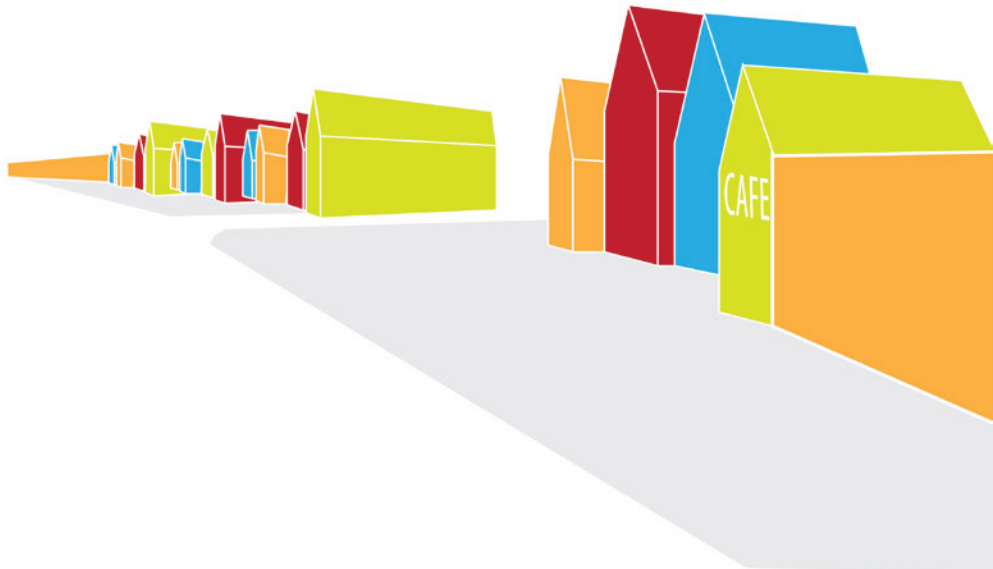


Master thesis at Chalmers Architecture
by Arieni Lestari Putri | 07-05-2012

Emerging HAMMARKULLEN

Strategy for a livelier Million Program neighborhood



Master Programme Design for Sustainable Development
Chalmers University of Technology
Gothenburg - Sweden

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Emerging Hammarkullen

Strategy for a livelier Million Program neighborhood

A thesis within the Masters Programme Design for Sustainable Development
Department of Architecture, Chalmers University of Technology

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Emerging Hammarkullen

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Master thesis in Chalmers Architecture

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Master Programme Design for Sustainable Development

Department of Architecture

Chalmers University of Technology

ABSTRACT

Located in North East of Gothenburg, Hammarkullen is an area part of the Million Program plan; an ambitious housing program implemented in Sweden during the 1970s to solve urgent housing crisis in a short time thus improving the housing standards. While the program did succeed in creating one million dwelling, many have criticized its execution and the aftermath. Today, the neighborhoods often associated with a wide range of problems, particularly in relation between physical structure and social issue.

This master thesis attempt to explore the idea of re-planning and re-designing Hammarkullen to be a livelier Million Program neighborhood by giving greater focus on the needs of people using the neighborhoods. The underlying idea is to give all groups equal opportunities for accessing good quality public spaces, improving the neighborhood to be attractive to all groups in society and at the same time support plans for social sustainability as part of Sustainable Development concept.

All In all, it is not only an attempt to develop idea and strategies to make the district work by itself, but also to improve its relation with the rest of Gothenburg.

Keywords: Urban planning, Hammarkullen, Gothenburg, Million Program, Suburb, Sustainable development

I would like to express my sincere gratitude to Inger Lise Syversen and Pål Castell, both for their advice and support in the process. Thank you to Aditya Muharam, Daniela Farias and Rafi Herfini for always be there. I also would like to thank Mimosa S, Jenny O, Mihaela F, my Alingsås Studio 2010, my Suburbs Studio 2011, my Rågåkern family, my Laskar Goteborg family, and my master colleagues in the 5th floor for such great memories. Special gratitude also goes to my partner, Muhamad Mulya Hareza for his full support. Last but not least, for my mother and my father in Indonesia, I hope I have made you both proud.

Gothenburg, May 2012

PROLOGUE

Architecture and people has drawn to my attention since I was child. Then it became my “perfect dream career” to be an architect. As I learned and learned about architecture, I started to lose my enthusiasm in architecture. At that time, architecture I’ve learned only a matter of beautification.

I came to Sweden two years ago to learn about Sustainable Development. My mind was full with uncertainty and confusion, since this subject was not my first intention. But then, it has changed during the time I was here. I started to perceived architecture from different perspective and understanding by learning sustainable development.

Then in last autumn, I attended Suburbs studio course that took place on site in Hammarkullen. During the course, I perceived Hammarkullen differently. Hammarkullen reminded me of my home country, Indonesia. The diversity combines with complex social problems and built environment issue, but striving to survive in so many limitations. Thus the idea of densification that I used to perceive it as a problem in Indonesia, seems to be a proper solution for a better built environment.

Therefore it has become my interest to worked with this project, to propose strategic planning for a better Hammarkullen thence develop ideas for my future Indonesia.

ABSTRACT

PROLOGUE

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HAMMARKULLEN



I. INTRODUCTION

Starting Point
Aim and Objectives
Working Methods

I. INTRODUCTION

I. 1. Starting Point

In autumn 2011, I attended SUBURBS studio course, held by Master Program Design for Sustainable Development. The whole studio process including lectures took place in one of the building on the site, Hammarkullen, Gothenburg. By combining lectures, study literatures, study visits and several dialogues with the inhabitants, I could understand that there are many problems in Hammarkullen, especially concerning the relation of the physical structure and the social issues of the area. But there are also much potential and strengths we could work with.

Accordingly, my group and I were assigned to develop a detailed plan and competition program that could attract the developers to build in Hammarkullen by involving inhabitants in the design process. Taking account the time constraints, we decided to focus our work on Hammarkullen square. We made some pre-studies for the detailed plan and competition program, based on information we gather through interviews, dialogues and workshops with the municipality, the inhabitants and the developers we have met.

During this process, we realize that there are many issues to deal with, not only about architectural or design issue, but also social issue, and especially with financial issues. Which, for some developers, Hammarkullen seems to have several possibilities and potential to developed; however, there are other areas which are more popular and attractive to work with.

Therefore, based on the knowledge and understanding of Hammarkullen and its inhabitants, further development of re-planning and re-designing the neighborhood became an interesting project for me to work with.



Image 1: Suburbs Studio 2011 common report document. Source: <http://suburbsdesign.wordpress.com>

I. 2. Aim and Objectives

Almost half of century has passed since Hammarkullen was built in late 1960s. As a suburban area and part of the Million Program, Hammarkullen is facing severe problems particularly in relation with physical structure.

Many things have happened and several projects for improving Hammarkullen have been done. However, not many have had a long-lasting effect.

The aim of this study is to further develop the idea of re-planning and re-designing Hammarkullen to be a livelier neighborhood. A livelier neighborhood also support plans for social sustainability, the idea of a neighborhood that is accessible and attractive to all groups in society.

The objectives are to improve Hammarkullen's physical structure, create a new identity for the area, attract more people to live there, and at the same time generate sense of belonging in the inhabitants. Hence, it is not only attempt to develop idea and strategies to make the district work by itself, but also improved in its relation with the rest of Gothenburg.

I. 3. Working Methods

As I mentioned earlier, the SUBURBS studio course that I attended had given me good understanding and many materials for my working process, particularly how the inhabitants perceive their neighborhood from their perspectives. Furthermore I also conduct literature studies, site visits, and observations to gather more information and deeper understanding of the neighborhood. Last, for building my framework of working, Gehl Architect has inspired me in the process.



Credit: Arieni Lestari Putri

II. LITERATURE REVIEW

Sustainable Development
Centrist, Decentrist, Or?
Human Dimension in Urban Planning

II. LITERATURE REVIEW

II. 1. Sustainable Development

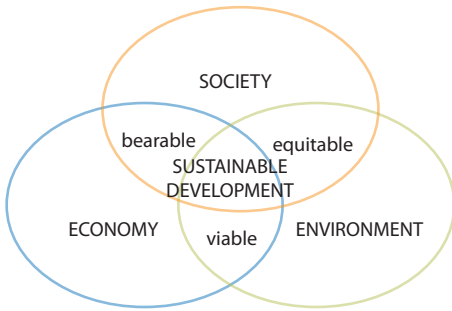


Illustration 1: Society, economy and environment are three main constituents in sustainable development. Credit: Arieni Lestari Putri

Sustainable development has become a worldwide known concept. According to dictionary.com, sustainable is “capable of being supported or upheld, as by having its weight borne from below; pertaining to a system that maintains its own viability by using techniques that allow for conventional reuse”. Meanwhile development means “the act or process of developing; growth; progress”.

Stephen M. Wheeler in his book *Planning for Sustainability* (2004) stated that the concept of sustainability in modern era emerged in the early 1970s as a response to a dramatic growth of modern development practices which leads to global environmental and social crises. Excessive modernistic developments in the world that arise since Industrial Revolution disregard the aftermath for future generation especially in environmental aspects. They left a tremendous footprint on earth which contributes to the global crises.

The phrase “sustainable development” itself appears to have been first used in 1972 by Donella Meadows and other authors of *The Limits to Growth*, and by Edward Goldsmith and the other British authors of *Blueprint for Survival* in the same year.

15 years later, this term was introduced in the Brundtland Commission report *Our Common Future*, a report by the World Commission for Environment and Development (WCED) led by Norwegian Prime Minister Gro Harlem Brundtland for the United Nations General Assembly. In this report, the notion was introduced as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”, which coined what has become the most often-quoted definition of “sustainable development”.

Nowadays, “sustainable development” notion is known worldwide as an alternative approach in development. It emerged as one solution for any problems arise in recent years, particularly in the rela-

tionship between human carrying capacity and nature carrying capacity. It mainly talks about relation between society, environment, and economy. It aims to meet human needs while preserving the environment, so it can last not only for our generation, but also for the next generations in the future.

In planning, sustainable development is a strategy for planning, design, and management of the built environment. It is not only planning, designing and managing the development, apart from considering and reducing the consequences to our environment, but also consider the economic and social aspect. This seems very simple and easy, but it is actually a very abstract concept which hard to define and harder to applied.

The most widely used model of sustainable development is the interlocking circles between three main aspects in sustainable development; social, environment, and economy. There are also the three pillars model of sustainable development and the concentric model.

There is no perfect definition of sustainable development, and it is hard to define sustainable development particularly. Recently most people associates sustainable development only with to high technology addressed in relation with environmental issue and disregard the economy aspect and social aspect. But in my opinion, sustainable development is not only about high technology but how to create a long lasting solution for the society to cope and strive through the rapid change and future challenges.

Furthermore, sustainable development will emerged to be a proper strategy depends on where it applied. To define and applied the concept of sustainable development properly, there is a need to understand the context where it applied particularly; the place and the people living in it. By understanding the place and the people living in it, the concept of “sustainable development” could be applied to accomplish better solution.



Image 2: Wind farm. Source: <http://www.popsci.com/>



Image 3: Elementary school student in Indonesia. Source: <http://salmanitb.com>

In developed countries, sustainable development evolved to a concept about renewable energy, carbon footprint reduction and pleasant community. However, in developing countries, sustainable development is a matter of survival; getting access to healthy food and clean water, struggle from diseases, settling down with family, etc.

(Hareza 2011).

Our biggest challenge in the new century is to take an idea that seems abstract; sustainable development, and turn it into a daily reality for all this worlds people.

(Kofi Annan)



Image 4: Paris suburbs aerial photo.
Source:<http://www.treehugger.com>

In this project, the concept of sustainable development should be understood under the frame of social sustainability, which is part of the big ‘Sustainable development’ concept. The focus is to give all groups equal opportunities for accessing good quality city space. A livelier neighborhood also support plans for social sustainability, the idea of a neighborhood that is accessible and attractive to all groups in society.

Architect is designer. To be a designer is to create. But then when we talk about sustainable development, is not only creating for now, but create something for the future. Have a vision in mind what this world will be in the future, and then create something that will long last not only for us but also for the next generation.

II. 2. Centrist, Decentrist, Or ?

“The city is growing so vast, and we have so much to say to each other.”
(François Périerto)

The rapid urbanization of the world’s population over the twentieth century has left an excessive footprint on earth. As globalization and modernization continue, more and more people move from villages and farms to live in the cities. It happened in many places around the world whether in developed world or in developing world, mainly due to economic and political changes.

As more and more people move to the cities, many big cities were overwhelmed by new migrants in search of jobs, opportunities and hope for a better life. Subsequently, those big cities have to deal with many problems, not only economic issues, but also religious and cultural confrontations, terrorism, economic crises, pandemics, and of course migration issues. The pressure on cities also leads to the overpopulation of existing housing areas, which overpowers utilities, traffic systems and, of course common space and parks (Gehl, 2010).

The cities were spreading out and its suburbs even more thus more rural land at the periphery of an urban area, the phenomenon which so called urban sprawl. The term generally has negative connotations due to the health, environmental and cultural issues associated with the phrase (Frumkin 2002). Simultaneously, it brings a lot of pressure on the natural area which put more load on the city management, because of the longer distances and more expensive cost.

Hence, a crucial issue followed by is not the sustainable or unsustainable city; we cannot afford not to sustain the city (Frey 1999), but how to make the city more sustainable; economically, socially, and environmentally ready to survive, deal and cope with rapid globalization. The discussion has been going on for several decades, since the deficiencies of our cities reinforce urgent action as a respond to a better city and environment.

The basis of the sustainable city debate is the general agreement that the city we know and inhabit today causes unsustainable environmental stress, is socially stratified and functionally suboptimal, and is expensive to run (Frey 1999). The debate favorably categorized into two groups: 'decentrist', who favour urban decentralization, largely as a reaction to the problems of the industrial cities, and 'centrist', who believe in the virtues of high density cities and decry urban sprawl (Breheny 1996). Thus as a consequence, there is also another group of 'compromisers'. The compromise position results not from any ideological stance, but from a realization that - for anyone wishing to adopt a realistic stance - this mixture of merits and demerits precludes the unbridled advocacy of either of the extremes (Breheny 1996).

The decentrist group occur as a reaction to the towns and cities thrown up by the Industrial Revolution. The common denominator of all these initiatives was a desire to plan for communities in healthy and efficient surroundings, away from the disease and congestion of the industrial towns (Breheny 1996). They tend to emphasize suburbanization of smaller towns and villages, thus reinforce the development of countryside. As a result, some of the main consequences

Living in this "edge city" is a reality for large parts of the world's urban population, and it means both new opportunities and limitations for everyday life and business.

(Garreau 1992, in Ståhle 2008)



Image 5: High density city. Source: jimleggitt.typepad.com/



Image 6: Agricultural area. Source: jimleggitt.typepad.com/

“Early urban areas suburbanized as far as people could walk. During the 19th and 20th centuries, urban areas suburbanize as far as mass transit system would allow. More recently, some urban areas have suburbanized as far as automobile will allow. [...]”

(Cox 2006, cited in Ståhle 2008)

are increasing energy consumption, more expensive city operational cost since the city should build new infrastructures and more pressure for the nature since many of the green area replaced by the brown field.

The decentrist group has stolen discussion for a long time, until in the late 1980s the notion “sustainable development” has taken hold to a remarkable degree. Hence, the centrist group seems to reborn with a big idea as a respond, “the compact city”. The decentrist view deliberately became unfashionable, since the focus has been shifted to environmental sustainability. The two dominant motives are global warming, and hence the reduction of pollution, and the loss of open countryside to urban uses (Breheny 1996).

In turn, many of those opposed to the compact city support the concept of ‘decentralised concentration’, the concept of a multi-nucleated city or even city region in which uses concentrated in the mono-core of the compact city are dispersed into a number of smaller centers forming the nuclei of urban districts or towns or ‘villages’ (Frey 1999). Some of the main concepts of ‘decentralised concentration’ are; rejuvenating inner cities, encouraging mixed-use function, and reinforce use of public transportation.

