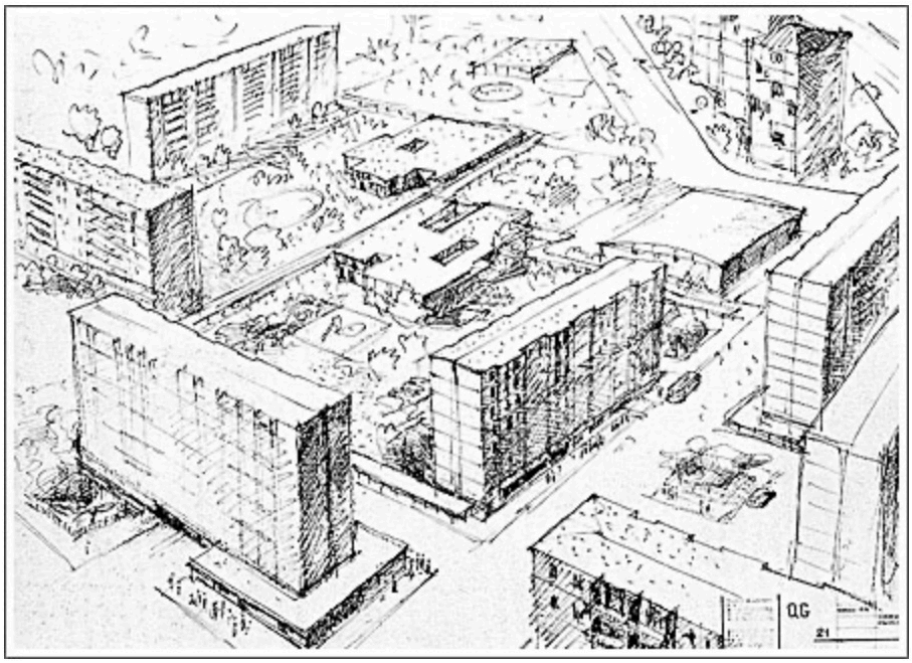
DIVERSITY IN SOCIAL HOUSING:

a comparative research into new design strategies for collective spaces in post-war modernist social housing projects

(GHENT, WATERSPORTBAAN AND MILAN, GRATOSOGLIO)



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_ Preambule

During the first semester of this academic year I went on Erasmus to Milan. There I have been able to conduct some interviews with key actors and local residents of the neighbourhood of Gratosoglio. In addition, I set up online surveys and visited the neighbourhood. During the thematic studios at university, my fellow students and I worked on the case of Gratosoglio. In the context of these studios, we attended numerous lectures in which we were enriched with information about the area.

A few weeks after I got back from Erasmus, our country went into a lock-down in order to prevent further spread of the Covid-19 virus. As a consequence, I couldn't interview any local residents in Gent. We tried to solve this with the thesigroup by organising online surveys with local residents. I was also lucky to get an online interview with the neighbourhood director, Evelyne Deceur, who gave me a lot of information about the neighbourhood. I tried furthermore to make the information from both areas, Gratosoglio and Watersportbaan, complement each other in the design. Rather personally, the Corona virus and all related measures, made it difficult to discuss my design with friends and enabled me from quietly working in the university libraries.

Abstract

After World War II, a dramatic decrease of the housing stock occurred. To challenge this crisis, many western European governments sought a solution in large scale housing projects inspired by the rules of modernism. Following Le Corbusier's urban planning vision and CIAM's modernist principles many of these projects arose. Mostly consisting of high slabs and towers, these high-rise apartment buildings became the standard to rapidly create numerous dwellings and to ensure a brighter community driven future for the neighbourhoods.

It is fair to say that many of them did not completely succeed in their original goals. Nowadays it's also clear that several of these buildings and neighbourhoods are dealing with multiple new issues and challenges in relation to our current society.

Today, our society has changed. Where once the social housing projects were designed for a heterogeneous share of the society; now the group of people who need social housing the most, is more diverse than ever. Different households, different ages, different religions, origins and backgrounds create new challenges for the social housing projects. Many questions arise.

How must these projects adapt to the current circumstances? How can a design be more flexible, sustainable and inclusive for the future of social housing? Even more, how to live together in diversity? The original residents of these projects saw the community change; they don't feel connected anymore with their neighbourhood. New inhabitants and migrants also face difficulties to connect with their new neighbourhood. How can we create a new identity for these neighbourhoods? Which are the potentials of these neighbourhoods and where can we find them? How to reconnect people with one another, with their neighbours, community, institutions and the city? And finally, how to adapt old designs and create new designs, inducing a new inclusive and flexible identity for the community.

Abstract

Na de Tweede Wereldoorlog ontstond er een groot tekort in het woningbestand. Om deze crisis te beteugelen, zochten verschillende West-Europese overheden hun heil in grootschalige woningbouwprojecten welke geïnspireerd waren door de regels van het modernisme. Deze projecten, in navolging van Le Corbusiers visie over stadsplanning en de modernistische principes van CIAM, bestonden grotendeels uit hoge appartementsgebouwen en torens. Zij werden de standaard om snel een groot aantal woonsten te creëren en om een betere toekomst met gemeenschapsgevoel te verzekeren voor de buurten.

De eerlijkheid gebiedt ons te zeggen dat velen van deze woningbouwprojecten niet volledig geslaagd zijn in hun oorspronkelijke doelen. Tegenwoordig is het duidelijk dat de meeste van deze gebouwen en buurten moeten omgaan met verscheidene nieuwe problemen en uitdagingen welke gelieerd zijn aan onze huidige samenleving.

Vandaag is onze samenleving veranderd. Waar de sociale woningbouwprojecten ooit waren ontworpen voor een homogeen deel van de samenleving, is de groep mensen die het meest behoefte heeft aan sociale woningbouw tegenwoordig diverser dan ooit. Verschillende huishoudens, verschillende leeftijden, verschillende opvattingen, verschillende afkomsten en achtergronden creëren nieuwe uitdagingen voor de sociale woningbouwprojecten. Talloze vragen vereisen daarom een antwoord.

Hoe passen deze projecten zich aan de huidige omstandigheden aan? Hoe ontwerp je meer flexibele, duurzame en inclusieve sociale woningbouw voor de toekomst? En ook, hoe samen te leven in diversiteit? De oorspronkelijke bewoners van deze projecten zagen de gemeenschap veranderen en voelen zich vandaag niet meer verbonden met hun buurt. Nieuwe inwoners en migranten kunnen geen aanknoping meer maken met hun nieuwe buurt. Hoe kunnen we een nieuwe identiteit voor deze buurten creëren? Wat zijn de mogelijkheden van deze buurten en waar kunnen we ze vinden? Hoe mensen opnieuw met elkaar, met hun buren, de gemeenschap, de instellingen en de stad te verbinden? En ten slotte, hoe oude ontwerpen aan te passen en nieuwe ontwerpen te maken, waardoor een nieuwe inclusieve en flexibele identiteit voor de gemeenschap wordt opgewekt?

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1
INTRODUCTION AND STRUCTURE OF THIS DISSERTATION

_ Research context

The liveability of modernist high-rise post-war social housing neighbourhoods has been open to question for some time in socio-architectural debates. For an example, only recently, during the lockdown in our country due to the COVID-19 pandemic, Belgian teenagers living in apartment buildings complained about their lack of privacy and personal space (Van Nieuwenhove, 2020). This lack of personal space is also present on the scale of the neighbourhood. Many high-rise social housing neighbourhoods seem to suffer from disappearing and ignored collective spaces.

While doing some research on the origin of those apartment buildings, immediately a heap of articles and books criticizing this modernist approach to high-rise housing shows up. Fact is that today, modernist high-rise apartment buildings, frequently suffer from many problems. Reports, books and articles addressing these problems, regularly point to modernist architecture with an accusing finger. According to many critics the CIAM-movement, in particular Le Corbusier, is clearly the source of all problems regarding high-rise post-war housing neighbourhoods.

Zooming in on the history of social housing and the rise (and fall) of modernist high-rise neighbourhoods, an enormous discrepancy can be found between the original modernist utopian ideas and the post-war social housing estates built. Many of these post-war high-rise neighbourhoods lack crucial elements from modernist thought and are rather abstractions of the original utopian thoughts.

Furthermore, the dismantling of the modernist utopian idea was happening gradual in time. Before World War II, the believe in the high-rise model increased and culminated in the model of the apartment building, working as a vertical community. In the wake of World War II many apartment buildings were built in imitation of this model since, according to many west-European governments, this model fitted best the emerged housing needs in their countries. Due to economic, political and social problems, the concept of a vertical community diminished. In many instances, what was left was a reduction and neglect of the original high-rise model, often resulting in exclusively residential neighbourhoods, including decreased architecture qualities.

The reduction and neglect of the utopian vertical community goes hand in hand with the abandoned or ignored collective space. In the majority of the projects, the collective space has not been designed, has not been built or disappeared during the time. Yet, when talking to inhabitants of these neighbourhoods, a lot of them indicate the importance of collective spaces for their social life, their community and neighbourhood.

In this dissertation, I will further focus on collective spaces, not on the public spaces. In general, high-rise housing neighbourhoods based on modernist ideas will possess an abundance of public space. Many buildings were placed within open spaces according to modernist ideas of living in a parkland setting. Although this public open space is often bad maintained, inhabitants interviewed regularly indicated them as one of the assets of their neighbourhood. This is different for the collective space: often little space in the neighbourhood is appropriated for (a select group of) only inhabitants. Because of this, the transition between private spaces and public spaces is usually experienced as hard and sudden. Furthermore, the lack of semi-public spaces and collective spaces is felt in the loss of a sense of belonging and identity. In many of these areas it is no longer clear which space belongs to who and who is responsible for the maintenance of the non-private spaces. In my research and design on collective spaces, I will focus on spaces exclusively facilitating the community and defined by their purpose and use.

These collective spaces were historically (differently) implemented modernist high-rise apartment buildings. To create a structural framework on the history of modernist high-rise and its collective spaces, I will focus on western Europe after the Second World War. Of course, this is not the only area in the world where modernist thought had taken root. Modernist high-rise apartment buildings can be found in America and especially in the former Soviet Union too. However, my focus remains on post-war Western Europe because it is the most interesting for the two case studies I study: The Watersportbaan in Ghent and Gratosoglio in Milan, both built after the Second World War.

These two neighbourhoods will function as case studies for my master's dissertation. Both areas are facing issues due several factors such as: a policy of privatization and private property, a decreased maintenance and changed societies. I will analyse them extensively on five themes: the built environment, demographic and socio-cultural issues, their economic profile and the liveability and safety in both areas. In my opinion, collective spaces can work as catalysts, creating better living conditions for the residents of the neighbourhood. Their opinions, concerns and perceptions are therefore of great importance and will be the foundation of my design strategies for collective spaces.

Unfortunately, the social housing sector never had the money to set up major architectural projects. A complete renovation of all modernist high-rise buildings and their collective spaces is therefore more a utopian scenario than a viable long-term plan. This dissertation will not focus on a solution for the two neighbourhoods analysed but will focus on many small strategies that can be applied in different areas. Designing these strategies, the collective space will be divided into 4 typologies: the entrance hall, the plinth, rooftop and the collective outdoor space. Using modernist examples, urbanism principles and my own experiences within design studios, I will develop a catalogue of strategies for my dissertation. A final design on the two case studies visualizes these possible interventions for each typology.

In a future in which open space becomes increasingly limited, high-rise housing and collective housing typologies could play an important role. Social mechanisms within this high-rise building will continue to be influenced by the ever-increasing diversity. Diverse groups of people will be obliged to live together in a neighbourhood and share some (open) space. In this context, this dissertation could serve as a tool to create sufficient, liveable and inclusive collective spaces.

_ Research question

The first research question of this master dissertation examines the evolution of the utopian projects of modernist architects. The first projects were developed in the interbellum and built after the second World War. In the first instance many of those projects were designed for a layered part of society. Nowadays most of these post-war modernist projects have lost their former prestigious image. Furthermore, the collective spaces in and around the buildings, which were very important for modernist architects like Le Corbusier, are most of the time removed from the modernist neighbourhood. In the first chapter I explain step by step how the collective spaces of these projects have been neglected over time and how this influenced the liveability and architectural quality of the post-war high-rise neighbourhoods.

The second research question is about how we can design these neighbourhoods so that they regain the prestige of before. More specific: How can we better develop collective spaces? and How can simple or subtle design strategies have an impact on the neighbourhood, the living environment and the architectural quality of buildings?

This research question has been addressed by studying two case studies and design strategies by means of four typologies of collective spaces. Based on what came out of that, I made a design for each case study.

General overview

Besides this introductory Part I, this dissertation is divided in four other parts: Part II: Collective spaces designed, implemented and the situation today, Part III: Analysis of collective spaces in two case studies: the Watersportbaan and Gratosoglio, Part IV: Exploration of design strategies for the Watersportbaan and Gratosoglio and Part V: Conclusion: design strategies for collective spaces.

The following part, Part II, will set up a theoretical and historical frame and is divided in three chapters: Chapter 1: Collective spaces in modernist utopian plans, Chapter 2: The application: an amputated modernism and Chapter 3: A sobering reality today.

In the first chapter, I will discuss the history of high-rise social housing and the role of collective spaces in their designs, with an emphasis on the modernist designs starting after World War I. This part tries to give a brief reading on how the collective got progressively more attention from modernist architects since 1930. The culmination of the design of collective space arises in the hands of Le Corbusier, with the construction of Unité d'Habitation as a milestone. The CIAM movement, Le Corbusier above all, tried to align the general design of modernist high-rise neighbourhoods (i.a. collective space) into one narrative and manual.

How these designs got widely translated to high-rise social housing neighbourhoods, is the focus of discussion in chapter 2. After World War II the society had changed, and governments reached out to these modernist theories to fix the immense demand for houses. Although modernist architects included a significant number of facilities for the neighbourhood in and around their buildings, this vision was rarely adopted in the designs after WOII. Due to budgetary problems and changing priorities, generally only few parts of the original inclusive modernist plans were being implemented. The resulting buildings were mere shadows of the utopian dreams once imagined by the CIAM group.

Nowadays, as I will describe in chapter 3, a certain amount of these housing blocks suffers from a range of problems. The reasons are lousy designs, a changing neighbourhood composition or grown-old housing blocks. Unfortunately, the biggest share of high-rise social housing neighbourhoods suffers from various problems. Stigmatisation, neglect or even demolition by West European governments (which only replaced problems) are phenomena that many of these neighbourhoods have to endure.

Two case studies are introduced in Part III: Analysis of collective spaces in two case studies: the Watersportbaan and Gratosoglio. These social (and public) housing neighbourhoods have a different history, scale and demography, but the typology of their buildings and the void of well-designed public and collective space is similar to each other. In this third part, interviews with inhabitants, surveys and official documents form the basis for the stories of these neighbourhoods, and of their public space.

Part IV: Exploration of design strategies for the Watersportbaan and Gratosoglio explores design strategies by means of four types of

1 CIAM stands for Congrès Internationaux d'Architecture Moderne and will be explained in Part III

collective spaces: the entrance hall, the plinth, the rooftop and outdoor collective and green spaces. These four types are described using (utopian) modernist case studies as a context and contemporary references as inspirational guidelines and goals. Each type of collective space will create a list of possible design strategies to tackle current problems. In completion of these guidelines some designs will be made on each type of collective space, for both Gratosoglio and the Watersportbaan.

In the final Part, Part V, I will reflect on these designs and design strategies. Furthermore, I will try to answer my research questions and give some remarks on the design strategies I proposed.

2
METHODOLOGY

_ Literature study

To create a historical and theoretical framework in Part II, I have mostly used secondary sources concerning CIAM and their modernist visions on the society and architecture, modernist high-rise housing (Le Corbusier's Unité d'Habitation) and social housing. I have searched for scientific research on these high-rise social housings, from a critical as well as a praising point of view. Moreover, I followed an Urban Design class in Milan from September 2019 until January 2020. The professors of this class provided me with a decent amount of information about Gratosoglio, a modernist high-rise social housing neighbourhood Southern of the centre of Milan - one of my two chosen case studies - and about high-rise social housing (by the means of lectures, books, presentations and movie clips).

In Part III I analyse the two neighbourhoods I have chosen: Gratosoglio in Milan and the Watersportbaan in Ghent. First, I used primary sources (interviews in the neighbourhoods with key contacts in Milan and an online survey in Milan and Ghent). Followed by plans and documents of the municipalities of Milan and Ghent, completed with books and articles.

_ Fieldwork and primary sources

To gain a better insight in the two neighbourhoods, Gratosoglio and the Watersportbaan, I planned to interview some of their inhabitants and key contacts. People who know the neighbourhood inside out and know the group of inhabitants better due to their profession. In Gratosoglio, I had the opportunity to walk around and interact with the neighbourhood with friends who served as interpreters. Due to the Belgian Covid-19 measurements, I could not do that anymore in Ghent and I mostly worked with online interviews and surveys. Nevertheless, I tried to maintain a social perspective as much as possible through many field visits, walks around the neighbourhood and observations.

I interviewed Evelyne Deceur, the director of the neighbourhood, who was very kind and resourceful. Furthermore, I got a lot of information from other experts and people in the field through our conversations and workshops in the Stadsacademie and master's dissertation atelier. At last, I followed at the University of Ghent an advanced topic of professor Luce Beeckmans in Urbanism, Urban Design and Landscape: "Urban diversity, social housing and micropublic spaces of encounter", which was a very enriching experience. The course included a lecture on social housing by Simon Allemeersch, an artist and dramatist who lived and worked for two years in the social apartment tower of the Rabot neighbourhood in Ghent. The course also encouraged the group

of students to provide as much information as possible by going to archives and searching for references. I had the wonderful opportunity to work again with the same neighbourhood I had chosen as a case study for my dissertation, in that way I could work simultaneously on both projects and could cross pollinate information I found working on both them. With our group of students, we went to the archive of Ghent and found old plans, pictures and committee journals of the Watersportbaan neighbourhood.

Choice of the two neighbourhoods as case studies

The choice of neighbourhoods was influenced by the classes I took this last master year. As I went on Erasmus to Milan, I first searched for modernist post-war social housing neighbourhoods in and around the city. It turned out that there were approximately ten different well-known neighbourhoods who fitted this description. In my design class, we worked on one of them, Gratosoglio. I had the chance to gain more knowledge of this neighbourhood. It was an incredible opportunity that allowed me to retrieve more information about the neighbourhood than I could ever do on my own. The designs made for Gratosoglio in this dissertation are based on the work I did for the group project of the design class in Milan.

Back in Ghent I had a similar experience. As already mentioned, I followed at the University of Ghent an advanced topic of professor Luce Beeckmans in Urbanism, Urban Design and Landscape: "Urban diversity, social housing and micropublic spaces of encounter". The course focussed on three social housing neighbourhoods: Malem, the Watersportbaan and Nieuw Ghent. I chose to work on the Watersportbaan for both my groupwork in this course and as a case study for my master's dissertation, because the Watersportbaan was built similarly to the neighbourhood of Gratosoglio. Both neighbourhoods have their own story and history. They have some comparable difficulties too, but both also have elements which are specific to their habitat. That is the reason why the combined examination of these two neighbourhoods could lead to a better design strategy exploration for both of them.

II.
COLLECTIVE SPACES DESIGNED, IMPLEMENTED AND THE SITUATION TODAY

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In order to understand the collective spaces in social high-rise housing blocks today, it is essential to go back in time and to understand its history. How did social housing start? How were the collective spaces implemented in the first conceptual and utopian ideas? We need to take into account that there are different views on the history of modernist social housing blocks and that 'the situation today' is not universal as well.

It is necessary to stay more general and outline the framework without detailing too much, because that would lead us too far from the research on design strategies for collective spaces.

1
COLLECTIVE SPACES IN MODERNIST UTOPIAN PLANS

The definition of utopia has been the subject of continuous historical evolution, but from the first use of the word in the book of Sir Thomas More[2], two characteristics were always maintained: first of all, the origin and original meaning of the word. Utopia comes from the Greek ou (not) -topos (place) ('Utopia | Definition of Utopia by Lexico', n.d.). Thus, utopia means either an impossible place to live or the best place to live. Secondly, utopia always includes the aim of a revolt against the archaic framework of the present to set out a new order of values. The modern value of utopia is thus not the same value as before the Renaissance. This value was destroyed by Humanism and its former culmination, the idea of God, was replaced by the ideal of Man. Utopia will thus always strive for complete human perfection, out of man's reach, created by man and including its complete life and environment.

In the context of architecture and urban planning, in the beginning of the twentieth century the distinct idea of perfection tempested many modern architects. New architecture would create a fresh start and a solution to many problems, while the particular society would be shaken from its very foundation. With the creation of the CIAM organisation, utopian ideas were set into practice on a bigger scale. Without a doubt their most important outcome was the Athens Charter, written by Le Corbusier. The document set out the guidelines for a utopia, with 95 articles about the urban phenomenon within its economic, social and political context. The manifest created many guidelines to design a utopian modern way of living (Nicoletti, 1971).

2 Utopia (1516) by Sir Thomas More.

How did social housing start?

After WWI, the need for social housing accelerated in Western Europe. Due to the possibility of mass production, social housing became the place where new urban design typologies for a better society (depending on the social, political, economic and spatial context) were tested and designed.

But how did social housing start in the first place? When did the development of non-profit housing provision start? When was it, that governments decided to build houses for the people and why did they do that?

Historically we see that during centuries housing was provided by religious orders, charities or employers for particular groups. Social housing did not yet exist in the nineteenth century; the principle however did already exist, although it had different names and shapes. As millions fled from rural poverty to the mushrooming cities from the nineteenth century onwards, housing became a good subjected to market forces. Governments and municipalities progressively started to obtain more strategic roles in shaping housing policies and, later on, housing provision. In expectation to this growing possibility of government intervention, the professionalisation of architecture slowly occurred. Architects were contributory to two major innovations in urban housing: the planned suburb and the purpose-built, multi-storey, multifamily block, whether for rich or poor. At first, these advancements, in particular the multi-storey blocks, were used to improve the public health and the living conditions of the working class (Lasner, 2018; Scanlon, Arrigoitia, & Whitehead, 2015).

In the early 1870s a very rapid industrialisation occurred in Northern Europe. As a downside, problems related to homelessness, high rents in relation to incomes, diseases and problems of poor urban quality (e.g. poor air quality, overcrowding) soon arose in several countries. In these rapid industrialised cities, the large amount of (unregulated) new house buildings could not meet the demand for housing. All of this brought the political and social issues on housing on the agenda. After some early city planning and rent control measures, the governments started to subsidise housing - usually for working households - and the municipalities increasingly started to develop local infrastructure and services.

By the beginning of the twentieth century, several countries like Germany, Denmark, the UK and selected North Italian cities embraced the idea that that public housing could be an important contribution to solve the problems which emerged from to this rapid industrialization. An increasingly amount of small-scale non-profit developments sprung up in advance of World War I. Although the development of housing policies in Western Europe was mainly characterised by market forces, the importance and influence of the governments and municipalities would keep on growing during the nineteenth and twentieth century, with its peak after World War II (Gerharz, Hoebeke, Kocvara, Nijman, & Stein, 2011; H. Priemus, Kleinman, Maclennan, & Turner, 1993).

In the book *"Restructuring large housing estates in Europe"* (Hall, Murie, & Knorr-Siedow, 2005), Hall, Murie and Knorr-Siedow describe four strands of housing reform emerged before 1914:

Firstly, they argue that more interventions of the governments were made to benefit public health. Water and sewerage systems were improved and regulated, and many European

countries started to create laws on slum clearance, which was sometimes very contested.

Secondly, in many countries the so-called garden cities became popular. This model provided an anti-urban solution to the industrialisation and was particularly inhabited by the (lower) middle and upper working classes. The garden city model, envisioned by Ebenezer Howard's plan, became very popular in some countries. In this model, Howard created completely planned environment with self-sufficient quarters and the focus of civic life limited to the neighbourhood (see Figure II.1). This linear urban model provided open space for everyone within a core, whereby the cores were linked to each other by green corridors. Contrary to the latter modernist high-rise housing models, this model consumed a lot of space (Howard Gillette, 2011).

Thirdly, there was the development, in Austria and Germany, of 'reform blocks. These blocks were built by people with philanthropic or labour-movement-backgrounds and were like the garden city built for the working classes. The model provided open gardens and services for the residents. The apartments were well-equipped and designed. Lastly, a mix of the garden city and the reform blocks were used in quality housing estates related to mining or factory complexes. Examples are the continental Werksiedlungen and the urban villages in the UK.

It was not until after World War I that social rental housing was implemented in some European countries on a large scale as a key tool to quickly tackle the social and political issues and the emerged housing crisis caused by war. These housing programs were intended to be temporary and focussed primarily on middle-class and wealthier working-class. Also, architects gained more authority over housing due to interwar politics (Gerharz et al., 2011; H. Priemus et al., 1993).

For the first time, modernist architects had a significant opportunity to participate in programmes for social housing. First in the Netherlands where the municipal architects of Amsterdam and Rotterdam, (Hendrik) Berlage and (J.J.P.) Oud designed remarkable new projects *"that expressed ideological commitment to technology and a sense of the power of architecture to achieve social transformation*"(-Gold, 1997, p. 48). Following, along with the Dutch modernist architects, other West European modernist architects began to create social housing neighbourhoods. In Belgium the Flemish architect Victor Bourgeois created the 'cité Moderne' at Berchem-Sainte-Agathe near Brussels (Figure II.2). In France Le Corbusier designed an ambitious 'Quartier Moderne' at Pessac, near Bordeaux (Figure II.3). These designs were a modernist view on the garden city typology. As we saw in garden estates, the houses were aligned according to a central street, an inner courtyard was not designed yet, but the first attempts were made. The collective space took place in and around the street.

The social housings that differed from the garden estates developments were the modernist social housing estates as seen in Austria and Germany, not coincidentally in socialist controlled municipalities. The socialist Viennese city authorities chose to build in contrast to the typical garden estates typology, housing blocks with large perimeters, inclosing generous communal courtyards within. Architects like Bruno Taut and Ernst May had the opportunity to devote themselves to the improvement of housing, but could also work on new building systems in their cities like the Zeilenbau in Römerstadt, a suburb of Frankfurt (designed by May, 1928) and the Hufeisensiedlung in suburban Berlin (designed by Taut, 1931). The latter included a housing block, built around a capacious collective green space (Figure II.4).

The most iconic and influential housing developments were the höfe built between 1926 and 1933 and designed by Karl Ehn. In particular the Karl Marxhof superblocks (Figure II.5), which contained from the very beginning of the design process social and communal facilities as, for example, "public baths, offices, a youth hostel, dental clinic, pharmacy, library, laundry, hospital and other social facilities for the 5000-6000 people that lived in its 1382 flats. They were a recipe for urban living

rather than simply dwelling units"(Gold, 1997, p. 51; Lasner, 2018).

Although these cases show the promising progress made in the architecture of dwelling units, these neighbourhoods were rather the exceptions than a general way of building. Many could not afford this way of living and it was not common to design communal facilities for these apartments. If there were already social housing blocks with interiors courts designed, usually the interior courts would lack any function and the real collective space would lie in the streets surrounding these building blocks

From left to right:

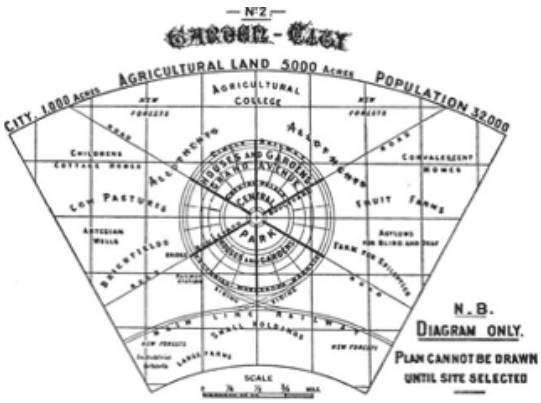
Figure II.1: Ebener Howard's "Plan for the Garden City", envision a compact urban core, surrounded by open space with ease access to work set apart from residential living

Figure II.2: Cité Moderne by Victor Bourgeois at Sint-Agathe-Berchem

Figure II.3: Quartier Moderne by Le Corbusier at Pessac

Figure II.4: Hufeisensiedlung by Bruno Taut, Berlin

Figure II.5: Karl Marxhof superblock, by Karl Ehn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The CIAM discourse: the place of collective spaces in concentrated high-rise housing blocks

The ambition of modernist architects became clear in the founding of the CIAM movement in 1928. This modernist group of worlds', self-claimed, leading architects aimed for a society without classes, with an emphasis on inclusion and collectivity instead of individuality (Peeters & De Decker, 1999). Although the group didn't have significant power outside their urban design and architectural sphere, its influence and symbolic importance was massive. In their congresses and meetings, they explicitly addressed urban problems and the solutions their members proposed (Gold, 1997).

From the nineteen thirties on, starting with the CIAM III congress in Brussels in November 1930, the group returned to the theme of low-cost housing and rational site planning. Then, they scaled up the theme of low-cost housing from the scale of the minimum dwelling to the scale of housing blocks and neighbourhoods with collective facilities (Peeters & De Decker, 1999). During this international congress, it was Walter Gropius who proved accurately that old housing models (like the Mietkasernen in Berlin) were generating problems. Instead, he pleaded for the high-rise linear block (Figure II.8) as an alternative and a new way to order urban spaces (Monclús & Díez Medina, 2016). His radical proposals and thoughts were shared by another famous member of the CIAM group: Le Corbusier. Both had a significant influence on the paradigm shift concerning a new organised world with explicit urban forms.

The belief in the possibilities of concrete, a new material, and new technologies was mainly represented by one of their exhibitors: Le Corbusier. *"While most exhibitors addressed the neighbourhood scale, Le Corbusier argued for the need to see housing schemes in their wider urban context. His early version of the Ville Radieuse (1933) first shown at this Congress, proposed standardised dwellings in elongated blocks with major roads constructed on piles at first-floor level in order to allow free layout of footpaths"* (Gold, 1997, p. 61). It was an extension of earlier conceptual ideas like his Ville Contemporaire (1922) (Figure II.6 and Figure II.7).

When he introduced shared facilities for both the dwelling unit and the city in his Ville Contemporaire, he was influenced by the phalanstery of Fourier and USSR dwelling experiments. The serviced flats were standardised and built with industrialised methods and added upon each other, up to twelve storeys high. These large apartment structures were set amongst a parkland in a recreational and mobile city, providing space, green and sunlight to each double storeyed dwelling unit. By doing so, Le Corbusier tackled two important things: firstly, the traditional corridor streets with unhealthy courtyard flats, a typology exemplary to the industrial city. Secondly, the detached dwellings which he believed were a waste of space, illustrated in the Garden City model (Marmot, 1981).

From left to right:

Figure II.6: Ville Contemporaine (1922), Le Corbusier

Figure II.7: Ville Contemporaine, Le Corbusier

Figure II.8: Walter Gropius's design for CIAM III

1 CIAM stands for Congrès Internationaux d'Architecture Moderne

Figure 4. *Immeuble-Villas*, 1922, showing double height villas with gardens stacked vertically. (Source: *Oeuvre Complète 1910–1929*, p.43)

Figure 5. 'Set back' residences, 1922, with parks and sports facilities at their base. (Source: *City of Tomorrow*, p.233)

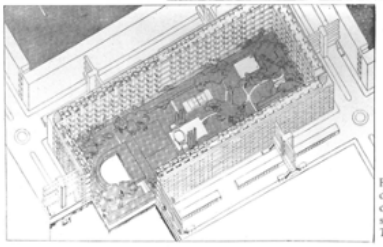


Figure 6. 'Cellular' residences, 1922, providing communal facilities for serviced flats. (Source: *City of Tomorrow*, p.221)

In the years following, he developed large-scale housing proposals, demonstrated in projects like *Plan Voisin* and *Ville Radieuse,* together with his five points of architecture.[3] In this *Ville Radieuse* he designed a town planning scheme with a mix of two typologies: the 'set back' building block and the high-rise tower. The latter facilitated commerce and employment functions. The smaller 'set back' and 'cellular' buildings were serviced flats with on the ground floor a lot of collective facilities to improve the day-to-day life of the inhabitants. Such as restaurants, food provisions and laundry services... His use of skyscrapers provided the city with parks and open space and generated a more accessible and mobile landscape. Although these skyscrapers were not meant for housing, Le Corbusier sensed that the family life should be limited to buildings of up to seventeen storeys, while the higher buildings were appropriate and affordable for business.

3 Le Corbusier's five points were: the building raised on pilotis, roof-gardens, the plan free of structure, horizontal windows and the free facade

CIAM's legacy: high-rise housing in a parkland setting

It was not until 1937, with the Kellerman project (Figure II.9), that these set back typologies evolved into free-standing building blocks. The building contained "*a space for sports, a pool, a gymnasium, a library, a club, a nursery and kindergarten, a hospital, communal services for cleaning, a food co-operative, a restaurant and hotel, and even an exhibition space for CIAM's architecture and planning projects!*" (Marmot, 1981) The result was a free-standing vertical community of 4000 people, which would later on culminate in his Unité d'Habitation. Le Corbusier's and CIAM's idea of a vertical city gained progressively more popularity. From the nineteen thirties on, other architects , living up to Le Corbusier's precedent, started to create early versions of concentrated high-rise housing blocks, at their best with designs for the public space around these blocks included.

Starting from the CIAM IV congress, 'The Functional City', Le Corbusier's influence increased. It was previewed at Milan's Triennale in the spring of 1933, but actually took place on a cruise ship which sailed from Marseille to Athens. The congress continued in Athens, where Le Corbusier opened a Functional City exhibition. Once more, the congress did not deliver final resolutions, due to international disagreements (Kargon & Molella, 2008). It was not until the Athens Charter was published in 1941, that general principles were stated. The original Charter became only famous as CIAM's 'official view' on town planning in 1941 when it was edited by Le Corbusier into a dogmatic manifest for the vertical city. By doing so, it became a notorious document through history as a result of its dogmatic concepts. As a matter of fact, the original findings of the CIAM IV congress – which were more subtle as a result of the various group of opinions – were definitely sharpened and boosted by Le Corbusier, looking for advocacy for the Ville Radieuse. (Gold, 1997). This manifest demonstrated Le Corbusier's utopian perspectives on the urban city, which resonated and went further than the proposals by CIAM (Pinder, 2005). The main principles underlined (Coene & De Raedt, 2020; Kargon & Molella, 2008):

- the human scale
- the importance for town planning of the four functions (dwelling, circulation, work, and leisure)
- the location and the distance between the buildings were indicated by the sun and sufficient access to light and air
- the fundamental need to see the town as part of its region
- the right to a house, which could be made possible by standardised methods
- collective facilities for cultural and health services
- the vacant land would be reserved for col lective gardens and parks

Le Corbusier's utopian thoughts and principles culminated in his design for Unité d'Habitation built in 1947 (Figure II.10, Figure II.11, Figure II.12, Figure II.13).

"Here at last was the coming together of several 'partis': a self-contained living block for 330 families in a single unhindered ground space could flow through underneath; double-storeyed dwellings entered from an interior street; dwelling plans independent of the structure; sound-proofing between one dwelling and another; facades fully open to light, air, greenery and views of mountains and sea; shops, hotel and other ser-

2 Like Renaat Braem's housing blocks for the Kiel in Antwerp, Belgium

vices within the building; and on the roof-top, a kindergarten, gymnasium, club, cinema, theatre and running track. The Unite was constructed of in situ and precast concrete, made use of Corb's Modulor proportional system to break up the facade into an intricate composition, and appeared not only as an apartment building but also as a dramatic sculpture in the midst of a large park" (Boesiger & Corbusier, 1955, pp. 191–228; Le Corbusier, 1948, p. 138).

Loneliness was here out of the question, due to the generous provision of communal facilities, clubrooms and recreation. The building efficiently operated as a communal dwelling block in a park. It succeeded in dealing with the needs of inhabitants (e.g. food, recreation, kindergartens and sociability) within the building. Its success was confirmed by the fact that many inhabitants stayed for more than twenty years and that there was a waiting list to get in (Marmot, 1981).

Le Corbusier envisioned a future where, instead of detached dwellings, buildings like Unité d'Habitation would be built. He acknowledged that building these blocks, with their wide supply of facilities and communal functions, would be rather expensive. He argued that the design also saved money elsewhere. He suggested that there would be much more land and infrastructure saved than compared to the detached dwelling alternative, also, travel time and housekeeping services would decline because they would be generated for the community with communal food provision and housekeeping services (Marmot, 1981).

From left to right:

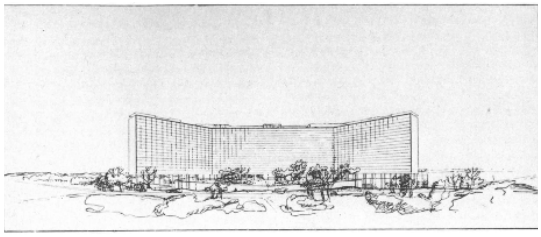
Figure II.9: Kellerman housing project, 1937 by Le Corbusier

Figure II.10: Unité d'Habitation, Le Corbusier, collective facilities on the roof

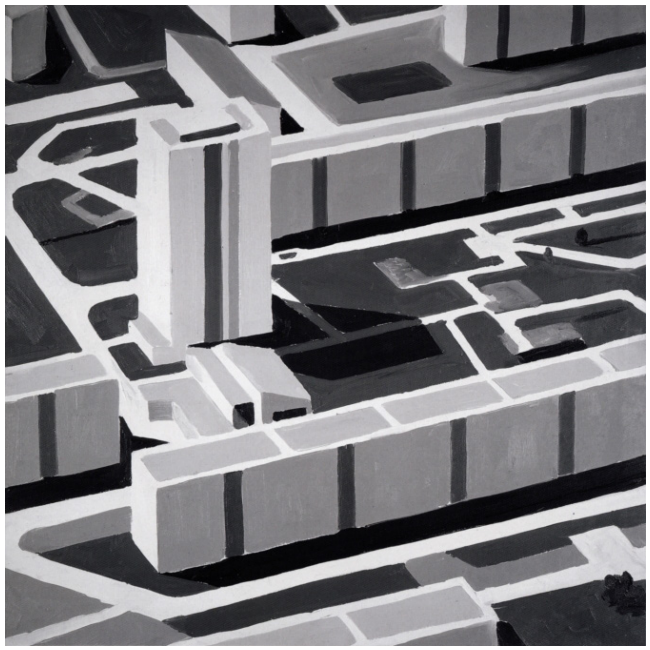
Figure II.11: Unité d'Habitation, Le Corbusier

Figure II.12: Unité d'Habitation, Le Corbusier

Figure II.13: Unité d'Habitation, Le Corbusier, scheme



2
THE APPLICATION: AN AMPUTATED MODERNISM



"In contrast to the aerial photographs, some of which depict entire areas of towns, the townscapes are from a shorter distance, having been based on photographs of architectural models. Gerhard Richter omits entirely or only hints at details such as windows; the architecture is reduced to basic forms, leaving the distinct geometric shapes of individual buildings clearly recognizable.

The depictions of minimalist architecture of the post-war era reflect an important socio-political issue of the 1950s and 1960s. In the course of the rebuilding of war-damaged Germany, new buildings of the kind depicted replaced lost houses. Thus, these paintings illustrate the optimistic fresh start made after the Second World War and can be understood as a counterpoint to the townscapes that are reminiscent of bombed-out cities."

Notes on the painting Townscape SL by the editorial team of the Gerhard Richter website ('Townscape SL [218-1]', n.d.).

_ Why high-rise housing in the post-war era?

Despite the fact that these utopian concepts of high-rise buildings were already being considered in the early 1930s, this typology was predominantly applied for the first time on a large scale after the Second World War. Why was this typology used at that moment specifically? And why were so many governments in Western Europe convinced to follow the modernist principles of large-scale housing with high-rise buildings?

There was a reason why the modernist principles - outlined in the Athens Charter of 1943 - were applied in the aftermath of World War II by the majority of the West-European countries and it was mainly due to a combination of some factors.

First, there was a major housing crisis all over Western Europe. In general, there was a critical shortage of housing in several countries caused by the war (Boelhouwer, Van der Heijden, & Van de Ven, 1997; Pascale De Decker, 1998; Monclús & Díez Medina, 2016). In some places this shortage was larger than in others due to other specific circumstances. In France, the reconstruction was rather slow because the government decided in the Monnet Plan (1948-1953) to first focus on the industrial areas at the expense of the residential ones. As a consequence, and because of the fact that in the 1930s and 1940s few houses were built due to the economic depression and the war, the housing crisis culminated. Furthermore, there was a big flee from rural to urban areas. Especially Paris suffered from this and large bidonvilles emerged on the outskirts of the city (Pascale De Decker, 1998; Haffner, 2013; M, 1998). Germany suffered from large war damages and had to shelter big amounts of refugees from Eastern Europe. Likewise, the Netherlands and the UK had to deal with numerous refugees from their (ex) colonies. And lastly, all of them had to bear in mind their growing population by cause of the post-war baby boom. European governments had to act quickly to tackle this terrific demand for houses, which was expected to last some time (Pascale De Decker, 1998). Furthermore, many governments wanted to halt the miserable life quality and habitability in their industrial cities. Large-scale housing appeared to be a logical solution.

Another factor for the application of modernist principles was the technological development. The war did not only bring despair and destruction, it also generated new building methods like improved standardisation, prefabrication and other technological features which gave the possibility to build quicker and higher.

Confronted by these large-scale housing needs and helped by better construction technologies, the Athens Charter fitted like a glove as a theoretical framework which offered many solutions and set out the principles of modern architecture. Not only did these buildings promise a modern way of living at an affordable cost (e.g. they offered spaces and sunny apartments, with showers and toilets, at a time were many people lived in industrial cities without even indoor plumbing), they were also totally different from former housing styles and indicated the disgust of the former traditionalism. The housing crisis, the existence of a theoretical frame and the new building methods altogether explain why governments everywhere in Europe began to build high-rise housing on a large scale (Pascale De Decker, 1998; Haffner, 2013).

On this subject Anne Power said the following in 1997: "The notion of beautifully ordered, scientifically planned environments, with a form that clearly broke the mould, held a certain magic for everyone. Thus, in these early years, mass housing was not simply tolerated, but embraced with jubilation. Politicians led the change towards mass housing solutions because they hit upon a running score – urban squalor – that everyone wanted eradicated" (Pascale De Decker, 1998).

The above-mentioned factors explain why governments all over Europe decided to build large scale high-rise housing in the post-war era, however it is necessary to point out some nuances. Firstly, not every government in Europe had the same approach and likewise the amount of high-rise housing built differs from country to country. Nowadays, the social houses provided in the majority of the countries range for example from less than 2 percent of the total housing in stock in Spain, Greece and Estonia to 35 percent in the Netherlands (Malpass, 2008).

Secondly, different approaches can be perceived between Western Europe and Eastern Europe. During the Cold War and after mass destruction from World War II, the Modernist high-rise housing block became popular in the East of Europe too. Due to Communist urban planning, many Eastern European cities still have a repetitive and rectangular outlook.

Thirdly, Southern Europe differs from Northern Europe. In the southern countries, less attention was paid to housing estates. In Italy for example the modernist tradition had its own characteristic development after World War II and only became popular during the economic growth of the 1960s (Monclús & Díez Medina, 2016).

Lastly, the approach to high-rise housing was different from city to city. There are variations on housing estates, urban forms and the morphology of the surrounding neighbourhoods. In most of the North-Western and Western central European cities the morphology of these large high-rise housing estates conflicted with the surrounding older buildings. In the south of Europe, the urban forms in cities were much more maintained.

Although these differences make the European housing history diverse and interesting, it would lead us too far to go further on this subject. Instead, general assumptions will be made in the following chapter to create a clear historical frame. But we take into account that each country (and city) has his own unique history on social housing. Since their approaches slightly differed from each other in the past, likewise the situation of high-rise housing in these cities will be different today.

However only general assumptions will be made, this study needs to exemplify the specific housing history of one European country, being Belgium.

