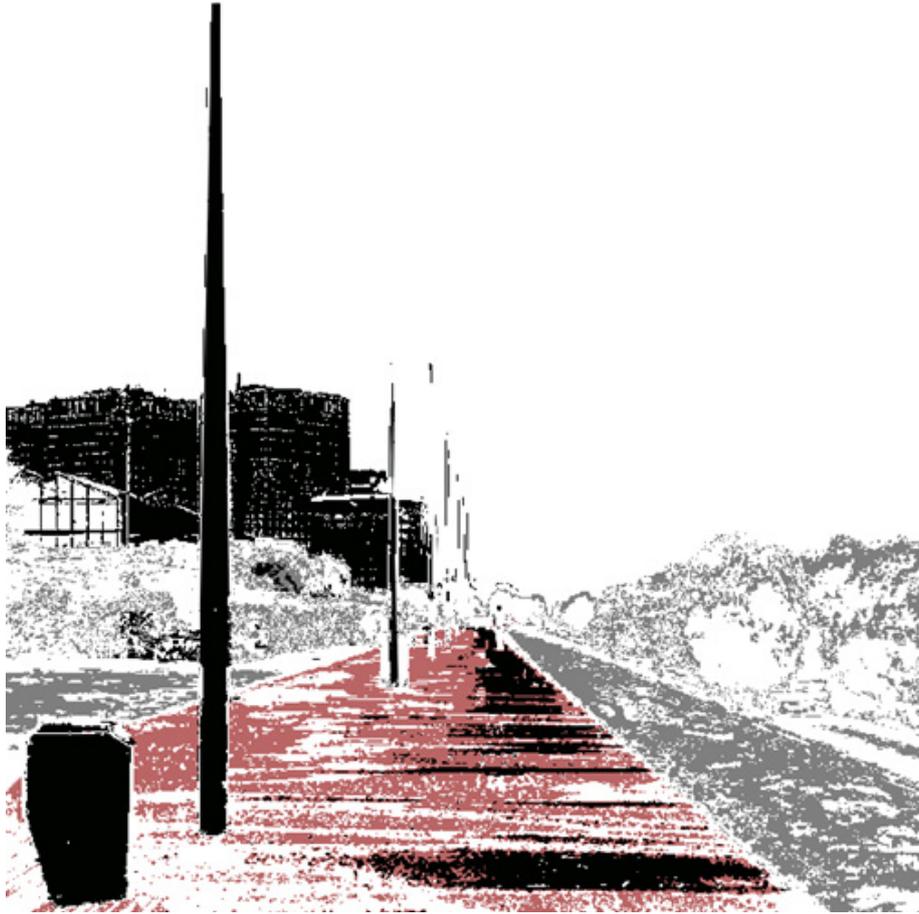
All figures Analysis and photos (by author,2019).

When we analyze Proefpark De Punt at soft architecture, we can state that the garden contains mainly soft elements. First of all, the garden offers shelter through a zoning that is adapted to the human dimension.

The garden is separated from the fast traffic therefore it is safe for children and elderly to use this space. The footpaths are made of wood chips and meander through the garden organically. This has literally softened the surface. In terms of activities and facilities the park appeals to several residents. The park includes a chicken run, a small football field and space for own self-made creations made by people from the neighborhood.

The garden is arranged according to the idea of urban medicine; by being busy with your hands and senses it distressed the human mind. A brick oven has been placed in the middle of the garden, which is used every year for a communal barbecue. In principle, the garden is only made of natural materials that are used interchangeably in a jumble of colors and plants. The garden is managed by a gardener, a well-known contact person for the area. Due to these aspects the garden is a good example of a transient zone, constantly subject to change and people.

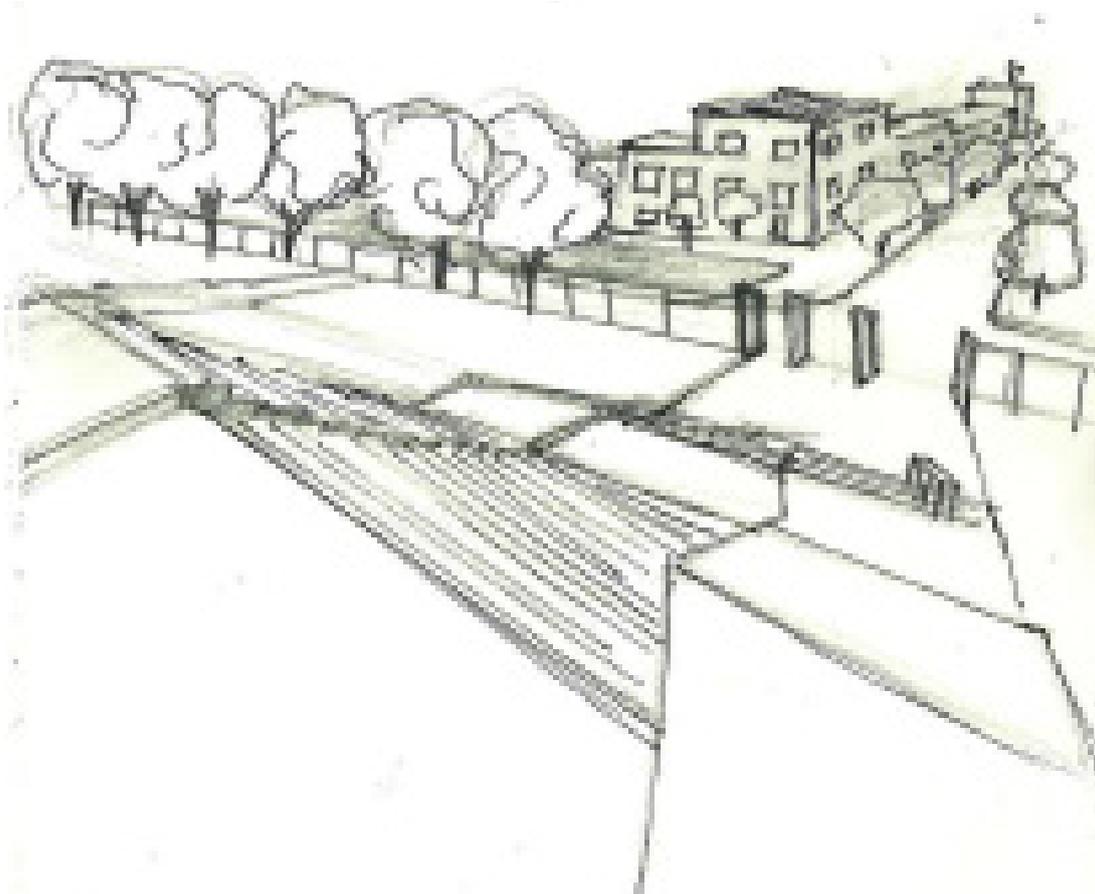
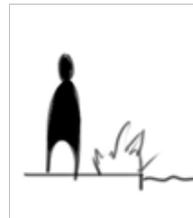


