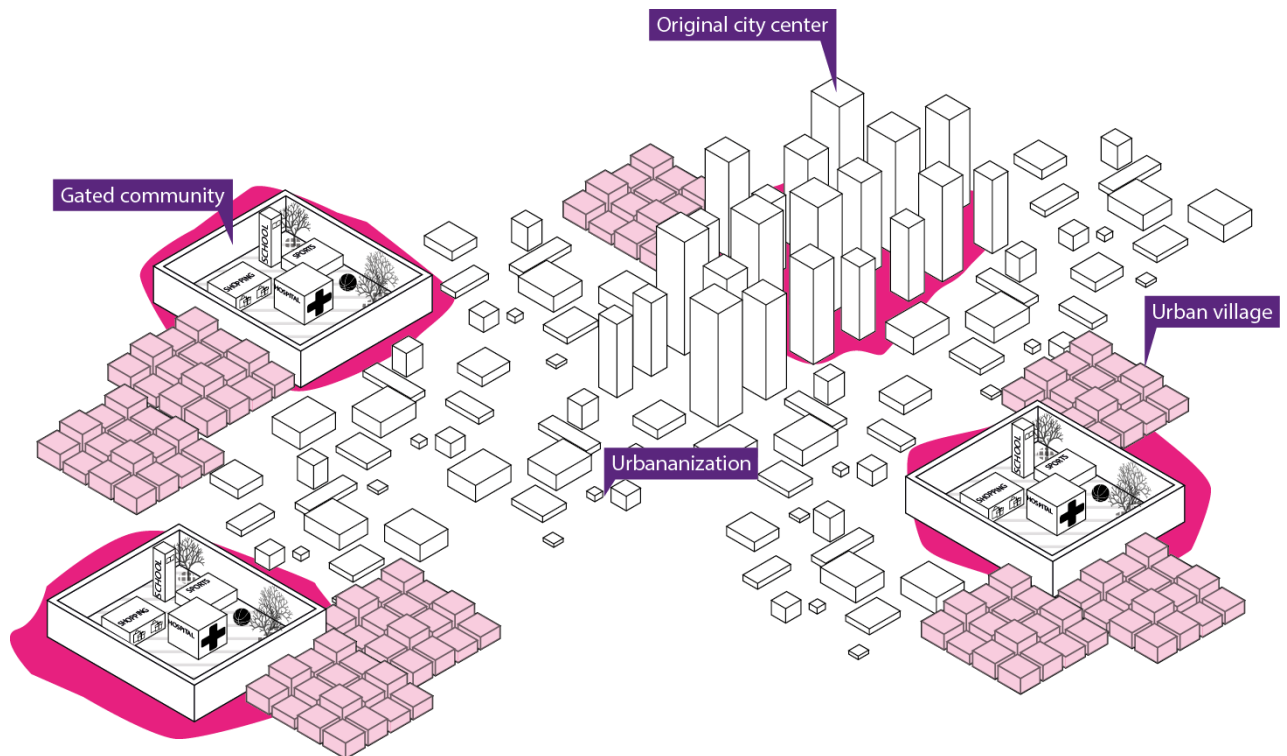


Walled cities

Overcoming social, functional and physical borders through urban configuration in Baishizhou.

THESIS PLAN



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COLOPHON

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1. Context

1.1 Motivation

During the twentieth century, cities put economic expansion high on their agenda (*Figure 1*) at the cost of social well-being and the environment. The social effects of this economic expansion include placelessness, exclusion, insecurity, criminality and loss of cultural identity. Furthermore, environmental effects such as bad air quality, pollution and low density urban sprawl arose. The economy changed from a national/ country economy to city economies; a great leap in scale causing local higher densities, traffic congestions and deterioration of infrastructure and the built environments (van Nes, 2007).

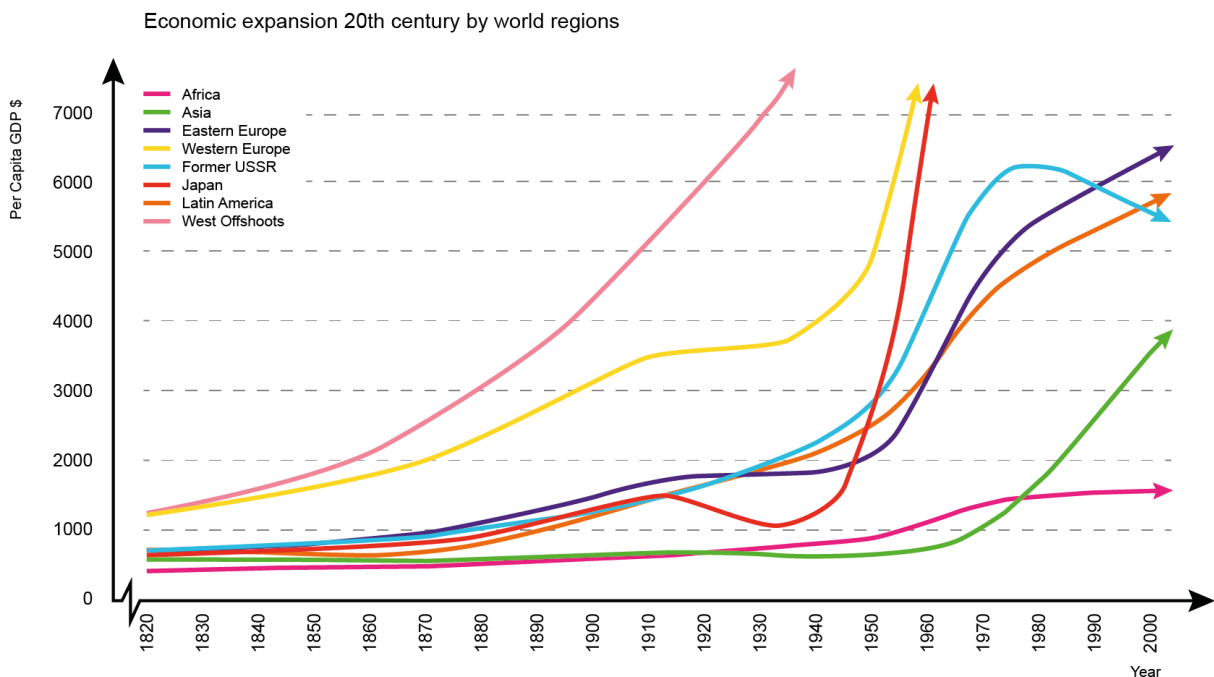


Figure 1. Economic expansion by world regions (Maddison, 2007) (Ill. By author).

In China, where economic reforms (Open Door Policy) were introduced in 1978, this change in economy had an enormous impact. Cities where SEZ's (Special Economic Zones) were introduced, such as Shanghai and Shenzhen, changed in scale due to allowance of foreign investment. The cities became wealthy and urbanized rapidly, changing their housing market drastically. The private owned land in these urban areas changed into state owned land, selling out the existing land owners. The housing became market oriented and large housing estates were implemented on a large scale by real estate companies and developers. This process changed the structure of cities and existing land from traditional small scale housing, such as *hutongs* to large private estates for the rich (Hao, 2012). This process dramatically affected the use of public space and street life in large Chinese cities (*Figure 2 and 3*). Streets became anonymous and public facilities were placed inside the walls of large housing complexes (Levitt, 2012). Due to the rise of anonymous streets and public spaces, insecurity and crime oriented urban structures arose.



Figure 3. Traditional street life of urban village in Shenzhen (photo by author).



Figure 2. Street life loss and anonymity by the rise of private estates in Shenzhen (photo by author).

My motivation for this project started when I researched the urbanization rates of Chinese cities and the increase of young and wealthy inhabitants of these cities. The lack of social housing is high on the agenda, because developers are not interested in these types of projects. During my site visit in Shenzhen I noticed that not only the housing was a main issue, but particularly the public space (as seen in the picture above). When the government decides to lease the land to a developer, this developer, and the government as well, does not care about existing environment, structures or inhabitants. Their main priority is getting as much profit as possible, so they put their focus on upper middle class and upper class. Therefore the focus lies on building large gated communities for the rich. However, one of the issues that arise is that streets are becoming empty. Moreover, inhabitants increase their car use to go from A to B (Levitt, 2012), changing the streetscape from a place of interaction to a place of desertion. The poor will eventually have to move out or create illegal settlements, which are already happening. But a city cannot function with only one particular social class. A city functions because of interaction between different social classes.

Due to this year's theme livability, we can wonder how cities can become livable when these processes are taken place. What will happen to the city when the traditional Chinese culture and values are wiped out and cities will only exist out of roads and walls? My interest is trying to find a solution for this ongoing problem and engaging the fact that security is one of the large issues in this process.

1.2 Gated communities

1.2.1 Worldwide trends

Private and fortified communities and enclaves are not new in the urban fabric. In history, walls were built to protect local citizens from invaders. In England for example, after Roman soldiers served, they would receive land and estates in tribal areas to stay and stabilize Roman in the countryside. They built walls to protect their families mainly from the local villagers who would turn against them. Moreover, in London for example, the city did not own a police corps until the eighteenth century, so citizens built walls to protect themselves from the 'evil' on the streets. Therefore, still many walled abbeys, manors and castles are seen in the English landscape (Blakely and Snyder, 1997).

However, in nineteenth century a renewed form of gating began to appear in Western countries. Wealthy citizens tried to protect themselves from the rapid industrialization in cities through private and urban governance. They closed of streets in old neighbourhoods to increase safety and to reduce traffic. This phenomenon challenged the spatial conditions of the city, transforming public space in private realms, but also pressured social and organisational aspects (Grant, 2008). In the mid and late twentieth century another form of enclave emerged in postmodern cities; retreats and exclusive residential areas. In the United States many of these gated communities have appeared since the ideology of suburbanisation.



Figure 4. Edifício Roof, Jardim das bandeiras residential buildings next to the Paraisópolis favela, Sao Paulo, Brazil (Evans, 2011).

South Africa, however, has a different history. Here gated communities have primarily emerged in the context of high crime rates. Many people see enclosed neighbourhoods and security villages as the only option for a safe living in cities (Landman, 2004).

1.2.2 Chinese city typologies

The Chinese gated communities have a long history. Gates were built as a form of status and protection. Every city had a wall to protect urban citizens from rural citizens. Within the city the emperor had his palace walled to separate himself from the working people (Jin, 1993). The traditional Chinese city is originated from five principal morphological characteristics (Figure 5).

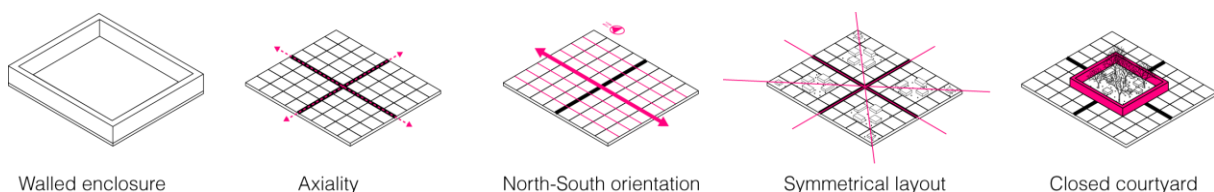


Figure 5. The traditional Chinese city is originated from five principal morphological characteristics (Ill. By author).

The walls were a way to divide the urban and rural residents. The inner wall was to demonstrate that the palace was more important than the urban residents. These standard cities were established for political and military needs, serving both as centers and symbols for authority. The plans were established by the state and applied throughout the country as an official design system and were seen as an *ideal city*.

Ideal traditional city Western Zhou Dynasty

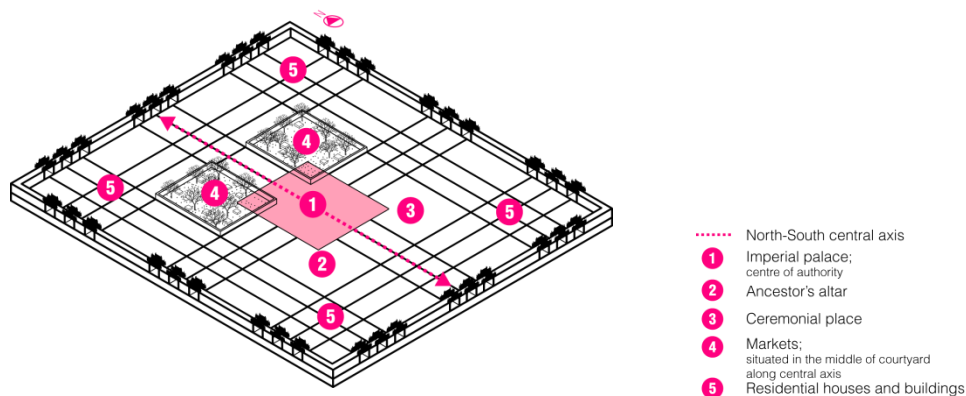


Figure 6. Traditional ideal Chinese city (Ill. By author).

Each city was rectangular with walls used as defence and barrier between urban and rural area. Additionally a grid of 9 by 9 streets was created; the odd number to create a central axis running from North to South. The average size of these cities was: 4500 x 4500 m.