Although most of the countries resolutely chose for large-scale mass housing, this was not the case everywhere. In Belgium, the government did not act as quickly as their counterparts in other countries. The reasons were a crisis in the construction industry and the ideological division of the successive – respectively Catholic and Socialist – governments (De Vos & Geerinckx, 2016; Floré, 2010). Each of them created their own law on governmental grants in the years after World War II: the law of the Catholics De Taeye (1948) and the socialist law Brunfaut (1949). The law De Taeye focused on the quantitative aspect of the housing crisis and tried to build as much hous-

es as possible by means of free premiums to purchase a house, built by a government association. The law did not focus on planned urban planning and mostly supported the middle class and larger incomes. The law Brunfaut tried to fill in this gap and was a proposal for a planned medium-term approach, emphasising on the importance of an income-related rental policy, in addition to a policy of ownership acquisition. Unfortunately, as a result of some amendments the content of the law was greatly reduced. It was thus the law De Taeye which determined the image of the post-war Belgian landscape. Due to a lack of urban planning and the big success of this law, it resulted in an urban sprawl landscape in Belgium (Floré, 2010). Therefore, the large-scale housing complexes built in Belgium were rather exceptional. Most of them are built in large cities with some help of their socialist leaders, like the Cité Modèle in Brussels (1963-1981), the project of Renaat Braem at the Linkeroever in Antwerp or the Watersportbaan-neighbourhood in Ghent (Antrop et al., 2006)

Economic constraints and governmental conflicts lead to incomplete designs

Many countries started building high-rise estates and neighbourhoods after World War II, but many of them did not incorporate the complete CIAM vision on urban design and housing. Often, this was due to economic restraints. That is not surprising, reading Marmot's article 'The Legacy of Le Corbusier and High-Rise Housing', the author points out that Le Corbusier already acknowledged the fact that building high-rise vertical neighbourhoods, like the Unité d'Habitation, would be expensive. Many problems that would arise in the years after the post-war high-rise building boom were already anticipated by Le Corbusier. In his designs, he foresaw the necessity of a staff who maintained and managed the environment. Lifts were thought to be operated by professional attendants and the foyer would be supervised 24-hours a day and policemen could patrol the corridors, since the new road solutions should release them from outside traffic duties (Marmot, 1981).

As Marmot points out, Le Corbusier argued that costs could be saved in alternative ways: waste of land and infrastructure would be prevented by the new way of living (especially compared to the detached house with garden typology), housekeeping labour could become a communal service along with a communal food provision service and the area of the individual dwellings would be reduced in order to get more favourable communal facilities. In subsequent Unités, the former standards were reduced by decreasing the floor area and the volume of each dwelling. Furthermore, shops were relocated to the plinth of the building and the budget for art and sculptural expression was cut back. However, the main ideas of the CIAM group and in particular Le Corbusier survived. Marmot describes this idea as: *"An efficiently operated communal dwelling block in a park, made up of private sound-*

proofed individual homes offering views of sky, space and green and able to meet needs of food, recreation, kindergartens and sociability within the building" (Marmot, 1981, p. 93).

Despite Le Corbusier's arguments and the utopian ideas of CIAM, many governments did not follow through most of their ideas for the reason that all together, they remained extremely expensive. This resulted in many buildings suffering from technical decay, frequently due to inadequate initial quality of building materials, followed by a diminishing maintenance of the building and its construction (Hugo Priemus, 1986). Priemus stated that building policies in the fifties and sixties concentrated on process functions and standardised building methods, scaled-up urban plans and the size of estates. This approach, he concludes, resulted in large-scale housing management, which was unable to save costs and strange enough, at the same time was responsible for a severe loss of quality. A vision shared by Monclús and Díez Medina, who analyse that problems arose when the CIAM principles were quickly adopted with little attention paid to urban and architectural design in the context of accelerated urban growth. The once utopian tenets of the CIAM group quickly became vulgarised in the 1960s, low-quality environments in urban design and architecture were not an exception (Monclús & Díez Medina, 2016).

Even when higher-quality materials were used and ambitious plans were made, many original projects were not developed completely, due to economic limitations. Housing remained the primarily development activity and people employed, methods adopted, and the management of financing systems devised were all concerned mainly with construction dwellings instead of dealing with long-term consequences of financing, allocation processes, maintenance and management issues.

This was not only an economical problem. Firstly, many policies were more concerned with the number of dwellings constructed, rather than the quality of the social houses. Since a relationship between the built dwellings and the local community did not make money and building facilities (instead of housing units) were more expensive, both were mostly neglected in development processes or policies (Monclús & Díez Medina, 2016; Peeters & De Decker, 1999; H. Priemus et al., 1993). For example, the Belgian policy ensured that social housing companies could legally only provide housing units. Additionally, the involvement of other partners in the implementation of urban projects often proved to be a bureaucratic impossibility due to the sectoral aspect of the country's housing policy (Peeters & De Decker, 1999). In Italy – and certainly in other European countries too - the legal framework narrowed the offer of available plots for the development of public housing estates. Only the plots with low economic values (read: the ones with poorer environmental characteristics) remained. Many of the housing estates built are located in the most distant suburbs (Monclús & Díez Medina, 2016).

_ A selective implementation of modernist designs

Besides economical and policy problems, many architects failed to follow through the guidelines of CIAM and Le Corbusier. Their legacy was easily misinterpreted and imitated without fully understanding its complexity and meaning. The concept of a new society: a vertical community as part of the city, interacting with its environment and inhabitants and the dwelling as part of the residential community was mostly degraded to solely residential high buildings in a vacant landscape. The management needed to keep their buildings running smoothly, the facilities, commercial areas, activities and the socialised communal spaces were thereby easily forgotten (Marmot, 1981; Monclús & Díez Medina, 2016; Hugo Priemus, 1986). Obviously, the architects imitating modernist concepts did not create inherent bad designs. Haffner points out that designs frequently did include bigger living spaces, new modern kitchens, bathrooms and other amenities and an abundance of open and green space surrounding the buildings. Usually, modern machinery and standardised construction techniques were used. But despite all of this, for the most part buildings lacked some finesse in their architectural and social design. For example, sound-proof ceilings were often substituted by regular ones, which created privacy issues. *Pilotis* underneath the building were often removed and replaced by plinths filled with storage spaces, which enhanced the anonymous character and, at night, the hostile outlook of the environment. Many residents complained that these new suburban areas (where most of the high-rise development was located) lacked a sense of place and belonging, which increased the isolation and alienation among inhabitants (Haffner, 2013). Once, mixed vertical communities were now designed for one specific group of people. By doing so, the diversity of the demographic structures of the neighbourhoods was only further reduced.

The communal facilities were originally the core of the high-rise communities. Meeting spots were created and helped to increase community feelings among residents. The same applies for artistic expressions, which created welcoming environments and a sense of belonging. Unfortunately, these crucial factors of the modernist designs were one of the first things the architects forgot in the post-war years. I will put an emphasis on this loss of the collective and the collective spaces and how it influenced the life of the people in my case studies in the following chapters.

The British case Alton West Onward is an example of this adapted imitation of high-rise housing, made by Marmot in his article '*The Legacy of Le Corbusier and High-Rise Housing*' (Marmot, 1981). The Alton West estate was built between 1953-1961 in Roehampton as a second phase of the large Alton Estate project (in the first phase the Alton East project was constructed, inspired by the housing estates of Sweden) ('Alton West, Roehampton | modern architecture london', n.d.; Calder, n.d.). The estate was commissioned and designed by the London County Council (LCC) in the 1950s and especially the Alton West project became famous as *"Britain's most important modern housing"*. It was regarded by many commentators as one of the first estates derived from Le Corbusier's Unité d'Habitation. The Unité was finished just one year before the beginning of the construction of the Alton West project. The young architects involved, visited the Unité in Marseille and came back inspired to Roehampton. The Alton West estate contained six buildings (unités) with various housing types in between like little bunga-

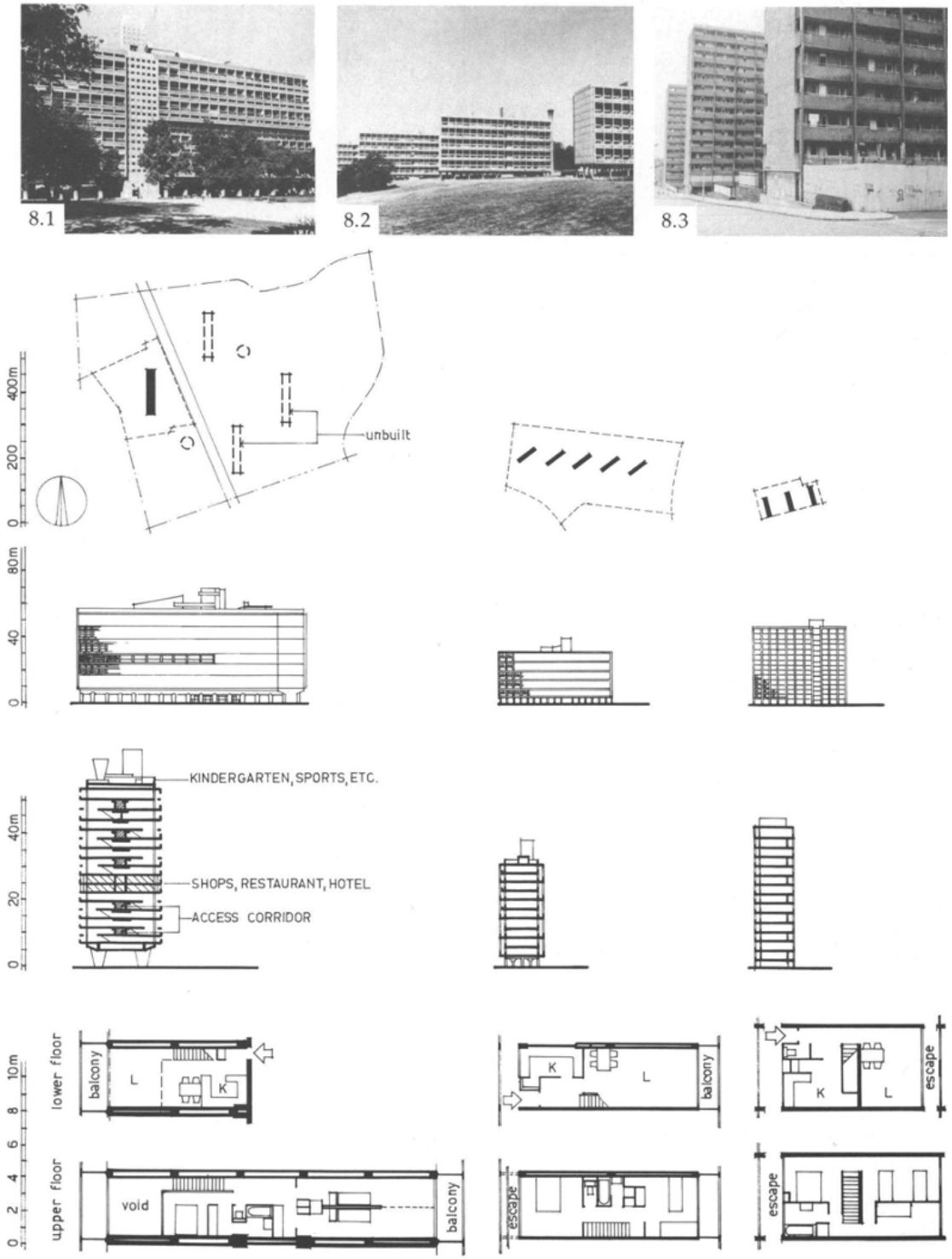


Figure II.15: The Alton West case (8.2) in comparison to the Unité d'Habitation (8.1) and the Piggeries (8.3).

lows and long terraces of flats and high towers (Calder, n.d.). Marmot described this as the first significant difference between Le Corbusier and the Alton West project. Le Corbusier's rationalist scheme of high dwellings in a parkland setting was transformed in Roehampton to a scheme of mixed development for different sizes of families. As he showed in Figure II.15, the two buildings are very different in scale too. Marmot explains: *"While the Unite houses 1600 people in 330 dwellings of six types, the Alton slabs contain only 300 people in seventy-five identical two-bedroom dwellings, a number too small to justify communal facilities at ground or roof level. The Unite is conceived as a whole community, a microcosm of the city, potentially self-sufficient, while the Alton slabs are merely housing blocks, dependent for shops, kindergartens and recreation on the estate's facilities"* (Marmot, 1981, p. 91).

A first step was made: scaling down the original designs of Le Corbusier and, more importantly, leaving out communal facilities and spaces due to economic reasons. The vertical community designed was transformed into exclusively, residential buildings, targeting only one group of families with identical two-bedroom dwellings.

Furthermore, as Marmot argues, many architectural choices created an enormous disparity in conception and execution of the two buildings. For example, balcony access (and not from an internal corridor) in the Alton slabs decreased privacy and light received inside the dwelling. The accesses were publicly accessible and became uncontrolled spaces without supervising and maintenance.

The interior floor area and volume were smaller than the Unite dwellings and the Alton West dwellings were not soundproof either. On the outside, the facades of the Alton West buildings were made of repetitive panels and identical for all six buildings. The lively and varied facades of the Unité, with sculptural elements of high quality like the pilotis and roof structures were hardly to be seen.

We can conclude that this project was only scarcely similar to Le Corbusier's Unité d'Habitation and his other housing concepts. But the high maisonette slab building type was either way repeated by LCC in many estates. Unfortunately, in time, the essential surrounding open spaces were left out and the site locations, landscaping and budget declined.

Marmot concludes: "*Built at heights up to thirty-three storeys at very high densities on slum clearance sites, alongside railways, gasworks and motor ways, most high rise have no communal facilities, kindergartens, play-spaces or decent landscaping. They were built of relatively untested industrialised systems which have since shown themselves prone to water penetration, condensation, sound transmission and even structural failure. Provided with inadequate, low-speed lifts subject to frequent breakdown, and left to stand with a minimum of maintenance and caretaking, these high-rise dwellings are a debasement of Le Corbusier's concept of self-sufficient dwelling communities in a parkland setting"* (Marmot, 1981, p. 92).

"The Piggeries", the local nickname for the Crosbie, Haigh and Canterbury Heights estates in Liverpool, became known as one of the least successful examples of the diminishing of the utopian high-rise housing ideal (see Figure II.15). Marmot describes the deficiency of the project as follows: *"The reality at the Piggeries was that they were tenanted by families with many children, not provided with adequate kindergarten or play facilities, run without a resident caretaker, and with inadequate maintenance of the balconies, lifts and refuse chutes. The buildings became highly vandalised and difficult to let, eventually being abandoned"* (Marmot, 1981, p. 92).

Figure II.16: the Rabot towers, Ghent before demolition

3
A SOBERING REALITY TODAY

What remains today of the modernist utopian dream is often just a mere shadow of the original ideas envisioned by CIAM. This is partly due to the omission of some essential modernist ideas such as collective facilities and spaces, but also due to changed societies and an increasing stigmatisation of modernist neighbourhoods and their (new) inhabitants. Many agree that high-rise modernist architecture has failed society and produced problems instead of solutions. In some precarious situations, governments gave up the modernist utopian dream and began to demolish high-rise neighbourhoods.

How did society change since?

Undoubtedly, all of this did not just happen over one night. In Chapter 2: *"The application: an amputated modernism",* I already explained how the application and implementation of modernist designs often was sabotaged by narrow-minded architectural thinking and counter-acting policies. However, throughout the time, modernist high-rise housing neighbourhoods had to overcome another crucial issue: a changed society.

During the post-war years European countries witnessed a prosperous phase of continuous economic growth and full employment thanks to a Keynesian welfare state in the West and Socialist central planning in the East (Dekker & Rowlands, 2005; Hall & Rowlands, 2005). The building sector flourished, and mass production techniques, standardisation and rationalist town planning were frequently used by governments as tools to reduce housing shortages and at the same time to ameliorate housing conditions and to abolish slum dwellings.

However, by the mid 1970s some significant social, economic and political changes have occurred. The emergence of, for example, the globalisation, deindustrialisation, tertiarization, ... have contributed to shape a new society. Many authors reflected on how society has changed by a number of new developments. Hall and Rowlands argue that one of the most important change was the reduction in the rate of the economic growth, partly due to the oil crisis of the early 1970s, but more importantly due to a long-term decline of the manufacturing industry and instead an increase of the knowledge-based economy (Hall & Rowlands, 2005). The labour market became fragmentised between the two. The position on the polarised labour market of unskilled workers became more vulnerable. Hall and Rowlands argue that this fragmentation also had a spatial dimension: regions, cities and neighbourhoods differentiated increasingly according to their position within the new economic hierarch (Dekker & Rowlands, 2005). In another book Hall underlines this spatial dimension in an example: *"Estates which were located close to the major manufacturing employers and which served a role in housing workers in particular sectors of the economy will be affected by changes that result in the closure of factories"* (Hall et al., 2005, pp. 70–71). Also, the consumption part of the economy became fragmented, for example, increasing lifestyle choices and a greater awareness for genders, ethnicity and environmental issues.

These changes had important spatial implications. For instance, housing stratification and the residualisation of the social-rented sector became an issue. Housing estates were usually built for a diverse mix of households. Hall and Rowlands argue that starting from the late 1970s and early 1980s, governments in Western-Europe shifted from the old paradigm of urban government to a new paradigm of urban governance (Hall et al., 2005; Hall & Rowlands, 2005). Urban government, with its state-led delivery of services and the politics of 'collective consumption' (Dunleavy, 1980) changed to thus urban governance[5]. This urban governance included everal other actors,

5 The term 'urban governance' is defined by the UN as follows: *"Urban governance involves a range of actors and institutions; the relationships among them determine what happens in the city. In managing urban transformations, government (at all levels) need to play a strategic role in forging partnerships with and among key stakeholders."* (UNESCAP & UN-HABITAT, 2010, pp. 211–212)

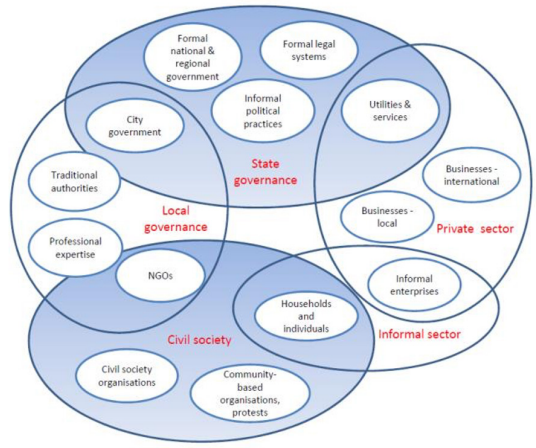
besides the city government as largest and most visible governance actor, like local governance, the private sector, civil society and the informal sector. They all determine the daily experiences of urban dwellers as seen in Figure II.16 (Avis, n.d.). Governments increasingly supported home ownership through financial or other means. Because of this, home ownership (rather than to rent a house) became more attractive to many households and the ones who could afford it, middle- and higher-income groups, moved out of the social housing estates. Furthermore, new urban forms arose as an alternative to the vertical city and the large estates and the aspirations of average household changed too (e.g.: more and more households wanted their own detached house with a garden). The former high social status of social housing neighbourhoods decreased to a more secondary one when the capital moved out (Pascale De Decker, 1998). Large housing estates' social and demographic characteristics changed step by step and because of this, its reputation changed too. In Western Europa the social role of public and non-profit housing became biased over time towards especially lower income groups (except in Belgium, where the social-rented sector is very small compared to other countries) (Hall et al., 2005).

Because some groups lacked the opportunity or desire to move, it resulted in estates going through several 'lifecycle' stages. The original inhabitants of the social housing neighbourhoods are usually younger families, followed in a second phase by greater overcrowding and larger (adult) households. The last phase contains than a declining population and decreasing economic activities. In some cases, the literature describes a next phase, the arrival of newcomers, mostly younger families. This can generate tension between the older, longer-established inhabitants and the newcomers. Regularly these population changes increase also the ethnic diversity and diversity in terms of household lifestyles. The once ethnic, cultural and demographic homogenous group of inhabitants is changed to an ethnic and cultural mixed group of people of different generations.

Hall, Murie and Knorr-Siedow argue that: *"While these developments are not inevitably a cause of conflict, much of literature on problems on estates refers to conflicts between tenants, anti-social behaviour, and managing households with problems. The increasing concentration of deprived households in these estates means that the intensity of problems has also increased and the difficulty of managing these effectively has become greater"* (Hall et al., 2005, p. 73).

This shift in population could be seen in all Belgian social-housing projects. De Vos and Geerincks mention the Kiel and Luchtbal housing estates in Antwerp, where the population shift took place from 1978 onwards. This was due to new social housing policies; when the income of residents of social housing became linked to the rent of the social housing. Therefore, many middle-class tenants moved out of social dwelling and very low-income households were encouraged to move to these houses. The social rental housing neighbourhoods attracted vulnerable groups like migrant families and became largely multicultural (De Vos & Geerinckx, 2016).

Figure II.17: Actors and institutions of urbangovernance



The neglect of collective spaces

As mentioned in Chapter 2, collective spaces were frequently abandoned from the design or turned out to be inadequate when implemented. Instead, the size of the new estates became a more crucial factor. Standardised building methods were used to create increasingly large neighbourhoods, often containing thousands of dwellings. Gradually, a human scale was lost (Hall et al., 2005). Hall, Murie and Knorr-Siedow argue that from the 1970s onwards, the relationship between the community and the city became lost too, when the later estates became self-sufficient and were located at the outskirts of the urban areas. Limited links with the city remained although often these neighbourhoods did not provide employment. The liveability of the community and the design of collective spaces were regularly excluded from the design. Instead, the modernist approach was reduced to a cheap approach for the mass production housing.

In Belgium, two modernist high-rise housing projects were built during the post-war years in Antwerp. In these projects we can recognise the gradually cutting off the modernist neighbourhood from the city. The first project, the Kiel by Renaat Braem, was built from 1951 (the high-rise apartment building) until 1958 (the addition of other lower blocks) (De Vos & Geerinckx, 2016). The project was inspired by the Unité d'Habitation by Le Corbusier and imitated a lot of its modernist elements. Renaat Braem also designed collective spaces on the ground floors (e.g. a reception hall, a conference room and leisure and commercial services), but unfortunately many of them were never implemented. De Vos and Geerinckx compare this project with another project in Antwerp: the Luchtbal. This project was built between 1954 and 1962 and was more cut off from the city due to infrastructural reasons. Furthermore, its scale is bigger and is a less integrated part of the city than the Kiel project. Therefore, it functions more like an enclave today. However, De Vos and Geerincks point out that the architect of the Luchtbal project, Hugo van Kuyck, attached a great value to collective spaces and facilities. For instance, he designed a supermarket with car park, small shopping centre and a milk bar (most of his designs were commercial). Unfortunately, like in many cases, these designs did not function as envisioned when set into practise. In the Luchtbal project, due to its rather isolated location from the city, most of these services did not succeed (De Vos & Geerinckx, 2016).

This malfunctioning of the urban lifestyle was also continually researched in Francefrom the late 1950s until the late 1960s in the production of the "grands ensembles" (the large housing estates in France). During these years, the French governmental initiatives brought together a group of architects, urbanists, state administrators, social housing experts, social housing scientist, representatives of family and women's organisations, medical doctors, school teachers, landscape architects and editors of popular magazines to study the way of living in the grands ensembles and to set up a doctrine for them (Cupers, 2010). Kenny Cupers describes in his article how originally collective facilities were believed to be crucial to the "social and economic equilibrium of the Grand Ensemble". The grand ensembles on the other hand, were increasingly criticised in the late 1950s due to its small living spaces (due to prefabrication and standardisation methods), technical deficiencies and insufficient sound isolation. Furthermore, the large estates were argued to be inhuman and their scale and uniformity would create asocial spaces. The research committee had thus a

simple, but difficult to answer, question: how (and not if!) to build the grands ensembles. Pierre Sudreau, the Minister of Construction in 1958, and his research committee tried to answer this question with the "grille Dupont", a new doctrine using the rationalist and functionalist approach of architectural modernism. Using a grid, they tried to make the grid a spatial framework in which collective facilities could be plugged in as independent entities, organised according to five nested socio-spatial scales: the residential group (200-500 dwelling units), the neighbourhood unit (800-12000 units or 3000-4500 inhabitants), the quartier (15000-2500 units), the arrondissement (3000-6000 units) and the city at large. Although the many promising scenario's, many projects were still lacking collective facilities (Cupers, 2010). Due to a limited amount of land available, a problematic and dispersed funding of collective facilities and other restrictions, initially, many projects did not contain these collective facilities in their designs.

This grill transformed several times, always trying to improve the equipment and liveability (vividly) of the new estates. At first, they tried to influence (and to cure the illnesses) within the social lives of the inhabitants by means of collective facilities, later on through urban design, both obtained by a grid of facilities. Nevertheless, despite the continual adaptations to make the mass-housing work, the reality could not live up to the theoretical goals pursued in the new doctrines. Gradually, the design of the new estates moved away from the post-war CIAM principles.

An increasing stigmatization of modernist high-rise neighbourhoods

Influenced by the decreasing quality in the design of new high-rise neighbourhoods and by emerging social problems, high-rise modernist apartment buildings became affected by a negative image. In a first phase, because of the residualisation and marginalisation of (modernist) social housing projects, in most cases, only people who could not afford to move out remained. This frequently created neighbourhoods with a remarkable high concentration of socio-economic disadvantaged families (Pascale De Decker, 1998; Wassenberg, 2004). In a second phase, the creating of this negative image, is the stigma an important factor in the decay of the urban fabric. De Decker (1998) and Wassenberg (2004) both point out how this stigma further pulls the neighbourhood and its inhabitants downward, creating a vicious circle.

Because modernist post-war large high-rise housing estates are often lacking diversity in their outlook, they were regularly affected by each other's (bad) reputation. Especially in Eastern Europe, a lot of large-scale neighbourhoods look alike (Wassenberg, 2004). Therefore, when in the 1970s social-economic issues in high-rise neighbourhoods increased, other similar neighbourhoods were influenced by this bad reputation. The residents of modernist (social housing) neighbourhoods became stigmatised just because they were living in a stigmatised area, although they could have a different image of the neighbourhood than outsiders' judgements (Wassenberg, 2004).

De Decker and Newton (2009) highlight the importance of the symbolic meaning of a house today. With the welfare state transforming housing needs to basic needs, this meaning is more essential than ever. The home reflects someone's identity and the symbolic value of it is strongly related to status (Pascal De Decker & Newton, 2009). Most people today have the opportunity to choose where they live and therefore, can create their own status. Most social housing tenants do not have that choice. De Decker and Newton (2009) explain this as follows: *"Tenants on public housing estates see themselves as inferior, and as positioned precisely as a result of their specific 'status' as tenants in the public, social, housing sector (Clapham, 2005). The symbolic meanings attached to the home are of importance, since the house is a symbol of the Self (Mallet, 2004)"* (Pascal De Decker & Newton, 2009, p. 78) When home ownership became the norm, the merit of having the freedom to change things and to control your environment increased in (symbolic) value.

Getting rid of the stigmatised public opinion can be done by image renewal. Wassenberg (2004) gives some examples like housing-oriented measurements (refurbishing, modernising, demolition and new building types) or measurements improving the immediate setting (e.g. semi-public spaces like entrances, hallways, storage spaces and corridors) and measurements targeting the wider surroundings like the open spaces and amenities. Measurements can also involve inhabitants, stimulating integration, decreasing inconveniences and encouraging local initiatives. Although all these solutions can be very effective, one must always keep the objective – the image renewal – in mind. Image renewal is hard to conceive when in practice nothing really changes in the neighbourhood. Many urban renewal programs do not include image renewal explicitly as a goal. Instead, many renewal programs often focus on physical improvement and other more decisive social measures are downgraded (Wassenberg, 2004). Despite the many efforts, the stigma is usually persistent. After some years, the neighbourhood has the same outlook as before.

The demolition of large social housing projects

From the 1990s onwards a debate originated on the demolition of large social housing projects, as a consequence of changed societies, an impoverishment of the architectural design, the various difficulties and an increasing stigmatisation (Belmessous, Chignier-Riboulon, Commerçon, & Zepf, 2005).

This would not be the first time that large housing estates were considered to be demolished.

One of the most remarkable examples is the demolition in 1972 of the American modernist Pruitt Igoe, located in Saint-Louis. This iconic and once exalted large-scale housing project was at the time only 20 years old. De Decker (1998) states that already in the late 1970s the United Kingdom started with the Priority Estates project to improve problematic and hard to maintain social housing neighbourhoods. Later on, in the mid 1980s, (international) conferences were organised to discuss these common problems of the housing estates (Pascale De Decker, 1998). Only recently, the Rabot towers in Ghent were taken down. These iconic modernist towers were once again the result of mixed problems (e.g. construction faults, poor maintenance and an increase in the popularity of its surroundings) (Verlaan, 2014). Simon Allemeersch is a Ghentian artist and theatre maker, who lived for two years in these Rabot towers. In those years, he built up strong relationships with residents, without exploiting their living conditions. He made a documentary film about this experience. In an interview with Verlaan, the artist Simon Allemeersch explains how the inhabitants thought about the redevelopment scheme of the area. He says: *"When the demolition plans were announced residents and social organisations asked the housing corporation to build replacement dwellings first, in order for neighbours to stick together. There was this vacant lot near the towers, but it has been earmarked for an upper-class housing project. Consequentially, residents felt unwelcome and chased away from the neighbourhood even before moving out. In theory, people can return to new on-site developments, but it will take years before construction is completed and the housing company is unwilling to mention future rents. Even if the rents go up just a little, it will prohibit many residents from returning"* (Verlaan, 2014).

In general, governments decided to demolish modernist high-rise buildings due to some theoretical and practical reasons. First of all, new policies concerning diversification of dwellings (Netherlands), redevelopment (the UK), mass demolition (Germany) and the rehabilitation of small housing units, cannot be discussed without including the broader urban change issue. Belgium and Italy, on the other hand still prefer to renew their social housing stock instead of taking it down (Belmessous et al., 2005). They argue that some people favouring demolition blame modernist estates to obstruct urban renewal or the social cohesion within a city. These people criticise the neighbourhoods' inability to adapt to old and new urban forms. Another argument used by those in favour of demolition was the poor adaptability of the dwellings. Therefore, they could not suit the new demands anymore, which made them disfavoured by both original tenants and newcomers. Thirdly, some estates became hard to maintain by landlords, due to the higher concentration of low-capital families. These situations of rising social and spatial segregation were often persistent despite many policies and efforts. Therefore, demolition seemed to be the final solution. Belmessous (2005) also mentions some practical reasons for demolition. At first, demolition

would sometimes create new opportunities. New adaptations and differentiations in the housing stock can decrease the gap between the current housing demands of new households and the housing supply.

However, these strategies are often criticised by commentators, arguing that demolition is the easiest option and a way to destroy former failed politics and urban strategies. By contrast, social perspectives are often not treated and social problems are most of the time moved away together with the evicted people (Belmessous et al., 2005). Therefore, despite many good reasons and new policies, many social housing issues are not settled by demolishing and rebuilding approaches. Because of this, demolition is still a matter of discussion. Belmessous (2005) sums up two issues concerning the demolition of large social housing projects which are most of the time avoided: "where should the people evicted from the demolished apartments live? In which part of the city should the new buildings be built: within the neighbourhood, or within another commune containing fewer large social housing estates?" (Belmessous et al., 2005, p. 208).

III. ANALYSIS OF COLLECTIVE SPACES IN TWO CASE STUDIES: THE WATERSPORTBAAN AND GRATOSOGLIO

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1
INTRODUCING THE WATERSPORTBAAN: THE OLYMPIC DREAM

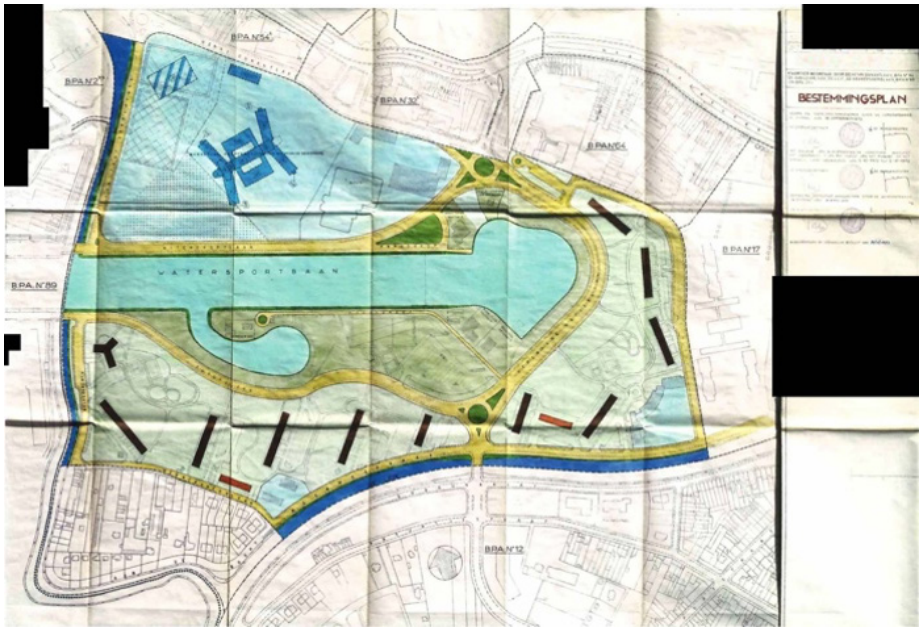
"Modernism has not caused a massive clear-cutting. It did not design a Modern Ghent, but it sought and found free space, light and air nearby the water of the Watersportbaan, behind the Rabot, close to the major entry roads of the city" (Verschaffel, 1995, p. 80).

The Watersportbaan social housing neighbourhood is situated at the Neermeersen area, at the western edge of the city centre of Ghent. The area was originally a flood area and the marshy underground had not enough carrying capacity for the construction of dwellings. This changed in 1950 when the city council decided to transform the area, combining the construction of a new water sports course with the development of a new residential neighbourhood (Coene & De Raedt, 2020). The first urban development plan provided the construction of villas and high-rise buildings. The water sports course turned out to be a catalysator for the conversion of the area. It was built by the city council of Ghent in the occasion of the rowing championships of 1955 and the candidacy of Ghent to host the Olympic Games in 1960. The former swampy area surrounding the water sports course was elevated with its huge amount of excavated soil ('Sociale woonwijk Nationale Watersportbaan Georges Nachez | Inventaris Onroerend Erfgoed', n.d.).

The soil still required pile foundations. Because of this, the urban development plan was changed to solely providing high-rise building, which was the only economic viable solution to create social housing (Coene & De Raedt, 2020).

This was in line with the vision of the socialist town councillor Georges Nachez, who was competent for the Department of Housing at Ghent. Under his approving eye an adapted masterplan was made for the social housing neighbourhood, including the construction of eleven apartment buildings or 1302 dwellings. The masterplan included several sport facilities (like a football stadium, fan stands for the water sports course and a roofed sports centre), but due to financial issues they were never constructed (De Troyer, 2020; 'Sociale woonwijk Nationale Watersportbaan Georges Nachez | Inventaris Onroerend Erfgoed', n.d.).

However, all social dwellings and apartment buildings were constructed in between 1959 and 1965. The masterplan was designed according to CIAM principles, with an abundance of space for greenery, recreation and services (only 14% of the area was built-up). The apartments were orientated optimally to the sun and separated from traffic. The car dominated the neighbourhood. The apartment buildings were constructed in order to tackle the post-war housing demand and one third of the dwellings would replace unhealthy slum dwellings of the inner city (which would be demolished) (Coene & De Raedt, 2020; 'Sociale woonwijk Nationale Watersportbaan Georges Nachez | Inventaris Onroerend Erfgoed', n.d.). The eleven apartment buildings were sold between the different Ghentian social housing companies. Not all of them were eager to build high-rise dwellings (like the catholic housing company Volkshaard), but because the scarce building ground in Ghent, they too bought some land at the Watersportbaan area.



De mens in zijn woning

De woning is te beschouwen als de projectie van de mens en zijn gezin.
De behoeften van de mens, inzake wonen, vooral dan in een grote stad, zijn zeer verscheiden; bovendien veranderen ze snel door de evolutie van de tijd.
Ons stadsbestuur heeft derhalve steeds het standpunt ingenomen dat men zich niet mag vastklampen aan één enkele formule voor de woningbouw.
Vandaar dat niet enkel de oprichting van krotten stelselmatig en hardnekkig wordt doorgevoerd, maar dat het stadsbestuur zich steeds heeft ingespannen om tijdig nieuwe woningen beschikbaar te krijgen.

Zo wordt de aktiviteit van niet minder dan zes maatschappijen voor sociale woningbouw aangemoedigd en bevorderd; ook worden regelmatig gemakkelijk te bereiken percelen grond tegen redelijke prijzen ter beschikking gesteld van particulieren.

Het stadsbestuur bouwt zelf een aantal woningen, bestemd voor gezinnen die door de gemeenschap verdienen geholpen te worden.

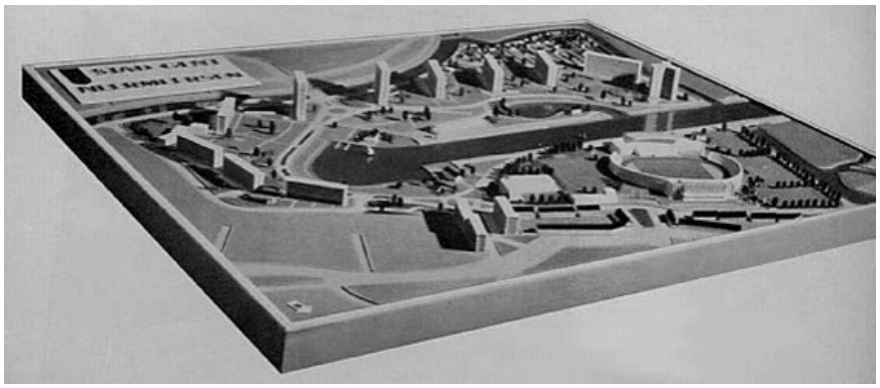
De C.V.P.-gemeenteraadsleden zijn steeds bezorgd geweest voor het voeren van een degelijke sociale woonpolitiek.

6

In the beginning of the 1990s, the three apartment buildings of the housing company De Goede Werkmanswoning were renovated. Some years later the Elektra building was also renovated. In 2010 the Belvédère building and Dennenhof and Rozenhof buildings were renovated too. Because of these (façade)renovations, most original architectural elements disappeared, along with most industrial elements (it was at the time fashionable to show prominently the machinery of a building).

Previous page:
Figure III.1: Original masterplan of the neighbourhood
Figure III.2: Political pamphlet from 1970 praising the city's strategy for social housing

This page:
Figure III.3: Aerial view of the water sports course with the apartment buildings
Figure III.4: Original model of the urbanization at the Watersportbaan. Some sports facilities were never implemented like the football stadium.



2
INTRODUCING GRATOSOGLIO: THE FLEE OF THE POOR SOUTH TO THE INDUSTRIAL CITIES IN THE NORTH

After World War II the city of Milan became an increasingly important economic area in Italy because of the industrialisation processes. The city became Italy's most important and influential (regional and beyond the national boundaries) urban area and attracted many hundreds of thousands of Italian migrant workers from more proximate rural areas to regions in the South of Italy. As a result, the city expanded and transformed into an international metropolis (Dekker & Rowlands, 2005). The city gained about half a million inhabitants from 1951 to 1972 and as a consequence the demand for houses increased dramatically.

In the vacant green fields at the outskirts of the city large housing estates were built in order to house these workers. Most of these large estates were rapidly constructed with little attention for land use planning. Because of this, many had poor accessibility, but were also located near highways or railway infrastructures or in the middle of rural municipalities nearby the city (Hall et al., 2005).

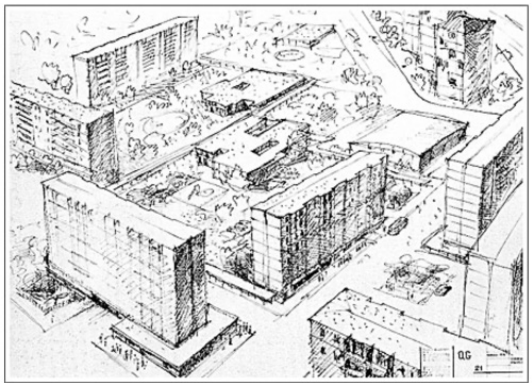
One of these new large housing estates was Gratosoglio. The neighbourhood was built on the east side of Via dei Missaglia (a road which connects the city centre with suburban municipalities) in the early 1960s, where there once was a former rural village. The area was designed according to modernist CIAM-principles and planned to be self-sufficient. The project was initiated by the IACP of Milano (Istituto Autonomo Case Popolari / Social Housing institute, now Aler and MM) and designed by the famous BBPR-architects. They created the 52 buildings with 9 floors and 8 52-storey towers (the so-called "white towers") and a master plan. The project contained 4700 dwellings, good for 20.000 inhabitants, and some amenities and services, like a church, some schools and several commercial and leisure services (Stefanizzi & Verdolini, 2019a)funded with the Horizon 2020 Programme, on the perception of insecurity in five European cities (Barcelona, Budapest, London, Milan, and Paris. The rationalist design orientated all buildings on a 45° grid and included wide roads and a generous amount of green spaces.

Initially, the neighbourhood was inhabited by young families and contained a lively social life. Numerous cultural activities and sporting events were organised, and organisations supported groups of families to overcome (social) problems of the new neighbourhood. But due to the decay of the buildings and the economic crisis of the 1970s the community feeling of the neighbourhood crumbled. Many shops disappeared and the vivid area changed into a solely residential one. The original liveability (of the public spaces) disappeared and the neighbourhood changed into a sleeping dorm, excluded from the city centre and its advantages.

Nowadays, like many metropolitan areas, Milan is facing a secondary, this time international, migrant flow. In Gratosoglio, the migrant population represents 15 percent of the whole population of the area. As a result, the neighbourhood is fragmented between elderly, original inhabitants, and younger people,

the newcomers. Some buildings are renovated (most of the time only façade renovations) and others are privatised, but most of the area is still characterised by public housing.

Figure III.5: A sketch of the neighbourhood by BBPR
Figure III.6: Children playing during the early years of the neighbourhood
Figure III.7: Gratosoglio today



3
COMPARISON OF THE WATERSPORTBAAN AND GRATOSOGLIO TODAY

In the following chapter, an analysis will be made of the developments in these two neighbourhoods and how their conditions are today. Comparing the situations of two neighbourhoods, instead of analysing them separately, can create the opportunity to carefully generalise and it can also mark some nuances. The analysis will focus on the current condition of the Watersportbaan and Gratosoglio. It is divided into five main themes based on the reports of the EU Fifth Framework research project RESTATE[1] ('*Restructuring Large-scale Housing Estates in European Cities: Good Practices and New Visions for Sustainable Neighbourhoods and Cities*') (Dekker, Hall, van Kempen, & Tosics, 2005; Dekker & van Kempen, 2005).

The five themes are the following:

- The built environment
- Demographic and socio-cultural profile
- Economical profile
- Liveability
- Safety

These themes will undoubtedly sometimes overlap and although this division is slightly arbitrary, it allows an organised and complete view on the neighbourhoods.

Each theme is divided into more subjects, these will be explained in a brief summary. The goal is to give a broad overview of the neighbourhoods, to point out their weaknesses while maintaining the focus on the collective space. Although the two case studies have some important differences, the aim is still to end with a general conclusion which will shape the new design strategies. In the following section, the data concerning the Ghent example are coming from Gent.buurmonitor.be and the data of the Milan example are coming from the Milanese census 2011 on resident population.

1 "*This cross-national research project took place in ten countries (France, Germany, Hungary, Italy, the Netherlands, Poland, Slovenia, Spain, Sweden, and the UK), in 16 cities, and in 29 estates from November 2002 to October 2005. The principal aim of this research was to find out how large housing estates built in the first three or four decades after the Second World War have developed in physical, social, and economic terms.*" (Dekker et al., 2005, p. 9)

_ The built environment

_ BUILDING PERIOD AND SIZE

"*The estates in our study were all built after the Second World War to house large numbers of people. Some early estates were built and finished in the 1950s and 1960s, while others are of more recent date. The plans for the construction of the large housing estates were in accordance with the ideas current at that time about the ideal housing environment: spacious apartments in multi-family blocks with large green areas between them. Often, services such as shops, schools, and meeting places were clustered in service centres, although in many cases they were constructed later than the housing units. Urban planners also had definite ideas about managing traffic; in some areas, such as the Dutch Bijlmer or the Hungarian Jósaváros, pedestrians were separated from car traffic and through traffic was led around the estate*" (Dekker & van Kempen, 2005, p. 21).

Gratosoglio and the Watersportbaan were both built after the Second World War in the 1960s. In Milan, new estates were built on the east side of Via dei Missaglia, with the creation of the Missaglia and Gratosoglio neighbourhoods. Gratosoglio was formed by a rationalist scheme of 52 8-storey high-rise blocks in line, designed by the famous studio BBPR and built in 1967 on the initiative of the IACP (Istituto Autonomo Case Popolari/ Social Housing institute) of Milano (now Aler and MM) (Stefanizzi & Verdolini, 2019a)funded with the Horizon 2020 Programme, on the perception of insecurity in five European cities (Barcelona, Budapest, London, Milan, and Paris. Five years later the notorious eight white towers, each 16 storeys high, were added to the neighbourhood, explicitly defining the neighbourhood's landscape (Figure III.14). The neighbourhood was created to accommodate 20.000 inhabitants, labourers and their families from the South of Italy. In total 4700 dwellings were constructed, distributed over these 60 high-rise buildings. Table III.1 outlines the dimensions of these buildings and the other buildings which were set up in the neighbourhood. Most of these other buildings served to allocate several communal services, like schools and a kindergarten.