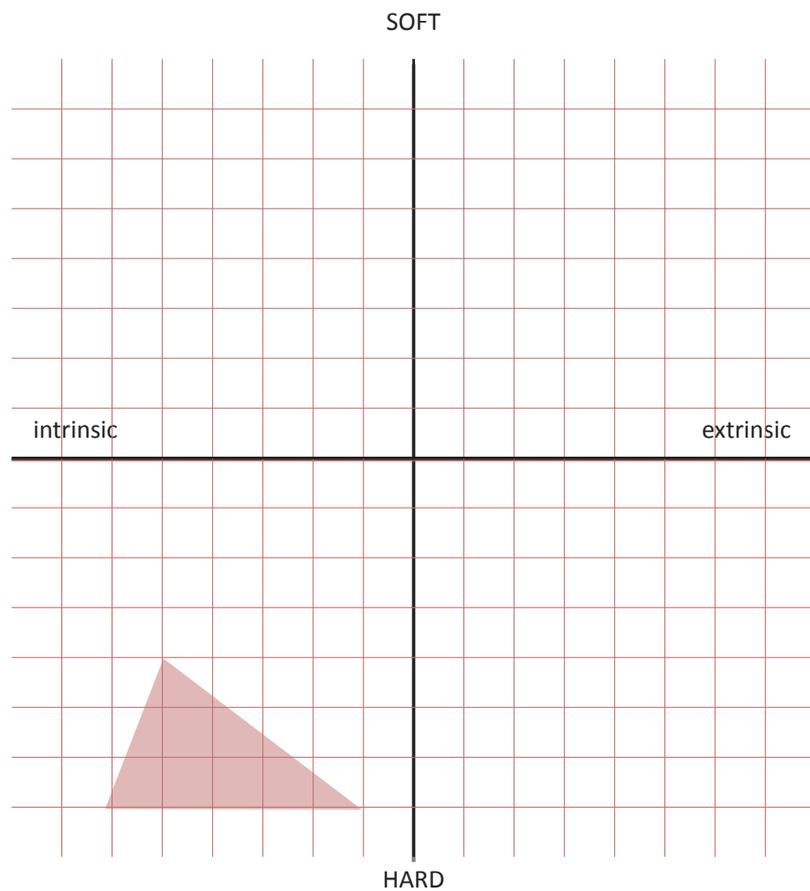


11. Dakpark

The rooftop park is a straight-lined park where residents have given substance to the park. However, the design of the park is hard rather than soft; the linear paths and lawns do not leave much room for interpretation or appropriation. The park is built at the roof of many big shopping stores. In the past there were train tracks at this place. The straightness of the park is therefore a reference to the former train tracks. The park is not directly surrounded by houses or people out the neighborhood. Therefore the park feels very extrinsic, it is not claimed by anyone but a good example of a hard extrinsic place.

In the summer, however, the park is frequently used for barbecuing. In the middle of the park is a restaurant and herb garden. The water staircase is off in the winter, but makes it a fun place for children to play in the summer. The park can therefore either be soft as hard, it depends on the time of year.





All figures Analysis and photos (by author,2019).

12. Metrostation Del shaven

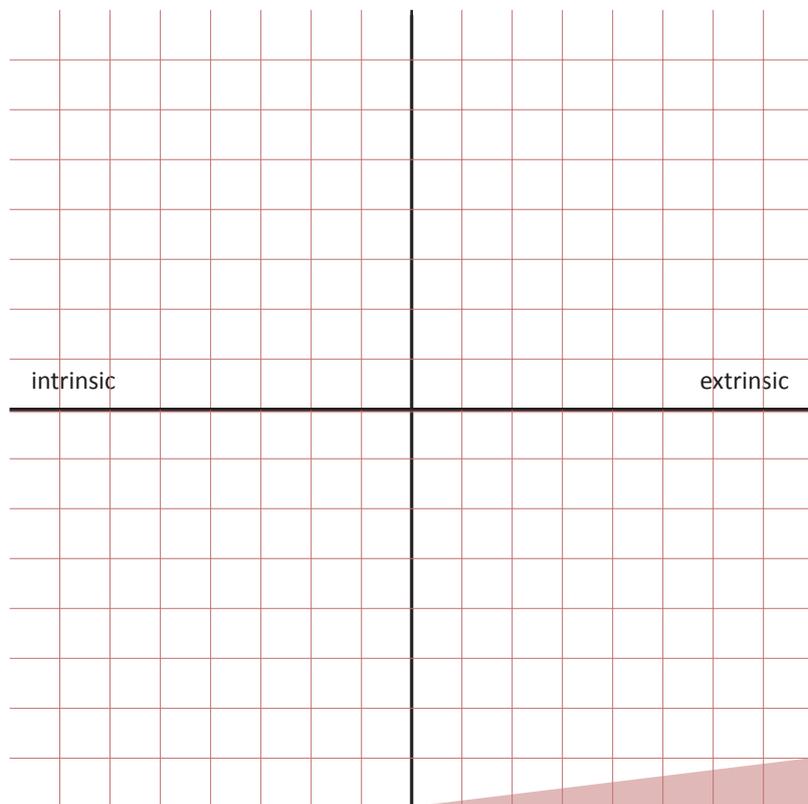
It is often busy on the square of the Delfshaven metro station. The benches are frequently used by the residents. There are small shops around the square, including the new macdonalds. The greenery around the square provides a changing element.

The square is an important resting place along the most important route in the neighborhood; the Schiedamseweg. Along this road are most shops and this place is one of two few places along this street where people can sit. The benches are hidden between green planters. They are therefore often used by a more solid group of people. The facades around the square focus mainly on the inside. Since the square is right next to the metro station, the place is always very lively. Because of this liveliness it is a popular place for elderly and other residents to sit. The character is rather eccentric to name. None of the surrounding houses extends outside. It is therefore a hard architecture, but with intrinsic character because of the public livingroom.





SOFT



HARD

13. De Wijdesteeg

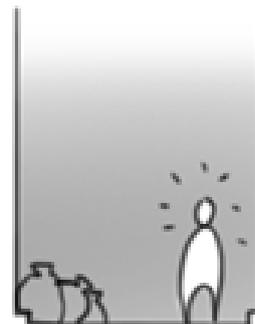
Lanes are difficult to test for a soft city; they are often hard places that are used indefinitely as a drain. Not only in BoTu but also in many other large cities such as New York they are the forgotten discarded places in the city. They are small, narrow, unsafe places that you would rather not walk through in this neighborhood in the dark. The alley falls between two stools; it is often used for parking and an easy place to break into the back of the restaurant.

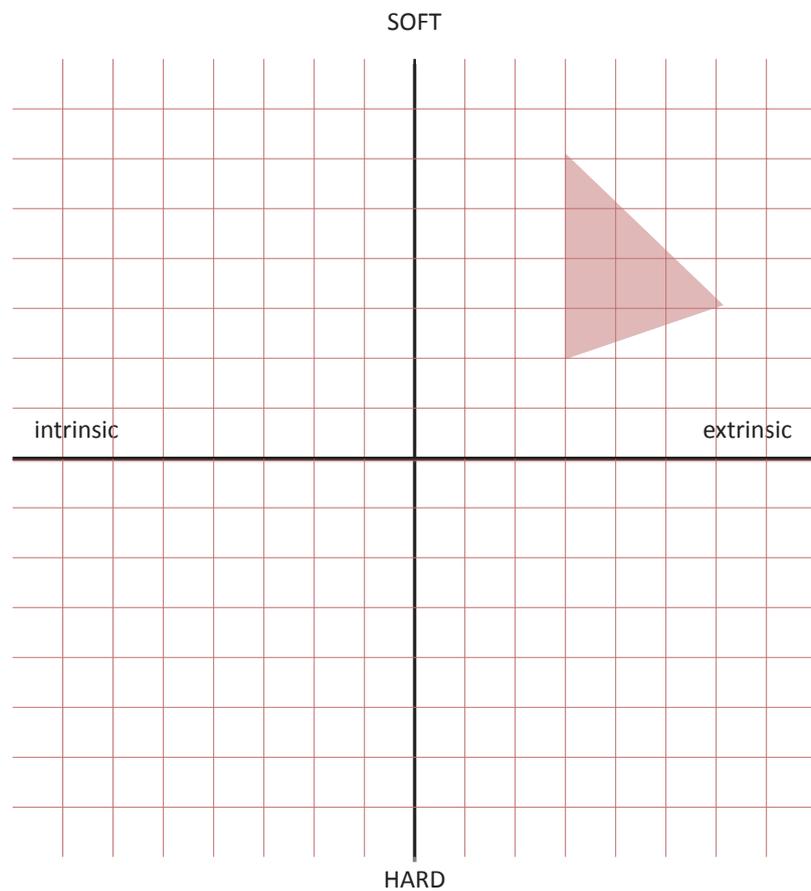
The wide alley is located in the Waterschans Geus area of the neighborhood. A problem in the field of crime, rape and vandalism. According to local residents, their children can hardly play outside safely, without coming into contact with a man who is spraying drugs.

The alley connects the Schans Watergeus area with historic Delfshaven, an important piece of authentic Rotterdam. The municipality would like to strengthen the connection by making an extra connection between these areas. To strengthen this connection, the municipality has opted to make an additional breakthrough between the areas.

