Keywords
- Public space
- Residential area
- Regeneration
- Design proposal
- Herrgården

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Abstract

This thesis will look at effective methods to regenerate public space in residential areas. Since nowadays many physical and social problems appear in large housing estates, it is urgent to seek efficient and effective ways to solve these problems. We choose Herrgården in the district of Rosengård in Malmö as our study object. We want to change Herrgården from a decayed residential area to a safe and attractive neighborhood.

This thesis work contains four parts. We start with an illustration of relevant theories about constructing attractive and safe public spaces in residential areas, which provide guidelines and principles for our further planning proposal. Then, we write some background information about Rosengård and Herrgården based on the official documents, information and statistics from internet and Malmö municipality. In the third stage, we focus on the situational analysis of physical structure of Herrgården such as traffic system, spatial layout and green space, and carry out some comparative studies with its neighboring areas. These analyses make up a good foundation for our own planning proposal. At last, based on the theories and analyses above, a planning proposal with our suggestions is made to improve the current situations of that area. The proposal contains detailed plans and designs of squares, traffic system, landscape elements and green areas. During the thesis project, we also give special attention to improve the safety situation in the community.

In general, we find that attractiveness and safety are the most important factors in reconstructing Herrgården residential area. Therefore, we make some improvements and suggestions from these two perspectives. We hope our proposal can satisfy residents’ social needs by improving the physical conditions of Herrgården.

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1.1. Objectives

Nowadays, many large residential areas are facing up to plenty of different physical and social problems such as unpleasant environment, irrational traffic system and high crime rate etc. Herrgården in Rosengård, Malmö is one area that has fought with these problems for some time. In this study, we are going to find out possible solutions for these problems by physical regeneration. Rosengård is a large-scale residential area in the northeastern part of Malmö with an area of 331 hectares. It was a production of the ‘Million Programme’ built during the 1960s to 1970s, which aimed to build a million new dwellings to make sure everyone could have a home at a reasonable price. However, with the economic and social transition, it turns out to be a problematic residential area with a bad reputation of high crime rate and social problems. Due to the careless maintenance and management, physical deterioration of environment also occurs in Rosengård. Herrgården is considered to be the worst part of the Rosengård district. Many problems such as disordered landscape and unsafe public space badly affect people’s daily life. Herrgården is an epitome of the problems in Rosengård, and due to the ownership of private landlords, few project of physical improvement has happened so far.

The aim of our project is to make a redevelopment proposal for public space in Herrgården. This planning proposal is going to reconstruct the spatial layout, provide attractive public spaces and strengthen the neighborhood security in the area. Herrgården is an old residential area with social and economic problems. Public space is in a condition of
disorder and desolation. We think the poor design and management of its public space aggravate the social problems, so we will give suggestions to its physical regeneration based on our observations. These improvements of the physical condition may also lead to an improvement of the social situations, because we will integrate a wide variety of social aspects into the project such as economy, security and culture. The whole planning proposal will consist of detailed suggestions and improvement proposals for different types of space. We hope the physical regeneration will not only redevelop its physical environment, but also provide assistance to further improvement of its social condition. It is better for both related authorities and us to get some experience and enlightenment from this project.

1.2. Methods
The first step of our project was to study public space from theoretical perspectives. In order to have a better understanding of design principles of public spaces and residential areas, we studied relevant theories from Oscar Newman, Matthew Carmona, Jan Gehl and Jane Jacobs. They gave us a good foundation for our further planning project. Then we visited Herrgården residential area many times from February to April. During these days, we had opportunities to see different areas in Herrgården and how residents use the public spaces in that area. These study trips gave us some experience and impression about this area. After that, we analyzed the physical conditions of public space, such as infrastructure, traffic and spatial layouts, and we also made comparative studies of these perspectives with other relatively good examples. Interviews with Malmö municapality were also essential in the planning process. We collected some official data, maps and planning guidelines from the city planning office of Malmö, which is very helpful for us to understand the city and the district. At last, we used what we learned from the theories and comparative studies to provide a redevelopment proposal to Herrgården. These investigations, analyses and proposals were carried out by both of the two authors, Gu Zhixin and Gu Hailing.
2. Theoretical study
According to Wikipedia, a residential area is a land use in which the predominant use is housing. However, it does not only satisfy people’s living conditions but serves as an integration of territory, social relationship and community services. In addition, there is a kind of space with physical and social functions in the residential area, which can be considered as a fundamental platform for daily activities and contributes to enhance the quality of life. It is what we called public spaces in the residential area. Therefore, an attractive and safe public space is very important to the residential area.

First of all, from our point of view, the attractiveness of public spaces can be created by sensible and people-oriented design with high visual quality. Since a successful public space relies on people’s daily use, planners should take many factors into account such as public facilities, traffic system and wheelchair accessibility to satisfy public needs. Secondly, comfortable dimensions and multifunctional spaces are two significant characters of the attractiveness of public space. A comfortable space is more beneficial to enhance people’s willingness of stay and communication, while multifunctional spaces can satisfy the needs of different groups of people. Thirdly, attractive public space in housing estates can be a reflection of strong belonging and public participation. Both feelings of familiarity, relaxation and good-neighbor relation come out as the sense of belonging, when people would like to share joy and take outdoor activities in public spaces.

Furthermore, safety is another fundamental principle in the planning of residential areas. Both a low crime rate and feeling of security among inhabitants are two main features representing a reputable and safe housing estate. In order to fight against crime and improve security condition of residential areas, it is important to have some natural surveillance systems which perform as “eyes on the street”, and to ‘reduce feelings of insecurity through re-designing the public and especially semi-public space’ (Kempen et al, 2006, p.123).

![Picture2.1 Public space in residential areas (West harbor, Malmö)](image1)

![Picture2.2 Unpleasant environment in residential areas (Rosengård, Malmö)](image2)
Unfortunately, series of problems appear in many large housing estates nowadays, which may be caused by poor design and careless maintenance of public spaces. Separation of spatial functions and non-humanized design are typical symbols in most of these residential areas. Too large scales of public spaces should be responsible for reducing the possibility of communication between residents, and for the problem of unattractiveness and vacancy. The increasing traffic in the neighborhood is another unsafe factor causing traffic and parking problems during recent years. It is not unusual to see vehicles, which are parked randomly on the pavement in some narrow streets, cause inconvenience for pedestrians. Furthermore, the situation of insecurity appears more or less in many large housing estates and turns them into ‘depression districts’ of their cities. Irrational design and maintenance of public spaces give desolate and unpleasant images of these residential areas, and further cause the feeling of insecurity among inhabitants. These are just a few examples of current problems in some of the Swedish residential areas. We should be aware of these problems and take actions to solve them.

2.1. Creating attractive public space in residential areas

2.1.1. Theories of creating attractive public space

When discussing the structure and planning of public space, it is crucial to mention a notable Danish architect named Jan Gehl who wrote the book of ‘Life Between Buildings: Using Public Space’ in 1986. Gehl discussed a lot about the importance of public space and how social activities and public lives be influenced by physical planning. The book was divided into four chapters focusing on the relationship between human activities and physical environment to analyze the quality of public spaces within the city and residential areas.

First of all, he began with introducing three types of outdoor activities: ‘necessary activities, optional activities, and social activities’ (Gehl, 1996, p.11). Each of them has very different demands on the physical environment. He emphasized the influence of outdoor spatial quality and architectural trends on those activities. From his statement, we understand that suitable outdoor environment can stimulate public activities. Then, more detailed theories and quantified researches of residential public space were given in the chapter of prerequisites for planning. One important thing he mentioned is that we should think about both physical and social structure in the planning of residential area. Physical and social structures can interact with each other and support the neighborhood together. Another crucial aspect he illustrated is that people’s senses, communication and spatial dimension, which are often overlooked in planning, should be concerned as key elements of humanized design. In the third chapter, Gehl discussed four groups of contrary concepts of spatial arrangements and their influence on human activities: assemble or disperse, integrate or segregate, invite or repel, and open up or close in. He also gives us some general planning principles of designing attractive public space such as ‘the smooth transitions between public and private areas, to be able to see what is going on, short and manageable route, excursions as excuses, somewhere to go and something to do’ (Gehl, 1996, p.115-121). Finally, in the last chapter,
Gehl stressed detailed design methods for walking, standing, sitting, seeing, hearing and talking etc., which often matters but are easy to ignore.

Moreover, another notable book ‘The Death and Life of Great American Cities’, published in 1961 written by Jane Jacobs, has been very influential to the urban planning. The book is a critique of many modernist planning policies. Instead of talking from traditional urban planning perspective, she illustrated the weakness of current city planning from her observation of human feelings, common experience and daily activities. For instance, in the first chapter she discussed a lot about the functions of sidewalks including safety, communication and influence on children. Then, she claimed that planners should not partially focus on achieving the standardization and aesthetic quality of the city's appearance by sacrificing real needs of people. On the contrary, she advocated reconstructing cities full of vitality and diversity based on real experience of citizens. From her theory, we find a new way to observe spatial patterns of cities and their important functions in urban life, which gives us some new enlightenment of designing sidewalks, city parks, streets and architectures etc.