In Ghent, the eleven buildings of the Watersportbaan, good for 1302 dwellings, were built in 1963, eight years after the European rowing championships of 1955. The construction of the water sports course in Ghent became a catalysator for the construction of the new high-rise neighbourhood. The excavated soil was used to raise the ground level of the neighbourhood. The rather swampy area before was turned into a brand-new vacant site. Each building was between eight to nineteen floors high and received a name Figure III.15, Figure III.16 Nowadays these names are still visible on the facades of the buildings. Two buildings constructed prior to this neighbourhood in 1954 at the Charles Andrieslaan, block A and block B, served as a gate to the neighbourhood. Table III.2 clearly sets out the dimensions of these high-rise building blocks. The slabs in the neighbourhood are all similar to one another and the sizes of the apartments were based on a module of 12m on 9m. Nev-

ertheless, the neighbourhood has generated a wide variety of housing typologies going from studios to apartments (which can house up to seven people) (Figure III.20, Figure III.21, Figure III.22) ('Sociale woonwijk Nationale Watersportbaan Georges Nachez | Inventaris Onroerend Erfgoed', n.d.).

These apartments were thought to be spacious and even luxurious in the 1960s but today this is not the case anymore. Kids and teenagers complain about the lack of privacy and a room or space of their own, because most of them share a room with their siblings. Residents mention the lack of individuality in the shared hallways and the unadaptable nature of the buildings and apartments. Rules prevent the inhabitants to adapt the collective spaces within the buildings and these passages become therefore rather anonymous. There is a crave for a sense of belonging and a search for an identity among the inhabitants (Boonen, Marreel, & Visscher, 2019).

Recent Covid-19 pandemic showed the importance of personal spaces. In Belgium, research shows how vulnerable children are often more affected by lockdown measurements because they often don't own a computer, cannot go on the internet or don't have space to study. Furthermore, usually several children of one family have to share their room with their siblings, which increases their need for personal space (see Figure III.8, Figure III.9) (Hoet, n.d.; Van Nieuwenhove, 2020). In the South of Italy, the need for (personal) space is unfortunately illustrated by tensions in the municipality of Mondragone. There, people protested against their local lockdown, refusing to go back to a phase of quarantining, without having the possibility to leave their apartments. Several of them also mentioned they needed to go out to work and have an income ('Rellen in Italië nadat appartementencomplexen in quarantaine moeten | Buitenland | Telegraaf.nl', n.d.). The New York Times made an interesting video about the quarantine life in the large housing estates in and around Milan: "Messages From Quarantine" ('Opinion | Messages From Quarantine - The New York Times', n.d.). They filmed with a drone several people and households on their balcony in large apartment buildings. The residents explained how they tried to maintain high spirits by meeting on balconies and singing songs, although they miss walking in the open spaces and their former social life (see Figure III.10, Figure III.11, Figure III.12, Figure III.13).

Gratosoglio	*Square meters ground floors*	*Floors*	*Square meter*floor*	*buildings*	*Total*
Slab A	505	10	5050	30	*151500*
Slab B	648	10	6480	13	*84240*
Slab C	788	10	7880	8	*63040*
Slab D	981	10	9810	1	*9810*
Towers	565	17	9605	8	*76840*
School A	4159	2	8318	2	*16636*
School B	1336	2	2672	1	*2672*
Church	2324	2	4648	1	*4648*
Elderly centre	1669	2	3338	1	*3338*
Community centre	930	2	1860	1	*1860*
Other A	1545	1	1545	4	*6180*
Other B	974	1	974	1	*974*
Other C	1320	1	1320	1	*1320*
Other D	1443	1	1443	1	*1443*
total					*424501*

Table III.1: Buildings in Gratosoglio and the size of the ground floor areas

Watersportbaan	*Square meters ground floors*	*Floors*	*Total square meters*
1. Belvedère	804	20	*16080*
2. Elektra	1200	12	*14400*
3. Borluut	1000	12	*12000*
4. Rozenhof	1000	12	*12000*
5. Dennenhof	1000	12	*12000*
6. E. Van Beveren	650	19	*12350*
7. E. Anseele	1000	19	*19000*
8. Nachez	1000	8	*8000*
9. Jubileum 1	850	8	*6800*
10. Jubileum 2	800	8	*6400*
11. Jubileum 3	850	8	*6800*
Total	*10154*	*138*	*125830*

Table III.2: Buildings at the Watersportbaan and the area of the ground floors

"Opgesloten in mijn hoofd en in mijn kot": twee tieners getuigen over de quarantaine in een woonblok

ma 20 apr 22:10

Velen zijn opgelucht nu de Nationale Veiligheidsraad heeft beslist dat we opnieuw vier mensen bij ons thuis kunnen ontvangen. De zucht naar meer sociale contacten weerklonk de laatste dagen dan ook steeds luider. Bij die bezoeken is het ook aan te raden als die ontmoeting in de tuin of op een terras kan.

Maar een groep mensen zonder tuin of terras lijkt uit de

Figure III.8: Newspaper article on the urge of teenagers' urge for personal space when quarantined in an apartment building

Geen tuin, geen internet: onderzoek legt bloot hoe hard de lockdown kwetsbare kinderen treft

18 mei 2020, 6:00

Geen computer, geen internet, geen ruimte om te studeren, geldzorgen, familiale conflicten en vooral heel veel stress: de situatie van kwetsbare kinderen en jongeren tijdens de lockdown is schrijnend. Dat blijkt uit een grootschalig onderzoek dat Uit De Marge, het steunpunt voor jeugdwelzijnswerk, in Vlaanderen en Brussel uitrolde.

Vanuit het jeugdwerk klonken al langer signalen dat de lockdown van de voorbije weken nefast was voor kinderen en jongeren die opgroeien in een kwetsbare omgeving. Dat wordt nu bevestigd door de enquête die Uit De Marge in 35 steden en gemeenten afnam in samenwerking met haar ledenorganisaties. Het steunpunt voor jeugdbeleid en jeugdwerk met kinderen en jongeren in een maatschappelijk kwetsbare situatie bevroeg bijna 2.000 kinderen tussen de 6 en 18 jaar en zowat 600 jongeren tussen 18 en 30 jaar.

Van de respondenten geeft 81 procent aan dat de aanlooplessen een probleem vormen, bijna 66 procent

Figure III.9: Newspaper article on how the Belgian lockdown affects vulnerable kids particularly hard

Figure III.10: Still from Messages From Quarantine 1

Figure III.11: Still from Messages From Quarantine 2

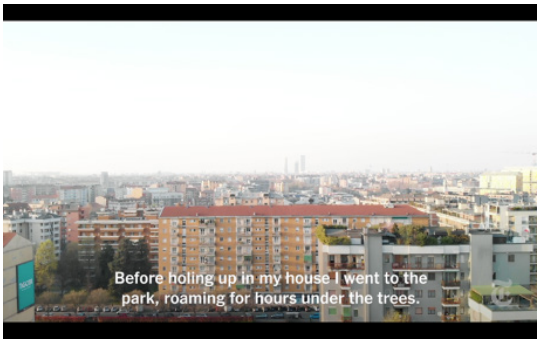


Figure III.12: Still from Messages From Quarantine 3

Figure III.13: Still from Messages From Quarantine 4

Figure III.14: Height of the buildings – Gratosoglio

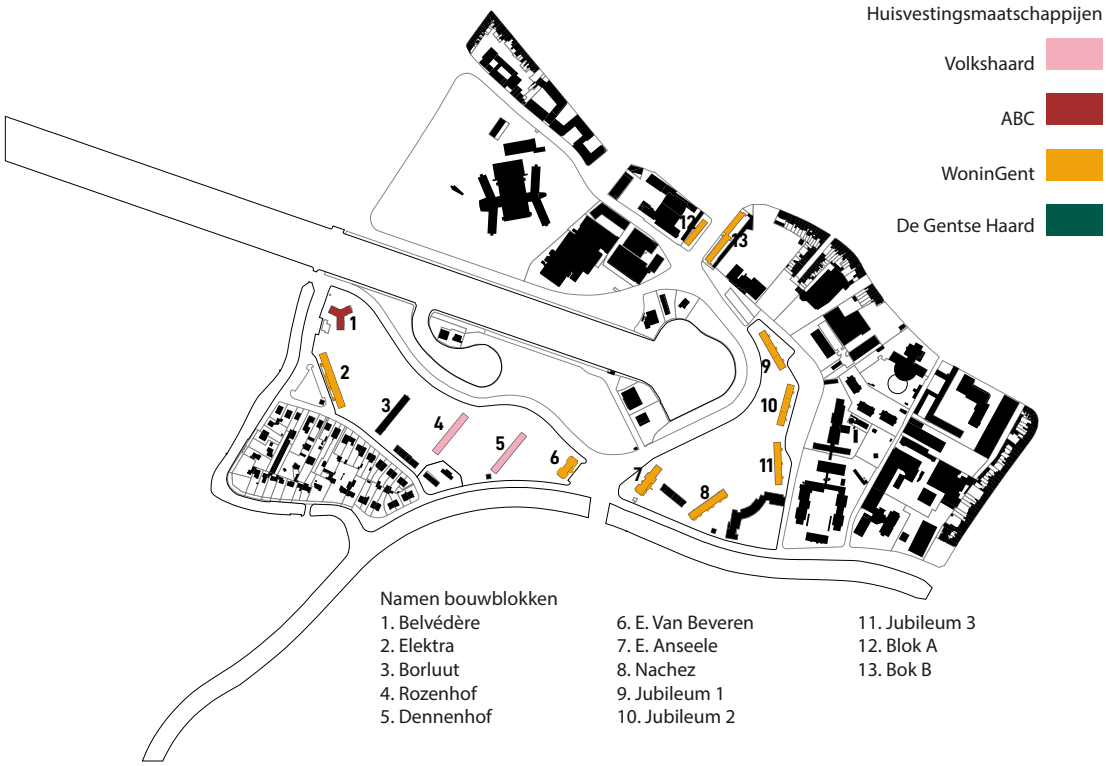


Figure III.15: Names of the buildings at the Watersportbaan

Figure III.16: Height of the buildings at the Watersportbaan

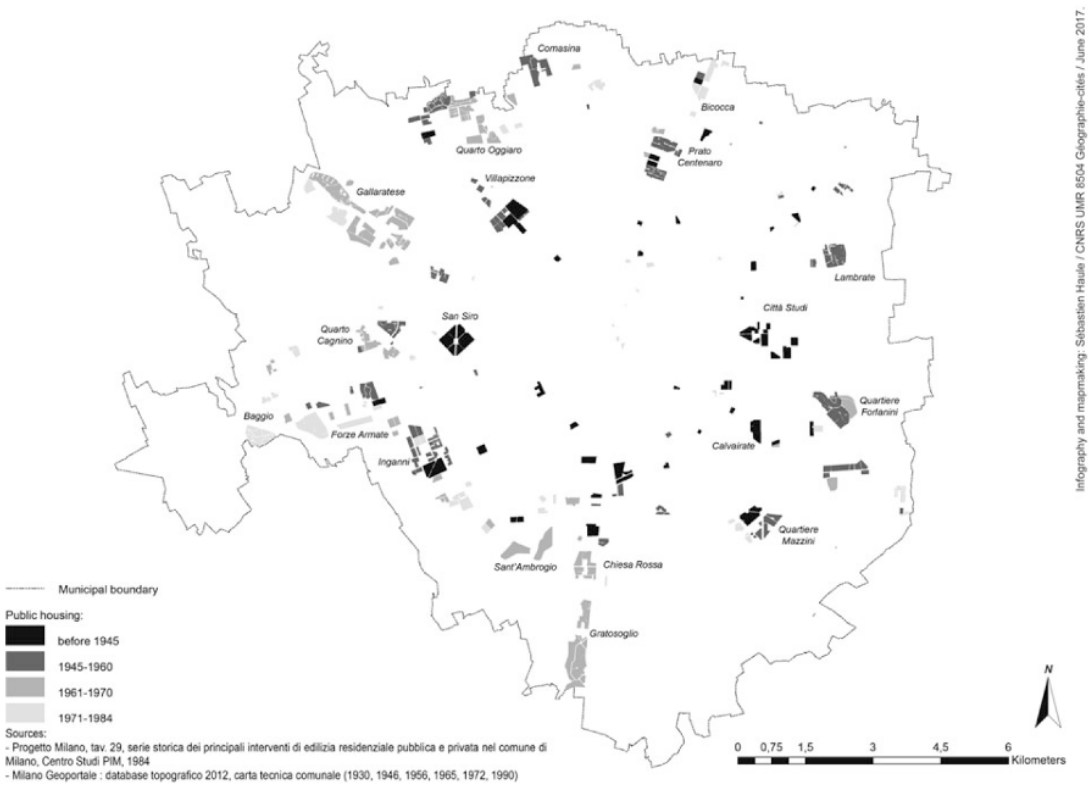


Figure III.17: Location of public housing in Milan by period of construction.

Figure III.18: Solid & Void - Watersportbaan

Figure III.19: Solid & Void - Gratosoglio

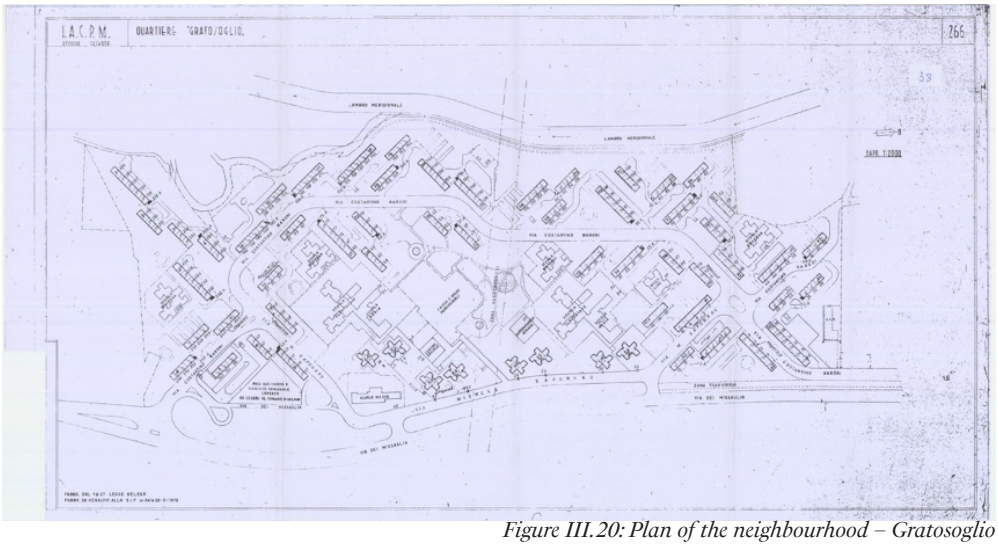


Figure III.20: Plan of the neighbourhood – Gratosoglio

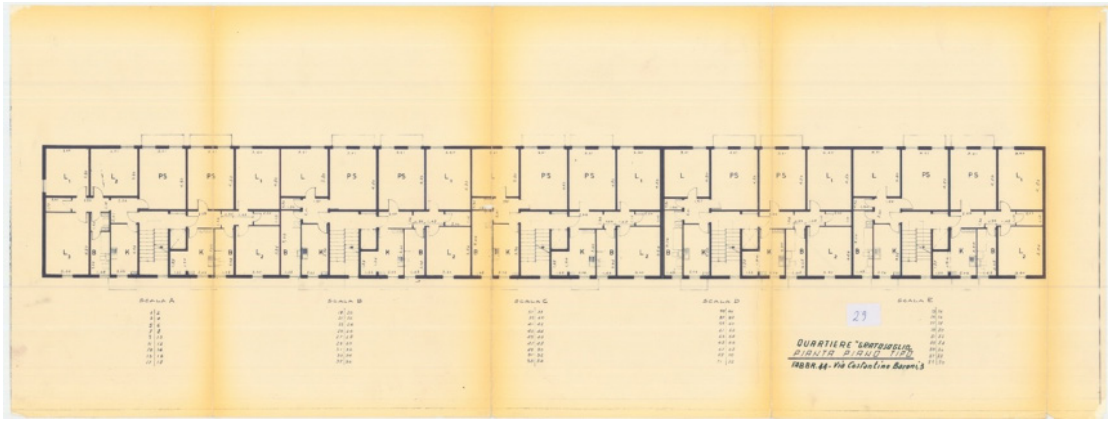


Figure III.21: Plan of the interior of the apartments in the slab buildings of Gratosoglio

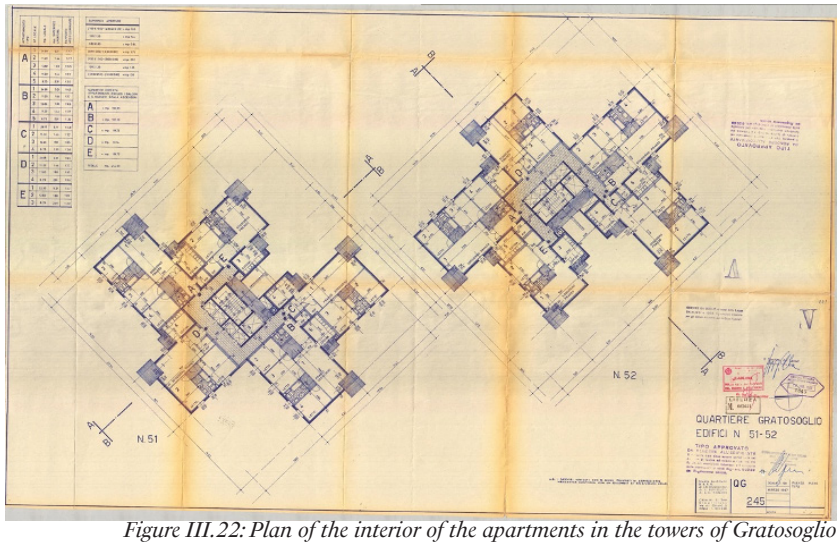


Figure III.22: Plan of the interior of the apartments in the towers of Gratosoglio

_ NEIGHBOURHOOD AND LOCATION

"The location of the estates is usually outside the urban city centre. These peripheral locations can cause accessibility problems, but at the same time nature is close by."

"Post- Second World War large housing estates are in some cases situated in a very peripheral situation, even separated from the city by green areas or wasteland. Problems of accessibility can lead to feelings of isolation. The presence of large motorways, canals and rivers can also cut off a relatively new housing estate from the rest of the city."

"Public transport is a service that determines to a large extent how connected people feel with the rest of the city" (Dekker & van Kempen, 2005, pp. 21, 25).

0 // Location

Both neighbourhoods were designed according to modernist and rationalist principles, constructed in a parkland setting. Gratosoglio was one of several new estates built as a satellite city in the outskirts of Milan to accommodate immigrants from the South of Italy (Figure III.17, Figure III.19). The Watersportbaan was built closer to the centre of Ghent than Gratosoglio to the centre of Milan and the Gentian neighbourhood became an island in the city, enclosed between dense patterns of row housing and building blocks (Figure III.18, Figure III.19).

Gratosoglio is located in the southern area of Milan and is designed as a satellite district following the principles of modern architecture. The neighbourhood is created as a self-sufficient enclave, although nowadays most of the facilities are gone and the neighbourhood is for the biggest part residential. It can be reached by public transport such as tram lines or busses. The last metro stop Abbiategrasso is located to the North of Gratosoglio (2.8 km away) (Stefanizzi & Verdolini, 2019a)funded with the Horizon 2020 Programme, on the perception of insecurity in five European cities (Barcelona, Budapest, London, Milan, and Paris, thus most people take the metro to this stop and take the tram further South (Figure III.24). Because of this, many inhabitants feel isolated and are almost an hour on their way to the centre of Milan or to the train station.

The Watersportbaan, on the other hand, is better connected to the city centre and its central station Ghent Sint-Pieters. This neighbourhood is built closer to the city centre where the work opportunities are. Although the Watersportbaan is close to several facilities, within the neighbourhood itself the amount of facilities is not sufficient, therefore this neighbourhood also became more a dorm than a self-sufficient entity.

1 // Physical and mental barriers in the neighbourhoods

Gratosoglio is located in the periphery of Milan, bounded by the river "Lambro Meridionale", a drainage ditch collecting the urban waste of Milan on the Westside, a big sports field and park in the North and in the East Via dei Missaglia, a large road connecting the subway stop of Piazza Abbiategrasso with the suburb of Rozzano.

Because of these two corridors on the left and the right, the neighbourhood's area is stretched out from North to South (see Figure III.25, Figure III.26).

Gratosoglio is quite large compared to the Watersportbaan, people who live in Gratoso-

glio have to walk 10 to 15 mins to the supermarket or the church in the centre of the area (Figure III.27).

The river and the road both act as visual and physical barriers of the neighbourhood. The Via dei Missaglia is not easy to cross, with cars passing by at high speed levels and the expensive shops on the other side of the road, the feeling of being in another world is strengthened. On the West side, the river shapes the border of Gratosoglio. Unfortunately, the river is fenced off with a wall in the southern part of Gratosoglio. Which only enhances the feeling of isolation and segregation.

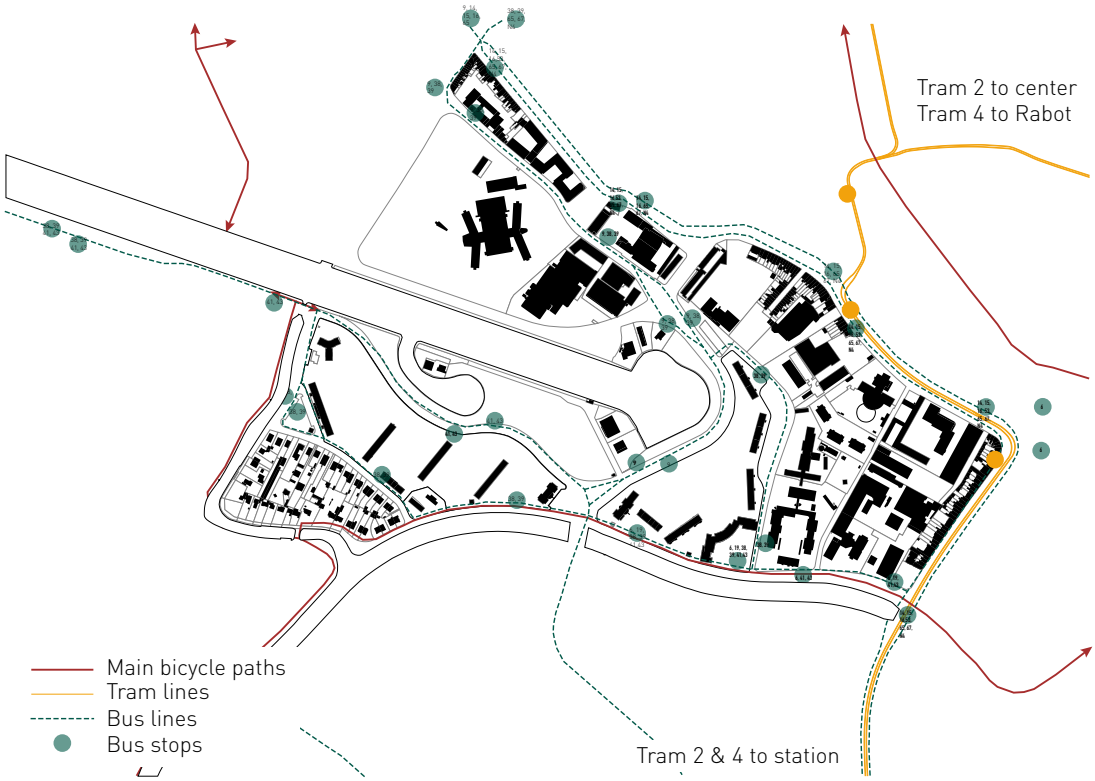
The water and roads at the Watersportbaan also create physical and mental boundaries in the neighbourhood. The roundabout and the bridge in the middle of the neighbourhood divides the area in two parts, segregating people and functions. Both are dangerous because of the hectic traffic and the difficult ease to cross (especially for kids and elderly). The area in between the roundabout and the city centre – e.g. the building blocks at the Jubileumlaan – is more connected to the services of the city centre, e.g. the Delhaize, but is further away from the leisure of the Blaarmeersen. The western part of the neighbourhood is on the other side closer to the Blaarmeersen, but not well connected to the services anymore. This barrier is also mentally present. Inhabitants refer to other habitants as 'the ones from the other side' (Boonen et al., 2019) (see Figure III.30)

2 // Orientation and accessibility to the buildings

Both neighbourhoods follow modernist principles, with high-rise housing, but in a parkland setting. Furthermore, Gratosoglio's buildings are built on a 45° grid (Figure III.31, Figure III.32). This rationalistic approach creates a neighbourhood of similar buildings and orientating yourself in it becomes harder. Children cannot identify their homes in this landscape of identical looking building slabs. Every entrance is also orientated in the same way, on to the Northern side of the slabs (Figure III.33). There are thus no opportunities to create courtyards in between the building blocks or to meet a neighbour outdoors, since every entrance of one building faces the backside of the building next to it.

The buildings in the Watersportbaan neighbourhood are less standardised. All are orientated according to the streets enclosing them and they have entrances on both sides (Figure III.28, Figure III.29). The named buildings have their own identity in the landscape and differ from one another. The green zones around the buildings can be easily accessed through the entrances on both sides of the buildings. A lot of opportunities are to be found on the ground floors, which are now closed.

Next page:
Figure III.23: Connectivity – Watersportbaan
Figure III.24: Bus and tramlines near Gratosoglio
Figure III.25: Physical barriers West and East of Gratosoglio


Tram 2 to center
Tram 4 to Rabot
Main bicycle paths
Tram lines
Bus lines
Bus stops
Tram 2 & 4 to station


TO PORTA LODVICO
TO ABBIATEGRASSO – 79,230
GRATSOGLIO-79
ROZZANO-15
BASIGLIO-230

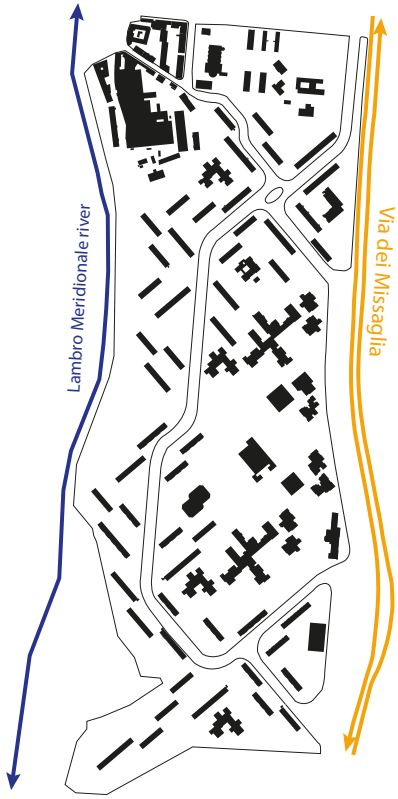

Lambro Meridionale river
Via dei Missaglia

Figure III.26: Picture of Via dei Missaglia

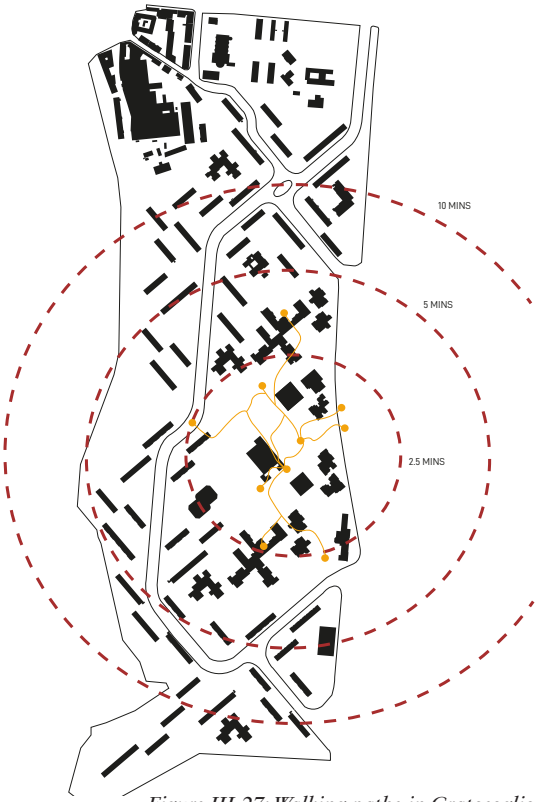


Figure III.27: Walking paths in Gratosoglio

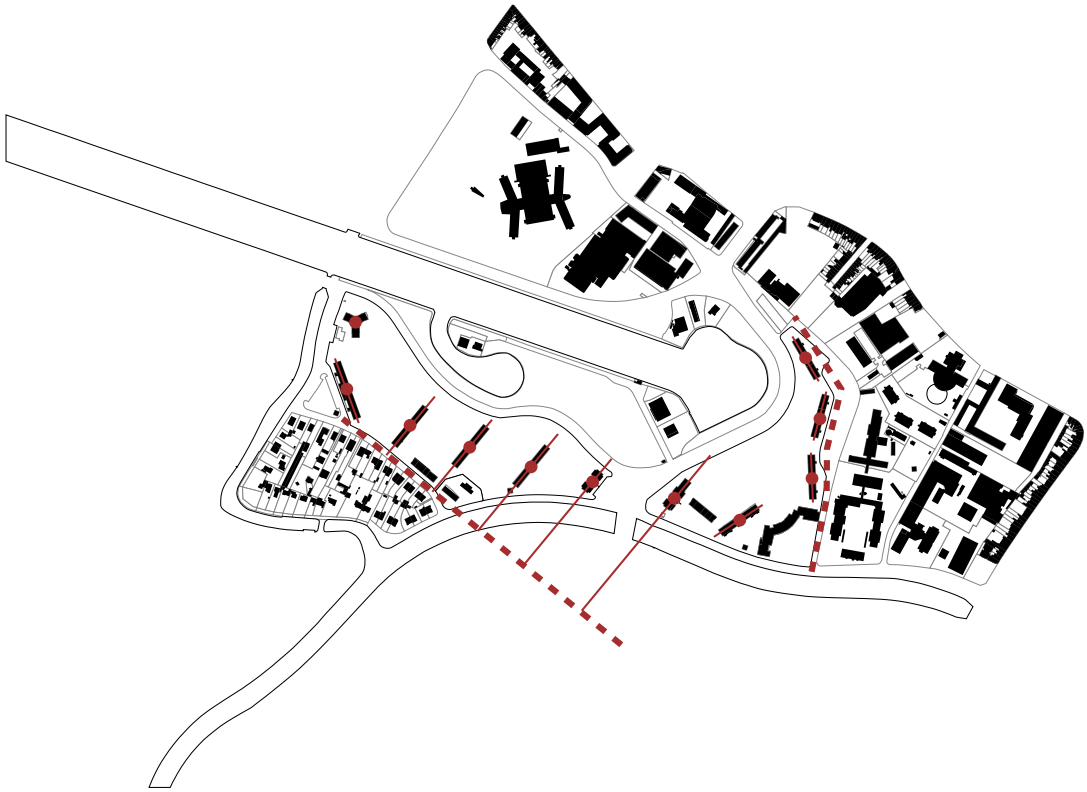


Figure III.28: Rotation of the buildings - Watersportbaan

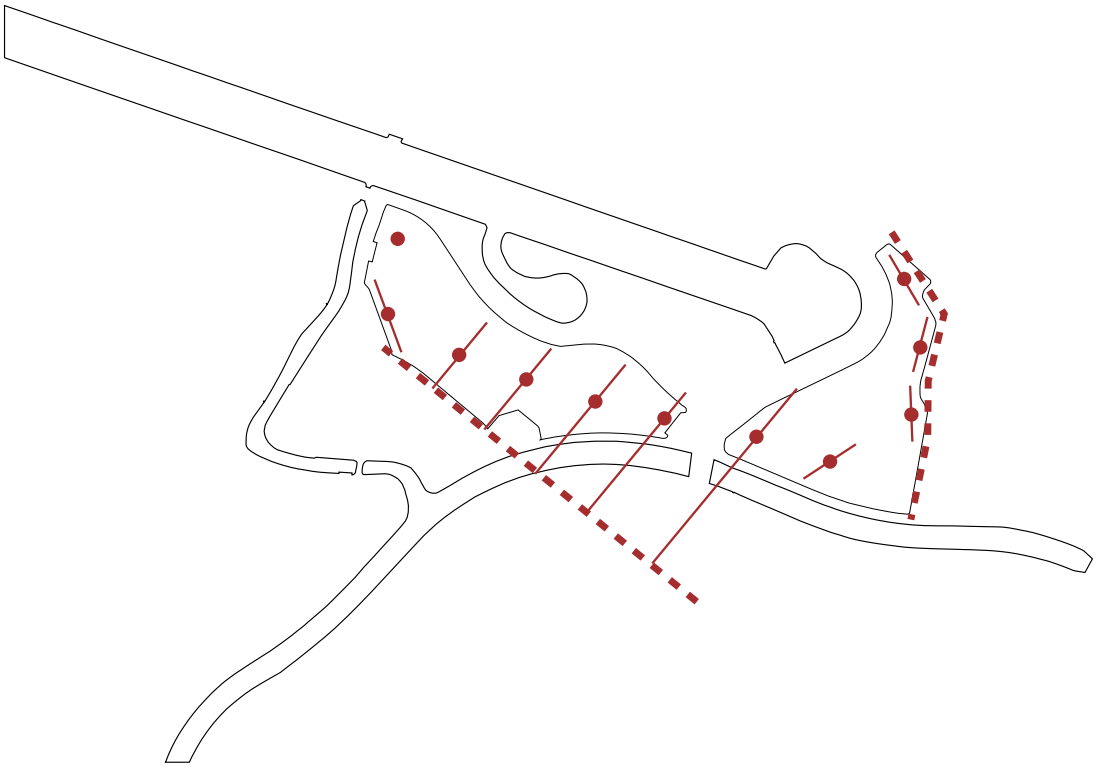


Figure III.29: Rotation of the buildings 2 – Watersportbaan

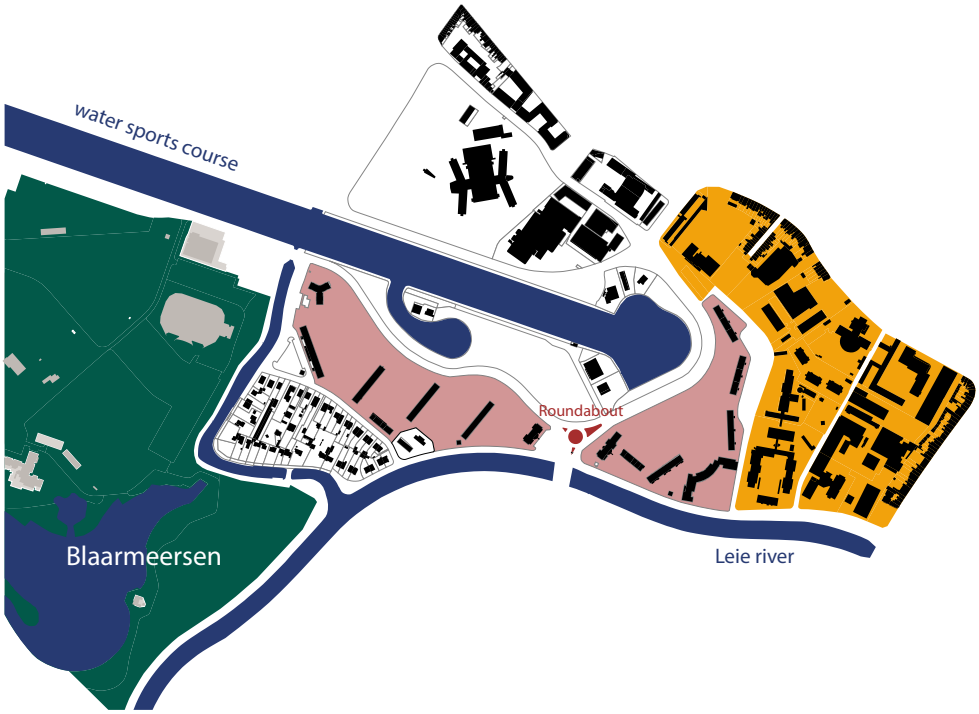


Figure III.30: Physical barriers around the Watersportbaan neighbourhood

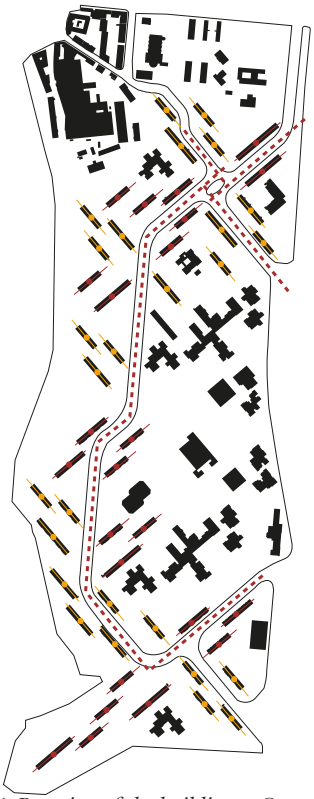


Figure III.31: Rotation of the buildings - Gratosoglio

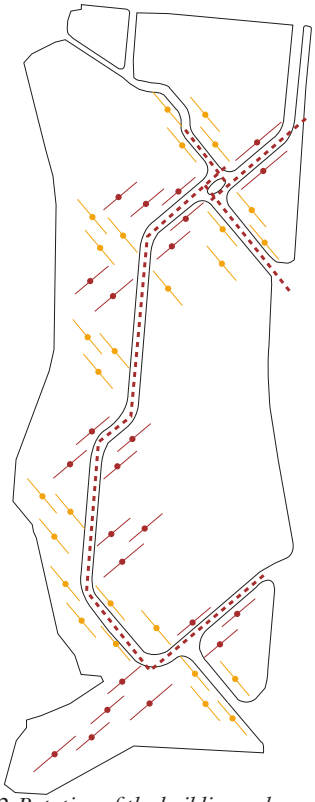


Figure III.32: Rotation of the buildings scheme - Gratosoglio

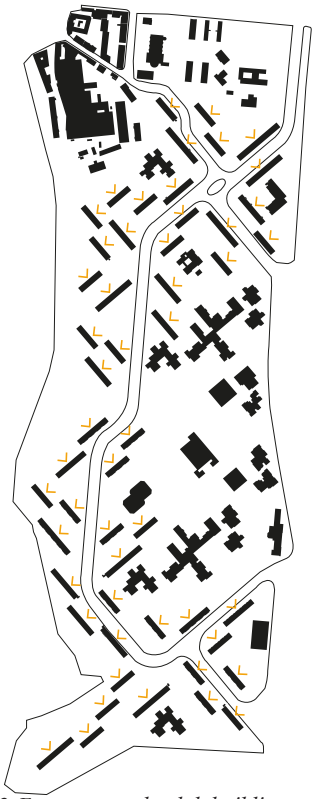


Figure III.33: Entrances to the slab building are all located on the Northern sides of the buildings

_ MAINTENANCE

"The dwellings are often light and offer a relatively large space for low prices. But dwellings built some decades ago now show signs of decay, especially in buildings where poor-quality building materials were used. The list of physical housing problems can be extensive" (Dekker & van Kempen, 2005, p. 25).

As both neighbourhoods were built in the 1960s, nowadays they both suffer from decay. This decay affects commerce in the area (in Gratosoglio, the shops underneath the towers are empty or closed, in Ghent the shops in the lower buildings are nearly all disappeared), converting both areas from self-sufficient neighbourhoods to residential ones (Stefanizzi & Verdolini, 2019a)funded with the Horizon 2020 Programme, on the perception of insecurity in five European cities (Barcelona, Budapest, London, Milan, and Paris.

Gratosoglio's 4700 dwellings were built, designed with the goal of keeping the construction costs low. As a result, today the inhabitants experience a lot of troubles related to deterioration and maintenance. In the so-called "White Towers", water infiltrates the apartments. Consequently, the towers became the symbol of the decline of the area. [2] Inhabitants hang out plastic canvases to protect their apartments from the rain and sun (see Figure III.34, Figure III.35). Italian policies make it rather hard for landlords to evict tenants. Because of these policies, people who cannot pay rent or are not willing to pay rent, will not get evicted this easily. The housing companies don't take care of the collective space within the buildings, because of this lack of money. Many inhabitants complain about the dirt in the building and situations like these create tensions between the people living in Gratosoglio. Due to this, some buildings were sold and privatised today. In these privatised blocks the physical deterioration is less present than in the other towers.

The decline of the neighbourhood is not neglected by regional institutions. In 2005 a part of Gratosoglio (1.341 dwellings in the central area of the neighbourhood) was included in the proposal of the neighbourhood contracts for Milan. These neighbourhoods' contracts were new instruments proposed in 1996 by the Ministry of Public Works. They aim to obtain e.g. physical and social requalification, increase of infrastructures, promotion of social integration and (re)employment. The contracts focus on areas dominated by public housing, with physical deterioration, low levels of social cohesion, few services, housing problems and unemployment. The part of Gratosoglio included in the proposal in 2005 was good for 45 million euros of funding. Most of this budget was spent on the physical requalification of the buildings, 6 million of it was used to build new buildings, a student house and a residence for younger couples. Ultimately, most of the money was used to renovate the facades of the buildings. Therefore, no structural approach was carried out and they did not use the opportunity to requalify the ground floors – which could have led to a process of re-use of these former commercial and service spaces by cooperatives and associations. Furthermore, some of the planned actions were never implemented.

The social housing neighbourhood at the Watersportbaan included 1500 dwellings, 30% of them were reserved for slum dwellers. The lots for the high-rise building blocks were sold to six, political segregated, housing companies who were operating at that time in Ghent, four of them were Gentian companies for social housing, two were tenant cooperatives (Coene & De Raedt, 2020). In the beginning of the 90s, the three buildings from the housing company "De Goede Werkmanswoning" (G. Nachez, E. Anseele and E. Van Beveren) were renovated and after some years the building "Elektra" was renovated too. The renovations of the three building of "De Goede Werkmanswoning" created to new postmodernist influenced facades, new windows and new roofs. In 2010 the Belvédère residence, Dennenhof and Rozenhof were renovated too (Figure III.36). The renovation preserved many of the original aspects of the facades – like the monumental windows – at the ground floors. This was not the case on the upper floors where new, more contemporary materials were used to renovate the façade ('Sociale woonwijk Nationale Watersportbaan Georges Nachez | Inventaris Onroerend Erfgoed', n.d.). The three apartment slabs at the Jubileumlaan will be replaced by completely new buildings in the upcoming years. The only building which was never renovated is the Borluut.

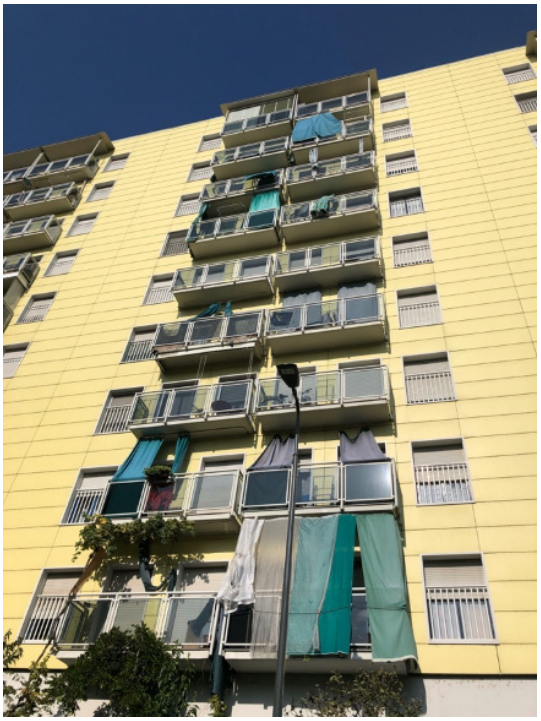
Nowadays, inhabitants, in particular of the Borluut, complain about noise pollution and other deficiencies in the buildings due to the degeneration of the ageing constructions. The buildings are not adapted to current climate standards and the isolation and heating often causes some discomfort. Furthermore, technical defects, like broken elevators, blocked doors, lights that don't work etc., showed up already so often that inhabitants adapt their daily walks on these kinds of problems. Many inhabitants get frustrated by these inconveniences (Boonen et al., 2019).

In a conversation with the 'director of the neighbourhood', Evelyne Deceur, the issue of waste pollution was mentioned. Although some buildings are well-maintained and can count on several devoted people, like the housekeepers of the Elektra and Belvédère buildings, many inhabitants complain about the garbage and the illegal dumping of waste. Nevertheless, social actors are currently trying to reverse this perception and are trying to focus on a positive approach. This year, on June 17th, a pop-up recycle park at the Borluut will be organised by IVAGO[3] where inhabitants can get to know each other and recycle together.

