In Between Borders

- An alternative planning method for Yongsan dream hub.

Ye Qiu 4125398 urbanism
Studio: Vertical City Asia
Email : archiqiu@gmail.com
Tel: +31643160331
Tutors: Lei Qu, Henco Bakkering

Competition

The studio is part of the Vertical City Asia Competition. The results of the P2 were sent in to compete. This international competition is organized for five successive years - 2011/2015 - by the School of Design and Environment of the National University of Singapore, financially supported by the World Future Foundation. Successive locations will be in different Asian countries; Chengdu is the first. Each year there is a main theme. This year the theme of aging will be researched. The Brief:

“Everyone Ages”

Every year a one square kilometre territory will be the subject of the competition. This area, to house 100,000 people living and working, sets the stage for tremendous research and investigation into urban density, verticality, domesticity, work, food, infrastructure, nature, ecology, structure, and program - their holistic integration and the quest for visionary paradigm will be the challenges of this urban and architectural invention.

This new environment will have a full slate of live-work-play provisions, with the residential component making up to 50% of the total floor space.

In the second of this series of competitions, the theme of “Everyone Ages” will be explored.

Population aging is unique in Asia given the speed at which it is occurring and the immense social and economic changes that the region is experiencing at the same time.

All across Asia, the number of people age 65 and above is expected to grow dramatically over the next 50 years. For the region as a whole, the population in this age group will increase by 314 per cent - from 207 million in 2000 to 857 million in 2050. Changes that occurred over 50 years in the West are being compressed into 20 to 30 years in Asia.

The competition seeks innovative design solutions for a balanced environment for urban life addressing and anticipating the challenges of a rapidly ageing society. It encourages new positive approaches to ageing society that identify opportunities for maintaining capacities and well-being over the life course. Concepts such as “active ageing” and “ageing in place”

with new approach to accessibility, social care and support for elderly are

expected to affect design solutions and programs which exceed the standard community club repertoire and incorporate a range of opportunities to activate the elderly and bring them back to workforce, and to develop appropriate environments, especially the built environment, for both older and younger generations, which is crucial to successful ageing within the community.

Key issues of concern are: how to create an influential imagery and new concepts of living reflecting the de-stigmatized stand on elderly and ageing; how to encourage ‘active ageing’ and build up the competency and ability of the elderly to

stay independent by providing holistic approach to supportive environments; how to allow ‘ageing-in-place’ through inclusive and integrative design.
ZZCompetitors are design studios from the schools of architecture of:
Asia
National University of Singapore
Tsinghua University, Beijing
Tongji University, Shanghai
University of Tokyo
The Chinese University of Hong

Kong
Europe
Eidgenossische Technische Hochschule/eth, Zurich
Delft University of Technology
North America
University of Michigan
University of Pennsylvania
University of California at Berkeley

Each participating school can nominate two competition entries. One teacher and two students are invited to the award seminar in Singapore, with lectures by the five members of the international jury and the ten international teachers. Each year, the proceedings of the seminar will be published together with the twenty students’ projects. Prices are € 8.500, €5.700 and € 2.800.

The TU Delft multidisciplinary studio will involve students in the last year of their Master studies in Urbanism, Architecture and Real Estate & Housing.

Aspects to be researched are future design, urban density, physical and social sustainability, feasibility and so on. The project the lifetime city, the first design part of this thesis, conducted together with Laura Dinkla, Johnny Tascon ,Katerina Salonikidi, and Maria Stamati have won the co-1st prize with another team from Delft University of Technology. During the second semester students will finish their Master thesis in their chosen discipline of Urbanism or Architecture.


Comfort Curve 3000
로지텍 G100 시리즈
새해는 선인상가와 함께
가득하시길 기원합니다.
Logitech
Microsoft
HD-웹캠
SAMSUNG
LG생활
노래방
종로김밥

Index

Introduction

1. 1 Background

1.1.1 The dream of Seoul after the South Korea miracle

"People say that the 21st century is the era of Asia. This statement seems creditable given the fact that over the last four decades many Asian economies have grown very fast and have made great progress in development, while improving people's quality of life. Of all Asian high-growth economies, South Korea has seen the greatest increase in its per capita GDP since the mid-1960s. Young Koreans who are shopping in the bustling Myeong-Dong Avenue in Seoul, among the dazzling variety of commodities and fancy glamorous shopping malls, can hardly imagine that only 50 years ago, their grandparents were chasing US Army trucks for handouts from soldiers"(Schuman,2010:15) in this very place. Michael Schuman, who worked in Seoul as a correspondent for the Wall Street Journal in the late 90s, describes this in the book <Korea 2020> as follows: "During the early 1950s, the punishing Korean War devastated its cities and left the populace with little food and few prospects. Hungry Koreans became accustomed to sifting through leftover US army rations for bits of Spam and American cheese they could add to their traditional spicy red-pepper soups –a concoction that came to be known as budae jjigae, or 'army stew.'"(Schuman, 2010:15) Back then, no economist was optimistic about South Korea's future. And yet Koreans completely eradicated poverty in the mid-1990s by exporting oil tankers, cars, and microchips. Even with the trend of Asia's overall economic rise, South Korea's success in matching the economy of European countries in one generation might very well be the single most remarkable story of the past 50 years.

> ***"In an Asia replete with economic miracles, South Korea's is the most miraculous of all."(Schuman, 2010:15)***

However, the past triumphs cannot ensure the economy's future prosperity. Many contributors of the book < Korea 2020> addressed the concerns of South Korea to the effect that "the economic model remains so heavily dependent on manufacturing, exports, and imported energy." (Barton, 2010:7) Although South Korea's economy has shown surprising strength in the current global economic slowdown while the rest of the world struggles in the shadow of the 2008 financial crisis, South Korea is bouncing back- the world is experiencing fundamental changes that do not make use of South Korea's current strengths. From the outside, "the United States, long South Korea's most important export market, has reached the limits of its role as global consumer of last resort. China, long dismissed as a low-wage 'factory for the world,' is rapidly marching up the value chain, threatening the competitiveness of South Korean exporters".(Barton, 2010:7) From the inside, South Korea is getting old very fast. With one of the lowest fertility rates in the world and rising longevity, "Korea is on the track of losing a third of

its working age population by the year of 2050", which means "nearly two in every five Koreans will be aged 65 or older " by then. (Howe, Jackson and Nakashima, 2007) None of these transformations provides sustainable economic growth conditions for the current South Korean economic model.

A structural transformation is therefore urgently needed in South Korea. Many experts have advised South Korea to "place greater emphasis on its labor-intensive service sector" (Roach and Lam, 2010:30), and to "rebalance the economy away from export dependence by stimulating the domestically oriented sectors."(Schwab, 2010:38) Richard Dobbs and Roland Villinger, directors (senior partners) of McKinsey& Company based in Seoul, have argued that "manufacturing jobs are erased by automation, new technologies, and more efficient use of labor", thus "this manufacturing centered growth model is less durable." This has been proved by the fact that "nearly 22 million manufacturing jobs disappeared from the global economy despite numerous policy efforts to promote employment in this sector."(Dobbs and Villinger, 2010:39) Korea seriously experienced this trend when nearly 740,000 manufacturing jobs were lost between 1995 and 2008. Service, on the other hand, has become the primary generator of GDP and employment growth in the world's advanced economies. Research by the McKinsey Global Institute showed that nearly 85 percent of all GDP growth in high-income developed countries over the past 25 years came from service. "This is a broad category that comprises everything from cobblers, beauticians, and taxi drivers to police officers, teachers, surgeons, lawyers, architects, accountants, software developers, bankers, and providers of telecommunication. Services consumed locally, including those provided by government and private business, account for more than 60 percent of all jobs in today's middle-income and developed economies, and virtually all of the job creation." (Dobbs and Villinger, 2010: 40) However, compared to other countries in the Organization for Economic Co-operation and Development (OECD), service remains a small proportion in South Korea's economy accounting for 58 percent of the economy, whereas the world proportions elsewhere are 80 percent in the United States, 79 percent in the United Kingdom, 73 percent in Japan, and 72 percent in Germany. (fig.1.1) "A stronger service sector in South Korea would reduce the economy's exposure to external demand shocks as seen at the end of 2008. And it would reduce South Korea's vulnerability to

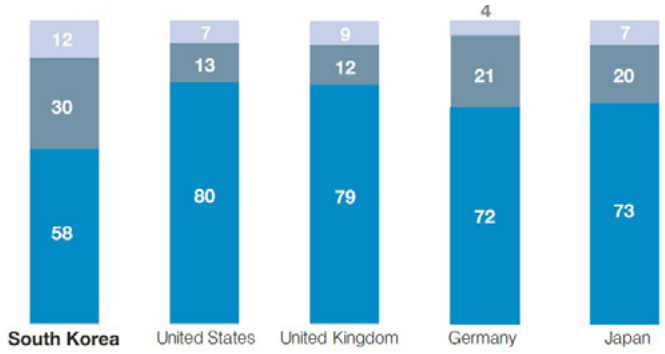


fig.1.1 Gross v added econor %

Others includes construction, mining, and agriculture sectores

competition from low-cost manufacturing rivals in countries such as in China." (Dobbs and Villinger, 2010:41)

The Koreans took the advice to heart and quickly responded by launching a series of promotional policies on innovative industry. In 2010, Seoul won the title World Design Capital. It can be seen as a sign of the government's determination to make design the new trace mark of South Korea. Meanwhile, a super project called "Yongsan dream hub" has launched. The Yongsan dream hub(fig.1.2), also known as the Yongsan international business district, is described in its Wikipedia page as "a 28-31 trillion-won ($22.6-$27 billion) project that was planned to be built on the banks of the Han River near Yongsan Station in the 560,000 square metre area of the Yongsan District, central Seoul, South Korea."(Song,2013) This project was first proposed in 2006, and was

hub
rplan

e:
ss

described as Korea's largest and most ambitious property development project. The aim was to turn Yongsan into a modern sprawl of offices, malls, hotels and apartments, in the hope of creating a new signature district for Korea, as a tangible asset to carry intangible growth drivers like the service sector. Part of the plan was to build one of world's tallest buildings – The American architect Daniel Liberskind presented the winning masterplan with a 665 meter tall building called dream tower, which would become second highest in the world. (fig.1.3)The French Architect Renzo Piano designed another 620 meter tall building called the Yonsan landmark tower, which would have been the tallest in Korea. Apart from these two, a conglomeration of world-famous architecture firms including Foster + Partners, BIG, MVRDV and Skidmore, Owings &Merrill were involved in this huge design project. (fig) Despite this project initiated by the South Korean government who have been engaged in total 29 companies as co-developers, including the South Korean public transportation company, Korail, which owns the underused land in Yongsan, the process was not smooth. "Financing difficulties delayed it following the financial crisis of 2007–2008. The Korean real estate market did not seem appealing to the investors. In subsequent years, a growing number of companies, such as Samsung, pulled out of the project." (Woo, 2013) In 2009, five local residents and one policeman died in an accidental fire during a protest against insufficient compensation for the redevelopment of the neighborhood when protestors clashed with riot

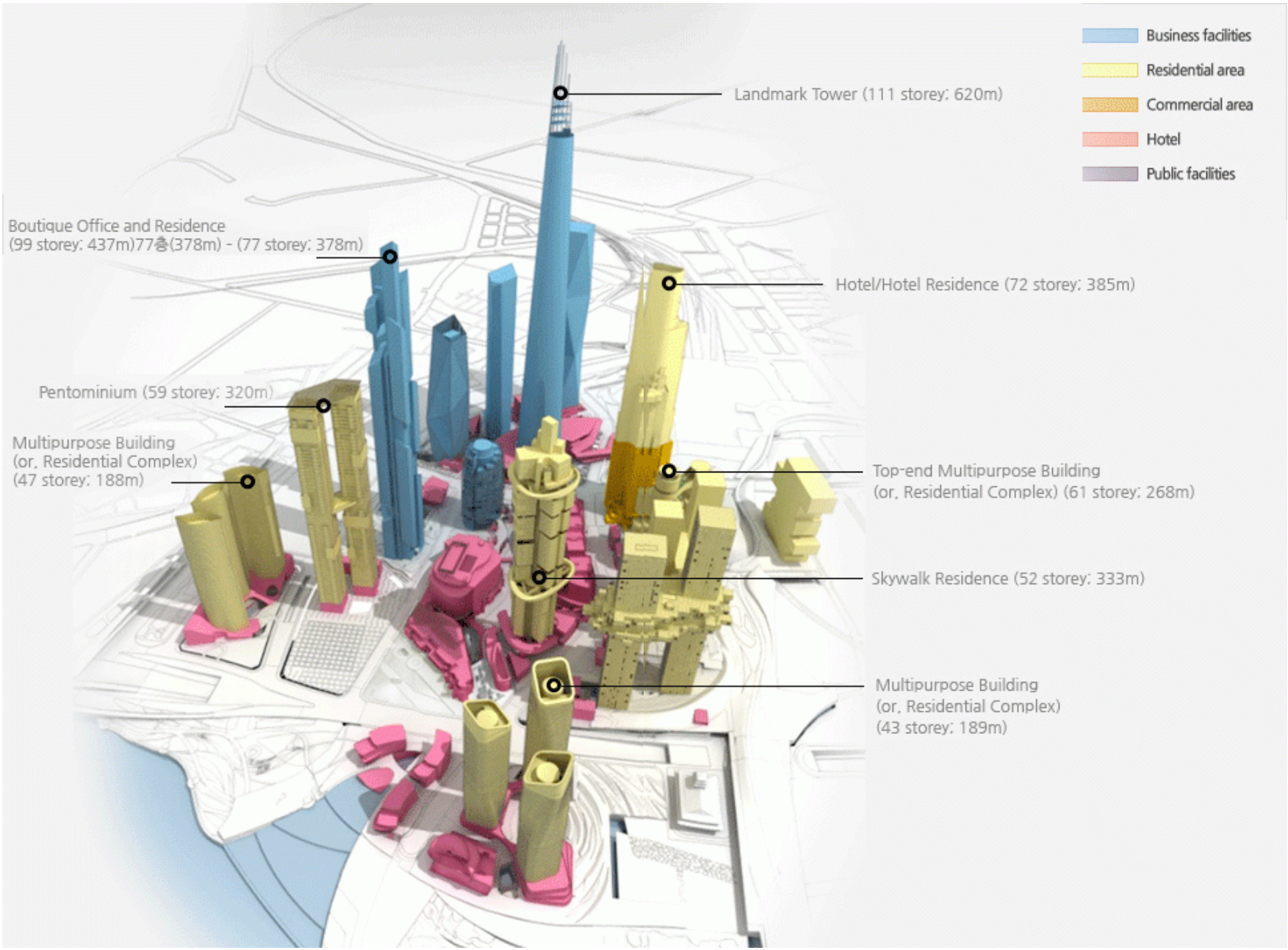
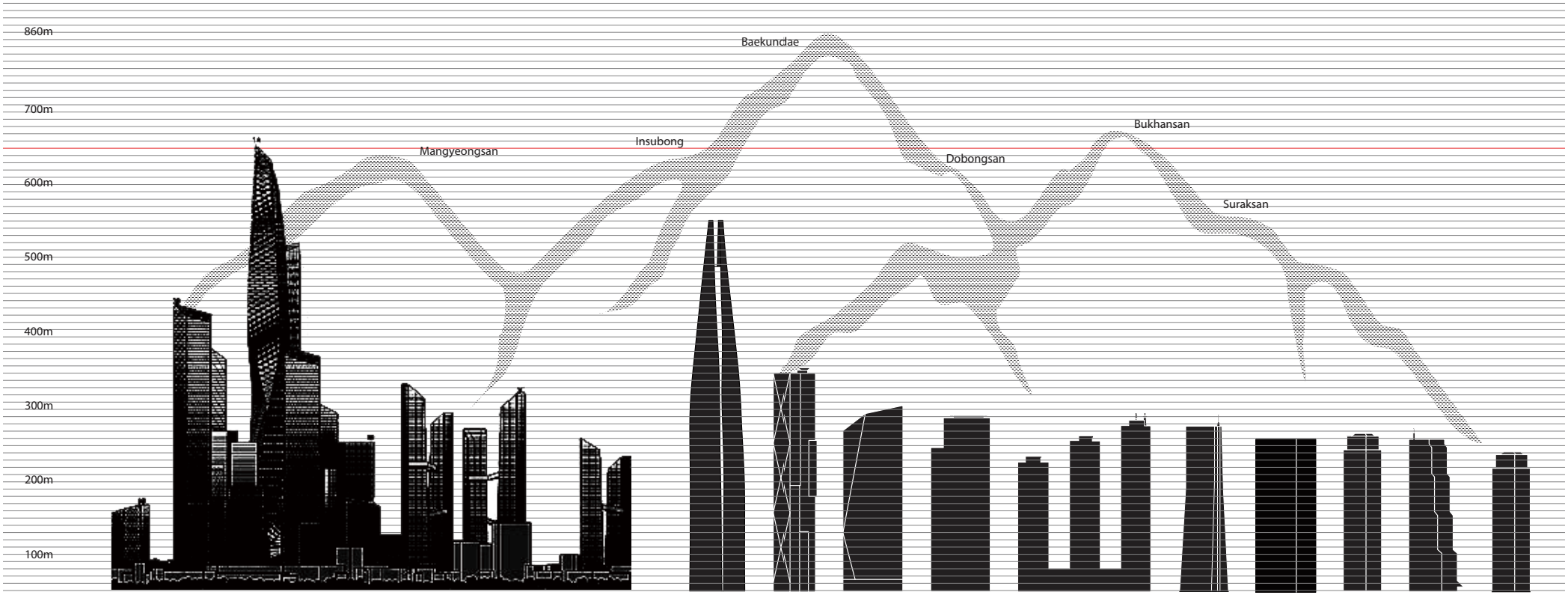


fig.1.3
The lay-out of buildings, Dreamhub

Source: Business Insider



	Yongsan Dream Hub DreamTower	Lotte Jamsil Super Tower	Parc 1 Tower A	Three International Finance Center	Tower Palace 3 Tower G	Mok-dong Hyperion Towers	DLI 63 Building	The Federation of Korean Industries	Tower Palace 1	Trade Tower	Tower Palace 1 Tower C
	655m	**555.7m**	**338m**	**279m**	**263.7m**	**256m**	**249m**	**243.8m**	**234m**	**228m**	**209m**
	canceled	2016	2013i	2012	2003	2003	1985	2014	2002	1988	2002
	Mixed Use	Mixed Use	Office	Office	Residential	Residential	Office	Office	Residential	Office	Residential
DEVELOPER	KoRail	Lotte Engineering & Construction	Skylan Properties Korea Ltd	Sun Hung Kai Properties	Samsung	Hyundai Engineering and Construction	Skylan Properties Korea Ltd	Federation of Korean industries	Samsung	Nikken Sekei	Samsung
ARCHITECT	Studio Daniel Liberskind	Kohn Pedersen Fox	Lord iRichard Rogers	César Pelli & Association Architects	S.O.M	-unknown	S.O.M	Adrian Smith + Gordon Gill	S.O.M	Hsin-Yieh Architects Junglim Architecture Co. Ltd.	S.O.M

fig.1.4
Hight comparation between Dreamhub and Skyscrapers in Seoul

Source: Made by Author

police.(fig.1.5) This event is known as the “Yongsan tragedy” and it shocked the world. A documentary named “two doors” reviewed the tragedy and brought public attention to this controversial event. All of this result in the cancellation of the project, which was announced at April 2013. “It is possible the venture will result in a number of bankruptcies in the crisis. There are also speculations about a possible class-action lawsuit by the residents against the developers and the government.” (Woo,2013) The Yongsan Dream hub may stay in dream for ever.

fig.1.5 Protest against Dreamhub Source: Ohmynews.com

1.1.2 Beyond the failed dream

The documentary sent out the message that the Yongsan tragedy involved violence against the poor and that it was initiated by the state, which is a true reflection of the Lee Myung-bak administration. However the root of the tragedy, and further, the failure of the project, goes far beyond the event itself. In order to better understand the nature of the failure, one needs to first understand how South Korea became what it is today. In tracing this history, one name can never be missed, the name of Park Chung-hee, the man who led South Korea into the world’s miracle in the 60s of the

last century, whose influence remains entrenched today. During his 18 years of presidency, Park was famous for his straightforward policy-making that came through almost sheer willpower. He led the country with a combination of zeal and brute force. Many his policies were considered misguided by so-called experts of the day; however, the reality always proved him to be correct. Many Korean international industrial companies were fostered

by Park, POSCO being just one example. It is now one of the world's most successful Iron and Steel Companies, but the start-up funds for the mill were taken from the Japanese war reserves, under pressure from Park after being declined by international investors and the World Bank. A similar story lies behind the rise of Hyundai, which failed to get a loan from European banks when attempting to launch its shipbuilding business. It was doubted whether South Korea had the ability to construct oil tankers. Once again, Park used his enthusiasm and determination to convince a Greek shipping tycoon to purchase two vessels and then use those orders to get loans. By the mid-1980s, Hyundai became the largest shipbuilder in the world.