During the 770 BC -906 AD China breaks up in smaller states (political reforms) due to political disorder. Princes and dukes undertake unauthorized expansion and redevelopment of their city to expand their power and territory. Multiple sub urban cities are combined and economic developments becomes plays an important role in urban growth. Cities are redeveloped and enclosed neighbourhoods arise to minimize social interaction, but increase local social control.

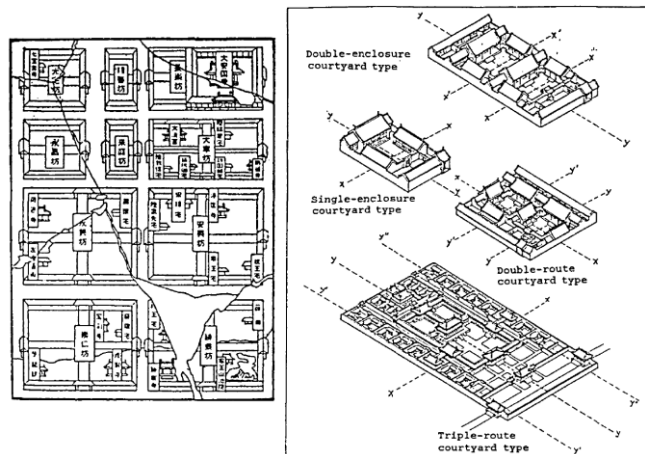


Figure 7. Enclosed neighborhoods to minimize social interaction (Jin, 1993)

In the Song dynasty (618 – 1840) another spatial transition is taking place. Commercial districts and residential areas are combined into one neighbourhood. Wall within the cities are being demolished. The city is no longer divided into enclosed neighbourhoods, and neighbourhoods become more heterogeneous.

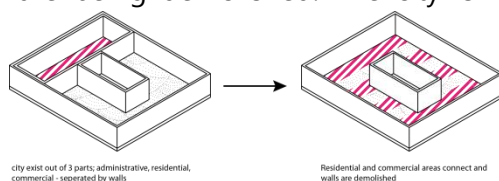


Figure 8. Opening up the inner city (Ill. By author).

Cities start to expand due to rapid commercial growth. The first flow of immigration takes place and cities grow outside the gates along water ways and a new spatial network is created between cities.

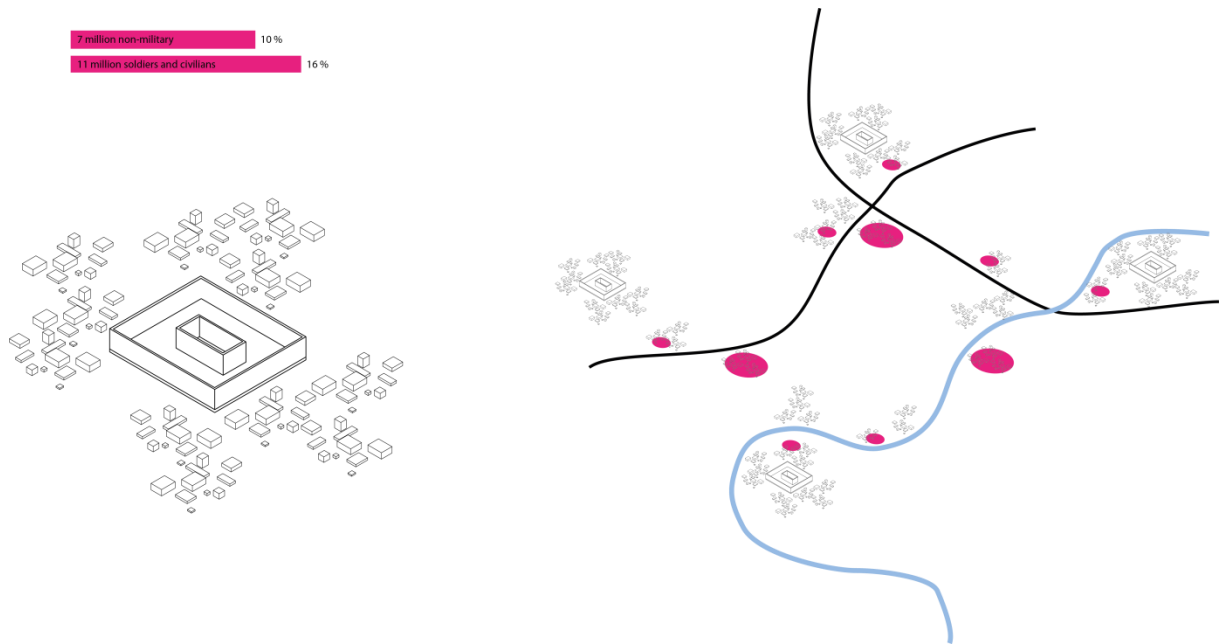


Figure 9. Cities expand rapidly outside of the gates and grow along new networks; main trade routes and waterways (Ill. By author).

During the colonial era (1840 –1949) industrialization is taking place on a large scale. Cities decentralize the service and commercial developments and secondary city centres arise. The first CBD's arise and the rail network is extended. The introduction of treaty ports takes place due to rapid growth. A large spatial trend is the separation of production, circulation and residential activities. The first commercial buildings are introduced, in high contrast with the traditional Chinese streets with shop houses. Western colonists receive their own enclosed neighbourhoods in cities.

During the socialist era of China (People's Republic of China 1949) the city is regarded as an evil place due to high industrialization and bad quality of living. The new ideology is implemented to slow down urbanization in China; the concentration of economic, administrative, cultural activities is seen as a major division between rural and urban life. The cities must become class-less cities, and there must be a large difference between cities and rural areas. To keep people from moving the cities, the *Hukou* is introduced. This means that people can only use facilities, such as healthcare and education, in their hometown. However, there is still a massive rural-urban migration, which creates unplanned and disorderly spatial expansion. Heavy Industry is the priority and is developed in the periphery, resulting in suburban industrial belts around cities (*The Great Leap Forward*).

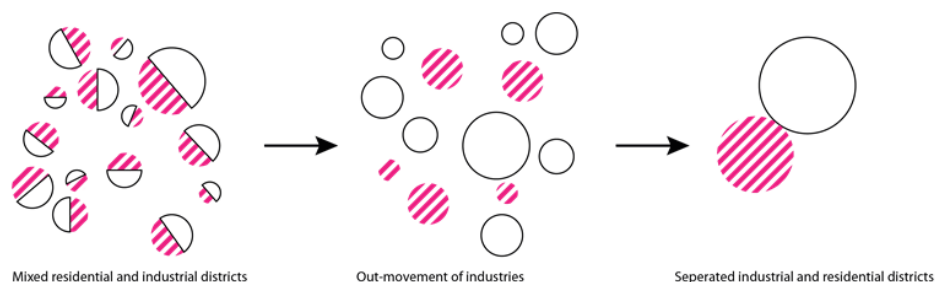


Figure 10. Industries are developed outside the residential districts (Ill. By author).

Due to the ideological struggles and political isolation in the past decades in China, modern urban planning was hard. Refused to learn from western concepts of urban planning, they were forced to go back to traditional urban

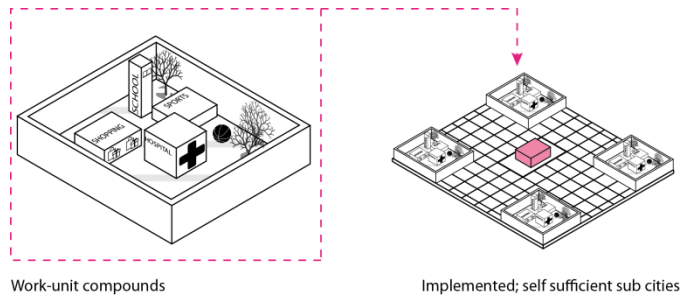


Figure 11. Work units (Ill. By author).

forms of new socialist cities. They introduced the *Danwei*, a closed yard style construction units, also known as work-unit compounds. Buildings were standardized within a unit that was surrounded by an enclosed wall, with a complete set of living facilities, mostly provided by the industrial companies. These units became self-sufficient sub centers.

1.3 China Economic Reforms 1978 -

In 1978 the open door policy was introduced in China, allowing foreign companies to invest in China. Along the East coast multiple cities receive a Special Economic Zone to boost economic growth. An immense urbanization took place and is still taking place (*Figure 12*), taking western ideals of urban planning into account. High rise buildings, luxurious hotels and large shopping centres are taking over the traditional chines shopping streets. Large private residential communities for the rich are being built to make as much profit as possible, dividing the different social classes. There is hardly any investment in social housing; therefore a large amount of urban villages arises in the large cities.

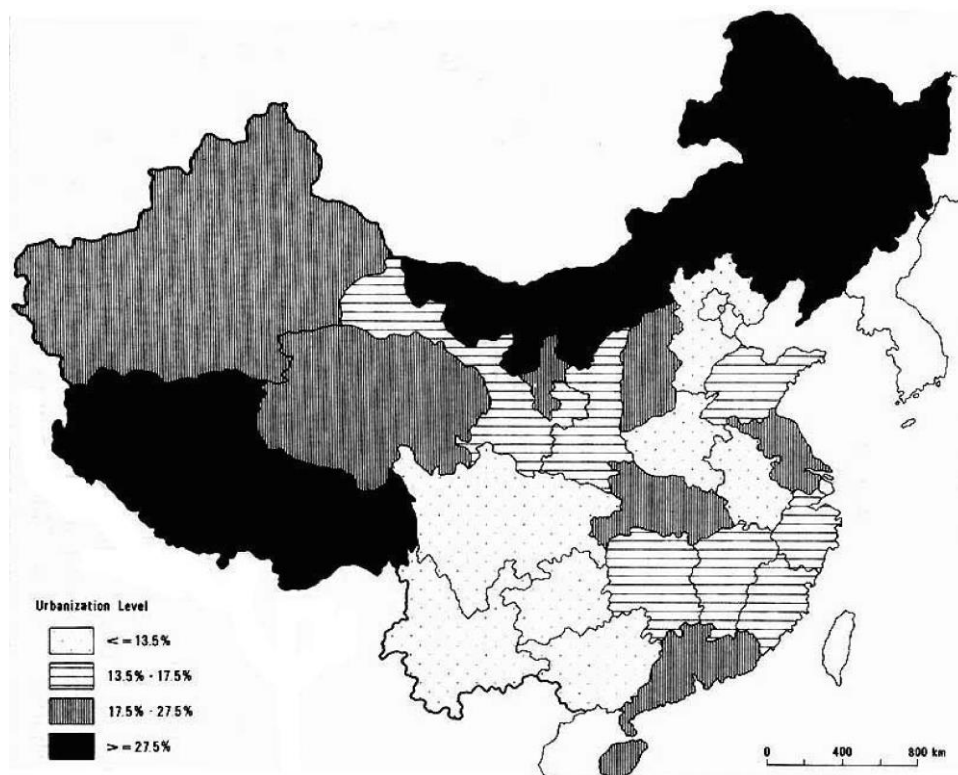


Figure 12. Urbanization rates in China

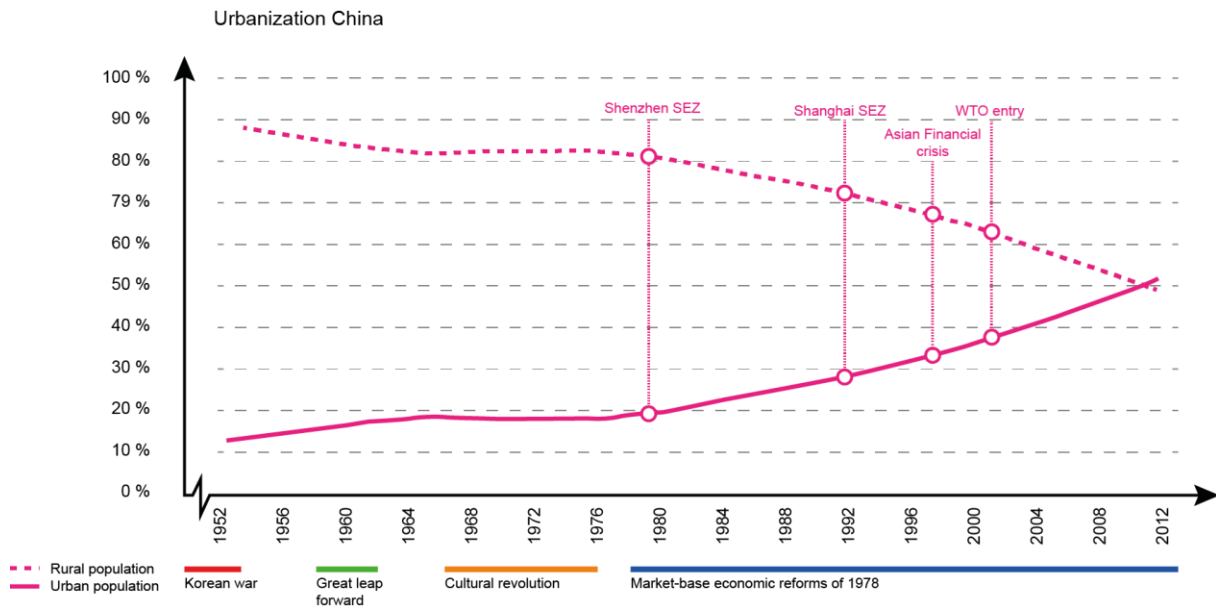


Figure 13. High urbanization rates since the introduction of the economic reforms.