Figure III.34: blue canvases hang out of the apartments to protect them from rain and to provide shade
Figure III.35: blue canvases hang out the apartments to protect them from rain and to provide shade
Figure III.36: Building year and year of renovation – Watersportbaan

2 Booklet studio, see also III.3.2.3 on how the neighbourhood got stigmatised and how inhabitants treats this stigmatization and symbols like this

3 IVAGO is a mixed intermunicipal association. IVAGO ensures the selective collection of household waste from the 281,000 inhabitants of Ghent and Destelbergen and pursues a forward-looking waste policy. Every year, 300,000 visitors come to the six recycling parks and can visit them with more than 40 different types of waste. The more than 100 employees of the public cleaning service keep the city of Ghent clean using modern sweepers ('Over IVAGO | IVAGO', n.d.).



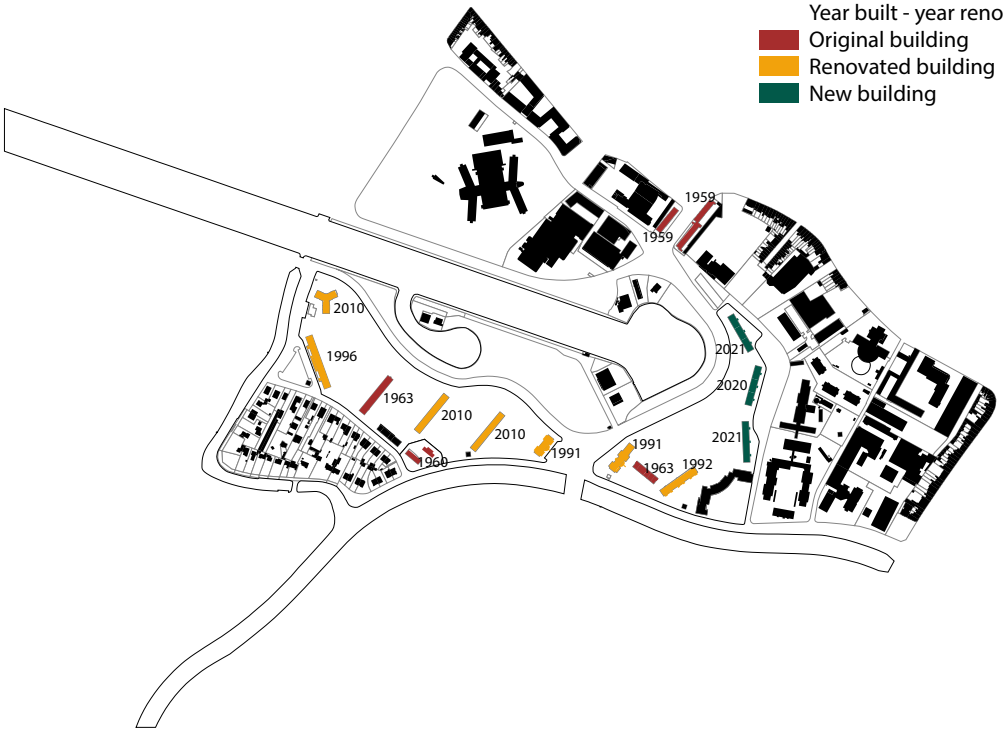

Year built - year renovation
Original building
Renovated building
New building
1959
1959
2010
1996
1963
2010
2010
1960
1991
2021
2020
2021
1991
1963
1992

Figure III.37: The facade of the Borluut, one of last the apartment buildings of the neighbourhood which are not renovated (yet)

Figure III.37: The renovated facade of the Rozenhof building

_ HOUSING MARKET

"The ownership structure varies markedly from country to country. In the Southern European countries, most of the housing units are owner-occupied."

"In Western Europe the majority of the houses on the estates are in the social-rented sector,"

"Different forms of tenure in an area can create different feelings of involvement. In Jönköping's Råslätt, for example, the initially strong social bond between the residents was broken by the demolition of the government-owned houses and replacement by cooperatives, thereby replacing a uniform social-economic group with a more heterogeneous one with fewer opportunities for identification. The prices of the housing units are mostly in the cheap or affordable range, although the differences between countries, and sometimes even within the same estates, can be huge."

"All the estates are relatively cheap places in which to live, but not necessarily the cheapest in the city."

"Most of the estates in our study are at the bottom of the housing market, but not all."

"Unattractive dwellings in an unattractive location are likely to stand empty when there are other alternatives on the local housing market. As soon as other opportunities open up, the risk of vacancies immediately arises."

"On most estates the size of the dwellings is small by modern standards or when compared with more recently built houses. At the time the estates were built, 60 m2 for a family was regarded as spacious. Having three bedrooms was seen as a luxury."

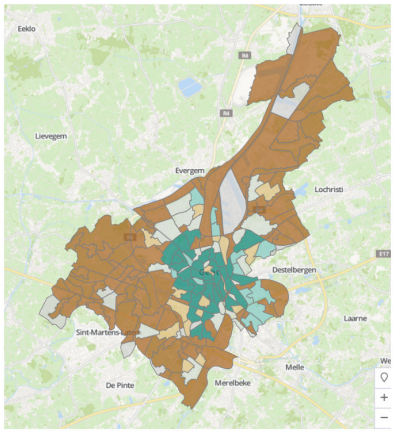
"At present, housing size is one of the problems on the estates, especially when related to the influx of large migrant families. The limited floor space combined with a relatively large number of rooms leads inevitably to small rooms" (Dekker & van Kempen, 2005, pp. 26, 27).

Gratosoglio's public housing neighbourhood was built on the initiative of the IACP (Istituto Autonomo Case Popolari/Social Housing institute) of Milano (now Aler and MM). Gratosoglio was designed as a self-sufficient satellite district to house the migrant flow from the south of Italy in the early sixties (Stefanizzi & Verdolini, 2019a)funded with the Horizon 2020 Programme, on the perception of insecurity in five European cities (Barcelona, Budapest, London, Milan, and Paris. Currently, Gratosoglio is still characterised by public housing, while the private rental market is almost non-existing. As Figure III.40 and Figure III.41 show, the percentages of households in rented dwellings (56,4 %) and public housing (49,9 %) in Gratosoglio are much higher than the Milanese average (29,1 % in rented dwellings, 9,6 % in public housing). As we look closer we clearly see that the major part of the households in rented dwellings and public housing is situated in the Southern part of Gratosoglio, near the White Towers (Figure III.42, Figure III.43). When the social housing blocks were built, the dwellings were thought to be spacious and well-equipped. Nowadays, with apartments ranging from 70 to 100 square meter, the apartments are too large for single people and too small for big families. In Figure III.44 the standardised apartments in the towers are showed and in particular their size. One of the eight towers is now privatised and fenced-off from the rest of the towers. Some lands in the neighbourhoods are sold to build residential services for elderly people.

In most Belgian cities, households in the centre of the city live in rented dwellings. This is also true for the sector of the Neermeersen, the statistic sector covering the area Watersportbaan neighbourhood, at the border of the city centre as shown in Figure III.39. The neighbourhood was created on the ground next to the water sports course. This area was raised with the ground of the water sports course. The aim was to provide better housing and to tackle the post-war housing need. Due to the need of pile foundations, only high-rise social housing units was thought to be economically viable (Coene & De Raedt, 2020). To provide better housing, the original design for the high-rise social housing neighbourhood preserved 30 % of the buildings for slum dwellers ('Sociale woonwijk Nationale Watersportbaan Georges Nachez | Inventaris Onroerend Erfgoed', n.d.). Nowadays, all these social housing buildings are still property of several social housing companies. Two low rise housing blocks, originally built to accommodate several functions and shops, are not functioning anymore. One of the low-rise slabs is sold and renovated to private housing, the other nowadays includes a pharmacy, a shop to do your laundry and a night shop.

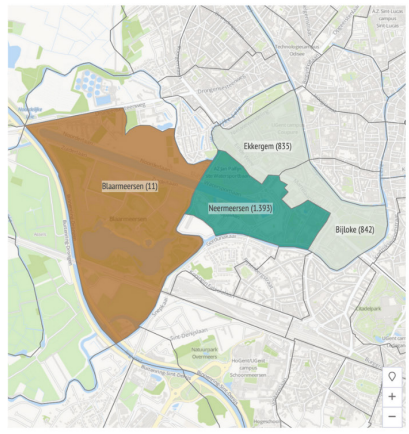
Figure III.39: Households in rented dwellings – sector Neermeersen compared to Ghent
Figure III.40: Households in rented dwellings – Milan
Figure III.41: Households in public housing - Milan

Households in rented dwellings



Ghent average: 297

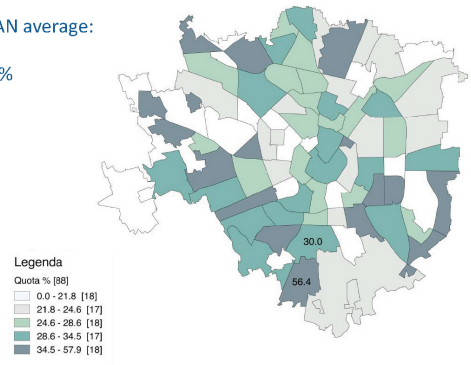
Neermeersen: 1393



HOUSEHOLDS IN RENTED DWELLINGS

MILAN average:

29.1%



HOUSOLDS IN PUBLIC HOUSING

MILAN average:

9.6%

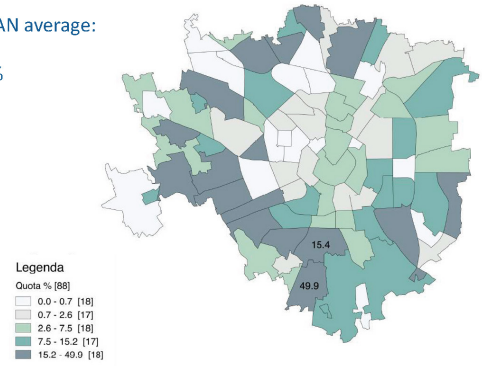
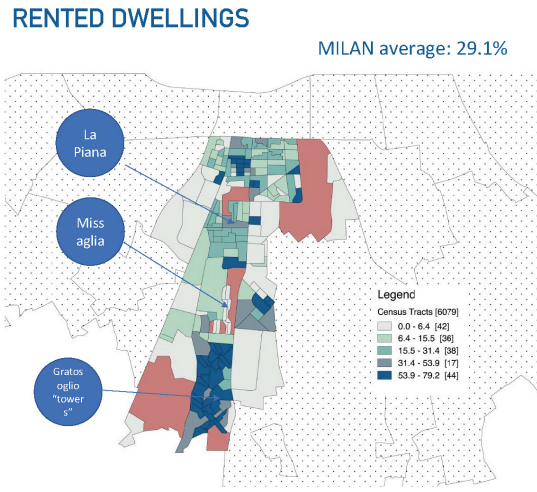
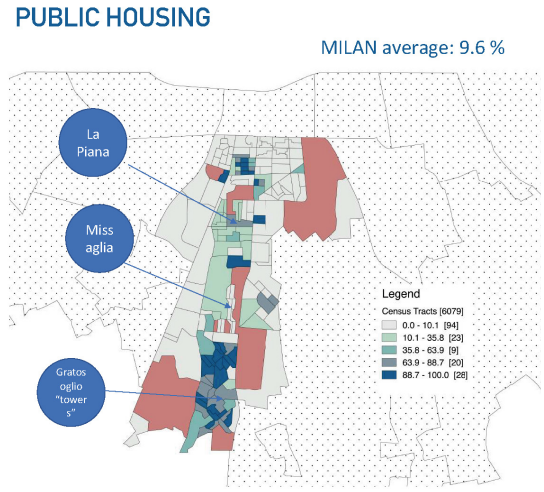
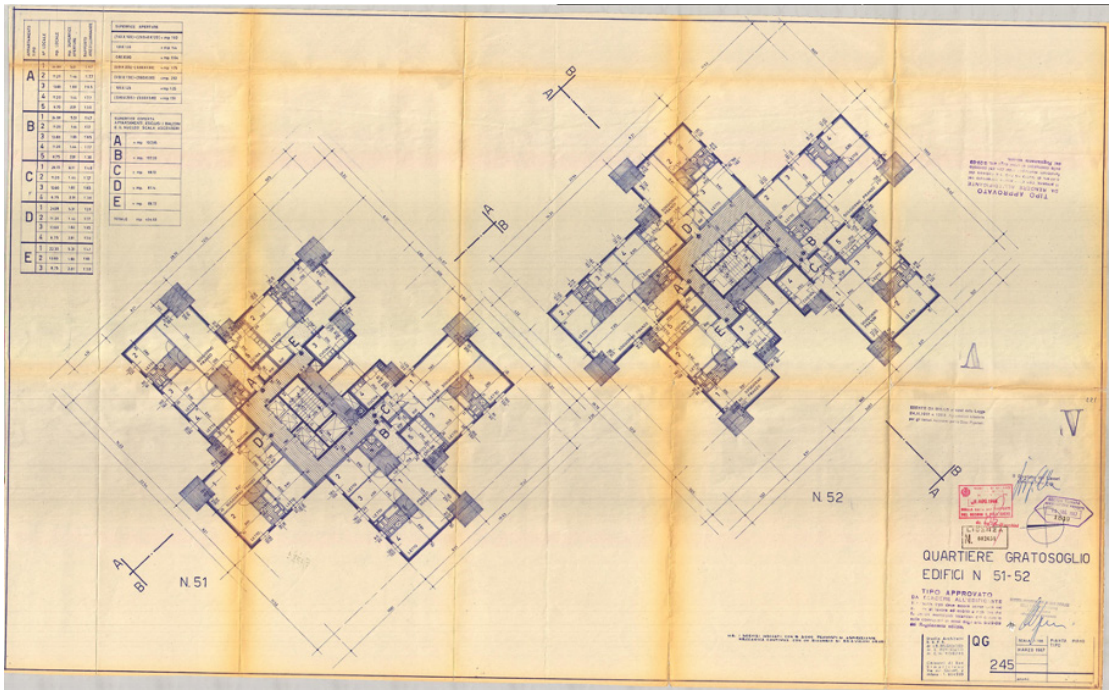


Figure III.42: Households in rented dwellings - Gratosoglio
Figure III.43: Households in public housing – Milan
Figure III.44: The standardised apartments in the white towers of Gratosoglio and their size.







_ Demographic and socio-cultural profile

_ POPULATION STRUCTURE

"The large post-Second World War housing estates were planned with a certain population structure in mind. In many cases the estates were initially built for traditional family households. Since the areas were built up 30 to 40 years ago, the original population is now ageing, leading to an overrepresentation of the elderly. This is especially the case in Southern Europe, where the elderly stay in their homes but their children leave as they cannot find suitable housing on the estate. The supply of services has not always been well adapted to this changing population structure. A lack of services for older people has been reported on several estates. In some cases, such as San Siro in Milan, the apartment blocks have no lifts, so the elderly have problems reaching their dwellings."

"In Western and Northern Europe, the position of the estates on the housing market is less favourable, leading to an influx of migrant families. These families often have more children than the original population, leading to an overrepresentation of young people. The original population started leaving the estates in the 1970s, moving to neighbourhoods with single-family homes and making room for less prosperous households, often migrants. There are some exceptions, however: white working-class residents predominate in London's Bow HAT, for example.

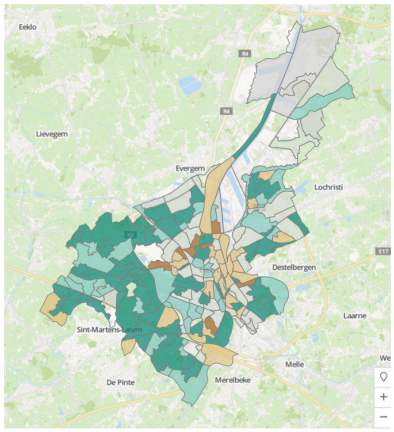
In short, we can identify three broad groups of estates related to population structure: first, the Southern European estates, with an ageing population; second, the Eastern European estates, with a relative overrepresentation of people of working age (19-65 years old); and finally, the majority of the Northern and Western European estates, which are often characterised by an influx of immigrants" (Dekker & van Kempen, 2005, p. 32).

The population structures in both Gratosoglio and the Watersportbaan are becoming older. The original inhabitants of the two neighbourhoods are ageing, which translates in high quotas of elderly people in both areas (Figure III.45, Figure III.46, Figure III.47). One third of Gratosoglio is represented by people older than 65, at the Watersportbaan one out of four is older than 65. Of course, this phenomenon has an influence on the services and facilities as well as the type of apartments needed in the neighbourhoods.

First of all, these neighbourhoods were designed for families. Hence, several functions like elderly homes, meeting spots for the elderly and care facilities were at first not implemented. Secondly, the apartments, in particular in the neighbourhood of Gratosoglio, do not match the population structure today. The standardised apartments are nowadays often not suitable for the changed population. They are too big for singles and elderly or too small for new migrant families – which often have more children than the families of the original population.

The original population in Gratosoglio consisted out of migrant families of labourers from the Southern part of Italy. Nowadays another influx of immigrants, this time non-Italians, generates a multicultural and cosmopolitan neighbourhood. This contrast between the ageing original population and

Quota of elderly people (> 65 years old)

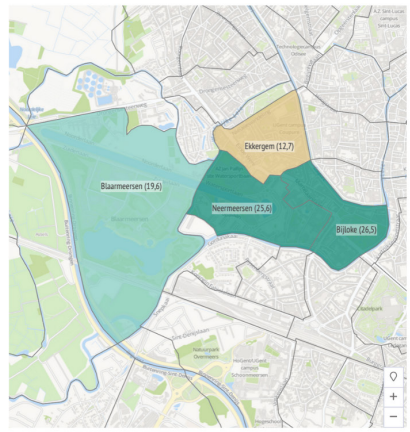


Ghent average:

16,5 %

Neermeersen average:

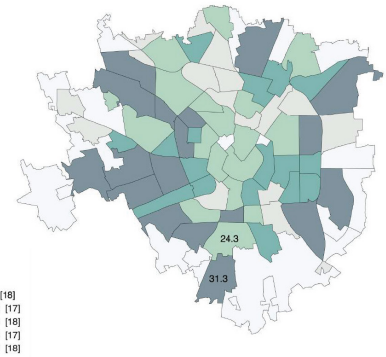
26,4 %



QUOTA OF ELDERLY PEOPLE (>65 years old)

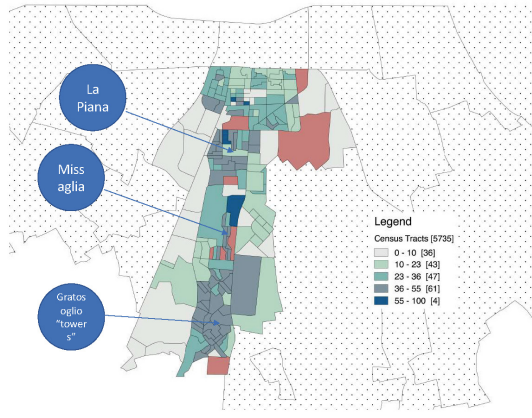
MILAN average:

25%



ELDERLY (OVER 65)

MILAN average: 25%



the new multicultural families is currently creating some tension. This causes inhabitants to neglect the potentials and positive aspects of a multicultural neighbourhood.

In Ghent, this tension is also present, although less explicitly. In Gratosoglio, the older population needs more social oriented functions., i.e. places to meet friends and neighbours. These people saw the neighbourhood change and have troubles to identify themselves in the neighbourhood. They crave a sense of belonging and they suffer from loneliness. The single elderlies share their neighbourhood with migrant families. These often-larger families also have troubles concerning the implemented neighbourhood structure. Kids and teenagers complain about the lack of privacy. Currently, the relationship between both groups is almost scattered.

Figure III.45: Quota of elderly people (>65 years old) – Ghent and the Watersportbaan
Figure III.46: Quota of elderly people (>65 years old) – Milan
Figure III.47: Quota of elderly people (>65 years old) – Gratosoglio

_ ETHNIC DIVERSITY

"The increased ethnic variety can lead to a vibrant civic culture, with a lively public social life and a concomitant variety in services. Unfortunately, however, in most cases the differences in culture, language, and religion are perceived negatively, in particular by the older native population."

"In London's Poplar HARCA it is reported that the influx of large families of black and minority ethnic groups in relatively small dwellings is leading to overcrowded housing situations. When too many people live in a dwelling, various problems are bound to arise. The situation may be uncomfortable for the people involved, but the main problem is for the neighbours who have to cope with the noise and other nuisances. When there are too many of these over-occupied dwellings, there may be significant pressures on the area and on its public spaces. The definition of overcrowding depends on the local context."

"A heterogeneous population structure does not always have to generate problems. The ethnically diverse population of the Birmingham central estates seems to exist without major tensions or problems. But problems are reported in many cases. The original inhabitants of Milan's Sant'Ambrogio, for example, find it difficult to accept the newcomers, however low their numbers, meeting them with reticence and resistance" (Dekker & van Kempen, 2005, p. 36).

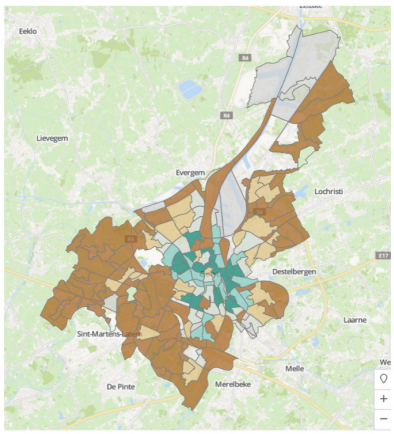
Both neighbourhoods have an overrepresented share of migrant populations. This presence is more significant among younger inhabitants and families. In Gratosoglio 20% of the children below 10 years do not have Italian citizenship. At the time that Gratosoglio was built, a first migration flow occurred from the South of Italy, looking for better opportunities. The second migration flow came from under-developed countries and occurred in both neighbourhoods. As seen in Figure III.48 and Figure III.49, the percentage of people with Belgian origin is smaller at the Watersportbaan (sector Neermeersen), than the Ghentian average. Most of these new inhabitants have African, Asian or East-European roots (Table III.3).

As stated above, this second migration flow also takes place in Gratosoglio. Compared to the average of Milan, Gratosoglio does not have an extremely high percentage of foreigners, in contrary the percentage is even similar to the city average (Figure III.50, Table III.4 and Figure III.51). Although the percentage is quite similar to the city average, the perception of a neighbourhood invaded by foreigners is real among the original, older, inhabitants. The local priest, Don Giovanni, is a key person in the neighbourhood. In his oratorio he provides activities for the kids in the neighbourhood. He helps families with administration and language issues and kids with their schoolwork. His goal is to reconnect the people of Gratosoglio with each other. As Table III.5 shows, the biggest group of foreigners is originally from Egypt, the Philippines or China.

Figure III.48: Quota of foreign population – sector Neermeersen compared to Ghent

Table III.3: Foreign population, numbers by region of origin – sector Neermeersen

Population per sector

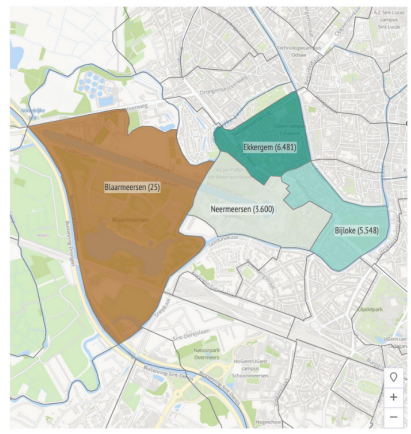


Ghent average:

1699

Neermeersen average:

3600



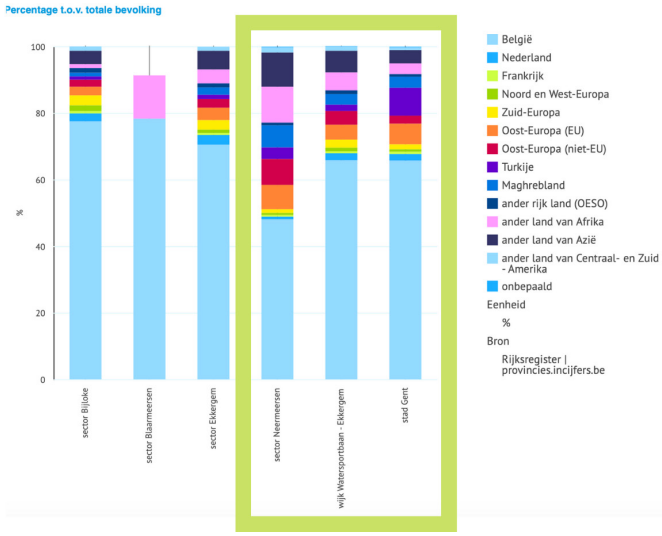
Foreign population

Aantallen

	België	Nederland	Frankrijk	Noord en West-Europa	Zuid-Europa	Oost-Europa (EU)	Oost-Europa (niet-EU)	Turkije	Maghrebland	ander rijk land (OESO)	ander land van Afrika	ander land van Azië	ander land van Centraal- en Zuid-Amerika	onbepaald
sector Bijloke	1.942	60	18	42	75	65	53	24	27	35	30	101	32	x
sector Blaarmeersen	36	x	x		x						6			
sector Ekkergem	1.844	75	15	27	75	98	69	34	58	31	111	147	31	x
sector Neermeersen	1.145	20	13	14	27	173	186	84	156	18	258	246	36	5
wijk Watersportbaan - Ekkergem	4.967	156	47	83	179	336	308	142	241	84	405	494	99	7
stad Gent	172.343	5.193	1.871	1.723	3.927	16.353	6.280	22.094	8.751	2.226	8.345	10.481	2.197	616

Speciale waarden: x Verborgen waarde

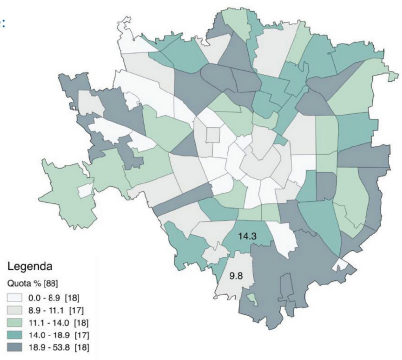
Foreign population



FOREIGN POPULATION

MILAN average:

14.2%



FOREIGN POPULATION

31/12/2018 data. Source: Milan Municipality

	Foreigners	Total	
Milan	266,862	1,395,274	19.2%
Stadera/Chiesa Rossa	6,088	30,215	20.1%
Gratosoglio	2,948	18,801	15.7%

FOREIGNERS BY CITIZENSHIP

GRATOSOGLIO			STADERA/CHIESA ROSSA			MILAN		
Egypt	463	15,7%	Philippines	1067	17,5%	Philippines	41.732	15,6%
Philippines	364	12,3%	Egypt	903	14,8%	Egypt	40.080	15,0%
China	299	10,1%	China	454	7,5%	China	31.214	11,7%
Morocco	236	8,0%	Bangladesh	433	7,1%	Perù	18.430	6,9%
Sri Lanka	229	7,8%	Perù	409	6,7%	Sri Lanka	17.279	6,5%
Perù	177	6,0%	Sri Lanka	398	6,5%	Romania	15.351	5,8%
Romania	138	4,7%	Romania	353	5,8%	Ecuador	12.300	4,6%
Ecuador	131	4,4%	Ecuador	343	5,6%	Bangladesh	9.525	3,6%
Albania	96	3,3%	Morocco	248	4,1%	Ukraine	8.819	3,3%
Ukraine	84	2,8%	Ukraine	173	2,8%	Morocco	8.220	3,1%
Bangladesh	80	2,7%	Albania	141	2,3%	El Salvador	5.302	2,0%

FOREIGNERS

MILAN average: 14.2%

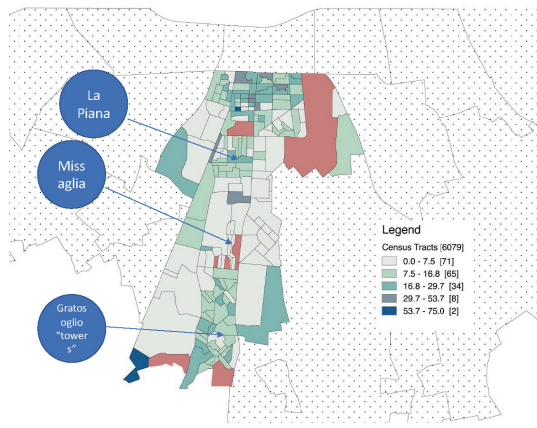


Figure III.49: Foreign population, numbers by land of origin – sector Neermeersen compared to Ghent
Figure III.50: Quota of foreign population – Milan
Table III.4: Quota of foreign population – Gratosoglio compared to Milan
Table III.5: Foreign population by land of origin - Gratosoglio compared to Milan
Figure III.51: Quota of foreign population in Gratosoglio

_ STIGMATIZATION

"Many estates have social problems related to a lack of meeting places, drug abuse and drug dealing, and other criminal activity, which may lead to the stigmatisation of the area. A neighbourhood more easily gains a stigma than loses it; repetition by the media often bears some responsibility here. A stigma can become attached to an area that becomes known for its problems with crime or with a large proportion of minority ethnic groups. Some estates were stigmatised from the beginning" (Dekker & van Kempen, 2005, pp. 36, 37).

Both Gratosoglio and the Watersportbaan are dealing with the stigma people living in high-rise post-war housing nowadays have to deal with (see 0). Furthermore, both are also stigmatised because of their multicultural backgrounds. This stigmatisation of the neighbourhood is more vivid in the Gratosoglio neighbourhood than at the Watersportbaan. The difference is already present in the way people talk about both neighbourhoods. Living in Milan, fellow students told me Gratosoglio was one of the most secure high-rise post-war neighbourhoods around Milan to go to, but at the same time they warned me not to go there in the dark. This feeling of insecurity was something several residents of the neighbourhoods mentioned in the interviews. An older man stated he never went outside his apartment after seven pm, because "you never know". In Ghent, this feeling of insecurity is less present. The Watersportbaan is less isolated from the centre of Ghent than Gratosoglio is from the centre of Milan. Besides, the mere number of articles writing about issues of the Watersportbaan are not related to safety concerns or criminal issues (see Figure III.52 to Figure III.55).

At Milan, Gratosoglio's situation is somehow different. The neighbourhood has to face many stigmas because of the economic and cultural background of its inhabitants. Some inhabitants try to reverse this image of the area by emphasising on the good qualities. When talking to inhabitants, many others could not hide their pessimistic view and started to complain very quickly in the conversation. The priest of the neighbourhood, Don Giovanni, expressed his concerns about this. He saw children being discouraged to learn or to dream just because of their environment. He thought the biggest challenge the neighbourhood has to face is the creation of a perspective for its inhabitants, in order that they can dream again and will work towards a brighter future for themselves, their families and the neighbourhood.

The stigmatisation of high-rise post-war housing estates is also visible in the rap scene. Many of these areas are stigmatised as being dangerous or insecure. Therefore, using them as a background for hip hop videos could enhance the rebellious image many artists aspire. The white towers of Gratosoglio are also used as a background for several rap videos. In the figures below, stills of these videos taken in Gratosoglio are shown, in company with stills of other videos, taken in other housing estates in Italy, France and Russia.

Figure III.52, Figure III.53, Figure III.54, Figure III.55: articles about issues of the Watersportbaan

Woontorens Watersportbaan krijgen een wijkhuis

Erik De Troyer/Didier Verbaere 10 januari 2019 20u23

Gianni Barbieux Appartementsblok aan de Watersportbaan.

Gent Tegen eind 2021 zal er aan de Watersportbaan een wijkhuis worden gebouwd. Dat moet een ontmoetingsplaats worden voor de bewoners van de dertien woontorens en 1.500 sociale woningen in de omgeving.

"De omgeving van de Watersportbaan heeft maar weinig sociale en economische voorzieningen. Binnenkort start wel de bouw van het nieuwe wijkgezondheidscentrum en

Stad werft vierde flatwatcher aan, maar wat doet die? "Bewoners spreken me over alles aan, van een bananenschil op de gang tot sluikstorten"

Jill Dhondt 28 mei 2020 18u19

Exclusief voor abonnees

Wannes Nimmegeers Op stap met flatwatcher Kristof tussen de sociale hoogbouw aan de Watersportbaan.

Gent Het stadsbestuur werft een vierde 'flatwatcher'

Mobiliteit rond Watersportbaan en Blaarmeersen moet bekeken worden

Sabine Van Damme 04 februari 2020 09u46

RV Op drukke momenten wordt er aan de Watersportbaan te vaak fout geparkeerd

Gent "We willen een duurzame mobiliteit rond de Blaarmeersen, maar de situatie moet daar grondig bekeken worden. Op drukke evenementendagen is daar een probleem." Dat zei sportschepen Sofie Bracke in het kader van haar beleidsnota.

"Op het moment dat het druk is rond de site Watersportbaan, met roeiwedstrijden, hockeywedstrijden, wedstrijden in de Topsporthal, strandweer en eventueel nog een evenement op de

Vanaf zaterdag circus aan de Watersportbaan, tot het einde van de kerstvakantie

Sabine Van Damme 12 december 2019 13u44

Wannes Nimmegeers Circus Pipo aan de Watersportbaan.

Gent Vorig jaar was er geen, maar dit jaar krijgen we wel terug een wintercircus in Gent. Voor wie de drukte van de Winterfeesten wil ontvluchten, staat aan de Watersportbaan Circus Pipo, met animatie voor jong en oud.

Circus Pipo slaat z'n tenten op aan de Watersportbaan, op de parking aan de Yachtdreef. Ze zitten buiten het stadscentrum, en dat heeft voor- en nadelen. Qua

From left to right:

Figure III.56: Still from the video of the song 'Giovane fuoriclasse' by CAPO PLAZA at Gratosoglio
Figure III.57: Still from the video of the song 'Rivincita' by Marracash at Gratosoglio
Figure III.58: Still from the video of the song 'WOW' by Achille Lauro (Italy)
Figure III.59: Still from the video of the song 'Stress' by Justice (Russia)
Figure III.60: Still from the video of the song 'Le monde ou rien' by PNL (France)

_ SOCIAL COHESION

"Originally, the community feeling on many estates was strong. The population consisted mainly of young working- or middle-class families. Nowadays a new feeling of local solidarity has emerged in many cases, sometimes as a result of living together in harsh situations."

"Local solidarity or social cohesion can also be enhanced as a consequence of the (perceived) peripheral location of the estate."

"In some cases, social cohesion can be found among a limited number of groups" (Dekker & van Kempen, 2005, p. 37).

As above-mentioned during the population structure section, the population in both neighbourhoods changed from a mix of middle class families and slum dwellers (in Ghent) and from migrant families from the South of Italy looking for better opportunities (in Milan), to a mix of an ageing original population and new people with other origins. These changes lead to struggles in both areas. Both groups cannot easily identify themselves (nowadays) with their neighbourhoods and struggle to find social connections. Because of that, many residents, usually elderly, suffer from loneliness lack of meaning. In Gratosoglio the elderly people who were interviewed got nostalgic when telling the stories about how their neighbourhood was in the beginning, in the lively sixties. Today, this sense of community is shifted; friends and families are gone and most of the older inhabitants complain about the lack of meeting spaces and the changed mentality of the neighbourhood.

Social cohesion is not evident when a once homogenous group of people changes to an heterogenous group. The changed population structure reveals several issues as the lack of collective services, meeting spaces and the lack of a common identity; all of them could help to create more social cohesion among the inhabitants.

In Ghent, several social associations are currently working in and around the Watersportbaan (see Figure III.61), and a whole team of several stakeholders work to provide social assistance to the residents.[4] So, worked the team of "Samenlevingsopbouw Gent" on participation projects with the residents. The aim was to question the apartments and the environment and their liveability. In the end they searched for new points of action in three buildings: Borluut, Dennenhof and Elektra. The resulting ideas and points of action are precise and achievable and local neighbours are involved as volunteers with the organisation of them ('Samenlevingsopbouw Gent | Investeert in de kracht van mensen', n.d.).

Several social associations are currently working in Gratosoglio (see Figure III.62). The local community centre provides a variety of activities for young people and in the interviews many older people mentioned they went there to play cards. Peculiarly, these meeting spots are almost hidden for the world outside. The community centre is completely socially isolated, so are several other services in the neighbourhood. In interviews inhabitants explained they did not go outside anymore after 7pm. The perception of crime withheld them to meet new people and see their friends. Furthermore, this distrust makes it hard to reach people, a sense of community is lost.

Gratosoul
participation, exchange of ideas, connection
between local regio's

Casa Delle Associazioni e Del Volontariato
network of local associations

Associazione Somala Shukran
solidarity, integration of migrants, ...

Civic centre

Lo Scrigno
youth center, home care, social assistance

Casa della solidarietà
center for homeless and migrants

Comunita Oklahoma
hospitality and education for children with difficult living conditions

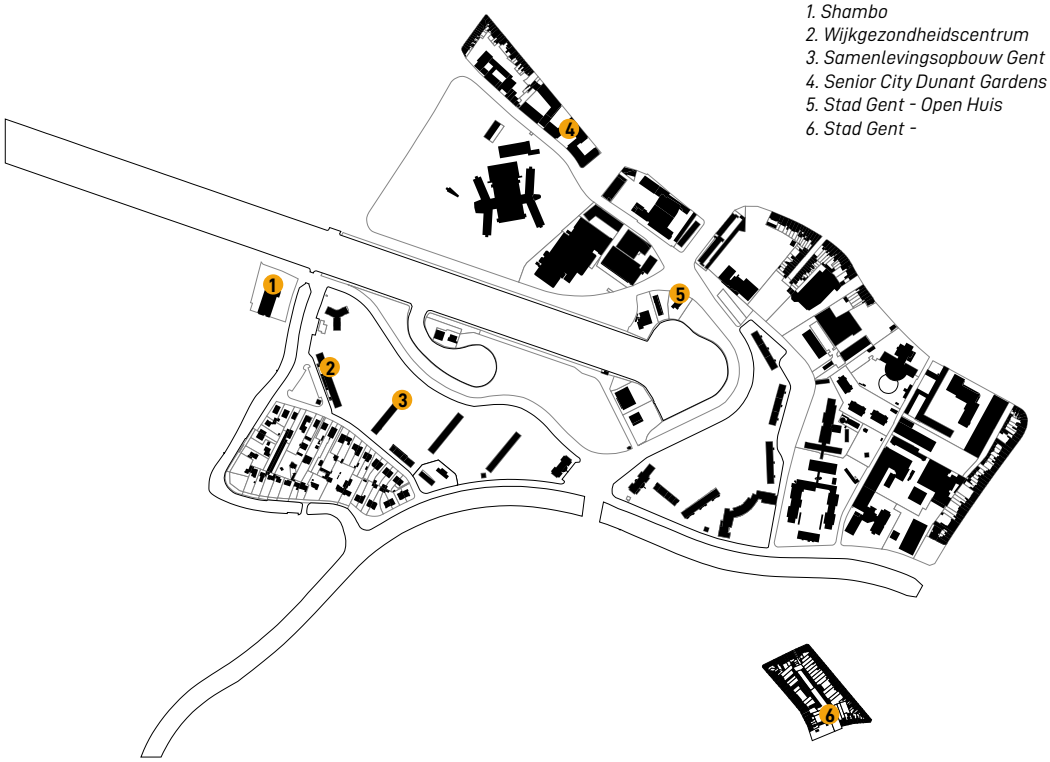


Figure III.61: Social associations – Watersportbaan
Figure III.62: Social associations – Gratosoglio

4 Among others: "Samenlevingsopbouw Gent", "Ontmoeten & Verbinden" community workers, local service centre, neighbourhood health centre, street worker, flat warden, the neighbourhood monitor of "Woningent", social director of the municipality, social worker at the elementary school, etc., ...

_ Economic profile

_ EMPLOYMENT

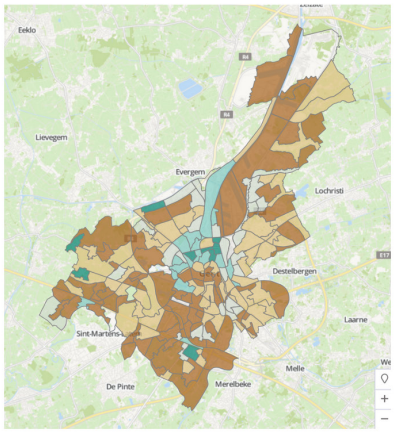
"The housing estates were built in a period when industrialisation was booming, and low-skilled workers were needed in large numbers. Mass employment led to housing that was built especially for these employees and their families. Initially, low-skilled industrial workers inhabited many of the estates; even today, the educational level is below average on all estates."

"In every country the change from an industrial to a service economy led to increased unemployment among the low-skilled manual workers. As a consequence, nearly all estates have unemployment rates that are above the city as a whole, although the real concentration of the unemployed is often still to be found in the old city centres. The post-Second World War housing estates have had relatively high unemployment rates, but certainly not the highest of the city."

"Since the definition and therefore the registration of unemployment differs in each country, a strict comparison is not always possible. In addition, social assistance is granted to different groups in each country. However, gross participation (the share of the total population that has a job) does give a comparable indication of participation. On many estates gross participation is declining. Many reports explain this decline by reference to the changing population structure of the estates and a changing demand for employees. Another reason for the decrease of participation is the increased proportion of pensioners among the residents; people who started their professional and housing careers in the 1960s have now retired. Furthermore, as shown below, there has been an influx of migrant families on many estates. Unemployment among migrant groups is higher in all countries" (Dekker & van Kempen, 2005, pp. 28–30).

Like many public housing areas, Gratosoglio and the Watersportbaan are both characterised by people with fragile living conditions. Ghent has a remarkable percentage of individuals without a basic degree (sector Neermeersen has a percentage 4,6% compared to the Ghentian average of 2,7%, see Figure III.63). In Gratosoglio, 1 individual out of 10 does not have a degree (see Figure III.64 and more into detail Figure III.65). Logically, at the same time, both areas have troubles at the labour-market, especially younger generations. The unemployment rate is problematic with approximately 20% at the Watersportbaan (Figure III.66) and 10% in the Gratosoglio neighbourhood (with peaks even higher within the neighbourhood, Figure III.67 and Figure III.68). Gratosoglio, who was first inhabited by workers from the South of Italy, still has a high degree of inhabitants with low skill jobs. Most of them live around the White Towers of Gratosoglio as seen in Figure III.69 and Figure III.70. In Ghent 25% of the people living in the neighbourhood Watersportbaan-Ekkergem (including the sectors: Blaarmeersen, Bijloke, Ekkergem and Neermeersen) has the right to increased allowances to protect them against high medical costs ('Watersportbaan - Ekkergem | Met hoeveel in - Stad Gent', n.d.). The quota of people with a net year income lower than 5000 euro is remarkably lower in Neermeersen sector than the Ghentian average (Figure III.71). In comparison to other Ghentian neighbourhoods, with a percentage higher than 10%, the neighbourhood can be placed somewhere in between.