They do this by demolishing the building 'De Abrikoos' further down the street. This affects a sensitive chord among residents; many are afraid of the criminal nature of the Waterschans Geus area. In addition, there are already six connections and they are no longer safe to walk through at night. The 'Tovertunnel' is known, because of its approach with color and light by an artist, was rather an empty place where there was peeing and much nuisance was caused. You could say that the alley had become soft by the artist work. By becoming softer, more colorful and an active place to be, the place is overday a nicer place to walk through. Through the adaptation of cheerful colors, the lane has become a place that is protected by residents because it has to be closed off at night for tramps and drug users. For this reason, the residents of Delfshaven prefer to turn their back on the neighborhood behind. Restaurant owner of "Het wapen van Delfshaven" indicates that they want to expand with a terrace in the alley, but then it must be a bit more cozy in the alley.

A glass gallery is located next to the alley. The gallery is not the only one in Delfshaven. The place attracts many artists. "It really lives for artists here," says inhabitant Delfshaven and piano teacher. Even 5 galleries can be found in Delfshaven, yet they are not connected to each other.





All figures Analysis and photos (by author,2019).

14. Schiekade

When residents are asked to name a place that brings them a piece of peace in the neighborhood, it is the Schiekade.

The Schiekade is located next to the water and has been transformed from a hard to a soft place in recent years. In early days, cars were driven extremely fast along this place. Now the fast traffic is more stagnated by the adding of flowerpots. The place is designed as a pedestrian boulevard where people can relax along the water.

The benches are placed directly towards the waterside; a lively view with boats passing by. Both elements of the soft city; but the atmosphere of the place is more extrinsic. It lays at the edge of the whole neighborhood and the housing facing the waterside do not have any soft elements; they are stirred, more fixed architecture.

The buildings along the Schiekade are mainly industry such as garages. However, the photo shows a soft area, Schiezicht, a neighborhood initiative aimed at bringing residents from the neighborhood together.

The Schiekade is used overtime during the year with Koningsdag and the Kadefestival. Then a lot of stalls with food and festivity can be found at the Schiekade. This year the weather was unfortunately very wet, so a shelter was placed to give classical concert.





AtW the Spangeseekade and Mathenesserdijk is the neighborhood enterprise and meeting place Schiezicht. The initiative has two main goals, namely to improve the immediate living environment of and around Schiezicht and to stimulate and facilitate the participation of residents in the Tussendijken neighborhood. The company does this by offering support in various processes of incidental (resident) initiatives and activities. In doing so, they promote participation among various parties and in this way strengthen the cooperation bond between residents and entrepreneurs. Schiezicht offers physical space to various initiatives in the neighborhood such as work or meeting place, breeding or meeting place and offers advice where necessary. In this way, attention is paid to the chances and possibilities of people who contribute to the socio-economic situation in the neighborhood.

The quay studio is used as a part-time workplace for various creative entrepreneurs from the neighborhood, such as Concept Circus, Healing Places, and social initiatives such as Starters4Communities. In addition, the quay canteen on Friday afternoons and Saturday afternoons was transformed into a pop-up neighborhood point. The canteen also offers a place for side-by-side meals under the name "Schafte aan de Schie".

The white room in the building is regularly used as a meeting room, but also as a yoga studio. Schiezicht also addresses young people in the neighborhood by organizing singer-songwriters afternoons.

The elderly can indulge themselves during the SeniorenSoos afternoons. The purpose of these creative gatherings is to break through social isolation among the elderly and thereby improve their well-being. Finally, the Dijkdok is used by two creative and social entrepreneurs from the neighborhood under the PuRRR company name. PuRRR's proud entrepreneur is Christy de Wit, active as an illustrator and graphic draftsman.

"Many groups of residents can be reached easily; no one is for sale with his or her problems. We have now built up a good relationship with the Cape Verdean community, in particular by serving dinner in Schiezicht."

Christy de Witt, rijwilliger Schiezicht





Bouwkeet is the makers' space in Bospolder-Tussendijken; a place that is aimed at all residents of the Bospolder-Tussendijken neighborhood. The initiative is primarily aimed at children, but also at seniors, self-employed people, job seekers and amateur and professional artists. The makerspace is a term for a workplace where multi-disciplines are taught. The traditional crafts are taught, but also modern techniques with the help of computer-controlled machines.

De Makerspace works as an open studio, workshop space and / or studio where people from different backgrounds. When visiting the Bouwkeet you will notice how professional the equipment is and how the building is equipped with tools and the right people who want to share knowledge. State-of-the-art 3D printers and digitally controlled laser cutters are used.

"Children who come here to take a course so far have three future prospects: they ended up in welfare, do unskilled work or become active in the criminal circuit."

According to the Bouwkeet employee, this has to do with the fact that the children miss a good example. The young target group can indirectly be positively influenced by this initiative as the parents also have the opportunity to register for the courses. At Bouwkeet you do not have to pay anything for the courses, but use your time and knowledge in exchange for participation. In addition to learning a certain skill, the workplace also serves as a meeting place in the neighborhood. The influence of Bouwkeet on the chances of young people in the neighborhood has not been measured so far. Nevertheless, positive influences can already be recognized; the youngsters learn 21st century skills so that they develop further and may have a better chance in the future. They learn to think creatively, work together, have social skills and have a problem-solving capacity.



CONCLUSION

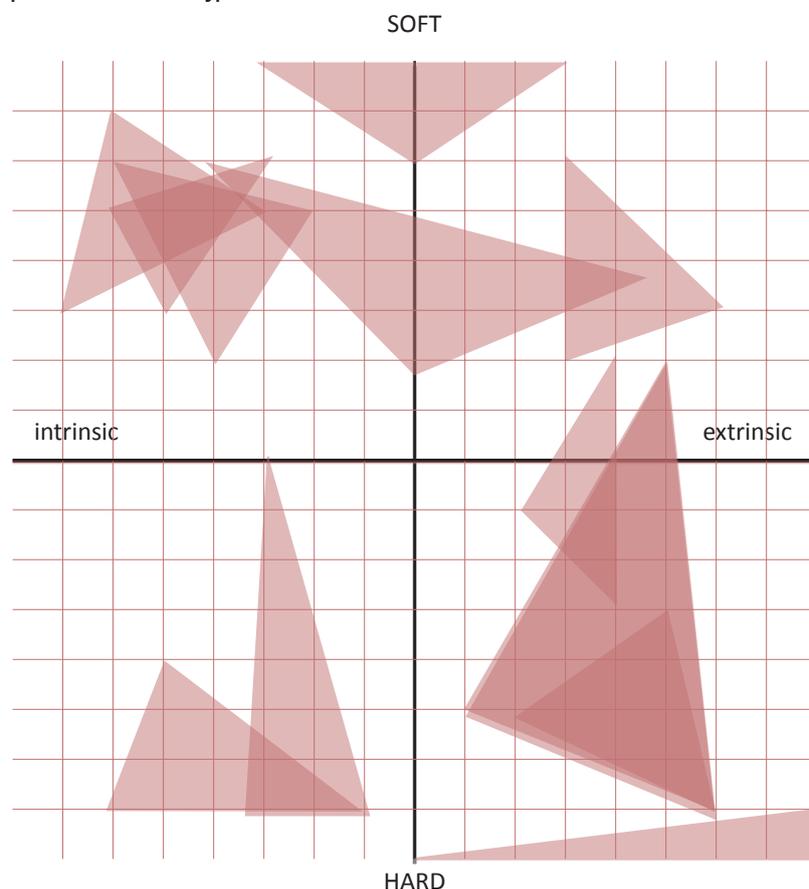
In Bospolder Tussendijken there are different types of meeting places. The only place that according to residents drives intrinsic tranquility is located at the waterside; Schiekade.