In the aspect of problems related to the residential areas or public spaces in housing districts, Jacobs was in favor of an efficient and multifunctional spatial system which is opposite to the idea of modernists. She mentioned that it is urgent to solve the problem of low-income residential areas, because they have great negative influence on the inhabitants especially children who live in there. She argued that the vitality of neighborhoods depends on the combination of activities, and this kind of mixtures of uses can be understood as the ‘essential phenomena’ of public space (Jacobs, 1961, p.155). In addition, in her most impressive chapter of saving and utilizing low-income residential areas, she retorted the wrong idea of treating the low-income residential areas as an underclass area isolated from the city. Contrarily, she thought we should put these districts back to the city system by completing the missing functions of these areas and strengthening its connection to the neighboring districts (Jacobs, 1961, p.440-441). In this way, we can gradually bring the vitality to the low-income residential areas and also be beneficial to the whole city. Her ideas are inherited and manifested in many following studies of city planning.

Meanwhile, some people argue that Jacobs’s study is ‘impractical and does not reflect the reality of urban politics, which are controlled by real estate developers and suburban politicians.’ (Lloyd, 2006) Multi-used city area without expressways will become disordered and unfriendly for business. Furthermore, another criticism is that the theory of Jacobs will lead to gentrification. Old neighborhoods seem so attractive in Jacobs’s book that they may become increasingly expensive. Therefore, original residents, who are relatively poorer people, may be forced to move out their homes. However, we think Jacobs’s theory is an ideal vision for city planning. Even if we cannot accomplish all the goals, it is better for planners and politicians to keep them in mind and improve our city gradually. Her unique opinions of creating safe and attractive public spaces and promoting vitality in residential areas give many inspirations to planners.

At last, we want to mention a textbook ‘Public Places - Urban Spaces: the dimensions of urban design’, published in 2003 written by Matthew
Theoretical study

2.1.2. Planning principles for attractive public spaces

2.1.2.1. Humanized scale and spatial layout

With the development of residential areas, people no longer stay only in their apartments, but pay more attention to outdoor activities and social association in the neighborhood. So it is important to consider humanized scale and reasonable spatial layout as the basic principles in planning public space in residential areas. The importance of dimension has been described by Gehl (1996, p.71) in his book, cities and architectures with suitable dimensions can make you fully aware of the narrow streets, exquisite spaces, details in architectures and people in activities. These cities and spaces make you feel cordial and pleasant. In the contrary, Gehl claims that cities which are full of huge spaces, wide roads and skyscrapers will make people feel indifferent and cruel. The humanized scale in public space should also consider people’s feelings and needs when they are involved in the space. For instance, when people want to read a book quietly in the neighborhood, an enclosed space is more advantageous to give them a private and safe atmosphere, and avoid disturbances from outside. However, if people want to take part in activities, a public space needs to be more open so that it can provide more opportunities for interpersonal communication and public life. Generally speaking, people’s different physical and psychological needs should be satisfied by spaces with different scales.

Moreover, spatial layout is another important factor related to the attractiveness of the public space. The arrangement of streets, buildings...
2.1.2.2. Constructing multi-functional space

Nowadays large residential areas not only serve as a place for home life, it is a social district with many other functions as working, commerce, recreation and business. The variety of human activities and communication makes up a lively residential area. According to this situation, we should satisfy different needs of different user groups and activities by constructing multi-functional spaces, which means not to separate the different function zones, but to integrate their various types of features together in one complex space.

First of all, Jacobs criticized current planning strategy of separating the city by different functional areas. She advocated establishing multi-functional districts of the city, which is also beneficial to the planning of residential areas. Because of the diversity of spatial functions, the same space is supposed to satisfy all sorts of people’s needs and different kinds of activities. For example, green space can integrate the functions of...
recreation, sports and family meeting. Various kinds of activities can have great influence on the neighborhood vitality. Gehl suggested that we can add commercial use to ground floor of residential buildings near the streets. In this way, the street space can not only provide the function of traffic but also be used by business people and customers. Therefore, the multi-functional existing in a single space reflects the wide adaptability of integrating people and activities.

Secondly, Carmona et al (2003, p.181) argued in his book about many other benefits of the mixed-use development, such as more opportunities for social diversity and interactions, efficient traffic system and feeling of security. In that sense, multi-functional spaces inspire people who work and live in different buildings or who have different backgrounds to build on relationship by occupying the same area. In addition, it is really a good way to promote various uses and space efficiency. For instance, from the multi-functional perspective, we can combine the meeting place for old people and playground for children together. This will be convenient for the elderly to watch children playing nearby, while it is also an active way for senior residents to meet and talk at the same time. Both children and old people can be involved in a harmonious atmosphere. So in the planning of residential areas, we should not only focus on the form and mechanical division of spaces, but also the social function and convenience of usage. Multifunctional public space is proved to be more beneficial for people to use.

2.1.2.3. Favorable landscape design

In addition to the consideration of spatial arrangement and human activities, favorable and detailed design of landscape is another indispensible factor of an attractive public space. A good landscape design can create unique and elegant features of public spaces and further attract more people to use them. Landscape design concerns many detailed aspects of the residential area. At first, we should create interesting streetscapes. As Carmona et al commented “most streets are visually dynamic, with a strong sense of movement. The successful design of straight streets generally depends on such factors as good proportions between length and width; the kind of structures of which they are composed; and their visual termination on a building or other feature that brings the eye to rest.” (Carmona et al, 2003, p.146) Sidewalks with comfortable width-to-length ratios can make people feel comfortable in walking and have a nice street view. Interesting street signs can manifest the unique identity of the place. Furthermore, Street furniture is another fundamental landscape element in public spaces including benches, bicycle racks, refuse containers and planters. Well-designed street furniture can also help to improve the visual quality of an area.
Secondly, both improvements of hard and soft landscapes in the public space can enhance attractiveness. According to Wikipedia, hard landscape, in the practice of landscaping, refers to the paved areas like streets and sidewalks, and other outdoor furniture and landscape products. Paving is a typical element of hard landscape, the importance of hard paving is not only to “provide a hard, dry, non-slip surface to carry traffic load”, but to “enhance the aesthetic character of a space” (Carmona et al, 2003, p. 159-160). Besides, paving on the street should be used to highlight important public space and signal significant roadway elements such as bus stops and crosswalks. However, the soft landscape refers to the landscape made up by trees and vegetative materials. Soft landscaping has its unique function of ecology and sustainability, and often be regarded as an environmental construction. From aesthetic perspective, trees and other vegetation can provide seasonal views to the residential areas, which will give residents new experiences of their neighborhood. Nowadays, European housing estates pay much attention to green landscape. Many green spaces between the flats and buildings are planted lawns as playgrounds. Kempen et al mentioned (2006, p.111), the abundance of open public green space within the residential area is a main asset of housing estates in Europe.

Furthermore, Lighting should be carefully considered as one part of the landscape design of the community. Ornamental lights are supposed to create a charming and attractive environment for night time activities. Exterior building lighting has an aesthetic function, while the street lighting helps to lead a bright way home for pedestrians. In addition to the functional usage, different sharps and scales of lights also contribute to the beautification of public space. Therefore, in the planning of public space, we should carefully take these detailed landscape designs into account, which can provide a visually appealing and physically comfortable environment in housing estates.
2.1.2.4. Design for vulnerable groups

In recent years it is increasingly crucial to focus on vulnerable groups in the residential area. As a result of the changed demographical structure in European countries, there is a tendency that we will have more old people in the coming decades. Since the elderly, children and disabled person are disadvantaged group with limited capacity of movement, appropriate and reasonable design is more important for them to get easy access to public space. In addition, because of the abundance of free time owned by the retired people and children, they are supposed to be frequent visitors of public spaces. If we can make the public space attractive and easy accessible in housing estates, it will be used more by vulnerable groups.