Individuals withouth a degree

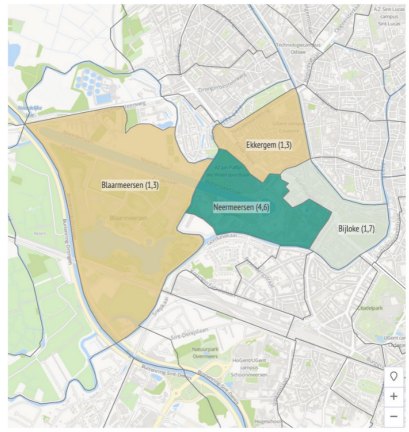


Ghent average:

2,7 %

Neermeersen average:

4,6 %

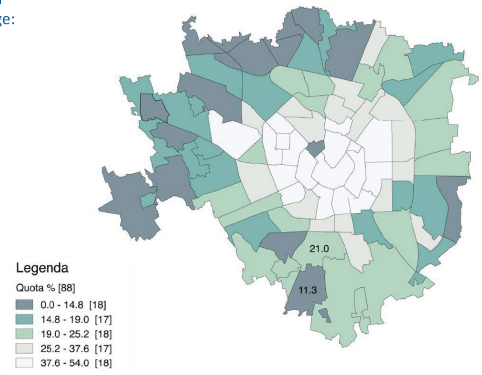


INDIVIDUALS WITH A DEGREE

(calculated on over 25 years old)

MILAN average:

27.3%



DEGREE

MILAN average: 27,3%

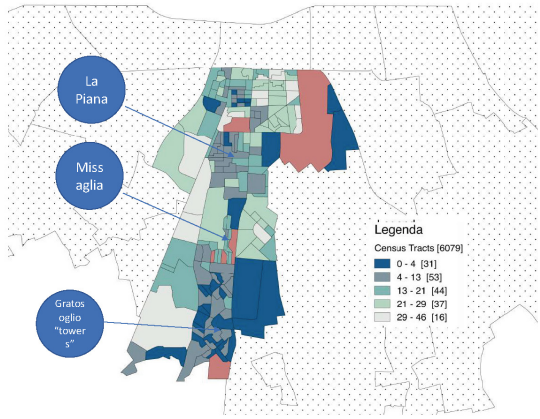
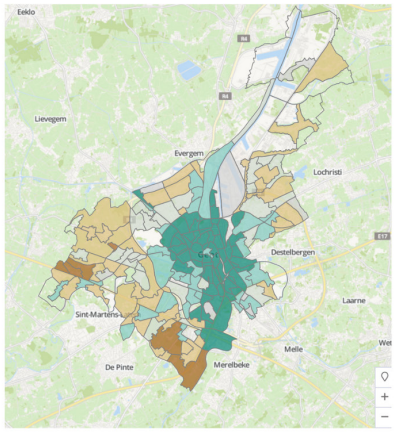


Figure III.63: Individuals without a degree – sector Neermeersen compared to Ghent
Figure III.64: Individuals with a degree – Gratosoglio compared to Milan
Figure III.65: Individuals with a degree – within Gratosoglio

Unemployment rate (source: VDAB)

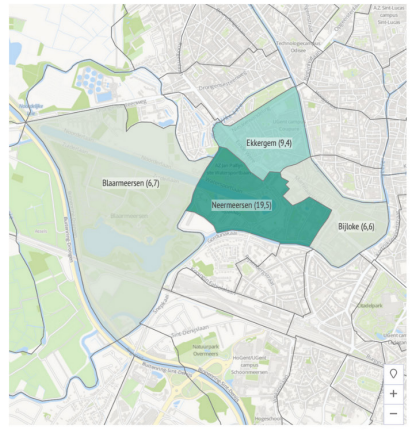


Ghent average:

8,8 %

Neermeersen average:

19,5 %

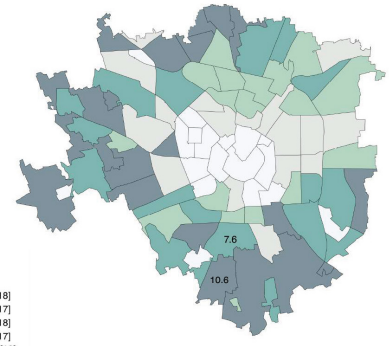


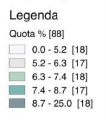
UNEMPLOYMENT RATE

MILAN average:

6.9%

Unemployment rate: people searching for a job/(people searching for a job+employed people)





UNEMPLOYMENT RATE

MILAN average: 6.9 %

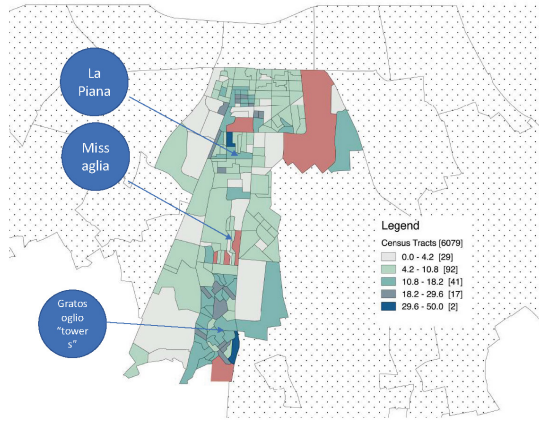
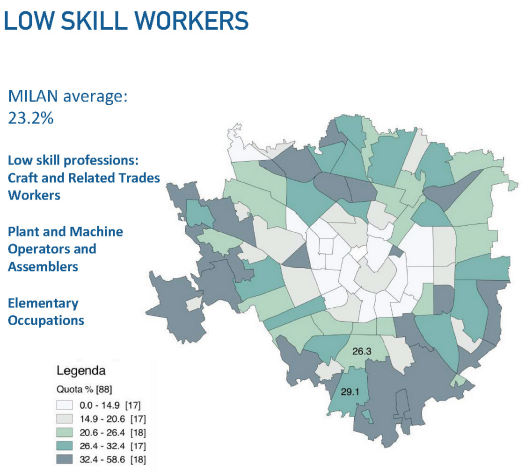
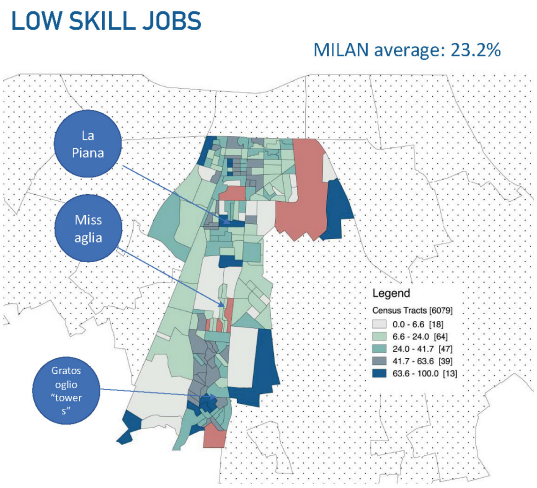


Figure III.66: Unemployment rate – sector Neermeersen compared to Ghent
Figure III.67: Unemployment rate – Gratosoglio compared to Milan
Figure III.68: Unemployment rate – within Gratosoglio





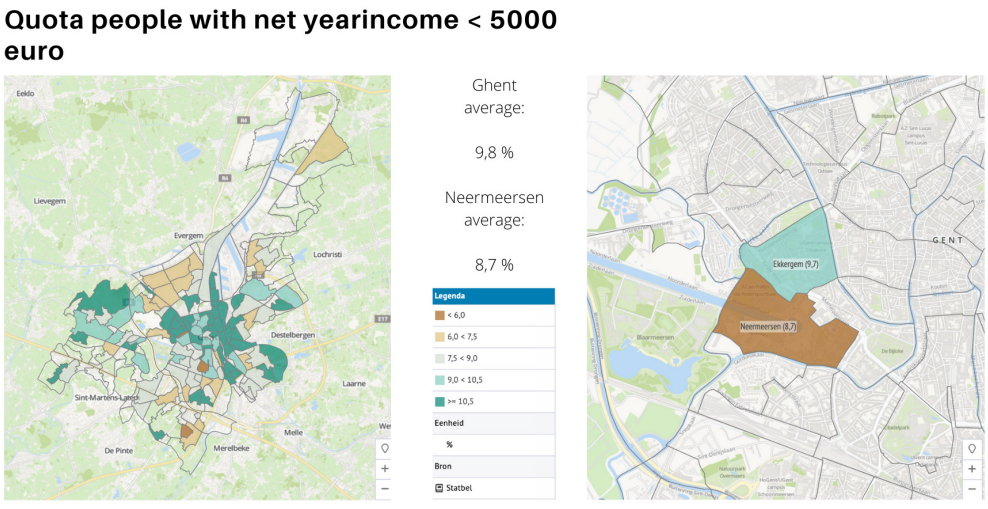


Figure III.69: Low skill workers – Gratosoglio compared to Milan
Figure III.70: Low skill jobs – within Gratosoglio
Figure III.71: Quota people with net year income lower than 5000 euro

_ Liveability

_ PUBLIC SPACE

"Large post-Second World War housing estates and high-rise housing blocks are by no means invariably the worst places in the city in which to live. Older neighbourhoods often have lower-quality dwellings; in many cases there are more negative neighbourhood characteristics in the older areas than on the more modern estates, for example, higher population densities, traffic problems, a lack of playing facilities for children, and a general lack of green areas. It is clear that many people like living on some of the post-Second World War estates."

"A separation of functions can be seen as a typical characteristic of the estates that were built according to the principles of CIAM and Le Corbusier. The large green public areas between the housing blocks and the separation of functions are nowadays often evaluated as an asset. The estates were often designed by famous architects with clear ideas about urban design, creating a feeling of spatial grandeur. As a result, the estates are spacious and provide ample opportunities for leisure activities such as jogging and fishing; pedestrians are not bothered by traffic; and disturbances by public functions are minimised when they are not located close to dwellings."

"In some cases, however, such as Milan's Sant'Ambrogio and Utrecht's Kanaleneiland, the green areas and other public spaces are very poorly maintained. In former state-socialist countries, unclear ownership structures generate problematic issues with respect to public spaces and lead to poor maintenance. Consequently, sometimes these spaces cannot be used, or they are vandalised. Areas where cars are not allowed also minimise the opportunities for police patrol, and all kinds of criminal behaviour may be attracted, as in Amsterdam's Bijlmer. On many estates the quality of the playgrounds leaves much to be desired."

When the post-Second World War large housing estates were built, nobody suspected that the number of cars in the city and the neighbourhood would increase to the extent it has done in the last 20 years or so. This increase means that within these estates – as in other city neighbourhoods – there are traffic problems of all kinds."

"Parking problems are a direct consequence of the growth of car ownership in combination with too few parking spaces, although the large green public spaces provide a solution that cannot be found in inner city areas."

"A high population density leads to problems with the liveability of an estate. The number of people living in a designated area does not matter as much as the number of people who feel uneasy about this density" (Dekker & van Kempen, 2005, pp. 38, 39).

3 // The open space

Gratosoglio and the Watersportbaan are both characterised by their open spaces. Because of the way the neighbourhoods were built – according to modernist principles with high-rise housing in a parkland setting – these open green spaces determine without a doubt the outlook and identity of the areas. A big share of the issues the inhabitants are facing today, are linked to the poorly maintenance of these areas. These spaces, once envisioned to have a spatial grandeur, are nowadays often lacking opportunities for activities and services. Nevertheless, in interviews with the inhabitants of the neighbourhoods, many of them saw the opportunities of the open spaces and pointed out the open spaces as an asset.

The massive amount of unbuilt space is defining the neighbourhoods. The Floor Space index (FSi)[7], calculated in Table III.6, Table III.7 and Table III.8 indicates the use of space. Normally, the FSi isn't higher than 1, but in more urban environments, as Uytenhaak argues, the index is usually in between 1 and 2. In his book he explains this with schemes of variations of piling up blocks (see Figure III.72) and what it means to have a FSi of 1. In many cities, the environment is more urban and the FSi is thus between 1 and 2. We see that the Watersportbaan and Gratosoglio both have an FSi of 1. So there is still space left to densify more in both neighbourhoods, e.g. adding new (or bringing back) collective facilities and bringing the neighbourhood back to the human scale.

4 // Outdoor encounters and activities

Since both the neighbourhoods lack outdoor encounters and activities it is necessary that they bring back functions in het open spaces. While they have an abundance of greenery, big grass fields and randomly placed large trees, they lack activities in it, and they are not always well-maintained.

Therefore, these zones are not specified and are underused. Sometimes the municipality tries to add new functions to the neighbourhoods, like the little skating rink in Gratosoglio, but the neighbours are not always involved and thus problems arise.

E.g. an interview with a child in Gratosoglio:

"It would be great to have more things to do here, normally we drive to each other's house and hang around. Sometimes we go to the little skate rink to hang. We would like to skate there too but unfortunately the ring is too steep. Only advanced skaters would skate there, so nobody uses it now."

In Ghent, the many associations in the neighbourhoods try to obtain more involvement of the neighbours in their activities.

Besides the underuse of these areas, also the placement and entrances do not invite the inhabitants to use the open spaces. As mentioned in section 3.1.2, the buildings in Gratosoglio are placed according a rationalist grid. Courtyards between de buildings could be made, but the entrances of the buildings never face each other. Constructing new entrances to these courtyards could help developing them as specific zones with facilities for the inhabitants of these blocks.

Some of the things that do work are the playgrounds in the neighbourhoods. Gratosoglio has several playgrounds and they got mentioned in a lot of interviews as places to go. Also the oratorio in the centre of the neighbourhood (see Figure III.78), is with his sports fields a place where many kids like to go.

In Ghent the playgrounds are used by children alone, when old enough, or under supervising of their parents. Similar to Gratosoglio, the playgrounds are situated further from the

5 *"The Floor Space index objectively maps the more efficient use of space. The number indicates the ratio of total realised floor area with the total ground surface. FSi is the same as V/T index, which is used in Belgian literature"* (Uytenhaak, 2008, p. 21).

Gratosoglio	*Square meters ground floors*	*Floors*	*Square meter*floor*	*buildings*	*Total*
Slab A	505	10	5050	30	*151500*
Slab B	648	10	6480	13	*84240*
Slab C	788	10	7880	8	*63040*
Slab D	981	10	9810	1	*9810*
Towers	565	17	9605	8	*76840*
School A	4159	2	8318	2	*16636*
School B	1336	2	2672	1	*2672*
Church	2324	2	4648	1	*4648*
Elderly centre	1669	2	3338	1	*3338*
Community centre	930	2	1860	1	*1860*
Other A	1545	1	1545	4	*6180*
Other B	974	1	974	1	*974*
Other C	1320	1	1320	1	*1320*
Other D	1443	1	1443	1	*1443*
				Total V	*424501*

Watersportbaan	*Square meters ground floors*	*Floors*	*Total square meters*
1. Belvedère	804	20	*16080*
2. Elektra	1200	12	*14400*
3. Borluut	1000	12	*12000*
4. Rozenhof	1000	12	*12000*
5. Dennenhof	1000	12	*12000*
6. E. Van Beveren	650	19	*12350*
7. E. Anseele	1000	19	*19000*
8. Nachez	1000	8	*8000*
9. Jubileum 1	850	8	*6800*
10. Jubileum 2	800	8	*6400*
11. Jubileum 3	850	8	*6800*
Lower building 1			
Lower building 2			
		Total	*125830*

	V	*T*	*V/T*
Watersportbaan	125830	128492	0,97928276
Gratosoglio	424501	424396	1,00024741

apartments, mostly surrounded by bushes or trees in Ghent, and therefore visual supervision is not easily obtained. Furthermore, the lighting in both areas are mostly located near the roads, only lightening the streets. Better and more lighting would create less feelings of insecurity.

At last, when the weather is bad, like too rainy in Ghent or too hot in Gratosoglio, people stay inside because there are no covered places to play or meet people outdoors. In Gratosoglio, climate change heathens the area in summer and although there are many trees in the area, many of them are situated around parking lots and streets. Providing new shading on central squares and on new meeting spots would increase the liveability of the neighbourhood (Boonen et al., 2019).

5 // Greenery and water

Most of the time the open spaces consist out of lawns and parking lots. In Ghent they sometimes added smaller places like playgrounds. The big trees implemented in both the neighbourhoods are appreciated by the residents and guarantee some shade. Nevertheless, most of the time they are poorly aligned with the buildings blocking sight and light into the apartments. At the Watersportbaan, most of the trees block the sight to the playgrounds, which make them more unsafe, and the sight to the Watersportbaan, isolating the neighbourhood of the water it is named for. In Gratosoglio the trees are implemented around buildings and parking lots instead of near the squares, benches and pathways, where in the hot Italian summers, shade is needed.

As already mentioned, the lawns in both neighbourhoods are not programmed and uniform in outlook. Diversity in the greenery and created identities for these spaces are lost and therefore these spaces lack legibility. Inhabitants of both neighbourhoods wish to have more colour in their 'gardens' and more space for themselves to harvest vegetables or plant flowers. Furthermore, it is not clear to the inhabitants whether or not they can adapt the greenery, in Gratosoglio this resulted in sometimes poorly maintained lawns.

Both neighbourhoods are somehow connected with water, but most of the time the view of it is blocked. In Gratosoglio, the river is fenced with a wall, undervaluing the possible activities and keeping the inhabitants from the opportunity to play in or see the water.

In Ghent, the neighbourhood is named after the water sports course next to it, but most of the neighbours don't feel connected with it. Partially, this is because many cannot see the water sports course due to the big trees, but also because almost no one of the inhabitants makes use of the (sport)activities linked with it (due to time, price or interest). Furthermore, the big roads – the Europalaan and the Verenigde-Natieslaan – separate the neighbourhood from the water, creating a physical barrier.

The Leie river boarders the southern part of the neighbourhood. People rather go there to sit on the benches to enjoy the view and its calmness, than to do activities on the water. Because the Leie is more visible to the neighbourhood, and the streets parallel to it are more peaceful, many of the inhabitants feel more connected with this river than with the water sports course.

Table III.6: Total gross floor area of all buildings (V) – Gratosoglio
Table III.7: Total gross floor area of all buildings (V) – Watersportbaan
Table III.8: The V/T-index of both neighbourhoods

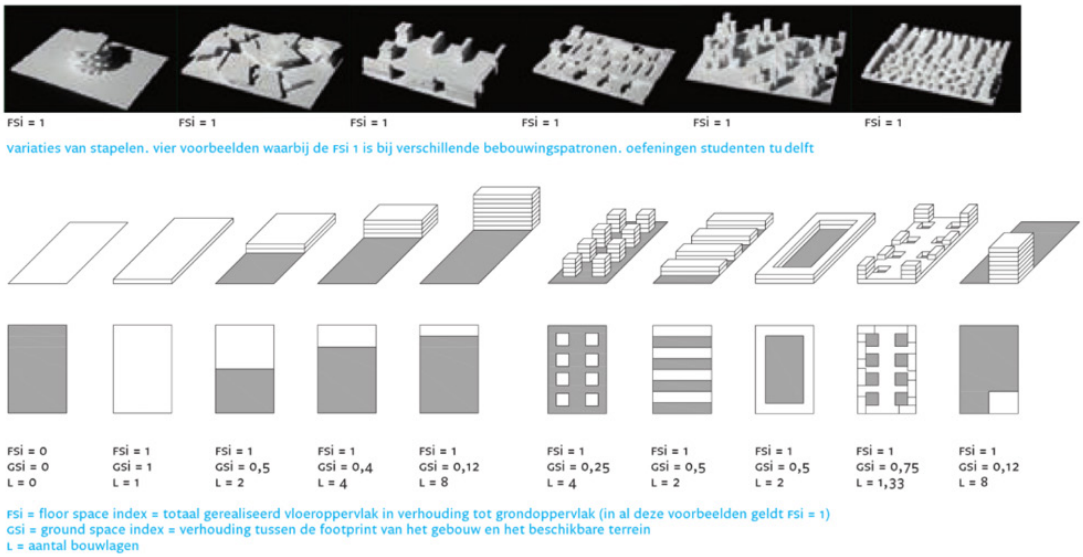


Figure III.72: Schemes on what an FSi = 1 means, with L = number of floors

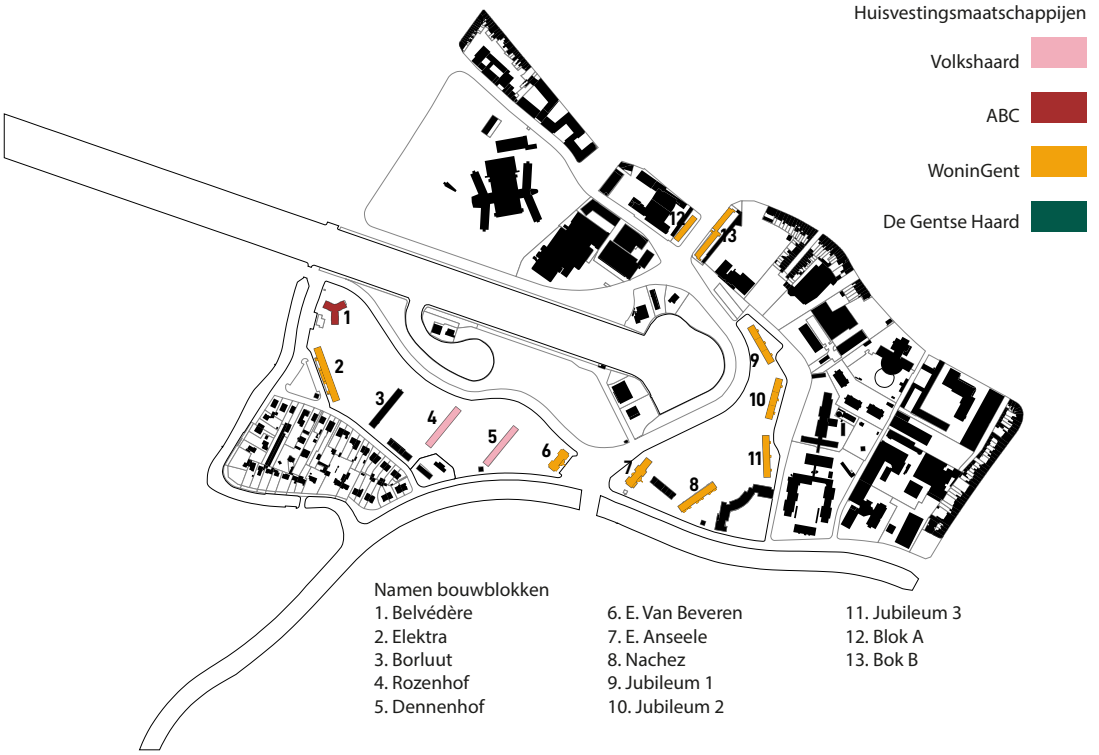


Figure III.73: The names of the buildings - Watersportbaan

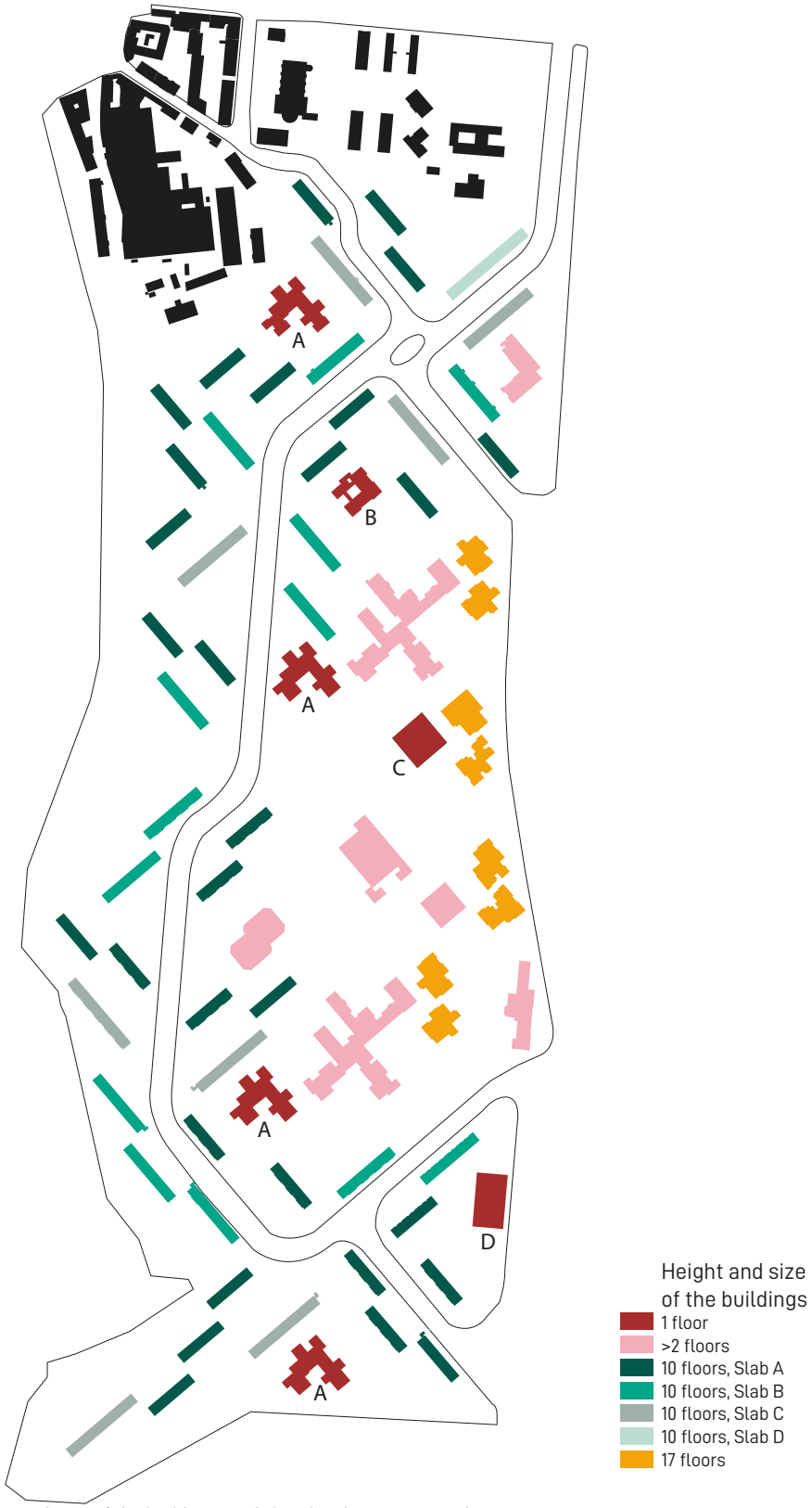


Figure III.74: Scheme of the buildings and their heights – Gratosoglio

Figure III.75: Plan of the open spaces – Watersportbaan
Figure III.76: Picture with view on the area between Rozenhof and Dennenhof. The view is still very open
Figure III.77: Picture on the open space with view on the former low buildings for shopping and very small vegetation. The view was much more open
Figure III.78: Open spaces - Gratosoglio


Open spaces
and green areas
Trees
Green space
Sport facilities
Fields

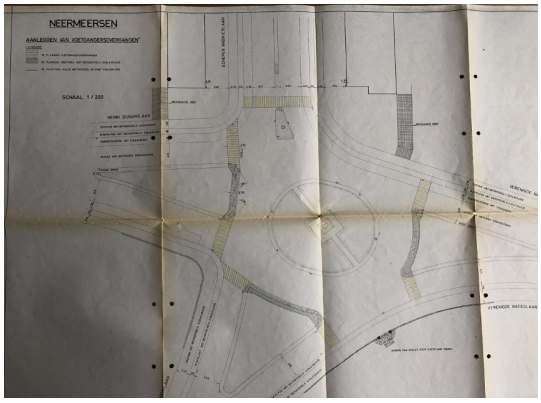
6 // The car in the neighbourhood

Modernist architects worldwide were intrigued by the rise of the automobile. Influenced by this new accelerated way of transporting, many planners designed landscapes on the scale of the car, with large roads, garages and parking lots. The car obtained a dominant position, pedestrians and bikers became second. The Fordist way of production, dividing up the production chain, became an inspiration for many of these architects; the separation of functions was one of the principles advocated by the CIAM group ('Modern Architecture and Automobile Culture', n.d.).

Gratosoglio and the Watersportbaan are both designed in this way. The streets are rather oversized (e.g. in Gratosoglio, the roundabout is so big that it loses its connection with the surrounding buildings and the human scale) and everywhere parking lots are provided. Some residents argue that these are needed for the less mobile people, to do grocery shopping or to go to work. Others are less convinced and complain that the streets are too big – and thus harder to cross and more dangerous for kids – and that the parking lots provided are never full of cars (the latter in particular in Ghent). In Gratosoglio, an underground parking for the residents of the 'White Towers' is located underneath the central square. But because of maintenance and technical issues (e.g. water infiltrating), this parking is not used anymore. Hence, most of the cars are parked on the side street. In both areas parking is provided for the inhabitants in between the building slabs. In this way, some problems are caused: firstly, people living in the blocks are always looking at the parking lots from their apartments, they cannot see their kids playing on the playgrounds a little further. The parking lots are in front of the entrances of the building, which is welcoming for people who are no longer able to walk well, but in this way opportunities to meet neighbours are less likely. The 'courtyards' in between the buildings in Gratosoglio have a lot of potential to create new common facilities but are now most of the time used as parking lots.

Bike parking is less present in both neighbourhoods. In Ghent, some can be found in front of the buildings, like in front of the Rozenhof building, in Gratosoglio they were very rare. On the western side of Gratosoglio there was a bike lane, shaded by trees, along the river. Unfortunately, this lane (and the river too) was mostly shut off by a wall. Regarding a more sustainable and better-connected neighbourhood this bike lane could be improved and become better connected to the city.

Figure III.79: A picture of Gratosoglio in its early years, with massive spaces foreseen for the car
Figure III.80: parking lots designed at the Watersportbaan
Figure III.81: The roundabout at the Watersportbaan is designed on the scale of the car. Many of the inhabitants complained about traffic problems the roundabout caused due to busses
Figure III.82: Later on, inhabitants thought that the streets were too dangerous and implemented protection to keep cars driving to the entry of the supermarket (1980)


NEERMEERSEN
SCHAAL 1 / 200


Primus-wash

_ SERVICES

"One or two shopping centres were planned on most of the estates. The needs of the residents have changed in the course of time, so the kinds of services provided have often been updated and adapted. On estates where many migrants have moved in, the number of foreign shops has burgeoned. On other estates the perceived lack of 'normal' shops has led to an increasing number of small informal shops, especially in Eastern Europe after 1990."

"In some cases, the number of shops is limited, satisfying only the most basic of shopping needs (as in London's Bow HAT); in other cases, the shops are too expensive. The closing down of smaller shopping centres on some estates causes problems for the elderly, who now have to walk longer distances to the supermarkets for their daily supplies.

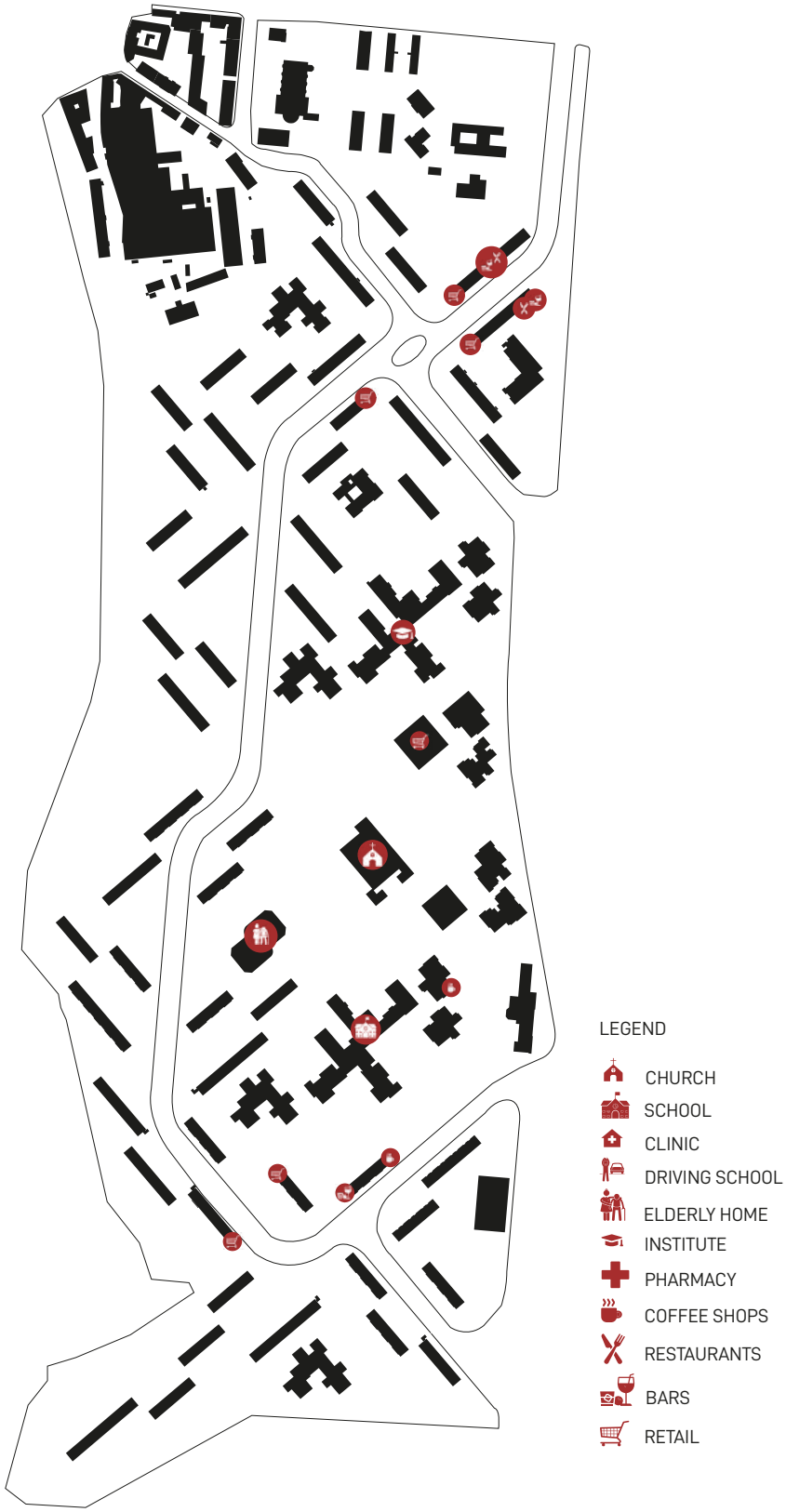
All the reports note a lack of health services and community centres" (Dekker & van Kempen, 2005, pp. 39, 40).

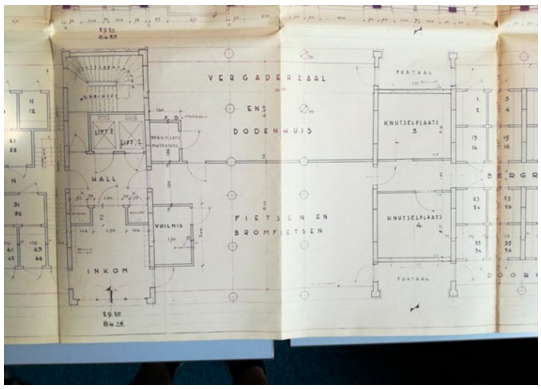
In Gratosoglio, most facilities are situated near the large eastern road Via dei Missaglia which connects Milan's suburbs with the city centre. The neighbourhood provides several kinds of services and facilities, like schools, some small shops, a pharmacy, a church, an elderly home, a bar, a cultural centre, kindergarten and others. Despite all of this, the amount of services is not sufficient for the inhabitants needs today. The largest share of space in the neighbourhood is currently for residential use. In the original project, more services and amenities were designed in order to create a self-sufficient neighbourhood. Nowadays, this is not the case anymore; many shops services are gone, spaces for services – like the ground floors of the white towers – are closed. Inhabitants need to travel to Milan's city centre every day to go to work. Collective spaces and informal meeting spots around the neighbourhood are strangely enough most of the time fenced off or hidden from the outside. The elderly centre in the plinth of the white towers always has its shutters down, the cultural centre of the neighbourhood is only reachable by the back entrance under ground floor level, not at the side of the square next to it. Therefore, the little services the neighbourhood (still) has, are all almost hidden for inhabitants.

The Watersportbaan neighbourhoods is closer to the city centre of Ghent than Gratosoglio to the centre of Milan and well connected by public transport. Therefore, the neighbourhood was never designed as a self-sufficient neighbourhood and many residents travel to Ghent or other cities every day without having problems. Originally, the neighbourhood was contained eleven primarily residential high-rise apartment buildings and two smaller low-rise buildings for services. One building, located between the Borluut and the Rozenhof is nowadays privatised and divided in several private dwellings. The other one, located in between the E. Anseele building and the Nachez building, accommodates today a pharmacy, a night shop and a laundromat. The only supermarket near the neighbourhood is the Delhaize, North of the Jubileumlaan. Because of its more expensive prices, people from the neighbourhood often don't go there but go to the Liddle, which is twenty minutes walking. Because of this, particularly older inhabitants of the neighbourhood complain about the lack of supermarkets and shops close to their houses. Younger people complain about the lack of meeting spaces, such as collective spaces, bars and restaurants. Former plans show other services that were designed for the neighbourhood, like a con-

ference room and even a Death House on the ground floors of the Borluut and a chapel near the former community house "the Kring". All of these services were never built, or like the community house abandoned and closed nowadays (see Figure III.84, Figure III.85, Figure III.86).

In accordance with Gratosoglio, some services are hard to find in the Watersportbaan neighbourhood too. For instance, the social counsellors in the neighbourhood tried to create a low threshold meeting point in the Borluut in an uninhabited apartment. Unfortunately, not all neighbours can easily find the meeting space. Due to the lack of meeting spaces, both in Gratosoglio and at the Watersportbaan, people mention in interviews and surveys that the entrance hall of their buildings sometimes work as important informal meeting places. The shades at the entrance of the E. Van Beveren and E. Anseele buildings facilitates this use (see Figure III.88).


LEGEND
CHURCH
SCHOOL
CLINIC
DRIVING SCHOOL
ELDERLY HOME
INSTITUTE
PHARMACY
COFFEE SHOPS
RESTAURANTS
BARS
RETAIL



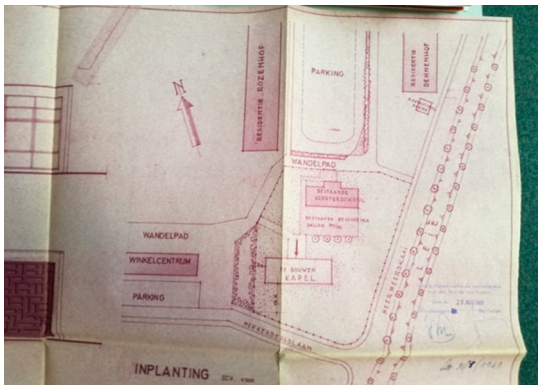


Figure III.83: Services in Gratosoglio
Figure III.84: the reference room and Death House at the Borluut
Figure III.85: The chapel near the "shopping centre" at the Rozenhof building
Figure III.86: The Kring several years ago
Figure III.87: Low threshold meeting point "De Zoete Inval"
Figure III.88: Entrance E. Van Beveren building

_ Safety

"A multitude of safety and social problems can arise in neighbourhoods at the bottom of the housing market. Many people live there because they have no other choice; vacancy rates are often high. Empty dwellings can lead to anti-social behaviour, vandalism, feelings of insecurity, and, of course, lower incomes for the landlords, who may decrease their investments in the housing stock. A spiral of decline then emerges (see also Prak and Priemus, 1985). Vacant dwellings can also attract squatters. In Milan's San Siro an estimated 9% of the total

number of dwellings are illegally occupied. Another safety problem is related to a lack of meeting places. When people cannot meet outside the home in pubs, youth centres, community buildings or similar venues, they start looking for alternatives. Hanging around in common parts of buildings, shopping centres, and other external spaces seems to be typical,"

"Feelings of insecurity among the residents of the neighbourhood are often fed by the anti-social behaviour of some groups in the area."

"It has been noted earlier in this chapter that drug dealing and drug abuse may be related in part to the physical structure of an area. Drug problems are mentioned on many of the estates in our research project. That is not to say, however, that these areas are invariably the most prominent sites in the city involved in drug dealing and drug abuse. It should also be noted that drug abuse probably relates to some extent to the age structure of the area's inhabitants. When an estate accommodates many people in the 15- to 25-year age range, the chance of drug abuse is higher than when there are greater numbers of younger or older people living on the estate."

"Crime is not always related to drugs. The perception of crime in the area can easily lead to a negative evaluation of an estate" (Dekker & van Kempen, 2005, pp. 40, 41).

Stefanizzi and Verdolini used four dimensions of insecurity to research the perception of insecurity in European cities. They did research on several social housing neighbourhoods in Milan, among which was Gratosoglio. Their four dimensions are: the objective dimension, the subjective dimension, the socio-geographical dimension and the socio-economic dimension.[6] The results are obtained by 50 in-depth interviews, 6 months of participant observation and 10 focus groups in 10 European cities. The results for Gratosoglio are written down below in Table III.9 (Stefanizzi & Verdolini, 2019b).

Gratosoglio (M)			
Objective dimension	Subjective dimension	Socio-economic dimension	Socio-geographic dimension
Burglary criminality (organized crimes) House squatting Drug trafficking	Fear of victimization Unsafe during the night Coexistence issues	Housing conditions Social housing Poverty deprivation	Closeness to Roma camp Presence of retention centre Isolated area

Table III.9: Insecurity dimensions of the Gratosoglio neighbourhood

As you can see, there are several dimensions responsible for insecurity feelings in the Gratosoglio area. Some of them I have already mentioned, like the isolation of the area and the housing conditions. Others were mentioned by residents of the neighbourhood in my interviews, like the feeling of being unsafe during the night or the presence of the retention centre.

I could not talk with inhabitants in Ghent, due to some Covid-19 measurements, but the city keeps statistics on the liveability of its neighbourhoods. In these statics it is clear that the general insecurity feeling at the Watersportbaan area is not higher than the average in the city, see Figure III.89.

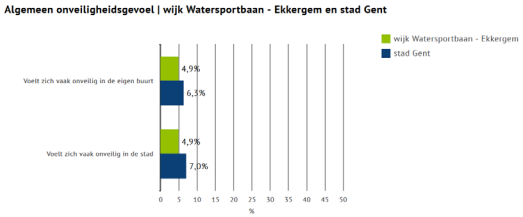
In Gratosoglio people complained about this insecurity feeling and the perception of crime in their neighbourhood. They genuinely believed their neighbourhood had to deal with some crime issues but could not refer to exact examples. This perception of crime was clearly visible in the interviews made.

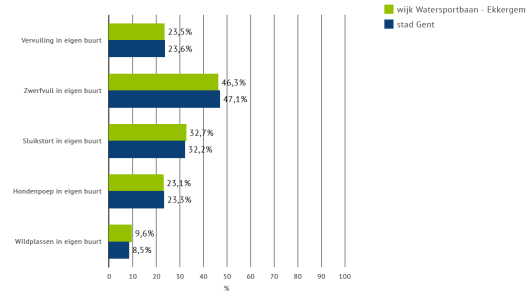
Insecurity feelings were also increased by a bad maintenance of the neighbourhood. Among other, the garbage in the neighbourhood had become an issue. Litter was therefore regularly dropped in public places, to the great discontent of neighbours who expressed their anger in social media groups (see). In Ghent, the people of the Watersportbaan had to deal slightly more with waste issues than the average of the city. In the neighbourhood, residents indicated issues like vandalism and the plastering of walls and buildings more than in the city of Ghent (see Figure III.90, Figure III.91). All of these issues certainly increase insecurity feelings and damages the neighbourhoods' reputations.

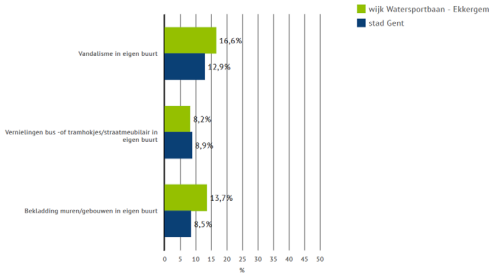
The neighbourhoods also have to deal with social issues. As they both have a diverse ethnic population and mixed generations living together, these issues are very important. At the Watersportbaan we generally see that the attitude of the residents towards different cultures is more positive than the average of Ghent (see Figure III.93). But, remarkably, although the positive attitude towards different cultures, neighbours indicate that the social integration in their neighbourhood is worse than Ghent's average. Neighbours help each other less than in other areas and the contact between each other is less present too (see Figure III.94).

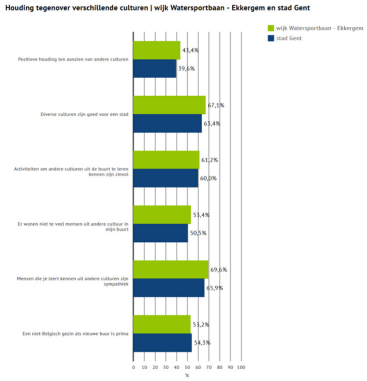
At Gratosoglio, neighbours felt these issues too. The retention centre, indicated by neighbours as "the yellow house", caused some frustrations too. Many neighbours accused the centre of being problematic and causing problems. The director of the centre explained in an interview the centre's way of working.