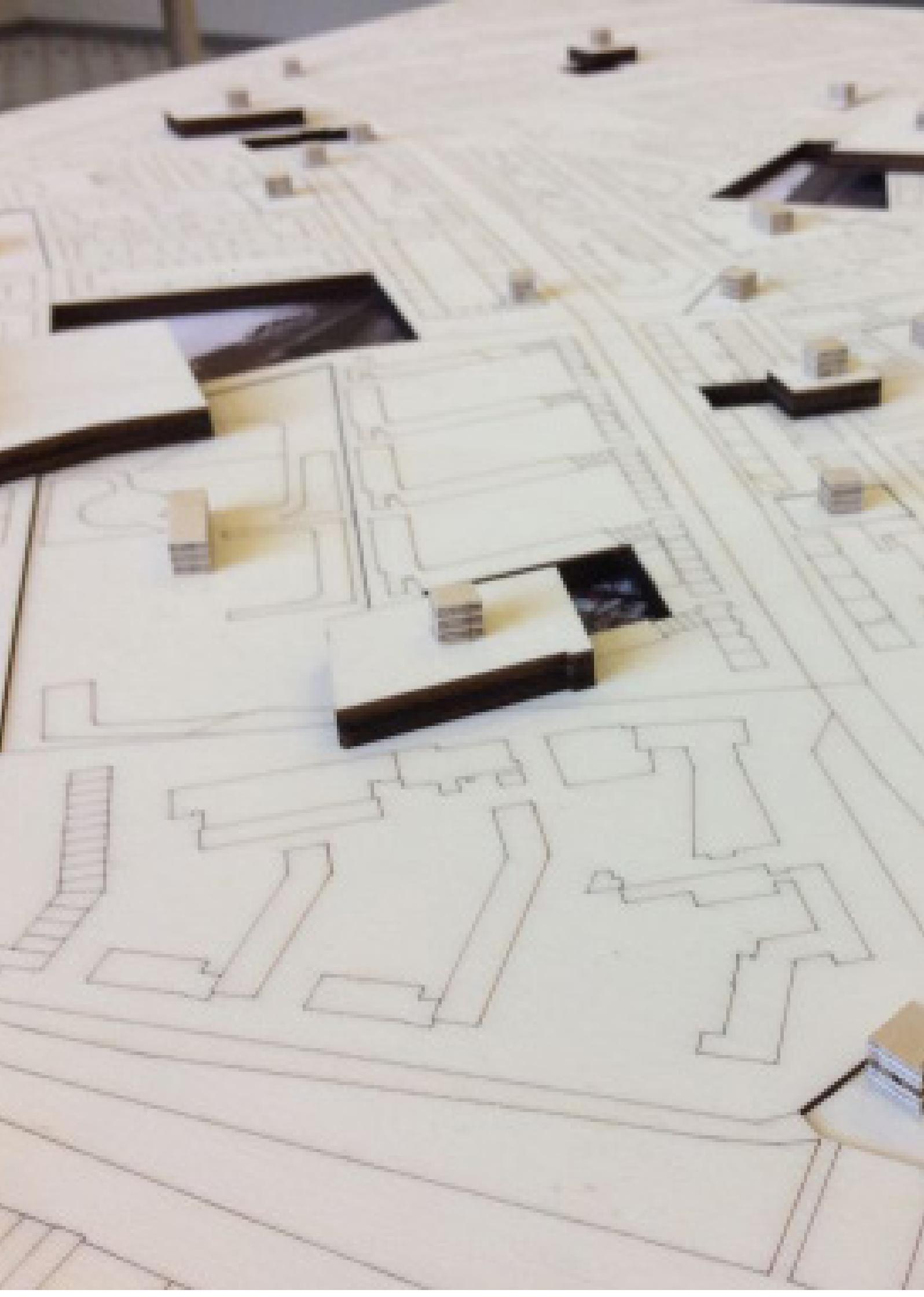
When we test the places for soft and hard elements, we can see in the conclusional diagram that there is an imbalance in the soft city spaces with extrinsic character and the hard architecture with intrinsic character. By adding more soft elements at hard extrinsic places, we could make the hard places more intrinsic to establish more spontaneous contact.

The most hard and extrinsic place is the Visserijplein; which is special since it is located in the heart of the neighborhood. The functions from the Pier 80 neighborhood building and adjacent park show many soft elements that invite people to relax and meet. However, the soft elements stop at the building and show a paved square that no longer invites a relationship with its surroundings. The place should be able to move along with these activities, become an extension of the intrinsic character.

Two other extrinsic places are the Schipperijstraat and the Wijdesteeg. They both score high on hardness as the smaller spots really disappear between the buildings. They seem indefinable and lack the reciprocal relationship with their environment. It is precisely these places that are interesting to reinforce Soft City by adding elements.

The next drawings show conclusional maps of these three spots; the focus will be on the biggest design spot: the Visserijplein.







Spot 1 Visserijplein Nature; presence of water and greenery

- The square is missing mortal elements which change and adapt to the climate. The park is disconnected by a busy road which cause the fact that children living around the square have no green playground.
- The visual connection with nature is important for distress and well-being of the human mind. Although there are some trees integrated, these are less visible at eyelevel. Green at eyelevel to encourage peace at this place is recommended
- The element water is missing. In the future there will be a substantial problem with the drainage of rainwater. Future development of the square will be as well on saving the serious problem in cities

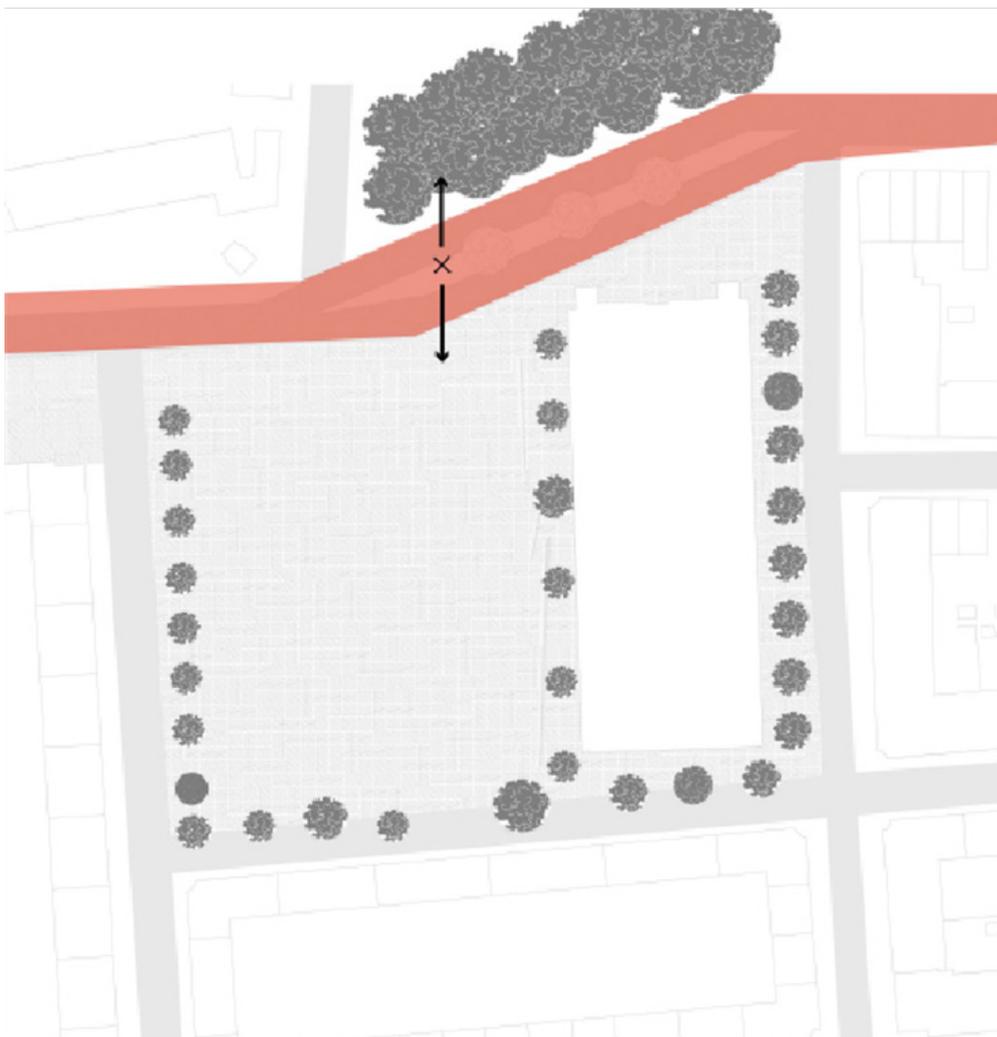


Figure Conclusion map (by author,2019).