The compromisers’ position occurred and has many attractions. From the centrist case, there will be environmental gains, but not at the expense of quality of life. From the decentrist case it can allow for the controlled direction of inevitable decentralization – to suburbs and towns able to support a full range of facilities and public transport, and to sites that cause the least environmental damage (Breheny 1996).

However in my opinion, when it comes to sustainable city form, many aspects of the city must be considered against other merits and demerits. There will be no one suitable formula in how to make sustainable city form for cities all over the world. The important issue is how to re-plan and to re-design our cities and neighborhoods to make them readily sustainable in the future.

The fact that cities all over the world has different form, structure, and context; location, climate, people, culture, economy system, etc. is another fundamental consideration in making a suitable formula for more sustainable cities. But at the same time, greater focus on the needs of people who use cities must be the key in the future to achieve more sustainable cities. Furthermore, the human dimension is one necessary dimension in preparing the city to be more sustainable and to be equally accessible by all groups.

II. 3. Human Dimension in Urban Planning

“We shape the city, and they shape us.” (Jan Gehl 2010)

City is a place where people meet to exchange ideas, information, or just simply relax and enjoy. It is where stacks of buildings and spaces between buildings combine together. The buildings dominated by private spaces, where some people have their own right to do their business. But the spaces between buildings are dominated by public territory, where everyone should have the right to occupy and access it easily; streets, squares, parks, etc.

City is architecture, where is not only a matter of place but also people. In recent decades, people tend to be neglected in urban planning. Since in recent decades, urban planning made on the drawing board, thus the rapid globalization forced city to cope and deal with in a very short time.

Traditionally, cities grew based on everyday activities, when travel was on foot. Industrial Revolution and introduction of cars certainly generate confusion about scale, dimension and proportion in cities. Modernism planning; put a low priority on public space, pedestrianism and the role of city as a meeting place and accommodating car traffic become more focus. Traditional knowledge about scale, dimension and proportion has gradually been lost. The trends

The city is seen as serving a democratic function where people encounter social diversity and gain a greater understanding of each other by sharing the same city space. The city must be inclusive and there must be room for everyone .

(Gehl 2010)

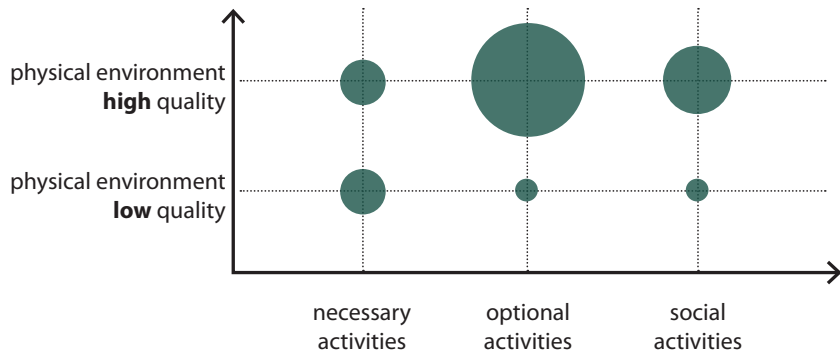


Image 7: Cities for People book by Jan Gehl . Methods and tools presented in the book, used by writers in the project. Source: http://gehlarchitects.files.wordpress.com/2011/01/eng_cover_homepage.jpg

shifted from common spaces to individual buildings. City no longer combination of city spaces and buildings, but rather only as stacks of individual buildings. As a result, new urban areas often built on a scale far from what people perceive comfortable and meaningful.

Basically, working with the human scale means providing good city spaces for pedestrians that take into account the possibilities and limitations dictated by the human body. In narrow street and small spaces, we can see buildings, details and the people around us at close range. There is much to assimilate, buildings and activities abound, and thus we will perceive it as warm, personal and welcoming. Increasing concern of human dimension will leads to better urban quality. In fact, the cost of including the human dimension is so modest as the investment regardless development status and financial capability, compared to other social investment such as healthcare facility or building automobile infrastructures.

Illustration 2: Graphic representation of the condition between outdoor quality and outdoor activities. An increase in outdoor quality gives a boost to optional activities in particular. The increase in activity level the invites a substantial increase in social activities (Gehl, 2010). Credit: Arieni Lestari Putri, drawing inspired by Gehl.



If we want to sustain our city for the future, giving greater focus on the needs of the inhabitants must be a key priority. Furthermore, strengthening the social function of the city space as a meeting place will contributes towards the aim of social sustainability. In short, neglecting human dimension should never be an option.



Credit: Arieni Lestari PUGI

III. BACKGROUND

The Million Program
Suburbs

III. BACKGROUND

III. 1. The Million Program

The Million Program - or Miljonprogrammet in Swedish - is a term for an ambitious housing program implemented in Sweden during 1964-1975 by the governing Swedish Social Democratic Party. The purpose is to make sure everyone could have a house at a reasonable price. By then, Sweden had to deal with an urgent housing shortage, mainly because there were not enough apartments to supply rapidly growing population. At the same time, it was also aimed to be a strategy in providing more occupation for people thus helped the whole economy in Sweden.

However, the objective was to solve this issue in a short time while at the same time improving the current housing standards. For that, the program aimed to build one million new dwellings in a 10-year period. Complementary, a large proportion of the older housing stock with lower standards was demolished.

At that time (1964) Sweden built 90,000 flats a year, so a million houses in 10 years represented almost the same quantity of housing stock that was already existing (SCB Årsstatistik 1964).

Image 8: Rosengård, Malmö. One of Million Program neighborhood. Source: http://commons.wikimedia.org/wiki/File:Rosengård_från_öster.jpg



The Million Program residential were created with basis in the modernist planning movements that were fashionable around that time: the ideas were connected to the automobile, the hardware design and functionalism. They were inspired by the early suburban neighborhoods, such as Vällingby and Årsta, which were aimed to be “an independent city”. By this, it meant that a suburb was designed to offer its residents everything they needed. The majority of the dwellings would be flats in apartment buildings, but also many terraced areas included in the environmental program. The aim was to get away from the narrow “Stone Town” feeling by creating green areas around the houses for recreational purposes.

From the architectural point of view, the key points were to allow the natural light to come into the apartments, instead of building in the traditional city grid; to create recreational areas around the houses and facilitate the connection with public service facilities.

In addition, the planning also was also driven by SCAFT (Stadsbyggnad, Chalmers, Arbetsgruppen för Trafiksäkerhet) Principle issued by the National Road Administration and the National Board of Urban Planning in 1968; principles for urban planning with respect to road safety. This principle means the cars are completely separated from cyclist and pedestrians, often in completely different systems in order to improve urban traffic safety (Hagson 2004).

However, it ended up by separating car traffic and pedestrian paths. This has influenced the construction of many tunnels, footbridges, wide highways and large parking lots, which lead to a mono functional plan in which the residential and work areas were separated, creating generally rectangular and rigid house blocks with large green areas surrounded by many tunnels and large parking lots.

Building construction was significantly influenced by efficiency and economic rationality at that time, consequences of a tight financial framework;. The method was to build a temporary factory where concrete was cast on the building sites. Then they were assembled to the buildings with the help of cranes. This method was a short-



Image 9: Swedish standard kitchen from 1960s. Source: http://commons.wikimedia.org/wiki/File:Kök_1968.jpg

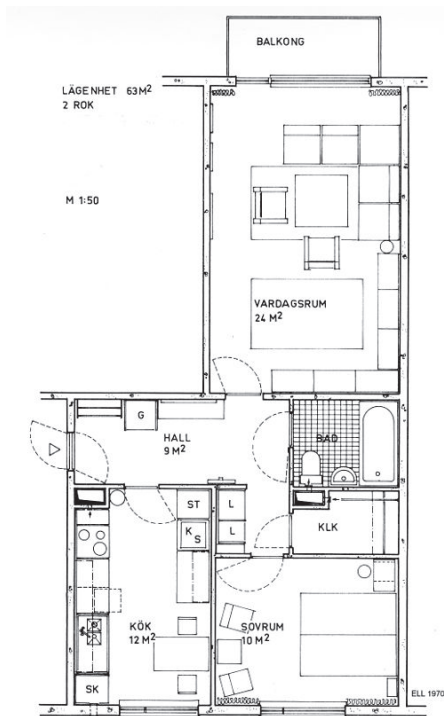


Image 10: Typical apartment in public housing projects, two bedroom apartment, 63 m² in Kallhäll, a suburb in Stockholm. Source: http://commons.wikimedia.org/wiki/File:Lägenhet_1970.jpg

ened, streamlined, and industrialized construction process, used frequently in the construction of some major areas. It had significant economic benefits, but also had disadvantages - especially because it led to create passageways, and tended to create generally rectangular and rigid houses, resulting in a dull and gray nuance. In connection with the building method, the roads, sewer and electricity systems were often kept out of the areas.

Over half a million of the houses were detached houses, semi-detached and terraced houses, and the other half were multi-family-type apartment buildings, slab, tower blocks, and so on. Only a quarter of the houses had six or more stories. In addition, only towards the end of the program the precast concrete for the facades were used.

To make these areas financially viable, they built many large scale blocks of apartments that could be rented out to more people, thus providing more rental income per square meter. For the same reason, the staircases of these blocks are often small, cramped and windowless. Most of the apartments were of the “standard three room apartment” type (Swedish: normaltrea) of 75 m², planned for a model family of two adults and two children.

The program did succeed by building an approximately 1.006 million dwellings, as apartment buildings, townhouses and detached houses. The result was an increase in Sweden’s housing stock of 650,000 new apartments and houses, with a general rise in quality (Borgegård and Kemeny 2004). While the program did succeed in creating one million dwellings, many have criticized its execution and the aftermath.

Today, the Million Program has made a large footprint in the physical urban environment in most of the Swedish cities. After 1975 the town planning mainly aimed on smaller scale concepts for the housing, industries, and services. However, many features that characterized the Million Program - such as traffic separation - were maintained.

The program is now popularly associated with the so called “concrete suburbs”, i.e. dull, grey; low-status suburbs made mainly out of concrete slabs. In fact, almost half of the development was constructed as single-family houses.

After all, Hammarkullen in Gothenburg was such area part of The Million Program plan. There is an urgent needs for redevelopment of The Million Program neighborhoods, since today they are now strongly associated as problematized areas.

*Image 11: Hammarkullen.
Credits: Arieni Lestari Putri*



III. 2. Suburbs

Suburbs are not suburbs because they are located where they are, but first and foremost because they are inhabited by certain groups/categories of people (Alinia, 2006, p.65).

The Swedish notion of ‘suburb’ in this work has a completely different connotation than the American notion of ‘suburb’. All over Europe, there are large-scale, uniform apartment blocks on the outskirts of cities, built mainly in 1960s and 1970s. These areas “are beyond the central streets that tourists usually frequent” (Thomas Hall and Sonja Viden 2005, cited in Thematic Paper E Castell 2010 p. 6).

In Sweden, the term ‘Suburbs’ is often associated with segregation issue. Rosengård in Malmö is one of the most famous example related to this issue, due to large percentage of population in the city district having a foreign background. Hammarkullen, in Gothenburg is also known for the same reason. This fact creates a gap between those who live there and the rest of the Swedish society.

However, it also leads to the stigmatization and marginalization of certain housing areas. Although many of the marginalized housing areas face deficits in their physical environments and service deliveries, the situation is often much better than the rumors suggest (Castell, 2011).

Within these backgrounds, there is a strong demand for creating a better environment and image for certain suburban areas, and in this case, Hammarkullen. Nowadays Hammarkullen became increasingly differentiated and segregated, either with Gothenburg or within its neighborhoods.

Image 12: Kallhäll, a suburb in north west of Stockholm. Photograph by Henryk Kotowski in February 2007. Source: <http://commons.wikimedia.org/wiki/File:Kallhäll.jpg>





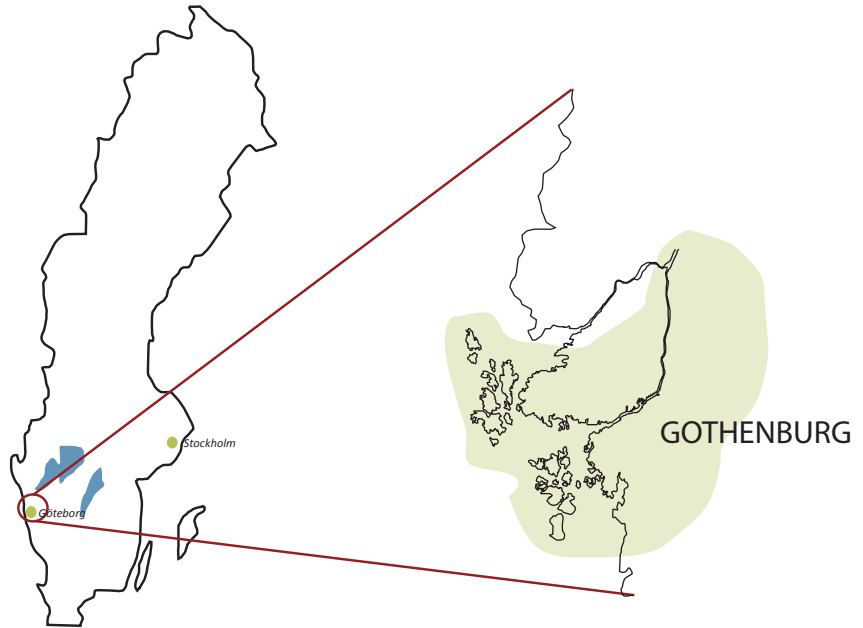
IV. ANALYSIS

Hammarkullen in Gothenburg
Hammarkullen

IV. ANALYSIS

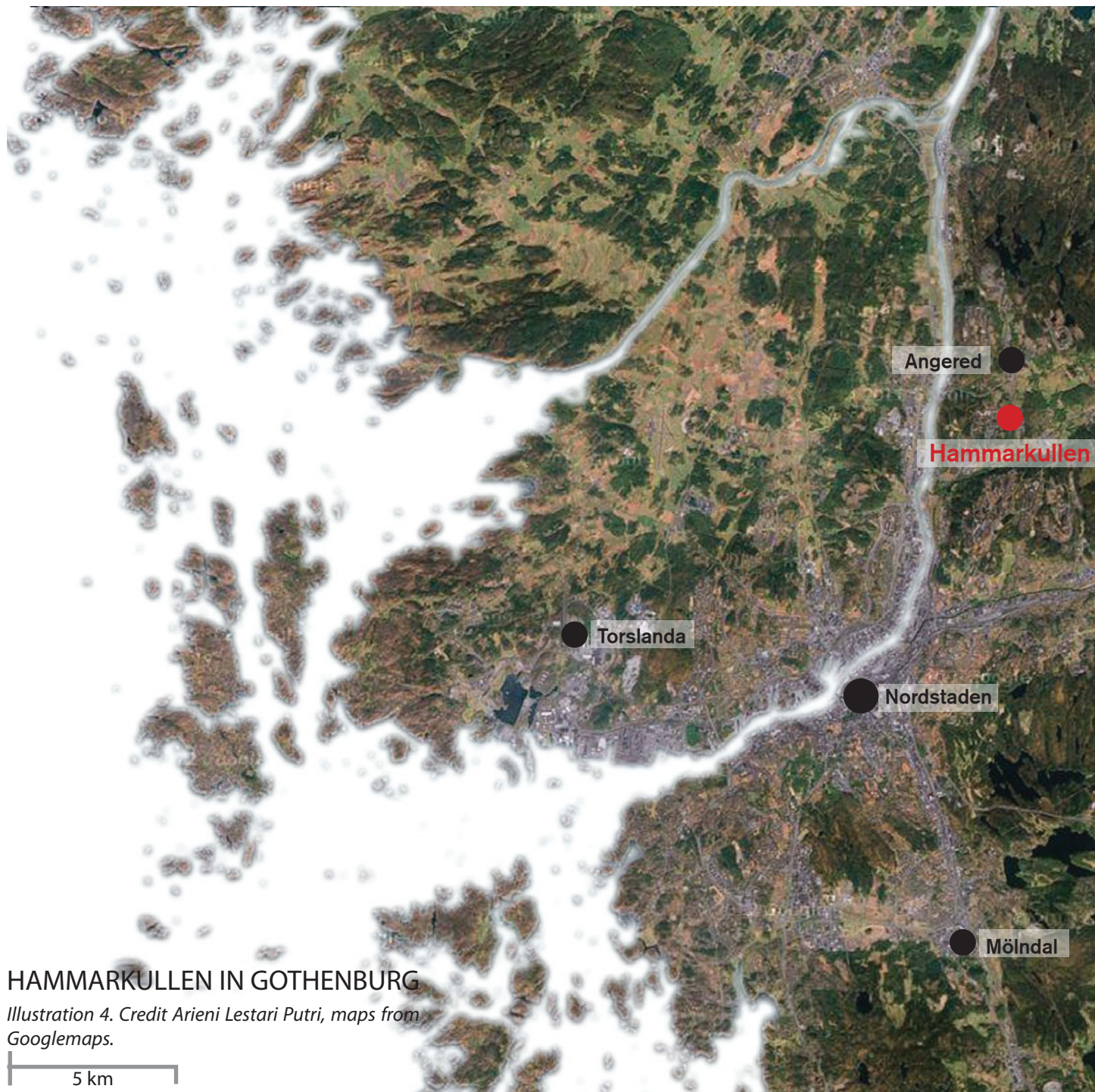
IV. 1. Hammarkullen in Gothenburg

Illustration 3: Gothenburg in Sweden. Credit: Arieni Lestari Putri.