"Although fantastically successful, Park's model had its downsides right from the beginning." Michael Schuman argued: "In economic matters, his policies sometimes created problems side by side with progress." (Schuman, 2010:19) Park believed that democracy has its limitations for achieving rapid growth, and he imposed his will with a brutality the remnants of which began to distort South Korea's development, not enhance it. As South Korea grew richer and richer, the Park legacy had become its albatross, in terms of interfering bureaucrats, and bank-funding projects based on perceived national priorities rather than the prospect of profits. "Small-businessmen and entrepreneurs were starved of capital while the chaebols ran amok, hoarding funds and injecting them into white-elephant projects. The twisted results led to a weakened financial sector and bloated long-simmering problems that ignited the Asian financial crisis of 1997."(Schuman, 2010:19) Were these the reasons why the Dream hub failed? Yes, and No. The influence of Park's legacy somehow explained the failure of funding the project and the administrative disorganization. However, the plan of the dream hub itself had some fatal flaws, which were often ignored when a plan failed. If one takes a close look at Liberskind's masterplan, one will find the designed site hardly shows any concern for the surrounding areas: several high-rise residential buildings over 200 meters were proposed in the master plan, while the original surrounding residential areas are mostly self-built two to three stories houses. Meanwhile, the master plan hardly gave any details on the infrastructure improvement or the connection to surrounding area. It seemed that the fancy public space would only be of service to the site itself while the surrounding residential areas were left in the shadows. It appeared that the master plan did not reflect the needs of local residents and was even, to some degree, contradictory to the locals' interests. Meanwhile, it also failed to achieve the governments' ambition, in terms of, stimulating the market, being of service to the transformation of the economic model and stimulating social integration. All the facts above give rise to doubts about the master planning approach itself. The Criticism of master planning has been rising: can we offer an alternative approach for Yongsan, Seoul?

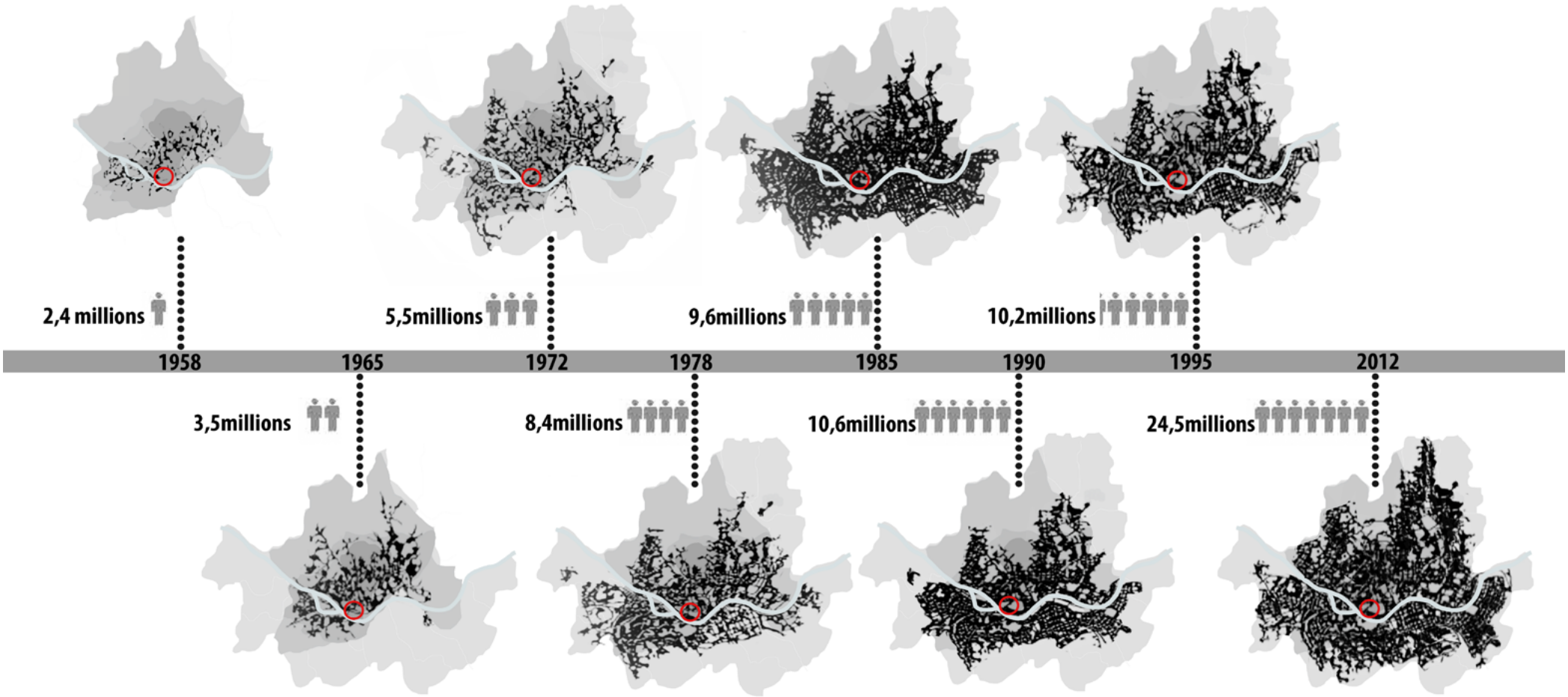


fig.1.6
City expension of Seoul,South Korea
Source:
The lifetime city,
Vertical City Asia

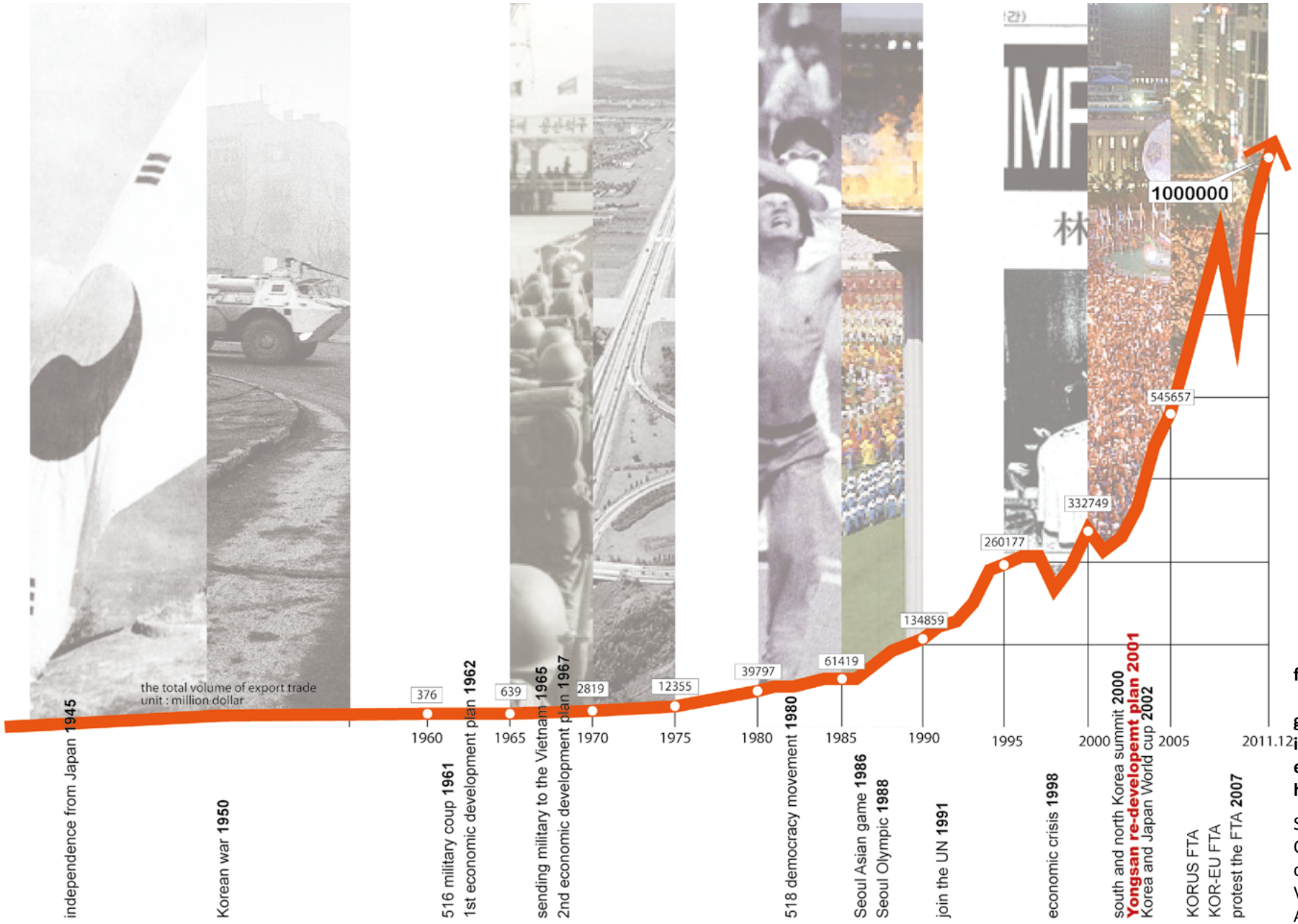


fig.1.7 population growth and improtant events in history

Source:
Open ended city,
Vertical City Asia

1.2 Theory

The idea of building cities according to preconceived plans has been around ever since the beginning of urban life in human society, however, master planning did not come to dominate until after the Second World War, as a result of the rising of the Keynesianism, the modernist professional perceptions of urban reconstruction and the modernization development strategy. The goals of the master plan during this period were to shape the cities to fulfil the demand of industrial-based growth, agriculture modernization and large-scale rural to urban migration. It was at the same time that Seoul saw its rapid expansion. (fig.1.6)

Many buildings were destroyed during the Korea War, dwellings, factories and infrastructures were built in order to meet the great demand. Before the war Seoul was a closed old city that inherited from the ancient agricultural society. After the war, South Korea's economy grew by international trade, the city was soon modernized with new compacted dwellings, factories and highways. Master planning was the domain planning method at that time, the peripheral area of Seoul nowadays had been planned by then, and was mostly residential areas or industry areas.

However, in the seventies, Keynesianism had shown its downsides that in developing countries the promised benefits of urbanization and industrialization had failed to materialize for a large proportion of the population. "The rise in per capita GDP concealed the fact that in many cases there was the deterioration in living conditions, lower employment opportunities and an increase in income inequalities."(Carmona and Silva, 2009:318) In the case of Seoul, the city had also suffered from the rapid expansion.

Rapid social and economic development across Korea since the beginning of the 1990s has resulted in the underregulated expansion of housing, industrial and commercial developments in and beyond the periphery of Seoul metropolitan areas. (Cho, 2005:203-218) This kind of expansion is often referred as "urban sprawl" in urbanism which is widely acknowledged as an undesirable form of development owing to its economic, social and environmental disadvantages (Nelson & Duncan, 1995) For example, both traffic congestion

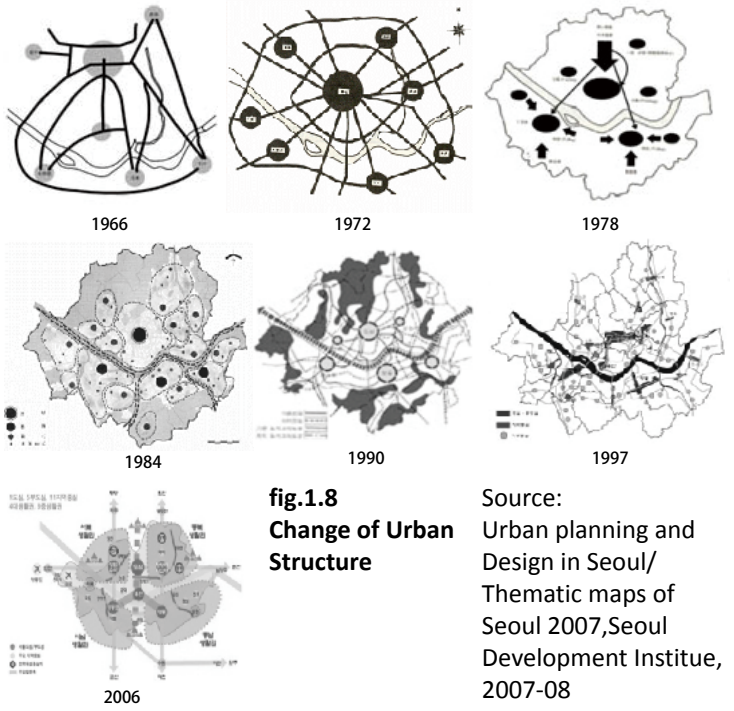


fig.1.8
Change of Urban Structure

Source:
Urban planning and Design in Seoul/ Thematic maps of Seoul 2007,Seoul Development Institue, 2007-08

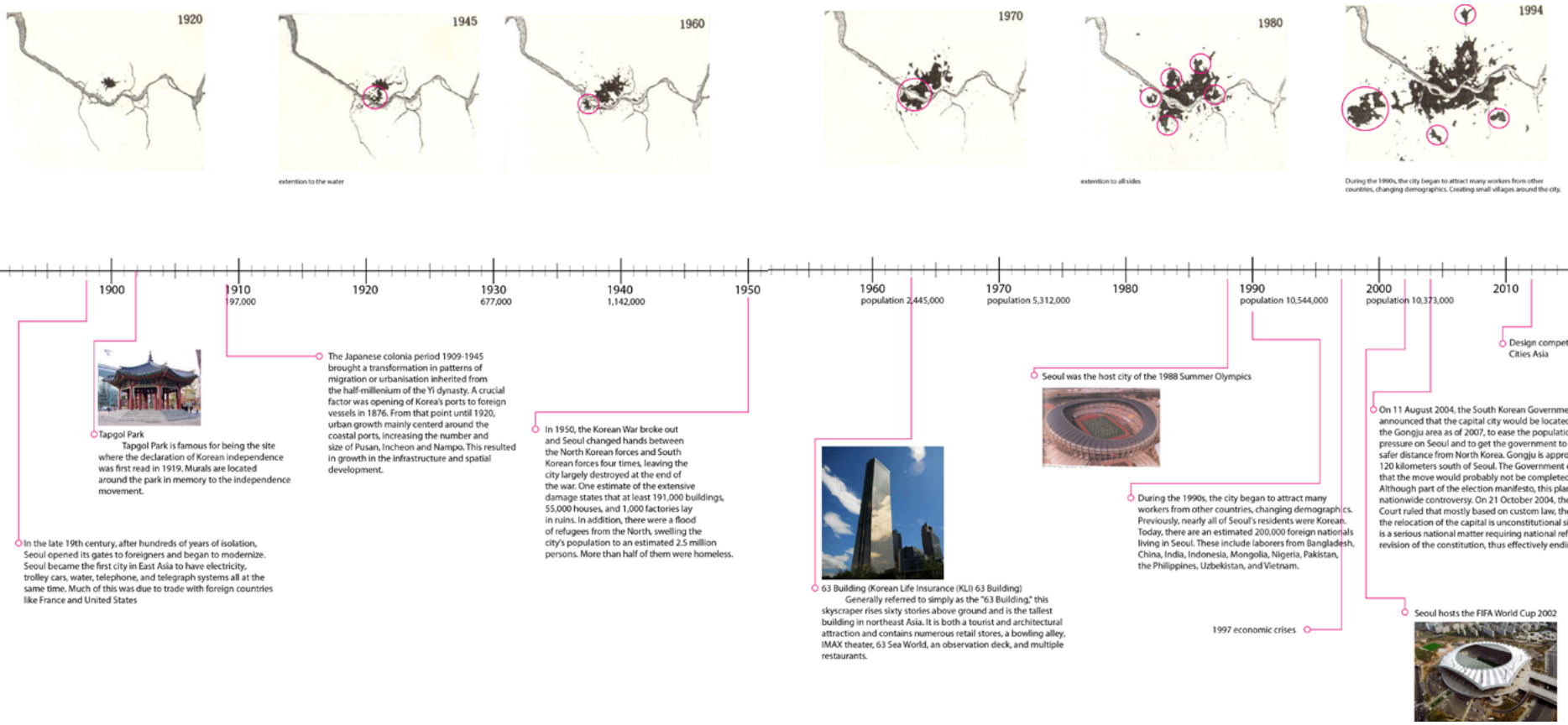


fig.1.9
Urban expension with key building constructions
Source:
The lifetime city,
Vertical City Asia

and pollution had become serious problems in Seoul by the 90s. As a result, compared to other OECD countries South Korea has the longest daily average commuting time, more than 2 hours, due to the city's inadequate infrastructure. Moreover, urban sprawl has encroached upon agriculture land and destroyed the natural environment. All in all, the rapid urbanization did not benefit the general population of Seoul, on the contrary, the people who live on the outskirts of Seoul have to bear the social costs and a diminished quality of life. "One of the main sources of urban sprawl in Korea is the incompatibility between broad 'zoning' and the desire to implement development control as a means of reducing land price differentials, providing flexibility and preventing illegal development that is inherent to the Korean planning system." (Cho, J 2005:215) "Zoning" as well as master planning are obviously not only inadequate means to solving the problems, but also the causes of many subsequent socio-economic problems in fast growing complex modern cities. Therefore, new planning tools are urgently needed.

The competition for the Vertical City Asia for 2012 aimed to explore the possible answers to this problem. We believed that only if the current challenges South Korea faces were fully understood an alternative plan could be introduced.

1.3. Challenge

South Korea is now undertaking another economic structural transformation after the financial crisis of 1997. This reform is even more urgent than last time as the global economy is changing more rapidly. Meanwhile, South Korea is changing fast as well, some of which could be great challenge to the transformation.

1.3.1 Fast growing aging society

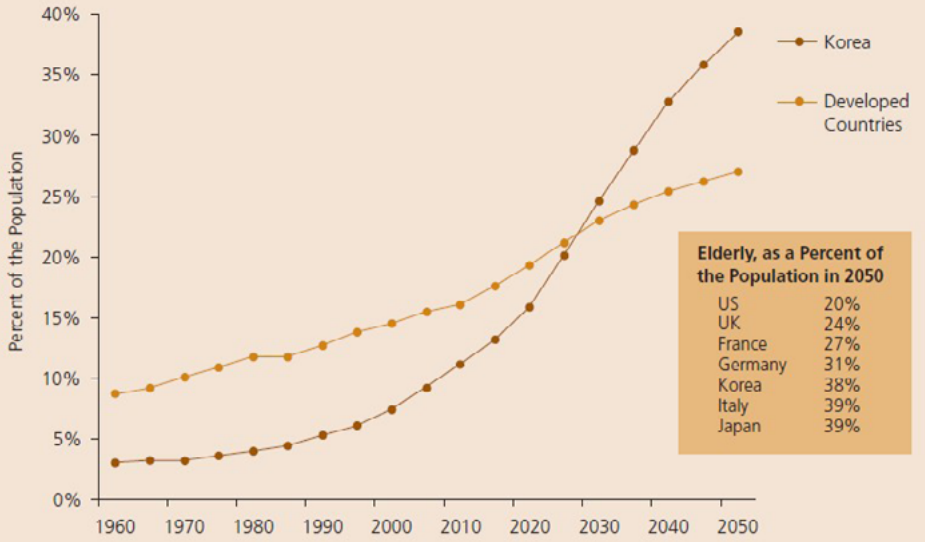
South Korea is the fastest ageing country in the World. Between2005 and 2013, the age group above 65 years increased dramatically going from less than 9 percent of the population to over 12 percent. With the record low birth rate and the rising life expectancy, South Korean is going to face a stunning demographic transformation. (fig.1.10-1.13)

> ***"According to the latest government projections, 38 percent of Korea's population will be elderly by 2050, putting it in connection with Japan, Italy and Spain for the oldest country on earth."***
> ***(Howe, Jackson and Nakashima, 2005)***

Nonetheless, the aging of population would have a tremendous impact on nearly every dimension of Korean life. "Government budgets will come under relentless pressure from rising expenditures on pensions and health care.(fig.1.17-1.18) Businesses

A young Korea is about to grow old.

Elderly (Aged 65 & Over), as a Percent of the Population, Korea versus Developed-Country Average, 1960-2050



Korea is aging faster than any country in history.