Spot 1 Visserijplein Dimensions

- The human scale is lost at the square. Agrophobia (fear of empty spaces) will occur because the space is simply too large to have intimate meeting. As stated in the thesis the human scale is within the diameter of 10 meters. The social distance is estimated around 3 meters; this is visible in the red circle in the map
- The surrounding buildings were originally not meant to be on a public square. Therefore they only contain housing blocks around 4 levels which outbalance the enormous scale of square in between.



Figure Conclusion map (by author, 2019).

Spot 1 Visserijplein
The intermediate area

-In the conclusion map is visible that the extrinsic area is way too large in comparison with the intrinsic area. The space in between does not exist in the public area; due to harsh borders and hard architecture it makes this not possible. There is a need in soft architecture which encourages meeting and staying when the market is not present.



Figure Conclusion map (by author,2019).

Spot 1 Visserijplein Changeable program & activities

- The weekly program of the square is quite dynamic; two times a week there is a market which attract many residents. However the rest of the
- There is no interesting view created because of the lack of several activities and details at the façades.
- There are just a few sitting places where spontaneous encounters appear; only at the north side of the square.
- During the market the encounters will take place merely at the edges of the square where there is a bit of peace in comparison with the market.
- At other days in the week people merely stay at the edges due to the enormous dimension.
- The restaurant, library and sport building will provide places to consume and to meet inside.

Ivo, Pier 80; we do have an terrace permit. In summer it would be ideal to have built a terrace in front of the library. We rent the building to many groups; dancegroup, school, sport-club, libra

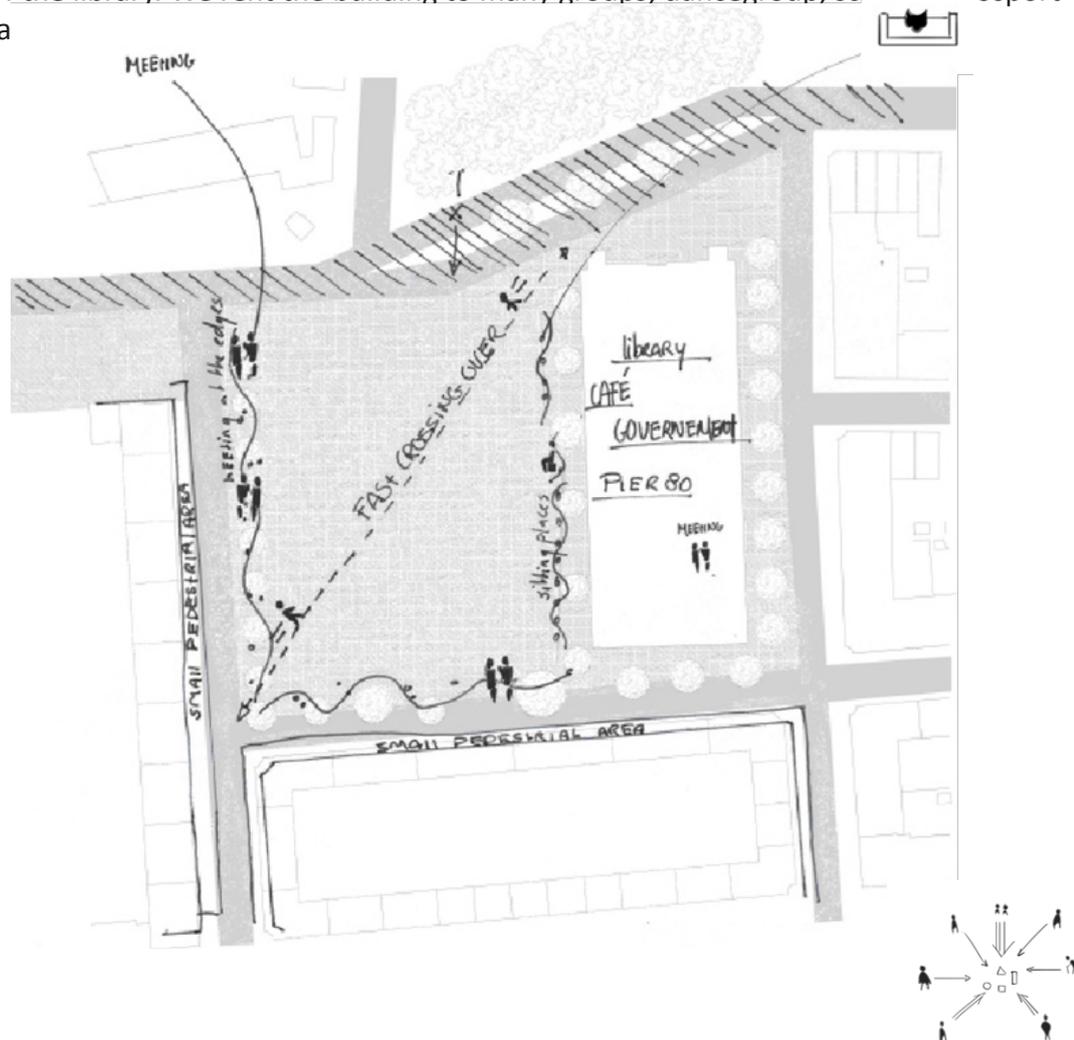
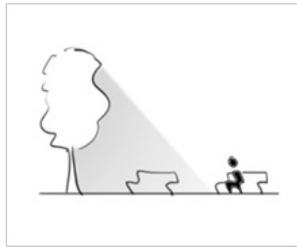


Figure Conclusion map (by author, 2019).

Spot 1 Visserijplein Orientatio



Most of the time the wall on the north side of the square is filled with people hanging and sitting. This is explainable because of the sun rotation.

The people are more attracted towards the side where the sun will shine the most. On the other side, the rest of the square is not designed as a place to be, there are no other places to sit.



Figure Conclusion map (by author,2019).

Spot 2 Schipperijstraat

- The square lays next to the busiest road of the area. This makes the space very lively, but as well noisy.
- the square is one of the two sitting areas next to the Schiedamseweg, therefore really important to be designed as a good meetingplac
- The route is a shortcut for many residents towards the suermarket and the marqet square. Therefore the place is a vibrant city spot.
- The plinth is dead and surrounding buildings face the place by back.
- The great amount of trees bring shelter but as well shadow to the place.