Due to the large foreign investment, national GDP increased rapidly. Creating a fringe between the rural and urban areas. The cities are becoming wealthier, while the rural areas are becoming poor.

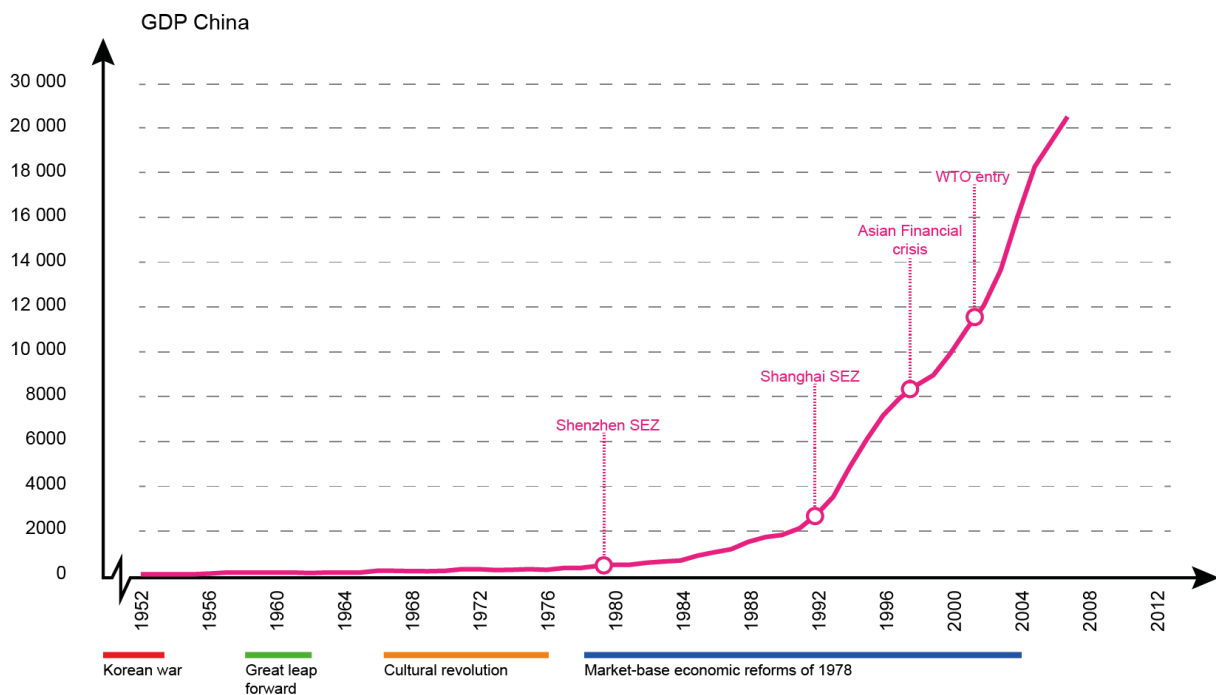


Figure 14. GDP is increasing rapidly since introduction of foreign investment.

1.4 Shenzhen

Shenzhen is one of the cities that received a Special Economic Zone, to compete and interact with Hong Kong's booming economy.



Figure 15. Location of Shenzhen in relation to China and the world (Ill. By author).

Shenzhen is a New Town, which has been booming since 1980 with an average growth of 400.000 inhabitants per year. Due to the rapid urbanization, the configuration of the city is changing in the same rate. A continues flow of new skyscrapers, large highways and high quality housing takes over the existing villages that are in their way. As a result of the housing reform, the real estate developers have taken over the construction of residential areas. Therefore these areas become totally market-oriented and are primarily focused on middle and upper class citizens, these constructions tends to evolve in gated communities (Yao and Wei, 2012).

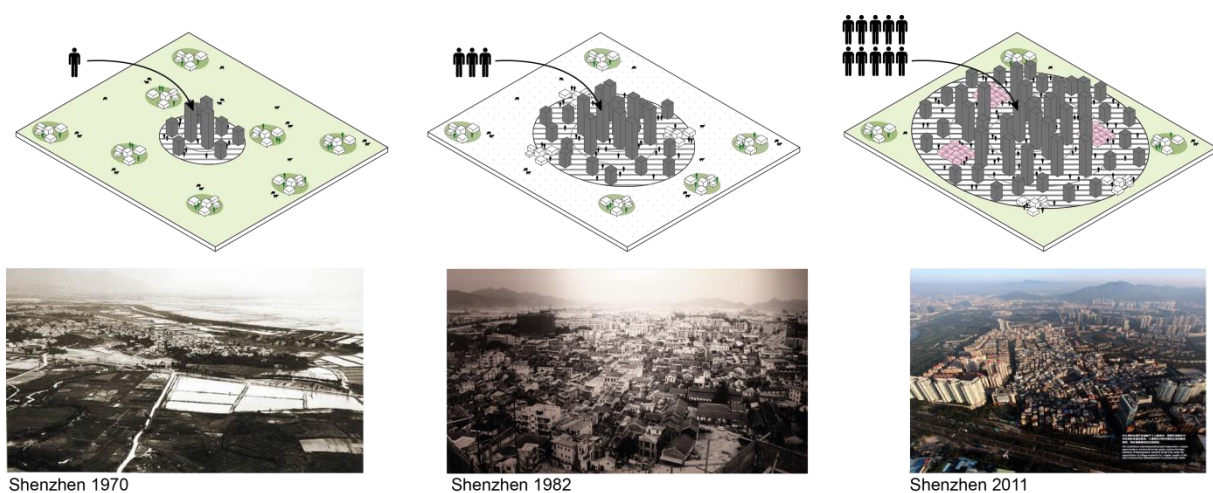


Figure 16. The increase in (illegal) urban villages in Shenzhen due to rapid urbanization, changing the traditional structure of historic layers.

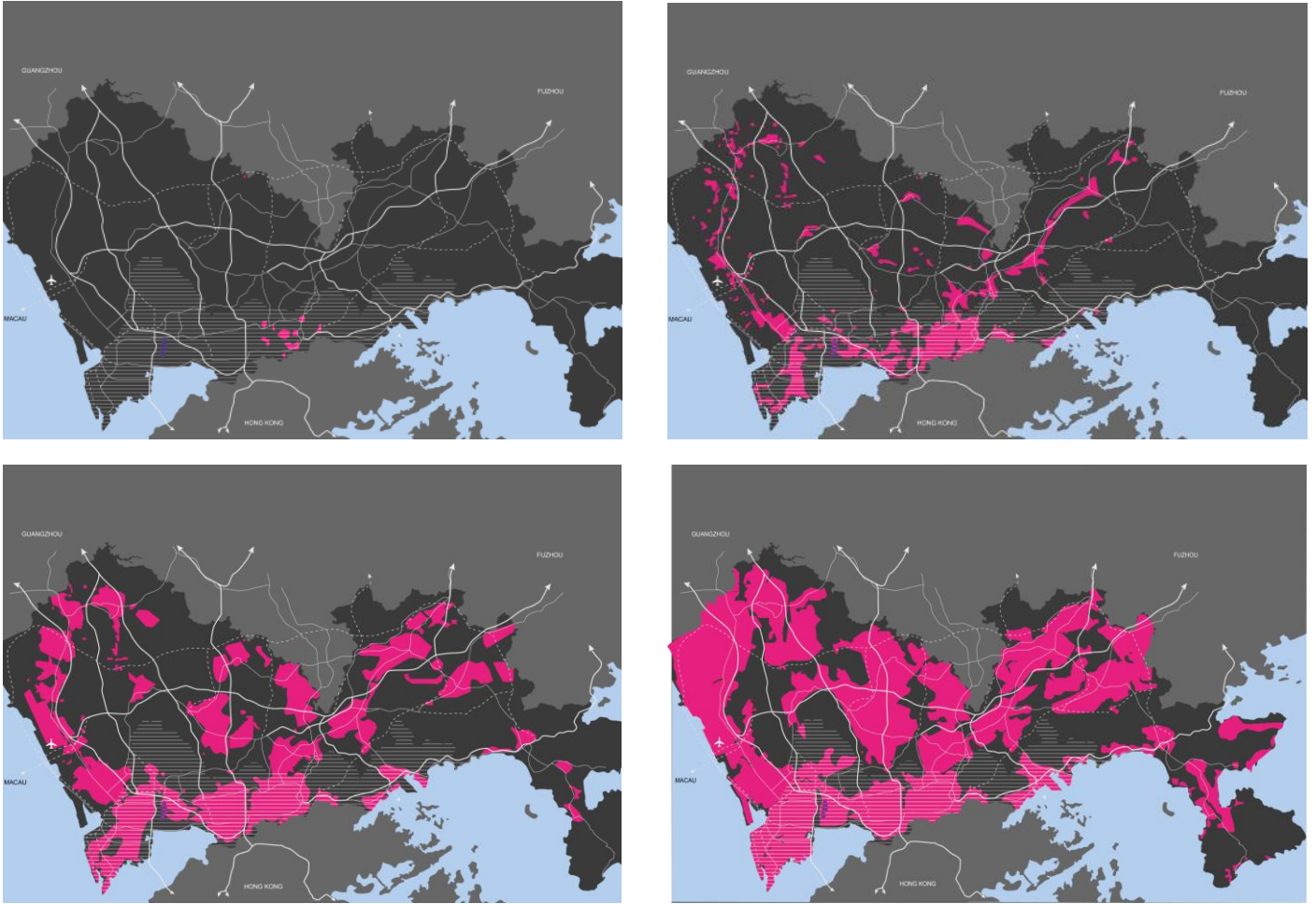


Figure 17. Urbanization from 1982 to 2020 in Shenzhen (III. By author)

Due to the shift in economy, original industrial areas are moving away to India or hinterlands of Shenzhen and Shenzhen is focussing on a service industry.

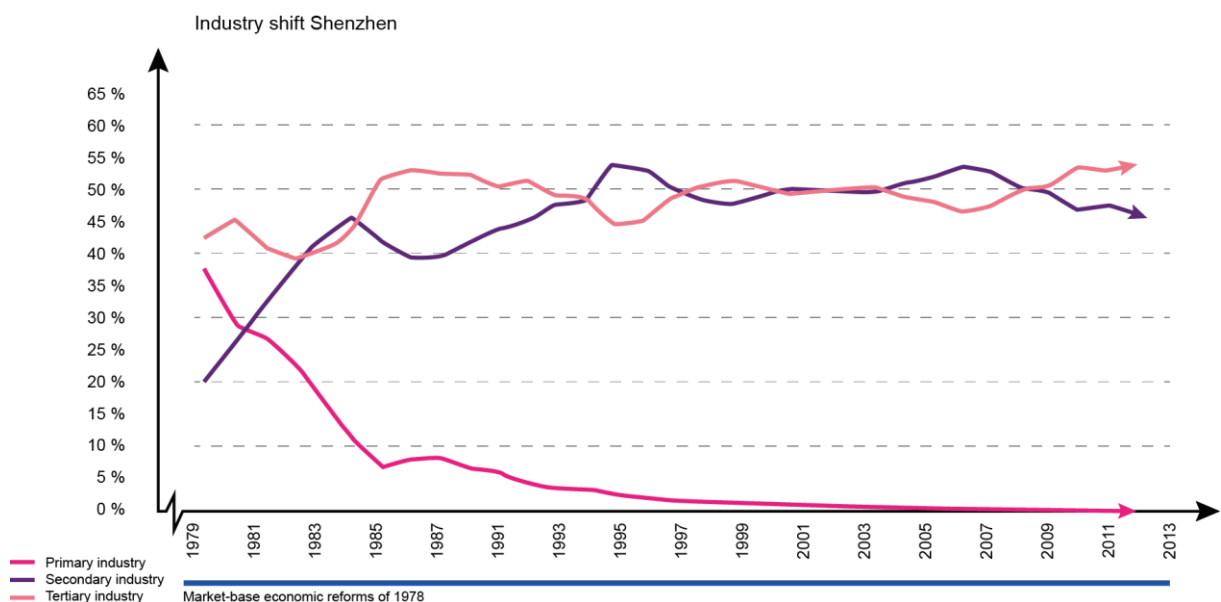


Figure 18. Shift from industry to service economy.

1.5 Location Baishizhou

Baishizhou, which means White Stone, is currently one of the few urban villages left in the SEZ of Shenzhen. Not much information about the history of Baishizhou exists, however it did use to be a small fisherman's and farmers village. The arable land was in hands of the Sha He (agriculture) and Overseas Chinese Town (Industry), until they split in 1987. The first farmers arrived here during the 1950's and built small farmer dormitories, which are still present today (*Figure 20*).



Figure 19. Aerial view of Baishizhou in 2011 (Hong Kong university, 2011)



Figure 20. Original farmer dormitories surrounded by urban village (Photo by author).

The area consisted out of multiple small villages, Shangbaishi (meaning Upper White Stone), owned by Sha He with 289 inhabitants; Xiabaishi (Lower White Stone) with 440 inhabitants; Baishizhou with 365 inhabitants, Baishi Cun with 360 inhabitants and Xin Tang with a total amount of 256 people.