6 In the research, the dimensions are further explained:
The objective: which mainly refers to any illegal action that directly infringes or threatens the physical integrity of individuals and/or their right to property; The subjective, which includes both emotional factors and cognitive able to affect the perception of insecurity of individuals; The socio-geographical, which refers to the characteristics of the district that, as is known, can have effects on the perception of insecurity as, as various studies have highlighted, the physical characteristics of the spaces can have an impact on lifestyles, like the presence/ absence of social networks (Sampson and Raudenbush 2004, 1999). The socio-economic or social insecurity that refers to the social consequences of poverty and social marginalization









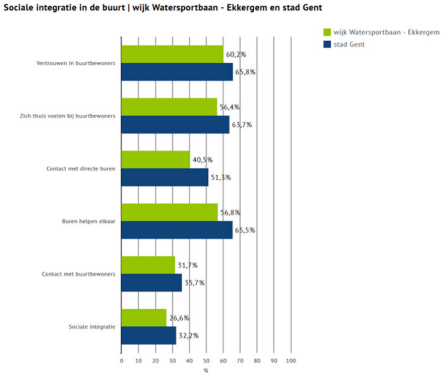


Figure III.89: General insecurity feeling, Watersportbaan compared to Ghent
Figure III.90: Waste problems in the Watersportbaan neighbourhood compared to the city of Ghent
Figure III.91: Vandalism and destruction of public space at the Watersportbaan compared to Ghent
Figure III.92: garbage in Gratosoglio
Figure III.93: Attitude towards different cultures, the Watersportbaan compared with Ghent
Figure III.94: Social integration within the Watersportbaan neighbourhood compared to Ghent

IV. EXPLORATION OF DESIGN STRATEGIES FOR THE WATERSPORTBAAN AND GRATOSOGLIO

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0
NEW DESIGN STRATEGIES FOR COLLECTIVE SPACES

_ Collective spaces in high-rise buildings

In the following Part, I will explore some design strategies for collective spaces to increase the liveability of a modernist high-rise post-war neighbourhood. As I will explain in Part V, these design strategies are rather a catalogue of possible improvements than a solid solution. Playing all strategy cards could lead to a full house, but this would be rather expensive, and a better and inclusive neighbourhood could also be perceived by playing a well selected number of cards and thus efficiently winning the game. Furthermore, I will not claim to have found *the* best solutions to improve modernist high-rise neighbourhoods. This dissertation will solely explore design strategies for collective spaces and thus a lot of other approaches are left out (to name a few; I could've talked about the private spaces, the design of the dwellings or about public spaces as well as the social dynamics of a neighbourhood like diversity, identity or segregation issues).

The spaces researched are divided in four types of collective spaces: three spaces linked to the high rise buildings – the entrance hall, the plinth and the rooftop – and the outdoor collective spaces, divided in two categories but discussed side by side: outdoor collective facilities and green spaces. The latter are the unprogrammed, vacant spaces, connecting several (collective) spaces with one another, while doing so, (re)creating a defined neighbourhood.

All types of spaces are researched in the following way: first, I will shortly look back one final time at modernist utopian examples. How did modernist architects design collective spaces for their buildings, creating in this way vertical communities? Secondly, I will introduce a set of design strategies and explain where these strategies come from. At last I will use these strategies to create new designs for the Watersportbaan and Gratosoglio neighbourhoods. The designs for the Watersportbaan neighbourhood are created on a smaller scale than the ones for the Gratosoglio neighbourhood. In this way, I try to make the designs complementary to one another. Furthermore, this way shows how design strategies can be adapted to one specific case or to one (part of the) neighbourhood.


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1
THE ENTRANCE HALL

_ Context: modernist case studies and their design of the entrance hallways

The entrance hall is probably the most underestimated collective space of the five types of collective spaces I selected for this dissertation. The entrance hall is a transitional space between the interior and the exterior of a building, between different levels of privacy. Furthermore, it can serve as a meeting spot or an informal space. In his book 'A Pattern Language', Alexander et al. (1977) (Alexander, Ishikawa, Silverstein, & Jacobson, 1977) examine the entrance hall by different characteristics like the visibility, shelter for inclement weather, the protocol of receiving people and the storage of clothing and accessories. Although the book interprets this specific space on its relationship with public and private domains, it does not discuss the space as an ambiguous zone between both domains. In the article Transition Spaces and Dwelling Design (LAWRENCE, 1984) the entrance hall is presented as an ambiguous zone in a Euler diagram (see Figure IV.1: Euler scheme on the entrance hall as an ambiguous zone). He explains:

"In sum, the entrance hall is an ambiguous space, neither public nor private, neither sacred nor profane, which is attributed a spatial form and ritual functions to inhibit unwanted matter from contaminating hearth and home" (LAWRENCE, 1984, p. 271).

When dwellings are designed, he concludes, the entrance hall is an important point of transition between public and private space and also as nearly equally important, it is a symbolic value for the inhabitants. The entrance hall is connotated to user rituals and the use of space determined by socials status of people who enter the building and other normative rules.

In modernist buildings the entrance hall is regularly very spaciously, sometimes even luxuriously, designed. Therefore, these entrances and hallways were thought to be more inviting for the residents, to have a chat with one another, to wait for the elevator in a safe comfortable space. In most cases, this meeting spot is obtained by architectural interventions without programming the entrance halls with several services.

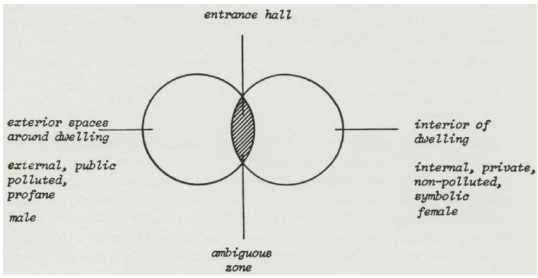


Figure IV.1: Euler scheme on the entrance hall as an ambiguous zone
Left: Figure IV.2: The Entrance hall of a high building slab at the Gratosoglio neighbourhood

So is there the 'Highpoint Flats', a project by Berthold Lubetkin built in London in 1935. The entrance hall of that project is designed very wide, containing almost half of the ground floor space. The project was frequently mentioned in architectural history literature as the first project in the UK which used the Le Corbusier's 'Five Points of a New Architecture' with its pilotis, free plan, long horizontal windows and roof terraces (see **foto boek**). Another project following the principles of CIAM is the social housing complex 'Kiel' in Antwerp, Belgium, designed by Renaat Braem in 1952-1958. Figure IV.2: Interior of the entrance hall at the social housing complex Kiel, Antwerp shows how spacious the entrance hall was designed and an articulated staircase placed implicitly in the centre of the hall (not hidden, designed to be more than just a functional object). Besides that, the ceiling of the hall is higher than normal. Therefore, the entrance hall invites residents to slow down, becoming besides a space of transition also a space to meet neighbours. At last, the architects have used bright colours and sculptures to lighten up the entrance and to create a welcoming place. A monumental canopy at entrance outside behaves as a landmark in the area.

I already mentioned on how entrance halls can function as spaces of transitions and meeting spaces, but I would like to add an extra layer to this kind of collective space. Talking with inhabitants of the Gratosoglio neighbourhood, the older people told me stories about the early years when their children used to play in the entrance halls and on the staircases. The neighbourhood consisted almost completely of families who got to know each other by their children. These children identified themselves with the entrances of the buildings (An example: boy 1, 2 and 3 lived in building 2, entrance 3; boy 4 lived in building 2, entrance 1). Therefore, the entrances created also identities. With the population changing over the years, the bond between inhabitants became less strong and identities were lost. At first the entrance hall lost its function of identity, then followed by its gathering function. Nowadays, the transitional characteristic of the entrance hall remains.

_ Design strategies: collective spaces as breeding places for identities

Designing entrance halls, I will further focus on the architectural aspects rather than on implementing new programs. Therefore, the entrance hall will become a place designed for the residents of that particular building. It will be a place of their own, where they can find information about activities, meet neighbours or just hang around. People should recognise themselves in the identity of the entrance hall, it should be a place where they can feel at peace.

In interviews made with inhabitants of the Gratosoglio neighbourhood, the entrance hall came forward as an excellent meeting place in the past. But, walking around the neighbourhood, the former meeting places were almost not maintained anymore. Some problems occurred repeatedly in this area and some of them can be found at the Watersportbaan too.

Firstly, there is a problem of recognizability in Gratosoglio. Every building and every entrance has the same appearance. In consequence, children find it hard to locate themselves in the area or have troubles with finding their way back home. Furthermore, when every building is the same, and every entrance is that too, the result will be a homogenous neighbourhood and a lack of identity. (Social) services within the buildings are hard to find.

Secondly, most of the entrances are located on the northern side of the buildings (as analyzed in part III.3.1.2). Due to the fact that in both neighbourhoods, buildings only can be entered by one side, problematic and unsafe situations occur. In Gratosoglio, inhabitants need to go all around the building to enter a square, a parking lot, or some well-maintained open spaces. Every opportunity to meet neighbours from the nearby building block is prevented because adjacent buildings never have an entrance on the same side. At the Watersportbaan, parents don't feel comfortable to let their kids play outside the buildings. The entrances there (and in Gratosoglio too) are always facing parking lots. Consequently, the green areas, where the kids would play, are on the back sides of the buildings. When children are playing outside and need their parents for any reason, the quickest way home is by walking all around the building. Having entrances on both sides of the buildings could increase a security feeling and the use of collective spaces around the buildings.

Thirdly, many of the entrances were not well maintained. In some cases, it is not clear who is responsible for maintaining the collective spaces in the buildings, in some cases efforts are made to clean and take care of these spaces, but then other issues arose. In Milan, usually a building block in the centre of the city has a concierge who takes care of the buildings and its inhabitants. His job is to clean communal spaces, maintain greenery, guard the entrance, manage problems within the building and provide residents with information. For mostly budgetary reasons, concierges are not included in the design of Milanese working class neighbourhoods, like Gratosoglio. In the following design, I would like to reconsider the role of the concierge in the neighbourhood, illustrating their features could improve the liveability of the neighbourhood when implemented on strategic points.

Figure IV.3: Interior of the entrance hall at the social housing complex Kiel, Antwerp
Figure IV.4: Exterior of the entrance at the social housing complex Kiel, Antwerp
Figure IV.5: Sculptures at the entrance of the social housing complex Kiel, Antwerp
Figure IV.6: Monumental canopy at the entrance of the social housing complex Kiel, Antwerp

As for the design of the interior of the building, Hugo Priemus suggested some measures landlords (and designers therefore too) could take to raise the quality of the buildings. In particular for the access to social housing estates he insisted to 'change the entrance hall', to 'reduce the number of escape routes and entrances / exits' and to 'situate mailboxes per storey or per dwelling' (Hugo Priemus, 1986, p. 177). Although some recommendations can be taken into consideration, not everything can be applied to my case studies Gratosoglio and the Watersportbaan. Most of the recommendations he suggested are in terms of maintaining the building and on how to keep them safe by avoiding insecurity issues. He does not refer that often to the design and he does not define how a better design should be addressed (like the recommendation "change the entrance hall"). With my guidelines, I would like to tackle this designing issue and point out the opportunities a good design could accomplish.

Until now, I've solely been talking about the entrance hall as an entrance space to a building. But what if you look at the entrance of a neighbourhood? Many principles of an entrance hall can be used on a bigger scale too. In Gratosoglio, this entrance to the neighbourhood was regularly mentioned as an issue.

Based on interviews with local residents, it became clear that particularly the 'yellow house', i.e. *casa della solidarietà*, is considered for many residents as thorn in the side. A first reason for this is that residents coming from the tram stop have to walk all the way around the house in order to reach the apartment buildings behind. In addition, the house is emotionally charged. The former school now accommodates homeless people, and to a lower extent, asylum seekers, who are further stimulated to take an active part in society. In order to give these people some privacy, high hedges were planted around the shelter.

In the following my approach to design the entrance hall is summed up in 5 principles. These principles could be seen as Five Points of a New Architecture (of entrance halls) towards a livelier neighbourhood.

1 // Scale the entrance halls and the circulation down to the human scale

The sense of community is absent, and a lot of inhabitants don't feel safe and home whenever they enter the building. Staircases, hallways, mailboxes, ... should be taken care of. The space should be designed so that it becomes inviting for people to read some information of the neighbourhood, wait for the elevator and/or meet neighbours.

2 // Increase the recognizability by creating an identity for the building

Post-war high-rise buildings are frequently standardized; therefore, these neighbourhoods can be perceived as homogeneous. This is not always an advantage because it is harder to orientate, and residents cannot identify themselves with one building – their home. Articulating the entrances of the buildings could create a bigger recognizability of the building.

3 // Create entrance halls on both sides of the building

The entrances on the buildings are mostly on one side of the buildings. This is a weak spot of the design. Green areas on the other side of the buildings cannot easily be reached anymore and parking lots are frequently situated on the side of the entrances of the buildings, which eliminates the opportunity to create functional collective zones in between buildings.

4 // Let the entrance hall be a sheltering space for inhabitants

The entrance hall should be inviting for people to have a conversation or to wait for friends. Outdoors, the entrance hall should have a roof, were people can wait or have a rest. Inside a safe space and information spot should be created, with a concierge who takes care of the building and its people. Welcoming lighting could create a safe spot at night too.

5 // Enlarge the accessibility to the apartments and to the community

The accessibility to the apartments and their inhabitants should be enlarged by adding lifts were needed for the elderly and increasing employment on the spot with a concierge. The concierge is not only the manager of the building; he or she is the connection between the inhabitants. He or she creates opportunities where needed, is the neutral person in a conflict, the point of information and a connection to the municipality.

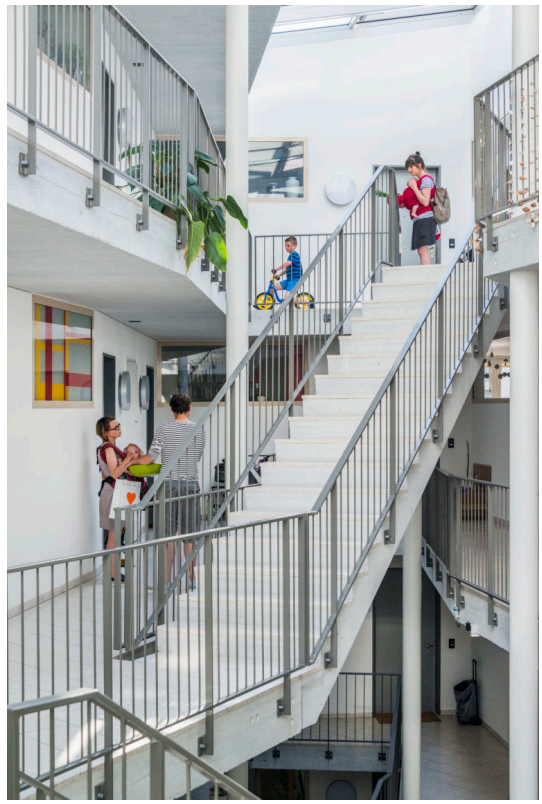
_ REFERENCES

Nowadays, some architects try to increase the quality of the entrance hall in several ways. Some projects design the entrance hall as a semi-public space or combine them with other amenities. Other projects increase the outlook and quality of the entrance (room) by intervening architecturally.

Project 1: Mehr als Wohnen by Duplex Architekten and Futurafrosch, Zürich, 2007

Mehr als Wonen is one of the projects which designs entrances halls as semi-public spaces. The housing cooperative contains a diverse range of housing typologies. Furthermore, the project includes various types of facilities too, with workspaces, leisure facilities and other collective spaces. In this project, entrance halls are very spacious and bright and created to become meeting spots for the residents ('Hunziker Areal: mehr als wohnen | architectuurwijzer', n.d.).

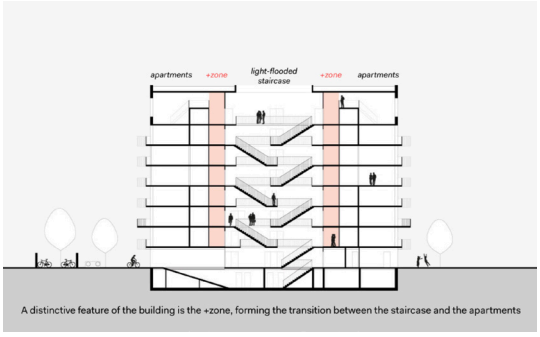
Figure IV.7: Model of the project Mehr als Wohnen
Figure IV.8: The entrance hall and the staircase, bright and spacious with room for encounters between inhabitants

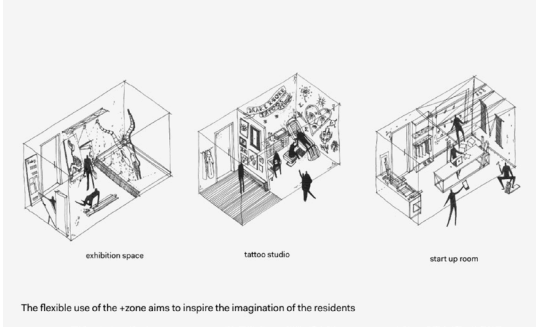


Project 2: Project 2: Neu Leopoldau by Feld 72, Vienna, Austria

In the second project the architects, Feld 72, go one step further and connect the entrance hall and the staircases with the private areas by implementing spaces for self-realisation. With this extra '+zone' the architects try to create a vivid area. Furthermore, they encourage conversations between residents by adding glazed entrances to these spaces ('feld72, Neu Leopoldau', n.d.).

Figure IV.9: Scheme of the Neu Leopoldau project
Figure IV.10: Scheme of the flexible use of the +zone
Figure IV.11: The entrance hall encourages residents to communicate with each othe





Project 3: Project 3: Messecarree B by Tillner & Willinger, Vienna, 2015

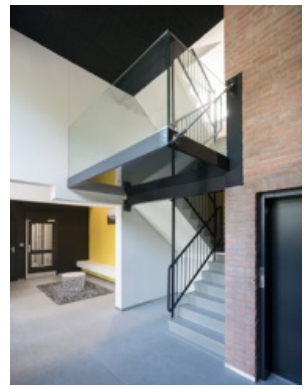
The third project wants to connect people without adding functions to the entrance hall. Instead, the entrance hall is glazed and designed as a modern living room including seats to encourage inhabitants to hang around. Simple architectural choices are made – like the glass-in-steel windows and the columns creating covered outdoor space around the entrance – but the outcome is a bright and secure environment.

Figure IV.12: The entrance hall stands out on the exterior of the building
Figure IV.13: The entrance hall by night. Lights create a secure and vivid space.
Figure IV.14: Seats are inviting neighbours to stay around.

Figure IV.15: At the Mozartflat, the entrance hall becomes transparent by the glass façade. A canopy creates shelter in front of the entrance.
Figure IV.16: The entrance hall at the Mozartflat renovated and spacious, including space to sit down.
Figure IV.17: The glazed elevator wall in the Moerbosch project serves as a lantern in the night.
Figure IV.18: Lights coming out of the entrance hall and the elevator illuminate the surrounding area and the front doors of the flats. Due to this, transparency and security is provided.

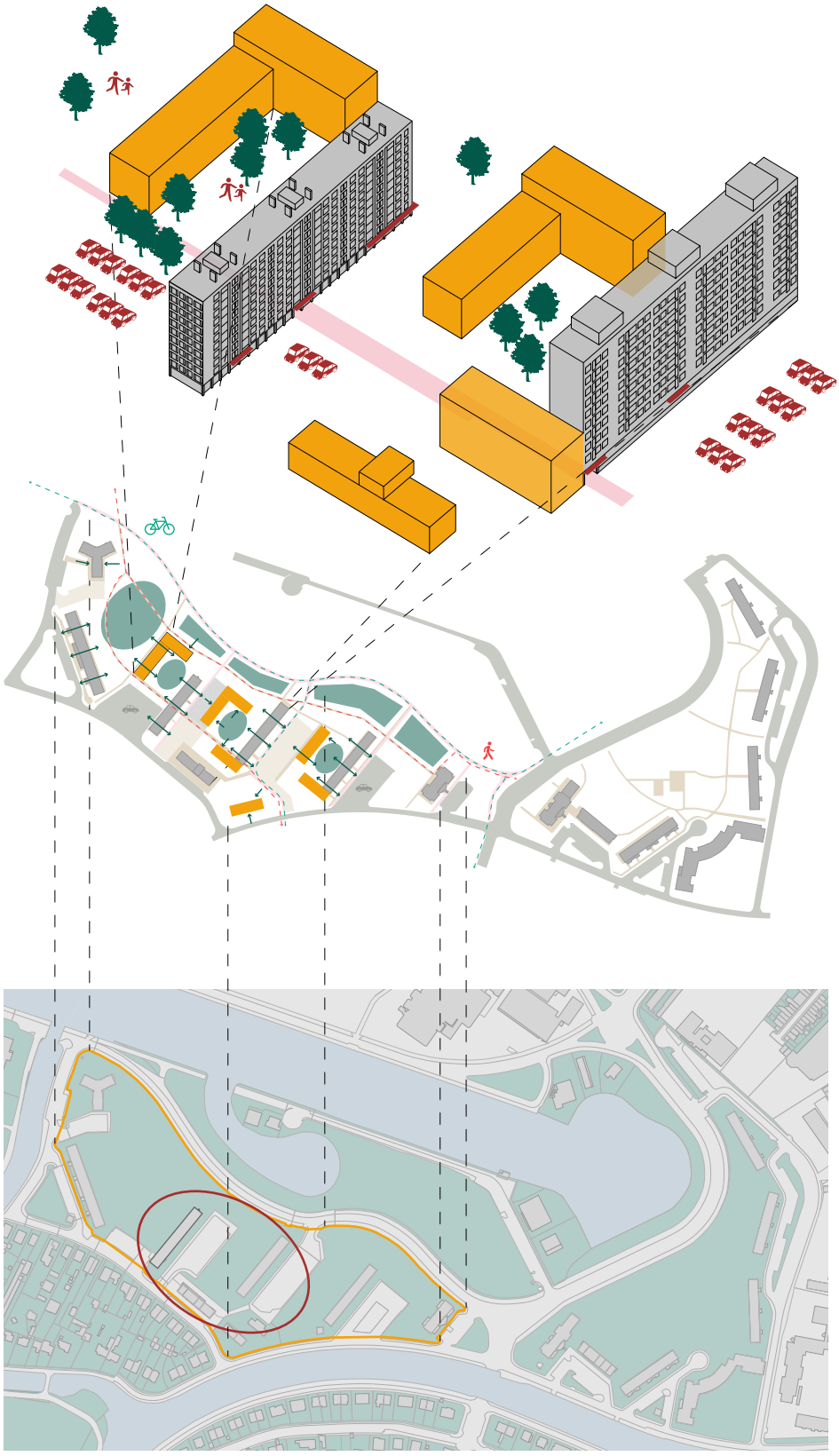
Project 4: Project 3 & 4: Mozartflat, Doorwerth and the Gentiaanbuurt, Apeldoorn by Hans van Heeswijk architects, the Netherlands

The last two projects are great examples of renovated post war apartment buildings. In both cases, the former problematic entrances are changed to become very spacious and bright entrance rooms. The architects want to improve these spaces with some very effective measurements. For example, in both projects, they replace the closed wall around the entrance with a glazed facade. Doing this, the entrance hall becomes transparent and bright at night, illuminating the surrounding area. Therefore, entrances become much more visible and neighbours can easily find their way back home and feel more secure. Canopies create shelter spaces outside the entrance halls. Inside, the entrance halls are designed as waiting or living rooms, rather than just a passageway. In the Gentiaanbuurt (the Moerenbosch project) seventeen corridors go right through the building. In this way, both sides of the apartment building have become front and the building is therefore much better adapted to its surroundings ('Gentiaanbuurt Apeldoorn - Hans van Heeswijk architecten', n.d.).



These first three references are very interesting because of their common goal to create better communities by encouraging conversations. Although this is certainly something that should be obtained in Gratosoglio as at the Watersportbaan, these references are not investigating how designers could create this in post war high-rise social housing neighbourhoods. Therefore, the ideas of these projects should be kept in mind but transformed when used in the case studies of my dissertation.

This is not the case for the last two projects, which are renovations of post war apartment buildings. The ideas of these projects could be almost integrally used in Ghent and Gratosoglio.



_ Design: Watersportbaan

As analyzed in part III, the entrance halls at the Watersportbaan are often bad orientated. It is difficult for kids and their parents to reach the green spaces and playground on the other sides of the building as entrance halls are located on that side of the building nearby parking lots. A first intervention was therefore to let the entrance hall go through to the other side of the building. Also, new walking trails were created in the area. One of them even passes through the Borluut and Rozenhof building. These adjustments facilitate an improved access to the buildings and its facilities inside. In addition, the new trails provide extra meeting opportunities for the local residents and simultaneously create social control by making those trails more visible. Finally, the extended entrance halls offer faster and easier routes for local residents who do not live in the buildings.

The entrances to the Borluut building, on which the design is based, have a canopy and are made of glass. They are tiny compared to the scale of the building and oriented towards the parking lot and not towards the green space on the other side of the building. Inside, the hall is divided into a room with mailboxes and a back room with an elevator and stairs. For this reason the back room is quite dark and both rooms are not very inviting.

Playground
Parking lots
Greenery
Added buildings
Walking path through buildings
Green space and vegetable gardens

Left: Figure IV.19: Scheme entrances Watersportbaan
Figure IV.20: Entrance hall Borluut building outside
Figure IV.21: Entrance hall Borluut building inside

In order to make the entrance more inviting, more light was created by opening up the hall. In addition, the entrance was also made twice as wide and extended until the end of the building. The latter ensures that the green space on the other side of the building becomes a meeting point. Finally, the canopy was made wider and larger in order to give the building an identity and make it recognizable.

To make room for the wider entrance hall, the storage spaces inside the building were shifted. The latter had an effect on the craft spaces, but this was solved by creating larger places of corporate spaces along the head of the building. Next to the entrance hall, some space was provided for a doctor, a concierge, a brushing aid or social services. This gives the residents a point of contact where they can find help if they have problems or questions. Lastly, the widened hall can be decorated as a waiting room for residents where pin boards with some social activities and information could hang. In this way the neighbourhood feeling can be triggered.

Scale: 1:250


conference room
and
morgue
porch
crafts space 3
crafts space 4
storage spaces
hall
passageway
entrance
1 2
3 4
5 6
7 8
9 10
11 12
13 14
15 16
17 18
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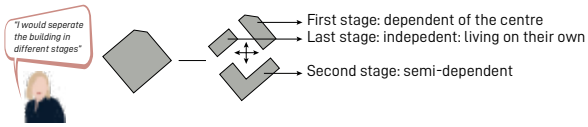
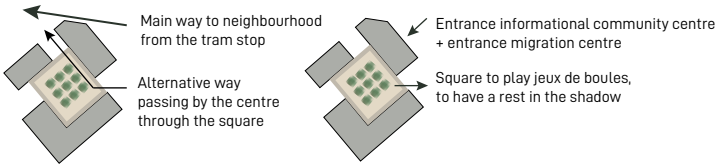
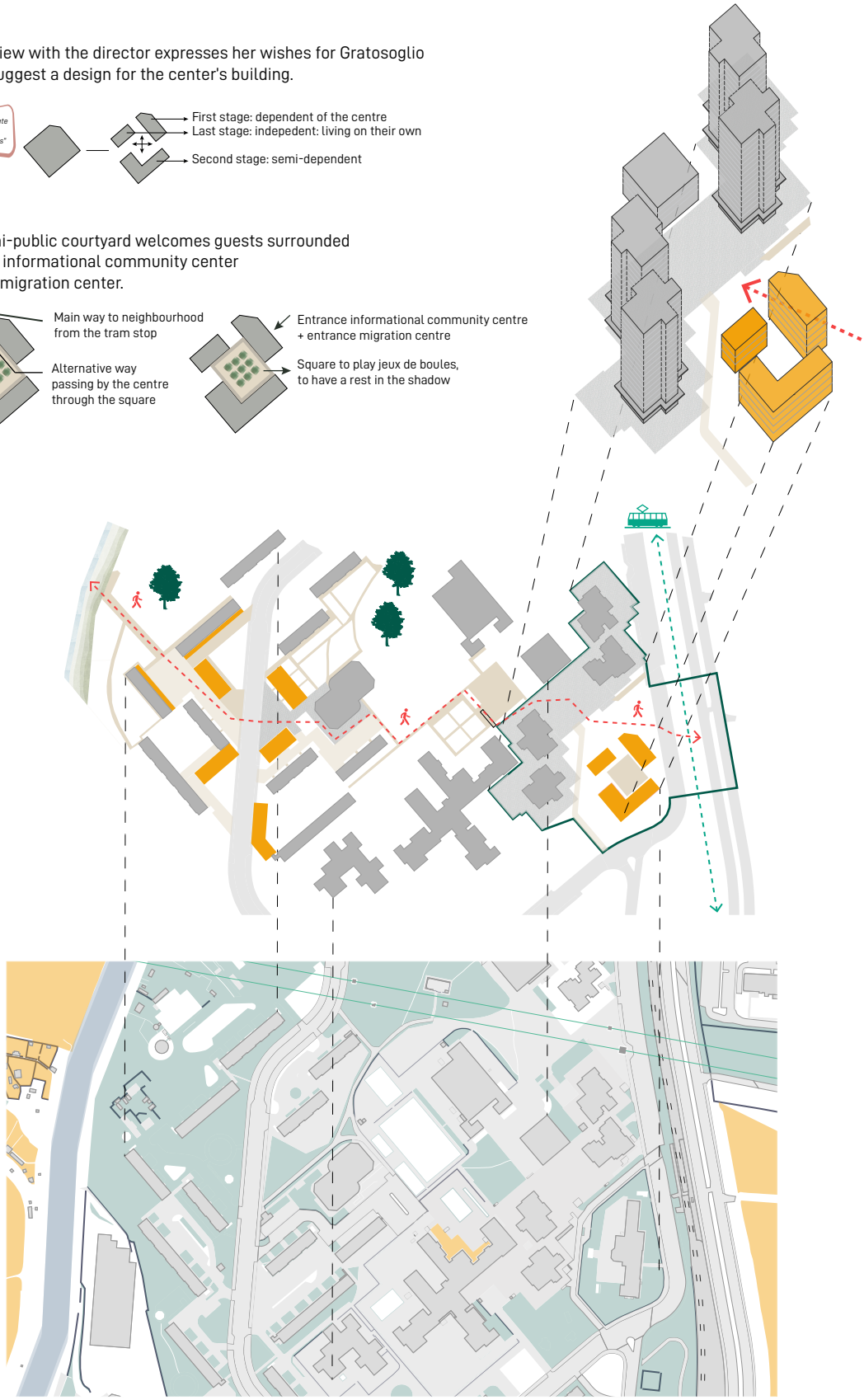
Interview with the director expresses her wishes for Gratosoglio and suggest a design for the center's building.



A semi-public courtyard welcomes guests surrounded by an informational community center and a migration center.





_ Design: Gratosoglio

The entrances in Gratosoglio are always located at the northern side of the buildings. Therefore the space between two buildings is only accessible by one of the two buildings. This was solved by creating an entrance on both sides of the building. The entrance oriented towards the cortyard then became the main entrance. The latter creates the opportunity for residents to meet people.

As described earlier, most people use the tramway to get around the city. Hereby the tram station at the end of Gratosoglio is also the entrance gate of the neighbourhood. Unfortunately, this is tram station is not the inviting entrance gate as one would like. Instead, people have to wait a long time, in full sunlight, for a tram. Situated near the tram station, it is moreover not clear where they should go in order to reach the central square.

The casa della solidierità with its high hedges, hinders visibility and blocks the road to the buildings behind. An interview with the director of the shelter revealed that she also wanted to design the building differently in order to give her residents more privacy and to allow a better functioning of the shelter. She dreamed about a vegetable garden in which residents could have their own long-term projects. On her advice, the new shelter was divided in three separate buildings. A resident then successively stays in building one, two and three, until he or she is ready to actively participate in society again.

The new building was oriented in such a way that it offers the possibility of a wide boulevard towards the nearby central square, which could serve as the location of a weekly market. The entrance to the neighbourhood was accentuated with rows of trees. Finally, the entrance was equipped with shaded park benches and bicycle storage facilities, enabling it to become a mobility node.

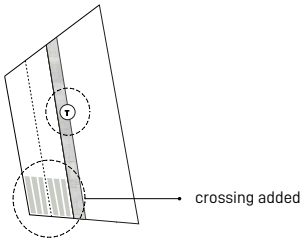
Figure IV.22: Scheme entering Gratosoglio

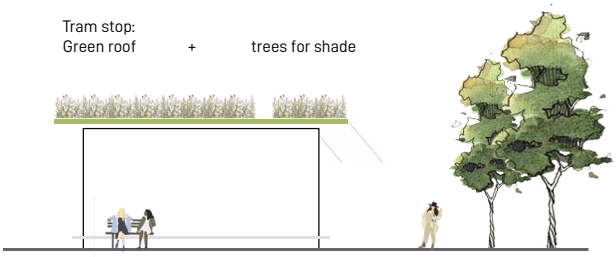
Figure IV.23: The Yellow house seen from the tram stop

Figure IV.24: The Yellow house seen from the central square

1 Tram stop

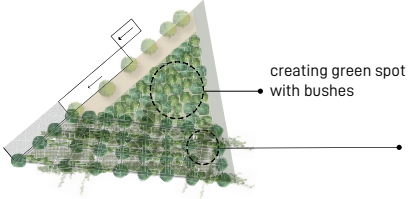
The tram stops located at the entrance of Gratosoglio are safe, comfortable and sustainable.

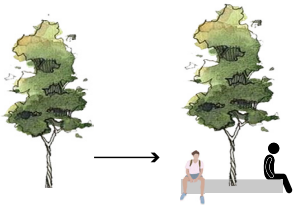


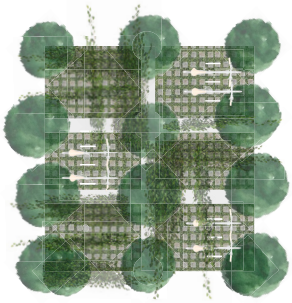


2 Cool waiting spot

One cool spot is located at the entrance to welcome the guests. It is also a place for them to sit and rest in the shade of the trees and vines.







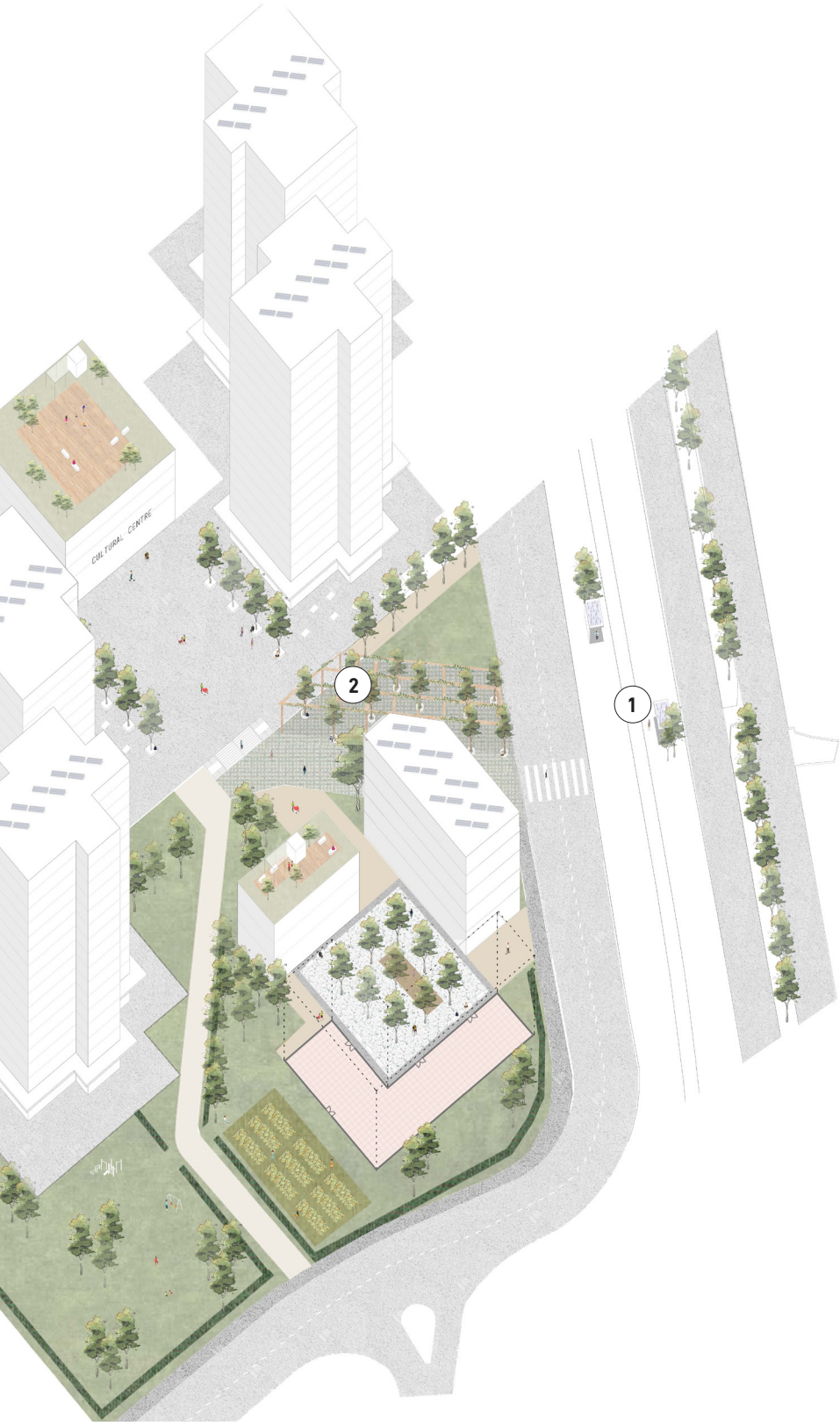

CULTURAL CENTRE
2
1

Figure IV.25: The abandonned plinths at Gratosoglio

2
THE PLINTH

_ Context: modernist case studies and their design for the plinth

Modern architects wanted to create new modern and healthier neighbourhoods, with an emphasis on new building methods and well-equipped apartments. These neighbourhoods had to embody the bright future they envisioned, and a lot of modern facilities had to create a lively, vivid landscape. High-rise buildings on pilotis freed the plan from built space and this resulted in room for pedestrians and residents. Other constructions implemented collective facilities on the ground floors. Despite many good intentions, not every project succeeded in the construction of new liveable and vivid apartment buildings. Unfortunately, many post-war apartment buildings were designed with storage spaces on the ground floors, closing off the facade for any encounter or activity (e.g. Bijlemeer; the social housing neighbourhood in Amsterdam, the Netherlands. See references in section 2.2.1 for more information). Furthermore, as already mentioned several times, many collective spaces were replaced by residential ones, mostly due to economic reasons. In other cases, services were implemented on poorly chosen locations and were closed off. The result is a monofunctional, residential neighbourhood with facades acting as hard edges between the interior private space and the exterior public space.

Apart from this disturbing outcome, many architects had good intentions designing the neighbourhoods and implemented in their first designs several collective facilities. Most of these collective facilities or spaces were laundry and drying spaces or cellars and storerooms, like in the Bergpolder Building by Brinkman & Van der Vlugt, built in Rotterdam in 1934. Other projects went a bit further; the Highpoint Flats project in London built in 1935 and designed by Berthold Lubetkin included a very large hall with winter garden and even a tearoom. As in the Unité d'Habitation, the Pedregulho Housing project built in Rio de Janeiro in 1950-52 by Affonso Eduardo Reidy, an intermediate floor provided the building with more collective spaces like administrative offices, a nursery school, children's theatre and a kindergarten. Unlike the Unité d'Habitation, this building was built on a hill, so that the intermediate floor was on the same level as the streets and could be accessed by bridges.

In Gratosoglio and at the Watersportbaan, many services were originally provided or designed in the plinths of the buildings. For example, at the Watersportbaan, a children's playground and craft spaces were designed at the ground floors of the Borluut, but all were never implemented. In another building, the heating installation is still visible behind the glass façade. At the time, showing the construction and installations of a building became very fashionable and the industrial ma-

chines displayed indicated the modernity of the building.

In Gratosoglio, most of the building slabs contain storage spaces on the ground floors, but also some other services were originally implemented in the plinths of the buildings. Like in the eight towers of Gratosoglio several services were originally implemented on the ground floors, but many could not survive due to economic circumstances. Nowadays, there are still facilities to find in the plinths of these towers – and occasionally in other buildings – but most of the time they are fenced off or almost hidden behind closed facades. As if they need to protect themselves for the neighbourhood, increasing the inhospitable image of the neighbourhood.

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_ Design strategies: collective spaces as initiators of amenities and connectivity

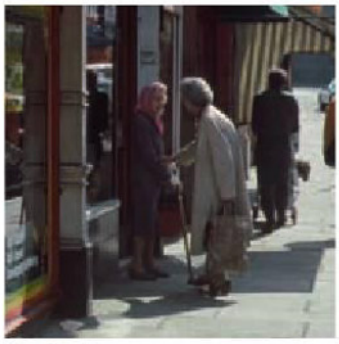
The approach for the design of the plinths will be based on two main principles. First of all, old services will be reconsidered and brought back, and new functions will be added. This was one of the main concerns the people of Gratosoglio had about their neighbourhood when I talked to them. They felt isolated and detached from the city of Milan and from the other inhabitants within Gratosoglio. The city centre, with all its advantages and facilities, felt so far away due to the bad public transport connection. Besides, the facilities in the neighbourhood were not always sufficient and inhabitants therefore had to overcome this long distance regularly. Furthermore, many thought the number of places to meet friends in the neighbourhood were rather inadequate. The plinths could be designed as a part of the solution. They could create activities, employment and spaces to encounter. In both the Watersportbaan and Gratosoglio, this is not the case today. Nearly all plinths are residential, include storage spaces or are closed off from the public space. Opportunities to interact between inside and outside the plinth are very rare. A new design approach should improve this and should create more vivid neighbourhoods where it is nice to walk, also nearby the buildings.

This leads to the second main principle: the creation of soft edges instead of the hard edges nowadays. Inspired by Jan Van Gehl's book: City for People, (2010), we were invited in Gratosoglio to observe how the area consistently created hard edges instead of soft ones. Gratosoglio had almost everywhere fences, barricades and walls, closing off the outside world from the inside and vice versa. Semi-public spaces were almost non-existent, therefore, there was a hard transition between private and public space. This hard transition is visible at the Watersportbaan too, but the area has not so many barriers or edges as Gratosoglio has.

Jan Van Gehl stated in his book that these edges are very important. They define space and are a vital contribution to spatial experience. They can behave as exchange zones between the inside and the outside of a building, blending life in the buildings with life in the city. Furthermore, the edges can behave as staying zones too, offering people places to sit and stand. The edge feels comfortable and secure; while sitting there our backs are protected and our eyes have a full view on everything what is going on near the edge.

But above all, Van Gehl argues that edges can have a significant influence on activity patterns and attractiveness of city space. Soft edges are transparent and open to interaction. These open and active edges are wanted on the ground floors. The plinths containing friendly, soft edges and the plinths being populated, increase the feeling of safety in the neighbourhood. Pedestrians are surrounded by human activity and the wealth of experiences increases (Gehl, 2010). In his book Van Gehl shows some examples of the edge and its functions by a grid of photographs (see Figure IV.18).

I won't add facilities everywhere or in every plinth. The number of plinths does not have an impact on the neighbourhood. The supply should be adapted to the demand. More preferable I would place new functions and facilities on strategic points, enhancing urban and community life. The plinths with the remaining residential functions will have to be adapted to their surroundings in such a way that the transition between private and public space is experienced as less hard than before. In either way, the plinths should become more vivid in this way that they attract people again, make them feel at home and feel safe.

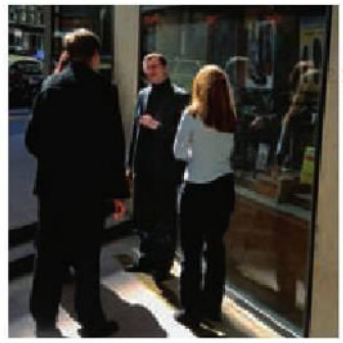


Chatting by

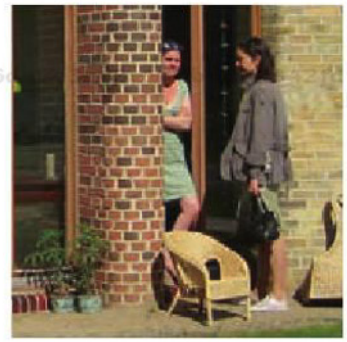
Entering and leaving

Walking alongside

Standing alongside



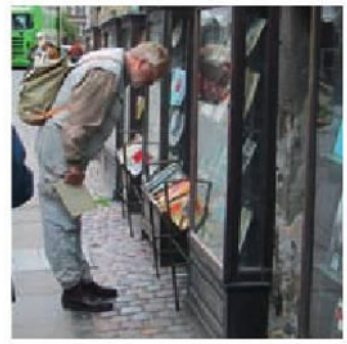
Taking a break by



Standing in doorways

Shopping next to

Interacting with



Looking at displays with

Sitting on

Sitting next to

Looking in and out of

These two main principles are written down below in six more defined principles, each of them based on interviews with inhabitants, surveys and observations of the plinths in the neighbourhoods by Jan Van Gehl's principles.

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1 // Add or bring back services

Improve the level of amenities in the buildings by adding new services. In the original plans, many collective facilities were already designed but they were never implemented, or they have been replaced by residential functions.

2 // Create space for initiatives from residents for the community

Creating space in the building for the residents and for the community could improve the sense of belonging. This place should encourage resident's initiatives and could become a space of the community and of social connection.