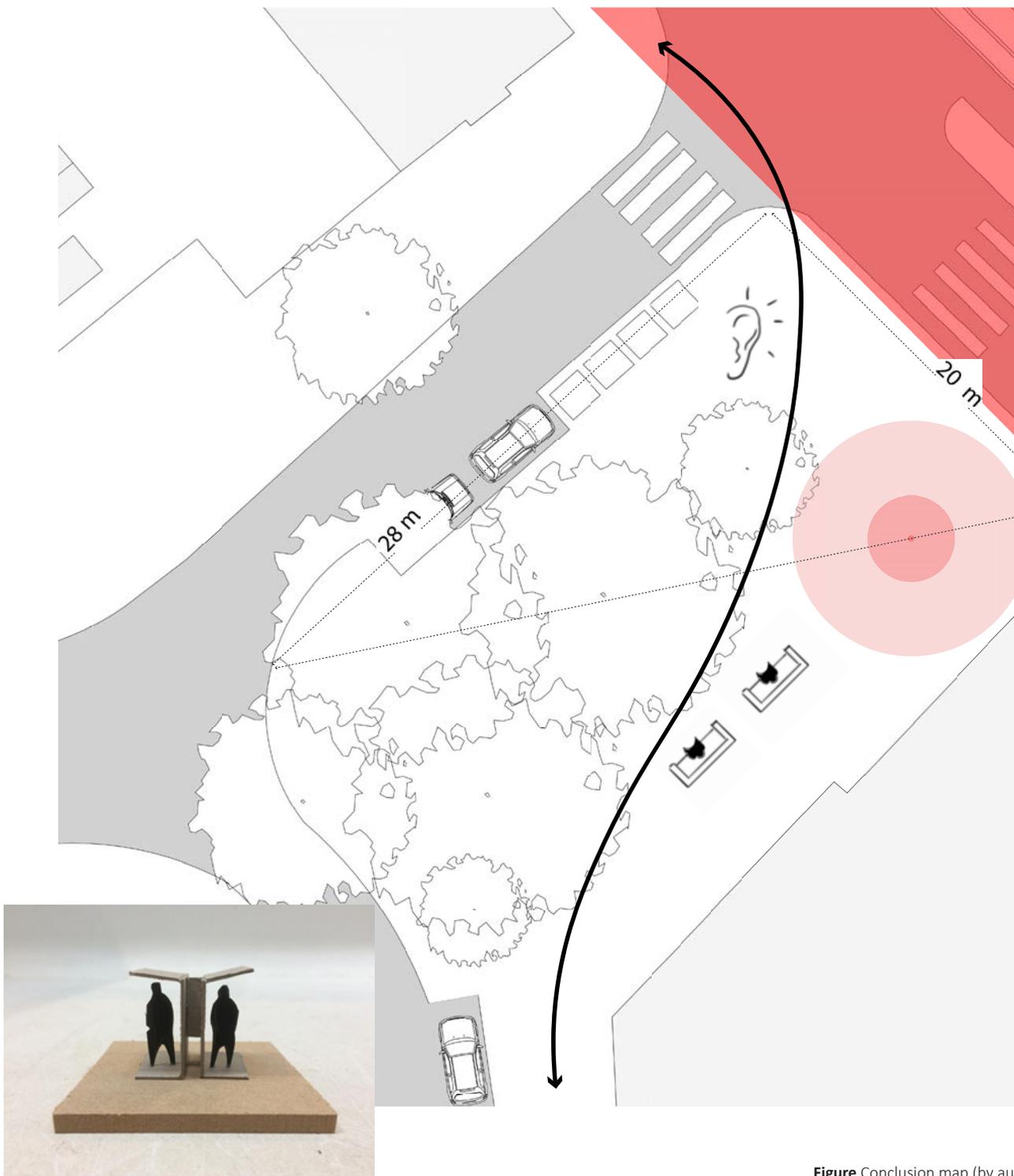


Figure Conclusion map (by author,2019).

Spot 3 De Wijdesteeg

- It is not a very safe place to be at the moment; there is bad lightning and the surrounding houses facing the place by back.
- The surrounded facilities; estaurant and gallery could be translated into the public area to make it more intrinsic. Owner of restaurant wanted a terrace at the back for summer times
- Because of its size, the place feels uncomfortable and people rather pass then go into the dark alley.

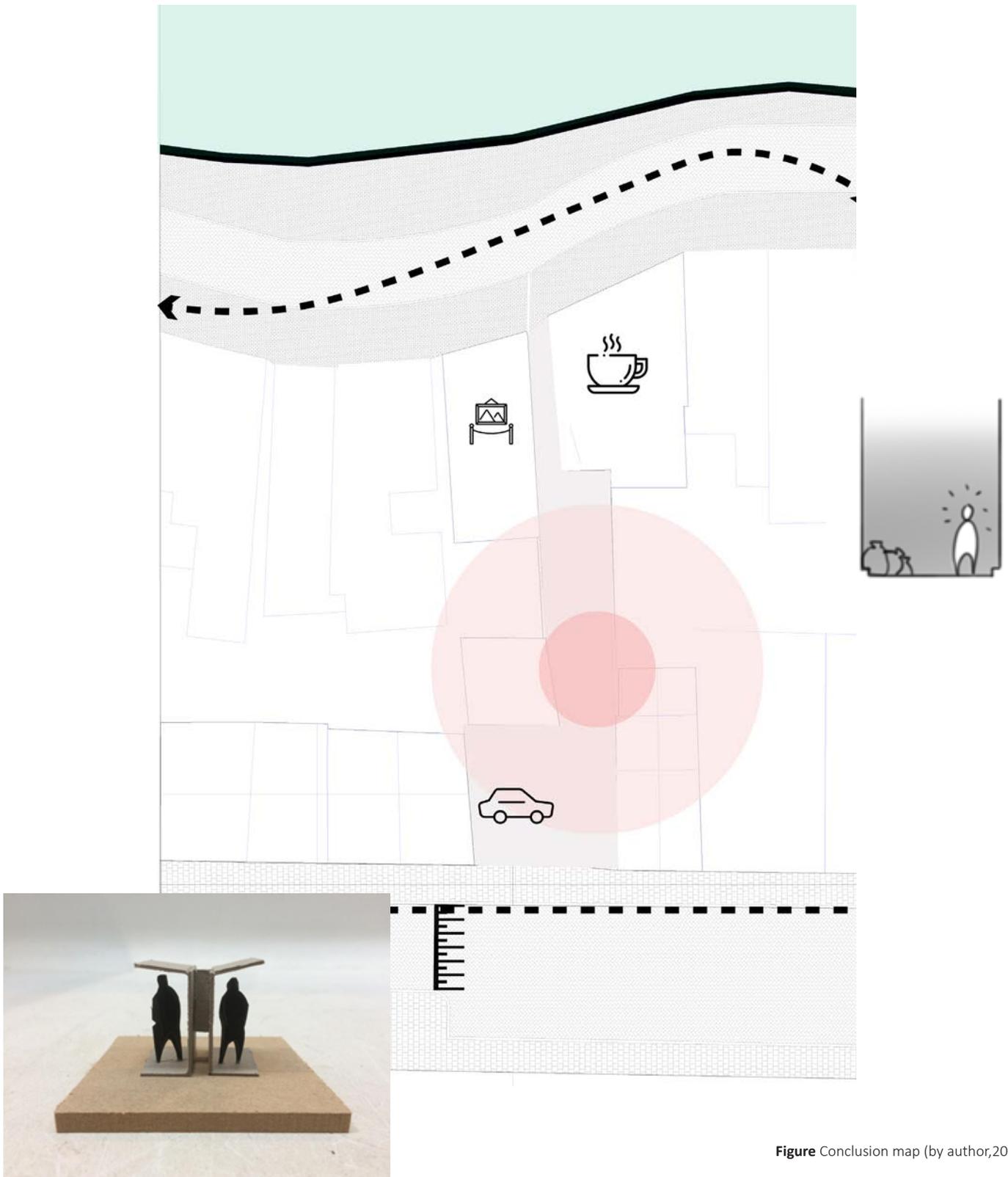


Figure Conclusion map (by author,2019).

Chapter 4 Conclusion

The following research question was central in this thesis: *How can the 'Soft City' connect the intrinsic human with their environment and in this way provide tranquility and strengthen spontaneous encounters among city dwellers?*

To answer the research question, the concept of a soft and hard city was first defined in Chapter 2. This is a theoretical background to the idea of soft and hard city.

As a first definition, we can define soft city as a changeable space which forms itself around you ; *'define who you are and the city will soon form a form around you'* (Raban 1975). It is the *lived* City. The city where life takes over the planned architecture, and shapes it into a form which is fitting current life.

The Soft City contains all the *mortal* elements in the city; they will not last forever, they change every day, narrate and life every place in a unique way. The soft places in cities leave room for interpretation and these places are inviting its citizens to stay and take place. Therefore the soft city is **changeable**, it is the life which take over the play in the hard décor of the city.

The Hard City contains all the places under influence and made of the *immortal* elements in the city; they are fully planned, **fixed** and lack an imprint of the human senses. The hardplaces in cities are efficient; they give boundaries for its purposes, and are most of the time forcing you to go from A to B as quickly as possible. The hard city leaves no room for spontaneous behaviour, or encounter. It can be seen as a permanent background, a décor, of the life of the citizens. The hard city is more stirred and unchangeable, it acts like a monument in our minds like Aldo Rossi described. It is lacking a reciprocity relationship with the people of the place.

Instead of making all places stirred and fixed we have to think of a way we can restore the balance between the fixed elements and the unfixed. Offering places for people to change and adapt, allows more responsibility into public environments which helps to maintain public space.