During the reforms, the government bought the land for a small amount of money from the farmers and around 1995 – 2000 the area started to urbanize rapidly. One of the most expensive Gated communities (Portofino) was

build next to a large factory area. Developers started to create high rise and upper class residential areas, surrounded by gates and therefor illegal immigrants moved to this area to live in the upcoming urban village. The urban village owes its shape to the strong borders with the industrial and gated communities and is unable to expand further. Therefore original inhabitants with compensation from the government densify the urban village and built up to 12 stories.

Currently Baishizhou counts around 120.000 inhabitants, where only 7000 are legal registered inhabitants. The other 113.000 inhabitants are migrants whereas 38.000 is floating population. In Baishizhou only 82.000 inhabitants live here permanently (legal or illegal) (Hong Kong University, 2011). It is situated next to popular tourist destination, such as Window of the World, and has a very good connectivity with Futian CBD.



Figure 21. Baishizhou, in orange the gated communities, in purple the industrial area and in blue the north part of the urban village. Connected by a large metro station and surrounded by large high ways it makes a strategic location in Shenzhen (Ill. By author).

2. Problem statement

The main problem that arises nowadays is the fact that the gated communities built today, are based on the South African model, where gating is a result of fear of crime, violence and insecurity (Moser, 2004). New gated communities in Shenzhen for example, adopted the "culture of fear" and build compounds within the urban fabric (architecture of fear) (Grant and Mittelsteadt, 2004). These compounds become almost cities themselves, having all the facilities, such as schools, pharmacies, sport facilities, restaurants etcetera, placed within the residential walls. Gated communities influence the great fragmentation of public space, which increases the social segregation. Gated communities are built for the middle and upper classes of the society due to high land prices. The segregation of social communities increases the fear of crime and safety, so that even parks, schools and other public facilities will be closed off. However, by creating walls the total opposite effect takes place. Streets become anonymous and the lack of interaction creates streets with no social security.

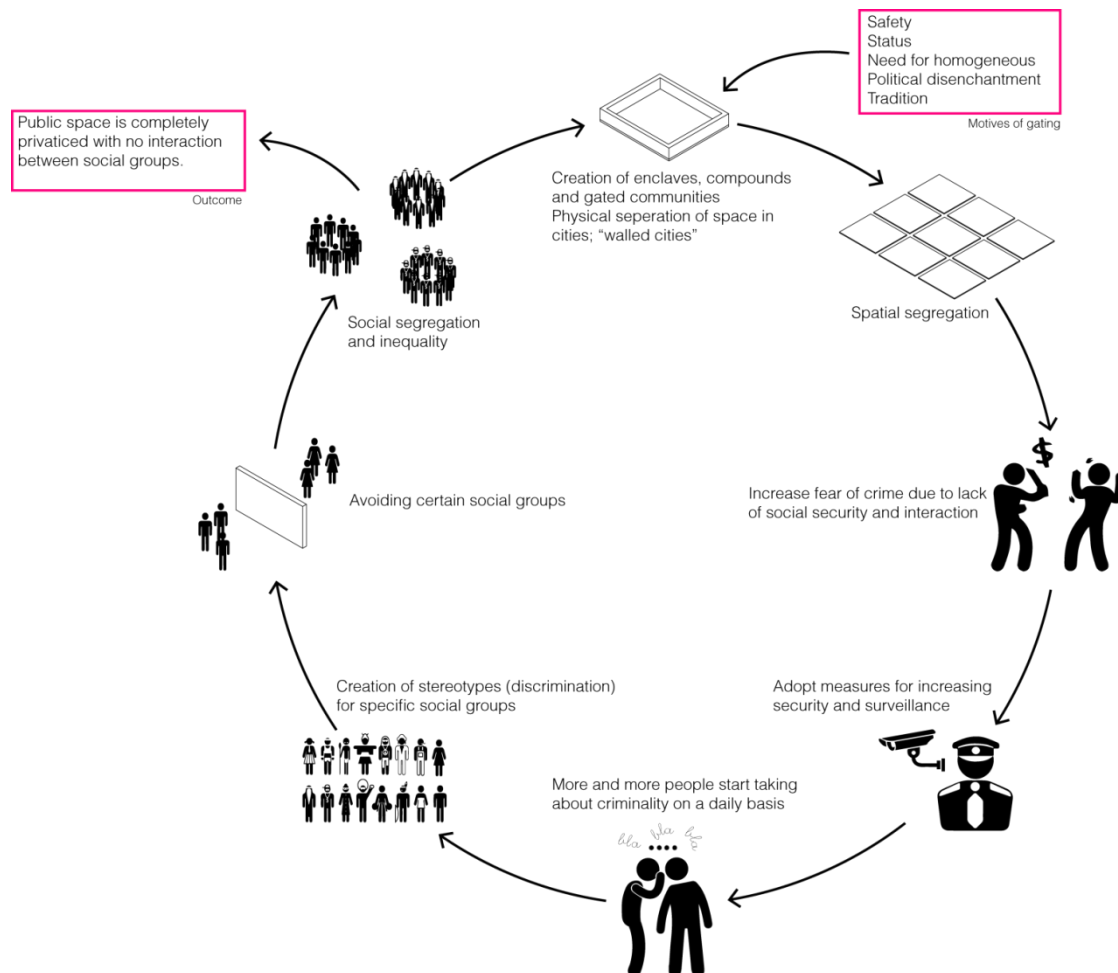


Figure 22. Architecture of fear as a vicious circle; how gating can lead to spatial fragmentation, security problems and social segregation (Ill. By author).

In Baishizhou, this process is already taking place. The urban village is surrounded by gated communities, populated by upper class inhabitants who use private facilities. The interaction between social classes is minimum and this lack of interaction results in anonymous, homogenous neighbourhoods and zones with a different degree of publicity within the urban fabric. The complexity of the problem is large. Not only is it necessary to decrease this

process of privatization, but it is crucial to take into account the different social groups, especially the floating population. The floating population will have no rights when Baishizhou is demolished. They will either have to move back to their hometown or will move to illegal settlements outside of Baishizhou. However, it is hardly impossible to demolish the actual walls of gated communities. Therefore we have to take into account that there are multiple different borders; *social*, *functional* and *physical* borders are among those. The physical borders are the actual rigid walls along the gated communities (Figure 23).

The social borders are the division of the social classes within a neighbourhood. In the case of Shenzhen the social borders are quite strong, since there is a lack of middle class citizens. Housing is provided only for the upper class and the urban villages generally exist out of lower class inhabitants (Figure 24 and 26).



Figure 23. The physical border of the wealthy Portofino gated community and the urban village of Baishizhou (Photo by author).



Figure 24. Informal housing for lower income inhabitants (Photo by author).



Figure 25. Wealthy high rise gated communities for upper class citizens (Photo by author).



Figure 26. Informal and sometime illegal shops and markets in the urban village (Photo by author).



Figure 27. Formal shops and functions along the main route in Baishizhou (Photo by author).

The functional borders are the use of formal (registered) versus informal commercial functions. Along the main routes in the neighbourhood formal shops, supermarkets, hospitals and schools are situated, whereas within the urban villages, mostly informal (and illegal) shops and markets are settled (*Figures 24, 26 and 28*).



Figure 28. Formal and registered shops and facilities are situated along the main routes, while informal markets and private owned shops are mainly settled in the urban village itself (map Google Earth) (III. By author).

It is fair to say that the physical borders are hard to overcome, especially in short term. When we take the walls away, what will happen to the existing structure and inhabitants? The different classes will not magically connect and interact. But what are the possibilities to overcome the social and functional borders? Can a new (hierarchical) strategy be the key to increase integration and reduce anonymous streets and insecurity?

3. Aim of the project

Gating specific areas within high urbanized areas is a phenomenon which occurs more and more in rapidly grown cities around the globe. The traditional interaction between buildings and streets and sidewalks change due to privatizing specific parts within the urban fabric. Gated communities arise, but are primarily built for the middle and upper class and are usually speculated by real estate agencies and developers. Where gated communities used to be purely built for residential purposes in the United States (Blakely and Snyder, 1997), a trend of work-live units emerged in China (Huang, 2005). These compounds are fully equipped with all the facilities needed by local residents; shops, restaurants, schools, sport and health facilities (*Figure 29*). Due to these enclosed facilities, gated communities start to function as a new sub centre within the city; creating not only a fringe in the spatial network, wiping out original structures, but also the social structure and loss of street life within the

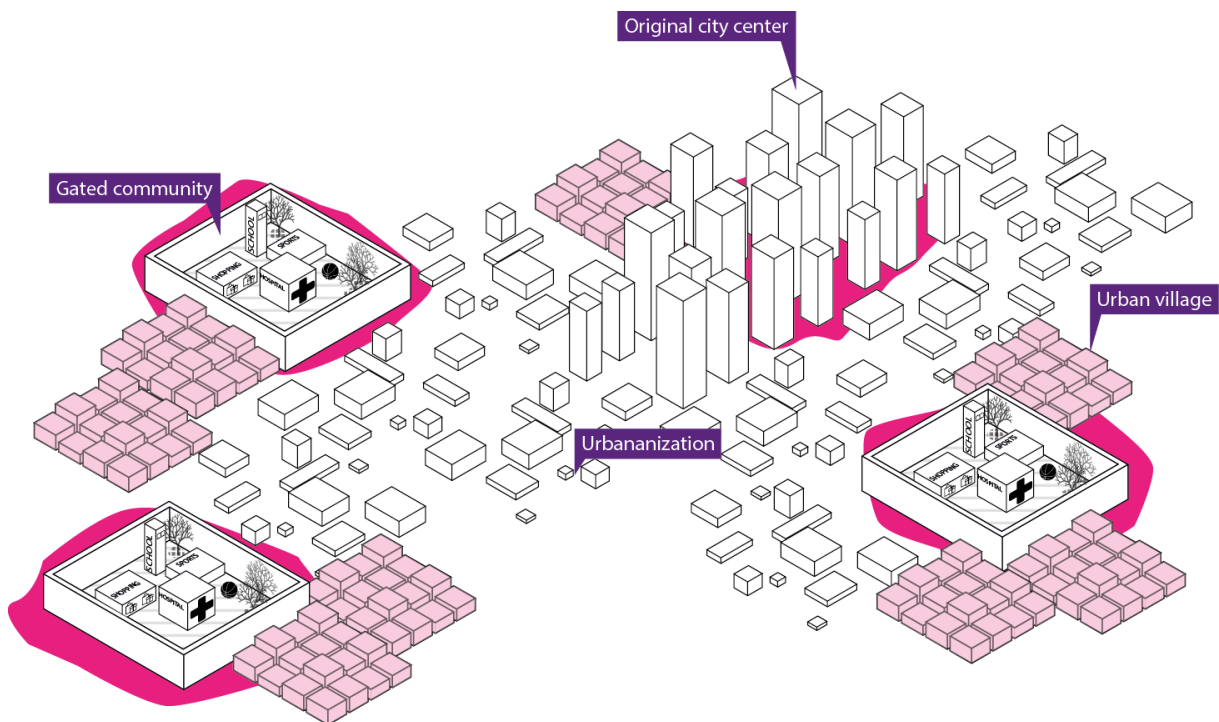


Figure 29. Gated communities as new sub centers within the city fabric, demolishing existing structures and traditional street life caused by rapid urbanization (Ill. by author).

The research of this project focuses on the spatial configuration and the rise of gated communities and the loss of street life in Baishizhou; one of the few urban villages left in the Special Economic Zone in Shenzhen. By understanding the global phenomenon and the influence of privatization of urban structures is key to understand the social consequences. The goal of the research is to understand the life patterns of current inhabitants of Baishizhou by tracking their daily patterns.

Baishizhou is currently in the hands of a wealthy developer, who can lease this land for 70 years from the government. This developer would like to make as much profit as possible, *also because the Planning Bureau of Shenzhen is paid from these profits*, so possibly large gated communities for wealthy citizens will arise. Since only 7000 inhabitants in the urban village are registered, only these 7000 people will eventually get some kind of compensation

from the developer. Where compensation used to be money, nowadays the citizens prefer real estate. This would mean that the FAR would increase; from a current FAR of 5 to 6 to a FAR of 9 to 10. However, the other 117.000 migrants do not own anything and have no rights in Shenzhen. Especially these non-registered people are the important group because they are the motor or generator of the city. They clean the apartments, do the gardening or take care of the children of the rich. They are at least 50% of the city's population.

In my research and design I would like to try to convince governmental institutions that the current building pattern is not the right way to expand and densify cities. The urban villages can become the identity of the city of Shenzhen by upgrading the urban fabric. By introducing housing options for the middle class, the social fragmentation can most likely be overcome. By generation a framework of anchor points in the urban village, a network of interaction and public spaces can be established. This can be done by mixing social classes, formal and informal commercial spaces through public space, decreasing the anonymous streets and insecure walkways.

4. Research questions

The main research question that should be answered is;

How can we change the urban configuration to enhance the interaction between different social classes and overcome the social, physical and functional borders in Baishizhou and decrease anonymity and criminality?