3 // Open up the ground floor to the city, use edges as exchange zones

The facades of the high-rise slabs often don't interact with their surroundings. Designing a ground floor with transparent facades or facades which open up to the outdoors could create more free flows and visibility. The edges of the building can work then as an exchange zone between indoors and outdoors environments.

4 // Increase the recognizability

Contemporary elements can change the facade, creating new identities for the modernist slabs. This could increase the recognizability of the building. The building could become therefore a point of orientation. The appearance of the building at night should be improved too, with visible ground floors enhancing a safe environment.

5 // Increase employment on the spot

Adding new functions to the ground floors should increase the employment in the neighbourhoods. If new buildings are added, then their ground floors should be open and new facilities or job opportunities should be implemented.

6 // Make social counsellors visible

Nowadays social counsellors are often not visible enough for people walking around in the neighbourhood. Inhabitants should find their way easily to social support. Locating these counsellors on the ground floors of the buildings could improve this.

Figure IV.26: The many functions of the edge

_ REFERENCES

In the next part, I will explain some projects that encourage collective facilities or activities between inhabitants of a neighbourhood. Some of them are situated in the plinth of the building, but others are not. The goal is to expand the group of ideas with a diverse compilation of strong services and collective activities;

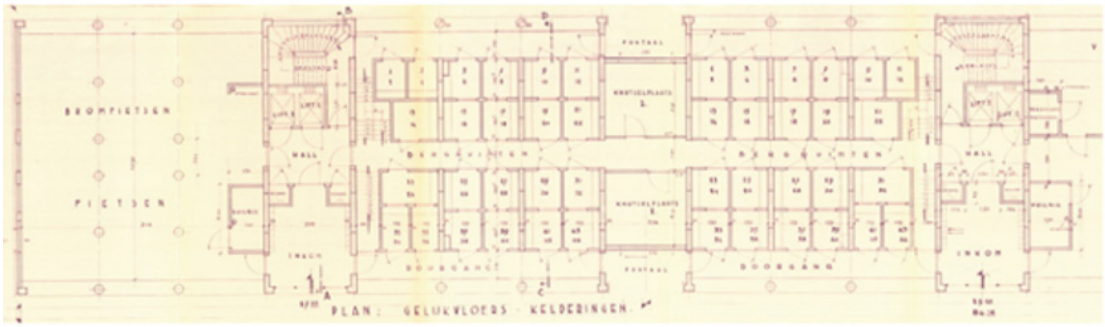
Project 1: Crafts spaces

Collective craft spaces could be used by the inhabitants as repair spaces, ateliers, hobby rooms or for other recreational uses. Positioning this function at ground floor level, it is also accessible for other residents of the neighbourhood and could thus become a social spot. An original plan of one of the slabs at the Watersportbaan, already includes a little crafts room.

An example of a hobby space is found in the urban redevelopment project of 'Byker Wall' designed by Erskine in the 1970s. To combine housing, services and community spaces, 64 hobby rooms were implemented. The rooms are scattered over the 2010 homes, they play a social key role in the urban redevelopment strategy. These spaces were used by the inhabitants for multiple purposes including dressmaking, amateur radio productions, music recording, photography, painting, bird watching, fishing and making instruments. Today, most of the hobby rooms are vacant due to managerial neglect but the initial idea was successful in offering a space for creativity to Byker Wall's inhabitants (Longfield, 2016).

A more recent example of a craft space is the project 'De Koer' in Ghent. De Koer organizes several cultural activities. To realise these activities, the organisation works with collective building processes on improving their spaces. By doing so, the project creates activities for neighbours by neighbours ('De Koer - De Koer', n.d.).

Down: Figure IV.27 Crafts spaces at the Watersportbaan
Right: Figure IV.28: The Byker Wall
Figure IV.29: Crafts spaces in the Byker Wall project
Figure IV.30: Neighbours working together on their collective space:'De Koer' in summer 2019



Project 2: Collective kitchen or restaurant

Collective kitchen are the ideal places to generate encounter and activities. When placed on the ground floors, these kitchens are accessed easily and can attract several groups of neighbours. Food can bring together a diverse group of people. People from different cultures can get to know each other through cooking together in a very informal way. Besides, the many single elderly people in the neighbourhood have the opportunity to eat together with others. The kitchen can function as a collective kitchen for a specific group of people (e.g. only inhabitants from certain buildings) or it can function as a (social) restaurant or catering kitchen, attracting people from other buildings and outside neighbourhood too.

Figure IV.31: Collective kitchen in the Spreefeld project, Berlin

Project 3: Replacing storage space

Sometimes, renovation of the old modernist apartment buildings replaces storage spaces on the ground floors of a building by new amenities. For example, GutGut architects renovated the Prefab House project by replacing the original storage spaces by new amenities for the residents (for example: a bar, a gym, a sauna) ('Prefab House In Rimavska Sobota / GutGut | ArchDaily', n.d.). They replaced the small original apartments with larger apartment which included enough storage space for its residents.

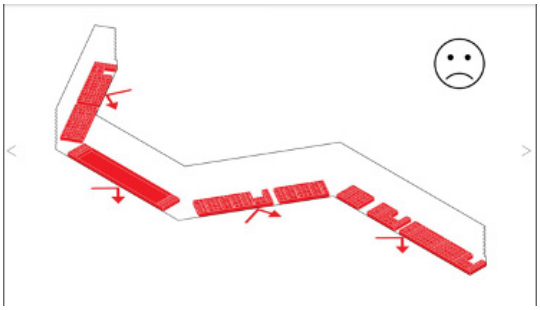
Although this approach would make the ground floors more vivid and inviting, this approach would not work in every project. So are there less apartments than before in order to create room for storage within the apartments.

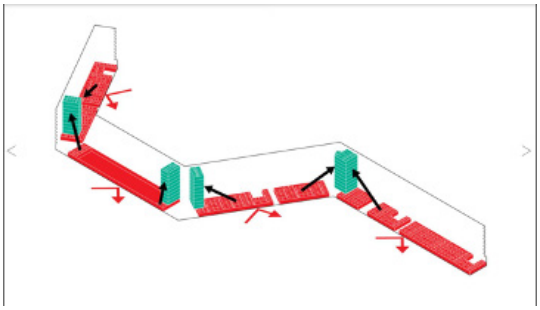
In another project in the famous modernist project Bijlmermeer, the architects (NL-architects) relocate the storage spaces from the ground floors to the upper levels near the elevators. By doing so, the ground floors can include 'interactive forms of inhabitation' (they suggest apartments, workspaces and daycare). In this way, the plinth is transformed from a dead no-go zone to an active part of the neighbourhood ('Kleiburg - NL Architects', n.d.).

Figure IV.32: the changed plan of the Prefab House

Originally the storage spaces for all the units were located on ground floor creating an impenetrable area, a 'dead zone' at the foot of the building.

By relocating the storerooms to the upper levels near the elevators the ground level could be freed up for more interactive forms of inhabitation: apartments, workspaces, daycare. As such the plinth would be activated: a social base embedded in the park.





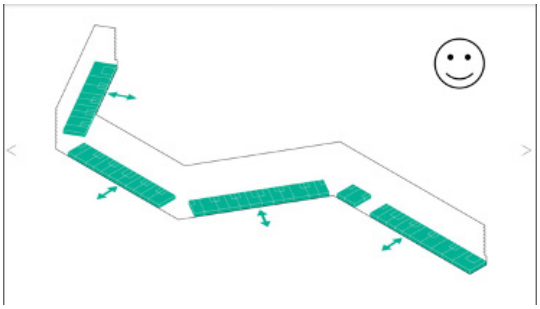
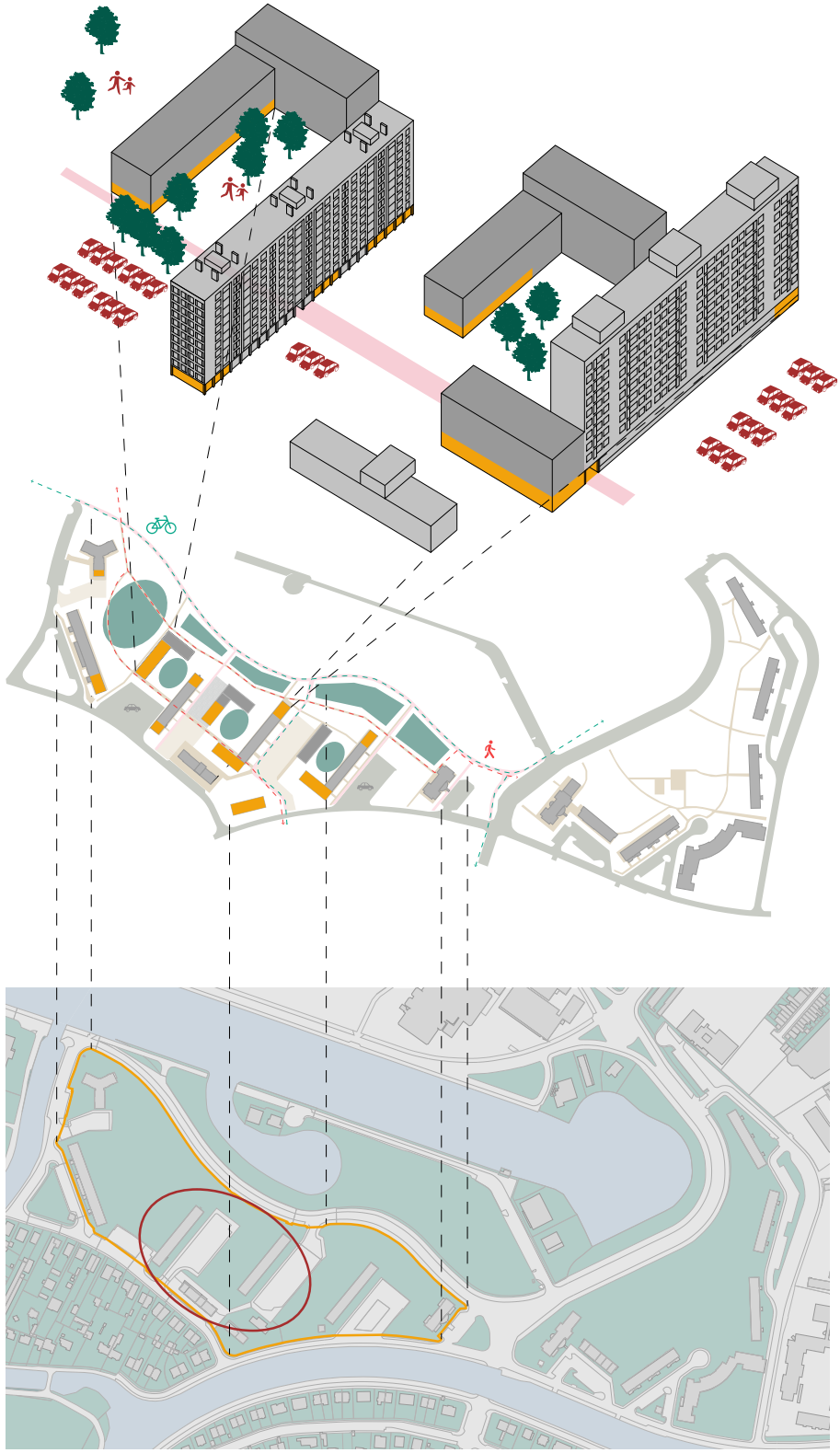


Figure IV.33 to Figure IV.39: The Bijlmermeer project explained



_ Design: Watersportbaan

The Watersportbaan neighbourhood is confronted with a lack of facilities; services more like a supermarket, restaurant or bar are most welcome. Also more social services or meeting places for groups of neighbours are without a doubt desirable. Despite this shortage one must take into account that creating too many extras, is not wanted as well. Firstly the neighbourhood is located fairly close to the centre of Ghent and the train station; the reachability of both is adequate. Secondly Watersportbaan wasn't designed as a self-sufficient neighbourhood like Gratosoglio. Lastly the population is less dense; an abundance of facilities would probably be economically unfeasible.

The added low-rise buildings with supplementary functions are carefully placed in such a way that semi-public spaces originate. New functions in the plinths help build an identity, activate and control.

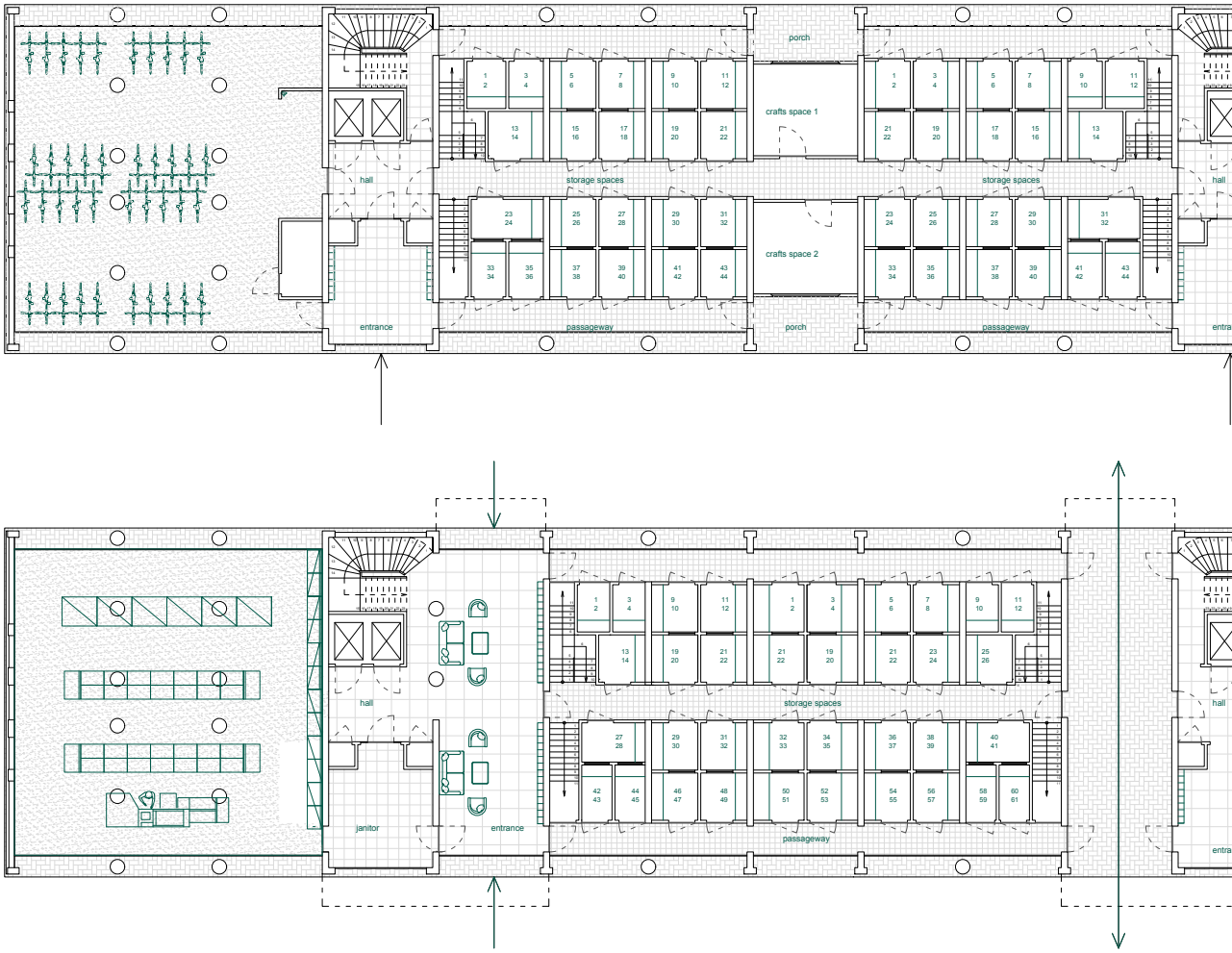
The new low-rise buildings along the new northern walk and bicycle route remain deliberately residential. Thus these plinths become as well at night as by day soft edges. The homes with front gardens appeal social interactions and could spark conversations between neighbours; during the night these homes are reassuring beacons of light.

Playground
Parking lots
Greenery
Added collective facilities
New buildings
Walking path through buildings
Green space and vegetable gardens

Figure IV.40: Scheme plinths at the Watersportbaan

In the Borluut-design Ghent it was of great importance to reactivate the plinth. Some old concepts for this building included a children's playground and a few places to tinker and potter. Despite this ambition the building nowadays remains almost exclusively residential. There is a room from Samenlevingsopbouw Gent – a social organisation – located in a former house; however this informal meeting place is hard to find for the residents of the neighbourhood. Finally the plinth contains a bicycle parking on the street side of the building.

The design for the plinth of the Borluut re-introduces social spaces and spots. The room of the heating installation – which was rather ostentatious according the Zeitgeist at the time – is replaced by a small bistro. This place becomes the heart and centre of the neighbourhood by connecting several surrounding places with each other. On the street side a small shop is added instead of the bicycle parking inside. The conference room and morgue – which was included in the original design – in the middle of the building near the passage underneath are replaced by spaces



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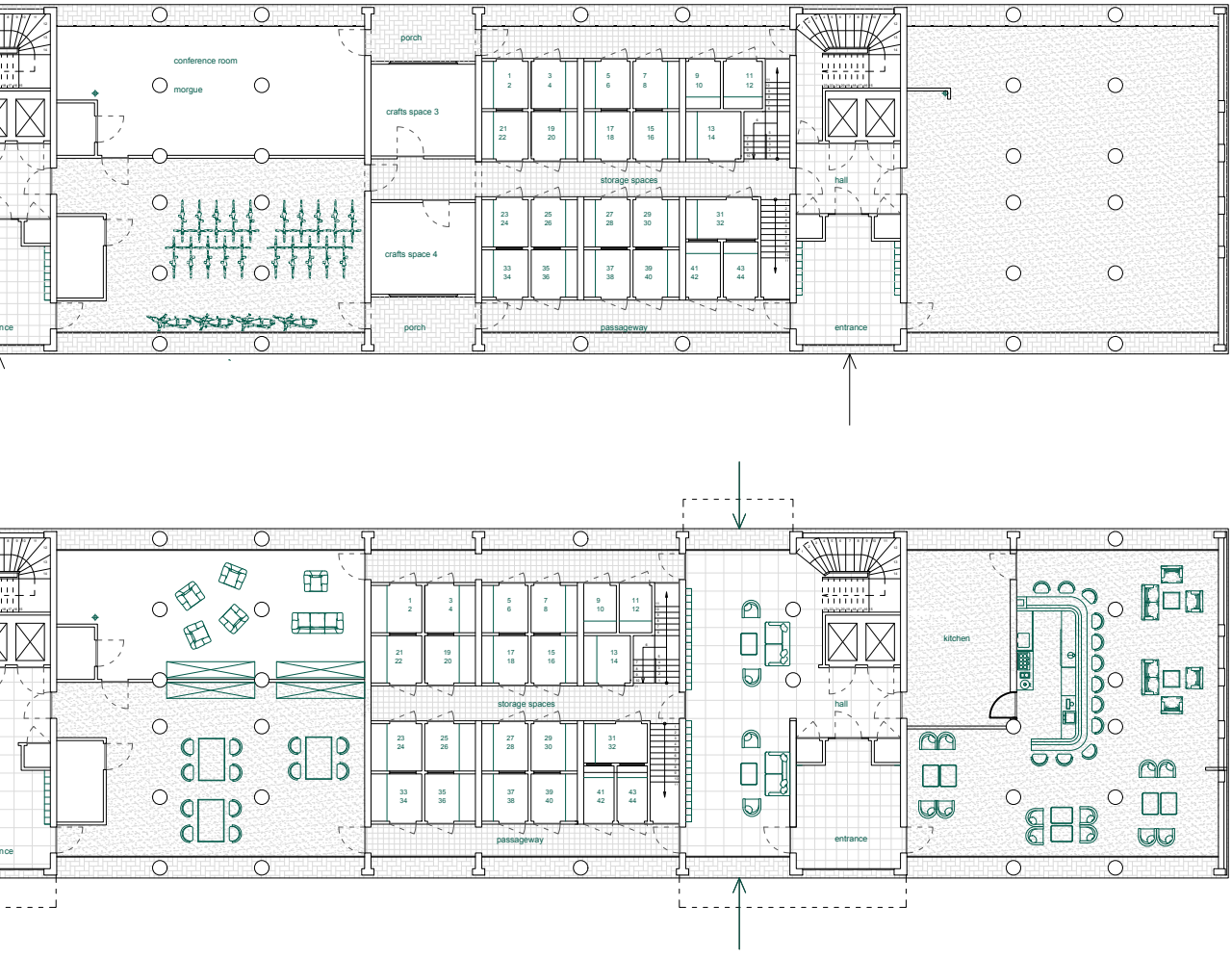
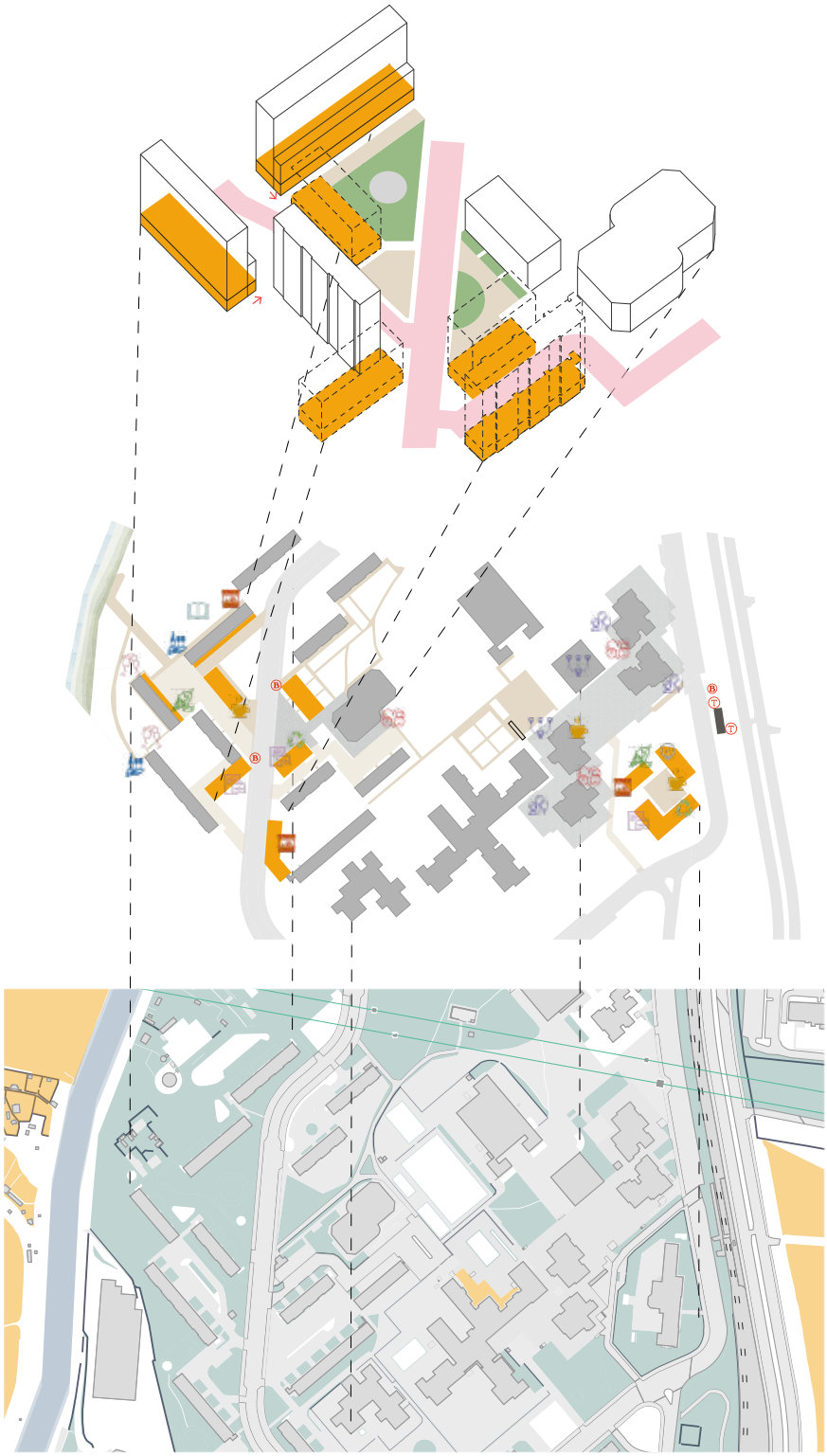
for social counsellors and collective spaces for the residents of the building. Inhabitants can use these spaces for all sorts of activities, such as family gatherings or hobbies.





_ Design: Gratosoglio

The plinths in the White Towers of Gratosoglio used to be vivacious places with numerous facilities. Unfortunately, through the years many of these disappeared or got hidden behind fences and shutters. In the other buildings of the neighbourhood one can occasionally find likewise facilities situated in the plinths, however they are not sufficient in relation to the needs of the whole district. The number of provided services and activities are very poor. The design of most buildings is exclusively residential; the entrances are facing north. Informal meeting places barely have a direct reachability from the apartment buildings.

To revitalize this area a design of functional densification is proposed. Low-rise buildings are designed and added to size the neighbourhood down to a human scale. Further lots of new facilities and workplaces are introduced in the buildings like. By strategic placement of the building blocks new shared courtyards arise. These are semi-public spaces, designed and mainly intended for the inhabitants from the surrounding buildings. The entrances to the apartments will primarily be placed in connection with these courtyards.

Leisure	Offices and services
Coffee bar	Library
Market	Offices
Restaurant	Services for children
Gelateria	Information center
Pub	Recycling station
Multi-use space	Services for elderly

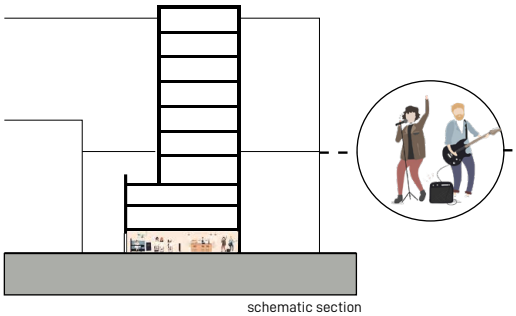
In some high-rise building slabs, the plinths will house extra commercial or office spaces. By doing so these high-rise buildings activate their surroundings in a similar way as the low-rise buildings do. This intervention has been implemented on two apartment buildings near the river. One provides leisure possibilities like a bar or a restaurant in the vicinity of water and park. The other creates extra workplaces and a bar near an open space with playground. Thus, this open space is – along two sides – better defined and activated.

Left: Figure IV.41: Scheme plinths of Gratosoglio
Figure IV.42: Open space in Gratosoglio which cannot be reached from the plinth of the nearby building

On the other side of the street – near the elderly centre – two low-rise buildings are added. The ground floors are partially residential. The dwellings have a little garden and they outline the park at back. In these smaller homes the elderly can also live independently and still make use of the services from the neighbouring elderly centre if necessary.

1 COMMERCIAL GROUND FLOOR EXTENSION

In the ground floor extension, commercial activities like cafe, libra



schematic section

2 ADDITIONAL BUILDING

This intermediate scale building contains different housing typologies. It is right next to the bus stop.

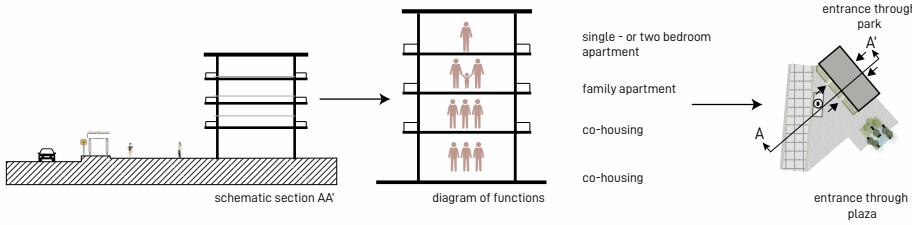


Figure IV.43: Top view of the Watersportbaan neighbourhood and its rooftops

3
THE ROOFTOP

_ Context: modernist case studies and their rooftop designs

This third scenario focusses on roofs as collective spaces. In modernist design, roofs were very important and were often designed as communal spaces for the residents of buildings. As early as 1922 Le Corbusier introduced shared facilities between the individual dwelling and the city in his Ville Contemporaire. Aside from the shared facilities which he added in the plinths of the buildings, he also envisioned them on the rooftop. On the rooftops in the Ville Contemporaire he designed a gymnasium, a theatre, solarium and even a running track. Later on, the roof-gardens became one of the five points of his new developed architecture (Marmot, 1981).

One of Le Corbusier's masterpieces is certainly Unité d'Habitation, built in Marseilles in 1952. The building embodied the architect's beliefs about how future buildings and cities should be designed. It was the culmination of more than 20 years of research done by Le Corbusier into the design of (high-rise) housing and the relationship between dwellings and their environments. The 18-storey block contained 337 apartments and a remarkable high level of facilities and communal spaces, within the building and on top of it, which Le Corbusier believed would strengthen the community and the families of the building.

His design for the rooftop contained several communal facilities, from playgrounds and a paddling pool for children to even a running track and an open-air gym, magnificent views included. The success of the building block encouraged many to imitate his design ideas. Most of them did not achieve the same quality of housing and the amount of collective spaces were almost everywhere reduced, due to budgetary reasons (French, 2008).

When CIAM-wise large estates were constructed in Western Europe, many designers gave up the idea of rooftops with shared facilities. In Gratosoglio, the rooftops were never properly used. None of them contained (shared) facilities and the collective spaces were lost (Figure IV.34 and Figure IV.35). But this was not the intentional plan of Gratosoglio's architects. These architects of the well-known Milanese studio 'BBPR', foresaw Gratosoglio walkable roofs in their sketches (see Figure IV.36). The sketch found is proof of their view on Gratosoglio as a very vivid neighbourhood designed on a human scale. Lower buildings were originally designed along the high building slabs and a lot of greenery was designed in between groups of buildings.

In the Watersportbaan, at first instance, the roofs were accessible but only when residents needed to flee from fire from one staircase to another. Unintentionally these escape routes turned out to serve a more sinister purpose; over time some non-residents gained access to these staircases in order to commit suicide

by jumping of the roof. In the journal of May 1976, written by the neighbourhood committee, the group addressed this phenomenon and complained about the lack of intervention by the municipality (see Figure IV.38). Inhabitants were shocked by the amount of suicides around their houses (already five happened in several years) and asked the municipality to intervene and to take security measures.

The modernist flat roofs, once designed as a collective space for the community or for the residents of the buildings, were left behind. Therefore, they became invisible for many residents, or got associated with the tragic events in the past. In what follows, two case studies – where the design for their rooftops were realised - will be explained.

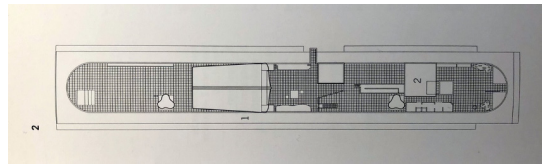
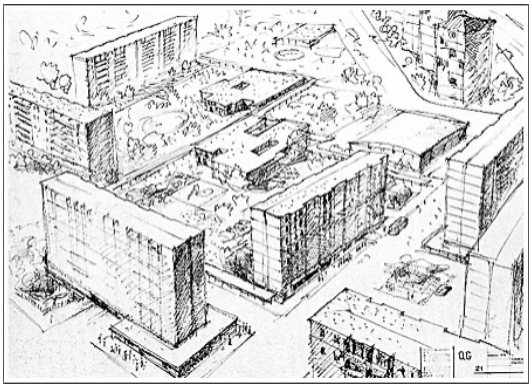
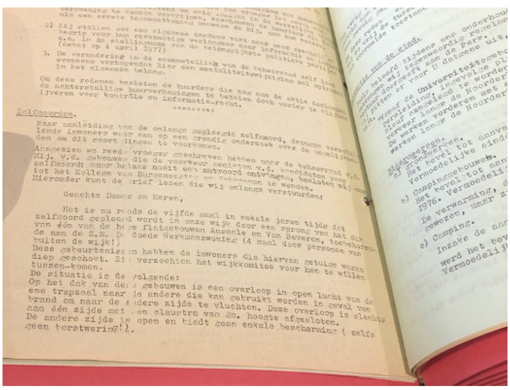


Figure IV.44: Rooftop plan of Unité d'Habitation, with 1 = running track and 2 = paddling pool
Figure IV.45: Picture of Unité d'Habitation with its typical colour scheme and rooftop elements on top
Figure IV.46: The roofs of Gratosoglio
Figure IV.47: The roofs of the towers of Gratosoglio
Figure IV.48: Sketch of the design of Gratosoglio by the studio BBPR
Figure IV.49: The roofs of the Watersporbaan in 1972
Figure IV.50: Committee journal of May 1976 with a topic about suicides happening in the neighbourhood




2) Zij stellen ook een algemene tendens vast naar meer openheid en begrip voor hun rechtmatige verlangens naar informatie en inspraak o.a. in de stellingname van de belangrijkste politieke partijen (debat op 4 april 1977)

3. De verandering in de samenstelling van de beheerraad zelf laat eveneens verhopen dat hier een mentaliteitswijziging zal optreden in het algemeen belang.

Om deze redenen besloten de huurders die nog aan de aktie deelnemen de achterstallige huurverhogingen te betalen doch verder te blijven ijveren voor kontrôle en informatie-recht.

°°°°°°°°°

Zelfmoorden.

Naar aanleiding van de onlangs gepleegde zelfmoord, drongen verschillende inwoners weer aan op een grondig onderzoek over de mogelijkheden om dit soort dingen te voorkomen.

Aangezien we reeds vroeger geschreven hebben naar de beheerraad v.d. Mij. v.d. gebouwen die de voorkeur genieten v.d. kandidaten voor zelfmoord; maar helaas nooit een antwoord ontvingen, besloten wij ons tot het Kollege van Burgemeester en Schepenen te wenden. Hieronder kunt de brief lezen die wij onlangs verstuurden:

Geachte Dames en Heren,

Het is nu reeds de vijfde maal in enkele jaren tijds dat zelfmoord gepleegd wordt in onze wijk door een sprong van het dak van één van de hoge flatgebouwen Anseele en Van Beveren, toebehorende aan de S.M. De Goede Werkmanswoning (4 maal door personen van buiten de wijk!)
Deze gebeurtenissen hebben de inwoners die hiervan getuige waren diep geschokt. Zij verzochten het wijkkomitee voor hen te willen tussen-komen.
De situatie is de volgende:
Op het dak van deze gebouwen is een overloop in open lucht van de ene trapzaal naar de andere die kan gebruikt worden in geval van brand om naar de andere zijde te vluchten. Deze overloop is slechts aan één zijde met een claustra van 2m. hoogte afgesloten.
De andere zijde is open en biedt geen enkele bescherming (zelfs geen borstwering!).

_ Design strategies: collective spaces as a glimpse of the future

My approach to the design of the rooftops in high-rise neighbourhoods will be inspired firstly by the original modernist intentions to create rooftops as collective spaces with communal facilities. Secondly, besides bringing the neighbourhoods and their rooftops back to the original modernist intentions, I will also look further and try to connect these rooftops with ideals of the future.

In his article about the revival of the rooftop to create smarter and greener cities, Geoff Wilson argues that aside from making our cities more liveable, green rooftops also improve the environmental behaviour of a building (Wilson, 2007). He sets out a list of advantages of green roofs (see) and emphasizes their positive effects on climate change and environmental issues (see Figure IV.42). Although these issues are very important and cannot be undervalued in any design, this dissertation will not focus further on the environmental aspects of the green roof but will take a closer look on their social advantages and their ability to improve the liveability as a collective space instead. For example, on these rooftops several activities or facilities could be realized, such as green gardens which could improve the outlook of the neighbourhood (Advantages which are also pointed out by Wilson).

In the thematic studio I followed which focussed on the analysis and design of the Gratosoglio neighbourhood in Milan, professor Morello was invited to give us advice on the sustainable aspect of the design. He argued that high rooftops, such as the 10 storey high building slabs in Gratosoglio, or the 8 to 12 storey high building slabs of the Watersportbaan, are best suited for photovoltaic panels; lower rooftops in their turn produced better opportunities for green gardens. Therefore, the approach of the design resulted in the creation of photovoltaic panels on the highest roofs and new collective spaces on (added) lower buildings. Another advantage was the beautiful views these green gardens created. Inhabitants who were used to look over parking lots or abandoned open spaces could now enjoy the view of the added greenery.

I will continue with this approach for the design of the rooftop scenario in both neighbourhoods. Furthermore, the rooftops of the lower buildings (added) will not only consist of collective green gardens, but also spaces to produce food close to consumers – improving the employment and the sense of belonging in the area – or to teach children and teenagers about the greenery in the neighbourhood and environmental issues. Instead of associating the roofs with safety risks, future residents will

enjoy them as collective spaces of visual beauty, green amenities and safety. Lastly, the approach will also aim to create more sheltering spaces for inhabitants in the neighbourhood. Part of the PWO project researched meaning, liveability and development opportunities of children and teenagers in stack building environments, measured by interviews with many inhabitants of Watersportbaan neighbourhoods by a HOGENT student (Boonen et al., 2019). In these interviews several inhabitants pointed out the lack of covered collective spaces in the neighbourhood, needed in case of bad weather. My interviews in Gratosoglio pointed out the same shortcoming although there were different reasons. Due to climate change and the combination with the already hot summers in Italy, Gratosoglio suffered from a lack of shade. Inhabitants fled from the sun and did not go out in summer. Thus, sheltering spaces could create solutions for weather issues.

Below this approach is written down in three main principles: 1. Create green and energy harvesting roofs, 2. Create shelter in the open spaces and 3. Rooftop space as collective space.

Below this approach is written down in two main principles: 1. Create green and energy harvesting roofs, 2. Create shelter in the open spaces.

1 // Creating green and energy harvesting roofs

The rooftops within a high-rise neighbourhood cover a large area that is often unused today. The roofs of these high-rise buildings are the perfect spot for photovoltaic cells. The rooftops of lower buildings could feature some collective gardens or other greenery for the inhabitants, educating kids and improving the view of the people living in the higher buildings next to them. These new green spots should become a space for a selective group of people. Since, the modernist high-rise neighbourhood often already has plenty of open space, it would be useless to create extra undefined public green spaces.

2 // Create shelter in the open space

In the open spaces there is a lack of shelter against rain or other bad weather. Roofs could improve the use of green areas by creating spots to organize activities in every circumstance.

3 // Rooftop space as collective space

Rooftops can also be an opportunity to implement new facilities and amenities in the neighbourhood. Collective facilities (for example, a collective kitchen) or shared living concepts can be realised on top of a building. This way, the facilities can be provided for a limited amount of people. These new meeting spots with a view are good opportunities to create new group dynamics.

Shared living concepts can be tested on top of a building. In this way, new layers of mixed dwelling can be added to old apartment buildings. This can be a solution to increasing demand for various housing typologies for a diverse group of families.

The benefits of green roofs

- **Thermal insulation**—Reduces the amount of energy used to heat and cool buildings.
- **Stormwater management—**Lower runoff of rainfall at peak times enables drainage infrastructure to cope without massive and costly upgrades. Climate change may bring many more rainfall peak loads.
- **Reduction of ambient temperatures in cities**—The 'heat island effect' of buildings and roads can increase city temperatures five to 10 degrees above rural temperatures in nearby regions. The City of Toronto estimates that a mere 8% of green roofed buildings can reduce the heat island effect by up to two degrees Celsius.
- **Air cleaning effects**—Green roofs trap harmful particulates and dusts.
- **Water cleaning effects—**Micro-organisms in a green roof chew up harmful airborne particles. This means the water harvested from the green roof is much purer than street or rooftop runoff. Homes and businesses can use a green roof for their greywater systems.
- **Longer roof life and lower roof maintenance costs—**Studies show that a green roof can protect the underlying structure so that it will last around 40 years instead of 10 to 20 years.
- **Noise insulation**—Tests have shown that a 12cm deep green roof pad will reduce noise by 40 decibels. The Netherlands' Schiphol Airport has been built with green roof technology for this purpose.
- **Visual beauty—**A green roof looks great and has a calming effect on people, providing urban workers with more pleasant, restful surroundings and a more pleasant place to enjoy lunch.
- **Habitat creation**—Green roofs provide space for small birds, butterflies and bees.
- **Fire resistance—**A study in Berlin found this was particularly the case with succulents. Earth roofs also offer protection in fire-prone areas.
- **Electromagnetic insulation**—Electromagnetic radiation can be reduced by 99.4% with a 10cm substrate depth.
- **Food from the roof—**Technologies such as hydroponics, aquaculture and aquaponics are being placed on commercial rooftops close to where produce is consumed.
- **Extra revenues for building owners**—Potential extra revenue can be raised from renting the garden space, selling the food produced or the improved office or work environment for tenants.
- **More valuable buildings**—Real estate valuers are predicting that retrofit green roofing will improve the building's value by at least 5–10%.
- **Savings for governments**—With rapid urbanisation around the world, this is vital. The City of Toronto's savings were C$79 million a year from reduced capital costs for stormwater management, erosion control and sewer overflows.

J: Wat dacht je van een afdakje?
I: Een afdak?
J: Ja, als je toch wilt een speeltuin wilt, dan mag je ook een afdak zetten. Dan kan je daar ook gaan wanneer het regent.
I: Dat is er niet echt hé, want er is hier nergens een overdekte buitenruimte waar je onder kan staan?
J: Ja, als je daar onder de bomen gaat staan, dan heeft het echt geen nut, want die druppels vallen er allemaal door.

- Jongen 14 jaar

Maar waarom niet? Overdekt. Als het goed weer is kunnen ze hierbuiten ravotten als ze een goeie omheining zetten. Niet zoals nu dat dat hier maar een kaduukelijk spul is. Een goeie omheining dat de kinderen niet buiten kunnen dat ze niet weg kunnen. Als het slecht weer is kunnen ze overdekt spelen, waarom niet?

- Gesprek met oudere man en zijn vrouw

Figure IV.51: A list of benefits of green roofs by Geoff Wilson, written in his article on the revival of green roofs
Figure IV.52: Interview with a 14-year-old boy about the need for sheltering space
Figure IV.53: Interview with an older couple about a covered playground outdoors

_ REFERENCES

In addition to case studies of the past, I will describe reference cases of more recent projects below. Some of them recycle the idea of a kindergarten or playground on top of a building, similar to the design of the Unité d'Habitation. Other projects include greenery and photovoltaic panels.

Project 1: Project 1: Park 'n' Play by JAJA Architects, Copenhagen, Denmark - 2016

The first project shows how to transform a monofunctional conventional parking house into a multifunctional one, by adding green facades and a playground on the rooftop. By doing so, the architects create an attractive public space, encouraging citizens to hang around. In this way, the playground on the rooftop of the parking becomes an integral part of the city.

Two large public stairs lead visitors upstairs and penetrate the facade of the building. Their continuous railing merge into the playground on the rooftop. The railing transforms further into swings, ball cages, jungle gyms and more. Neighbours are invited to follow the trace of the railing ending up on the rooftop, where they can enjoy the view of the Copenhagen Harbour ('Park "n" Play / JAJA Architects | ArchDaily', n.d.).

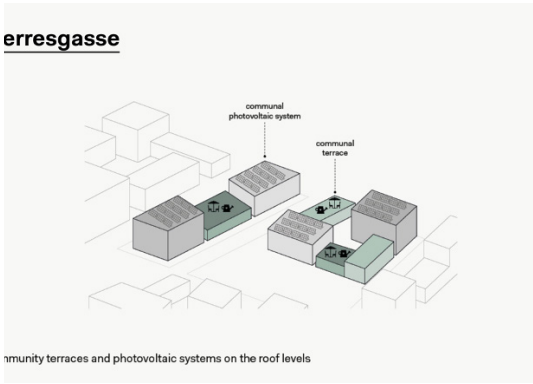
Figure IV.54: View from above on the Park 'n' Play project

Figure IV.55: The playground functions as a new collective space in the area where children can play and people can meet

Project 2: Project 2: Berresgasse by Feld 72, Vienna, Austria - 2018

In this social housing project, the architects maximise the use of the roofs. On the larger and higher roofs, communal photovoltaic systems are installed, were all residents can benefit from. The other lower rooftops are devoted to communal terraces and gardens. The project has a high level of communal services aside from the ones located on the roof; several ones are also located on the ground floors. Creating views from one rooftop terrace to another, the designers try to create visual links between the different building blocks ('feld72, Berresgasse', n.d.).