Hammarkullen is an area in northeastern Gothenburg belonging to the Angered city district. Since 1st of January 2011, Gothenburg is divided into 10 City Districts and Angered is one of them. Before that, there were 21 City Districts, and they were mainly concerned with schools, homes for elderly and similar. As they reduced to only 10, each City District has a bigger role in the city planning process.

Angered was the first area to be built in the North Eastern part of Gothenburg during the 1960s. After that, several new suburbs popped up along the tramline to the city. The Million Program housing in Hammarkullen was built mainly between 1968 and 1970 by Göteborgs Stads bostadsaktiebolag (Frendberg, 1968). Clearness, simplicity and uniformity were guidelines when forming the area.

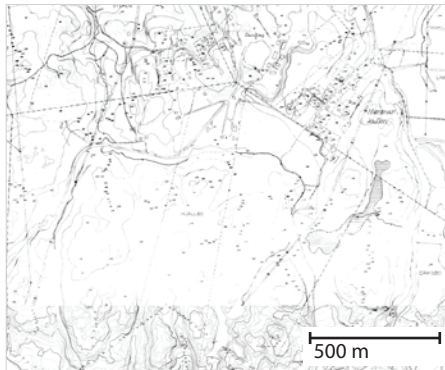


HAMMARKULLEN IN GOTHENBURG

Illustration 4. Credit Arieni Lestari Putri, maps from Googlemaps.

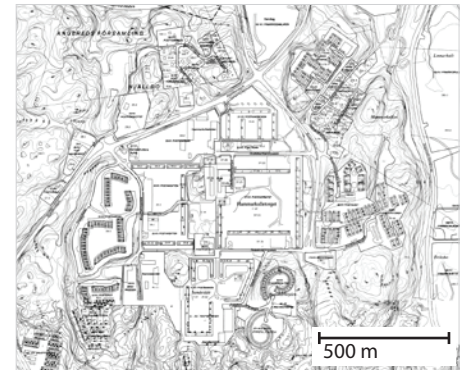
5 km

HAMMARKULLEN THROUGH YEARS



1962 - 1963

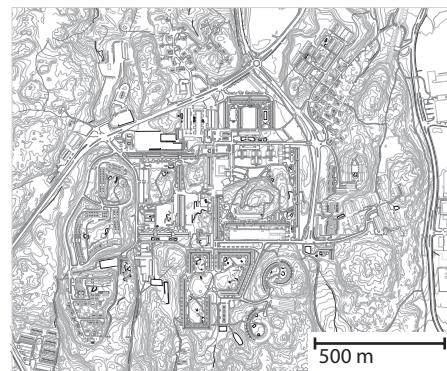
1969 - 1970



1982 - 1986

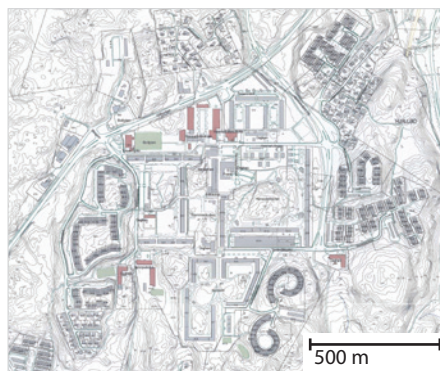


Illustration 5: Hammarkullen through years. Credit: Arieni Lestari Putri. Photo source: <http://loord.net/politik/moderniteten-miljon-programmet-och-miljon-emellan.html>

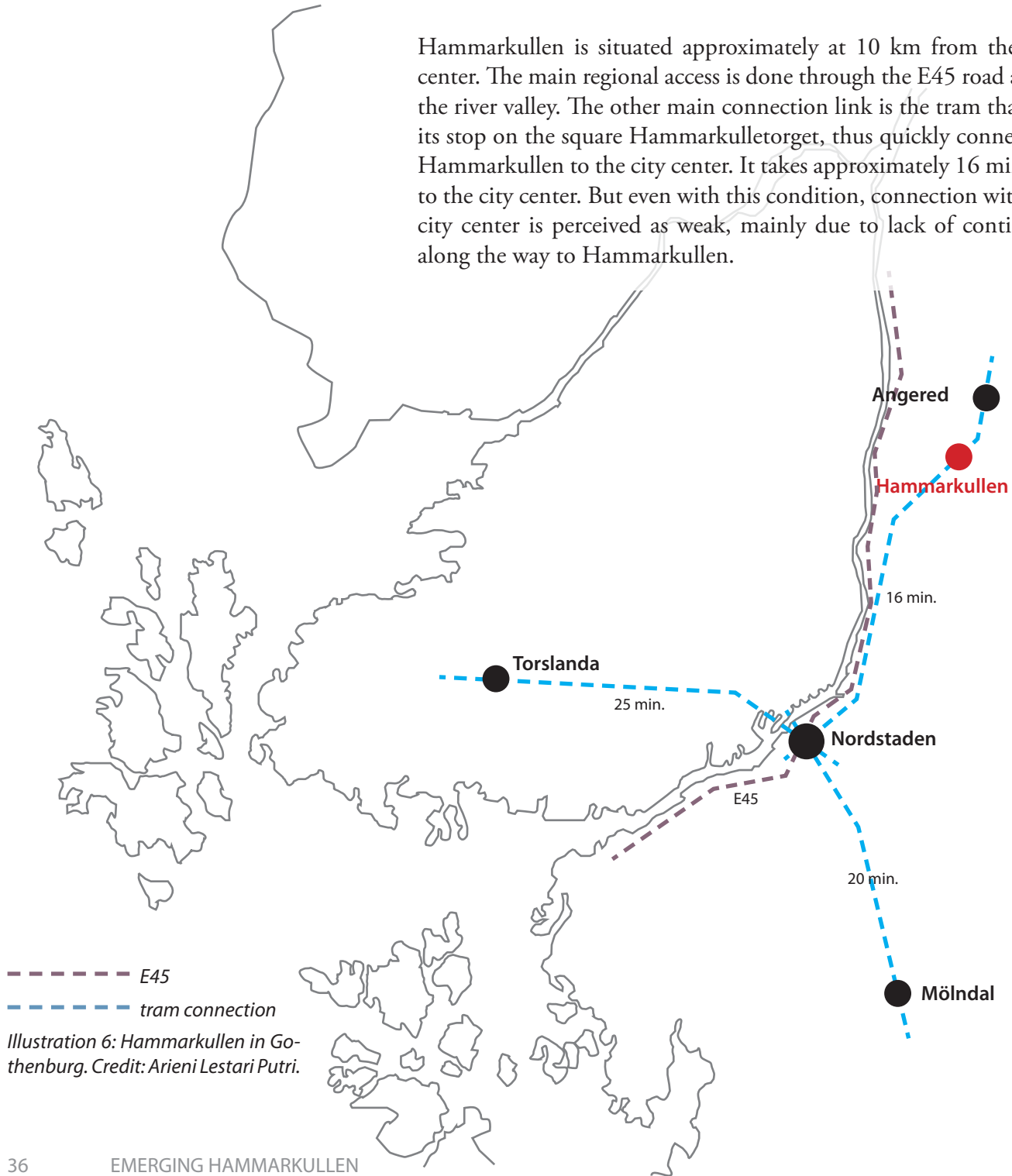


2003

2012

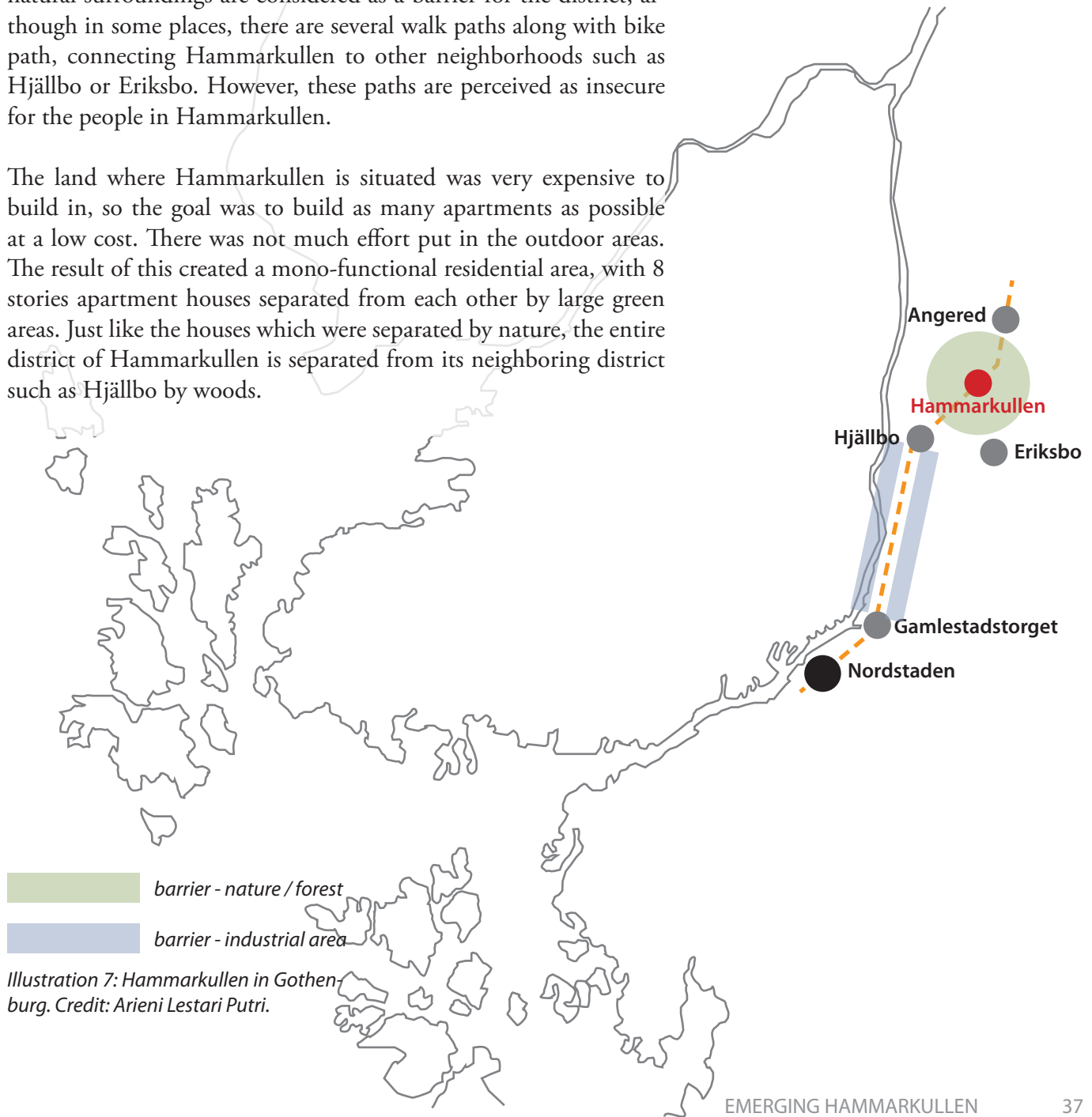


Hammarkullen is situated approximately at 10 km from the city center. The main regional access is done through the E45 road along the river valley. The other main connection link is the tram that has its stop on the square Hammarkulletorget, thus quickly connecting Hammarkullen to the city center. It takes approximately 16 minutes to the city center. But even with this condition, connection with the city center is perceived as weak, mainly due to lack of continuity along the way to Hammarkullen.



Hammarkullen is surrounded by highways and natural area. The natural surroundings are considered as a barrier for the district, although in some places, there are several walk paths along with bike path, connecting Hammarkullen to other neighborhoods such as Hjällbo or Eriksbo. However, these paths are perceived as insecure for the people in Hammarkullen.

The land where Hammarkullen is situated was very expensive to build in, so the goal was to build as many apartments as possible at a low cost. There was not much effort put in the outdoor areas. The result of this created a mono-functional residential area, with 8 stories apartment houses separated from each other by large green areas. Just like the houses which were separated by nature, the entire district of Hammarkullen is separated from its neighboring district such as Hjällbo by woods.



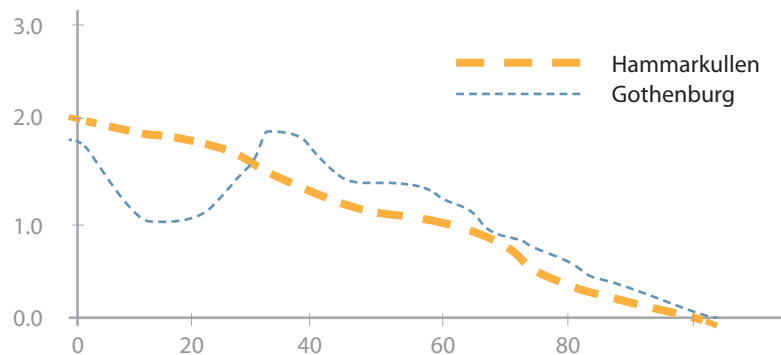
In 2009 Hammarkullen had approximately 8000 inhabitants, of which 57% were born abroad, representing 84 nationalities and 115 languages. Approximately 18% are from Iraq and 25% are other non-Europeans. The district has a lot of characteristics in common with other suburban areas in the North East of Gothenburg and in Sweden, such as a lot of social initiatives and a high proportion of self-employed.

Hammarkullen statistics 2010 (Statistiska Centralbyrån 2010) :

POPULATION 2010

7888

AGE STRUCTURE COMPARE TO GOTHENBURG 2010



PERCENTAGE OF BORN ABROAD

57,0%

FOREIGN BACKGROUND

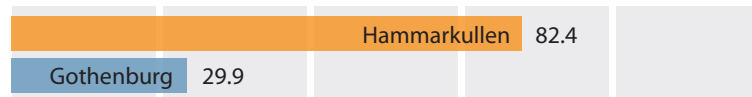
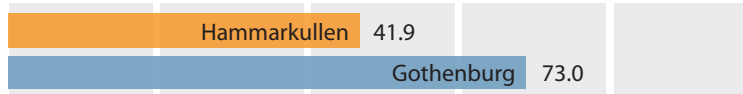


Illustration 8: Hammarkullen statistics. Credit: Arieni Lestari Putri.

EMPLOYMENT



UNEMPLOYMENT

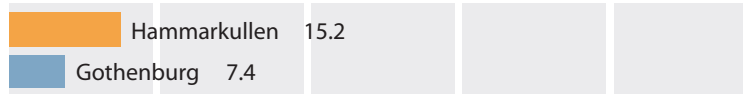


Illustration 9: Hammarkullen statistics. Credit: Arieni Lestari Putri.