The project is divided into two spatial parts; a global research done through case studies and a specific location in Shenzhen.

On a global scale the following sub questions will be answered;

- What are the global (urban) trends - spatial, social, economic and political- regarding gated communities?
- What are the motives of gated communities in these models?
- Which urban models affected China's urbanization and gated communities?

Regarding the Shenzhen;

- Has the traditional Chinese city model influenced the current structure of the city and its gated communities?
- How did the urbanization influence the spatial structures in Shenzhen?
- How did gated communities influence the social structures in Shenzhen?
- How can we integrate gated communities in the urban fabric?

Sub questions about Baishizhou;

- What is the identity of Baishizhou?
- What is the hierarchical structure within the neighbourhoods?
- What is the interaction between the urban village and gated communities?
- How do the different social classes interact with each other?
- How can we overcome the anonymity of the neighbourhood?

5. Relevance

Shenzhen is a New Town, which has been booming since 1980 with an average growth of 400.000 inhabitants per year. Due to the rapid urbanization, the configuration of the city is changing in the same rate. A continuous flow of new skyscrapers, large highways and high quality housing takes over the existing villages and its street life that are in their way. As a result of the housing reform, the real estate developers have taken over the construction of residential areas. Therefore these areas become totally market-oriented and are primarily focused on middle and upper class citizens, these constructions tend to evolve in gated communities (Yao and Wei, 2012).

5.1 Social relevance

Public space is a place where people interact and share information; a place where cars, cyclists and pedestrians meet; a place where buildings and streets come together; where residential buildings interact with shops, markets and street life. Public space can be defined in streets, parks, playgrounds, markets, etcetera. Spatial configuration tends to create an environment where people are in control of the public space. Citizens know what is happening in front of their doorstep, they know their neighbours and keep an eye on the street; social security. For this reason public space plays a vital role in the social and economic life of the city and its communities. However, when buildings become higher than four floors the interaction with the street is lost, which impacts the vitality of the street life (Alexander et al., 1977). High buildings become an obstacle in the public space due to its anonymity towards what is happening on ground level. When walls are built around several of these buildings or even houses, the same problem arises. Who keeps an eye on the street? Who knows who is living in the block across from you? Social security decreases dramatically, because the life is taken from the streets into the blocks or compounds (Yao and Wei, 2012). This phenomenon decreases the safety in the streets, parks and squares of a city and increases crime rates. Because who will see or notice you from their enclosed homes when someone robs you?



Figure 30. Streets become anonymous due to privatization of housing and facilities (Photo by author).



Figure 31. Streets in urban village of Baishizhou are crowded due to public facilities, non-privatized housing and pedestrian zones (photo by author).

Spatial configuration therefore plays a key role in the social structures and security of the city and its street life. The livability of a city cannot be done only through building infrastructure, shops, public transport etcetera. It is built through social interaction and communities.

5.1 Scientific relevance

There has been a considerable amount of research about the spatial, social, political and economic aspects of gated communities around the globe and its impacts on the city and its street life. The many journals, books and articles that have been written about New Towns are rapidly increasing since the massive urbanisation. Much of these research papers talk about this trend that started in the mid to late twentieth century and discuss safety issues (culture of fear and architecture of fear), the change in spatial configuration and social structures. However, most of these articles only talk about the problems that arise in these fast growing cities in primarily South America, Africa and the United States. For example, the amount of

gated communities in Sao Paulo has increased dramatically in the last couple of decades due to the rapid urbanization and high crime rates and the city is therefore called the "City of Walls" (Caldeira, 2000). Many of these problems are clearly visible, but have not yet a solution.

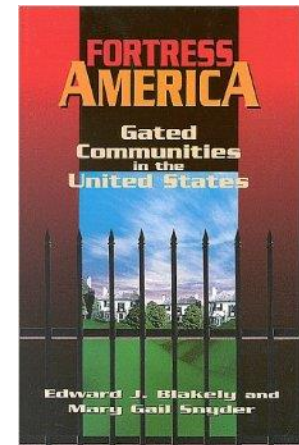


Figure 32. A well-known book and much referred book about the history of gated communities in the United States ((Blakely and Snyder, 1997)

Moreover, not much research has been done in China, especially in Shenzhen. Shenzhen only has 3% land left to build. The rest of the city will be densified and urban villages will be sacrificed to become high dense urbanized areas for middle and upper class citizens. These particular places are attractive for gated communities and enclosed enclaves. Currently the International New Town Institute (INTI) has a research program on new *New Towns* around the globe. INTI is dedicated to improve the quality of global urban development, with a focus on New Towns (INTI, 2012). Shenzhen is part of the first research towns. INTI has some partners, including TU Delft. Previous year, a group of 8 students from TU Delft have already done a graduation project on Shenzhen and this year, we will take a next step and introduce the livability issue. Since Shenzhen is only 30 years old, not much research or solutions have been done. Moreover, the problem is becoming larger by the day in the cities that are growing rapidly. The following news articles state some of the problems of social segregation, security problems and loss of street life. However, the developments still continue in the same way.

The Washington Post

[In the News](#)
[Lou Reed](#)
[World Series](#)
[Chris Brown](#)
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In China, the Rich Seek To Become the 'Big Rich'; New Wealth Creates Class Divisions

[FINAL Edition]
 The Washington Post - Washington, D.C.

Author:	Pomfret, John
Date:	Mar 17, 2002
Start Page:	A.01
Section:	A SECTION
Text Word Count:	1612

Figure 33. The cities in China where Special Economic Zones are introduced have become very wealthy and housing market is primarily built for the rich, creating severe social segregation (Pomfret, 2002).



Figure 34. Crime rates are increasing due to lack of social interaction, creating anonymity in large Beijing (Anna, 2010).



Figure 35. The traditional Chinese street life is lost due to the increasing wages and wealth in large urbanized areas. The car is becoming one of the main uses of transportation and western shopping malls are becoming more popular than local shops. The same issue is raised as before, where anonymity is increasing due to lack of interaction and car use (Levitt, 2012).

6. Methodology

This graduation project will use different means of methods throughout its process. There will be multiple faces with a different methodology; first, on a global scale, the history of china's development of its city will be researched. Secondly, the city of Shenzhen with its history and transformations will be identified. Thirdly, case studies on gated communities and global trends will be investigated, which will help identify the global problems and help form the problem statement and research questions. Through research on Shenzhen, the location of Baishizhou is chosen, and potential solutions will be implemented through multiple theories, such as Space Syntax and the *Dual City Theory*.

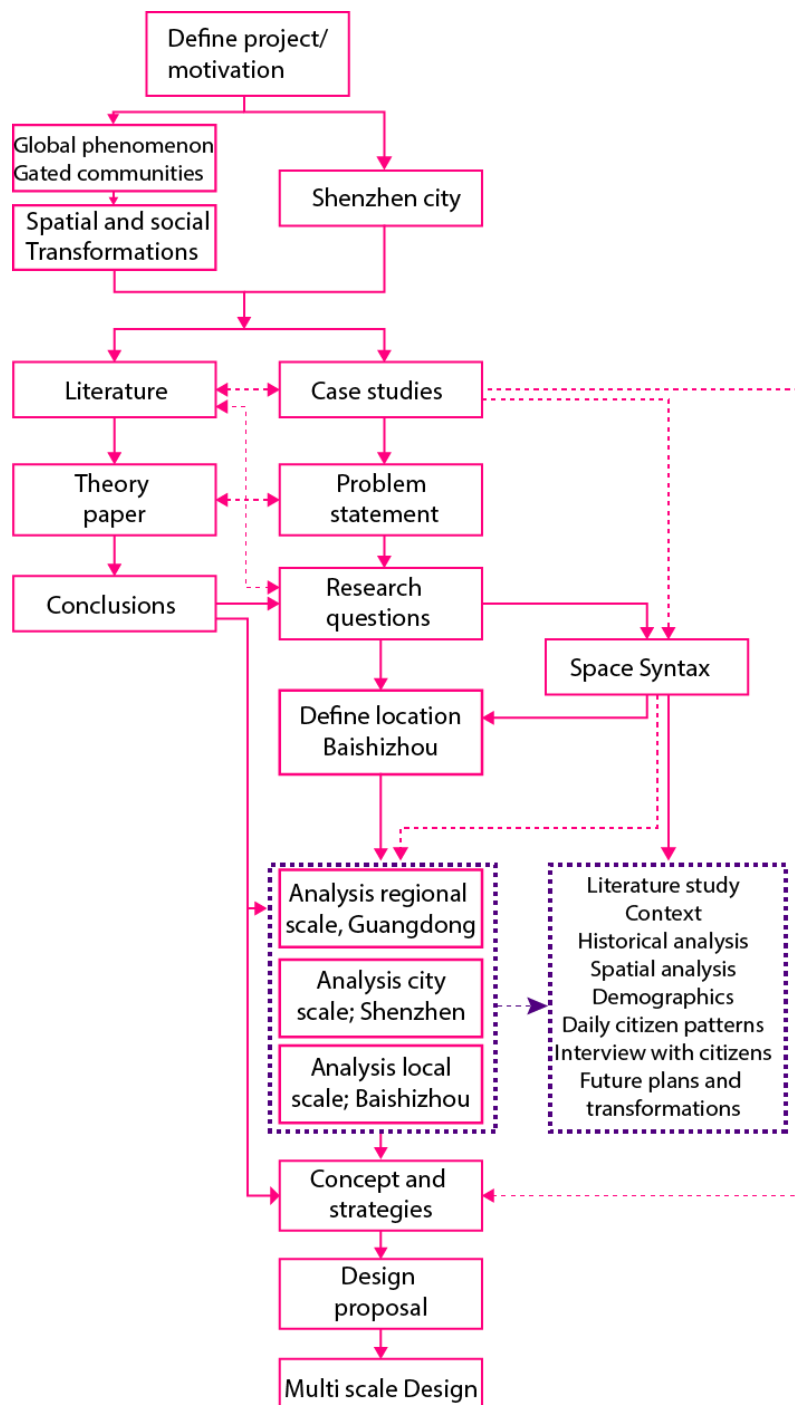


Figure 36. Theoretical framework as guidance for my project (III. By author).

6.1 Literature

The literature study will focus on the historical aspects of gated communities around the globe, but especially in China and Shenzhen. The urban developments, such as the New Town movements, urbanization and crime will be explored and can be an implementation in the *Dual City Theory*. The *Dual City Theory* is a method that is based on the history and understanding the developments of a city or an area. Therefore spatial, historical analysis of the urban configuration will be done. Moreover, the *Dual City Theory* discusses the research is done via an analysis of its urban development and through discussion with local residents. The end products are made via visualisations. Moreover, the theoretical paper below will explore multiple old and new literatures and will be delivered at the P2 presentation. This paper addresses the key motives of gated communities and movements and will be used for the problem statement and research questions.



Figure 37. Preliminary draft of theory paper

The Dual City Theory

The radical transformation that the labour market has undergone has resulted in the disappearance of job stability and the increase of subcontracting, informal work, part-time work and poverty. The labour degradation resulted in several “nouveaux riches” that were able to take advantage of the urbanization through globalization. The *Dual City* has led to a crisis of traditional social division and is characterized by an immense middle class. The theory discusses that the nouveau rich are becoming more and wealthier, while the low social classes are experiencing the complete opposite and becoming the new poor. The segregation of these classes is increasing rapidly as a result of (new) diverse economic activities. The new poor, especially in Shenzhen, is a result of the deindustrialization (manufacturing) and citizens are forced to move back to the rural areas or are forced to live in “urban ghettos” where several difficulties, such as access to education and new technologies are taking place. The *Dual City Theory* states that the social segregation is reflecting in urban space due to spatial fragmentation (Sassen, 2000).

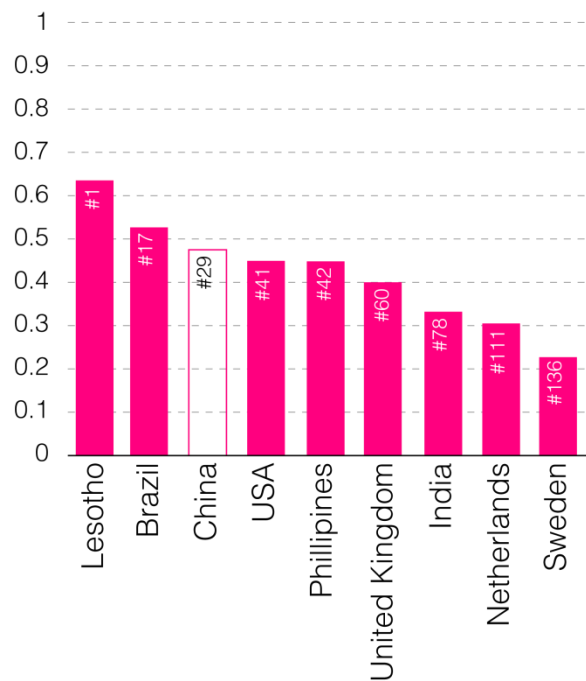


Figure 38. Gini-Index, measure inequality in a country with 1 as highly unequal and 0 as equal (The World Bank, 2013)

6.2 Case studies

The case studies will focus on the different models of urbanisation and gated communities in specific continents around the world. The several case studies are found in the diagram below. These case studies will be based on current locations and will focus on the historical development of these locations, based on economical, spatial, social and political aspects. The historic development of the gated community model will be developed and linked to the other case studies to see if the motives of gating are related to the case of Baishizhou. Afterwards, a gated community in the city will be analysed based on size, proximity towards the city, networks, functions and facilities and inhabitants. The gated community will be picked by the following aspects;

- Close to a large global city
- Situated in a suburb or former suburb
- Disconnected from surrounding urban fabric

The relevant aspects of the use of case studies is to find out what spatial elements work and do not work in a city structure. The several locations are based on the GINI Index, made by The World Bank. The GINI-index is an index that shows the equality of inequality of a country,

with number 1 as highly unequal, and number 0 as equal. This can also be translated into number 1 as large gap and 0 as small gap between rich and poor (*Figure 39*).