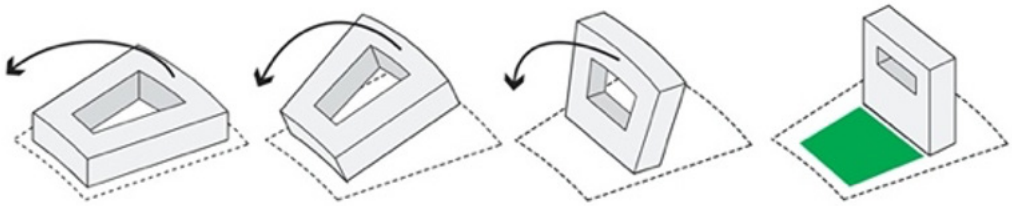
Figure IV.56: Scheme of the rooftops and their functions and facilities at the Berresgasse project
Figure IV.57: Site plan with designed rooftops in the Berresgasse project

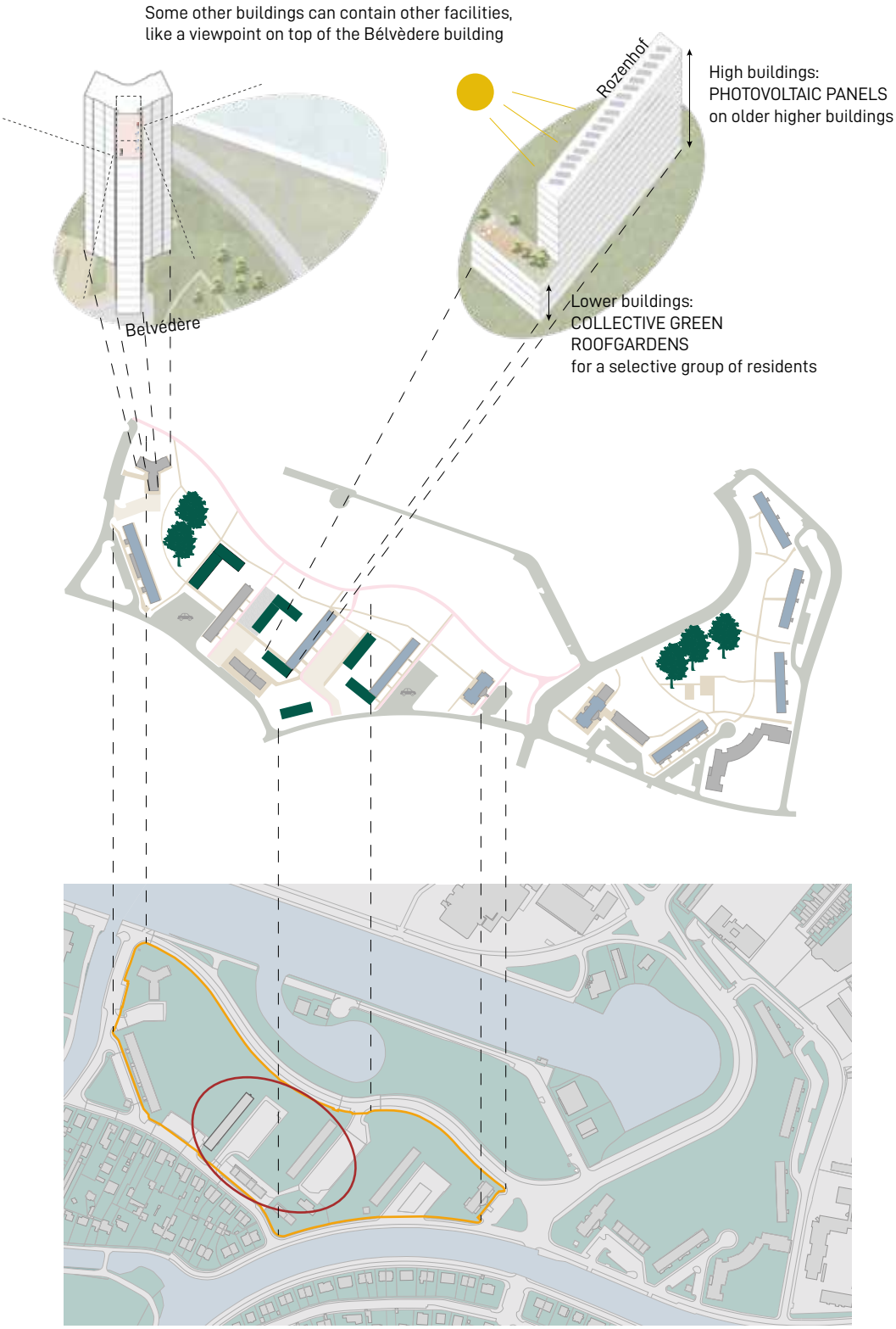


Project 3: Project 3: Mirador by MVRDV, Sanchinarro, Spain - 2005

In the third project the architects create a new collective space: a massive terrace with a view of the city in the middle of the building. To create this, the typology of a building block with an inaccessible courtyard is turned sideways. 40 metres high, the collective space includes a lookout space, a community garden or a space for neighbours to contemplate the skyline. This so-called 'sky plaza' is accessible with a direct lift from the plaza on the ground and surrounded by various kinds of compact housing types. The resulting building is a vivid vertical neighbourhood which contains plenty of collective spaces.

Figure IV.58: Scheme of the Mirador project
Figure IV.59: Picture of the communal space with view on the city in the Mirador project
Figure IV.60: Picture of the Mirador building




Some other buildings can contain other facilities,
like a viewpoint on top of the Bélvèdere building
Belvédère
Rozenhof
High buildings:
PHOTOVOLTAIC PANELS
on older higher buildings
Lower buildings:
COLLECTIVE GREEN
ROOFGARDENS
for a selective group of residents

_ Design: Watersportbaan

The rooftops in Ghent could be an opportunity to try out several new facilities in the neighbourhood. Because of its place on top of a building, these spaces are more private than spaces in the plinth of a building. As also mentioned in the design of the plinths, there is no need at the Watersportbaan for collective facilities on every rooftop in the neighbourhood. The facilities on top of a building are designed for a selected group of people. This way, residents from one building can have their own private space and meeting spot.

Also new types of housing typologies can be implemented on top of the building, under the assumption that the housing structure allows this. Collective housing typologies can be added to create more types of dwellings in the neighbourhood. At the Belvédère building, the roof will be designed as a viewpoint over the neighbourhood and the water sports course. As the highest building in the area, the building can therefore generate an identity for the neighbourhood.

The highest apartment buildings could be equipped with photovoltaic panels and the lower apartments could have added buildings with collective gardens. With this every local resident has a place of his own in the green.

Some scenarios show the possibilities of those facilities on top of the Borluut.

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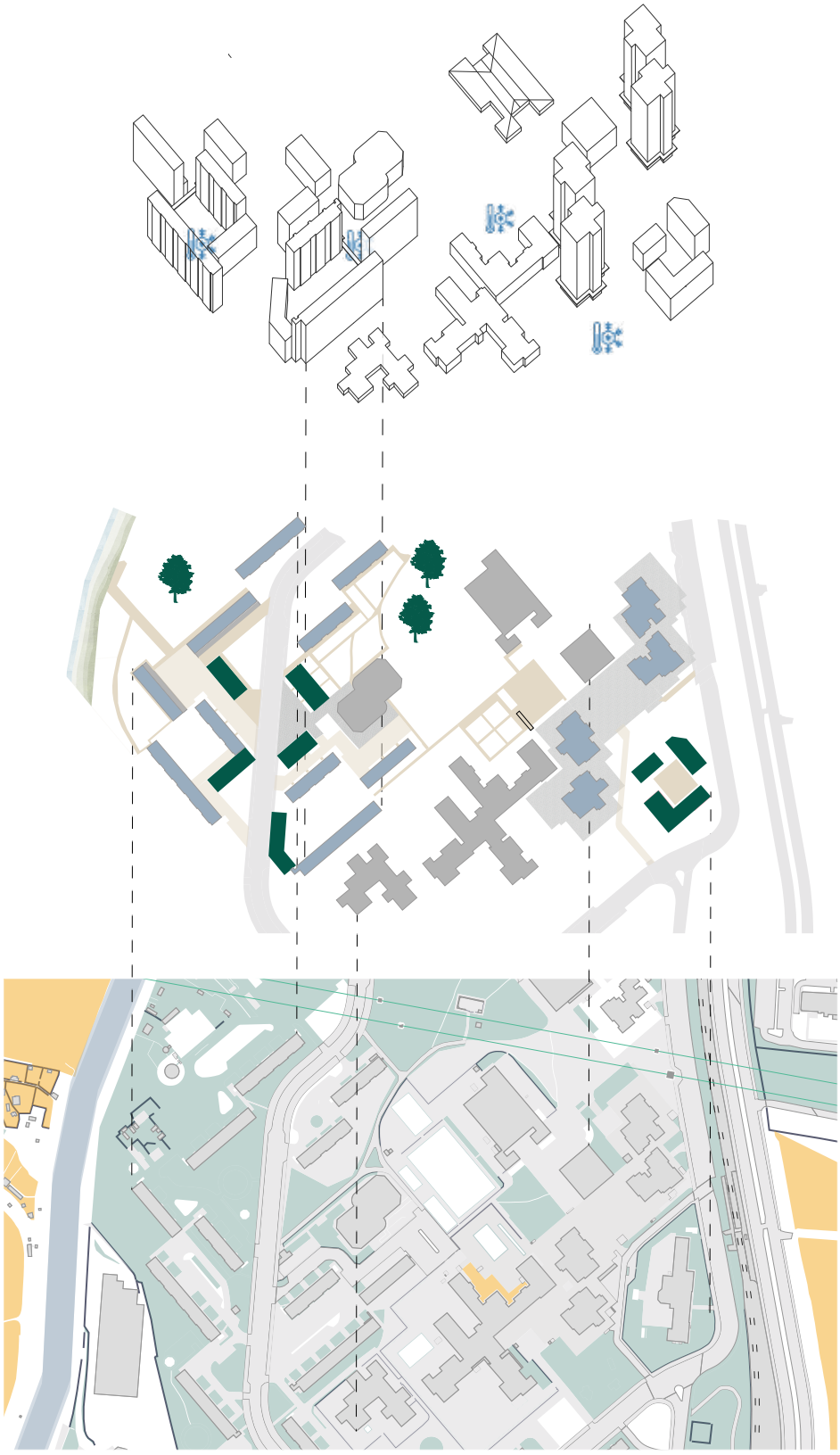
Left: Figure IV.61: Scheme rooftops at the Watersportbaan



_ Design: Gratosoglio

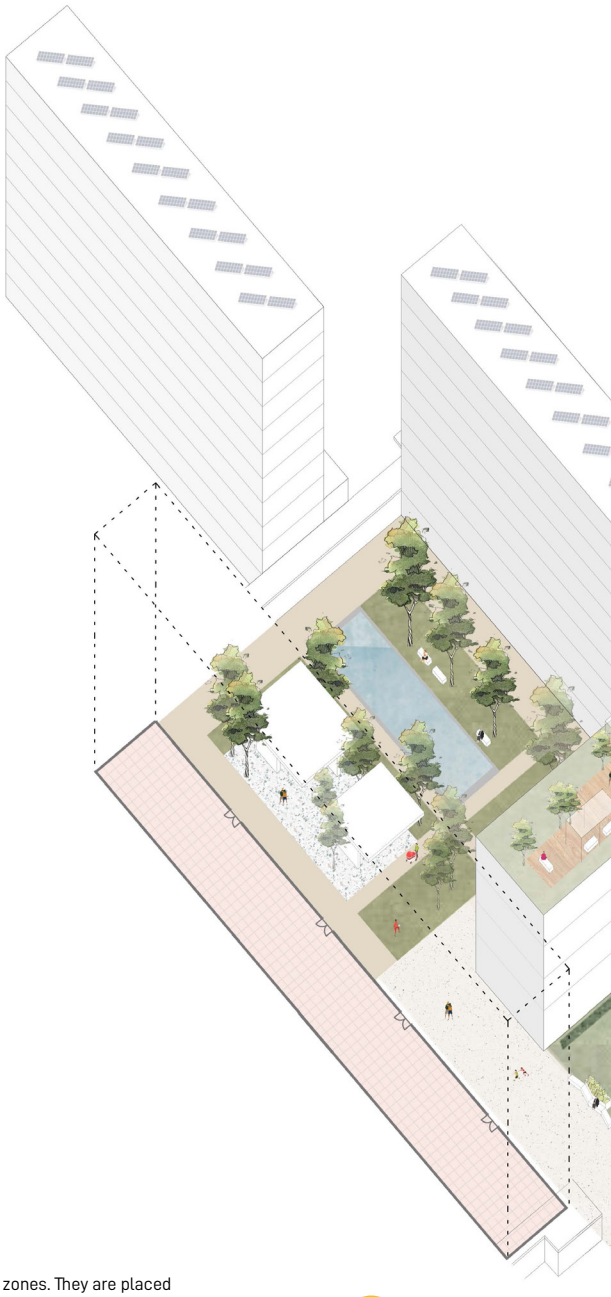
Unlike the case of Gent, no extra collective facilities are designed on the rooftops of Gratosoglio. This is because Gratosoglio is build-up more densely and therefore more places of collectivity can be found in the plinths of the buildings. During the design process, it was decided to create a more pleasant environment by means of new facilities in the plinths. As a result, the plinths reactivate the green space around the buildings.

In the context of climate change, Milan has to make great efforts to keep the metropole liveable. As a consequence, the design of the roofs in Gratosoglio is therefore mainly focused on the sustainability of the neighbourhood. Green roofs and photovoltaic panels were designed for respectively the newly added buildings and the highest buildings.

The green roofs were designed for a select group of local inhabitants, i.e. the residents of one or more buildings. Hereby the roof can function as a meeting place for residents and at the same time offer a place of their own. In addition, the roof can also be used for projects such as the installation of a vegetable garden.

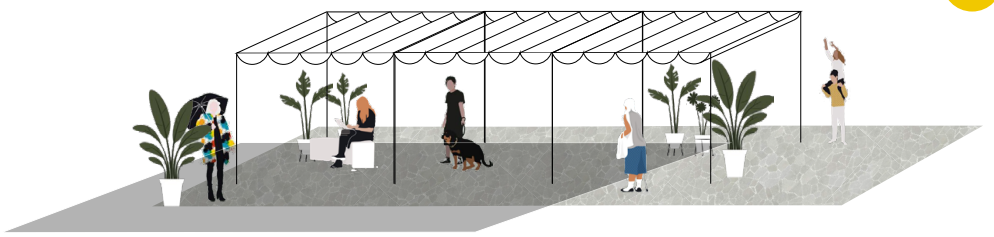
Lastly, roofs were added at additional places in the neighbourhood to create resting points in the shade. Trees and roofs are crucial to keep the area liveable in the summer. A local resident who spends the summer inside her apartment said that these so-called "shade-spots" were very welcome. By strategically placing these roofs along the walking trails, elderly people could also go for a walk in the summer. The extra shelters in the new courtyards, in their turn, create informal meeting places or play areas for children in case of bad weather.

Left: Figure IV.62: Scheme rooftops and coolspots at Gratosoglio



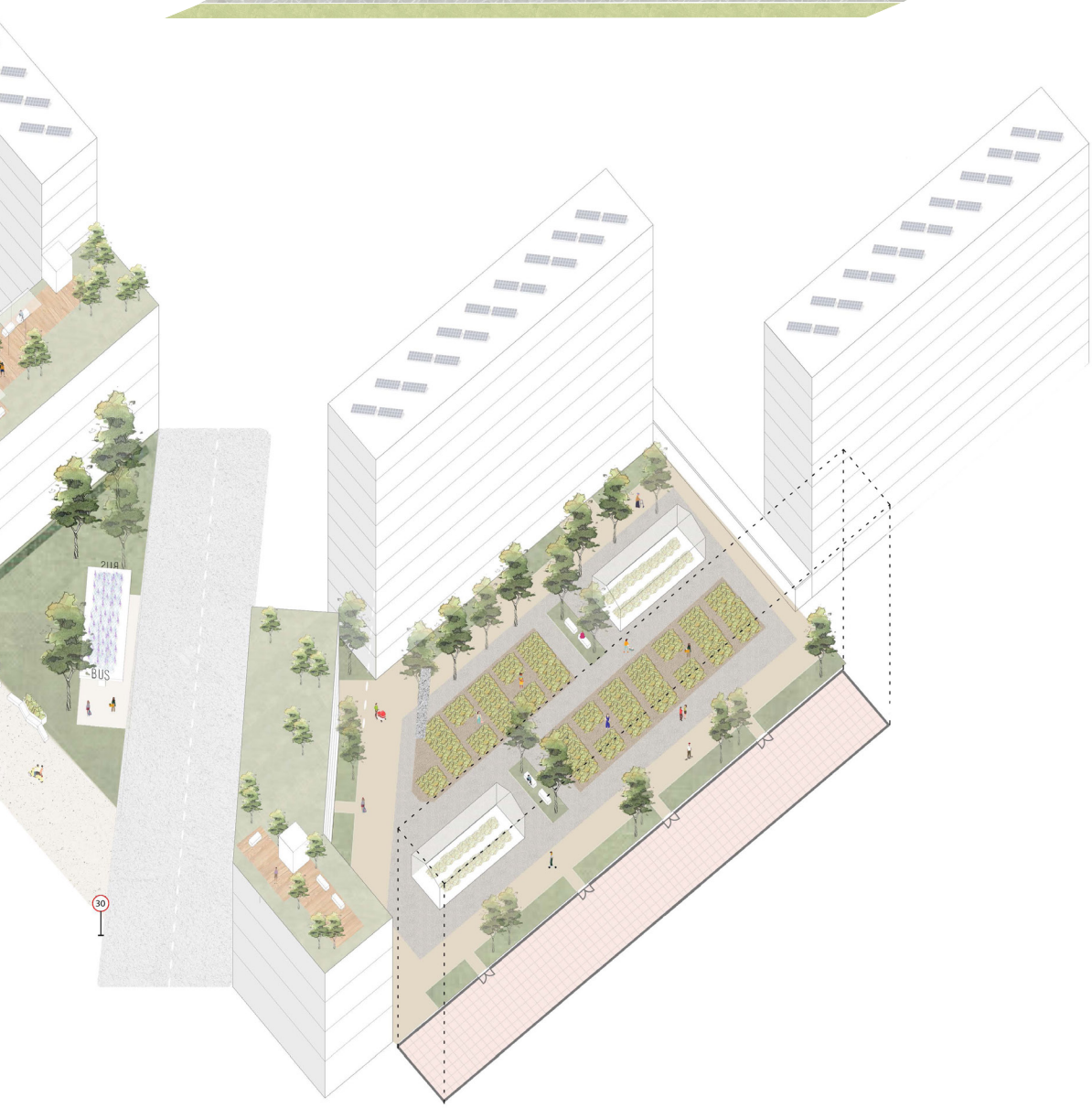
1 COOLSPOTS

Some cool spots are designed in theinterventions as climate refuge zones. They are placed especially in the zones with the highest temperatures according to Professor Morello's heat maps.



2 OUTDOOR LIVING ROOM

An outdoor kitchen gathers all the neighbors and families and allows them to cook and enjoy each others' company.



4
OUTDOOR COLLECTIVE SPACES AND GREEN SPACES

_ Context: modernist case studies and their design of outdoor collective spaces and green spaces

In the design of modernist high-rise neighbourhoods and cities, the urban space was radically transformed. Modernist architects preached a city full of (high-rise) buildings in a parkland setting instead of narrow corridor streets with unhealthy courtyard flats or detached dwellings and their waste of space (Marmot, 1981). By doing so, the modernist architect transformed the city from chaotic series of interconnected voids to a massive modern sculpture. In the new cities, space would flow around slab buildings, providing air, sunlight and greenery to the cities' inhabitants (Condon, 1988). Besides the adoration of the city as a visual impression and the aesthetic pleasure gained by its sculptural form, the new doctrine of modernist architects or the CIAM movement justified also the demolition of the existing city landscape by 'bringing nature back into the city' (Scott, 1998).

Condon (1998) describes this as follows: *"'Nature' was allowed to flow freely throughout the city, even under and through the buildings that were raised up on pilotis for this purpose. While not stated explicitly, it is clear from Corbusier's "City of Tomorrow" drawings that the landscape should appear as if the steel and glass dwelling shafts had been lowered into an undifferentiated Garden of Eden, the "city in the park" where trees of all types sprang up where God had scattered the seed"* (Condon, 1988, p. 6).

In Le Corbusier's design of the Radiant City, he showed how he decongested the city centre by using skyscrapers and high slab buildings. Furthermore, he increased the amount of greenery and open spaces. Cars were integrated in the design and major roads improved the city's accessibility. At the base of the buildings he included several collective facilities in the design, like tennis courts, parks and gardens (Marmot, 1981).

Several years later, the Golden Lane Estate project was acknowledged as one of the first British examples of the urban planning ideas envisioned and promoted by Le Corbusier (French, 2008). The clean layout of repetitive high building slabs (in this case consisting of mixed housing types) was alternated by a series of squares and green open spaces. The estate provided facilities for its residents such as a swimming pool, community centre, shops and a pub within the buildings. Outside the slab buildings, the clever designed spaces and facilities (like a sunken court, a playground, a pedestrian courtyard, a sport course and a gym) gave a strong sense of identity to the estate and its surroundings.

Left: Figure IV.63: Scheme green spaces in Gratosoglio

_ Design strategies

_ COLLECTIVE SPACES AS ORIGINATORS OF ACTIVITIES AND ENCOUNTERS

The outdoor collective spaces and green spaces cannot be forgotten in the design of a coherent neighbourhood. They create the landscape of the neighbourhood and many issues and social aspects (to name a few: the recognizability of a neighbourhood, its scale, the accessibility, informal meeting spots, ...) can be traced back to them. I will divide the design strategies for the outdoor spaces in two categories.

First, there are the outdoor collective spaces which are programmed and defined by a certain usage. These strategies are trying to create functional zones or nodes within the neighbourhood, frequently designed for a specific group of inhabitants. Furthermore, by implementing the strategies to create these spaces, the urban landscape surrounding the building is activated. Inhabitants are encouraged to participate.

Interviewing inhabitants of the Gratosoglio neighbourhood, the abundance of green spaces as an advantage was often mentioned. Unfortunately, these green spaces are hardly inviting and often bad maintained. There is a lack of facilities and inhabitants argue that they don't know what they are allowed to do and where. Better defined outdoor spaces, by appearance and use, can improve the quality of a green space and create solutions for this issue. Although there is an abundance of open space in Gratosoglio, none of them are inviting to have a rest or meet someone. In a neighbourhood where a large number of residents is single and older, the open space doesn't attract people to interact with one another. A last crucial factor the people of Gratosoglio mentioned is the abundance of spaces for cars. These spaces are often over dimensioned and occupy a significant amount of free space. Transforming car spaces into collective spaces can enhance a community feeling and create vivid landscape near buildings.

The other set of design strategies treats the green spaces. The outdoor and indoor collective spaces can be seen as nodes of collective facilities and social points across the neighbourhood. The linkages between them, turning the neighbourhood into one big entity, are the green spaces. In contrast to the collective spaces, these spaces are undefined and unprogrammed. They try to ameliorate a neighbourhood by reconnecting it with its surroundings and main characteristics. Besides, these green areas provide a mix of different spaces and hence increase the diversity of the spaces of the neighbourhood. These strategies are created by talking to inhabitants of the neighbourhoods and analysing the spaces in between the buildings. Many residents complain about the lack of places to rest where they can enjoy the view. In Gratosoglio, almost all lights at night are directed towards the streets. Pedestrians, therefore, don't feel secure to walk at the dark sidewalks and paths back home.

On the following pages, the two types of outdoor spaces are each characterized by seven design strategies.

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1 // Create green zones or courtyards for a group of residents

In these modernist high-rise neighbourhoods, the transition between private and public spaces is frequently too hard. Creating outdoor areas for a group of inhabitants could create some private spaces outdoors and increase the feeling of a community.

2 // Add new volumes and spaces adapted to the human scale

Massive buildings put pressure on their surroundings. These immense spaces create alienation among residents due to the lack of human scale. New volumes could break these immense open spaces into smaller sizeable areas.

3 // Functional densifying

Outdoors, the open space should have more facilities and programmes. Therefore, when densifying, facilities should be implemented in these new buildings.

4 // Create new playgrounds and make old playgrounds visible

Playground's furniture must be selected regarding different social and age groups. The playgrounds should be better located, visible from within the buildings and near the apartments, creating a safe and inviting play area for children.

5 // Add formal meeting spaces for the community

All ages should have a safe place go to meet (new) people and to hang around. Community rooms or buildings should be created where activities or facilities for the community can be held.

6 // Add mobility and recycle spots

Approaching mobility and waste issues from a positive point of view could be an advantage. Sharing systems for cars and bikes can be combined with waste collect points.

7 // Transform car space

Parking lots are often obstructing the potential of various green zones in between buildings. Replacing (some of) these parking lots or transforming them or making them flexible for changes can create a neighbourhood full of social cohesion, instead of cars.

1 // Reconnect the neighbourhood with the water

Water can create peaceful and relaxing environments with beautiful sights and leisure opportunities. Therefore, the water around the neighbourhoods should be used. The water can create a new identity for the neighbourhood, new meetings spots, or re-establish the old identity of a vivid environment.

2 // Ameliorate and differentiate open space

The open spaces are too homogenous designed. Ameliorating them with a more variated green plan and different green zones, with different uses, could improve their attraction. Open spaces can ensure social cohesion by providing spaces to meet people and leisure areas. A more differentiated green plan ensures a healthy environment for social cohesion.

3 // Alternate zones of activity with places to rest

The immense open spaces are not welcoming for elderly and parents and have often too little places to rest. Therefore, along zones of activity and regularly used pathways, sitting spots should be implemented, making the neighbourhood accessible for every age.

4 // Alternate zones of full sun exposure with areas of shade

Inhabitants who want to enjoy the open spaces in summer are dependent from the areas of shade in their neighbourhoods. A green plan should take care of the placement of trees according to shading, privacy and visibility.

5 // Leave space for adaptability

Although there is plenty of open space in modernist high-rise neighbourhoods, little of it can be changed by residents. Leaving some space free for change for the inhabitants can generate some sense of belonging. These inhabitants can take care of the greenery, which enhances the social cohesion too.

6 // Increase the feeling of security by adding lights

To encourage pedestrians to use the pathways in the neighbourhoods lighting should be added or improved. Nowadays, lighting is regularly only provided near streets or parking lots, which does not protect pedestrians or bikers.

7 // Cluster greenery

A well-designed green plan can cluster greenery into functions and zones without blocking sights or entrances to the buildings. Tall trees can provide shade without blocking entrance halls and increasing the insecurity.

_ REFERENCES

In the following part, I will demonstrate some well designed outdoor collective spaces and green spaces. Some of them could serve as informal meeting spots, others can accommodate outdoor workshops or play areas for children. They all add value for the neighbourhood by bringing people together.

Project 1: Community meeting centre

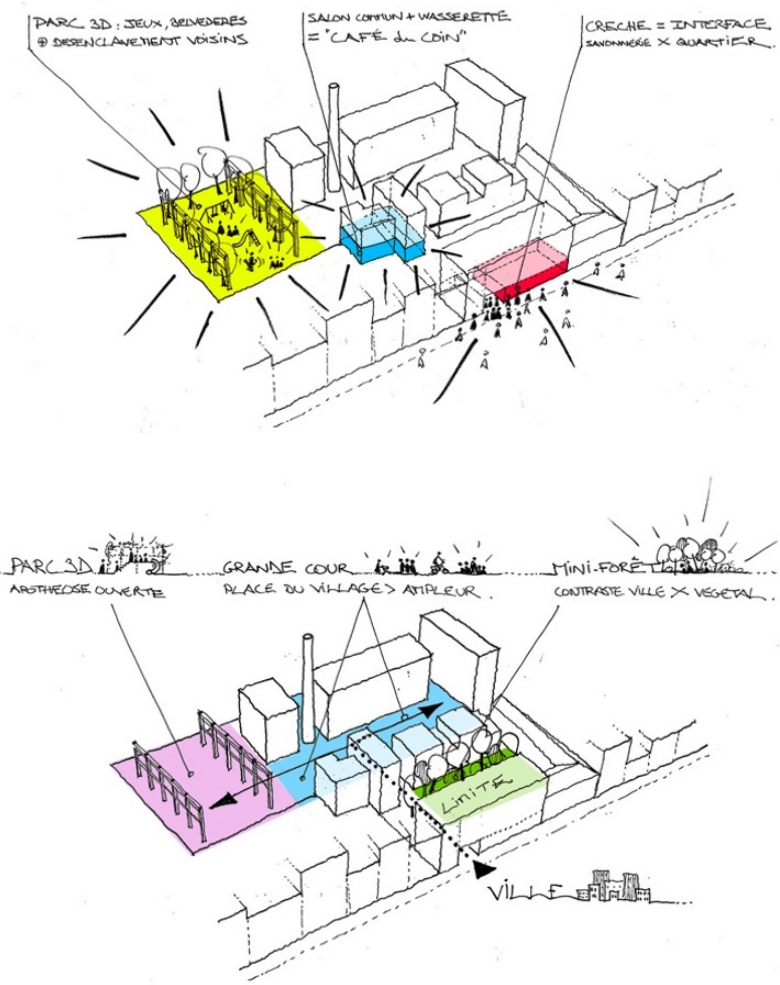
Most of the post-war housing lacks informal and formal meeting places. In the open space and near the buildings there are hardly any places for local residents to meet. However, these places don't have to be spectacular or big. Two architectural firms, i.e. Orekari Estudio en Enter This, designed two totems in an attempt to address the problem by stimulating dialogue in the neighbourhood. The totems were created together with the community during workshops and participative processes and finally serve different purposes. One of them provides a work area wherever it is located, the other creates exhibition space for locals. The latter can be compared with a kind of slice post on which advertising and art could be hung, which in turn increases the community feeling ('Center Totems Installation / Orekari Estudio + Enter This | ArchDaily', n.d.).

Figure IV.64: The totem functionating as a work area

Project 2: Community garden

The open, green spaces in the modernist areas are often barely furnished and perform several functions at the same time. By assigning a specific use to specific parts of the green space, local residents will use and appropriate those green spaces more quickly. In the same way, additional meeting places are created. One example is the design of MDW-Architecture, which creates different kinds of outdoor spaces around their buildings. These outdoor spaces, each in their own way, then activate the surrounding space ('Gallery of Savonnerie Heymans / MDW Architecture - 28', n.d.).

Figure IV.65 and Figure IV.66: schemes of the MDW-design for a community garden



Project 3: The neighbourhood food producer

Another way to activate the open space is by cultivating vegetables in collaboration with the neighbourhood. Two examples of this are Boerse Poort in Ghent and Parckfarm in Brussels. The community garden of Boerse Poort is located at the residential area Brugse Poort/Malem, close to the nature reserve Bourgoyen. It is composed of three parts: vegetable gardens ('de Akker'), group gardens ('de tuinkamers') and a meeting place and work area ('het Kot') ('boerse poort vzw | Facebook', n.d.).

The example from Brussels, Parckfarm, compromises the Farmhouse, which is a greenhouse and cafetaria where people can taste drinks and dishes, where they can read a book or play board games ('Femmes-House : Kookworkshops – Parckfarm', n.d.).

Figure IV.67: Local neighbours enjoying a cooking workshop at the Boerse Poort, Ghent
Figure IV.68: The greenhouse of the Parckfarm project

_ Design

I made for each neighbourhood a masterplan in order to design the outdoor spaces at the Watersportbaan neighbourhood and at the Gratosoglio neighbourhood. In this way, the collective spaces outdoors are linked to the buildings and their surroundings.

In Gratosoglio, as previously discussed, the main reason of the lack of social interaction is the poor condition of the public space and the issue that the inhabitants alienate from the built environment due to its monotonous, massive scale. The main strategy I used to solve this issue, is densifying the open space with buildings of intermediate scale. To make the additional buildings blend into the area, the buildings are implanted along the existing grid. In this way, they follow the slabs, but differ as they contain new housing typologies within. By adding new public functions in the ground floors, the densification shapes new public and semi-public spaces with new uses for the community. These uses include commercial as well as office functions. On the green zone, a playground could be constructed, bringing the children of the area together.

New greenery not only links the different zones along the path, but it also connects the residents of the slab buildings. Community gardens were added in the semi-public area created in between the slabs, thanks to the densification process. This enriches the area as well as the social cohesion. The additional building, closing the community garden courtyard, could house a local supermarket, selling the planted crops. All of this together creates a sense of community but also provides local employment.

Another type of semi-public space that was introduced is the shared garden. The additional, densifying, building contains personal service functions (like healthcare) in the ground floor, making the central area into a peaceful place. To add a specific function to the collective garden, an outdoor living space was designed where people can relax or cook outside during summer.

To make sure these functions are used to its full potential, we reorganized the street hierarchy in a way in which the cars remain in the background. Specifically, the driving speed of the main road would be limited and inside the building blocks, the current roads will be transformed into living streets. In this concept, there is no subdivision between the road and pedestrian area on the street and thus the car is considered as a guest. The living streets end in a little square where kids can play, and terraces can be constructed during summer.

A sensorial garden functions as a new green area. The central garden contains different aromas and greeneries, as well as sand and water to provide different experiences of walking and smelling. The garden is connected to the existing elderly centre and the elementary school, which makes it usable for every age group to relax and cool down in summer. To make sure this current hot spot cools down, new trees will be planted and a shade providing pavilion will be constructed. The ponds could be used for swimming during summer and the sand area could turn into a beach volleyball playground.

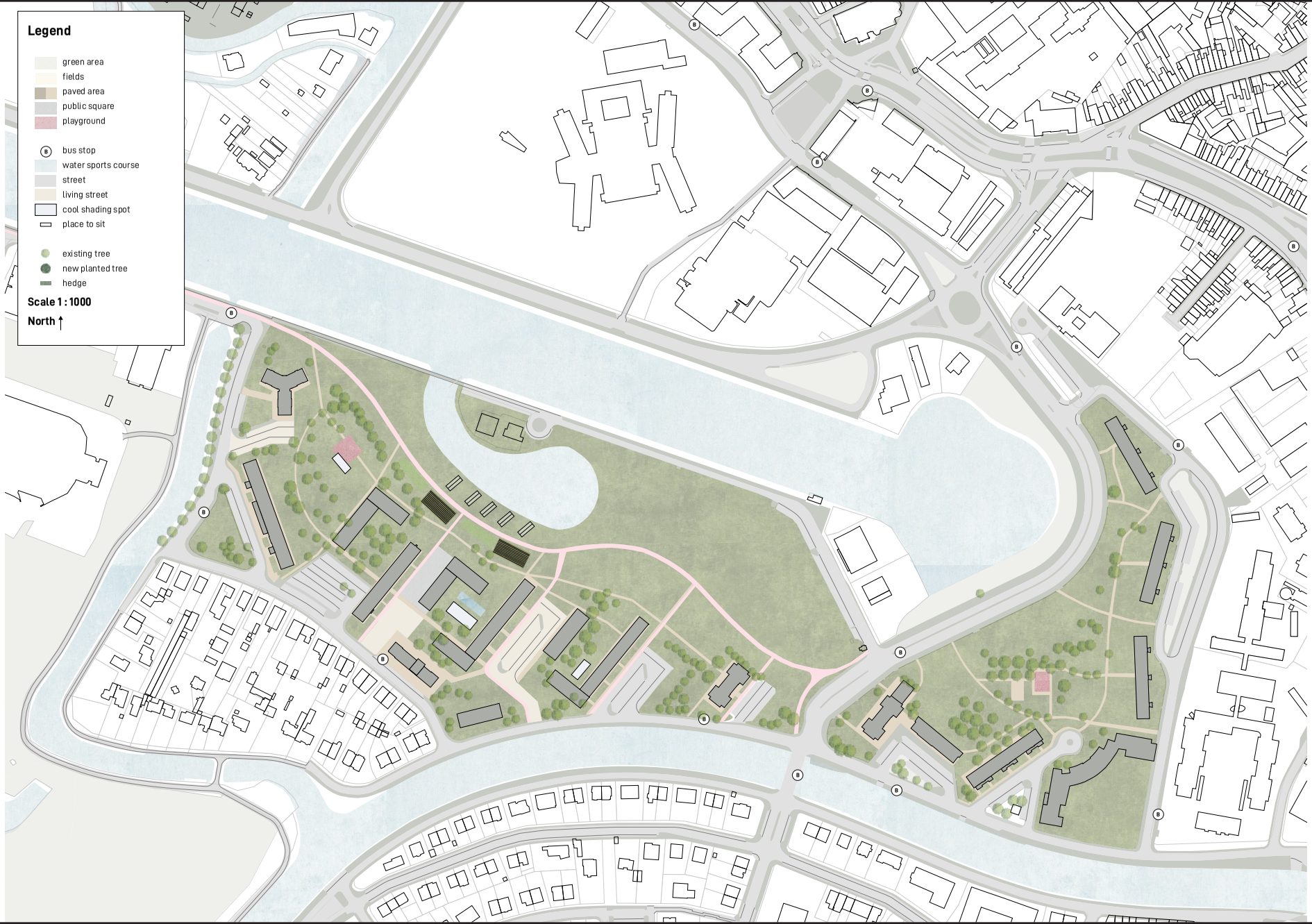
This sphere of the outdoor life continues towards the river as we open the walls, currently preventing the river use, and gave space for a new outdoor workout area and free of use tennis and basketball courts.

At the Watersportbaan similar choices are made. First of all, a cut is made in the big road northern of the neighbourhood. By doing so, the neighbourhood can easier reconnect with the water its named for. Instead of the road, a large bicycle path is implemented. This path connects the neighbourhood to the existing bicycle network. Therefore, the neighbourhood becomes more accissible and inviting.

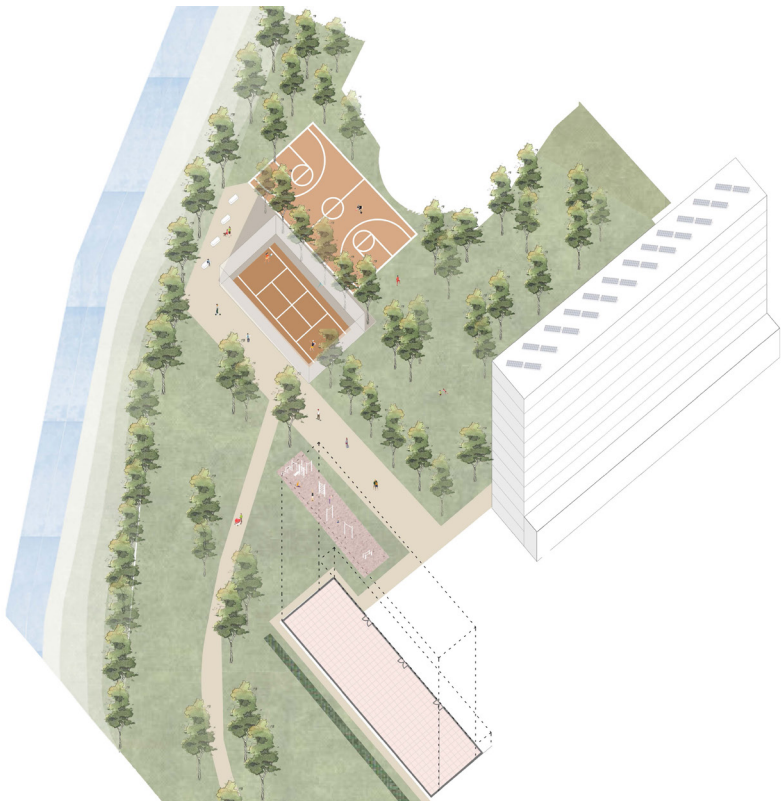
Near the bicycle path, new vegetable gardens are installed. In this way, they create a natural buffer zone in between the apartments and the path. At day time, people can work there in their own vegetable garden and have a chat with neighbours when they walk by. These gardens become then a new informal meeting point.

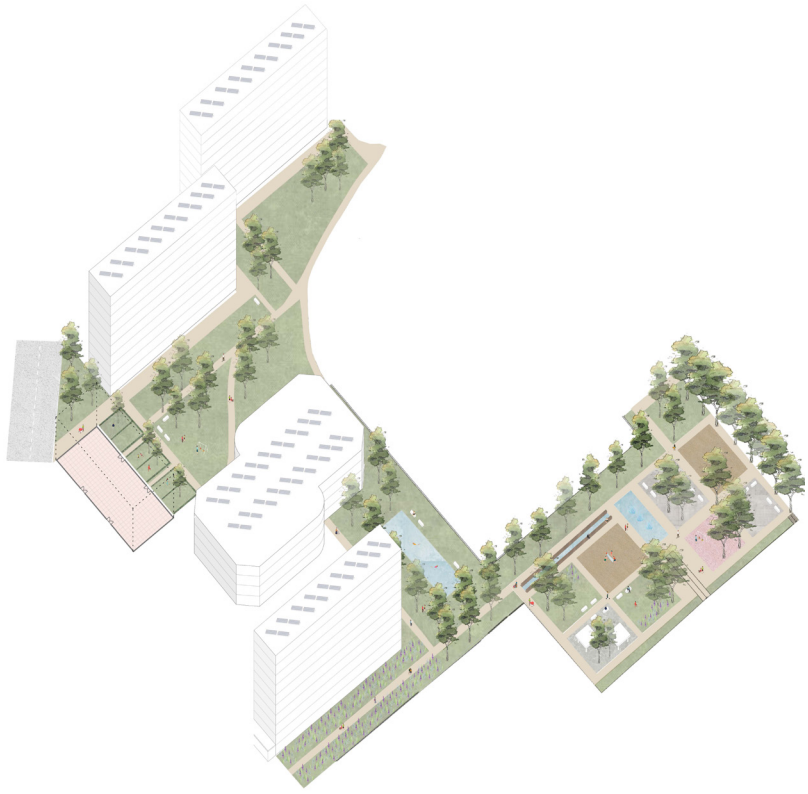
The lack of social interaction in the neighbourhood is not solely due to the condition of the public space at the Watersportbaan. In contrast to Gratosoglio, the public space is better maintained. Nevertheless, in comparison to Gratosoglio, the area is less densified. By functional densifying the open space with buildings of intermediate scale, new facilities and work opportunities are added to the neighbourhood. Also new courtyards in between the buildings are made. As created in Gratosoglio, here too can be shared gardens and community gardens implemented. Since the water of the watersports course is too dangerous for children, new water was added in these gardens. In summer, these places serve as cool spots.

Not in every building added are facilities implemented. The buildings parallel to the bicycle path are residential. Their front gardens create soft edges in between the public spaces and the collective and semi-public spaces of the Watersportbaan neighbourhood. In this way, the soft edges (according to Jan Van Gehl) are made. At night, the light of the dwellings decrease feelings of insecurity along the path. At the day time, neighbours can have a chat in their front gardens, and enjoy the view of the watersports course at the same time.


Legend
green area
fields
paved area
public square
playground
bus stop
water sports course
street
living street
cool shading spot
place to sit
existing tree
new planted tree
hedge
Scale 1 : 1000
North


Legend
strong social theme
strong green theme
green area
fields
paved area
public square
playground
tram stop
bus stop
tram line
power line
canal
street
living street
cool shading spot
place to sit
existing tree
new planted tree
hedge
Scale 1 : 5000
North





V.
CONCLUSION: DESIGN STRATEGIES FOR COLLECTIVE SPACES

As a fitting end one must verify if the goals of this master dissertation were achieved. These objectives are encapsulated by the research questions and their respective answers.

The first research question examines the evolution of the utopian projects of modernist architects. Most of these projects - developed and designed for a layered part of the society - have lost their former prestigious image. Furthermore, the collective spaces have been neglected over time which had an influence on the liveability and architectural quality of the post-war high-rise neighbourhoods.

The research explains that the causes for these issues are multi-faceted. Due to economic constraints and governmental conflicts they started with incomplete designs. Also a selective implementation of the modernist designs created a disadvantage from the beginning. The society changed and collective spaces were neglected. Slowly a stigmatization of modernist high-rise neighbourhoods grew; a negative image which is hard to shed only increases the stigmatization further. In some cases this led to the demolition of these buildings.

The second research question concentrated on a new design for these neighbourhoods so that they can regain the prestige of before. By applying sets of strategies on four different typologies, I was able to pinpoint what should be adjusted and where. Moreover, this method also made it possible to determine the conditions in which the strategies can best achieve their objective. However, this doesn't mean that these strategies are the only best ways to tackle the problem. Moreover, applying all strategies at once is not possible due to their cost price.

As a first side note one must remain cautious blindly combining all the strategies in one place without considering the interconnectivity of all the typologies. Implementing alterations in one place are only useful when they fit in regarding the bigger picture and the other surrounding spaces.

The second side note underlines that this master dissertation has the function of a catalogue, because a full implementation of all strategies at once would prove to be too costly. Showing the possibilities and effects of each individual strategy could be useful for policymakers to make well-considered decisions if they want to gradually improve neighbourhoods in a responsible socio-economic way.

Finally, should the strategies succeed in creating a better high-rise neighbourhood, this would be a major opportunity in the context of the current climate challenge. More specific, the modernist approach could be of high value in order to address the issue of the shrinking open space in Flanders.

VI.
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