Years Required for the Elderly Share of the Population to Double from 7 to 14 Percent in Selected Countries

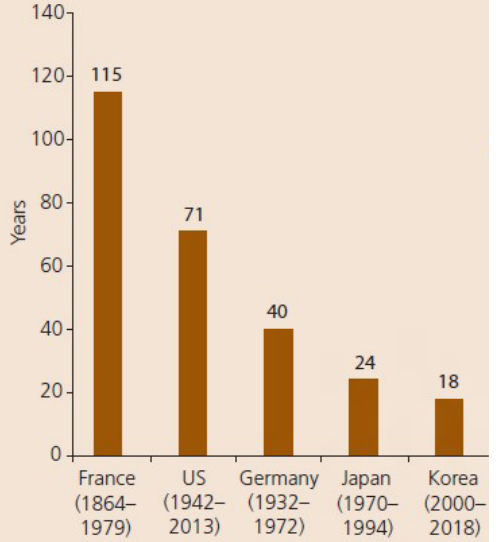


fig.1.10
Source:
KNO(2006)
UN(2005)

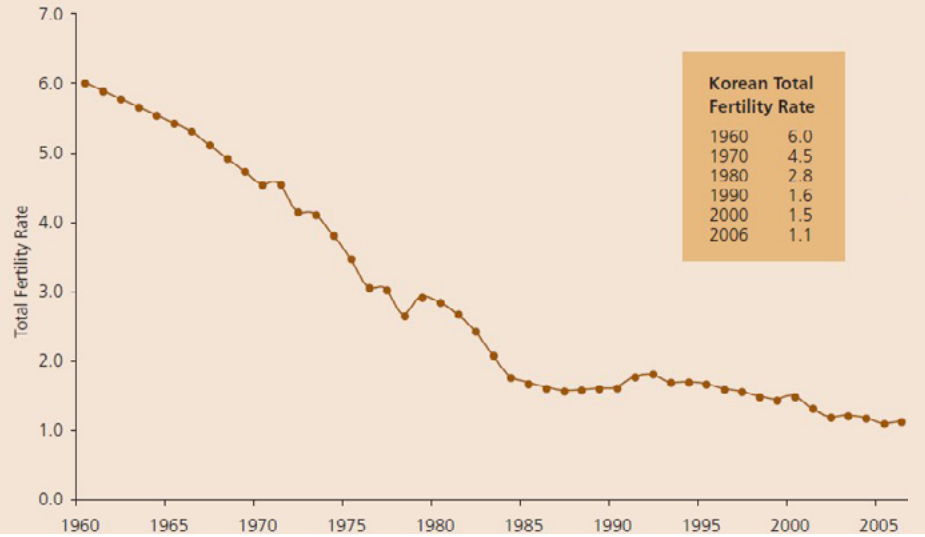
fig.1.12
Source:
KIM(2006)

fig.1.11
Source:
KNO(2006)

fig.1.13
Source:
KNSO(2005)
KWON(2003)
U.S. Census Bureau(2006)

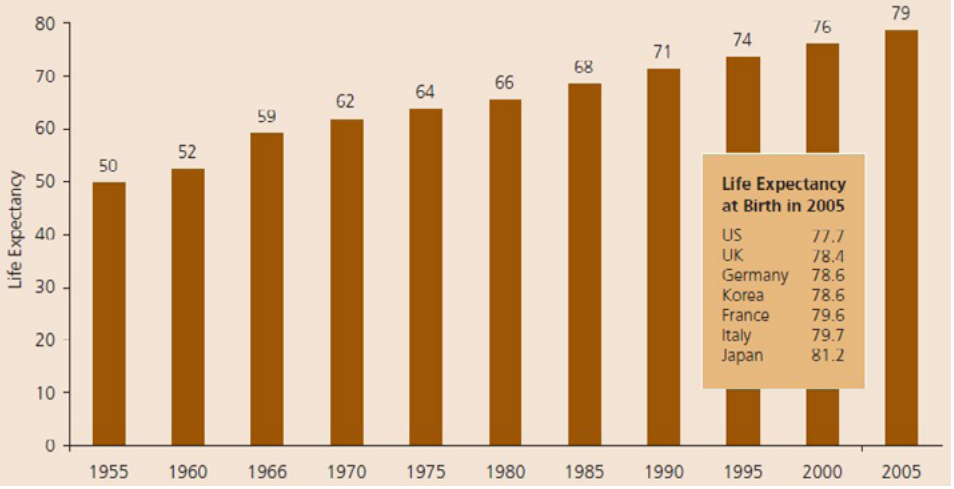
Behind Korea's age wave: A dramatic decline in fertility.

Korean Total Fertility Rate, 1960-2006



Behind Korea's age wave: An equally dramatic rise in life expectancy.

Korean Life Expectancy at Birth, 1955-2005



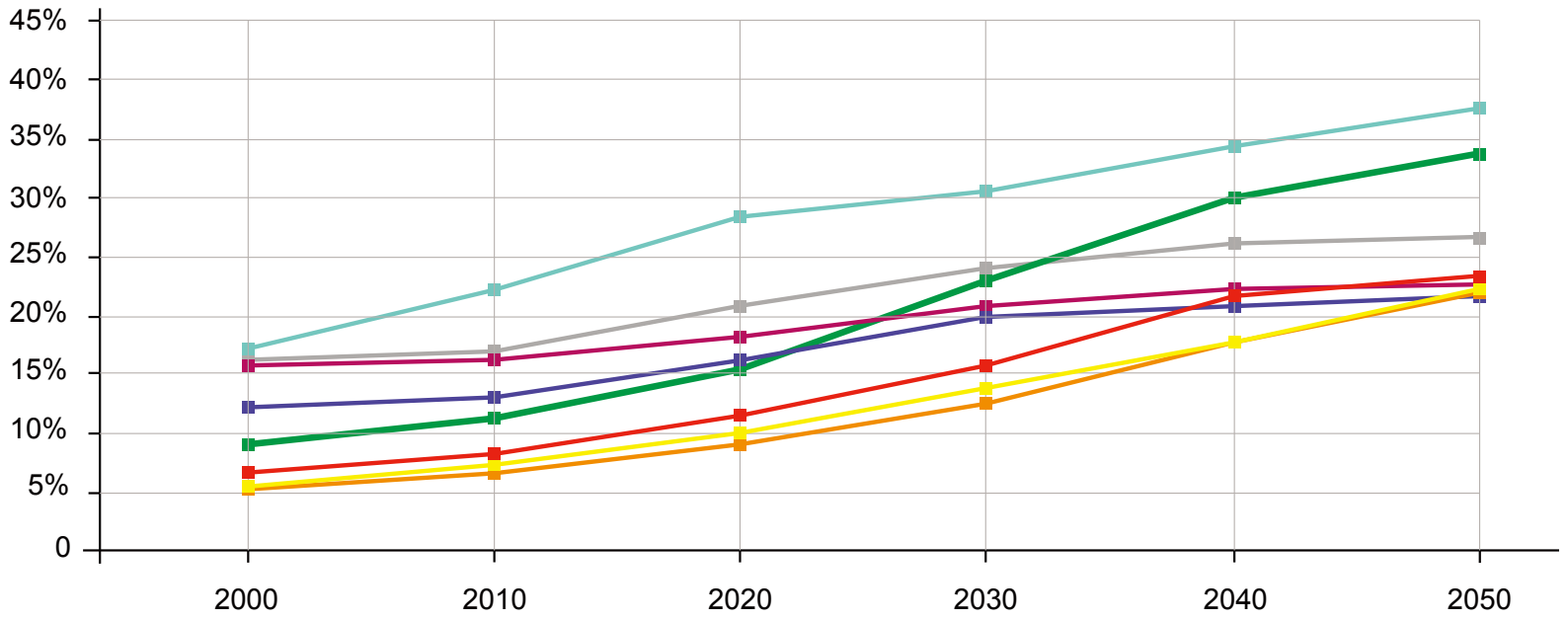


fig.1.14
2000-2050 Population over 65 years old in World countries

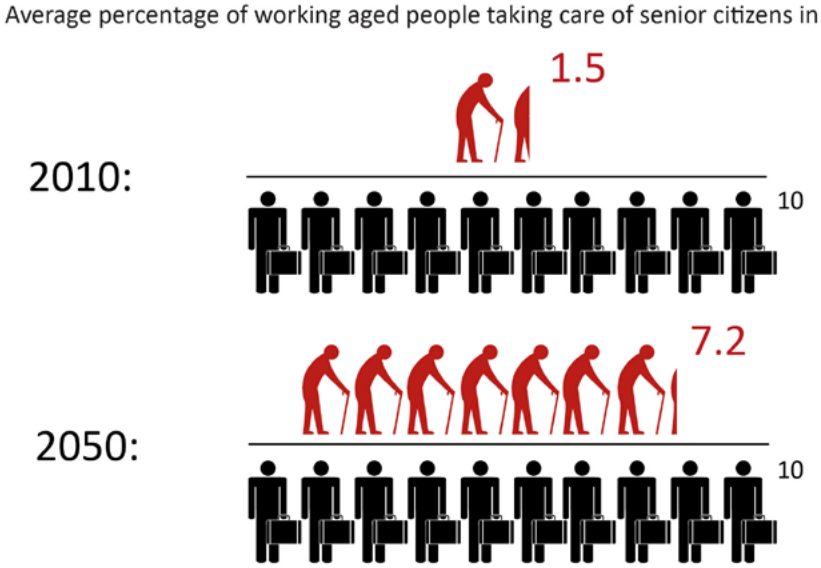
Source:
OECD demographic projection

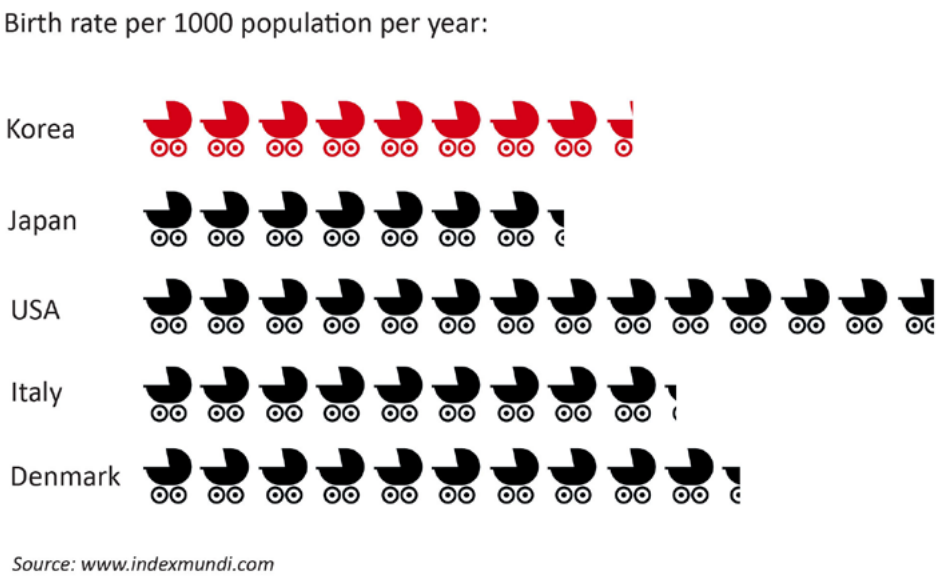
fig.1.15
Projection of Working group/ Pensioners in Yongsan, Seoul

Source:
Korea Joogang Daily

fig.1.16
Birth rate per 1000 population per year

Source:
www.indexmundi.com

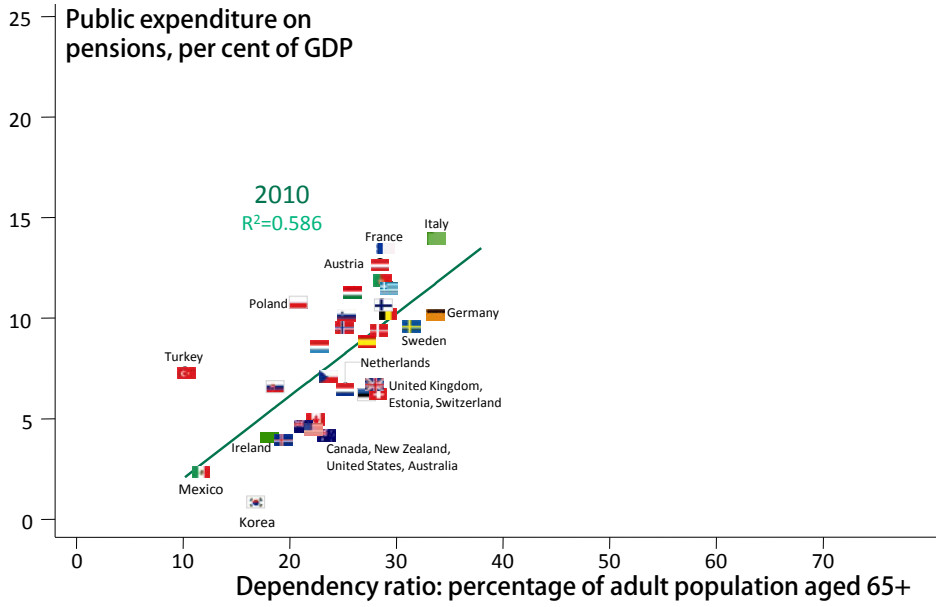




will have to cope with a deficit of entry-level workers and young consumers, while families will have to cope with a surplus of frail elders. Unless Korea takes adequate and timely steps to prepare, it could face a future of slower economic growth and stagnating living standards" (Howe, Jackson and Nakashima, 2005) Moreover, although the aging population is a worldwide phenomenon that has been seen in many countries, this challenge to South Korea, however, is especially daunting. Put simply, "no other society at a similar stage of development faces an age wave that is as massive as Korea's- or as fast approaching. Unlike China, which is also aging rapidly, Korea is already a high-income society in which most citizens, including most elderly people, have grown accustomed to middle-class living standards. Yet unlike Japan, the United States, and Europe, Korea must confront the aging of its population while it is still in the midst of modernization." (Howe, Jackson and Nakashima, 2005)

1.3.2 An Inadequate urban and social Model

Although South Korea has matched the European developed countries in wealth, and life quality within the past 50 years, the society, on the other hand, remains traditions in many ways, particularly in understanding the social roles. "Workers are expected to retire early from formal employment; the elderly are expected to live with and be supported by their extended families; Women who marry are expected to quit their jobs." (Howe, Jackson and Nakashima, 2005) Some of these traditions pose problems for a transforming Korea because they are still strong. For example, the culture of early retirement reduces the number of experienced workforce and increases the burden of elderly dependency; while the marriage job trade-off facing women has two detrimental effects: either further decreases the workforce or pulls down the fertility rate. Meanwhile, other traditions pose problems because they are weakening and Korea has not yet found effective modern substitutes for them. For instance, the share of living between elderly and their adult children is already declining, but Korea's National Pension System (NPS) does not yet protect most dependent elderly people living alone.Meanwhile, the cities of South Korea are far from ready for the coming aging society. Taking Seoul as an example, the valley geography form makes the city grid meandering and scattered, through with multiple means of public transportations, it is still difficult to elderly people to access most downtown facilities. Research shows that most of the elderly



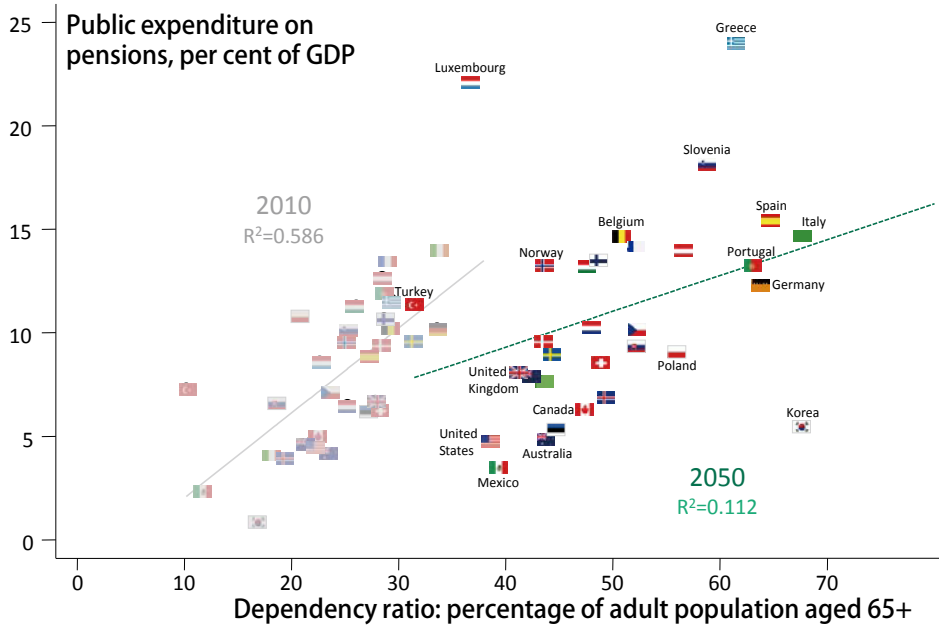


fig.1.17 Demographic (in) Determinish Source: oecd.org pesions at a glance (2011)

Public expenditure on old age and survivors' benefits, per cent of GDP

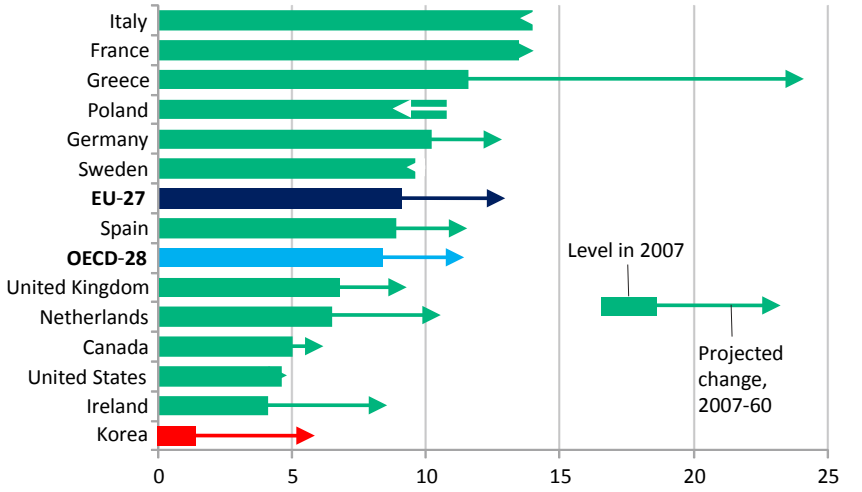


fig.1.18 Source: oecd.org pesions at a glance (2011)

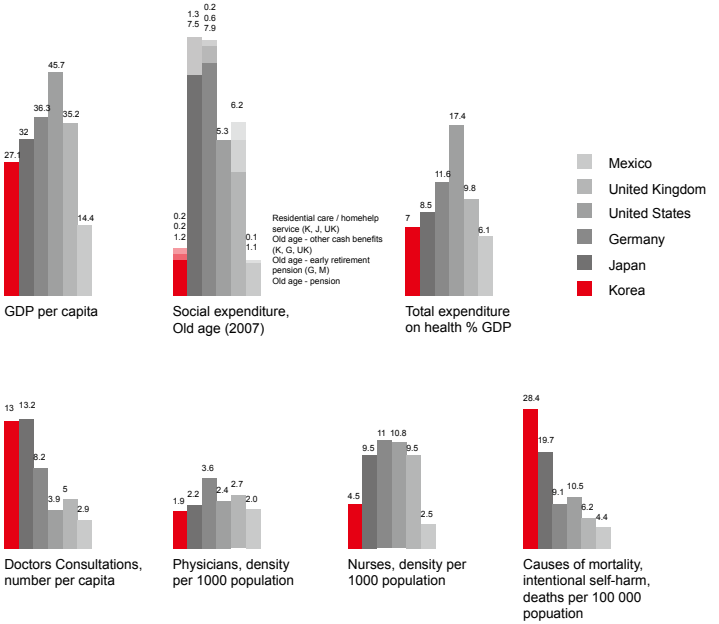


fig.1.19 Korea's Positions in OECD

Source: stats.oecd.org

people in Seoul live in the peripheries of the city for its countryside environment. But one of the consequences of such living choice is losing the convenience of accessing services and facilities. The daily commuting time in Seoul is also longer than other metropolitans in the world. The inadequate social support consequence serious social problem to Korean society, one of them is the suicide rate among elderly people had raised dramatically.