However, this situation is often ignored in the planning of residential areas. ‘For some elderly and disabled persons, access to public space may be greatly hampered by inappropriate design…Being outdoors is especially important for old and fragile people but this group of people if often restricted by the design of their surroundings.’ (Kempen et al, 2006, p. 116-117) Therefore, we should take some measures in physical planning. Firstly, we should pay attention to the materials. For example, the elderly like taking sedentary activities so a comfortable bench is the prerequisite for these activities. Special material for the benches should make people feel cozy and comfortable both in the summer and winter. Roads should use soft and antiskid material for slip resistance. Secondly, according to Gehl’s theory the suitable walking distance is much shorter for the vulnerable groups. To this point of view, we should have suitable arrangement of public space which is not far from apartments. More importantly, the key of a suitable walking distance not only depends on the real distance, but relies on the feeling of distance. So a better quality of roads, skid resistance material and beautiful scenery around will make people feel less tired in walking. Thirdly, it is also important to take consideration of our children. Since children cannot identify potential dangers around them, it is easier for them to get hurt in playing. Planners should think about potential dangers in advance, and try to avoid them for children. Playfields for children should be away from streets with busy traffic to avoid traffic accident and pollution. Then, playfields should also be open enough for the surveillance and protection from their parents. At last, materials of playfield should be chosen carefully, some materials may hurt children such as prickly plants and sharp pebbles. It is better for us to use soft material instead. Only if we think more for vulnerable groups, can we create attractive public spaces, which provide equal access to every resident.
2.2. Creating safe public space in residential areas

Security is another fundamental feature of a good public space especially in residential areas. In our daily life, people are afraid to visit a public space with high crime rate even if it is well designed and has perfect visual quality. According to human motivation theory of Abraham Maslow (1943), people’s needs are classified as five-level hierarchy starting from the most basic ones: Physiological needs, safety needs, love and belonging needs, esteem needs and self-actualization needs. People have to achieve satisfaction of pre-potent needs in advance. It is easy to find safety is a very basic human need so that it should be the fundamental principle in planning. In residential areas, there are more old people and women in the day time, which are more vulnerable to crime, so we should take security into serious consideration in the planning process of our public space. In addition, safe housing estates should not only reduce realistic crime, but also establish a feeling of security among inhabitants. Shaftoe’s study illustrates the feeling of security is also very important. It said that excessive fear can induce mental illness, separation of particular area, excessive fortification and eventually cause the decline of whole housing estate (Shaftoe, 2004). Nowadays, many old housing estates from post-war era are now associated with high crime rate and bad reputation. These problems have their social and economic background such as immigration, high unemployment rate and cultural conflicts. However, it can also be aggravated by poor environmental design. In the following chapters, I will focus on the design quality of public spaces and find solution to deal with security problems.

2.2.1. Theory of CPTED

Crime Prevention Through Environmental Design (CPTED) is a popular theory among planners since 1960s, which aims at controlling criminal behavior and limiting opportunity and location for crime through environment design. This idea originated from Jane Jacobs' book, ‘The Death and Life of Great American Cities’ (1961). She changed our way of seeing the city and mentioned about security issues. She believed that public activities are essential to induce natural surveillance and further reduce the potential crimes. In 1970s, C. Ray Jeffery first time used the phrase ‘crime prevention through environmental design’ and illustrated relationship between physical environment and human activities. Oscar Newman developed this idea in his book ‘Defensible Space - Crime Prevention through Urban Design’ (1972). He made some empirical researches about New York housing areas and summarized some detailed design experience. This theory is continuing to advance with the James Q. Wilson and George Kelling's 'Broken Windows Theory' (1982) and Tim Crowe's book 'Crime Prevention Through Environmental Design' (1991). They tried to add psychological and social perspectives into the theory. Many planners become aware about the importance of CPTED theory, and it gradually has world-wide influence on environmental design.
However, some critics argue that high crime rate is not a physical but social problem, so social policies are more effective to handle insecurity problems. Planning and design measures have insignificant influence on reducing crime and insecurity (Kempen et al, 2006, p.123). We think it is still useful to think about security issues in the process of planning. A good and reasonable design of public space can affect people’s behavior, and it can be considered as a complement of social and economic policies. It is also a cheap and convenient way to improve current situation of large housing estates, because it does not need much governmental funds and prolonged political discussion.

2.2.2. Planning principles for safe public spaces

2.2.2.1. Overall image of neighborhood

At first, we want generally talk about the image of housing estates. People’s impression about a particular space is influenced by the quality of its environment, which may further affect people’s behaviors inside that space. A pleasant and well preserved neighborhood environment can gain dwellers’ favor and further establish a sense of belonging and ownership among them. This kind of ownership and responsibility is helpful to identify suspicious persons and potential dangers, and protect your neighborhood unconsciously. In the contrary, an unpleasant environment can be associated with insecurity and lack of surveillance, which may stimulate crimes. George Kelling and James Wilson (1982, p.2) found out a phenomenon that ‘if a window in a building is broken and is left unrepaired, all the rest of the windows will soon be broken.’ It is the ‘Broken windows theory’ which suggests that ‘even the smallest aberrations in appearance and behavior can send a neighborhood into a spiral of decay.’(Dania, 2008) If people find too much unpleasant situations such as scattered litter, broken benches and sloppy graffiti inside the residential area, they will no longer care about their neighborhood and even produce the same uncivil behaviors. It forms a vicious circle of environmental degeneration, and this kind of indifferent attitude will become a catalyst of crime and conflicts. We think both planners and relevant administrative authorities should take action to create a better residential environment. Tiny works such as cleaning streets, pruning plants and maintaining infrastructures are all essential steps towards a better environmental image. These efforts can evoke inhabitants’ responsibility of protecting their community and effectively reduce the potential crime.

2.2.2.2. Spatial arrangement and territority

People have an instinct for defining the scope of their activities, which we call the sense of territority. This kind of spaces controlled by individuals or a group of people is considered as territorial space. Environmental psychology studies show that definite territorial space can enhance people’s feeling of security and defensive capabilities of crime. Residential area is a place contains multifunctional activities such as dwelling, rest, recreation and public communication, which have different requirements for privacy. Planning should take all these activities into consideration through spatial arrangement. On one hand, if you do not have much public space, the residential area will have few public
activities, and people are unfamiliar with each other. It is hard for people to recognize strangers. On the other hand, if a housing estate is lack of private space, people will become careless and relax their vigilance in the community, which may give a handle for criminals. A safe community needs to have clear hierarchy and transition between public space, semi-public space, semi-private space and private space. These spaces can gradually lead people to take part in public activities and increase their scope of activities, so that people can have definite sense of responsibility and belonging of their controlled space. So this will to some extent reduce the opportunity of crime.

Oscar Newman (1996, p.14-17) has studied the effects of spatial types on residents' ability to control areas. In a comparative research of detached houses, semi-detached houses, row houses and high-rise buildings, he finds that they have different spatial arrangements of public space and private space. There is little public space in the community of detached houses. Residents have strongest control capacity of their houses so that it will give criminals evident hint and heavy psychological pressure. However, there are a lot of public and semi-public spaces around high-rise residential buildings. Inhabitants have hardly any capacity to control these spaces so that they are likely to become targets for crime. Our study object is large housing estates which now mainly consist of high-rise buildings. According to this situation, it is hard to control space and prevent crime. Newman (1996, p.43-45) suggests that we can divide these residential areas into several mini-neighborhoods with limited access of outside traffic and special designed entrances. These actions can decrease the scope and number of users in this mini-neighborhood, so these areas become less public. Residents are easier to become familiar with each other and increase the controlling capacity of their community.

Boundary and entrance are essential conditions to define a territory, and a reasonable spatial arrangement relies on its well-designed boundary and entrance. In our daily activities, people need to resort to some kinds of boundary forms to occupy and control their territory. These boundaries such as hedges, steps or even just horizontal transition between pavements can affect people’s behavior. On one hand, they make outsiders aware of the conversion of territories, and on the other hand, they evoke residents’
sense of territorial defense, so that they will inhibit the occurrence of crime from environmental and psychological perspectives. The form of boundary often varies according to people’s requirement of privacy. Jan Gehl (1996, p.115) has developed a concept of ‘flexible boundaries’ in public space, which ‘are neither completely private nor completely public’. Research shows that many activities happen near these ‘flexible boundaries’ such as low walls and corridors. In these areas, people feel safe because they have a sense of controlling the space, while avoiding conflict and surveillance from others at the same time. In more private space, we need more evident boundaries like walls and fences. Otherwise it may interrupt residents’ personal life. Disposition of entrance should be propitious to people’s surveillance at first. It is better to be set in the vision of housing windows so that people can easily find strangers. Secondly, an entrance needs to give people a feeling of ‘in’ and ‘out’ through its special character and implication. This kind of feeling illustrates the spatial hierarchy and forms residents’ sense of territoriality. At last, in the more private space, we should limit the number of entrance to enhance spatial enclosure. This will give more chance for inhabitants to get in touch with each other inside the space, so we can improve neighborhood controlling force to prevent crime.

2.2.2.3. Public activities and natural surveillance

People’s controlling capacity of space, to a large extent, depends on whether they can see the environment around. This kind of observation and surveillance originates from residents’ conscious or unconscious action, which is important to the security of residential areas. This is mentioned by Jane Jacobs as ‘eyes on the street’ or ‘natural guardianship.’ She thinks public space should be naturally in the surveillance of its users or people in the surrounding. Natural surveillance limits the opportunity for crime because people can always see what happens in neighborhood. The capacity of natural surveillance depends on two perspectives: the willingness of surveillance and the possibility of surveillance.

At first, we need to ask why people want to watch their public space. Besides the neighborhood responsibility of residents, public activity is another essential factor to attract people’s attention. Jane Jacobs (1961, p.44) wrote in her book ‘this is something everyone already knows: a well-used city street is apt to be a safe street. A deserted city street is apt to be unsafe.’ She also made investigation about interaction between public activities and safety on the streets. If there are many people on the street, they will form a high standard of mutual defense. If the streets are livable and full of interesting activities, people are more willing to watch the streets from their windows. In the contrary, if one public space is dull and lack of usage, people will draw their curtains. This may give a handle to criminals. According to this situation, the theory of CPTED suggests that we need to give opportunities for natural surveillance in landscape design. Spatial layout of public space should encourage public activities
and be propitious to surveillance from passengers and residents.