In the Soft City the boundaries between public and private become vague which can encourage spontaneous encounter and behaviour. There is a space in-between which allows people to adapt for an impermanent time. The in-between space encourage more intrinsic and extrinsic encounters in the cities. The place for encounters in cities can be establish by making spaces accessible for people to **meet**, talk, sit down and have a break. Think of archetypes like open windows, stairs, enclaves, patios and balconies. It offers people a human-friendly environment where spontaneous contact is key. The hard city has strict boundaries between the public and the private. It does not allow people a place to meet or talk, it is more an anonymous city for a glance, and full of untouched surfaces.

The third places in the city, mentions by Oldenburg, are a great example of these places nowadays which are public but has the character of home. He describes the coffeehouses and bookshops as great places to dwell. The character of the Soft City is therefore more intrinsic but public; it gives many people place to root at a certain place by making it their own. It invites you to just **be** at a certain place, enjoying the interior of the city. To take the time and space to step back, think and see from the whole perspective.

The second chapter dealt with the question *how* soft architecture can ensure peace and encounter in the city. For this, various example projects of soft architecture are described that enter into a direct relationship with people. Subsequently, a tool box was developed that can be used in designing the soft city to promote peace and encounter in the city.

When a place is getting soft, it can change under the influence of people, and climate circumstances. It is an unfinished architecture which is inviting different children or people for spontaneous contact. A changeable program will ensure multiple users and more changes or spontaneous contact among people. A bench does not have exactly to look like a bench, to be used like a place to sit. As more different people will be attracted or addressed by a certain object the change with meeting other people will be increased.

When we are creating spaces to establish more spontaneous contact and being in the open air we have to be aware of the elements of nature which provide our comfort at places. A good orientation towards the sun (or in the shade in warmer countries) ensures that people sit down earlier.

When materials are porous and low in density; they are generally softer and warmer to touch. Materials like wood and stone have a lower thermal conductivity than the material steel. This is why steel always distract more body temperature than stone or wood. Natural materials are closer to the mortal world and are therefore easier for people to relate to.

In terms of human dimensions, we need a difference within 10 meters around us to identify with our surroundings. Otherwise people will soon get lost in the anonymous space. Our social distance is not larger than 3.70 meters and therefore narrower spaces will create more opportunities for deeper social contact. At large squares, people will soon have social contact at the edges; there people feel more save, sort or secured by surrounding buildings. Especially in cities, the 'stage' where city live happens is most interesting to watch and have indirect encounter through eye contact. People will often choose the spots to sit and chat with a good view with their backbone secured.

At safe spaces people are more attracted to stay longer. To create these spaces it is needed to separate the fast traffic from the slow traffic (pedestrian world). The feeling of safety also increases when more people are taking responsibility for spaces. The second tactic is to use social control, multiple eyes and responsibility from users and surrounding residents. Third tactic is more sensitive; secure the weakest part of the human body; the backbone.

The smell of too much litter in a space can ensure that a public space does not feel save to work as a meeting or accommodation space. When a space contains too much litter, the smell will immediately influence the behaviour of people. Every place needs human responsibility to maintain clean and healthy to be. This is possible when people are more allowed in adapting spaces or the public domain. It feels like theirs, and it will be cared for as their sidewalk.

Based on the Biophilic architectural design we can state that the presence of water, greenery and light have a peaceful and well-being influence on people. In the example projects of soft architecture, water had always really distressed effect on the human senses. Just by placing greenery at eyelevel it can already have a distressed effect on people.

After a longer period of time, the human brain becomes accustomed to rhythmic sounds, the sounds are ignored by your brain.

It is precisely the non-rhythmic sounds that are noticed and can be experienced as disturbing. Despite the "thinking away" of sound, this has an inseparable effect on increased mental stress.

Finally, the fourth chapter translated the concept and design tools of the soft city into the Bospolder Tussendijken neighborhoods. In this section it is about answering the design question how soft city could be applied in a deprived neighborhood such as Bospolder / Tussendijken, with the help of the information previously collected. With this, a design in Botu could serve as an example for other neighborhoods that suffer from increased stress levels and loneliness problems.

First, background information has been given about the past, present and future perspective of the neighborhood. The neighborhood was rebuilt in the 1950s and this 50s style is clearly reflected in the architecture of the neighborhood and the current state of the existing housing supply. The architecture style of modernity is therefore reflected in many houses in the area; they show a hard border between the private and public domains in Botu. The research showed that Botu is a very diverse neighborhood in terms of cultural backgrounds. Mixing the different population groups is not yet easy; they mainly live side by side and separately from each culture. This is not necessarily a problem, but it does cause prejudice and frustration around population groups such as Bulgarians and Poles. The neighborhood is lagging behind the average of the social index compared to Rotterdam. Efforts will be made in the future to improve this situation through social impact by design. Since Soft city is about promoting spontaneous meeting and tranquility, this could have enormous added value for the neighborhood.

Finally, the fourth chapter translated the concept and design tools of the soft city into the Bospolder Tussendijken neighborhoods. In this section it is more about answering the design question how soft city could be applied, with the help of the information previously collected in a disadvantaged neighborhood such as Bospolder / Tussendijken. With this, a design in Botu could serve as an example for other neighborhoods that suffer from increased stress levels and loneliness problems.

First, background information has been given about the past, present and future perspective of the neighborhood. This revealed that Botu is a very diverse neighborhood in terms of cultural backgrounds. The neighborhood is lagging behind the average of the social index compared to Rotterdam. Efforts will be made in the future to improve this situation through social impact by design. Since Soft city is about promoting spontaneous meeting and tranquility, this could have enormous added value for the neighborhood.

In the interviews it became apparent that the neighborhood still lacks places where they can sit at a nice terrace for a while and the a place for art exhibition. The youths were very disappointed by the disappeared football field in the 1943 park. In addition, there is a demand for designs that could bring the older population together.

In the analysis, various meeting places in the neighborhood were investigated, such as squares, streets, stairs, parks and facades. The character of the places that may promote intrinsic or extrinsic behavior of people was examined. In this way the balance of hard and soft places in the neighborhood could be made.

When we test the places for soft and hard elements, the balance lies with hard places in the neighborhood.

The imbalance lies in the area where soft architecture touches the extrinsic character and the hard architecture opens itself to intrinsic character. Therefore there is a lack of places which are soft, but as well public to enter, and hard but intrinsic in character.

The most hard and extrinsic place is the Visserijplein; which is special since it is located in the heart of the neighborhood. The functions from the Pier 80 neighborhood building and adjacent park show many soft elements that invite people to relax and meet. However, the soft elements stop at the building and show a paved square that no longer invites a relationship with its surroundings. The place should be able to move along with these activities, become an extension of the intrinsic character.

Two other extrinsic places are the Schipperijstraat and the Wijdesteeg. They both score high on hardness as the smaller spots really disappear between the buildings. They seem indefinable and lack the reciprocal relationship with their environment. It is precisely these places that are interesting to reinforce Soft City by adding soft elements.

5. Discussion

Time plays an important role in observing city life. Places can become softer or more hard over time. This makes an analysis of the city on softness and hardness never definitive; places can evolve from harsh winter situations to soft attractive places in the summer. There is no place to mention that is completely hard or completely soft. Both elements are needed in the city.

The sketches, interviews and observations in the neighborhood were very useful for this research. This information will always be an interpretation by the author. Especially, with interviews, there will always a group of people which remains unheard of because they are unwilling to give interviews or, on the contrary, do not speak Dutch.

In this study, Soft City was translated and tested in several meeting points in the Bospolder Tussendijken district with the aim of stimulating peace and spontaneous encounters. In a follow-up study it would be interesting to also look at Soft City in other cities where different climate and culture will have a completely different influence on life in the city and interpretation of soft City. The archetypes and method could be expanded with this information.