Associations, Organizations and an active part of Gothenburg

Hammarkullen is a base for many active associations, organizations and activities. The most famous one is Hammarkullekarnevalen (Hammarkullen Carnival), an annually festival held in Hammarkullen to welcome the spring season since 1974. It is a three-day festival that happens annually during May. Every year the arrangement grows and evolves, and today it is a multicultural festival with local musicians and dancers involved in introducing international culture such as folkdances, music, and international food. Every year 20-30 countries all over the world represented, with 2500 people engaged participants and around 70,000 visitors that come to the area to enjoy the festivities.

Hammarkullen Folketshus is another known association for hosting a wide range of activities and events. The Folketshus building also hosts for several other associations and organizations, such as Folkhögskolan i Angered (FiA), that provide a wide range of courses throughout Angered. Hammarkullens bibliotek is also located there, and it not only functions as library but also arranges cultural programs for the youth and adult people. The Centre for Urban Studies, a joint venture between University of Gothenburg and Chalmers University of Technology, is also located in the same building.



Image 13: Hammarkullekarnevalen 2010. Credit: Mulya Hareza



Image 14: El-Sistema Hammarkullen, Gothenburg. Source: www.vgregion.se

Mariakyrkan is a cooperative church between The Church of Sweden and The Swedish Missionary Church. Formerly, Mariakyrkan occupied both Hammarkullekyrkan and Thomaskyrkan, but recently they moved all activities to Thomaskyrkan in Bredfjällsgatan 1B.

Another well-known association is El-Sistema, an orchestra school for youth which was initiated by the City of Gothenburg and Gustavo Dudamel. The idea is that the youth should not only learn about music, but also engage their families in the process (Göteborg Stad 2011). There are also Mötesplats Hammarkullen, which hosted and arranged several activities towards the empowerment of the Hammarkullen inhabitants, and the Radio of Hammarkullen - “KF Salvador Allende 7 Radio 19 de abril”, that broadcasts from Hammarkullen several times a week (Vårt Göteborg 2011).

Hammarbadet, a swimming facility, is a well-known one also not only for people in Hammarkullen. On every Wednesday from 5pm - 8pm they are open strictly for women, allowing the Moslem women of Gothenburg to come and swim, since they cannot share the same space with men. This building also a base for Mixgården, a very popular youth activity center for the 13 to 20 years old youth in Gothenburg, especially from the Angered district.

STRENGTH

- cultural potential
- close to nature
- vacant lots to be developed
- shorter distances to other more popular area

WEAKNESS

- lack of visual link
- lack of physical link
- vulnerable public transportation facilities
- lack of attractions

IV. 2. Hammarkullen

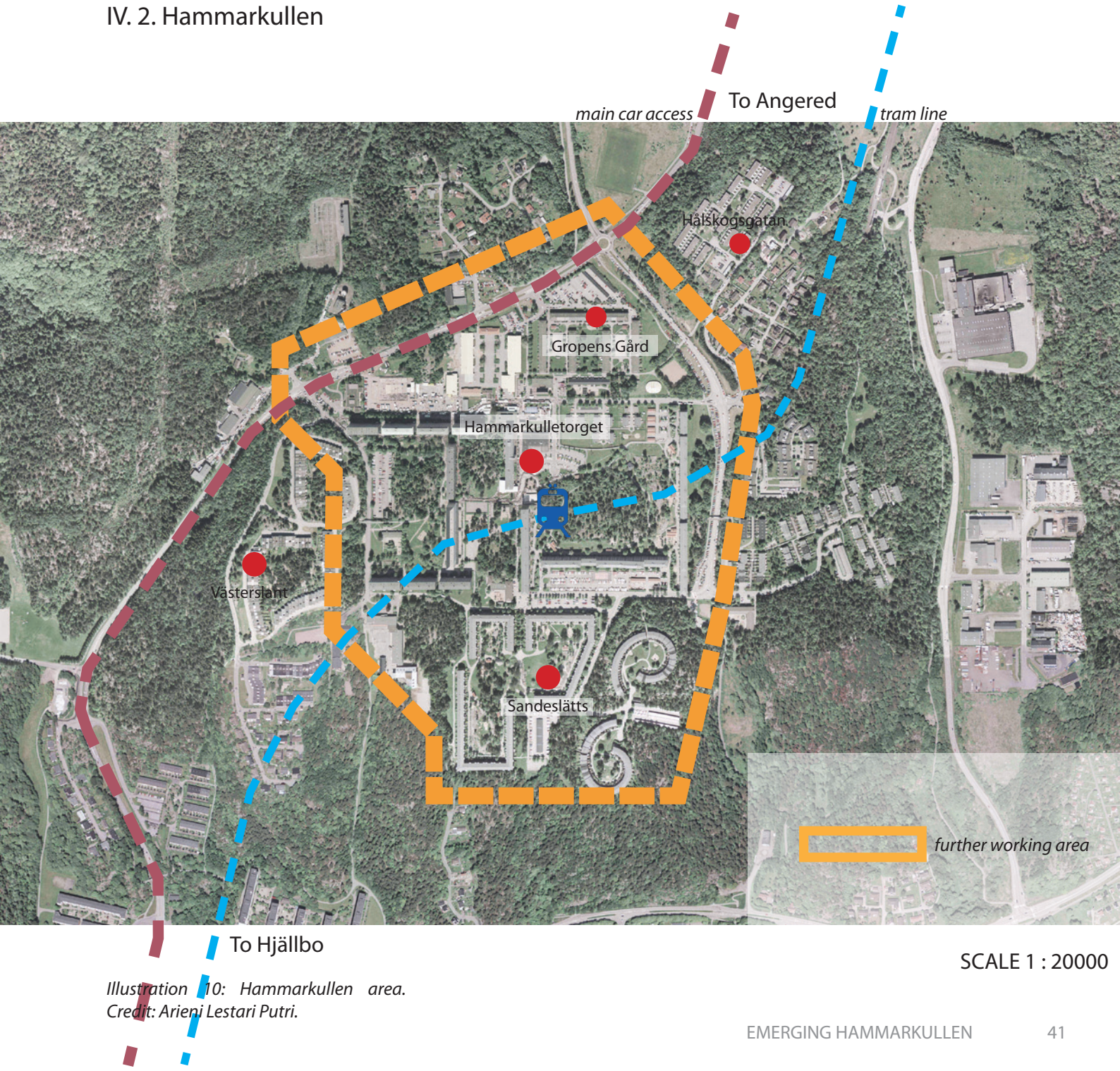
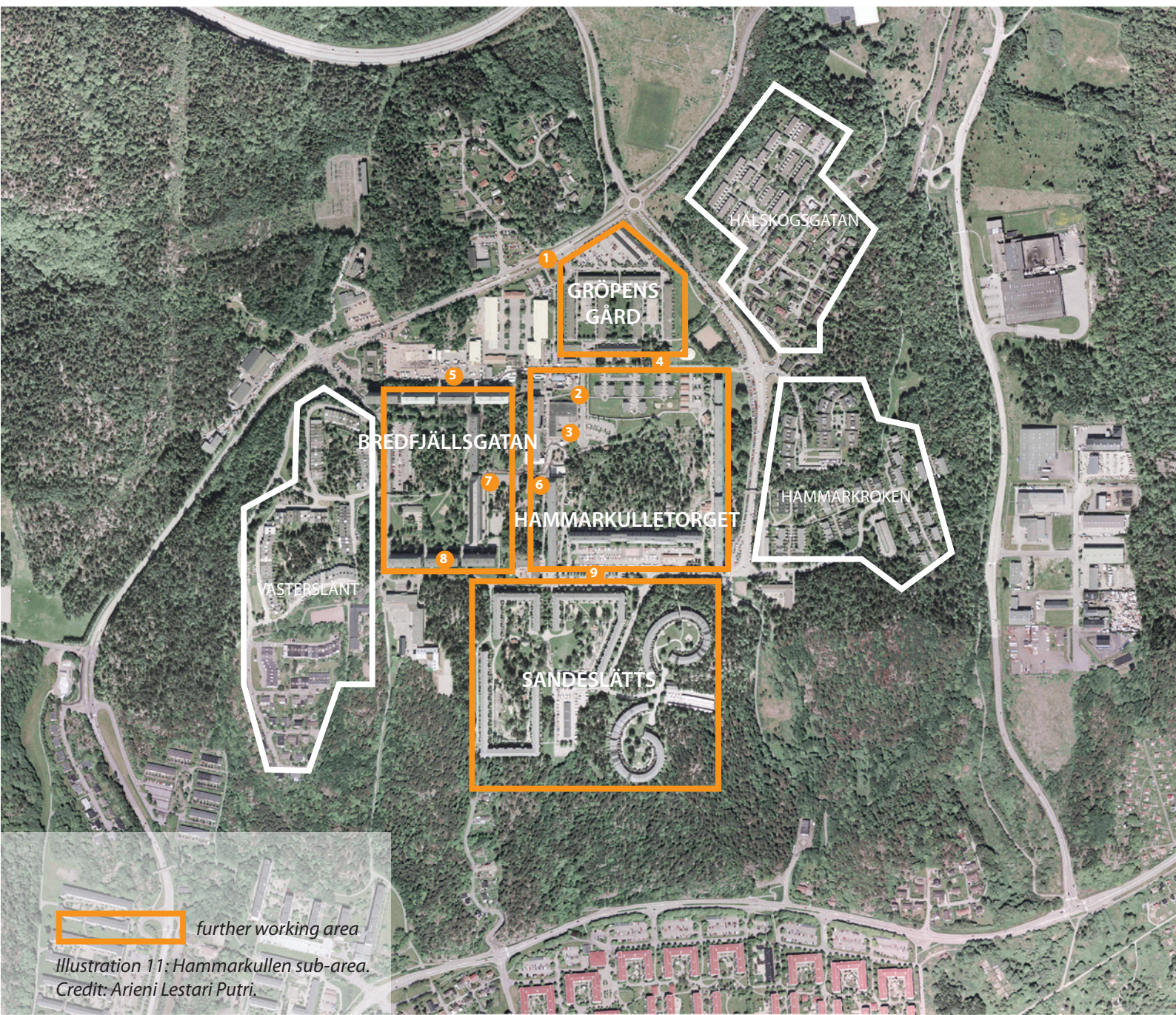


Illustration 10: Hammarkullen area.
Credit: Arienj Lestari Putri.

SCALE 1 : 20000

SUB-AREA IN HAMMARKULLEN



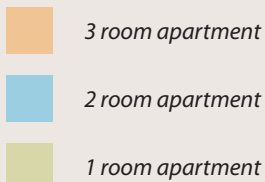
HAMMARKULLEN 2012



Image 15 - 23: Hammarkullen 2012. Credits: Arieni Lestari Putri

1. Monotonous planning

As mentioned earlier, Hammarkullen is an area part of The Million Program plan. The program succeeds in building more than a million dwellings, where most of the dwellings in Hammarkullen are 1 to 3 room apartments.



BREDFJÄLLSGATAN HOUSING PLAN

Illustration 12: Bredfjällsgatan housing plan. Credit: Arieni Lestari Putri.



Problems :

- uniform shape and touch
- similar character
- lack of spatial hierarchy
- too many large parking lots
- too many large green areas around houses
- lack of variety

Efficiency and economic rationality that prevails prior and during the construction process have significantly influenced the building construction. The strategy was to build as fast as they can, and in a very efficient cost. Most noticeable construction method is by casting the concrete on site with the help of cranes.

This method has shortened, streamlined and industrialized the construction process. It had significant economic benefits, but also had it disadvantages, particularly because it leads to create passages and tended to create rectangular and rigid house, with occasionally dull and gray expressions.

There are several planning details need to be addressed on this issue:

- Uniform shape and touch. No uniqueness or character presented, although Hammarkullen is known for its carnival.
- Lack of use or non existent program of the space between buildings create emptiness and passive open space
- There is no street distinction between pedestrian, bike path or car street, whether it is an important or less important
- Too many big parking lots in front of some buildings in a bad condition presenting a very boring atmosphere

All in all, Hammarkullen is lacking in shape variety and tediously unvarying touch for their buildings.



Image 24: Large parking lots in a bad condition in Bredfällsgatan presenting a very boring atmosphere. Credits: Arieni Lestari Putri.



Image 25 - 26: Pedestrian in Sandeslätts (left) looks similar with car street in Gröpens Gård (right). Credits: Arieni Lestari Putri



Image 27 - 28: Uniformity shape and touch with large green areas in Bredfällsgatan (left) and in Gröpens Gård (right). Credits: Arieni Lestari Putri

Problems :

- lack control over surrounding
- several streets located on the back of houses
- blocked view along one side of houses
- inactive ground frontages
- not human scale
- passive open public spaces
- hindered view towards public spaces from surrounding
- inadequate lighting during dark hours

2. Vulnerable district

Despite the fact Hammarkullen was part of The Million Program, which was significantly influenced by efficiency and economic rationality at that time, planning in Hammarkullen also driven by SCAFT principle. This principle means the cars are completely separated from cyclists and pedestrians, often in completely different systems that never met. The ambition was to achieve completely car-free neighborhood.

From the traffic perspective, this condition leads to both positive and negative consequences. For example, the positive one is the children could run and play freely in the yards. While the negative consequences are:

- illegal use of several pedestrians/bike paths as car roads which particularly very dangerous for children
- high speed traffic on the car access
- Hammarkullen as a remote district; means secluded or seems far apart from main car traffic around the district


- — — — —  the only car access to Hammarkulletorget
- — — — — car access in Hammarkullen

Illustration 13: There are actually several car access into Hammarkullen, but most of them are dead-end street which disconnected from one to another except through Hjällbovägen. The only car access towards Hammarkulletorget is from Hammarkullevägen. Credit: Arieni Lestari Putri



At the same time, the SCAFT principle also generates Hammarkullen to many tunnels, footbridges, wide highways, and large parking lots. In one way this is a good method in creating comfortable walking and biking neighborhood. But in other way, it also leads to higher speed and insecure feeling since the pedestrian and bike path rarely coincides with car traffic.

Lack of visibility and control over surrounding is another issue in Hammarkullen. This condition arises from several issue;

- many pedestrians and bike paths located in the back of houses
- inactive ground frontages in several houses
- too many trees in several public spaces hindered view from surrounding
- passive open public spaces (parks and squares)
- particularly during dark hours, almost on the whole area of Hammarkullen had inadequate lighting, with glaring and mis-directed lights which impairs overview of the environment and reducing night vision

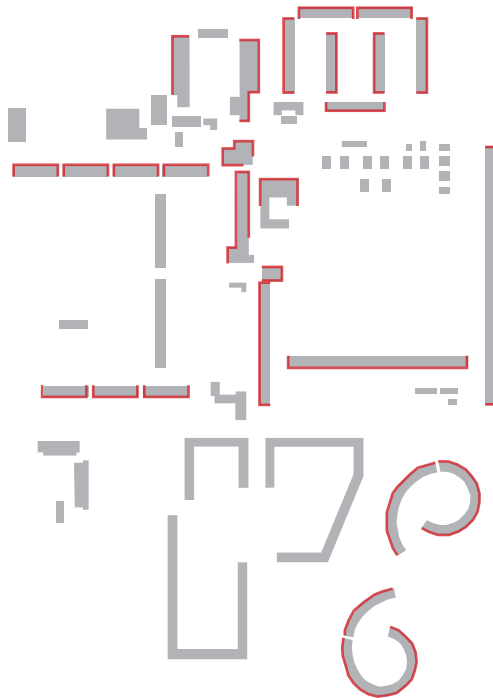


Image 29: Inactive ground frontages along Hammarbadet. Credit: Arieni Lestari Putri



inactive ground frontages ————
buildings ————

BUILDINGS MAP IN HAMMARKULLEN

Illustration 14: Buildings map in Hammarkullen. Credit: Arieni Lestari Putri

Problems :

- unattractive face towards Hjällbovägen
- indirect entrances from Hjällbovägen
- vulnerable public transportation (facilities)
- nature surrounded as a great barrier
- high speed traffic
- no clear orientation
- inappropriate traffic separation
- hilly ground
- poor accesibility
- no clear direction



Image 30: Unattractive view towards Hammarkullen from Hjällbovägen, main car access to the city of Gothenburg. Credit: Arieni Lestari Putri

3. Weak connection

Connection with other area in Gothenburg

As mentioned earlier, there is several optional ways to get into Hammarkullen. By public transportation, tram is the easiest way to reach Hammarkullen. It only takes 16 minutes from the city center and served by 3 tram lines which go approximately every 10 minutes. Therefore most people rely on the tram to go into other area in the city. But unfortunately, the tram rails towards Hammarkullen only served by single tracks in some parts, which made it very vulnerable if any problems occurred.