Secondly, we need to ask whether it is possible for people to watch their public space. It is relevant to the design of landscape elements. Bad design of landscape elements may block people’s view and interrupt natural surveillance. CPTED study shows it is better to set buildings facing the streets and try to avoid blind spots in residential areas. Layout of windows should create a continuous surveillance over the neighborhood (Newman, 1996, p.65). Then, the design of street furniture and plants landscape should consider their influence on people’s view. Important entrance and spot cannot be sheltered by architectures or trees. For example, least sight-limiting fence is more suitable than walls in public space, because people can easily identify strangers through it. Furthermore, the possibility of natural surveillance also depends on lighting. Good lighting will let people see clearly at night and give warning to criminals. ‘Five more recent British evaluation studies met the criteria for inclusion in the review. Their results showed that improved lighting led to a significant 30 per cent decrease in crime.’ (Farrington & Welsh, 2002) However, are the brighter street lights you have, the more clearly you see? The answer is no. Some researches show that ‘too bright lighting that shines at your neighbors’ windows will just ensure that they will never see anything’ (Calgary Centre, 2008). Good lighting means moderate and friendly light, which enables you to observe your surroundings but not to make you uncomfortable. Good lighting also needs to fit in their environment and give proper light on people’s face, street signs and important conjunctions. Hence, we should pay attention to the color, quantity, design and location of lights. In this way, we can enhance natural surveillance at night.
2.3. Summary

As we know that theories are very important foundations and guidelines for practical studies. In the previous chapters, we have given a general overview of the relevant theories of public space design. Our concerns are mainly from two perspectives: the attractiveness and safety of public space. In the first part of the theoretical study, we have discussed about how to create attractive public spaces. Theory of Jan Gehl focused on the relationship between spatial environment and human activities, while Jane Jacobs’s book ‘The Death and Life of Great American Cities’ illustrated the importance of mixed use of public space. Furthermore, ‘Public Places - Urban Spaces: the dimensions of urban design’ written by Matthew Carmona et al gave us a boarder view of urban design. After reviewing the theories, we have classified all the ideas and formulated four key principles of creating attractive public space in residential areas: humanized scale and spatial layout, constructing multi-functional space, favorable landscape design and design for vulnerable groups. In the second part of the theoretical study, we have paid more attention to the safety issues of public space. The theory of CPTED has been introduced, which aims at reducing crime and other insecurity factors through environmental design. According to the studies of Jane Jacobs, Oscar Newman and George Kelling, we have found that overall image of neighborhood, spatial arrangement and territoriality, public activities and natural surveillance are three important factors of neighborhood security. The theoretical study gives us a better understanding of designing public space, many of the principles will be manifested in the following planning project.
3. Background information of the project
3.1. Malmö and Rosengård

In order to understand the situation of Herrgården, we need to have some background information of Malmö and Rosengård. Malmö is the capital of Skåne County located in southwest part of Sweden. It is the third largest city of Sweden with a population of about 270,000 now (Malmö stad, 2008). Since Malmö is very close to Copenhagen Denmark and have international influence, it is an important transportation and economic centre in southern Sweden. Malmö was one of the earliest and most industrialized towns of Scandinavia, which has expanded with the industrial development since 13th century. However, the city is now struggling with low employment and structural changes of industry since the last decade. The municipality wants to change Malmö from an industrial city to ‘a city of knowledge’ (Malmö stad, 2008). They established a new university, University College of Malmö, and tried to develop biotechnology and IT industries. Nowadays, many Large-scaled architectural and urban renewal projects are taking place in some parts of the city. Malmö is a densely populated city with limited open space and residential buildings. Most people lives in high standard apartment houses owned by municipal or private property owners. 14 percent of the apartments in the city are owned by the municipal housing company in Malmö (MKB), which is the largest housing company in the city.

Malmö is an international city with people from all over the world. It is reported that there are about 100 languages speaking in Malmö, which belong to 164 different nationalities (Malmö stad, 2008). However, High proportion of immigrants causes some social problems. Immigrants and refugees cannot easily integrate into Swedish society. To some extent, they are segregated in some areas of the city such as Rosengård district. They are in relatively disadvantaged position in job market especially in economic crisis. So these people may become unsafe factor of the society. It is reported that in Malmö, ‘violent crime has tripled in the last twenty years. Rapes are now commonplace, some even occurring in broad daylight…9 out of 10 violent crimes in Sweden was committed by ethnic minorities.’ (Gelbart, 2007) The city of Malmö is in the transition with both historical and modern features, hopes and challenges.

Rosengård is a large-scale residential area in the north-eastern part of Malmö with an area of 331 hectares, 7 613 apartments and 21 955 inhabitants (Malmö Stadskontor, 2007, p.20). It is a typical production of ‘Million Programme’, which was built during 1967-1974 and mainly consists of high-rise residential buildings. Half of these apartments are owned by the Malmö municipal housing company (MKB) and the others are owned by Private landlords (Cars & Hagetoft, 1999, p.1). Rosengård aimed to provide sufficient and high quality apartments with recreation areas, public spaces and schools for its inhabitants. However, the long-term result of Million Programme is very unsuccessful.
with economic decline and social transition. Rosengård, like many similar cases, is facing up to many physical and social problems.

Rosengård is segregated from other parts of Malmö from physical, ethnical and social perspectives. The railway and main road of Inre Ringvägen represent major physical barriers that separate Rosengård from other parts of Malmö from physical, ethnical and social perspectives (Malmö stadsbyggnadskontor, 2008, p.22). It is hard for people to get in touch with other districts by foot. In Rosengård, we cannot find the typical feature of Swedish aging society. There are fewer old people, but more children and middle-age inhabitants than in other districts. 86 percent of the inhabitants have a foreign background. They are from about 111 nationalities with different kinds of religions (Malmö stadsbyggnadskontor, 2008, p.10). These immigrants are not well established in Swedish society with a low employment rate of 32% and a high rate of social welfare dependence. They have no alternative but to live in Rosengård, if they have other choices, they will soon leave Rosengård. Therefore, the mobility of residents in Rosengård is great. It is reported that 9800 people moved to this district, while nearly 10500 people moved out from 2002 to 2006, which is about half of its entire population. Another research shows the employment rate of people aged from 25 to 64 years who moved to Rosengård between 2000 and 2004 was 24 percent. The same statistics for people moved out was 49 percent (Malmö stadsbyggnadskontor 2008, p.10). In this condition, Rosengård drops in a vicious circle and turns out to be a district for underclass people with high crime rate and bad reputation. The municipality carried out many projects in this area, but they have not solved these problems so far.

3.2. The problematic area – Herrgården

Rosengård district was named after Herrgården, which was the oldest part of the whole area. Nowadays, Herrgården is a subdivision within the district Rosengård in Malmö with an area of 46 hectares, 1360 apartments and 4914 inhabitants (Malmö Stadskontor, 2007, p.190). City plan of Herrgården was established in 1967 by Gabriel Winge together with Thorsten Roos and B Krantz. The whole area was planned to have 31 residential buildings in three, six, and nine floors with a similar design of yellow brick facades, flat roofs and suspended balconies (Tykesson, 2002, p.150-152). They are grouped in a square pattern with relatively closed
public spaces in between. West to the residential buildings is a large piece of green area where Rosengård Theater X is operating. Many sports facilities are around the old farm such as the swimming pool, football pitches and tennis courts. Schools and kindergartens of Rosengård are in the central part of Herrgården. There is no business function in Herrgården except for a small shop. Other business services rely on Rosengård center nearby.