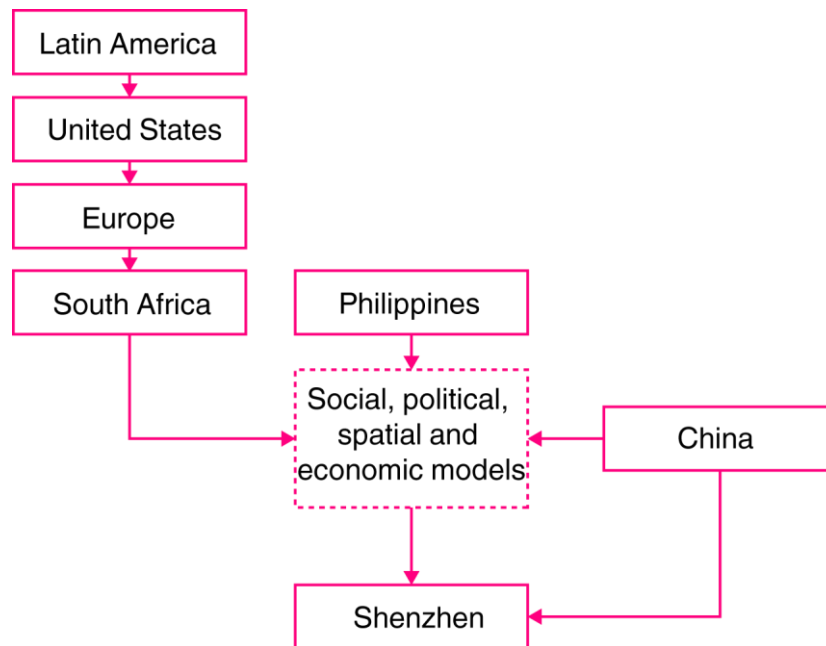


Figure 39. Several case studies that will discuss the global phenomenon and reason for gating (Ill. By Author).

Case study Latin-America_Sao Paulo, Brazil

One of the first case studies is a gated compound 15 minutes from the center of Sao Paulo. This case study is part of the understanding of the global phenomenon of gated communities and the forces that drive this phenomenon.

1. Economic recession 1980's/ 1990's

Low income citizens settle in the periphery of Sao Paulo since the 1940's, where the land was cheap and the connection to Sao Paulo was bad. They build up neighbourhoods themselves and this was how the city grew until the 1980's.

Because of the economic crisis, the next generation could not become landowners and were forced to move to favelas in the city or other municipalities.

2. Democratic government

The outcome of the democratic regime (1985) resulted in lots of social movements of home and landowners who pressured local government to legalize (illegal bought land) of landowners and invest in infrastructure and better housing. Therefore the government started to invest in the periphery; regulation of illegal land. However, land became more expensive due to better infrastructure and housing. Therefore these areas became reachless for the poor citizens, and were, again, forced to move to favelas.

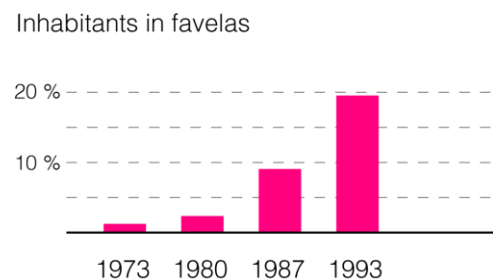


Figure 40. Increasing amount of inhabitants in favelas.

3. Economic activities (1980's)

The tertiary sector (like many other countries) increased. Sao Paulo lost its name as industrial town and became a financial and service centre. The factories and apartments surrounding the inner city became abandoned and were transformed into tenements. The commercial spaces and service practices moved to the old periphery which was isolated and remote (American model).

The old shopping areas were abandoned and left for the homeless and street vendors.

4. Urban residential segregation

Crime increased heavily since the 80s mostly due to police violence. Due to increasing insecurity, crime rates and safety, other methods and strategies for living were researched. This resulted in "The city of walls"; a city with barriers around houses, apartment buildings, schools, parks, squares etc. The status symbol became important and it made a massive impact on the (new) public spaces and human interactions.

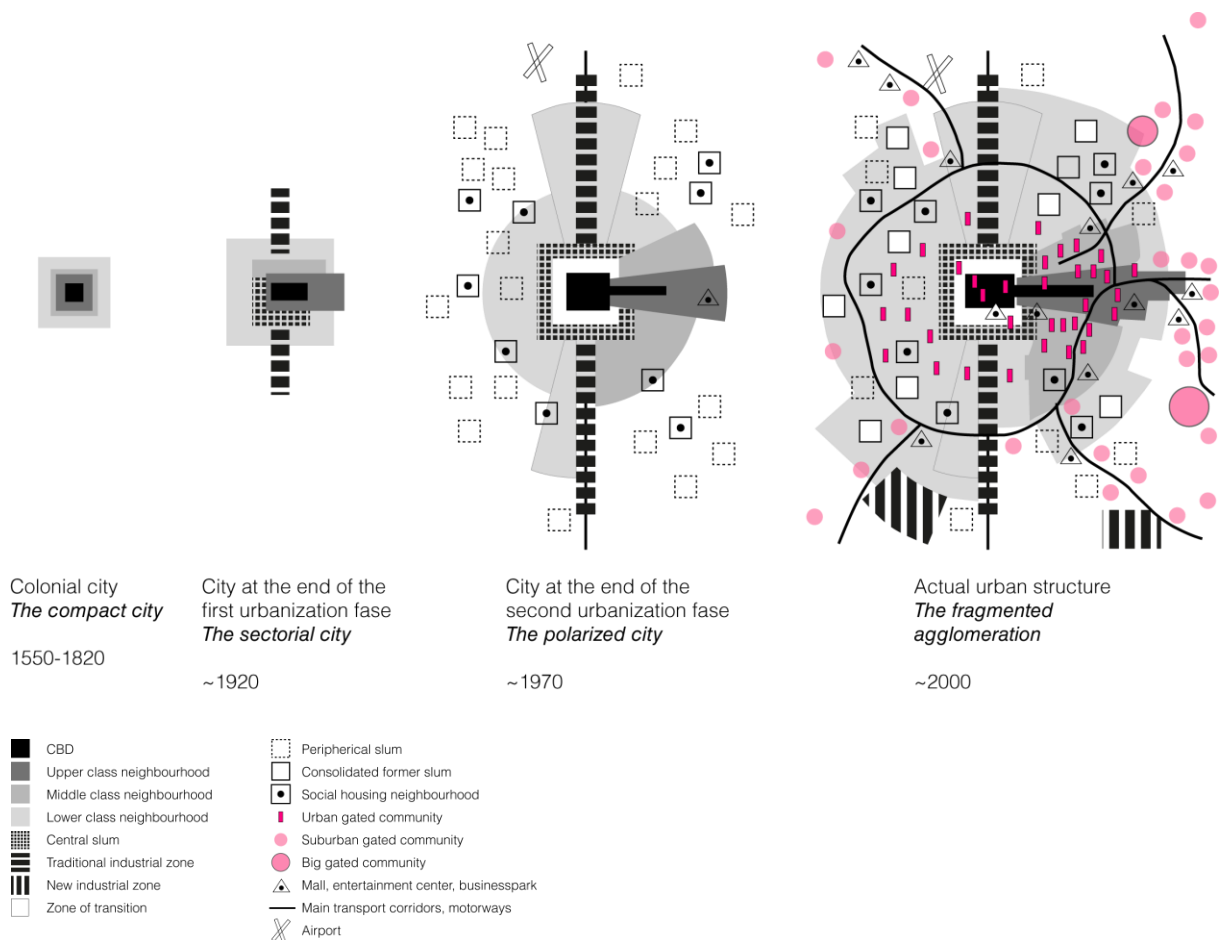


Figure 41. Historic model of growth in Latin-American cities

6.3 Interviews

An important part of the research is to figure out the daily patterns of several inhabitants in Baishizhou. During my site visit I conducted 15 interviews with different social classes. In these interviews, some basic questions are asked and finally the daily pattern is mapped on the following page. By overlapping all the results in a map, the place of interaction can be identified. These places can become places of regeneration and intervention.



Name
Mister and Miss Hebei

Age
Both 74 years

Occupation
Retired, but used to be farmers

Where do you live?
CNOOC Shenzhen Bay Garden gated community

How long have you lived in Shenzhen?
2 months

Where are you from originally?
From the North of China, but we moved to Shenzhen to live with our son and grandson and for a better climate. The North is too cold for us at our age.

Who do you live with?
We are staying with our son. Our son is divorced, so we partially take care of our grandson as well. He partly lives with us.

Is the house bought or rented?
Our son rented the appartement

Costs per month;
We do not know.

Where do you work?
We are retired, but our son works for an electronic company in Shenzhen.

Salery:
-

How do you get to work?
-

How do you usually get around?
(by foot, car, public transport...)
Because of old age, we do not travel far. We usually stay on this square or walk around baishizhou for some

arrends. Otherwise we take our son's car or when he is at work we take the subway.

Can you describe your daily routine?
Wake up when son goes to work, around 7 am. Make breakfast for son and grand son and afterwards play some games on the square and sit in the sun. Does grocery shopping in the neighbourhood and make sure dinner is set at night, around 7 pm when son goes home. At night they sit stay at the appartement with family for tea and go to bed around 9/10 pm.

Do you know many people in your street or neighbourhood?
We know some people from our floor in the apartment building and we talk to people here on the square. Play games etcetera. But we are not friends.

Do you go/ know things outside of your district?
We hardly go out of our district due to our age. Most of the shopping is done here on the main square and for other supplies we go into the urban village for vegetables etcetera. It is much cheaper there, than in the stores.

Do you interact with people from the gated community/ urban village? Do you use their facilities?
Yes, we go to the local market and streets to buy vegetables and meat.

Do you feel safe in your neighbourhood? Why?
Have you ever encountered crime/ criminal activities?
We feel safe here, because our area has a lot of security. You need identity cards to access our appartement building.

Do you feel at home in Shenzhen/ Baishizhou? Why?
Yes, much more than in the North of China.

What would make you feel at home?
More family in Shenzhen

What could be improved in the neighbourhood?
-

What are you future perspectives and dreams?
Staying in Shenzhen

Figure 42. Example of one of the interview taking in Baishizhou. In the interview the daily pattern of an elderly couple is described.

In the following map two different routes are drawn. The red line is the daily rout of the grandparents, whose interview is shown in this document. The location of their home, playgrounds and eating spots is shown. The yellow line is the daily pattern of an 18 year old man, who works and lives in the urban village of Baishizhou. Possible places where interaction could take place are the market and a small shopping street to the North. These are marked with pink circles.