Other optional public transportation is by bus. But to go by bus to Hammarkullen is not easy, especially from the city centre. There is no bus which goes directly from the city centre instead from other neighborhood around Hammarkullen. Moreover these busses had no stop in Hammarkulletorget, although they have it on Bredfjällsgatan, Gropens Gård and Sandeslättsgatan.

Furthermore, Hammarkullen could be also be reached by private car. The main regional access is E45 road which goes along the river valley then take a turn in Hjällbovägen. Although there are several car access to the neighborhood, the only access towards the center of Hammarkullen is from Hammarkullevägen, another turn from Hjällbovägen. This condition leads to confusion for some drivers, because there is no sign or point of interest along the main street. This unfriendly user situation leads to unattractiveness for doing spontaneous visit for the car users.

Hammarkullen also surrounded by forests which separated the neighborhood from the neighbors. There are several pedestrian and bike path along the forests connecting Hammarkullen with the neighbors. In one way, this is one potential for living close to nature in Hammarkullen. But in other way, these conditions also perceived as a great barrier.



Hjällbovägen

Illustration 15: It takes approximately 10 minutes to go from one side of Hammarkullen to other side. But since the ground was very hilly, it seems longer distances needed. Credit: Arieni Lestari Putri.

Connection within Hammarkullen

Connection within the area strongly influenced by SCAFT principle, which made car traffic separated from pedestrian and bike path. Although there are several car access to the area, most of them are just dead-end with no connection in the area. This can be considered as an attempt to make pedestrian and bike path safer. But in another way it also leads to higher speed in the car access.

Hilly ground where Hammarkullen situated, generate other problems for the inhabitants. Because it made the distances seems longer than it supposed to be. The streets, whether car traffic, pedestrian/ bike path, or mixed traffic are similar. It seems that there is no street hierarchy whether the street is important or not. Several streets are too wide for its function today. Particularly for the mixed traffic where there is no appropriate traffic separator between pedestrian and car access.



Image 31: Hilly ground in Hammarkullen leads to many stairs for accesibility which is not comfortable for pedestrian. Credit: Arieni Lestari Putri

Problems :

- few apartment
- few large apartment
- sparsed buildings
- small population
- hilly ground
- few landmarks
- few meeting points
- few urban furnitures

4. Scattered neighborhood

Today there are approximately 8000 people living in Hammarkullen. To achieve the same urban density with Gothenburg, Hammarkullen is lacking approximately 9000 residents (Stadsbyggnadskontoret 2009).

Comparing with other area in the city of Gothenburg, Hammarkullen obviously had sparse building with relatively small population. Houses and public services sparsely located in several spots, with long distances between one to another. Moreover, the land where Hammarkullen situated was very hilly. This leads to uncomfortable walking and biking through the area, since the distances appears to be longer.

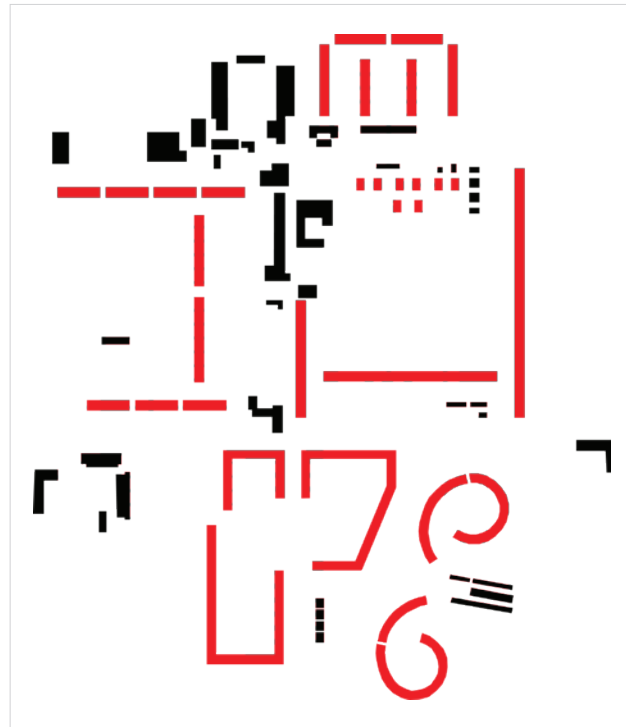


Illustration 16: Comparison of housing (red) and public services (black) in Hammarkullen. Although there are more housing than public buildings, but most of them are 2-3 rooms apartment. There are not enough large apartment in Hammarkullen. Credit: Arieni Lestari Putri



Image 32: Sparse building create emptiness. Credit: Arieni Lestari Putri

Sparsely buildings in Hammarkullen also established many large vacant lots in between the buildings in Hammarkullen, which leads to emptiness and deserted green areas in between the buildings. By all things considered, these condition generate Hammarkullen's life between buildings seems scattered and desolate.

The three maps below show the difference in density between Hammarkullen (black) and othe area in Gothenburg (red).



Illustration 17: Urban density comparison between Hammarkullen (black) and Nordstaden (red), the city centre of Gothenburg.

Credits: Stadsbyggnadskontoret



Illustration 18: Urban density comparison between Hammarkullen (black) and Majorna (red), the urban area in Gothenburg.

Credits: Stadsbyggnadskontoret



Illustration 19: Urban density comparison between Hammarkullen (black) and Gårdsten (red) another suburban area in Gothenburg.

Credits: Arieni Lestari Putri



Credit: Arieni Lestari Putri

V. OBJECTIVE AND STRATEGY

To strengthen connection to Gothenburg

New face towards Hjällbovägen

Problems :

- unattractive face towards Hjällbovägen
- indirect entrances from Hjällbovägen
- nature surrounded as a great barrier
- high speed traffic
- vulnerable public transportation and facilities

Hammarkullen only had one car entrance which is hidden from Hjällbovägen, the main car access to neighboring districts and the city of Gothenburg. Along Hjällbovägen, Hammarkullen separated by large green spaces as boundary to the neighborhood. Direct entrances to the neighborhood are towards Gröpens Gård parking area and Hammarkulleskolan parking area from Bredfjällsgatan, thus they did not go to Hammarkulletorget. The main car entrance to Hammarkulletorget is through Hammarkullevägen, and then takes another turn to Hammarkullegatan.

This condition leads to confusion for some drivers. Hence Hammarkullen seems harder to be reached by cars which deter people for doing a spontaneous visit to Hammarkullen.

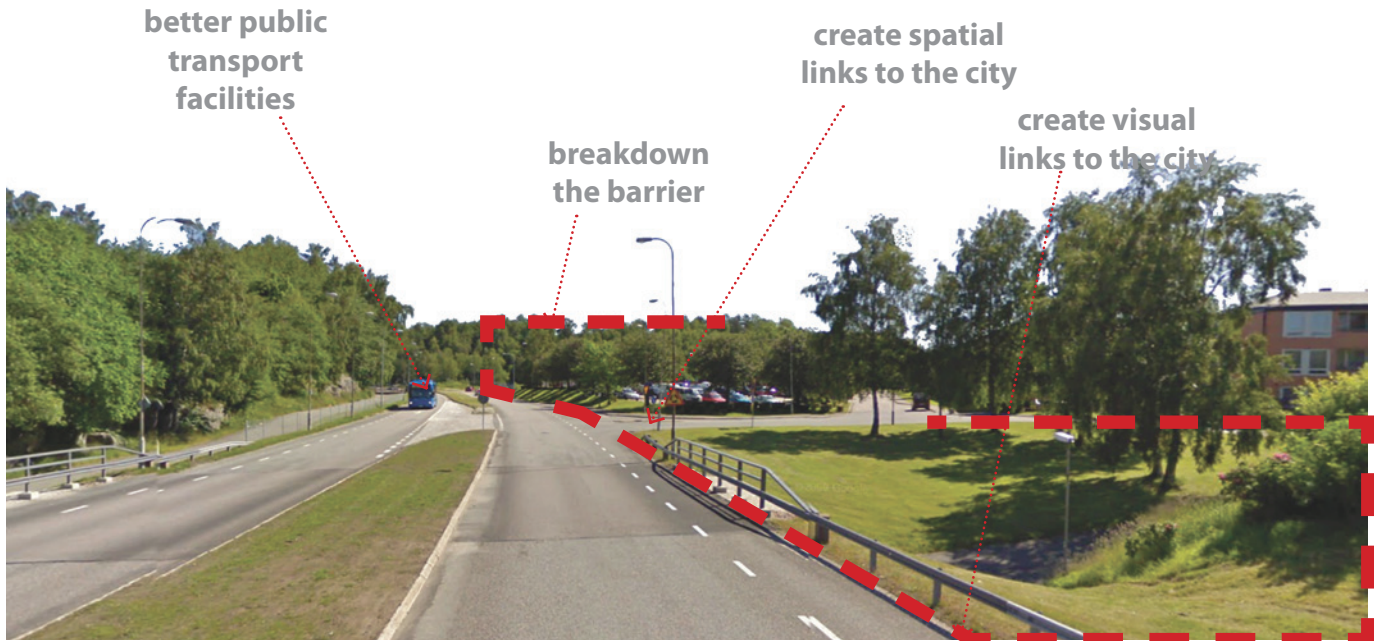


Illustration 20: Hammarkullen towards Hjällbovägen now. Credit: Arieni Lestari Putri

Ideas:

- New commercial area or mixed-use buildings along Hjällbovägen to create point of attraction along Hjällbovägen
- New main car entrance from Gröpens Gård parking towards Hammarkullekyrkan for easier access for car drivers from Hjällbovägen
- Distinctive character of commercial and welcoming area
- Strengthening car entrances towards Bredfjällsgatan
- New buss stops, integrated in the commercial area or mixed-use buildings

Recommmendations:

- create spatial links to the city - easier main entrance
- create visual links to the city - develop new buildings along the street
- better optional public transportation and facilities
- break down the barrier

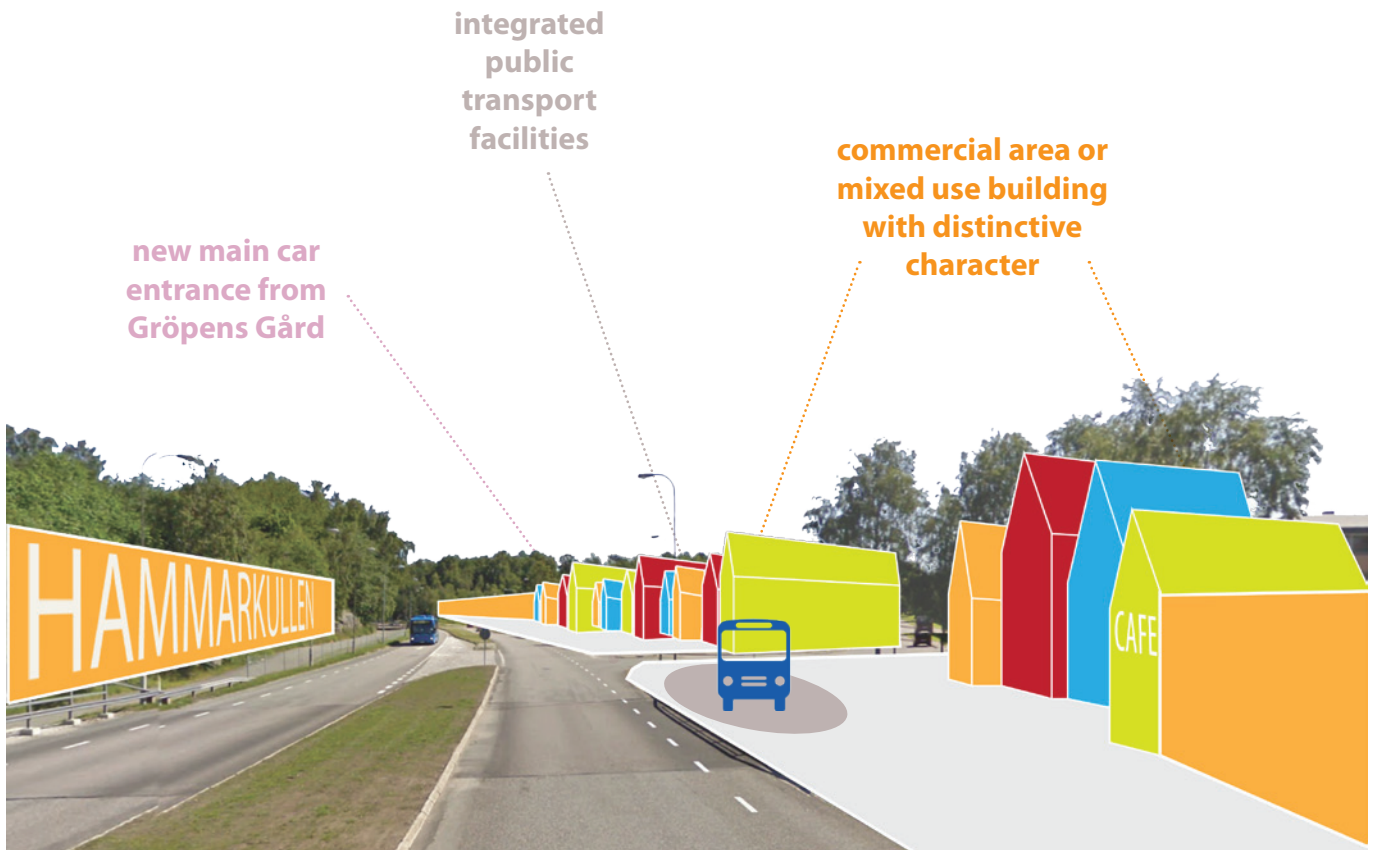


Illustration 21: Proposal for Hammarkullen towards Hjällbovägen in the future.
Credit: Arieni Lestari Putri

Problems :

- lack of spatial hierarchy
- no clear orientation
- boring atmosphere along the street
- inappropriate traffic separation
- lack control over surrounding
- hilly ground
- some streets located on the back of the house

Recommendations :

- emphasize street hierarchy
- clear structure
- interesting route along the street
- appropriate traffic separation
- more transparent facade along lower floor
- more ramps
- open both sides of houses

To emphasize spatial hierarchy

Redesigning streets, passages, and paths

Streets, passages and paths is more than only public domain where people passing by to reach one function, to go from one place to another. Walking is not only a necessary activity, but also an optional activity where people could meet, interact, and have social activities. There are more things could happened along the streets. Inviting more people to move around is necessary to increase activities and enhance secure feeling around the district.



Illustration 22:

All movement on street should be based on pedestrian premises.

Credit: Arieni Lestari Putri. Drawing inspired by Gehl architects.