There are some physical problems in Herrgården. Firstly, the traffic system in Herrgården is based on the principle of traffic separation (Tykesson, 2002, p.150-152), which means walking and cycling path is different from other vehicle's path. In addition, some roads for vehicles are not well-connected with each other. This causes some disorders in the traffic system. Secondly, Herrgården is very densely populated and even overcrowded. The whole area was planned for 3000 residents, but now police estimates there are about 8000 people with in the area. Too many residents give high pressure on its infrastructure especially schools and kindergartens. It is reported that ‘child-care was available for only one child in four, which was a serious problem for families with young children who needed two incomes.’ (Cars & Hagetoft, 1999, p.3)

The social problems of whole Rosengård district can all manifest in Herrgården. However, the situation is even worse in this area. In Herrgården, 96 percentage of population has a foreign background, 15 percentage of people is working, while 9 percentage of people has a car (Malmö stadsbyggnadskontor, 2008, p.45). Many residents living in Herrgården just rely on social welfares. Young people with low education level feel depressed about their lives, and generate some anti-social emotions. Therefore, we can often read news about riot and crime in Herrgården. In addition, the maintenance and management of Herrgården is very poor and insufficient. Unlike other areas in Rosengård, 88% of apartments in Herrgården are owned by private housing companies, which do not take much care of this area. For example, Gröningen Bostads AB have more than half of the Herrgården apartments, but it was named as the fourth worst landlord in Sweden last year (The Local, 2008). Nowadays, the buildings are now quite worn, especially the staircase, and the outdoor environment is unpleasant with garbage. However, there was few project of improvement happened in Herrgården, which can really solve the problems and satisfy people's needs. Residents claim that their opinions were ignored in the regional planning, and their well-being was sacrificed to housing capitalists’ demands for increased profits.
Picture 3.4 Education level of residents in Herrgården

Picture 3.5 Percentage of population with a foreign background

Picture 3.6 Percentage of population with a job

Picture 3.7 Cars per 100 inhabitants
3.3. Municipal guidelines

According to these urgent physical and social problems in Rosengård, the municipality of Malmö worked out a new physical plan (Rosengård: Strategies for sustainable development in a neighborhood) for this area in 2008. It strived to make specific frameworks and guidelines to develop Rosengård into a sustainable city district both economically, socially and ecologically (Malmö stadsbyggnadskontor, 2008, p.51). Since Herrgården is the most problematic area in Rosengård, these planning guidelines and principles are very essential for the transformation of Herrgården. We found four aspects are emphasized by the municipality and very essential for us to take into consideration when we making planning proposals for this area.

- **Improved traffic system**

Rosengård is located in eastern Malmo. With increased public transportation, it needs a more efficient and accessible traffic system. The main aims of the municipality are to provide permeable pedestrian and cycle links and guarantee street safety and accessibility for everyone. Main roads will be redesigned for mixed traffic including both vehicles and pedestrians. Public transportation facilities will be improved in order to connect with the rest of Malmö.

- **Multi-functional land use**

The municipality wants to reconstruct Rosengård district as a multifunctional area with commercial activities, services, educational facilities and entertainment. They will benefit the residential area like Rosengård to have a more vibrant environment. The municipality suggests that we can reconstruct the ground floor of residential buildings for business and commercial use. New squares and parks are supposed to satisfy people’s needs of both communication and recreation.

- **High quality of green spaces**

Green space is a fundamental factor of constructing a sustainable residential area. It not only has ecological functions but contributes to social sustainability as well. There are three parks in Rosengård with abundant green spaces in the neighborhood. However, some of these places did not get well maintenance and seldom be used by inhabitants. Municipality wants to improve the accessibility and safety of these areas. Two green belts are planned to pass through Rosengård and link with parks in the center of Malmö. The centre part of Herrgården will also become a new neighborhood park.

- **Unique attractions and neighborhood identity**

Rosengård needs to get over its depressed image as an underclass district. ‘It should have some unique attraction to draw visitors from the rest of the city and the whole region.’ (Malmö stadsbyggnadskontor, 2008, p.51) These attractions may be an art gallery or a swimming hall, which can strengthen the local identity. Visitors from outside will reconsider this area and bring some development opportunities for Rosengård.
4. Situational analysis
4.1. Physical structure and land use

A large proportion of the Herrgården area functions as a residential district. The residential area is located in the northern part of Herrgården close to the Inner Ringvägen and Amiralsgatan, which are the north and east borders of this area. There are some linear green spaces between the big roads and the residential area. They form an enclosed environment to the residential area and to some extent protect the residential area from the outside traffic. Some lands are used for education and childcare. Rosengård School is in the central part of this area, which is very close to the apartments. It is convenient for children to get to school by themselves. A large piece of green field is around the neighborhood with abundant sports facilities and stadiums in the west part of Herrgården. However, there is an open and simple view of the green area in the southeastern part of the area. We find two public meeting places in this area, one is in the center of residential buildings and the other one is between the sports facilities. But both of them are not well used by people. In order to attract more residents to use these public spaces, it is better to reconstruct them with modern elements and unique features.

There is hardly any commercial function inside the area except for a small shop in the northeastern corner of the district. Commercial function is also important to create livable neighborhood atmosphere. We can make a comparative study with Örtagården district. In that area, some streets such as Adlerfelts road and Bennett road were reconstructed. Many residential buildings have changed their ground floor for small business use. Some barber shops, supermarkets and restaurants have moved into that area. So Örtagården has emerged as a thriving and vital part of Rosengård. We think it is better for Herrgården to learn something from this example. Malmö municipality also wants to create a multifunctional spatial layout of Herrgården by adding more commercial functions inside the area.
Picture 4.1 Master plan of Herrgården area
Picture 4.2 Location of Herrgården area

Picture 4.3 Surrounding environment
Picture 4.4 Spatial layout of Herrgården

Picture 4.5 Layout of architectures in Herrgården
4.2. Traffic system

Herrgården is relatively isolated from its surroundings. Inner Ringvägen and Amiralsgatan are set as its east and north borders. Meanwhile, the large green area Rosengårdsfältet is considered to be the barrier in the south. Amiralsgatan is an important road for Herrgården as well as for Rosengård. It provides quick access to central Malmö. However, the wide road with high-speed traffic causes difficulty for pedestrians to cross the street and further interrupts the communication between the northern and southern part of Rosengård.

The traffic system of Herrgården is based on the principle of traffic separation, which means there are individual paths or level differences for pedestrians and vehicles in the internal system. In Herrgården, three big roads are mainly for vehicles, which are Von Rosen Väg, Frölichs Väg and Ramels Väg. Other streets such as Rosengårds vägen are just for pedestrians and cyclers. These roads for vehicles cannot go deep into the residential area and they often end with parking lots or turning circles around the residential buildings. This kind of traffic plan was mainly from safety perspective, planners tried to set vehicles routes outside the residential area and create a car-free zone inside the neighborhood. In this way, inhabitants especially children and the elderly can feel free and safe when they walk in the community and take part in activities.
Situational analysis

Picture 4.8 current situation of traffic system

Picture 4.9 Height limitation (Von Rosen Väg in Rosengårds vägen, Malmö)

Picture 4.10 Current situation of Rosengårds vägen (Herrgården in Rosengård, Malmö)
However, people find more and more disadvantages of this traffic separation system. Firstly, since vehicles routes are set outside the neighborhood, it causes some inconvenience for residents. Sometimes it is too far for residents to walk to the bus stop. The report from Malmö stadsbyggnadskontor (2008, p.24) said that some people have to walk 600m to reach a bus stop, which exceeds the admissible distance. Worse still, these roads are not well connected. Roads for vehicles very often end in blind alleys so that it is hard for cars to find their destinations. There is also a lack of easy transition between vehicles routes and pedestrian paths. Sometimes people have to walk far away to across the big roads. Pedestrian and bicycle bridges in Rosengård is not free height (3.4 meters), which means that the charter buses and larger delivery vehicles do not have access to the entire street network (Malmö stadsbyggnadskontor 2008, p.25). Nowadays, all the three big roads, Von Rosen Väg, Fröllichs Väg and Ramels Väg are suffering from this problem. Some important sports facilities such as Ice Hall and Sports Hall still cannot be reached by charter buses. Sometimes athletes have to walk to the stadium with heavy equipments. Furthermore, according to Gehl’s theory, traffic separation will induce the separation of activities and people, and further reduce the vitality of community. Because people are separated from rest of the city life, driving, walking and life along the streets become boring and dull.

The space along the streets is also very important meeting places in the residential area, which provides opportunities and space for public activities. However, in Herrgården, there are deficient of good public spaces along the streets. For example, Rosengårds vägen is a main road for cyclers and pedestrians, which goes through the southern part of Rosengården and connects central traffic system. It can have more functions than just for traffic. However, the landscape along this road is not so good. We did not find any public space at both sides of the road, where is just simple green field instead. It has a few benches along the path but the environment is unpleasant and the street furniture is worn and dirty so that few people want to stay in that area. The other streets in Herrgården have similar situations with Rosengårds vägen.
4.3. Lighting system

Lighting system is important to nighttime security of residential areas. There are several types of lights in Herrgården area such as street lamp, ground lights, wall lights and landscape lights. Most of the street lamps are well functioned and give comfortable light for the main streets. However, some small paths do not have enough lighting at night. Besides, we found many walls lamps and Closed Circuit Televisions (CCTVs) on the outside wall of classrooms in school area. They are helpful to enhance the security of that area. In the grounds between residential buildings, some areas such as garages and rubbish collections are not covered by lights, which may become some potential insecurity factors of the neighborhood. The most problematic area of lighting is the public meeting place in the central of neighborhood, where more than half of the lights are broken. It seems not to be natural damages but to be caused by man-made sabotage. It is easy to associate this with crimes and conflicts within the area. We have to take actions to solve this problem. Lighting can also have unique landscape functions especially at night. There are just a small amount of landscape lights in Herrgården, which are in the green area around by sports facilities. These landscape lights have fascinating images and enhance the attractiveness of the area. We think it is better to add more of these landscape lights in the whole area. In addition, it is also important to maintain the existing lights, because we find many of these lights have already been broken, which leave negative impression to the visitors.
4.4. Public space in the neighborhood

Public space in the neighborhood can be classified into two types, the neighborhood square in the center and small grounds between buildings. There is one neighborhood square in the center of the residential area. It lays out into a rectangular style with a walking path cutting it into two parts. It is a perfect location for neighborhood square which is easily reached by all the residents in the community and also close to the schools. Planners aimed to provide a meeting place here for inhabitants. The whole area keeps its nature identity with abundant grasses and trees. Some man-made landscape elements are added inside such as a sculpture, a small stage and a children’s playground.