1.3.3 Urban regeneration

The urban planning in Seoul had been based on different principles in different period of history. From the Chinese fengshui and ancient planning theory to the Japanese colonial planning master plan, from the first 'City Planning Act of Joseon' to the Modern Korean Government own planning legislation. The planning system has transformed as while. The change in planning principle and system almost certainly leads to city regeneration, however, due to the frequent changing in the 20th century, the city of Seoul scattered its structure. Meanwhile there were some optimistic changes in late 90s: the Koreans started to promo the sustainable development strategy, and planning principle followed the strategy by making sustainable-oriented plans instead of growth-oriented plans. One of the major projects is initiated under this new policy: the Mt. Namsan restoration project. Mountain Namsan is in the geographic center of Seoul where close to the old Seoul city center, the project relocated the apartments from the mountain Namsa slope and restores the forest back, where citizens can enjoy the nature in the city center. "On July, 2000, the Seoul's urban planning ordinance was established which was the first in South Korea. This was the turning point for urban planning which put quality of life before 'development', establishing an era for culture and environment. The Cheonggyeocheon restoration has made the urbanity in harmony with human and nature." (D.Lee, C.Choi(E),2009)

Although these strategic major public regeneration

projects were successful, the regeneration of dwellings posed problems. Especially when it the properties are private owned. The traditional Korean dwelling is called hanok, which are organized into hierarchical cluster patterns of'ㄱ ', 'ㄷ', and 'ㅁ'. Although the Seoul government has a rather detailed conservation plan for the old hanok neighborhood, this kind of dwelling has gradually dwindled and has virtually disappeared over the years due to devastating wars and rapid modernization. (fig.1.21-1.22)

The reason why the plan failed was that the implementation of the plan was similar to a typical urban redevelopment project. “Old buildings were bulldozed to make way for modern ones” said David Kilburn. The free-lance journalist from the U.K. who has lived in “hanok” for more than 20 years, criticized Seoul government is responsible for damaging the traditional hanok neighborhoods. “He said the area in Gahoi-dong where he lives was one of the most well-preserved areas of hanok but the Bukchon Plan changed all that. ‘Many owners were given grants for the restoration of existing hanok and allowed to use the money for demolition. Some residents were intimidated into selling their hanok,’ he said. ‘City authorities, the police, the prosecutors, the courts all declined to take action when confronted with evidence of these abuses.’”(M.Kwon,2010)

Obviously the current plan for Seoul though use the terms of “protection” and “conservation”, the execution s are far behind the goals. (fig.1.20)

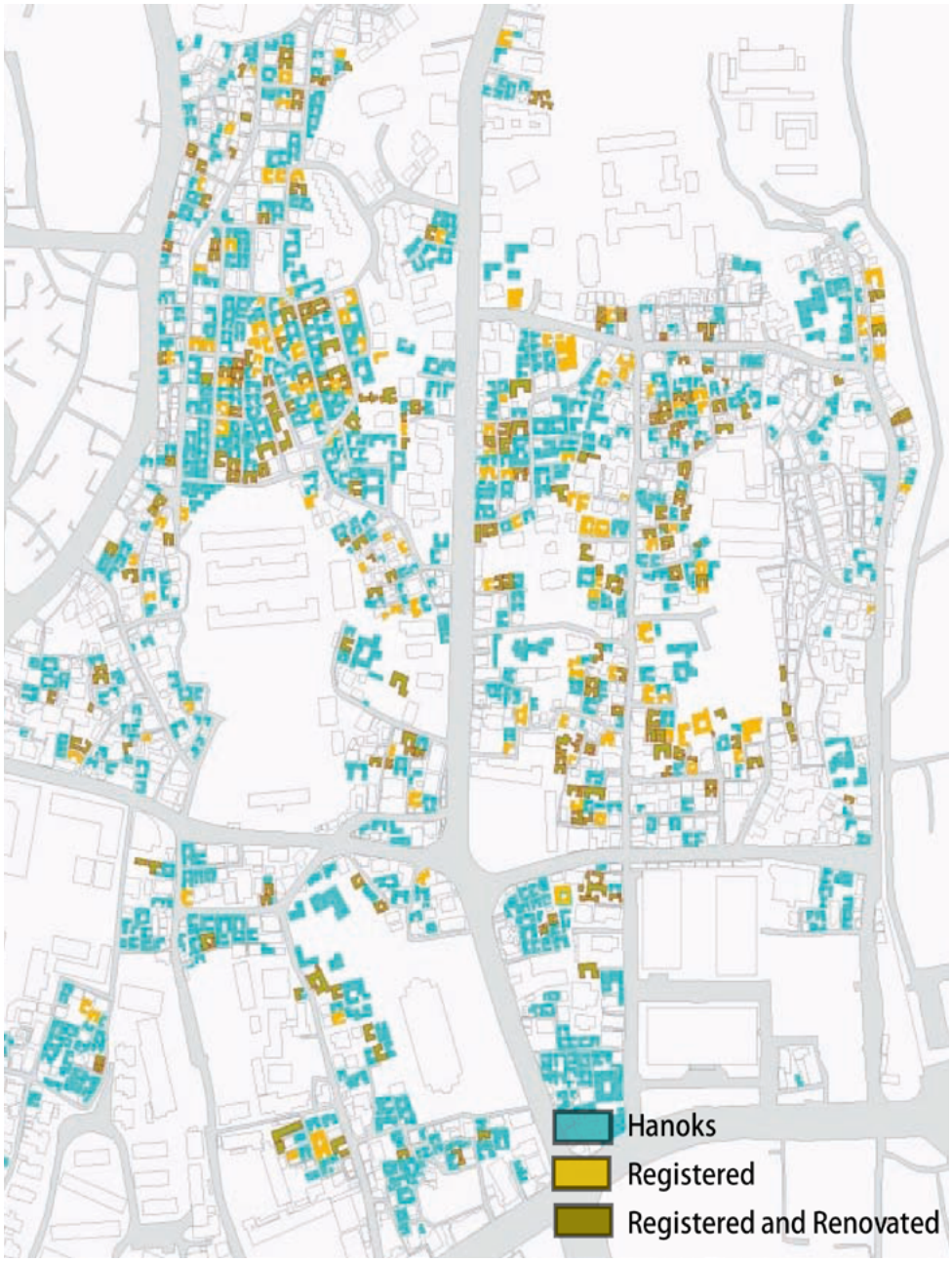


fig.1.20 registered and renovated hanoks in North village (current)
Source: urban planning of Seoul, Seoul Metropolitain Govenment

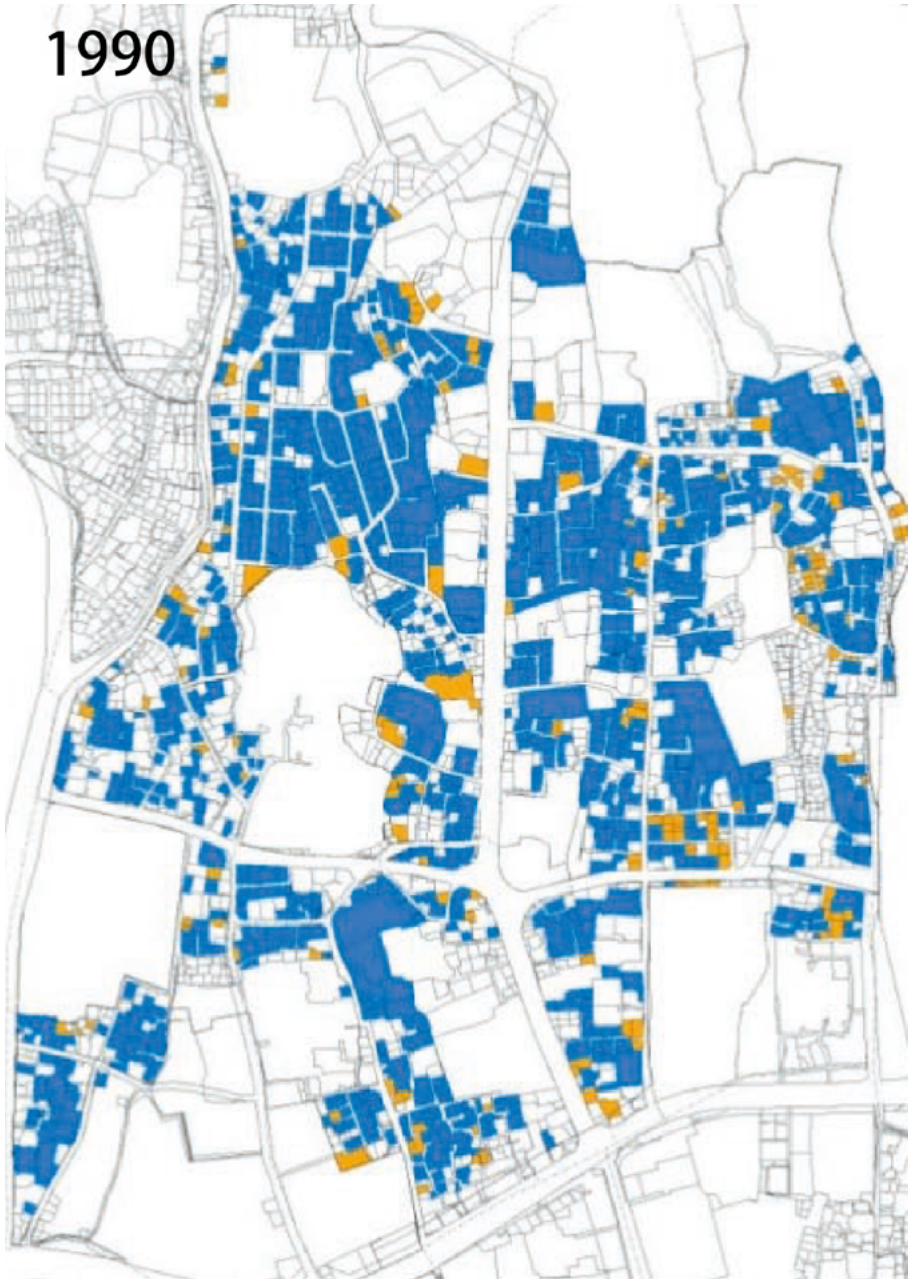


fig.1.21 Hanok neighborhoods in North village 1990
Source: urban planning of Seoul, Seoul Metropolitain Govenment

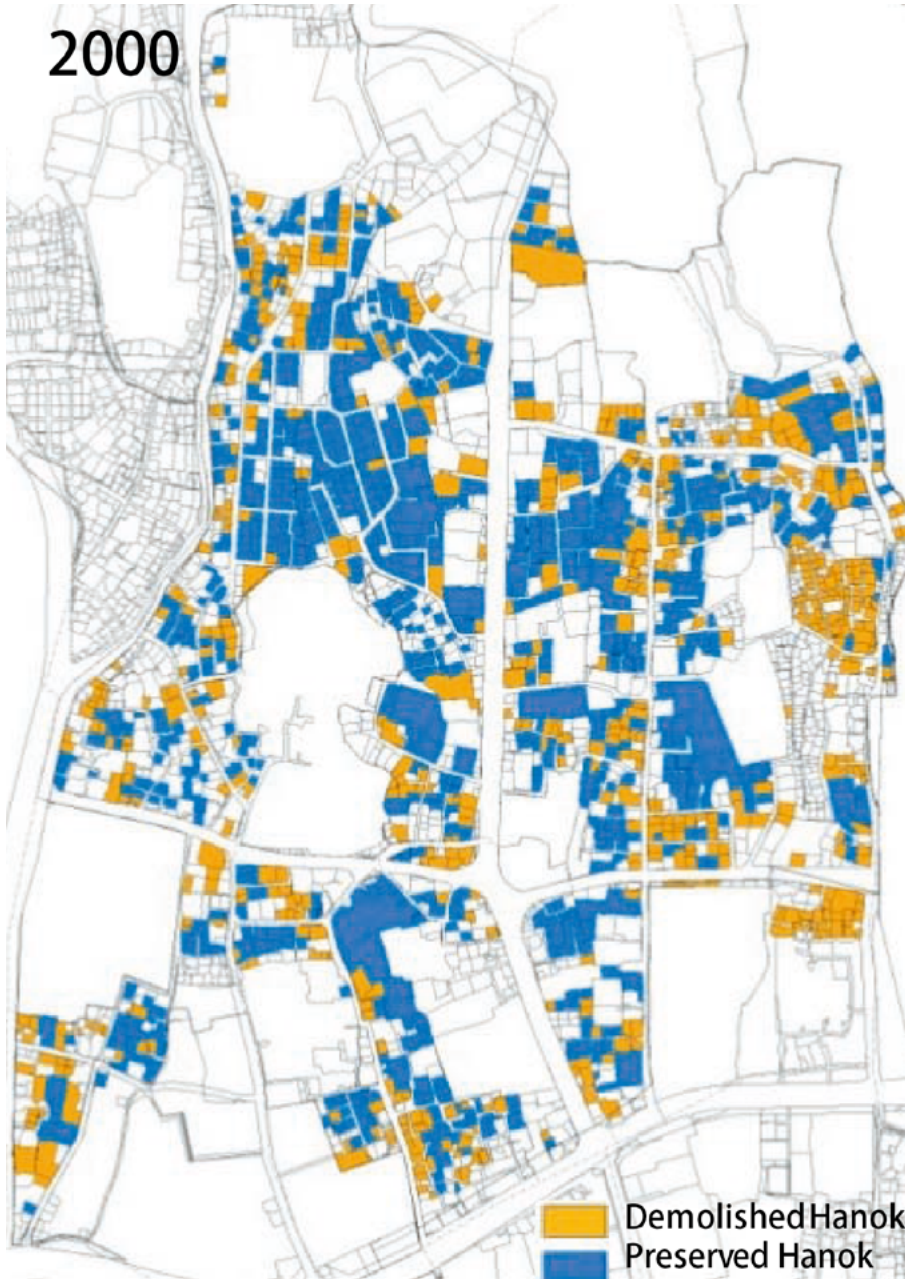


fig.1.22 Hanok neighborhoods in North village 2000 (under loosened regulations)
Source: urban planning of Seoul, Seoul Metropolitain Govenment

1.4. Problem statement

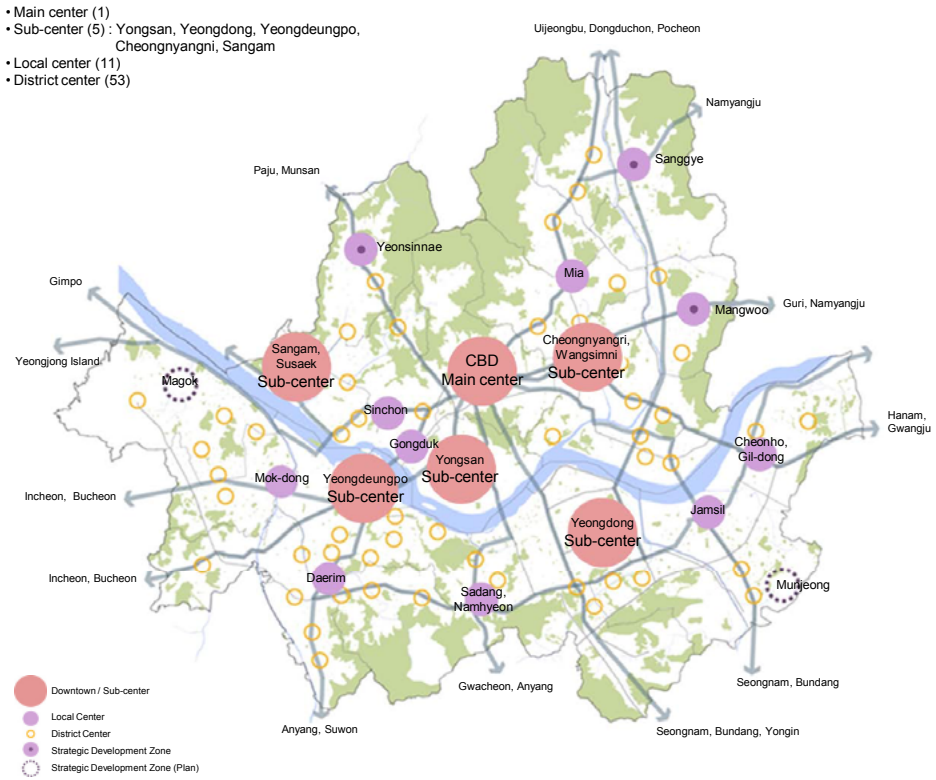
All in all, from the paragraphs above we can see that the current planning system of Seoul is challenged by three major factors in nowadays Korea:

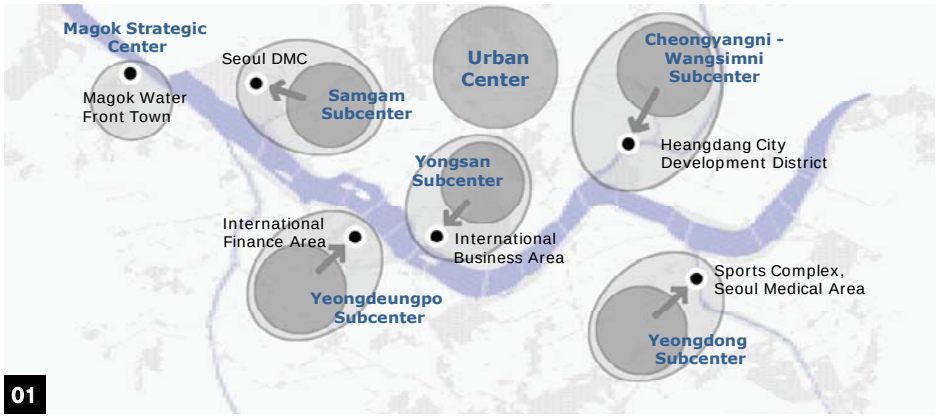
1. The changing economy model during post-crisis time
2. The fast-growing aging population and the changing demographic model
3. The changing priority of development: from quantity development to quality development.

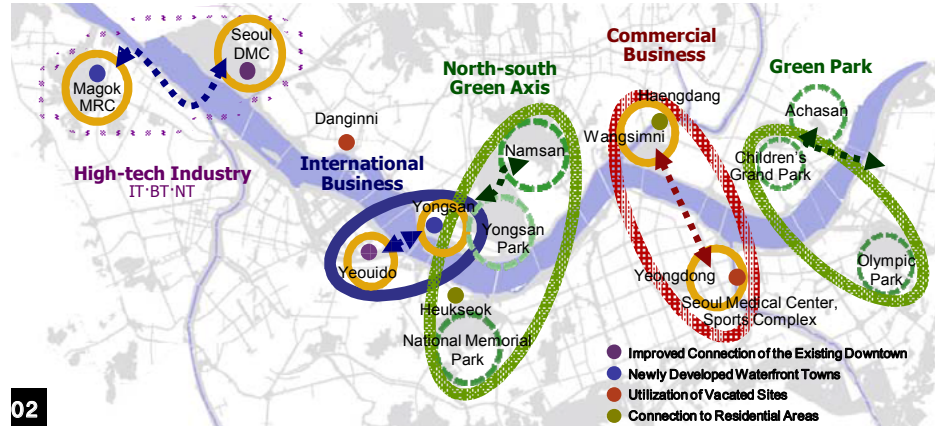
The current planning system was failed to respond these factors which, in my opinion, is the cause of the failure of “the Dream Hub” plan. However, not all stakeholders in this plan were neglecting these trends. From the official plan of Seoul 2020, one can see that the government made a clear vision of transferring to a more sustainable urban model. That shows at the region scale the official plan responded the factors well.(fig.1.23-1.24) However, the implementations in smaller scales did not. And it led to the ultimate failure of the project. I believe that the key problem is the wrong planning tools they have chosen, in specific, the master plan. Master plan is an effective planning tool when comes to massive urban expansion or developing a new city. However, it also has many limitations. Such as, lack of flexibility, requires great upfront investment, long payback period and therefore, high risk. These limitations decide that master plan is not suitable for complex urban regeneration projects especially those in an already well developed city center areas. Therefore, we need to introduce new planning tools to adapt to these new planning goals.

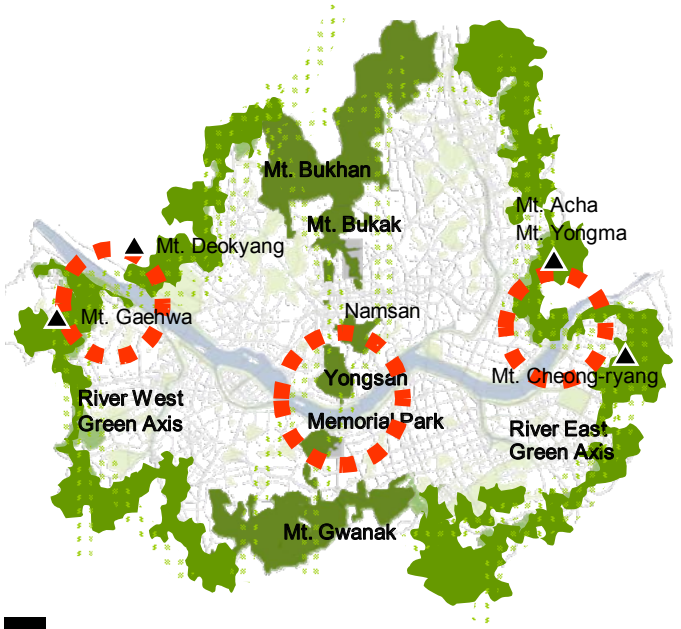
fig.1.23 Spatial strategic plan of Seoul

Source: urban planning and design in Seoul, Seoul development institude,2007









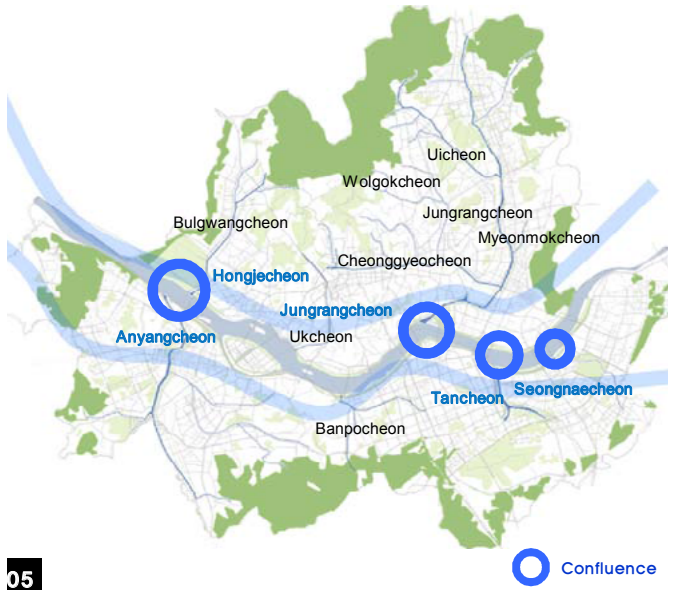
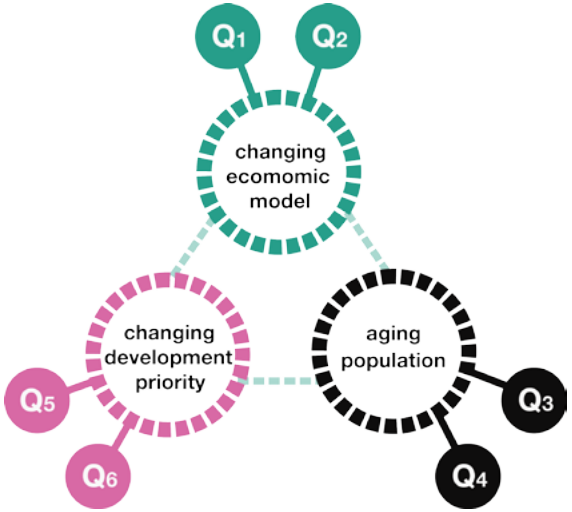


fig.1.24
Strategic plans for Han River Renaissance

Source: urban planning and design in Seoul, Seoul development institude,2007



1.5. Methodology

The thesis aimed to seeking for alternative ways of urban (re-) development, which will be supported by different ways of planning and design. The competition site will be introduced as an example for testing these methods.