Ideas:

- Integrated traffic model with all movement should be based on pedestrian premises and appropriate traffic separators
- Good pavement quality, mixing the old with new could increase the comfortable feeling without diminish its value and history. Chosen material preferably to enable wheelchairs, strollers, children, senior citizen and women with high heels walk more comfortable
- Non-slip material to increase security in walking especially during winter and cold season
- Good lighting on people and faces, reasonable lighting on pavements, surfaces and steps is crucial to enhance security and safety.
- No stairs and steps! Ramps are better.
- Freely and unhampered room to walk, without having to weave in and out
- Unhindered and not too many interruptions and obstacles especially for people with strollers, shopping carts and walkers
- Interesting route with narrow units along the street, many details and vertical facade rhythms

COMMERCIAL AREA WITH MIXED TRAFFIC DESIGN PROGRAM

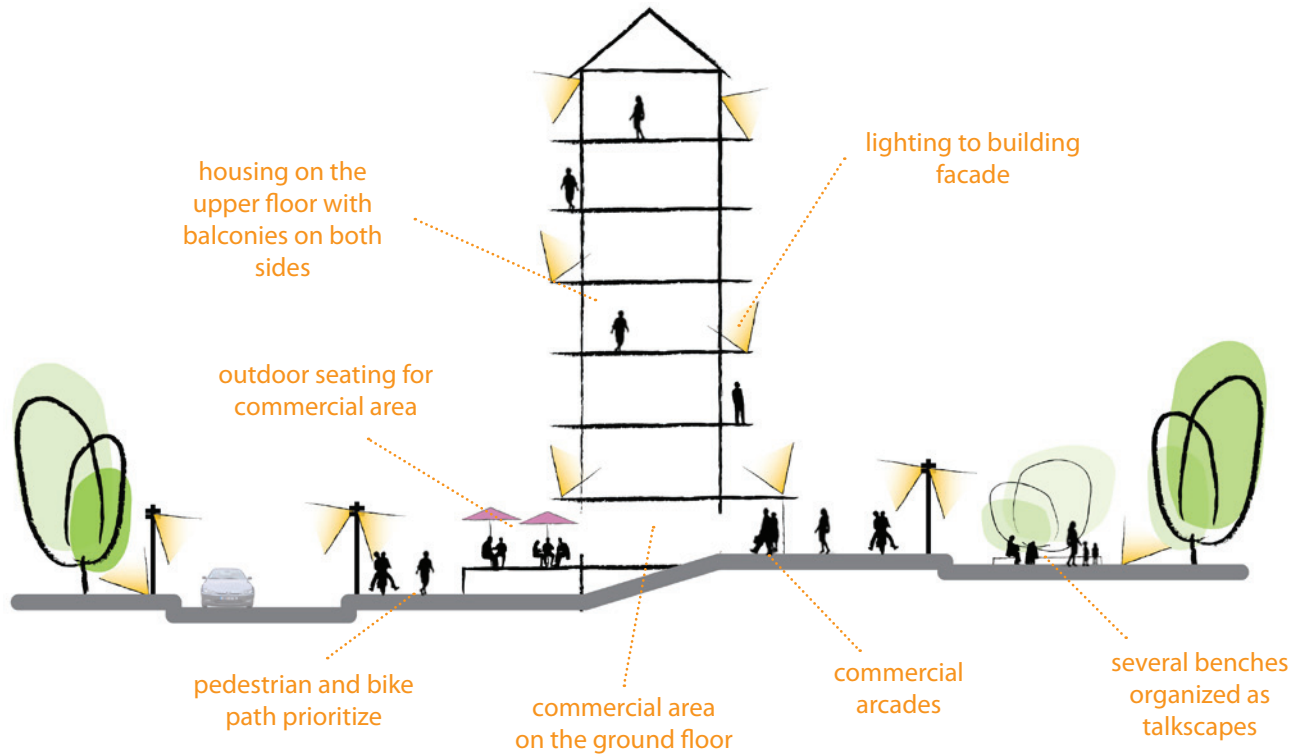


Illustration 23: Proposal for mixed traffic street with commercial area.

Credit: Arieni Lestari Putri

PEDESTRIAN AND BIKE PATH DESIGN PROGRAM

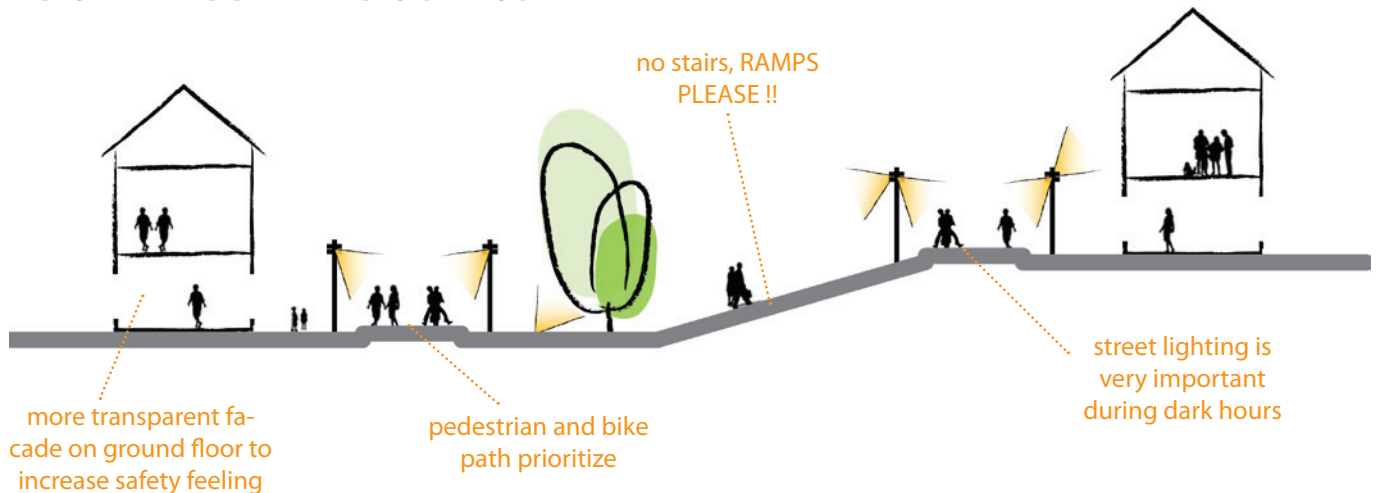


Illustration 24: Proposal for pedestrian and bike traffic. Credit: Arieni Lestari Putri

To emphasize spatial hierarchy

Renovation of several houses

Problems :

- uniform shape and touch
- similar character
- blocked view along one side of houses
- inactive ground frontages
- not human scale
- lack of spatial hierarchy
- poor accesibilty

Soft edges means good rhythms, fine details, narooow units, many doors, with vertical facades articulation. These well makes distance seem shorter because walks become more interesting.

Recommendations :

- distinctive character of houses
- open view on both sides of houses
- softer edges along lower floor
- welcoming entrance
- better accesibility
- human scale

Hammarkullen is assembled of several sub-areas. There are three most well-known sub-area which associated strongly with “Hammarkullen”; Bredfjällsgatan, Gröpens Gård, and Sandeslätts. Sandeslätts is known for its comfortable and secure area in Hammarkullen, while Bredfjällsgatan and Gröpens Gård are not. Although Bredfjällsgatan housing area is “the face” towards Hammarkullen station since it is the first houses seen from the tram station, while Gröpens Gård was next to Hjällbovagen; the main streets connecting Hammarkullen with its neighbors and the city of Gothenburg. Such locations, made Bredfjällsgatan and Gröpens Gård perceived as “the first impression” of Hammarkullen.

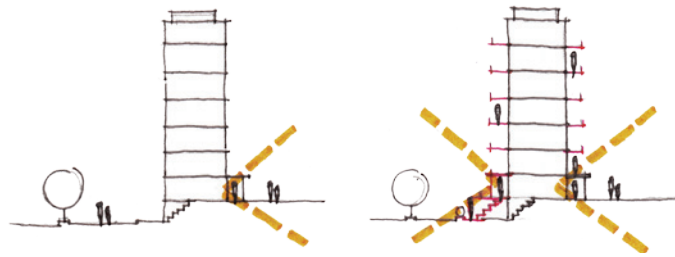


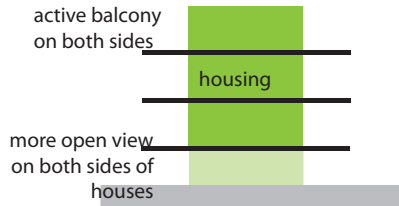
Illustration 25:

Softer edges on both sides of building facades will increase control over surrounding. Credit: Arieni Lestari Putri

Ideas:

- Soft edges along the ground floor facades to create more transparent and welcoming atmosphere thus provide better control over surroundings
- Good and sufficient maintenance for the whole building facades and system, so it will perceived as a comfortable places to live in
- Better facilities and infrastructure for public and commercial services on the ground floor
- Balconies on both sides of the buildings to increase control over surrounding
- Distinctive character of building to increase the attractiveness
- Better accessibility and entrance to the building
- Reactivated passive green spaces along the housing with optional recreational activities or meeting points

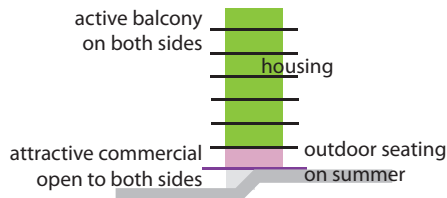
HOUSING - MORE TRANSPARENT GROUND FLOOR ON BOTH SIDES



DISTINCTIVE CHARACTER OF BUILDING INCREASE THE ATTRACTIVENESS

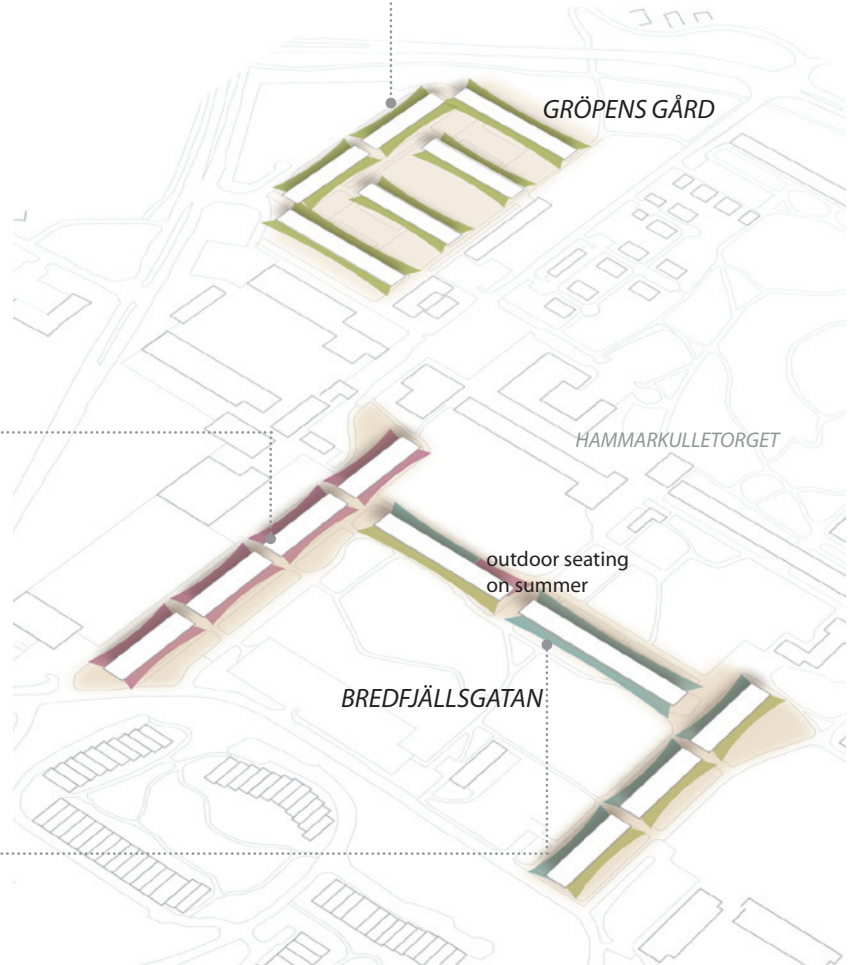
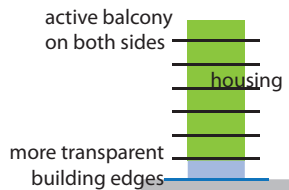
MIXED USE PROGRAM

- GROUND FLOOR: **COMMERCIAL** ACTIVITY - OPEN TO BOTH SIDES
- UPPER FLOOR: **HOUSING** - MORE TRANSPARENT ON BOTH SIDES



MIXED USE PROGRAM

- GROUND FLOOR: **EDUCATION AND OFFICES** ACTIVITY - OPEN TO BOTH SIDES
- UPPER FLOOR: **HOUSING** - MORE TRANSPARENT ON BOTH SIDES



GROUND FLOOR PROGRAM MAP

Illustration 26: Proposal for building renovation in Hammarkullen.
Credit: Arieni Lestari Putri.

To create new identity for Hammarkullen

New family centre in Hammarparken

Problems :

- passive open public spaces
- unattractive program
- hindered view towards public spaces from surrounding

Recommendations :

- clear program
- theme park for family
- diminish some trees
- create visual link to surrounding area

Hammarparken is a large main park located in the center of the district. Unfortunately the park is in bad condition, since it is passive and unmaintained. This park also perceived as insecure for some inhabitants. Therefore with such a location, reactivating Hammarparken is very essential in making Hammarkullen more attractive and at the same time showing good quality of green spaces and nature in Hammarkullen as its character.

By building a new function in Hammarparken, the density increased, more visibility and control over surrounding area, generate more activity in Hammarparken, adding variety of commercial and public services in Hammarkullen and reactivated passive green spaces. In short, this strategy will increase density and safety feeling thus generates more social activity in Hammarkullen.

Ideas:

- Preferably family activity center with commercial services (family restaurant, family café, or other commercial activity related with family and kids) since there are many families in Hammarkullen but there is no family activity center
- Along with Mötesplats (existed already in Hammarparken) could organized and arranged several activities in relation with kids and family
- Multi-purpose room for parents gathering and at the same time watching their kids playing in the park
- Multi-purpose sport court
- Skate Park
- Playground
- Pond; providing variety of outdoor activity and landscape thus as a learning facility for the kids
- Pedestrian and bike path especially for the kids
- Outdoor seating area arranged into “talkscapes” for outdoor family activity



Image 33: Hammarparken today. Credit: Arieni Iestari Putri



Illustration 27: Proposal for Hammarparken redevelopment. Credit: Arieni Lestari Putri.

To create new identity for Hammarkullen

Redeveloping Hammarhill

Problems :

- passive open public spaces
- unattractive program
- hindered view towards public spaces from surrounding

Recommendations :

- clear program
- diminish some trees
- create visual link to surrounding area
- urban agriculture

Similar to Hammarparken, there is another big green open space in the center of the district, Hammarhill. Located right next to the backside of the tram station, the hill covers almost half of Hammarkulletorget area. Today the hill is passive and not optimized, although it has great opportunity to accommodate social interactions between inhabitants.

Hammarhill proposed to be place for exercise, meeting point, and urban allotments for the inhabitants. By providing other optional activities, social interaction between inhabitants will be enhanced.

Ideas:

- Preferably daily exercise space for jogging and running
- Urban agriculture allotments for inhabitants
- Urban follies and furniture as seating area and meeting point
- Multi-purpose promenade
- All-season playground



Illustration 28: Hammarhill position in Hammarkullen.
Credit: Arieni Lestari Putri. Photo source: hitta.se

HAMMARHILL PROGRAM

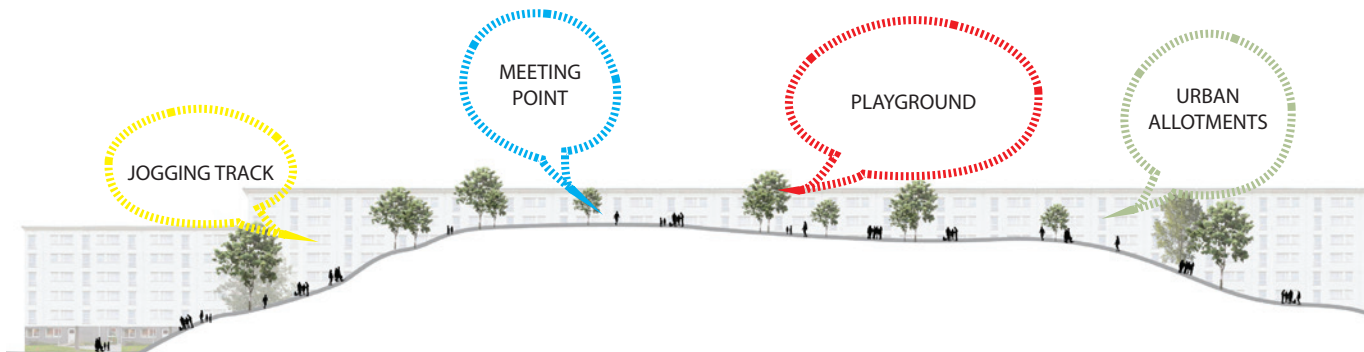


Illustration 29: Proposal for redevelopment in Hammarhill.
Credit: Arieni Lestari Putri.