6. Literature

- Avermaete, T., Hannema, K., Van der Heijden, H., & Oostmeijer, E. (2016). *Architecture in the Netherlands: Yearbook 2015/16*. Rotterdam, Nederland: NAI Uitgevers.
- Blanken, M. (2016). *Monitor sociale veerkracht 2018*. Geraadpleegd van <https://hetpon.nl/portfolio/monitor-sociale-veerkracht-2018/>
- Cullen, G. (1995). *The Concise Townscape*. New York, USA: Architectural Press.
- Debord, G., & Chetglov, I. (1899). *The Theory of Dérive*. Barcelona, Spanje: Actar, Museum of Contemporary Art Barcelona.
- Fer, B., Hertz, B. S., Echaurren, R. S. M., Matta-Clark, G., & San Diego Museum of Art. (2006). *Transmission: The Art of Matta and Gordon Matta-Clark*. San Diego, USA: San Diego Museum of Art.
- Haak, A. J. H. (2005). *De menselijke maat*. Delft, Nederland: Delft University Press.
- Gaventa, S. (2006). *New Public Spaces*. London, UK: Octopus Publishing Group.
- Gebied Delfshaven. (2016). *Herijkt gebiedsplan Delfshaven 2016-2018*. Geraadpleegd van <https://www.rotterdam.nl/wonen-leven/delfshaven/20160420-Gebiedsplan-Delfshaven-2016-2018.pdfkqCzi9d>
- Gehl, J. (2011). *Life Between Buildings: Using Public Space*. Washington, USA: Island Press.
- Gemeente Rotterdam. (2018). Wijkprofiel Rotterdam [Dataset]. Geraadpleegd van <https://wijkprofiel.rotterdam.nl/nl/2018/rotterdam>
- Hajer, M. A., NAI Uitgevers/Publishers, Reijndorp, A., & Brinkman, E. (2001). *Op Zoek Naar - Nieuw Publiek Domein*. Rotterdam, Nederland: NAI Uitgevers/Publishers.
- Heeling, J., Meyer, H., Westrik, J., Sauren, E., & Hoekstra, M. J. (2002). *Het ontwerp van de stadsplattegrond*. Amsterdam, Nederland: Sun.
- Höppner, R. (2018). Sociale Veerkracht. Geraadpleegd van <https://www.veldacademie.nl/thema/sociale-veerkracht>
- Kostof, S., & Tobias, R. (1999). *The City Shaped: Urban Patterns and Meanings Through History*. London, UK: Thames & Hudson.
- Madanipour, A. (2010). *Whose Public Space?: International Case Studies in Urban Design and Development*. New York, VS: Taylor & Francis.
- Meyer, H. (2006). *Het ontwerp van de openbare ruimte*. Amsterdam, Nederland: Centraal Boekhuis.
- Oldenburg, R. (2001). *Celebrating the Third Place: Inspiring Stories About the Great Good Places at the Heart of Our Communities*. Cambridge, USA: Da Capo Press.

- Perec, G. (2013). *Ruimten rondom* (2e ed.). Amsterdam, Nederland: Arbeiderspers.
- Pimlott, M. (2007). *Without and Within: Essays on Territory and the Interior*. Rotterdam, Nederland: Episode Publishers.
- Pimlott, M. (2016). *The Public Interior as Idea and Project*. Heijningen, Nederland: Jap Sam Books.
- Raban, J. (2017). *Soft City: Picador Classic*. New York, USA: Pan Macmillan.
- Gemeente Rotterdam (2018). *Buurtmonitor: Leefbaarheid & Veiligheid*. Geraadpleegd op 16 November 2018, van https://rotterdam.buurtmonitor.nl/jive?cat_open=Beleidsthema%27s/Demografie
- Soenen, R. (2006). *Het kleine ontmoeten: over het sociale karakter van de stad*. Antwerpen, België: Garant.

Pictures

- Alamy. (z.d.). Roman Forum Reconstruction [Foto]. Geraadpleegd op 2 maart 2019, van <https://www.alamy.com/stock-photo/roman-forum-reconstruction.html>
- Badhuis Budapest Szechenyi [Foto]. (z.d.). Geraadpleegd op 2 april 2019, van <http://www.magasindedoudoune2013.info/pics/b/badhuis-budapest-szechenyi.html>
- Bruder Klaus Field Kapelle [Foto]. (2017, 11 februari). Geraadpleegd op 4 januari 2019, van <https://en.wikiarquitectura.com/building/bruder-klaus-field-chapel/>
- Bruder Klaus Field Kapelle [Foto]. (z.d.). Geraadpleegd op 16 mei 2019, van <https://nl.pinterest.com/pin/483362972501737404/?lp=true>
- Corbusier, C. J. (z.d.). Radiant City [Foto]. Geraadpleegd op 6 augustus 2018, van <http://yinyonglim.nl/utopia-dystopia/>
- De Stijl [Foto]. (z.d.). Geraadpleegd op 16 mei 2019, van <http://kunst-modernisme.blogspot.com/p/de-stijl.html>
- Doeleman, A. (z.d.). The Giant Flying Grass Carpet [Foto]. Geraadpleegd op 14 maart 2019, van <http://hunkdesign.com/nl/privacyportfolio-items/the-giant-flying-grass-carpet>
- Fineartamerica. (2019, 1 mei). 1960s People At Newsstand 42nd Street Beach Sheet for Sale by Vintage Images [Foto]. Geraadpleegd op 16 mei 2019, van <https://fineartamerica.com/featured/1960s-people-at-newsstand-42nd-street-vintage-images.html?product=beach-sheet>

Het Vergeten bombardement 1943 Bospolder [Foto]. (z.d.). Geraadpleegd op 5 mei 2019, van http://www.vanamen.net/rotterdam_foto/V/slides/vergeten%20bombardement%201943%20Bospolder%20RMS.html

Introspecs. (2018, 10 mei). Paley Park [Foto]. Geraadpleegd op 5 mei 2019, van <https://introspecs.com/more-and-better-outdoor-social-spaces-please/>

Krystle, D. (z.d.). Teatro del Mundo [Foto]. Geraadpleegd op 5 februari 2019, van <http://the-mind-of-architecture.blogspot.com/2017/06/what-is-ideal.html>

Oud, B. (2017, 21 januari). Schouwburgplein [Foto]. Geraadpleegd op 16 mei 2019, van <http://fotos.serc.nl/zuid-holland/rotterdam/rotterdam-65417/>

Paley Park [Foto]. (z.d.). Geraadpleegd op 2 mei 2019, van <https://nl.pinterest.com/pin/458241330826158562/?lp=true>

Palio di Siena [Foto]. (z.d.). Geraadpleegd op 16 januari 2019, van <https://www.visittuscany.com/en/topevents/palio-di-siena-00001/>

Paschini, A. (2017, 26 maart). Piazza del Campo - Siena [Foto]. Geraadpleegd op 16 mei 2019, van <https://www.behance.net/gallery/50714533/Piazza-del-Campo-Siena>

Postma, G. (z.d.). Limonadekraam in Sevilla [Foto]. Geraadpleegd op 6 mei 2019, van <https://www.teylersmuseum.nl/nl/collectie/kunst/cc-019-limonadekraam-in-sevilla>

Rotchscholarship. (2010, 28 juni). Piazza Del Campo [Foto]. Geraadpleegd op 6 mei 2019, van <https://2008rotchscholarship.wordpress.com/2008/12/08/piazza-del-campo-2/>

Van Donzel. (2018, 13 juli). Human Scale [Foto]. Geraadpleegd op 6 januari 2019, van <https://www.vandonzel.nl/blog/plattegrondpuzzelen/>

Wahing lines Venice [Foto]. (z.d.). Geraadpleegd op 16 mei 2019, van <https://nl.pinterest.com/pin/150378075028958650/?lp=true>

Wikipedia. (2019a, 15 mei). J.J.P. Oud [Foto]. Geraadpleegd op 16 mei 2019, van https://nl.wikipedia.org/wiki/Jacobus_Johannes_Pieter_Oud

Wikipedia. (2019b, 15 mei). J.J.P. Oud Tussendijken [Foto]. Geraadpleegd op 16 mei 2019, van https://nl.wikipedia.org/wiki/Jacobus_Johannes_Pieter_Oud

Wikipedia. (2019c, 16 mei). Proxemics [Foto]. Geraadpleegd op 16 mei 2019, van <https://en.wikipedia.org/wiki/Proxemics>