However, the result turned out to be disappointing. Firstly, it has some physical problems. There is a level difference between the two parts of the square, but the slopes for wheelchairs are uneven so that it is hard for old people to come to this place. We do not find many benches here. Parents have to stand aside to watch their children play football, and the small stage just faces toward a piece of vacant ground so the usage is limited. In addition, the environment is unpleasant. There are some wastes and refuses around the square and the space becomes muddy when it is rainy. Some street furniture are damaged especially the street lamps, so it becomes impossible for people to have nighttime activities here. Because of all the reasons above, this square is not often used by residents. Secondly, it has social problems such as crimes and conflicts. Jane Jacobs argues that if one area is not often used by people, it will drop into vicious circles to become insecurity place. This principle is applicable to this area. Drug dealing and other crimes appear in the square so that native people fear to come to this place at night. Some physical condition aggravates the problem of crime. There are many trees and plants around the square, particularly in the entrance area. According to the theory of CPTED, these trees blocks people’s view and reduce the natural surveillance from the inhabitants so that it is easy for some crime happen inside. When the night comes, the situation becomes worse because most of the street lamps are broken.

Picture 4.13 Broken lights (Neighborhood Square in Herrgården)
Picture 4.14 Current situation of neighborhood square

Picture 4.15 Unpleasant environment (Neighborhood Square in Herrgården)

Picture 4.16 Entrance covered by trees (Neighborhood Square in Herrgården)
Small grounds around buildings represent tiny spaces divided by residential buildings, which can be considered as the elemental unit of public space. They are just outside the apartments, and people have to go through them several times a day. We can find many playgrounds for children in each of those spaces. Since there are more children in the Rosengård district than other areas in the city, it is considerate to create more space for children in the neighborhood. However, some of these playgrounds are untidy. Every space has similar playgrounds and facilities which seem not so attractive for children to use. In addition, there is no special consideration for the elderly in these areas. Consequently, we do not find any old people use these grounds between buildings. Old people need relatively enclosed and quite space with comfortable benches so they can stay there longer and take part in some outdoor activities. Generally speaking, sport is not the privilege for children and teenagers, it is better to add some sports facilities for old people to do exercises in the residential area.

Picture 4.17 Small grounds between residential buildings (Herrgården in Rosengård, Malmö)
4.5. Green area

Green areas take a large proportion of the land in Herrgården. They are also one part of the Municipal green belts and connect the central parks of Malmö. The abundant green space is an asset of the residential area because it is an important foundation of achieving ecological sustainability. Many sports facilities are built on it such as football fields and swimming pool, which are welcomed by children. Most of these green fields have a good environment except for some obscure corners with some garbage and waste inside them. However, some of these green spaces are not efficiently used by inhabitants. We can easily find a large piece of green land with nothing in it. We have illustrated this in the previous chapters that space with too large scale is not comfortable for people to use. In addition, most of the green spaces are lack of interesting features and clear identity. They often give people a simple and boring view. In order to improve this situation, the municipality has come out a very good idea of utilizing green fields. It encourages people to obtain their own garden plots in the public green space. Cultivating area is a nice complement to parks and good for establishing an ecologically sustainable neighborhood environment. People can have fun and communication when they work in their gardens (Malmö stadsbyggnadskontor 2008, p.41).
4.6. Identity and attractions

Now when people talk about Herrgården, they always associate it with crimes and insecurity. This kind of impression may be caused by negative news reports and real social problems. However, the overall image of this area is also not good, which may aggravate this situation. We can easily find some horrible grisly graffiti on the walls and dark areas without street lights at night. These situations may increase our feeling of insecurity about this area. So few people want to pay a visit to Herrgården, and it is hard for Herrgården to get rid of the bad reputation.

Now, Herrgården needs some new identities and attractions to attract people from outside. If we look at the neighboring areas, we can find that the municipality and relevant authorities have taken some initiatives to change the identity of the area. There are some good examples from the neighboring areas Örtagården and Törnrosen. A small art exhibition was constructed in the tunnel between Bennett road and Annelund Street in 2005. The most famous piece of art is ‘Zlatans leende’, which uses the typical smile of a native football star Zlatan to show the pride and self-esteem of Rosengård. The artist Björn Carnemalm, together with the children at Rose Garden schools, has created many interesting pictures in the tunnel walls. This art exhibition becomes an impressive symbol of the area and shows people's optimistic attitude of achieving good life in Rosengård. In addition, a Nike football court named after Zlatan is constructed in the Törnrosen area. It is an exquisite football court with culture background. The signature and footprint of Zlatan are set in the court to remind people of its unique identity. We think Herrgården can learn something from the examples and create its own attractions.
5. Design proposals
5.1. Outlines and overall idea

Our design project of Herrgården aims at regenerating its public spaces and restoring its lost functions. All kinds of public spaces of the district are taken into consideration such as roadside space, neighborhood square and green area etc. In the process of design, we show respect to the current situation of the district. Many ideas and transformations are based on the problems or opportunities of the area. Furthermore, we try to apply relevant theories to the proposal and focus on improving attractiveness and safety of the public space in Herrgården. The four main guidelines of the project are illustrated as follows.

• **Enrich the forms of public space**

Single form of public space cannot satisfy the diverse needs of inhabitants. A livable public space should contain several functions so that it can attract more people to use. In addition, multifunctional space also has its advantage in land use efficiency. Different user groups may keep the public space in use and encourage public activities. So in the design proposal, we try to add more functions into the original public space.

• **Improve image of the community**

The image of the community can have influence to people’s attitude of the area and further affect the development of the community. Now, Herrgården is suffering from its bad reputation and declining environment. Our proposal is going to reverse this tendency and construct a new image of the neighborhood. In the design of public space, we take effort to improve its physical condition. New landmarks, signs, attractions will be added into the neighborhood to attract people from outside and become pride of the community.

• **Add human dimensions to public space**

A successful design of public space should pay attention to the physical and social needs of people. Now, there are some problems of the public space in Herrgården, which cause inconvenience for its residents. In the design project, the former inconvenience will be eliminated, and public space will be redesigned in favor of human activities. In addition, the need of disadvantaged groups such as the elderly, children and disabled person will be carefully considered too.

• **Reconstruct a safety community**

Safety issue is another focus of our design project because of the current condition of security in Herrgården is not so good. The crimes and conflicts make people feel unsafe in the neighborhood so that they do not want to stay longer in the public space. This situation will reduce the efficiency of public space and may leave more opportunities for crime. The CPTED theory suggests that this kind of insecurity can be reduced by proper design of public space. From this point of view, some methods of CPTED are used in our proposal to achieve a safer community.
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Picture 5.1 Proposal for functional layout of Herrgården
5.2. Traffic system

As we know that the former car-free traffic planning is mainly from safety perspective, but it causes some difficulties for the vehicles to go through the district and some sports facilities can not be reached by large buses. Based on the original ideas from Malmö city planning office, we plan to combine Ramels Väg with Rosengård’s Vägen to allow vehicles to go inside the district. Azaleastigen will be broadened for vehicles so that it will become a new vehicle access to Västra Kattarp. A new road will start from the dead end of Frölichs Väg. It will go between the sports stadiums and connect to Af Klintebergs Väg (Malmö stadsbyggnadskontor, 2008, p.28). In this way, they will form a coherent traffic system and three dead ends will be removed. The new traffic system will have several advantages. At first, vehicles can easily go through the district and the accesses to the neighboring districts will be improved. Secondly, sport facilities will be reached by new routes without height limitations. Big buses and delivery carriers can choose new routes to the stadiums and will no longer worry about the pedestrian bridges. At last, most of these new roads will be far from the residential buildings and school. It will still keep the car-free zone in the heart of Herrgården so that it will have little negative influences to the neighborhood traffic security.

The other problem is about the traffic separation system, which also cause some inconveniences to the residents. We take the traffic junction near the Rosengård center as an example, which is a very important entrance for the Herrgården area. A recent project has added sidewalks along the main road, but few pedestrians use them because of the boring view and inconvenient connections. The road is still mainly for vehicles. Gehl suggests that it is more efficient to have multi-functional use for one street, and the mixed-use by pedestrians and vehicles will bring vitality to the street. So we will try to construct a better integrated traffic system by improving the connection and environment.

We will construct better connections between the pedestrian bridges at above and roads underneath. In the previous system, the pedestrian bridges and the roads for vehicles are almost separated, because people do not need to go down to the roads. The only link between them is a worn slope. Now, we will add several stairs to the pedestrian bridges, so that it will be easy for people to go down to the streets. The height differences and steep slopes cause difficulty for handicapped person. The former worn slope passage without protection facilities is proved to be dangerous and inconvenient. For the sake of handicapped people, we want to install some elevators at the roadsides.