Image 34: Red Ribbon by Kongjian Yu, China. Source: <http://www.turenscape.com/uploads/1289554313.jpg>
Image 35: Tianjin bridgen garden. Source: www.contemporist.com
Image 36: Pulka on winter. Source: <http://herregudoch-company.blogg.se/>
Image 37: Urban allotments in Amsterdam. Source: http://en.wikipedia.org/wiki/File:Urban_agriculture_in_Amsterdam.jpg

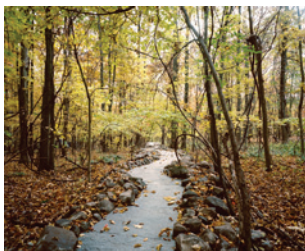


Image 38: Stone River by Jon Piasecki. Source: <http://www.landezine.com/index.php/2011/11/stone-river-by-jon-piasecki/>
Image 39: Lyon Meadows Park by Base. Source: <http://www.landezine.com/index.php/category/by-typology/playground/>
Image 40: Sculptural Playground in Schulberg by ANNABAU. Source: <http://www.landezine.com/index.php/2011/05/sculptural-playground-in-schulberg-by-annabau/>
Image 41: Grow bags, urban allotments in London. Source: <http://inhabitat.com/ifa-2008-grow-bags-urban-allotments/>

To create new identity for Hammarkullen

Urban follies and urban furniture in open space

Problems :

- no clear direction
- few landmarks
- few urban furniture
- few meeting points

Recommendations :

- clear orientation
- create visual link around Hammarkullen
- integrated seating places

In architecture, a folly is a building constructed primarily for decoration, but either suggesting by its appearance some other purpose, or merely so extravagant that it transcends the normal range of garden ornaments or other class of building to which it belongs.

The follies placed spreading out in several open spaces in Hammarkullen. Aside of being an art installation, these follies also could serve as playground for the children, integrated seating places, point of direction for inhabitants and also as a “landmark” for Hammarkullen.

Ideas:

- The urban furniture intends to be seating places and benches, not only art installation;
- Sufficient and varied selection of seating
- Trees, benches and litter bins
- Comfortable seating design, materials, insulations. water-repellent properties
- Free and unhindered view to district attractions
- Some seating could also serve as meeting places where several benches placed together into “talkscapes”



Image 42: “The opened wall” - an urban folly by Jung S H and Kim S J at Hwanggeurmro entry, Gwangju, South Korea. Source: <http://www.designboom.com>



Image 43: Urban folly by Bernard Tschumi in Parc de la Villette, Paris. Credit: Arieni Lestari Putri



Image 44: “The opened box” - an urban folly by Dominique Perrault in Gwangju Design Biennale, South Korea. Source: <http://www.designboom.com>

To create new identity for Hammarkullen

Lighting design

Recently, lighting is not only aimed to lighten spot or spaces, rather start to be perceived as beautification. During dark hours, many spots in Hammarkullen went really dark since there are no lightings at all on those spots. Moreover, many of public spaces and meeting point has glaring lights or misdirected light which impairs overview of the environment and reduces the night vision. There are many different types of light fixtures and sources in Hammarkullen. This leads to fuzzy strings which does not give guidance rather creates confusion.

Ideas:

- Preferably choosing the right light and place it in the right place, such as several meeting points, important spots, streets, corners, facade, surfaces, etc. to create safety feeling for the inhabitants
- The lighting design recently perceived as architecture and beautification especially during dark hours
- Tunnels, footbridges, parks, and squares are very important to be lighten up beautifully
- Reasonable lighting on some building facades



Image 45: Finnsbury Avenue Square lighting design, a good example for Hammrkulletorget. Source: <http://mimoa.eu>



Image 46: Source: www.enlightermagazine.com

Problems :

- inadequate lighting during dark hours
- lack control over surrounding

Recommendations :

- reasonable lighting
- adequate lighting



Image 47 - 48: Tunnels and footbridges are important spots to be lighten up. Source: <http://www.landezine.com> and <http://www.enlightermagazine.com>

To create more places to live

Problems :

- few apartment
- few large apartment
- lack of variety
- uniform shape and touch
- sparsed buildings
- small population
- too many large parking lots
- too many large green areas around houses
- not human scale

Recommendations :

- distinctive character
- develop more apartment
- develop more large apartment
- enhance variety
- denser buildings
- redevelop several parking lots
- human scale

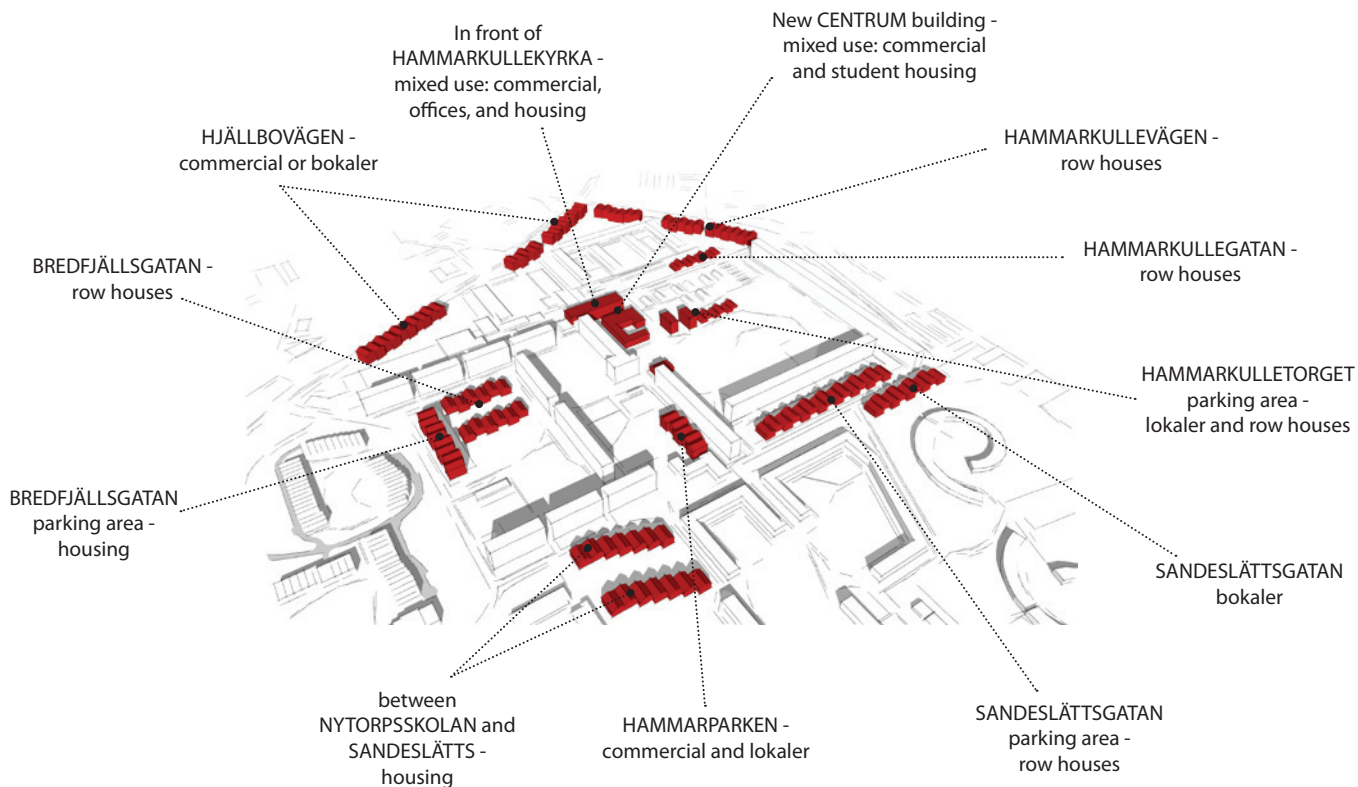
Develop new buildings

While Hammarkullen attempt to attract more people to come, stay and live in, developing new buildings is fundamental. Relatively small population with sparse buildings makes life between buildings seems scattered and spread out in the area. These conditions lead to uninhabited street, parks and other public domain which could lead to insecure feeling.

Since Gothenburg suffered with housing problems, building more apartments in Hammarkullen for people in Gothenburg is one solution since there are lots of vacant plots in Hammarkullen. Thus by developing apartments along with the commercial spaces will attract more people to come and live in, and at the same time increasing building density in the district.

Ideas:

- Preferably two- to two-and-a-half town houses with commercial spaces in some houses (bokaler). Numerous studies of Danish housing areas show generally that developments with two- to two-and-a-half story town houses have considerable more street life and socializing per household than those with taller buildings (Richter and van Deurs 2010, as cited in Gehl 2010)
- Distinctive character of houses
- Area of development: Hjällbovagen, parking area in front of Hammarkullekyrkan (SUBURBS Studio 2011), Hammarkulletorget parking area (SUBURBS Studio 2011), New Hammarkullen centrum building (SUBURBS Studio 2011), Hammarkullevagen (Stadsbyggnadskontoret 2009), North Bredfjällsgatan, Bredfjällsgatan parking area (Stadsbyggnadskontoret 2009), Sandeslätts parking area (Stadsbyggnadskontoret 2009), between Nytorpsskolan and Sandeslätts, and Sandeslättsgatan.
- An exception for develop new buildings in Hjällbovagen as it is preferably for allocated for commercial area



*Illustration 30: Proposal for develop new buildings in Hammarkullen.
Credit: Arieni Lestari Putri*

BOKALER:

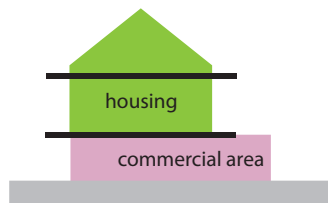


Illustration 31 (above): Bokaler program. Credit Arieni Lestari Putri. Image 49 (right): Bokaler in Rosengård, Malmö. Source: sustainability.formas.se



ROW HOUSES:

Illustration 32 (below): Different finishing of housing increasing the attractiveness of the district by providing variety thus establish distinctive character of Hammarkullen. Credit: Arieni Lestari Putri