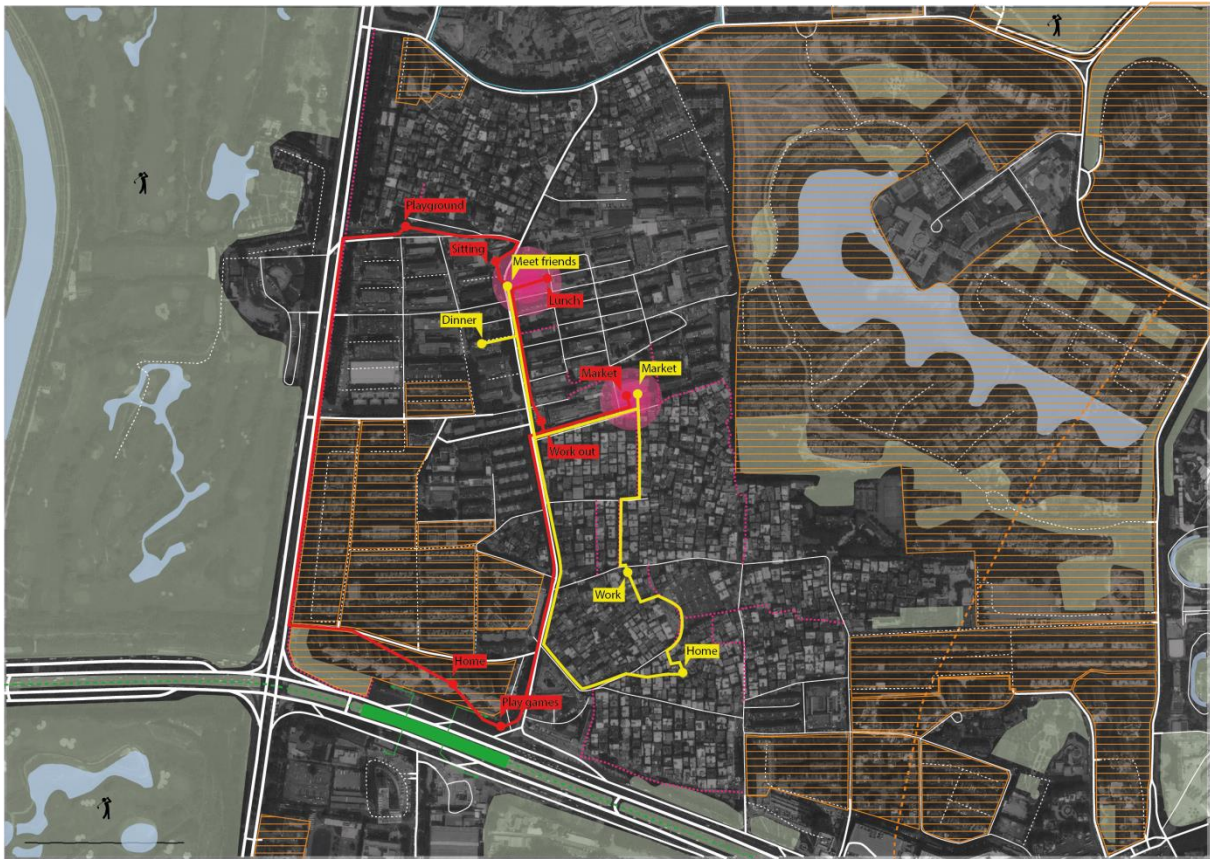


Figure 43. Mapping of two different types of citizen. By overlapping their daily routes, possible interaction point can be identified (Ill. By author).

By identifying these locations of possible interaction, we can come up with interventions and possible upgrading of the public space to increase the quality. Also we can combine multiple functions so places won't just be a place to walk by, but places to stay. The grandparents usually go to the playgrounds for young children, but what if we provide facilities for youngsters? A space can become a location for multiple ages.

6.4 Space syntax

Space syntax is an approach that investigates the relationships between spatial layout and a range of social, economic and environmental aspects. Connectivity, patterns of movement, interaction, awareness, density, land use and value, urban growth and societal differentiation, safety and crime can be mapped with this information system.

By creating a space syntax map of Shenzhen and Baishizhou, the hierarchy of streets within the neighbourhood can be identified. Also the connectivity, crime and other topics can be presented and can contribute to possible place for intervention. Through realizing a space syntax map of Baishizhou, a specific location can be chosen for further analysis and implementation of a possible solution of integrating several communities with existing gated communities. The location will be chosen based on the connectivity with surrounding areas. The main idea is to choose a location, with multiple different communities, that is not well connected to each other. By creating a solution as an end product, the Space Syntax will play a role in validating my approach and confirm whether the created solution will work or not.

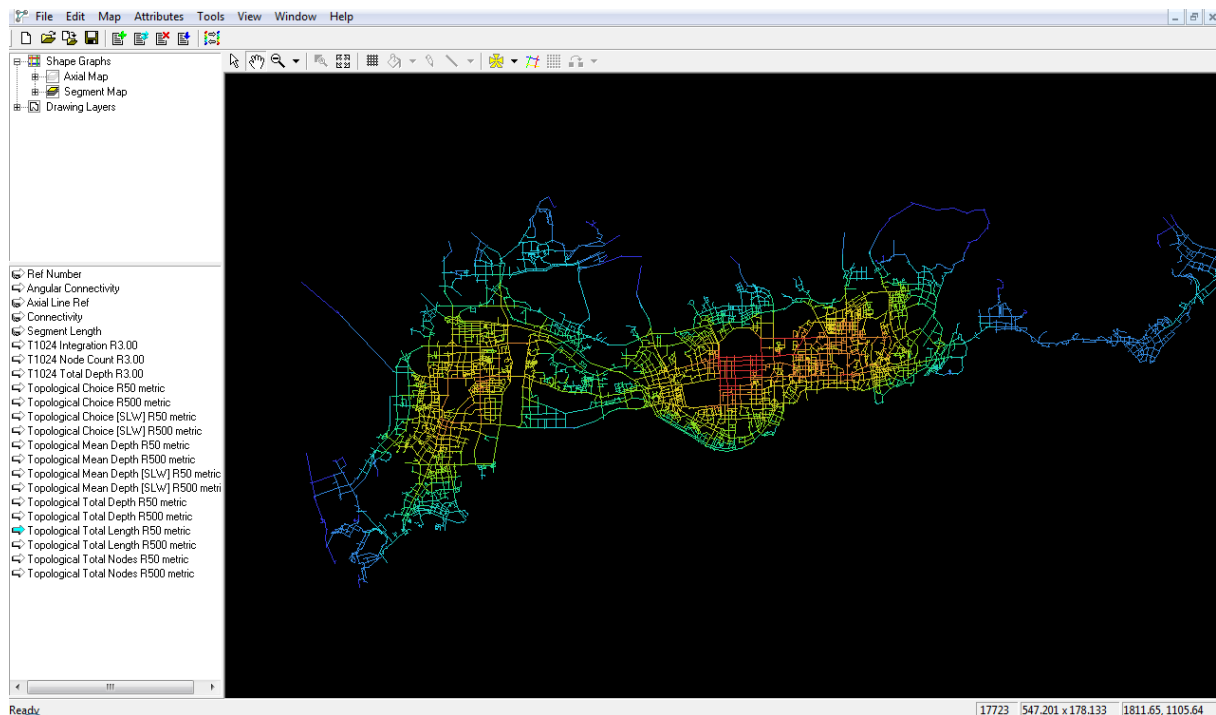
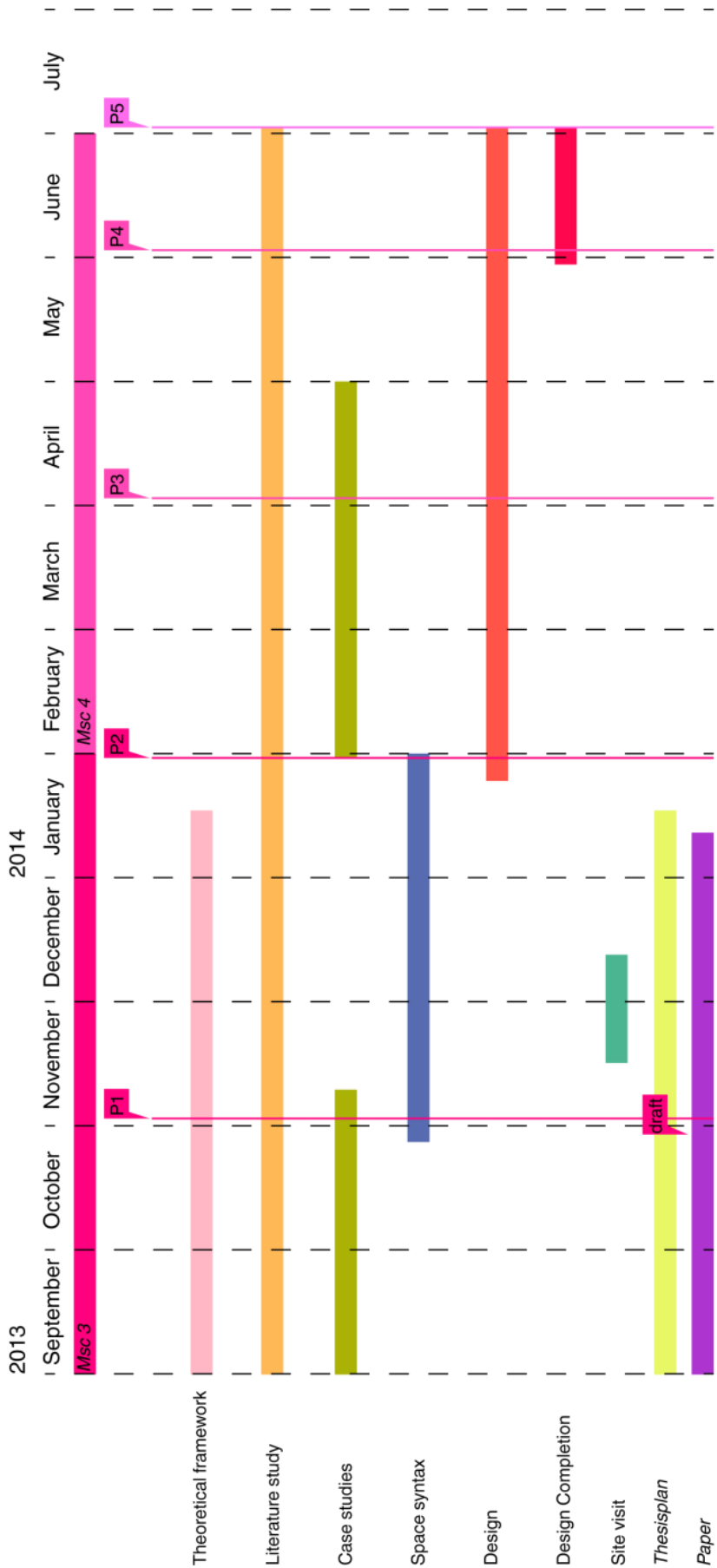


Figure 44. Preliminary Space Syntax map of Shenzhen (III. By author).

7. Final product

Through my site visit I have gained much more information about the location. By conducting multiple interviews, the data will help me with identifying possible locations for intervention within the neighbourhood. The problem of social segregation can be overcome by introducing a specific spatial configuration. Also through Space Syntax a specific hierarchy can be identified. It is shown that there are three different zones in Baishizhou, the closer to the metro station, the more regional the scale. By identifying these zones, specific actions can be done. The project will not focus on removing gates and walls from the gated community, but will focus on the social borders. How can we overcome these borders? The final product will be a local scale design, where I will look into upgrading the existing network. Can I produce a framework for the neighbourhood, which can decrease the anonymity of the area, but is also subjected to change? The final product will be a protest against the current strategies Chinese planners are implementing. I would like to produce a framework of anchor points, integrated with formal and informal facilities, connected through a hierarchy of streets, which can become the basic structure of the neighbourhood. The key is to differentiate these anchor points and produce spaces where multiple social classes and ages can connect and interact.

8. Time planning



Appendix I. Graduation orientation

Walled Cities

Overcoming social, functional and physical borders through urban configuration in Baishizhou.

Saskia van Eijk

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Delft University of Technology, Department of Urbanism
Graduation Orientation

January 16th, 2013

Shenzhen is a city where in 1978, due to economic reforms, a SEZ was introduced. Due to rapid urbanization, the traditional structure and street life is becoming less and less visible. The anonymous city creates social segregation and insecurity.

The main problem is that public space is privatized, or the public space is surrounded by private estates. Therefore, streets become abandoned and use of car is increasing fast.

There has been a considerable amount of research about the spatial, social, political and economic aspects of gated communities around the globe and its impacts on the city and its street life. However, not much research has been done in Shenzhen. Shenzhen only has 3% land left to build, so the city will densify and built for wealthy people.

In my research and design I would like to try to convince governmental institutions that the current building pattern is not the right way to expand and densify cities. The urban villages can become the identity of the city of Shenzhen by upgrading the urban fabric.

It is hardly impossible to take down the walls of gated communities. However, we can overcome the social borders; the borders that exist between different social groups.

My project will focus on the social borders that exist in Baishizhou. How can we overcome the segregated groups and provide a spatial framework that meets the needs of interaction.

The end product will be a solution to overcome social borders as a result of gated communities. Through a strategy and design for Baishizhou, I would like to come up with a better integrated (social) neighbourhood on a multi scale level.

Through my research I would like to become aware of the daily patterns of several social groups that reside in Baishizhou. By comparing these patterns, a structure or anchor points can be identified.