In order to create more livable environment at streets, the planting slopes along the roads can be utilized to have some small shops on them. On one hand, they can make up for the height differences between the pedestrian bridges and the roads. They will break the monotone streetscape made by vegetables and enhance the visual quality of the street. On the other hand, small shops will become attractions of the streets and provide more opportunities for public meeting and activities.
Design proposal

Picture 5.3 Proposal for traffic system of Herrgården

Picture 5.4 Current situation of traffic junction near the Rosengård Center (Von Rosen Väg in Rosengård, Malmö)

Picture 5.5 Planting slopes along the roads (Von Rosen Väg in Rosengård, Malmö)
Picture 5.6 Planning proposal for traffic junction near the Rosengård Center

Picture 5.7 Current situation of traffic junction near the Rosengård Center

Sidewalks  Stairs  Elevators  Shops  Roadside  Zebra crossings space

1: Viewpoint for sketch 1
2: Viewpoint for sketch 2

Rosengård center  Pedestrian bridge  Roads for vehicles  Planting slopes
Design proposal

Picture 5.8 Design sketch 1

Picture 5.9 Design sketch 2
5.3. Streetscape

A street is not only used for traffic but is an important public space as well. Today, the streetscape of Herrgården is quite boring. There is no sidewalk in some big roads because of the traffic separation system, while the walking paths lack benches for people to sit down. Jacobs wrote a whole chapter to illustrate the importance of sidewalks and roadside city life. She said the ideal sidewalks can undertake all kinds of public activities. People have enough space for walking, while children can also play some games on it. In addition, we need to plant some trees to provide sunshade for these activities (Jacobs, 1961, p.97). According to this idea, we design two types of roadside space. The first one is for big streets which are reconstructed for mixed traffic such as Frölichs Väg, Von Rosen Väg and Af Klintebergs Väg. Different lanes for vehicles, cycles and pedestrians will be clearly divided. Wide pavements will be constructed at both sides with benches along the street so that people can sit and talk here. Abundant plants will create a natural and comfortable street atmosphere. The second one is for walking and cycling paths like Rosengård Vägen. In the investigation, we see many wire nettings are used to divide roadside spaces, which do not look nice. It is better to use some hedges and living fences instead. We will add more flower containers along the paths to enrich the roadside landscape. More private spaces will be divided by flower containers, which is suitable for sedentary activities.

Furthermore, we should also pay attention to the entrance spaces of Herrgården district. There are several streets going through the area but there is no special sign or feature at the entrance. We think that it is better to create some special features to show the transition of the space and identity of the Herrgården. Modern sculptures can be good choices of landmarks at the entrance.
Picture 5.12 Ground plan for Frölichs Väg

Picture 5.13 Elevation plan for Frölichs Väg
Picture 5.14 Ground plan for Rosengårds vägen

Picture 5.15 Elevation plan for Rosengårds vägen
5.4. Neighborhood square

Picture 5.16 Analysis of current situation

Picture 5.17 Height difference between two parts (Neighborhood Square in Herrgården)

Picture 5.18 Stage (Neighborhood Square in Herrgården)

Picture 5.19 Current situation of the square (Neighborhood Square in Herrgården)
This neighborhood square is very much enclosed with many trees at the main entrance and along the roads. Some physical and safety problems hinder residents from taking public activities in it. Therefore, we propose several improvements to deal with the problems in this square.

First of all, based on the concern about safety, we want to create a more transparent and open space so that residents can have natural surveillance on the square. The entrance will be created to be more attractive with broader views of inside. Several trees which block people’s view are planned to be cut down. Low bushes and shrubs can be planted around the semipublic space or private space. This design aims to remain tall trees and low bushes, but reduce the obstructions at eye levels. People in the surroundings can easily watch the square, so the concealed place for drug dealing will no longer exist. Besides, more tough lights should be added to the square and be carefully maintained so that people can feel more safe at night.

Secondly, according to Gehl’s statement about suitable scales for different activities, we suggest to divide spaces into smaller scales with definite functional boundaries. A new picnic area and a children’s playground will be constructed in the edges of the square, while the former stage and ski slope will be also improved. A new statue surrounded by flower bed will be placed in the middle. It can have a spatial control of the whole square and represent the new image of the neighborhood. These spaces can provide a series of views and activities to the residents and give people a sense of territoriality. CPTED theory illustrates that definite territorial space can enhance people’s feeling of security and defensive capabilities of crime. In this way, the square can be both attractive and well controlled by inhabitants.

At last, we want to improve the quality of the environment. It is known to all that public activities are closely related to the quality of outdoor environment. The more comfortable physical environment is created, the more time people will spend in outside space. Therefore, we suggest cleaning up the square and placing more facilities in the square such as benches and tables. These facilities will encourage more activities in the square especially for the old people. The accessibility of the vulnerable groups should also be carefully considered. We will set up steps at the fountain to eliminate the altitude difference of the square. Two skid-proof slopes will be also reconstructed at both sides to serve the disabled people.
Picture 5.21 Ground plan of neighborhood square

1. Original ski slope
2. Original playing court
3. Original stage
4. Original fountain
5. Original sculpture
6. Original children playground
7. Feature wall
8. Children playground
9. New sculpture
10. Picnic area
11. Steps
12. Steps and slope
13. Shrubs
14. Walking path
Picture 5.22 Airview of neighborhood square

Picture 5.23 A-A’ Section plane
Picture5.24 Original playing court

Picture5.25 Original fountain

Picture5.26 Sculpture

Picture5.27 Picnic area
5.5. Grounds between the buildings

Picture 5.28 Analysis of current situation

Picture 5.29 Playground (Grounds between the buildings in Herrgården)

Picture 5.30 Green space (Grounds between the buildings in Herrgården)

Picture 5.31 Bicycle parking (Grounds between the buildings in Herrgården)
As we know from the analysis, the grounds between the residential buildings are mostly designed for children while there is no special design for the old people in these areas. Although the elderly is just a minority group in Herrgården, we cannot overlook the need of them. In addition, this could also induce some problems of inefficient land use. So we choose one specific area to study the common issue.

This ground between dwellings consists of large pieces of plants. The children’s playground is in the northern part of it with a side in the middle. In our proposal, the shape of this area will be changed to ensure that the public space is more concordant with the surrounding environment. Playgrounds will be mostly reserved by us except for adding more facilities. According to the concern of old people, we will make some improvement in the middle part of this ground. An exercise space will be arranged for the old people with a new circular cobbled trail and some exercise equipments. At first, it is no doubt good to public health especially for old people. Secondly, it is a more efficient way to arrange space because one single space can satisfy the needs of different users. At last, it is also good for neighborhood security. Based on the CPTED theory, children’s playground should be set up in an open environment, and it is better under the surveillance of their parents. Putting exercise space for old people between the playgrounds can provide a convenient way for adults to look after their children while they are doing some exercise. In addition, we suggest putting more benches opposite the playfield to reinforce the surveillance and protection from their parents. Furthermore, in order to solve the problem of disordered parking, we plan to combine some small bicycle parking lots into big ones adjacent to their apartments. Garbage cans will be put in the periphery of the space.

![Design draft](image)
Design proposal

Picture 5.33 Ground plan of the grounds between buildings

1. Pavilion
2. Playground
3. Exercise area for the elderly
4. Bushes and grass
5. Seating area
6. Waste bins
7. Parking for Bicycle

Picture 5.34 Playground for children

Picture 5.35 Exercise space for the elderly

Picture 5.36 Seating area
Picture 5.37 Airview of the grounds between buildings

Picture 5.38 Elevational drawing of the grounds between buildings
5.6. Central Square

Picture 5.39 Analysis of current situation

Picture 5.40 Empty parking plots (Central Square in Herrgården)

Picture 5.41 Current situation (Central Square in Herrgården)

Picture 5.42 Swimming pool (Central Square in Herrgården)
We think Herrgården lacks a meeting place for public activities. The large piece of green area surrounded by Rosengård centre, sport facilities and schools is a good choice for constructing a square. It is located in a busy part of this area and has a good environment. The closeness to Rosengård center and surrounding infrastructures will be an advantage to assemble people. There are two more objectives of constructing this central square. The first one is to add more commercial and business function to this district. The second one is to create an attraction or a symbol of the community.

The whole square can be divided into three parts. Originally, the southern part is a large piece of grass with peaceful environment. We will create a grid pattern of paths in this green space, and plant some big trees inside the pattern. According to Gehl’s theory, people can easily have conversations in a distance of 7 meters. (Gehl, 1996, p.66) The smaller scales of these green spaces are better for evoking communications. In addition, we will add more benches around the trees, which may restore the usage of the east side stage. Because they can provide a better seating environment when there is a performance on the stage.