EMERGING HAMMARKULLEN TIMELINE

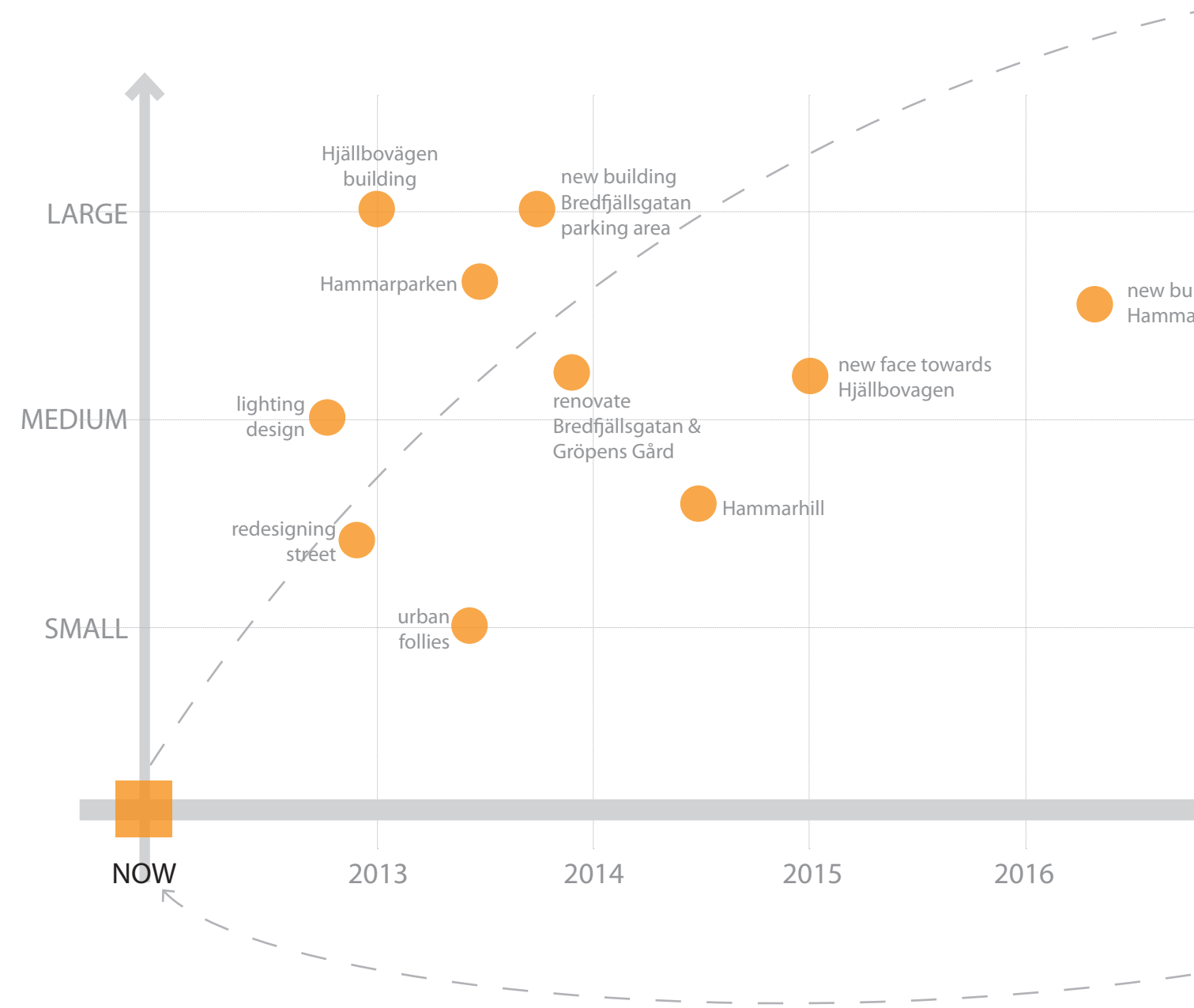
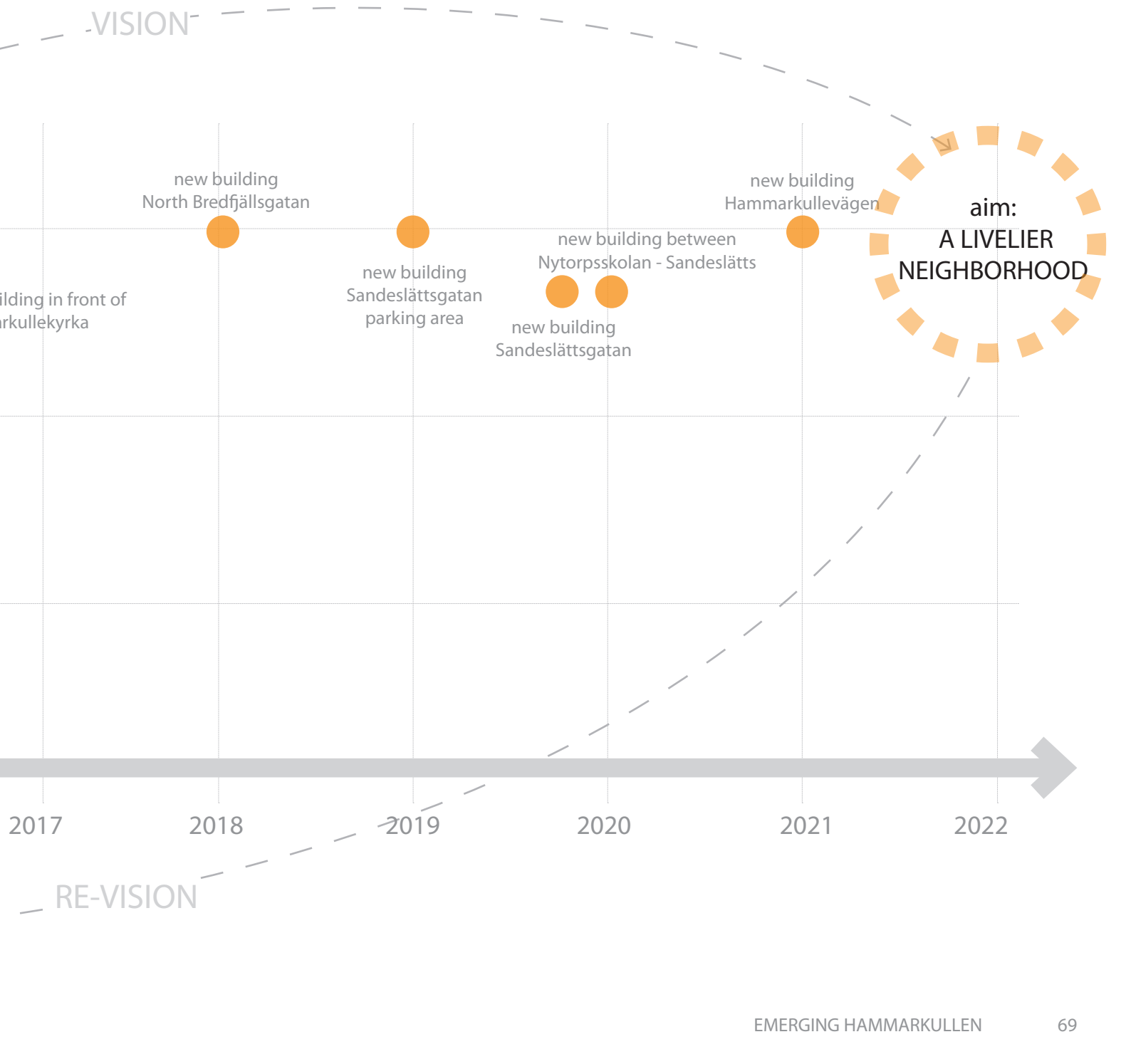
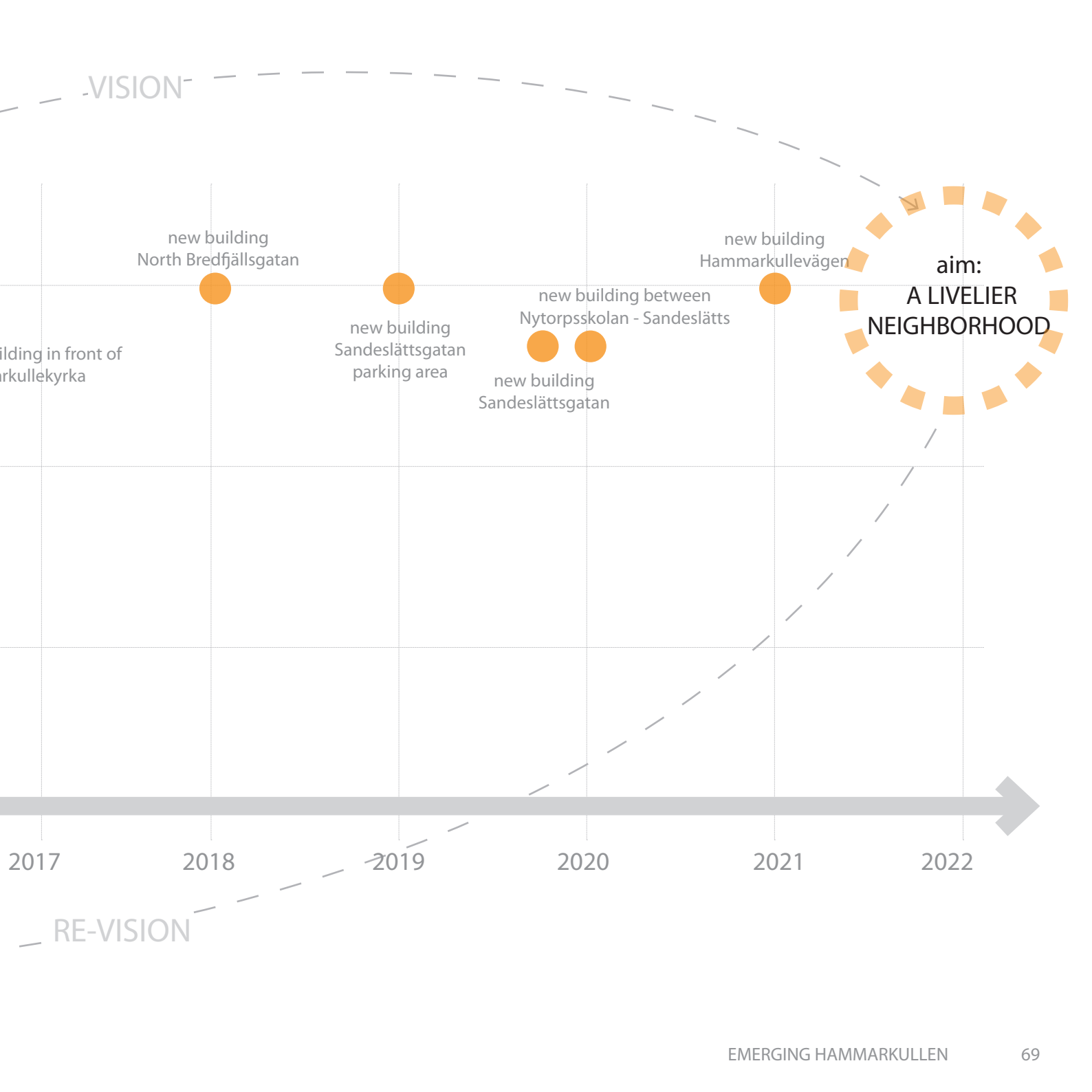


Illustration 33: Timeline for all strategies presented earlier. Credit: Arieni Lestari Putri



What should be done first?

Defining the aim and vision of “A Livelier Million Program Neighborhood” is the starting point. The inhabitants, the municipality and all stakeholders engaged in the area should agree on the same vision and definition of the aim and formulate a program as well as the frameworks as a fundamental material for the following work.

To reach the aim of ‘A Livelier Million Program Neighborhood’, lighting design in several well-known public spaces could be a starting point of working because of its importance and urgency. Hammarkulletorget, tram station, around Hammarbadet and Sandeslätts square are several public spaces which urgently needed to be lighten up adequately. At the same time, several streets, passages, paths, tunnels and footbridges also urgently needed to be redesigned and lighten up adequately since they are also important public domain in Hammarkullen. These projects will more likely to increase the awareness of Hammarkullen’s inhabitant that there are tangible improvements in their neighborhood.

Next, developing new buildings towards Hjällbovägen should start immediately. The intention is to make people outside Hammarkullen aware of ongoing development in Hammarkullen. At the same time it will hopefully attracts people to visit Hammarkullen spontaneously, especially those using private cars.

The next step is the Hammarparken redevelopment, the main park, to be a family activity center and placing urban follies in several open spaces in the area. By developing Hammarparken, it will give optional activities and social interaction facilities for the inhabitants. The urban follies proposed to be a cooperative project between Chalmers Architecture students, GU School of Design and Crafts (HDK) students and the kids from the area. This project will be a valuable learning process for all engaged participants. Subsequently, both projects will give Hammarkullen a new identity for having a family activity center.

Then the renovation of Bredfjällsgatan and Gropens Gård houses should start on 2014 as it was proposed and followed by the redevelopment of Hammarhill. Afterwards, it will also followed by development of several new buildings in Hammarkullen (see timeline on the previous page) to attract people to live in the area and at the same time as a contribution for solving housing problem in Gothenburg.

Having all things considered thus all work should be done in the program and frameworks which has been approved in the beginning of the project. These will keep all projects developed stay on the right track. With this in mind, I believe “A Livelier Million Program Neighborhood” is very feasible to be achieved.

EMERGING HAMMARKULLEN

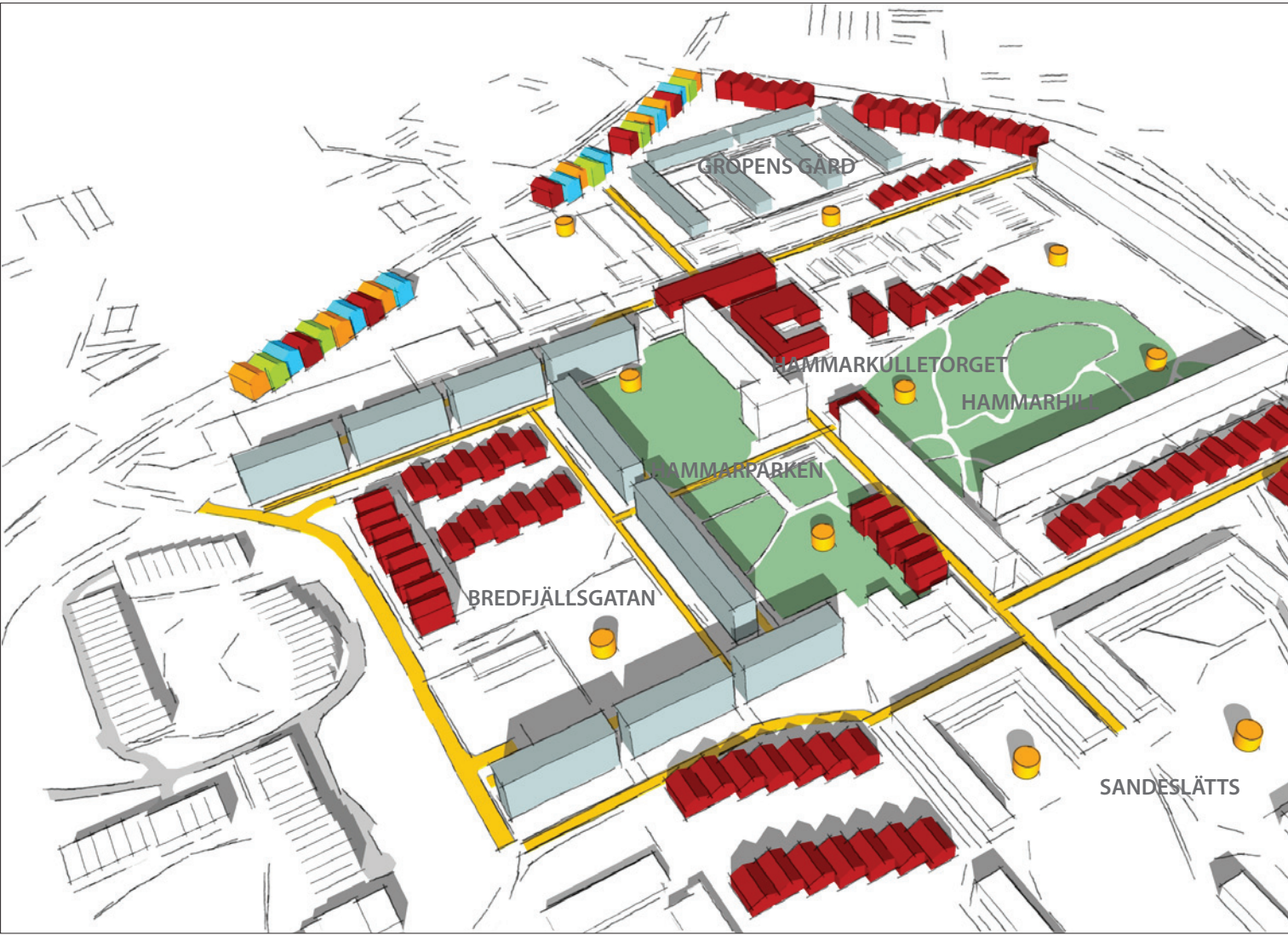
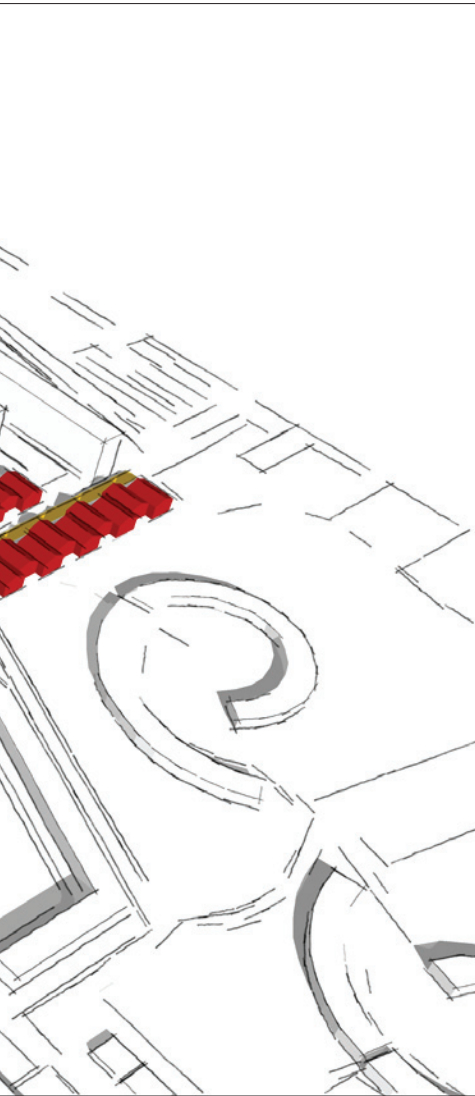
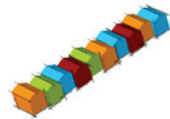


Illustration 34: All strategies presented earlier located on the map of Hammarkullen. Credit: Arieni Lestari Putri



After all, the idea for a livelier Million Program neighborhood was based on combination of good inviting city space and a certain critical mass of people who want to use it. Improving public spaces quality will invite more people to move around and stay, thus increasing safety feeling in the districts. Hence, develop several new building for housing will attract more people to stay and live in. All in all, these ideas will also support plans for social sustainability, the idea of a neighborhood that is accessible and attractive to all groups in society.



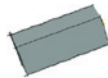
new face towards Hjällbovägen



urban follies



redeveloping Hammarparken and Hammarhill - lighting design



renovation of houses



develop new buildings



redesigning street, passages and paths - lighting design



DISCUSSION AND REFLECTION

DISCUSSION

Having a common vision between all stakeholders in improving quality in The Million Program neighborhood is necessary as a starting point. The municipality and decision-makers play an important role in determining vision for the neighborhood in the future. Not only in terms of physical structure but also improving another system related with the rest of the city, such as educational system and intervention to other stakeholders to take part in improving the whole neighborhood.

Study and research in Hammarkullen has been done for several years by involving the inhabitants in the process. However, during the interaction I noted the inhabitant's pessimism and negativism on researches, questionnaires, and studies deployed by GU and Chalmers student due to the lack of tangible results despite of years of research.

The key success for developing Hammarkullen is by the engagement with the inhabitants. There are a big opportunity to engage the inhabitants of Hammarkullen, since the fact is there are many organizations and associations in Hammarkullen. By engaging the inhabitants, involving them into the process of redeveloping the area there are expectation it will increase the sense of belonging to the area. As they have sense of belonging, they will keep and maintain their area not only for them, but also for the next generation to come.

It is obviously not an easy task, but abandon them is also not an option.

REFLECTION

When I started my study in architecture, I remembered one of my teacher said; Architecture is to “shelter”, to be an architect is to provide “shelter “ (for people). In recent decades people tend to be neglected in architecture, since architecture mainly talks about pleasant place or wonderful building.

In a bigger perspective; the shelter is the city and the people are society. Understanding the city through society’s perspective gave me a wider perspective in regards to improve better city quality. Hence at the same time, support by municipality and other stakeholders are necessary.

During the process, I have also been struggled in understanding how the Swedish system works. But I have a learned a lot by this process and I hope it will have a significant influence in my further design activities.

After all, performing sustainable development approach during these 2 years has raised my awareness and knowledge about architecture and society, acknowledge that a building is not something you finish; a building is something you start.

I believe architect has a big role in shaping the society.



Credit: Arieni Lestari Putri



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