The main idea for the site is to offering an alternative plan other than the Liberskind's Yongsan Dream Hub. The key words of the new plan are: spatial integration, aging society, urban centrality.

To achieve the goals, researches and cases studies will be taken as main measurements in this thesis. The following research questions, in my opinion, are most important to the plan. And the answers to these questions will lead to the right method of designing the site.

The research main question is:

How to make an alernative plan for Yongsan,Seoul?

The sub-research questions are targeting the three key factors seperately. Researches will be conducted with the propurse of generate design principls. Further a Design will be made base on the priciples.

sub-research questions

1. How did Seoul's planning goals change in history? is the City of Seoul scattered, and why? (History study)
2. What are the successful plans for patching up the scattered city in Seoul? What are the approaches they have implemented?

Case analysis (cheonggyecheon restoration)

3. What are the approaches that other countries used to coping with the aging society

Cases studies (Japan, Germany, USA)

4. How to regenerate an urban centrality without losing its vitality?

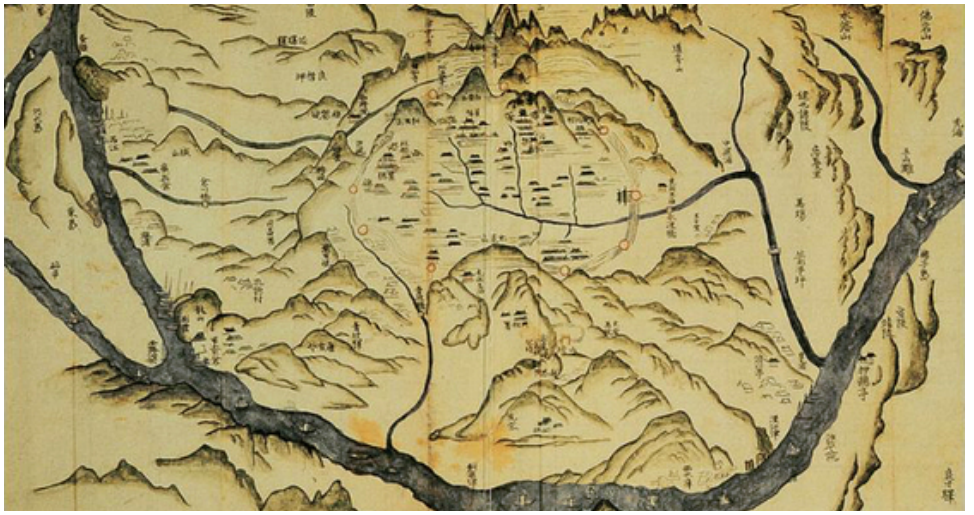
Cases studies (zhongguancun, Qianmen)

5. How to make plan for electronic market?

Case Studies

Research

fig.2.1
Fenghsui map of Seoul City



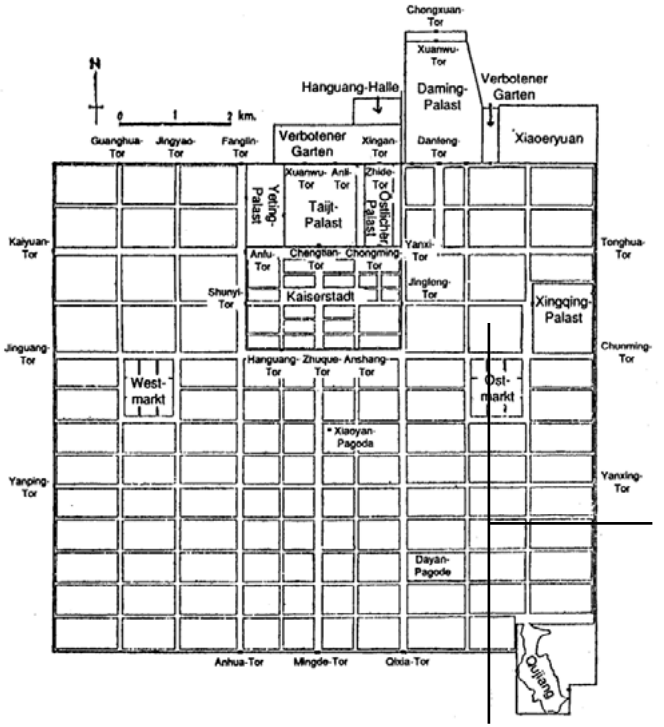


fig.2.2
Seoul map in Anciet Kindom Period

fig.2.4
Chang An city structure map

2.1. The Evolusion of Seoul

Historical diagrams (hand drawing 1st edition) Seoul has experienced continuous transformation throughout its history, so have its urban planning principles. Thus, the city is fragmented in its network and land use. Today's urban morphology of Seoul was generated through four periods: the ancient kingdom period, the colonial period, the post-liberalization period, and the modernization period. In each period the planning was based on completely different principles, which are not only incoherent, but mostly contrary to each other. In this part of the thesis the four periods and their respective planning principles as well as the major projects will be introduced.

2.1.1 The Ancient Kingdom Period

Seoul was selected as the capital city over six hundred years ago, in 1394, by the Joseon Dynasty. The site was chosen because of the auspiciousness of its geomancy. In the theory of Chinese Fengshui, a good location to settle down requires mountains in the back and rivers in front. Based on its geography, it stands to reason that Seoul would make a geomantically auspicious site. "Seoul has a relatively large basin that becomes the bright yard of the city located among the main mountain black tortoise, blue dragon, white tiger, and the peace mountain. (Four mountains surrounded the site in four directions which correspond to the Fengshui theory of four guardian animals) Small streams from the nearby main mountain flow into the center of Seoul, while the large Han River flows in front of the city."(Min, J 2012) (fig.2.1)"The Joseon dynasty developed a city of balanced size that fits well into the basin. On the ridges of the mountain range that surround Seoul, the city wall was built to define the city boundary and complete the city landscape. " (Min, J 2012) (fig.2.2)

The planning of the city was also likely influenced by the Chinese Theory Zhouli Kaogongji, a book which describes how to plan a city, which had since become the model for most ancient Chinese cities, of which the 'checker board network' is one of its most distinguishable characteristics. (fig.2.3) Seoul has been planned based on this model and imitated the Chinese capital city at that time, ChangAn. (fig.2.4)

In this period, Seoul developed the original defense wall and the checker board network, a structure which has been in place to date.

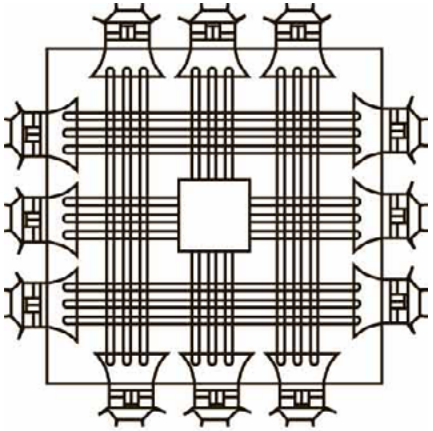


fig.2.3
The city planning priciples of Anciet China
Source:
Zhouli Kaogongji

2.1.2 The colonial period (1909-1945)

From 1909 to 1945, Korea was colonized by Japan. The Japanese administration made great changes to the historical heart of Seoul. A map from the 1930s shows how much Seoul had changed since the old times. The defense wall were largely intact, the red lines that “indicate urban areas and fill most of the area inside the wall, but also expand to the south and west, areas that developed after the Japanese destroyed the city wall.”(Fouser, R .J, 2013) http://magazine.seoulselection.com/2013/04/04/mapping-seoul-in-the-1930s/

Meanwhile, the Japanese demolished many ancient buildings and palaces inside of the wall, in order to construct new buildings. For instance, they moved the Gwanghwamun and built the main government office at the original site; they transformed the Kyunghee Palace into a School; and the Ji Tan was changed into a Park. Many new building were built at this time, such as the Keijo (Seoul in Japanese) city hall, today’s Seoul station, Korea bank, Seodaemun Prison, Keijo Imperial University, Honcho commercial district, etc. “The introduction of a tram system was yet another major factor in shaping the new urban landscape. It ran across the city from southwest to northeast and its length total 39km. It transformed the pedestrian-oriented urban structure into a more transport-oriented one.” (D.Lee, C.Choi(E),2009)

source: http://namugnel.weebly.com/seoul-physical-three-turning-points.html

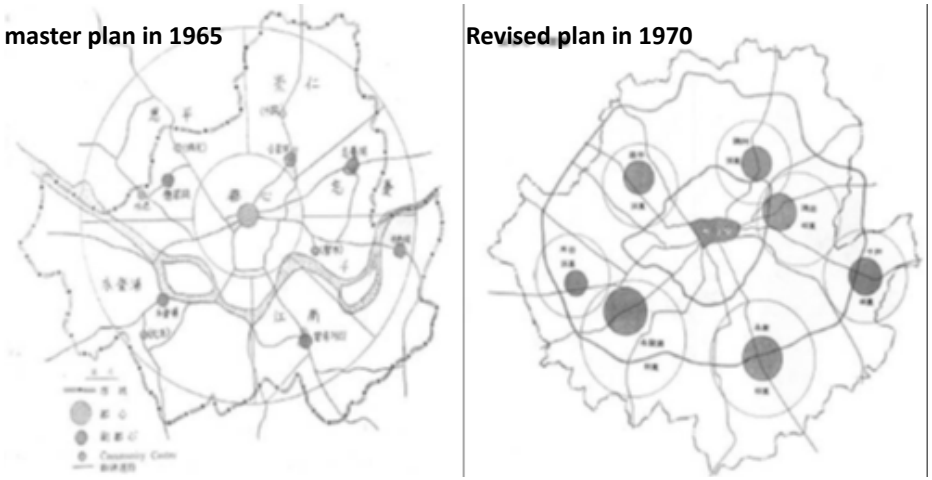
These series of dramatic urban reshaping were not only the act of colonization, but also the preparation for the launching of capitalist economics and industry in Korea. During this period, Seoul city had gone through the initial stages of an early urbanization process, which formed the foundation of its future industrialization.

fig.2.4
Road clearing in Seoul in early Japanese coloniel period (1912)

Source:
Asian city research, Departement of Architecture, The University of Hongkong 2014-15

fig.2.5
The Third Han-river Bridge connecting to Gangnam 1969

Source: Koreabang.com



2.1.3 The post-liberalization period (1945-1970)

"The fifteen years between the liberation of 1945 and the end of the first Republic period was a time of dynamic changes." (D.Lee, C.Choi(E),2009) However, the Korean War which took place only 5 years after the liberation had destroyed almost the entire urban structure. Reconstruction projects were launched quickly after the end of the War. The City Plan for Reconstruction was proposed in 1952, but de facto failed to be implemented. Later in 1960s, Koreans had successfully launched the First and Second National Economic Development Plan (1962 ~71), which brought rapid urbanization and industrialization to Seoul.(fig.2.6)The continuing influx of domestic migrants propelled an explosive population growth during this period as well, which led to the expansion of the city's boundaries in 1963. (fig.2.5)The outskirt extended to the northeastern region and south of the Han River (Gangnam).

fig.2.6
Plans for sub-centres
Source: Kwon(2013)

2.1.4 The modernization period (1970-1990)

From the 1970s onward, Seoul had entered its rapid modernization period. High-rise office buildings appeared in the city center and the area south of the Han River (Gangnam) underwent tremendous development with the construction of huge numbers of apartments.(fig.2.7) Meanwhile the Seoul government tried to adopt the western planning theory by introducing the greenbelt, in order to limit the city expansion, and paved western style grid pattern streets on the new city area in Gangnam district. “Sub-centers, such as Cheongnyangri, Miari, Yeongdeungpo, Cheonhodong, and Yeongdong, grew dramatically, and small cities in the outskirts of Seoul began to develop into satellite cities, such as Bucheon, Uijeongbu, Seongnam, Anyang, Banwol, and Gwangmyeong. As a result Seoul extended beyond the old city limits beyond the Han river area, creating a gigantic metropolis with several satellite cities.” (D.Lee, C.Choi(E),2009) In the 80s, Seoul won the bid to hold the Summer Olympic Games in 1988 and the Asian Games in 1986. The planning paradigm had changed, in order to develop the city’s infrastructure to meet the international standards.(fig.2.8)Soon after that, the Seoul metropolitan government drew up another revised master plan to manage those developments after the Olympic Games had ended. This was the first statutory city master plan of South Korea that showed Seoul was developing itself towards a Global city.

fig.2.7 Gangnam urbanizarion in 1978

Source: Korea

fig.2.8 World Trade Center Seoul in construction 1989
As the Olympics spurred the growth of the Gangnam economy, more modern buildings were raised in the area.

2.1.5 The sustainable development period

"Beginning in the 1990s, the urban development policy changed from the growth-oriented one to the sustainability-oriented. One of the major projects initiated under the new policy was the Mt. Namsan Restoration project, which removed apartments from the slopes of Mt. Namsan and restored the forest, where citizen can enjoy the nature and relax. On July, 2000, the Seoul's urban planning ordinance was established which was the first in South Korea. This was the turning point for urban planning which put quality of life before 'development', establishing an era for culture and environment." ((D.Lee, C.Choi(E),2009:11) The Cheonggyeocheon restoration was launched under this circumstance, which successfully revitalized the downtown area of Seoul. This project will be further elaborated in next chapter as a reference case for urban centrality regeneration project. (fig.2.7)

Conclusion

The historical research on Seoul's urban development does not discover a coherent urban structure. Various reasons contributed to this condition. "One is the low survival of structures from past periods: rapid modernization in the late-twentieth century gave little attention to traditional urban legacy." (Kim.2012) Therefore, little structural spatial elements we can use as part of our design principle. However, there are some fragments of historical urban form remain. For example, old streets, residential areas, as well as their functions that featured by local culture and lifestyle. This can be seen as an example of how culture impacts the urban morphology in term of defining spatial programs. We believe that this is the key feature of South Korea urban morphology that should be strengthened as a key design principle in our plan. In order to respond the culture related problems in my problem statement.

fig.2.7 Cheonggyecheon restoration plan

Source: didacticdiscourse.wordpress.com

fig.2.8
Cheonggyecheon before and after the restoration

Source:
wwf.panda.org

fig.2.9
Cheonggyecheon in 1950s

Source:
didacticdiscourse.
wordpress.com

fig.2.10
Cheonggyecheon covered-up in 1960s

Source:
Flicker.com

2.2. Regeneration

2.2.1 Cheonggyecheon restoration

In the paragraph above we can see that the urban structure of Seoul is fragmented. The fragmented structure causes problems, such as traffic congestion, air pollution and deterioration of vitality. Therefore, Seoul government has implemented a series of regeneration projects in downtown area, in order to patching up the fragmented urban structures and revitalizes the city center. Cheonggyecheon restoration is one of the most successful and famous project. Therefore, it is a good reference case to learn from.

Cheonggyecheon is a stream located in center of the downtown area of Seoul. It is a stream that shapes Seoul in ancient Kingdom period. The main east-west road of seoul was along Cheonggyecheon while the north-south roads were along its 23 tributaries. Meanwhile, the surrounding mountains and forests form the boundary of the city. From the ancient map we can see that the structure of Cheonggycheon is also the structure of the city in the early time. (fig.2.12) Although the steam is meaningful to Seoul, there were several temps to cover it up in history for the flood problem it brought. In 1950s, many homeless war refugees built huts alone Cheonggyecheon,(fig. 2.9) the water was server polluted and plague spread alone the stream, with the hardship of economy at that time, Cheonggyecheon was finally buried under ground in 1960. (Unknown,2007)"Before the restoration works, Cheonggyecheon was covered by 6km long and 50-80m wide road structure, with 5.86km long and 16m wide of Cheonggye elevated highway over the road, and 11km of the intercept sewage system under the road. More than 168 thousand cars a day were running Cheonggye street and Cheonggye elevated highway, and 62.5% of them were through- traffic. According to a study conducted by the Korean Society of Civil Engineering in 2000, serious repair works should be done for three years with a budget of 100 billion won to address deficiencies of the road and elevated highway structures. It was for this reason that the Cheonggyecheon restoration project was formulated." (fig.2.8) (Hwang, 2003:1)

Besides the air pollution and traffic congestion, the deterioration of housing along cheonggyecheong was also a main reason that "dull competitive edge of the northern part of Seoul". (Hwang, 2003:2) Data from Seoul development institute shows that downtown area of Seoul and Cheonggyecheon riversides population has dropped 66% and 14.9% respectively for the last 20 years. Meanwhile, same trend showed in commercial and industry sector in downtown and Cheonggyecheon riversides. From 1990 to 2000, the number of business in downtown area decreased 24.1%, which leads to a 6.9% drop in accounted percentage of Seoul business. "Urban redevelopment failed to draw private capital and fizzled out, and its feeble urban industrial competitiveness serves as an essential factor in deteriorating the competitiveness of Seoul as a central city of northeast Asia." (Hwang,2003:2)

Therefore, besides create a more eco-friendly environment , the Cheonggyecheong restoration

project also made downtown revitalization one of its major goal.

2.2.2 Strategies and approaches applied in Cheonggyecheong restoration

"The total length of the restored area in Cheonggyecheong restoration project is 5.84 km with an area of approximately 1,000 acres." (Zweardo, 2015) Two key strategies were applied: preservation of nature and history, as well as pursuing development with regional characteristics and circumstances. (Hwang, 2003)To these ends, Cheonggyecheong was restored as an urban stream in nature, a human and environment friendly space with a waterfront and walks along the banks. In consideration of smoothing the city traffic flow, both sides of the stream has left room for two lanes of one-way roads. Meanwhile 17 out of 23 bridges on the stream are designed for both motorist and pedestrian use. "Left turn is limited as much as possible and U-turn is allowed only at three designated locations in an effort to protect the environment from car emission." (Hwang, 2003) The government also wants to promote the public transportation use by introducing new bus lines and subway to this site on one hand, and limits the parking space along the steam on the other hand.

Meanwhile, to better facility the idea of development with characters, the restored Cheonggyecheong stream was divided into three parts, namely urban, urban-natural, and natural landscaping.(fig.2.13) "Urban area is the area of the river that is often used for various festivals with two main attractions, namely the 'Spring Tower' and Candlelight Fountain. (fig.2.11) While urban-natural is a transition area. And the last one is natural landscaping which is an area for a variety of plants and animals to live. This area is also expected to be a place of interaction between nature and human." (Unknown, 2015) Several other restore works have been conducted in order to restore history to this area and attracts tourists, for instance, " to restore Seoul castle walls, to beautify historic streets, to create longitudinal and circular green axis inside the four historical gates, to restore the original form of Sajikdan, to create a "culture-tourism belt", to preserve modern cultural assets such as Jungmyeongjeon and Jeongdong Church, to restore Gwangyo and Supyogyo bridges that were on Cheonggyecheon in the past ." (Hwang,2003) In order to revitalize the downtown area, the restoration plan is also aiming to strengthening the residential function of downtown area, by introducing hig- quality modern new housing along the stream on the one hand, and preserves the old historical neighborhood within downtown area on the other hand. Moreover, the pollution emitting industries and the out-fashioned manufacturing industries were pull out Cheonggyecheon area, conventional facilities and hotels were add to this area to attract the international business complex, multi-regional headquarters and international financial institutions. New shopping district with the ambition of being "Top fashion industry district" was also part of the plan, which

fig.2.11 Cheonggyecheon celebrating traditional festival

Source: didacticdiscourse.wordpress.com

fig.2.12 The Cheonggyecheon and its tributaries

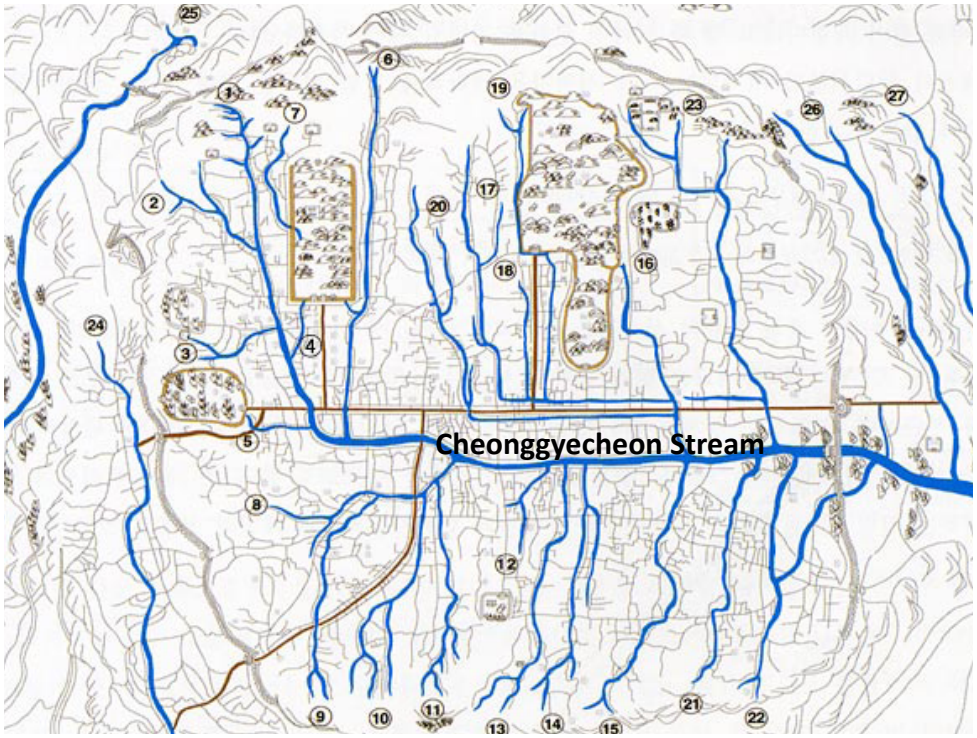


fig.2.13 Cheonggyecheon restoration and its three themes

Source: preservenet.com

actually became the turning point for the industry revitalization in downtown area.