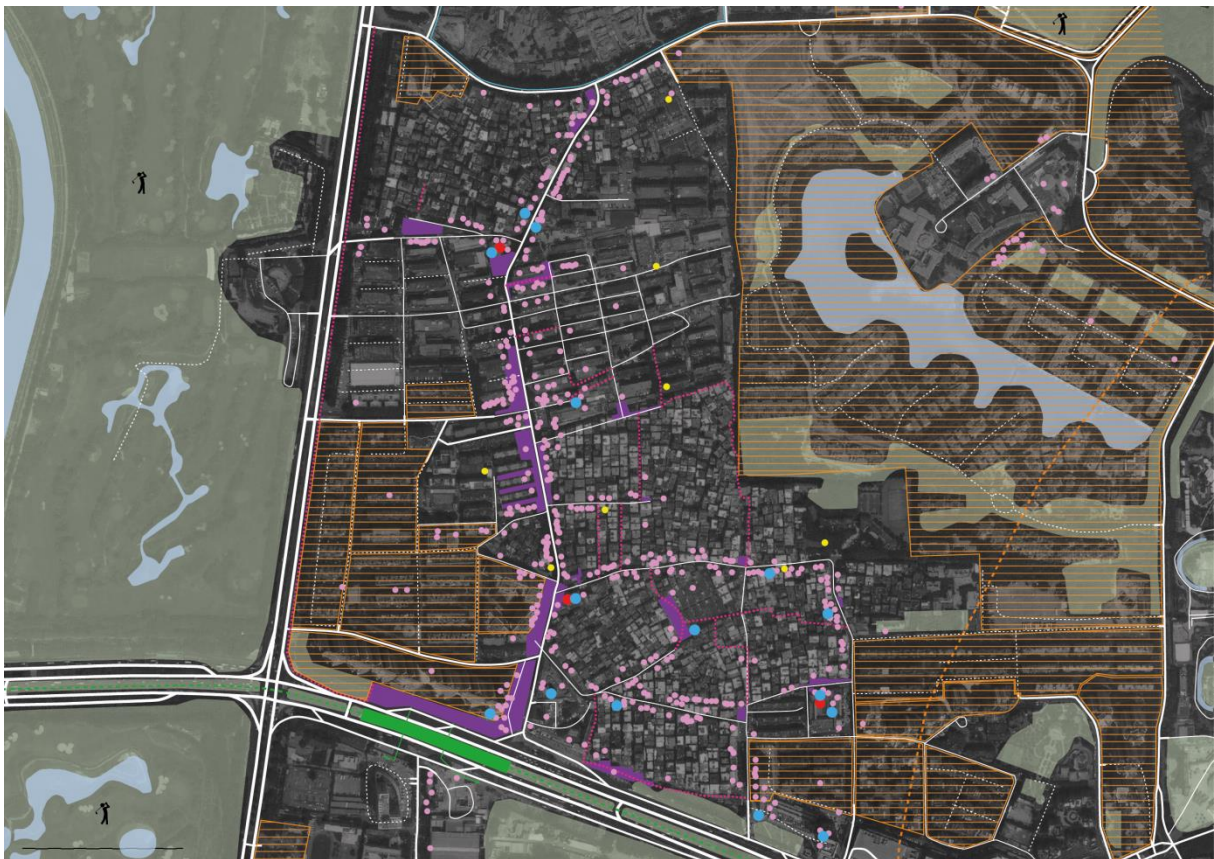
Key words – Urban villages, Gated communities, borders, social classes, security

1. Link to research of the department

My project focuses on the relationship between physical borders and how that influences the social interactions of communities. The research department that can link with this process is *Design of Urban Fabric* with head researchers *Machiel van Dorst* and *Stefan van der Spek*. This research team focuses on three main topics; firstly, this department focuses on understanding of the relationships between the physical and social spaces. They focus on the public space with activity systems, symbolic spaces and identities of a place. Also they involve the feelings and perception that may be generated by the people. To me this first aspect is very important; the relationship between the physical and social. Through generating walls around compounds, streets and public spaces become anonymous. Therefore, less interaction is created, which has a big impact on social security in cities. The research studio therefor also focuses on morphological changes and how these relationship changes. In my research I tried to use the *Dual City Theory*, which researches a city from historical point of view. Through historical aspect, the social context can be identified. Thirdly, this research department talks about complexity of urban patterns and safety, which plays a key role in my design part of the project. My intended end product consist out of a regenerated pedestrian and public space pattern, which helps increase the interaction between social classes through commercial functions, but also increases the social security within the neighborhood.

2. One representative illustration of your graduation final product

On a neighborhood scale, public spaces and patterns can be identified as place for increasing social interaction.



Appendix II. Graduation Plan

Graduation Plan: Urbanism

The learning plan consists of at least the following data/segments:

Personal information	
Name	Saskia van Eijk
Student number	4189183
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Postal code	1902 AE
Place of residence	Castricum
Telephone number	06-18586076
E-mail address	saskiaveijk@hotmail.com or saskiavaneijk@tudelft.nl
Studio	
Theme	Complex cities
Teachers	Steven Read, Roberto Rocco, Vincent Nadin, Qu Lei, Diego Sepulveda, Akkelies van Nes, Francisco Colombo
Argumentation of choice of the studio	One of the main projects of this studio was the Shenzhen project. China is a very booming country, with high density urban areas. Personally I am very interested to live in China sometime in the future to work in one of those large cities. To me, this project is the perfect opportunity to get more experience in design and research in China.
Theme	Shenzhen scenarios 2.0: Livability
Teachers	Que Lei, Akkelies van Nes, Machiel van Dorst
Title	
Title of the graduation project	Walled cities Overcoming social, functional and physical borders through urban configuration in Baishizhou.

Problem Statement

The main problem that arises nowadays is the fact that the gated communities built today, are based on the South African model, where gating is a result of fear of crime, violence and insecurity (Moser, 2004). New gated communities in Shenzhen for example, adopted the "culture of fear" and build compounds within the urban fabric (architecture of fear) (Grant and Mittelsteadt, 2004). These compounds become almost cities themselves, having all the facilities, such as schools, pharmacies, sport facilities, restaurants etcetera, placed within the residential walls. Gated communities influence the great fragmentation of public space, which increases the social segregation. Gated communities are built for the middle and upper classes of the society due to high land prices. The segregation of social communities increases the fear of crime and safety, so that even parks, schools and other public facilities will be closed off. However, by creating walls the total opposite effect takes place. Streets become anonymous and the lack of interaction creates streets with no social security.

The project is divided into two spatial parts; a global research done through case studies and a specific location in Shenzhen.

On a global scale the following sub questions will be answered;

- What are the global (urban) trends - spatial, social, economic and political-regarding gated communities?
- What are the motives of gated communities in these models?
- Which urban models affected China's urbanization and gated communities?

Regarding the specific site in Shenzhen;

Has the traditional Chinese city model influenced the current structure of the city and gated communities?

How did the urbanization influence the spatial structures in Shenzhen?

How did gated communities influence the social structures and security in Shenzhen?

What is the interaction between the urban village and gated communities?

What are the hierarchical structures within the neighbourhoods?

Goal

The research of this project focuses on the spatial configuration and the rise of gated communities and the loss of street life in Baishizhou; one of the few urban villages left in the Special Economic Zone in Shenzhen. By understanding the global phenomenon and the influence of privatization of urban structures is key to understand the social consequences. The goal of the research is to understand the life patterns of current inhabitants of Baishizhou by tracking their daily patterns. In my research and design I would like to try to convince governmental institutions that the current building pattern is not the right way to expand and densify cities. The urban villages can become the identity of the city of Shenzhen by upgrading the urban fabric. By introducing housing options for the middle class, the social fragmentation can most likely be overcome. By generation a framework of anchor points in the urban village, a network of interaction and public spaces can be established. This can be done by mixing social classes, formal and informal commercial spaces through public space, decreasing the anonymous streets and insecure walkways.

Process
Process
Method description
<p>Literature</p> <p>The literature study will focus on the historical aspects of gated communities around the globe, but especially in China and Shenzhen. The urban developments, such as the New Town movements, urbanization and crime will be explored and can be implemented in the <i>Dual City Theory</i>. The <i>Dual City Theory</i> is a method that is based on the history and understanding the developments of a city or an area. The research is done via an analysis of its urban development and through discussion with local residents. Moreover, the theoretical paper will explore multiple old and new literatures and will be delivered at the P2 presentation. This paper addresses the key motives of gated communities and movements and will be used for the problem statement and research questions.</p> <p>Case studies</p> <p>Case studies will be done to understand the different movements and motives of gated communities in regard to surrounding urban structures. In my research part these studies will help me identify social and spatial problems. In my design part I will use case studies as a way to come up with possible solutions. One of the first case studies can be about Shenzhen OCT Loft; an area where urban regeneration have already been taking place and the outcomes are very positive.</p> <p>Space Syntax</p> <p>Space syntax is an approach that investigates the relationships between spatial layout and a range of social, economic and environmental aspects. Connectivity, patterns of movement, interaction, awareness, density, land use and value, urban growth and societal differentiation, safety and crime can be mapped with this information system. Through realizing a space syntax map of Shenzhen, a specific location can be chosen for further analysis and implementation of a possible solution of integrating several communities with existing gated communities. The location will be chosen based on the connectivity with surrounding areas. The main idea is to choose a location, with multiple different communities, that is not well connected to each other. By creating a solution as an end product, the Space Syntax will play a role in validating my approach and confirm whether the created solution will work or not.</p>
Literature and general practical preference
<p>One of the most important aspects for my project will be my site visit to Shenzhen and Baishizhou. This will help me understand the social, spatial and functional structures of the urban village and the gated communities. During my trip I will interview multiple residents from different social groups and try to come up with maps of their daily patterns.</p> <p>Theory</p> <p>The theories I would like to use is the <i>Dual city Theory</i>, which helps you understand an area through history and interviews of inhabitants. Moreover, some literature studies from Ita Luten with her book <i>Sociale Handboek voor Veiligheid</i>, Oscar Newman with <i>Defensible Space</i> and Timothy D. Crowe with his book <i>Crime Prevention through Environmental Design</i>.</p>

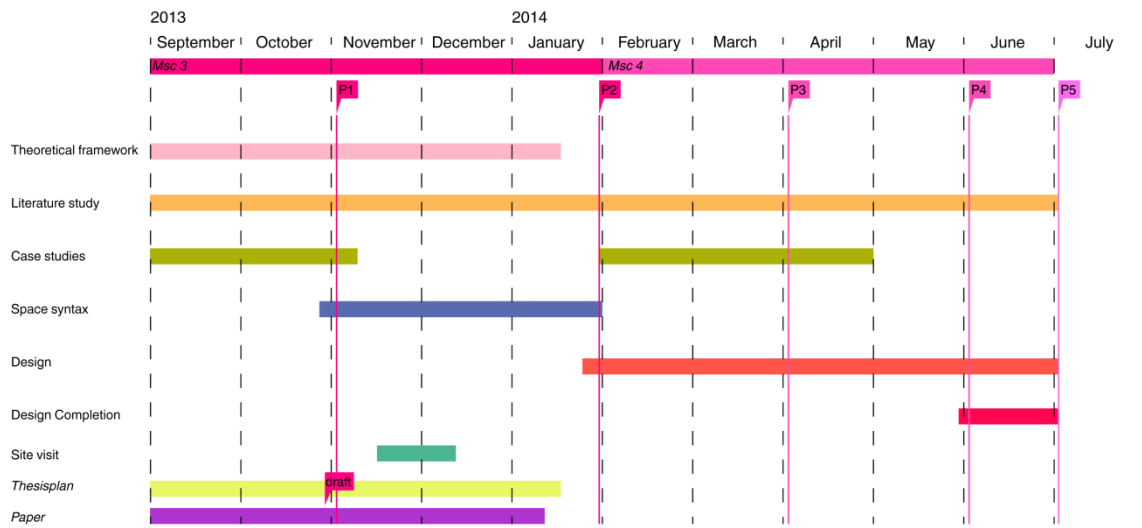
Reflection**Relevance****Social relevance**

Public space is a place where people interact and share information; a place where cars, cyclists and pedestrians meet; a place where buildings and streets come together; where residential buildings interact with shops, markets and street life. Public space can be defined in streets, parks, playgrounds, markets, etcetera. Spatial configuration tends to create an environment where people are in control of the public space. Citizens know what is happening in front of their doorstep, they know their neighbours and keep an eye on the street; social security. For this reason public space plays a vital role in the social and economic life of the city and its communities. However, when buildings become higher than four floors the interaction with the street is lost, which impacts the vitality of the street life (Alexander et al., 1977). High buildings become an obstacle in the public space due to its anonymity towards what is happening on ground level. When walls are built around several of these buildings or even houses, the same problem arises. Who keeps an eye on the street? Who knows who is living in the block across from you? Social security decreases dramatically, because the life is taken from the streets into the blocks or compounds (Yao and Wei, 2012). This phenomenon decreases the safety in the streets, parks and squares of a city and increases crime rates. Because who will see or notice you from their enclosed homes when someone robs you? Spatial configuration therefor plays a key role in the social structures and security of the city and its street life. The livability of a city cannot be done only through building infrastructure, shops, public transport etcetera. It is built through social interaction and communities.

Scientific relevance

There has been a considerable amount of research about the spatial, social, political and economic aspects of gated communities around the globe and its impacts on the city and its street life. The many journals, books and articles that have been written about New Towns are rapidly increasing, since the massive urbanization. Much of these research papers talk about this trend that started in the mid to late twentieth century and discuss safety issues (culture of fear and architecture of fear), the change in spatial configuration and social structures. However, most of these articles only talk about the problems that arise in these fast growing cities in primarily South America, Africa and the United States. For example, the amount of gated communities in Sao Paulo has increased dramatically in the last couple of decades due to the rapid urbanization and high crime rates and the city is therefore called the "City of Walls" (Caldeira, 2000). Many of these problems are clearly visible, but have not yet a solution. Moreover, not much research has been done in China, especially in Shenzhen. Shenzhen only has 3% land left to build. The rest of the city will be densified and urban villages will be sacrificed to become high dense urbanized areas for middle and upper class citizens. These particular places are attractive for gated communities and enclosed enclaves.

Time planning



Attention

With regard to the graduation we strongly advise you to select two mentors from Urbanism from different chairs at least one from a design section.

This should be taken into account when writing the Learning plan / personal graduation contract, in the time planning as well as in the relation to the content (e.g. statement, method and /or relevance).

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