In the northern part of the square, we plan to construct some new shops, cafés and restaurants. Now, there is a quite large parking lot here. However, we want to remove the parking lot, because through the investigation we find it is quite inefficient used by residents and other parking lots in neighboring area can satisfy people’s needs. Jane Jacobs has emphasized in her book that the vitality of community depends on the mixed use of streets and land. Since Herrgården is lack of commercial functions, this area can make up for the deficiency. Furthermore, psychology study shows that ‘adults seldom go to town with the need for stimulation or the need for contact. Regardless of what the true purpose may be, one goes out for a plausible, rational reason.’ (Gehl, 1996, p.117) These shops will provide inhabitants a reason to visit the square, and some public activities may be evoked unintentionally at the same time. A new sculpture will be set up in the center of the square, which is considered to be a symbol of Herrgården. The spherical sculpture will represent the unity of people from different countries and their golden future.

The third part is a swimming pool area, which is the only swimming pool in Rosengård district. In order to reconstruct it as a local attraction, we will upgrade the environment and facilities. The former boundary of wire netting will be replaced by some new shops and restaurants. A new entrance will be constructed facing up to the fountain so that the connection between the square and swimming pool can be reinforced. A modern ceiling will be added to the swimming pool to make it more conspicuous.

Since this central square is located in such a significant location, it has a potential to become an attraction of Herrgården and even the whole Rosengård district. The new swimming pool and commercial area will bring some unique features to this square so that it will become an attractive meeting place for the inhabitants and travelers.
Design proposal

Picture 5.45 Reference picture of shop facade

Picture 5.46 Airview of central square

Picture 5.47 Reference picture of cafe facade

Picture 5.48 A-A’ Section plane
5.7. Green space

Picture 5.53 Analysis of current situation

Picture 5.54 Waste (Green space in Herrgården)

Picture 5.55 Water tower (Green space in Herrgården)

Picture 5.56 Agriculture land (Green space in Herrgården)
Green space is an important area for public activities such as recreation and exercise. It gives residents a chance to get close to nature. Since there are abundant green spaces in Herrgården, they are precious assets of the neighborhood. However, some of these green areas are lack of suitable dimension for people to use. We will take a green space in the southeast corner of Herrgården as an example for design proposal.

This is a large grass slope with pleasant environment around by a church and some agriculture lands. Due to the deficiency of landscape furniture and humanized dimension, it seems not often used by residents except for some passersby. The new proposal aims to create a natural and quiet space for the old people. According to the theoretical study, we know that spaces with definite boundaries and suitable dimension are easy for people to use and control. So we divided the green space smaller and add more facilities for residents to use.

We will reconstruct the big slope into flat grounds in three levels. Some sport facilities will be added in the lowest ground such as badminton court, tennis court and croquet field, which are more suitable for old people. The middle level will contains some quiet gardens, which are suitable for sedentary activities such as reading and playing chess. There are some more benches in the top level, where you can get a full view of the green space.
Picture 5.58 Ground plan of the green space

Picture 5.59 A-A’ Section plane
Picture 5.60 Airview of the green space

Picture 5.61 Sports area

Picture 5.62 Garden
5.8. Summary

The overall purpose of our proposal is to enhance the attractiveness and safety situation of the public spaces in Herrgården, which can be further classified into four guidelines: Enrich the forms of public space, improve the image of the community, add human dimensions to public space, and reconstruct a safety community. These guidelines can be manifested in our suggestions and proposals.

At first, in order to enrich the forms of public space, we try to make use of the roadside spaces. New pavements, benches and shops may create a livable street environment. The central square is planned to make up for the deficiency of commercial functions. The cafes, bars and shops will be welcomed by the whole community. Secondly, we create some attractions and landmarks to highlight the new image of the community. Some sculptures will be placed in the entrance of Herrgården and in the central square. A unique swimming pool and commercial area will show a vivid picture of Herrgården in the future. Thirdly, our proposal adds human dimensions to public space, which focus on human activities and people’s social needs. We will construct a more integrated traffic system, which is more convenient for people to use. In the planning of neighborhood square, central square and green area, we try to create public space in suitable scale to encourage public communication. At last, we also want to enhance neighborhood safety through the environmental design. The neighborhood square is considered as an unsafe place, where few residents want to use it. Our proposal aims to enhance the natural surveillance and people’s sense of territoriality by applying the CPTED theory into the design. Residents will feel more confident to control this space because of the improvement project. Our proposal is just some suggestions to Herrgården area. The real effects of the proposal need to be tested by time. We hope to see Herrgården with pleasant environment and harmonious social relationship in the future.
In this thesis project we not only studied the antecessors’ theories and philosophies about residential area planning, but also tried to put forward some relative methods and experiences in solving social and physical problems of Herrgården. In the process of the thesis project, we have learnt a lot from the relevant literature, which has given us a broader perspective of public space planning. We summarized their ideas and found out that attractiveness and security are two crucial factors of public spaces in residential areas. The factor of attractiveness makes up a pleasant physical environment of the community, which invites residents to use the public space, while the factor of safety creates a good social atmosphere inside neighborhoods and pays attention to residents’ psychological needs. These two factors also interrelate with each other so we cannot achieve one goal without another. On one hand, safety is a precondition of attractiveness. An unsafe place can never be considered as attractive no matter how prefect its physical condition is. On the other hand, the attractiveness of public space can enhance the condition of security. Attractive public space will have more users so that it will be more likely under the natural surveillance from people. According to the CPTED theory, the opportunity and location of crime will be limited in that way. Based on these two main ideas, we take Herrgården in Rosengård, Malmö as our study project. We analyzed the current problems of Herrgården, which may be caused by many physical and social factors. The weakness of current plan and the places which can be improved were also identified by us. In our own design proposal, we applied the theoretical principles into the problematic area and made some improvements for different kinds of public spaces such as green space, square and roadside space. After all we believe that Herrgården has a potential to become an attractive and safe neighborhood if we pay more attention to the design of public spaces and the needs of residents. In the studying process, it is interesting to identify problems and use our own knowledge to give suggestions. We learnt some experiences and useful lessons of residential areas planning, which may give some enlightenment to city planners.

As a famous saying goes, a stitch in time saves nine. At first, it is better to keep the physical environment of public space in residential areas in good condition, but not to reconstruct it after things become incurable. Because it is a time and money consuming project to give a reconstruction plan based on comprehensive physical and social situations. In addition, it is hard to change people’s mind and image of a community in decay. In the case of Herrgården, the problems have aggravated over years and many researches and plans have been carried out in the area. However, the implementation of reconstruction plans come out very slowly, and developers are reluctant to invest their money in this area. We think that maintaining the neighborhood environment is a joint responsibility of planning authorities, landlord, residents and local governments. Planning authorities should respect public opinions and ensure the quality of planning. Landlord companies should think more about their tenants and take more initiatives to improve the physical condition. Residents are supposed to take daily care of their neighborhood while local governments ought to strengthen their supervision and management. In this way, we can keep the neighborhood environment in good condition for long time.

Secondly, in order to make a reconstruction plan for residential areas we should take serious consideration of social situation. Physical
improvement cannot be accomplished without solving the social problems. Due to the social transition and immigration policy, there are some social problems in Swedish residential areas especially some large housing estates from the ‘million programme’. These problems such as crimes and conflicts appear in Herrgården, which largely limit residents’ daily use of their public spaces. They can be seen as the root of the degradation of Herrgården. In our planning proposal, we study the methods of improving safety condition in residential areas. However, we feel that social issues are more complex than physical problems. Beside the problem of insecurity, there are more social problems affecting the neighborhood environment and public activities. Local authorities should pay extra attention to the integration problems, crime issues and employment condition when they construct a residential area.

At last, we want to mention that it is better to pay more attention to old people when we design public spaces. Old people stay longer time in the community. They are not supposed to just sit in a bench and walk their dogs, but to have equal rights to do some moderate exercise. In the investigation of Herrgården, we find sports hall and football field are dominated by children and young people, but there is no exercise facilities for old people in the area. We think that if we add some exercise facilities for the old people, they will be invited to take more outdoor activities in the neighborhood. In China, planners provide exercise spaces and equipments to the old people in the neighborhood. Croquet field, ping-pong table and some other exercise equipments are very popular among the elderly. These exercise equipment is not only good for old people’s health but enhance the efficiency of public space and enliven the neighborhood atmosphere as well. We hope Swedish planners may learn something from this example.

These are just some thoughts and experience we get from our thesis project. From our perspective, with the social and economic development people’s requirements of living conditions are greatly raised. Since residential areas are basic units of local society, planning for residential areas is an important project which could influence regional development and local stability. Therefore, both the planners and developers need to know the importance of every decision they make and solve the social and physical problems in time. Finally, we hope our thesis project can bring some inspiration and enlightenment to the future reconstruction projects of Herrgården, and leave some useful experiences for further studies and researches.
Reference


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**Maps and Pictures**

All photographs are taken by the authors. Also the maps, figures and illustrations are made by the authors, unless otherwise stated in the text.


Picture3.3, 4.1-4.5, 4.8, 5.1, 5.3 Edit by the authors after original map from City Planning Office, Malmö.

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