2.2.3 Reflections on the project

The Cheonggyecheon restoration project has achieved great success in almost every perspective, in expense of "$ 367 million with the social cost worth $ 1.900 million. However, after all the construction complete, Seoul got social benefits equivalent to $ 3,500 million."(Hwang,2003) In environmental terms, the Cheonggyecheon stream can prevent flooding in Seoul with estimates to 200 years ahead. And the Cheonggyecheon park increased the biodiversity as well as greatly improved the local environment. The heat of the city has reduced 5.9 degrees; air and noise pollution has dropped by 35%; the wind velocity in the river corridor has increased to 7.8%; and fuel use was also reduced due the daily traffic flow has been reduced 170,000 cars in this area. "In social terms, this restoration improves the quality of life for the citizens of Seoul. In the presence of Cheonggyecheon river, Seoul residents have a public space and green space that can be used to socialize among residents. With two historic bridges that were restored, the lantern festival and bridge stepping on Supyogyo Bridge could be held back, of course along with several other festivals conducted around the river. Restoration is also contributing to the increase in the number of bus riders to 15.1% and the subway to 3.3% in the period of 5 years between 2003-2008. Become a new tourist attraction that brings 64,000 visitors daily. Also, Nature, historical sites, and the Cheonggyecheon Museum become a valuable source of knowledge for the citizens of Seoul.In terms of economy, the increase in business up to 3.5% within 1.2 km of the Cheonggyecheon corridor. Price of property within 50 meters of the river also increased up to 30-50%."(Unknown, 2015)

However, from the all the remarkable results from the restoration of Cheonggyecheon stream, the criticism is certainly still there. One of them comes from the old retailers along Cheonggyecheon road before restoration. They are complaining that due to the increase of land price they cannot afford the rent of their old shops therefore had to move out of this area. Around 6000 merchants were affected, after several rounds of negotiation, Seoul government promised to providing place and a sum of compensation to the merchants who were force to move out, the project called "Garden Give". However, the venue could only hold 40% of the total number of merchants. Even with the compensation from the government, only 28% of the merchants could afford buying the place. Business also didn't run as expected. Thoughts on the number of pedestrians who could be potential buyers were also not proven. Because the pedestrians who visit the area mostly for the cultural and environment instead of shopping. "Cultural promotions conducted by the government succeeded in growing economic Dynamism in the city, but not to the traditional commercial activities which had previously occupied the site."(Unknown, 2015)

2.2.4 Conclusion

The restoration of Cheonggyecheon made a success in revitalize the downtown area of Seoul. It shows that the given priority to quality development could also bring huge benefits in local economy and can be an effective tool to solve social problems. However, the multi-aspect success of this project is based on including multiple stakeholders especially citizens' participation into decision making process. Seoul metropolitan government has held over 4000 meetings to negotiate with the local merchants to reach the final agreement. The efforts pay back well. In term of urban design, the differentiation in themes of different parts is helping the plan to meet different kinds of needs of different stakeholders, which should be taken as a design principle of the regeneration of Yongsan as well.

2.3. What are the approaches that other countries used to coping with the aging society?

The aging phenomenon has appeared in many countries throughout history. It normally happens after a baby boom. When the boomers get old, many social and economic problems will show up. It has usually been seen as a crisis. For instance, " Japan had its baby boom between 1947 and 1949, during which time the annual population growth was over two million. During the time when these boomers grew up, the Japanese created an economic miracle, the cities had developed at a fast speed, and many public facilities were built. For example, a metro system covered almost all important areas in the country." (Wang, 2011:1, L3-10) However, when the boomers grew old, Japan got into a 10-year-depression. "Housing prices dropped back to levels seen 20 years ago; in the 90s, the Japanese real estate bubble burst, which led to the biggest real estate crisis the world had seen and trapped the Japanese economy into a long-term depression" (Wang, 2011:2, L7-10) This is what Japanese call "the lost 10 years".

However, aging is not always bad for the society. As any crisis also usually means opportunities, so does aging. It sometimes has a positive influence on a society. For example, 'Americans who were born after WWII were called the baby boom generation. This is the most populous generation in the history of America.'(Wang, 2011, P3.L1-2) Like Japan, the economy boomed while the baby boom generation stepped into their adulthood. The cities of America were shaped by this generation. 'In the mid-90s, last century, many scholars predicted that America would be transformed into an aging society, and housing prices would drop. However, in reality American cities did not grow old with the aging of this one generation, and housing prices were not influenced by the aging population like they were in Japan. On the contrary, the housing price showed a great trend of rising. '. (Wang, 2011, P5, L1-4) The reason for this discrepancy was found after great amount of research. 'It was the large number of young immigrants who stimulated the real estate industry and the city development, therefore acting as a counterweight on the effect of the aging population.'(Wang, 2011, P5, L7-9) Thus the interconnectedness of American immigration policies and its aging population is a positive case.

These two cases prove that whether the aging phenomenon will lead to economic depression depends on what strategies have been used. The correct strategies will turn the crisis into an opportunity for the development of new economic growth points.

The following paragraphs will introduce three different strategies that have been used in three different countries. All of them are strategies regarding pension real estate. As the most important part of any pension system, I believe pension real estate is the best way to show the characteristics of their strategy.

Pension real estate has become more and more popular in Asian countries in recent years. 'A successful pension real estate has to answer

three important questions: where to live? What to do? And who is responsible? These three questions are the most important questions for elderly.'(Liu,2011:80) The following pension real estate models from the United States, Japan and Germany have been shown to answer these three questions each in their own way. And they all achieved success to some degree in their respective countries. These countries'' experiences with these strategies could be useful to South Korea, and might prove advisable to replicate.

2.3.1 Sun City, America

fig.2.14 Sun City, America Source: www. delwebb.com

In the 60s of the 20th century, the US saw a significant increase of its aging population, and therefore more elderly housing was needed. At the same time, as families became smaller, and because of the culture of living separate of one's adult children and the high crime rates in the cites, the elderly were looking for a safe place to live, far away from the city. As such, around this time many elderly communities were established around the west coast of the US, Some of which even became full-fledged elderly towns..

The suncity is one of the most famous elderly communities. This project was planned and built in 1961; the residence has to be above 55 years old. There are many different types of dwellings to meet different needs of different types of elders, including, house, townhouse, health care, nursing home and rental apartment. All these dwellings share same facilities, such as post office, supermarket, hospital, bank, church, etc.'(LIU, 2011:84)

2.3.2 Kiraku,Japan

fig.2.15 Sun City neighborhood

Source: delwebb.com

fig.2.16 Kiraku, Japan Elderly care in home Source: www.kirakuen.or.jp/

Moving out of the old neighborhood at an advanced age negatively affects the elderly. Not only will the social networks of the elderly break down, but it also increases their risk of getting depressed. In addition it is also considered bad form in Confucian cultures. Therefore, 'from 20th century 90s, Japanese brought up a new concept called "home welfare": pension real estate and facilities should be integrated into the current neighborhood, instead of built at a new location far away from the city. Taking care of the elderly without relocating them has a considerably more positive physiological effect on them.

Compared to the traditional nursing home, "home welfare" has two advantages: first, the high standard of building quality: they take the holiday hotel as a point of reference, and as such aim to create a happy, comfortable and relaxed environment, while at the same time offering day and night care for the infirm elderly. Second, it is highly integrated with the community development. Neighborhood representatives, elderly, specialists, and volunteer organization were involved in the project from the very beginning of the choice of location. Some "home welfare" locations were even renovated old houses within the community or a repurposed old tea house of neighborhood temple. In this way, local residents actively participate in the development of "home welfare" and help voluntarily. '(LIU, 2011, p84)

source:www.mehrgenerationenhaeuser.de

fig.2.18
Multi-generation House, Germany

2.3.3 Multi-generation House, Germany

"Multi-generation House is a nationwide program launched by the federal government of Germany. The program is enabled by the 'natural give and take' between people of different ages. The idea is to help both the young and old to meet in a public space in their neighborhood and thus enabling all involved to benefit from each other's different skills, experiences and interests."(UNKNOWN, 2013, website) Multi-generation house has seven fields of focus including: four ages under one roof, intergenerational offers, childcare, volunteering, information and services hub, involvement of the local economy, and open daily meeting. The program was not set up just to address socio-political challenges, but rather reflects the diversity of different generations through their numerous activities and potential. As a result, despite the broad scope of the facilities, one common characteristic of all multi-generation houses is: they all work basically demand-driven to provide exactly what is needed and desired.

Compare these three cases, the most suitable strategy for South Korea is the Japanese model. With similar cultural background and social behaver, the strategy that allowing elderly grow old within the origin neighborhood seems to be the most acceptable and sustainable for South Korea. Meanwhile, the "Multi-generation house" is also good for expending the elderly's social life, as well as creates new employment opportunities for young pensioners. In the competition, we raise the concept "the lifetime city" a city that composed by "lifetime neighborhoods" where people can access basic services and daily consumptions within walking distance. The idea is trying to increase the accessibility to elderly and weaken the distinguished lifestyle between generations. Keeping elderly within the original communities and offering them community duties, for instance, like the "Multi-generation house" in Germany help building neighborhood relationships, would prevent depression, social isolation for elderlies and release the pressure of work force shortage for South Korea. Thus, "the lifetime city" is not a strategy that specifically targeting the ageing phenomenon as a problem, but a strategy that taking it as an asset of the society and try to maxim its effects. Base on this acknowledgement, we further developed several design principles that corresponds the local situations, in order to regenerate the urban space to adapt the ageing society. In this thesis, I will focus on discussing how to integrate lifetime neighborhood into densified

urban centralities. The following paragraphs will elaborate the urban centrality features of “the lifetime city”.

In Asian countries, the rapid economic growth usually comes alone with massive urban development projects, besides the expansion in periphery areas, the most effective and popular projects that would generate new economic growth points is the urban centrality regeneration projects. However, although the regeneration of urban centralities are lucrative when they success, the risk is equally high. The outcomes of these kinds of projects vary by the different regeneration approaches. Governments dominate, as known as “top-down” approach is commonly applied to the city center regeneration projects; however, the approach though is efficient but often subjective which creates more problems than opportunities. This problem has been seen in many urban regeneration projects in China lately, which almost becomes a phenomenon that hang over the local governments. In order to avoid same phenomenon happens in Yongsan, it is very important to learn from those problematic cases. In the following paragraphs, two regeneration projects will be analyzed. One is Zhongguancun regeneration and the other is Qian men Avenue regeneration. Both of these two cases are suffering from the problems that brought by the top-down regeneration approach. Some problems are universal, reasoning of these problems could also form design principles that avoid problematic designs.

fig.2.19 Zhongguancun in 1998 Source: flicker.com

fig.2.20 Zhongguancun in 2013 Source: flicker.com

fig.2.21 Park in Zhongguancun Source: flicker.com

fig.2.22 Empty platform Source: photo taken by Author

2.4 Urban Vitality

Today, with the rapid growth of urbanization, most of the international cities have reached their development saturation within administrative territory. To sustain the future prosperity, most local governments are looking for development rooms within the downtown area. Therefore urban regeneration projects are more and more popular in developed international cities. However, urban regeneration or redevelopment projects are so complex that it is difficult for governments and developers to grasp its intricacies. Therefore, many these kinds of projects failed or create problems in local or regional scales after the regeneration. In spite of the high risk from the great amount of the initial investment and uncertainty, urban regeneration and redevelopment are still very appealing to local governments and developers for its high returns. In order to reduce the risk, active research in previous projects is needed. The two projects below present positive and negative outcomes, this thesis will focus on the negative outcomes, because the success of these kind projects usually not decided by the quality of spatial design but more by whether there is a well-coordinated structure between stakeholders that defined by each country's political and planning systems and traditions. Therefore, one case's successful experience cannot ensure the success of a case in another country. However, the failures are usually show universalities that can be learned by other countries. Therefore, to learn from their negative experiences could be more useful for other regeneration and redevelopment projects in other countries.

2.4.1 Zhongguancun

The Zhongguancun electronic market was formed in 80s of the last century, starting with electronic shops along the main street; (fig.2.19)Within 30 years it has now become the Chinese equivalent of Silicon Valley, with approximately 20,000 IT and high technology companies and a cluster of electronic shops and shopping malls. (fig.2.20)The expansion of the electronic market directly shaped the urban fabric and changed the lives of people living in zhongguancun. With a series of policies supporting it, the once simple electronic street evolved into a high-tech industry cluster with high-end modern services, which generates 20% of Beijing's GDP per year.

The most distinguishing change as a result of this evolution is how the "theme street" has become a "theme square". Although zhongguancun has achieved great economic success as well as leading to the upgrading of urban facilities and infrastructure, the top-down urban plan, on the other hand, is far from impeccable.

Low productivity of the public space

The main block of the contemporary electronic market is a 1 kilometer x 1 kilometer square with office and commercial buildings. The block is centered around a 200m x 200m park which is scattered by a cross road. (fig.2.23)Although this is one of the busiest areas in Beijing, this particular beautiful park always has quite few visitors.

(fig. 2.21)However, this park is not the only low productive public space within this block, there is an elevated platform which connects the newest electronic shopping mall to the entrance square which is hardly used as well.(fig.2.22) On the other hand, the road under the platform is always teeming with vehicles, bicycles, temporary booths and people flows. It is obvious that the platform is designed to ease the traffic pressure of the under road, but it was not successful.

Chaotic traffic

Zhongguancun is also the area with the most serious traffic jam in all of Beijing. During the rush hours, cars on the main road commonly line up for more than 10 kilometers. (fig.2.27)This zhongguancun traffic congestion actually affects the entire west-northern Beijing areas between the 3rd and 4th ring road in the city. A survey showed that white collar workers in Zhongguancun spend an average of 3 hours per day on commuting; with some even spending as much as 6 hours.

The traffic problem lies in several planning mistakes.:

1. Overloaded density and zoning plan

The block is filled with high-rise office buildings, according to the planning it offers room for no less than 100,000 workers and more than 10,000 vehicles. However, as no dwellings were planned within this block, and few new residential projects were developed since, the old neighborhoods in surrounding areas can not house the growing workforce. All in all this results in the extreme traffic congestion in the area during rush hours.

fig.2.23 Zhongguancun master plan Source: google earth

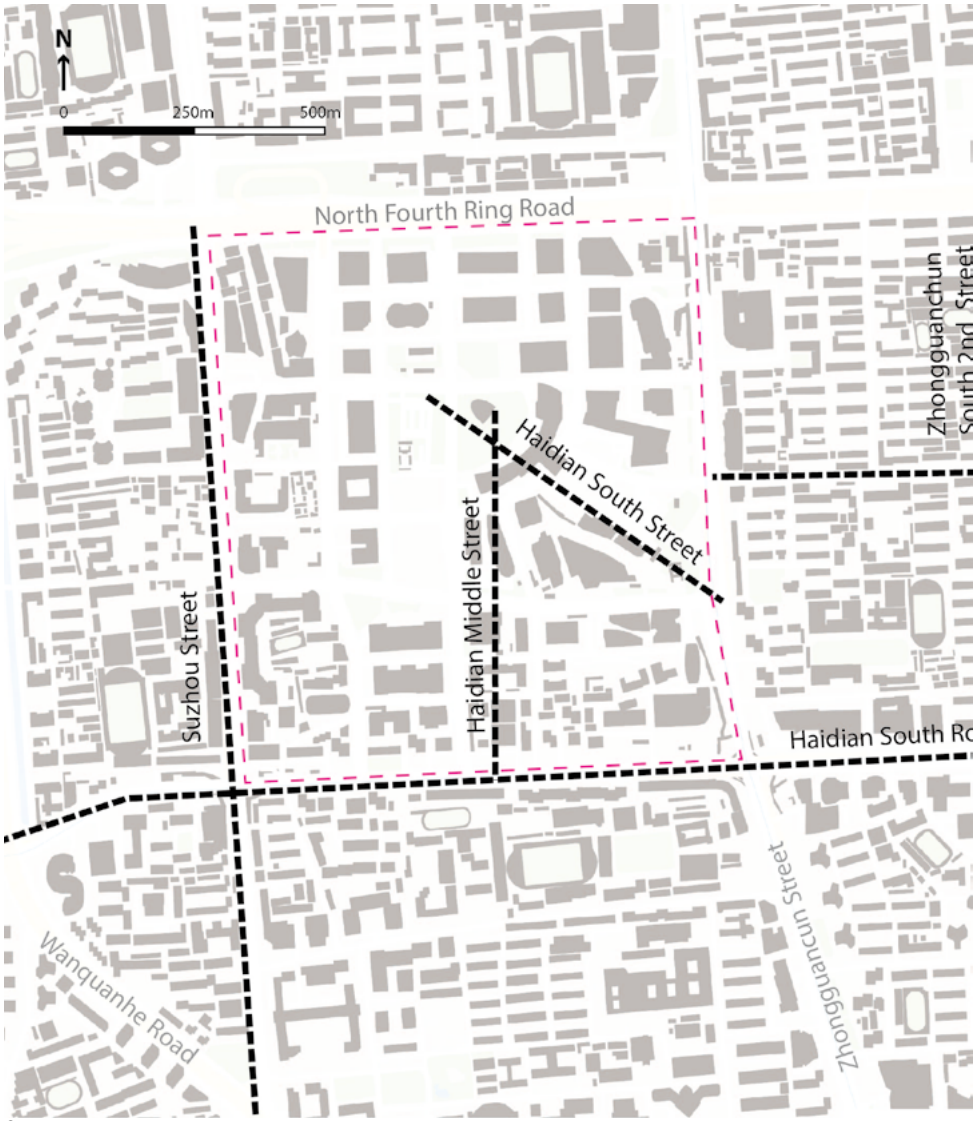


fig.2.24 Zhongguancun Network Source: Zhongguancun map 2013

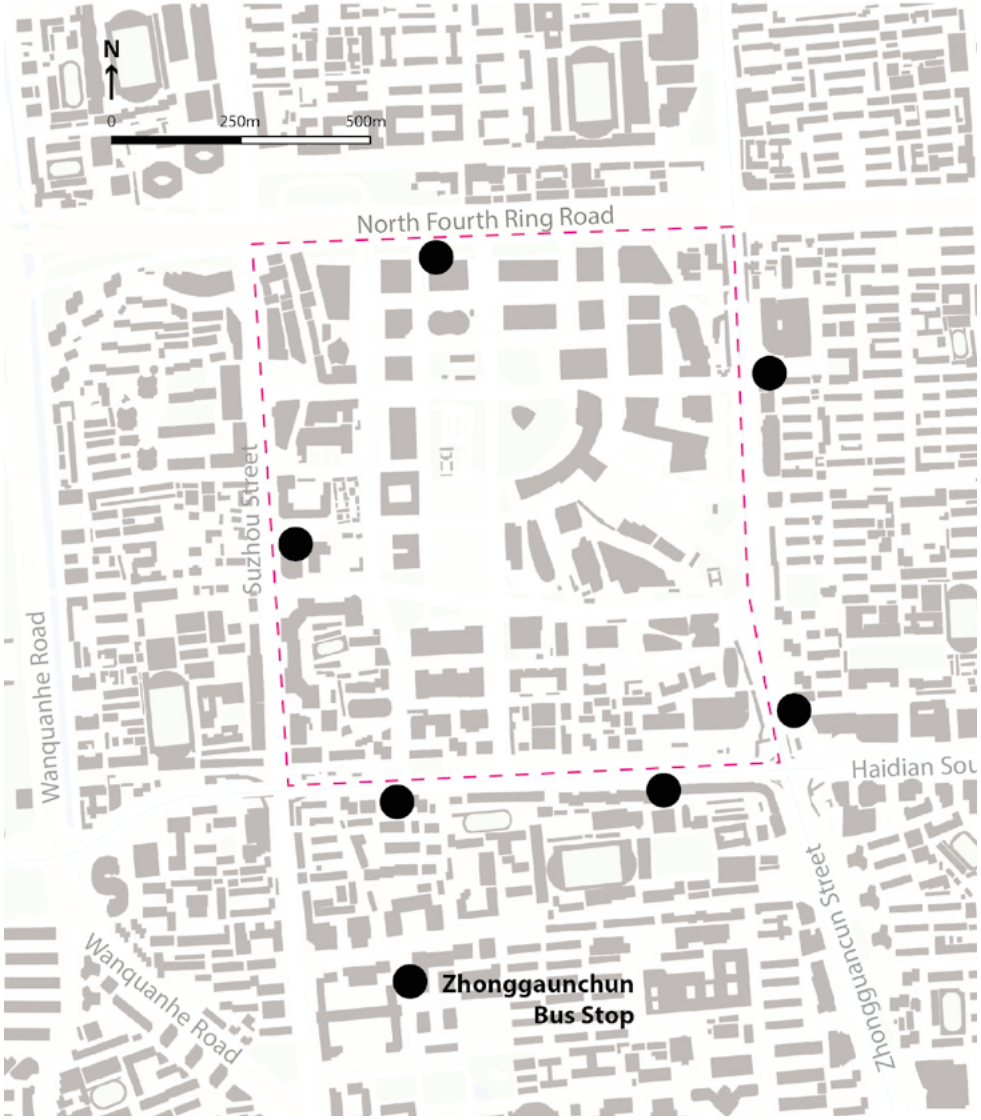


fig.2.25 Zhongguancun bus stop locations Source: Zhongguancun map 2013

fig.2.26 Traffic Jam in Zhongguancun Source: flicker.com

fig.2.27 Line-up Buses in Zhongguancun during rush hour Source: flicker.com

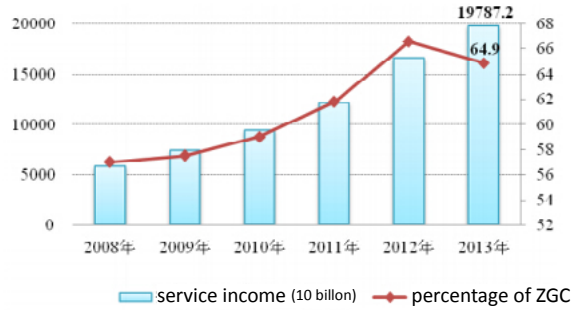


fig.2.28 Service income from 2008-2013 and the percentage in total income of ZGC

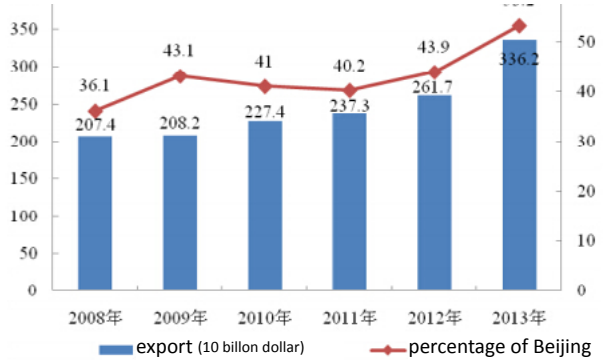


fig.2.29 Export income from 2008-2013, and the percentage in Beijing

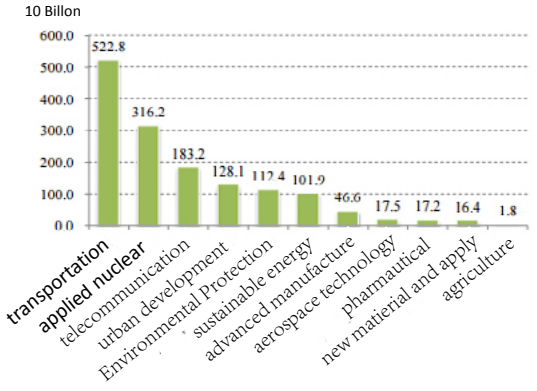


fig.2.30 Export income in different industries (to other regions in China)

(fig.2.26)

2. Inadequate network

Although this block is surrounded by main roads, it is still difficult to access by car, especially during the rush hours. While the roads within this block are enough in numbers and width, most of are dead ended. Meanwhile, the north side of this block is the 4th ring road of the city, which has no exit or entrance along the block. The west side is the approach way to the ring road in the north with limited tracks. And the east side is the main public transportation entrance, were during the rush hours buses line up and always block the exits for cars. (fig.2.24)

3. Uneven Public transportation

From fig.2.27 , one can see that although more than 50 bus lines stop in this area, there are in fact very few bus stops, thus many buses have to line up and wait for each stop, which causes traffic jams during rush hours. Also the east and north side has considerably more bus lines than the west and north, and this disproportionality makes the traffic worse as well.(fig.2.25)

Conclusion

Zhongguancun has roughly the same function and density as my site, and since it is already built, this makes it the perfect study case. The problems of present Zhongguancun show the gap between the designer's ideal vision and the reality's unpredictable complexity. Moreover the planning system in contemporary China lacks coordination, especially between the urban blocks and different stake holders. Although urban designers have only limited influence on the governmental decision making in China, there are still some missing links in the middle scale of urban design. However, even from a critical point of view, after a further analysis it would appear that those problems that seemed to be design failures are in essence institutional failures.

The plan shows a short-sighted visioning that due to inconsiderate of surrounding conditions. In addition, the massive construction and high density after regeneration severely disturbed the local urban ecosystem. These result in not only the surrounding areas, but also the district, and even the whole city suffered from the problems it creates. Little attention was paid to the synergy between the site and surrounding areas during the planning process. This shows the current planning system of China has no effective tools to manage regional synergy in this scale. At the same time, neither any strategic plan has been made on this scale. Similar situation shows on many other projects, however, their densities are not as high as Zhongguancun, therefore the negative effects are not that obvious. Therefore, the strategic plan towards regional synergy on this scale is extremely important to keep a sustainable and health urban ecosystem, which would better facilitate a sustainable prosperity.

fig.2.31 Qian men Avenue Zoning plan
Source: Qian men Plan

fig.2.32 Qian men Avenue in History

fig.2.33 Qian men Avenue after regeneration
Source: photo taken by Author

2.4.2 Qian Men Avenue

Another example, Qian men Avenue regeneration, may better explain my point. Qian men Avenue is one of the oldest market streets, dating back to 1550. Since 1900, the first train station was built at Qian men, and this street became the most popular and busy commercial center in Beijing. (fig.2.32)Many shops along this street were founded more than a hundred years ago. Together with the ancient buildings from different periods of history, this street is perhaps one of the most characteristic places in Beijing. Its regeneration started in 2004, and finished in time for the 2008 Olympic Games as one of the beautification projects of the government. The buildings along the Avenue as well as parts of the surrounded ancient neighborhoods were all demolished. The old shops were replaced by luxury brands and international brands like Louis Vuitton, Starbucks, H&M, etc. Ironically, for the sake of "preserving the old Beijing atmosphere" they replaced the original buildings with their hundreds of years of history with new concrete buildings made to look traditional.(fig. 2.33) After the regeneration the new Qian men Avenue has two major changes that posing more problems than improvements.

1. Unfit street profile

The Qian men Avenue was planned to be as wide as 35 meters, while the buildings along the avenue are merely 2 stories high on average. As such, the road does not fit the program.

2. Unreasonable program settings

The planning of the New Qian men Avenue included six distinct districts: shopping streets (the main Avenue), traditional brands, food, hotel & luxury brands, entertainment and exhibition of quart-yard housing. (fig.2.31). However, the separated districts caused uneven land productivity, leaving most of the districts very quiet with few visitors, especially those districts furthest from the Avenue entrance.

These two changes failed to increase the attractiveness of Qian men Avenue. Except for the first few months after its opening, the envisioned crowds of shoppers and tourists did not show up as expected. More than half the shops currently stand empty, because the increased land price is unaffordable for the old shops. Meanwhile, the local residents complain that they cannot afford the products sold in the new shops. Similar complains also did by local tourists. Qian men Avenue was famous for its old fashioned retail business. The street agglomerates numbers of "laozihao" shops (shops runs over one hundred years), including clothing, restaurants, stationery, etc. Most of these shops maintained their old business models, insisting on using traditional technic or old formulas to handmade high quality but low price products. They are experts in their own filed, their brands have great reputation and well recognized by national and international consumers. Combined with the ancient buildings and street profiles, Qian men Avenue presented a unique urban ecosystem which attracted tourists from all over world.

However, the regeneration project neither put preserving this unique urban ecosystem as their priority nor knows how to do it. Although there are planning laws and rules to regulate the redevelopment in historic areas like Qian men Avenue, they only set limits on the buildings height, facade formality and density of this area, which means the spatial morphology will be preserved but not the ancient buildings themselves. These regulations in some degree contribute to the loss of vitality. On one hand, the increased land price due to the cost of redevelopment could be partially neutralized by densification. This is not possible in Qian men Avenue due to these regulations. Besides, maintaining the low product price is only feasible when the rent is comparable low and great amount of consumers. The aggressive redevelopment approach hurts both, and therefore created a vicious circle. On the other hand, the preserved spatial morphology kept the mega chain stores out, middle size commercial space with high rent could only be afford by luxury brand store and high-end boutiques. However, there are no high-end consumers live nearby. The surrounding neighborhoods are mostly ancient neighborhoods with low-income groups who cannot afford the products in these shops. Meanwhile, there are many other high-end shopping streets with higher density and better agglomerate affects in the city located not far from this area. Qian men Avenue had no advantage in competing in high-end market either. The government and developers were over confident in the brand effect of Qian men Avenue, whereas they forgot where this brand effect form, and ironically eliminated all the key features that made the old business model success while limited the chance of success for new business models.

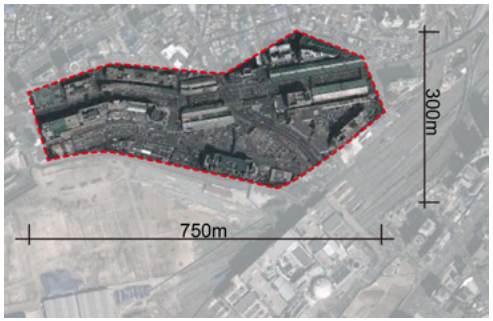
	Urban Morphology	Street Enviroment	Building Typology
Zhongguancun, China			
Akihabara, Japan			
Yongsan, South Korea			

fig.2.34 Comparasion of Asian Major Electronic Markets

Source: google earth, flicker.com

2.5.How to make plan for electronic market?

The electronic market is the identity of Yongsan, it is the biggest whole sale and retail electronic market in Asia. The famous of this market and its strong attraction to out comers make it the most important project in the whole planning. Therefore, the research on electronic market is necessary. In this part, I will compare three different electronic markets in China, Japan and South Korea to illustrate what are the most crucial factors to regenerate a successful electronic market.

2.5.1 Orgnaization

Although electronic markets in China, Japan and Korea are all well-known to the world and have all become a place of interests that attracts not only locals but also tourists, their respective developing models are in fact very different.

Zhongguancun models itself after Silicon Valley; the location is surrounded by many of China's best universities. It was a typical knowledge-orientated new market in the 80s-90s. However, it was the top-down development strategy which made Zhongguancun a world-class tech venture park. From 1988 to 2009, the Chinese central government issued three experimental development plans and rules for Zhongguancun. Each time these led to an expansion and regeneration of Zhongguancun. The spatial development was dominated by the local government, with the central government's support; the electronic market has grown rapidly from a retail and wholesale electronic shopping street into a science and technology park that has spread out over 17 locations in Beijing within 30 years. It also attracts other industries such as pharmaceutical companies, optical mechatronics companies, and derives investment companies and financial companiesBy 2013, the grand Zhongguancun generated 121.3billion RMB. In 2014, its export income alone accounted for more than 50% of Beijing's total export value. The services sector as a whole accounted for of 64.9% of the GDP. (fig2.28-2.30) (Unknown,2014)

The success and fast growth of Zhongguancun stems from the governments' support not only in terms of financial investment but also policy making on both administrative level and executive level. However, that is not the only way to make an electronic market successful.

Akihabara in Tokyo, Japan, on the other hand, is a completely different kind of successful case. "Akihabara was originally a residential area of lower suramis, the social composition was complex and with huge people flows everyday shopping in their vegetable and food market. The commercial atmosphere was very good. Before WWI, under the influence of the electrify movement in Japan, there were many electronic factories set up nearby Akihabara. The first metro line of Tokyo also passes by Akihabara. Due to the prosperity of the electronic market and the advantage of the location, Akihabara soon became a black market

for electronic components. And that was the first transformation of Akihabara. However, the market together with Akihabara was destroyed during a Tokyo air raid in 1945, which lead to the second transformation of Akihabara. After the war, the original shop owners started selling electronic components on the street at the original site, promoting Akihabara as the place with the lowest prices for electronic components. In 1950, when the Korean War broke out, exporting needs were rising, and prices of electronic products and components rose. Akihabara at this time entered a period of rapid growth. A couple of years ater, Japan's home appliance manufacturing increased, and "Made in Japan" became a promise of good quality at an even better price, and became popular overseas. At was around this time that Akihabara had become a place of interest for tourists as well. Around 1982, tax free shops were set up in Akihabara, and it had established its world-famous electronic market name. The third transformation started around 1996. Due

fig.2.35 The landmark of Akihabara (Radio Kaikan)
Source: flicker.com

Akihabara markeet before wwI

Black market period after tokyo air raid in 1946

Home appliance prosprity in 1960

Akihabara markeet in 1962

Radio kaikan in 1950

Radio kaikan in 1962

fig.2.36 The development of Akihabara Source: Akiba.or.jp

to the fierce competition with other similar new electronic markets, Akihabara changed its focus to computers and software. At the same time, the prosperity of the animation, comic, game (ACG) industry and its derived products in Japan gave Akihabara a new opportunity for growth. Soon, garage kit stores became popular along with cos-play cafes and the rising popularity of the entertaining theatre of pop ideal group AKB48, this new business model which entered Akihabara not only brought new prosperity, but also created a whole sub-culture of "Moe" (cute-worship subculture) which was named after Akihabara. “(Unknow, 2015)

From the above we can see that contrary to Zhongguancun, Akihabara's development was not due to government involvement. Most of its major transformations came from social and economic changes, as well as the war. The Japanese government made neither direct investment nor administrative policies towards Akihabara during its development history. The administration behind Akihabara is the "Akihabara Shinkokai" (Akihabara promotion committee), which is an autonomous union formed by the shop owners. The committee organizes promotional events and publicity for the Akihabara shops as a whole, as well as offering maps, shop information and sales information to visitors. As such, the private sector is the major promotor of Akihabara's development, also in terms spatial development. No master planning has been made for Akihabara, and new buildings were built on project basis and dominated by private developers.

The Yongsan electronics market is a case somewhere in between these two famous Asian electronic markets. "Yongsan is probably Seoul’s best known electronics market. The market is made up of a sprawling group of 5-6 floor buildings around Yongsan station, as well as temporary stands and flea markets outside. Each area has hundreds of small electronics retailers, as well as a heavy presence of fried Korean street food." (Unknow 2012)

The current electronic market used to be a seafood market. Due to the government’s plan in 1987, the seafood market was relocated, and the electronic business owners nearby moved into the now vacant market, and over the years it has expanded to today's Yongsan electronic market. (Unknow,2011)

While no government top-down development strategy has been made for this electronic market, unlike Akihabara, there no autonomous organizations either. As such, no organization is in charge of the promotion or publicity for the electronic market as a whole. On the other hand, this also means that the business in yongsan is comparably simpler than the other two electronic markets. Major businesses deal with wholesale and retail sales of electronic components, computers, and software. However, they claim their price are 20%- 50% cheaper than other places.

2.5.2 Spatial form

It is interesting to note the different spatial qualities among these tree notable electronics markets. Although they all developed based on the traditional Asian street market model, due to differences in development strategies, land policies, and political systems they have grown into distinctly different spatial forms.

From the pictures below we can see that of the three, Zhongguancun is the biggest electronic market, (we only take the original zhongguancun area for comparison). The whole block was developed base on government's master plan, and as a result most of the buildings are high-rises with a large open space in the centre and a main entrance area. Akihabara is an area without clear borders, and as a result the market is blended into the local neighbourhood rather well. While several new buildings now stand in the middle of the original residential blocks, the urban fabric remains. Yongsan is the smallest of the three, and is composed of 4 large 5-7 story shopping malls. The entire Yongsan electronic market is isolated from the surrounding infrastructure, and all the malls are along the same busy road, which makes it the only literal "street market" of the three.

Based on the street views we can also spot the differences. Akihabara and Yongsan market's shop owners utilize the public space in front of their own shop, either to display their products or for temporary product storage. In Zhongguancun, there are temporary street stands during special promotional event. The first two spatial arrangements are quite informal but also characteristic of the Asian shopping street. This kind of informality helps to create a street vitality which increases the commercial atmosphere for the whole market. However, it should be noted that this also has to do with the climate of the site. Tokyo and Seoul both have an Oceanic climate, which means during the wintertime the weather is comparably warm and humid, suitable weather for outdoor business. Beijing, on the other hand, has a subarctic monsoon climate, which means in the wintertime temperatures are on average 10 degrees lower by comparison, making the climate far less suitable for outdoor business. (fig.2.34)

2.6 Conclusion

Based on the researches above, we can draw certain conclusions regarding the forming of several plan/design principles. I will elaborate on these through the review of the research questions below:

1. How did Seoul's planning goals change in history? Is the City of Seoul scattered, and why?

From the development history of Seoul, we can see that even its urban form changed many times under different development strategies, yet the basic spatial unit for urban centrality has always remained the street. No matter if it's used commercially or for housing, the spatial form of the a centre of urban living is always the street. This is the fundamental difference between western and eastern cities, and I have taken it as the essence of Asian cities and decided to make the street the core design element for the plan. What this means is that all programs will be organized based on the unit of the "street" instead of based on blocks as is customary in the western design system. Similarly, I will take the open space as a design subject instead of the buildings themselves, which in this case defines the streets.

2. What have been successful plans for patching up the scattered city in Seoul? What are the approaches that were implemented?

The successful reopening of the Cheonggyecheon shows the importance of greenery in a city. It will not only upgrade the quality of surrounding urban living, but also increase land value, as well as sustainability of the centrality. The current Yongsan market is located on a busy city road Cheongpa, which used to be a branch of the Han-river. Reopening this water would be a nice transfer for the new centrality in Yongsan station. Also it could then be easily connected to the new Yongsan Park at the former American military base. Furthermore, the creation of a green boulevard from the east side to west side of the railway would increase the connectivity of the new centrality and also bring additional quality to the whole area.

3. What are the approaches that other countries have used to cope with their aging society?

Asian society in general is not suitable for western style nursing homes, as most Korean families prefer to either live with the elderly or keep close to them. Therefore, it is important to design the neighbourhood so that it is suitable for all age groups. From the demographic projection of South Korea we can see that they are moving towards an ageing society at a very fast speed. The elderly should not be isolated from the central urban area, but the central urban area should adapt to this kind of transformation. Introducing a more elderly friendly spatial design will help relieve the tension of foreseen social problems and is also strategically wise as a means to save public expenses on elderly support. Therefore, the plan for a new centrality

will integrate multiple elderly service facilities to create a lifetime neighbourhood.

4. How to regenerate an urban centrality without losing its vitality?

Conclusion

1). Unfit street profile

The Qian men Avenue was planned as wide as 35 meters, meanwhile the buildings along the avenue are 2 stories on average. The road does not fit the program.

2). Unreasonable program settings

The planning of New Qian men Avenue has six districts including shopping streets (the main Avenue), traditional brands, food, hotel & luxury brands, entertainment and exhibition of quart-yard housing. (see Figure x). However, the separated districts causes uneven land productivity, most of the districts are very quiet with few visitors, especially the ones far from the Avenue entrance.

3). Non sustainable development

The demolishing of the ancient building does not only cost the unique spatial character, but also indirectly leads to the loss of the old brands. The attractiveness of the site was severely damaged. The plan is lack of sustainable thinking, in terms of inheriting the valuable historical asset, and pay for it at an expense of losing the original attractiveness and popularity.

4). Vague position and strategy

All the mistakes above result from a vague strategy. The top-down urban plan was aim to get Qian men Avenue back to the “glamour old days”, however there are already two successful city-scale commercial and shopping centers within 5 kilo meters. XiDan targets daily expense for locals and Wangfujing targets the high-end expense and international visitors, while Qian men Avenue had its own position of being a traditional commercial center with strong tourism value. The regeneration strategy didn’t emphasize on the advantages but weakening it by introduce more international brands to competing with the other two matured centers, which in my opinion is a big mistake. The mistake could be easily avoid if private sectors as local shop owners and residence involved in the decision making process. Or, more research had done and more discussions opened to the public

5 How to make plan for electronic market?

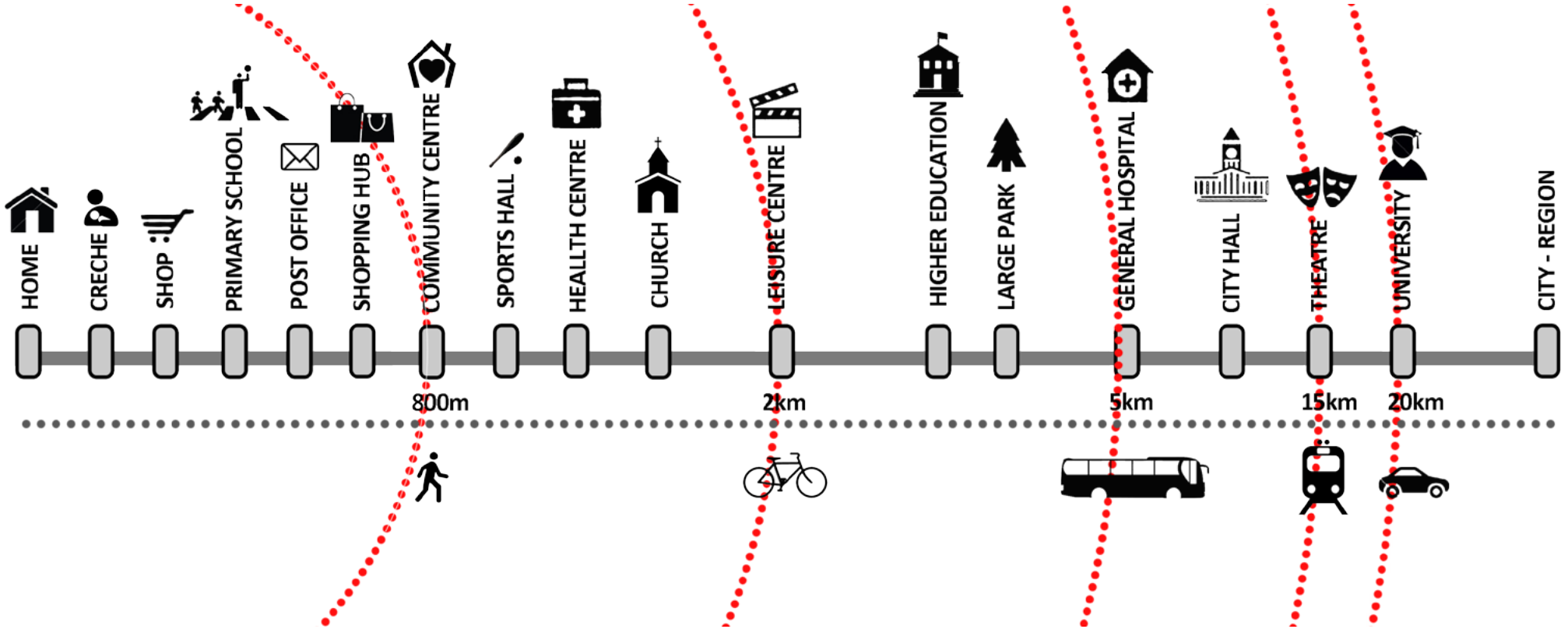
The electronic market is the most famous business in Yongsan, yet its current location does not allow for further development and creates problems for the surrounding neighbourhoods. Therefore in the plan for the new centrality I propose making the electronic market a priority. This is for two reasons, one, the new centrality is only 200 meters away from hangang- daero, which is the main shopping street with office buildings in this area. Moving the electronic market here would avoid competition and attract different companies and groups to settle down in this shopping street. Second, relocation of the market would create better shopping environment. Since the electronics market is currently situated between heavy traffic, people have to cross several barriers to reach it.

Meanwhile the walking environment around the market is also poor. While shopping malls along the street have bridges connecting one another, this design reduces the flow on the streets, causing shops along the street to start using the pedestrian road as temporary storage space, which further decreases the vitality of the street. Relocation of the electronics market would solve these problems, and improve the connectivity of the electronics market.
As we were able to deduce from research questions 4 and 5, the importance of informal business/ small business for a street's vitality should not be underestimated. Therefore, ensuring a mixture of business scales in any spatial design is necessary. The program for the new centrality will take this into account and define the streets according to the surrounding street profile.

All in all, the plan for the new centrality will be a dynamic approach with targeted principles, focusing on the creation of a platform that allows people to develop their own ideal centrality but with guidance and rules. Therefore, this alternative design approach will respond well to the current problems that were neglected by the "Yongsan Dreamhub" master plan, and should therefore reduce risks by lowering the initial investment, while still providing high-end real estate development opportunities.

Design

fig.3.1 Lifetime city Diagram



An alternative planning process for Yongsan dream hub.

3.1 Concept the lifetime city

In order to react on the three key factors in problem statement, we have developed the strategy plan for whole Yongsan area, the lifetime city.

The lifetime city is not a certain type of spatial form with fixed morphology but rather an intangible spirit of how to organize the programs within certain area, the spatial form may varies by density, urban function and age structure. This spirit is designing the accessibilities to different urban functions. For example, in a high density and fast ageing society city like Seoul, the lifetime city could be formed by many lifetime neighborhoods which allowing people would get daily supplies and basic services within 20 minutes' walk; get to work and weekend activity events within 15mintes by bike or 5-10 minutes by bus; get to occasional events within 30 - 60 minutes by train or car. (fig.3.1) The highlight of this spirit is not design for certain age group; otherwise it might create social barrios. Instead of taking ageing phenomenon as a problem, the sprit focuses on facility elderly in order to integrate them in to the community. For some elderly, in the first 10-15 years of retirement, they can still working part time; the lifetime city would offer these kinds of working opportunities by means of administration interfere. For the elderly in the later period of their life, the lifetime city could improve their independency, and therefore improve their life quality.

Further, the specific approach for Yongsan, Seoul, is to take the street as core design element. This is based on Seoul's characters in terms of culture and customer. In the research of Seoul's development history, we find out that using street as a place to agglomerate certain urban function is not only one of a few living traditions, but also an very important morphological character in South Korea's planning history. Therefore, we want to strengthen this tradition and character by taking the street as core element in each lifetime neighbourhood. Basic urban functions and services will be agglomerate in the core street, while the neighbourhood centred with.

However, the area of whole Yongsan area is too large (2.2 square km) to be tackled with one general design principle. Therefore, in our strategy plan, we have divided this area into 9 districts base on different local morphologies. (fig.3.3) Each district will have its own develop theme, in order to strengthen the local characters and preserve the diversity of building typology. (fig.3.2) Accordingly, this approach would add new hierarchies in the core streets. The higher hierarchy core street would embed the district theme related programs; therefore it will not be the centre of a lifetime neighbourhood, but the centre of the district. The design would be focus on accessibility on district scale and corporation with other districts in Yongsan. Meanwhile, the lower hierarchy core street would functional as neighbourhood centre with good accessibility to the higher hierarchy core

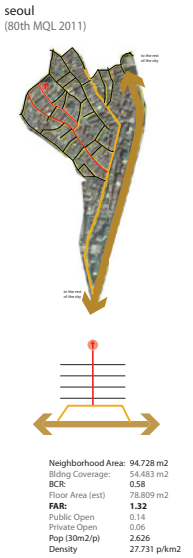


fig.3.4 Hierarchies in core streets

Source:
The Lifetime City, Vertical City Asia

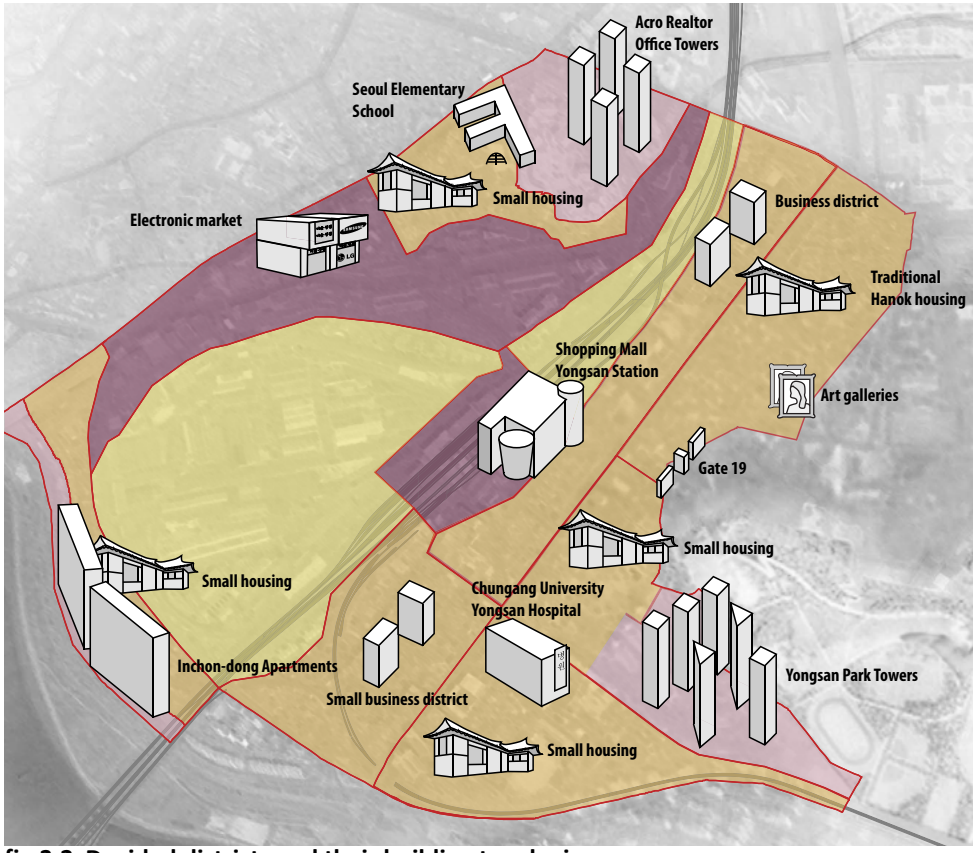


fig.3.2 Devided districts and their building typologies

Source: The Lifetime City, Vertical City Asia

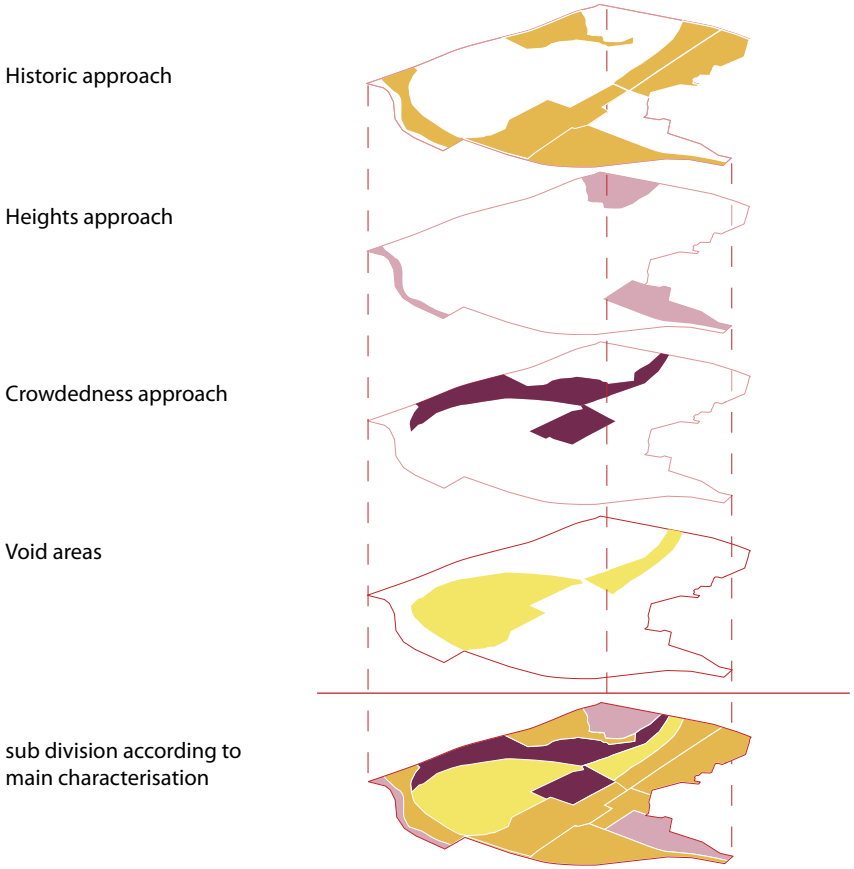


fig.3.3 Devide Yongsan by urban morphology

Source: The Lifetime City, Vertical City Asia

streets. (fig.3.4)
Moreover, introducing new green areas including reopen the Cheongpa stream and create green corridors to the new Yongsan Park. Before the new Yongsan Park was designed (former military base) there is hardly any green area in Yongsan district. (fig.3.17)The area is full of railway tracks and highway with heavy throughout traffic flow that made the entire district scattered. (fig.3.5-3.6)The new green areas will not only emerge the scattered district but also improve the environment quality of this district. From the research on Cheonggyecheon restoration project, we learn that quality development can also be an economic promoter, and more sustainable.This approach would be a key to transfer Yongsan into a prosperous and ecofriendly area.

fig.3.5 Land use of the Site Source: The Lifetime City, Vertical City Asia

fig.3.6 Fuctions within the Site Source: The Lifetime City, Vertical City Asia

fig.3.7 Present Street heiriachries and neiborghhood backbones

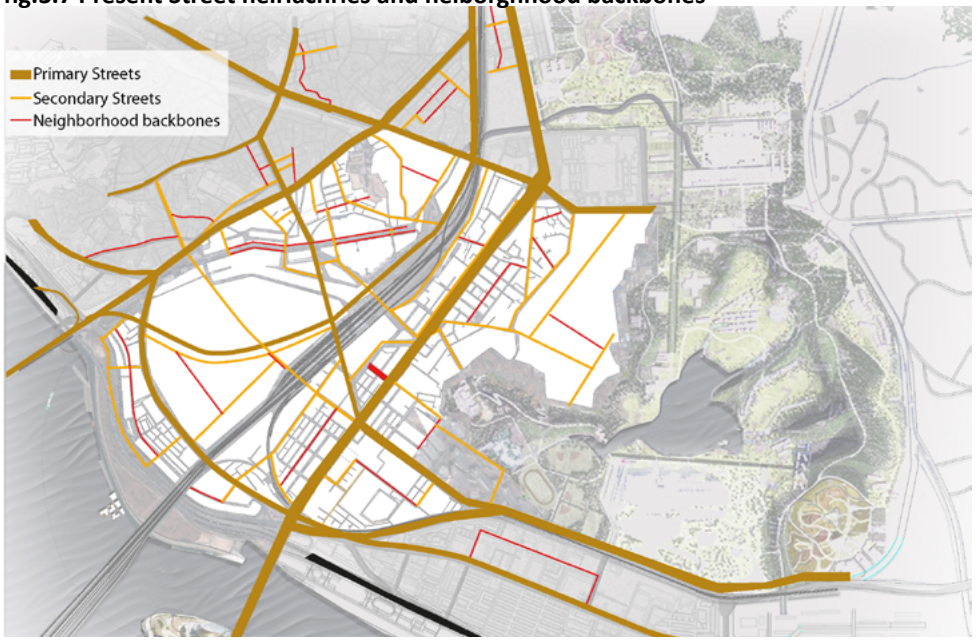


fig.3.8 Planning Street heiriachries and neiborghhood backbones

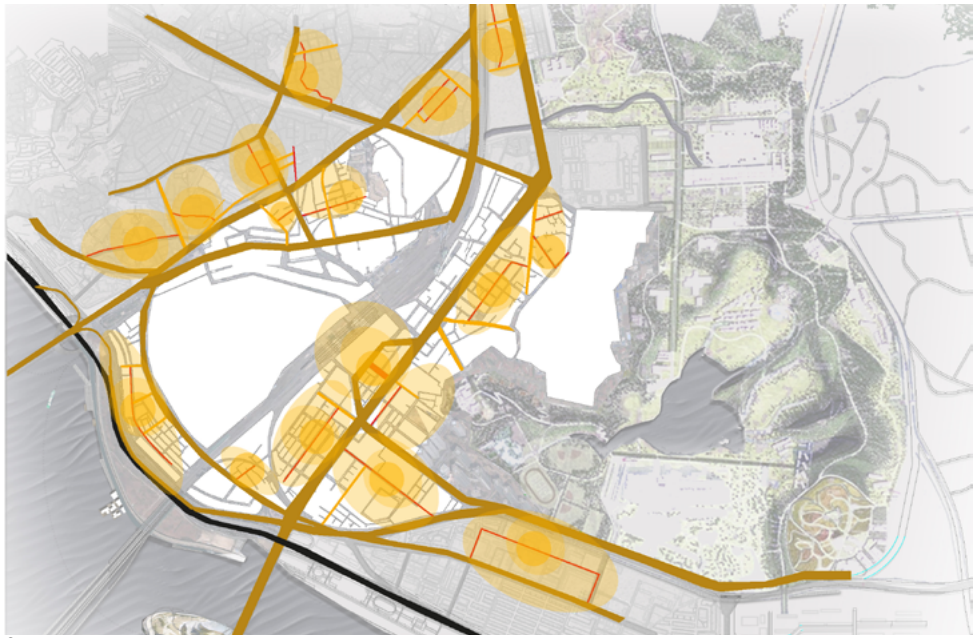


fig.3.9 Present neighborhood centers

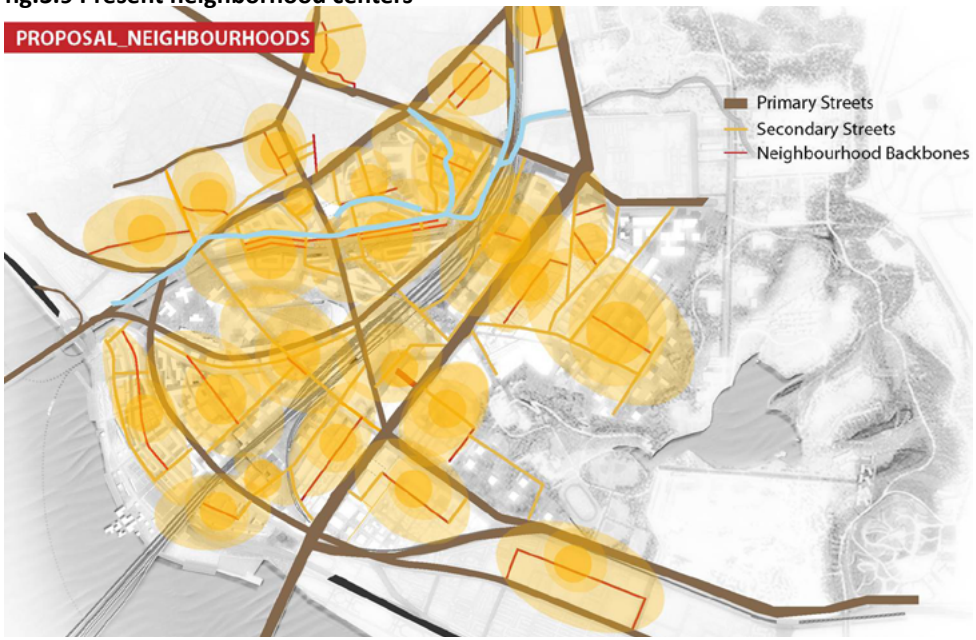


fig.3.10 Planning neighborhood centers Source: The Lifetime City, Vertical City Asia

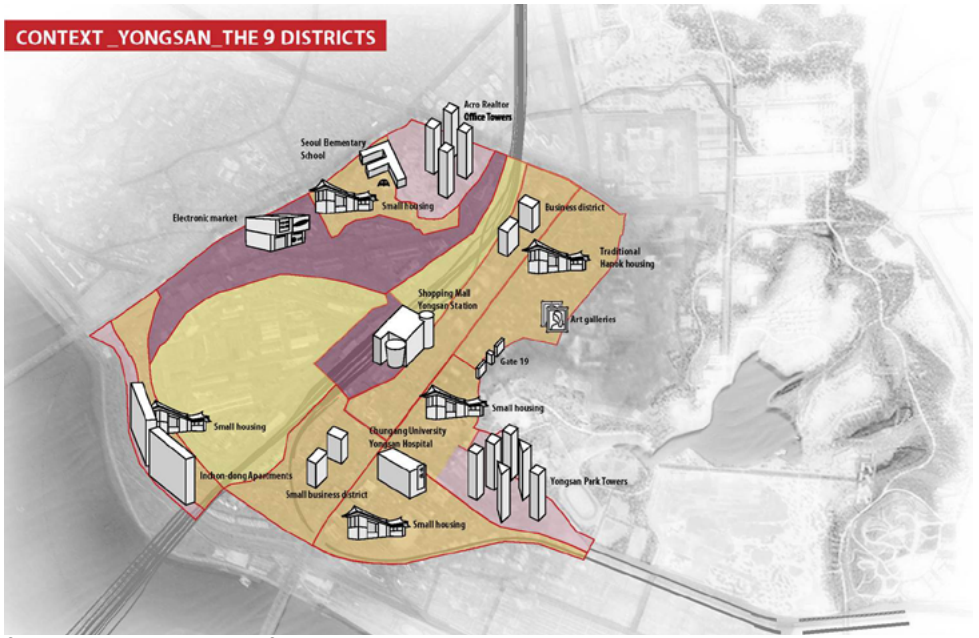


fig.3.11 Present district functions and building typologies

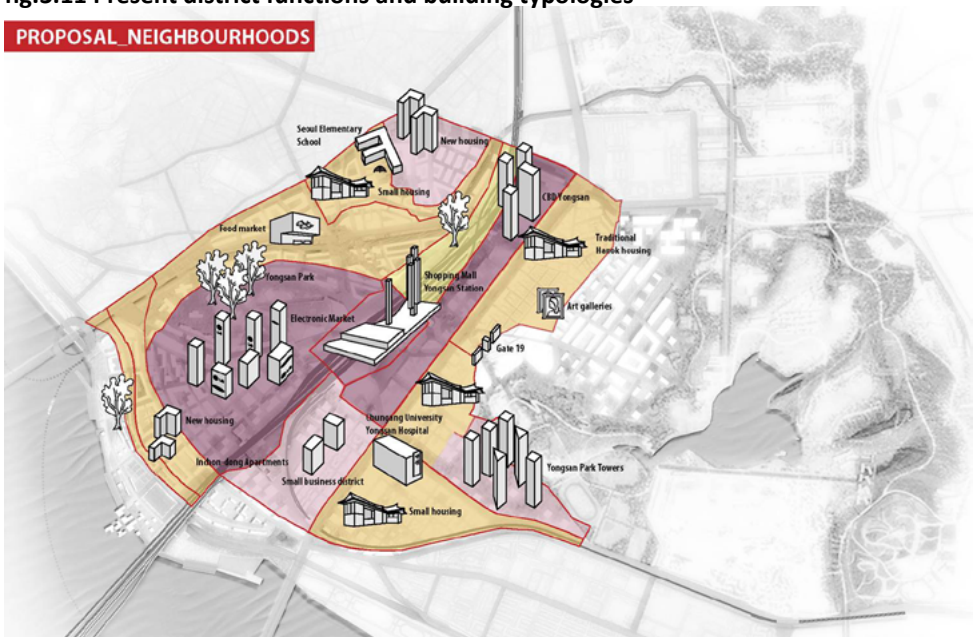


fig.3.12 Planning district functions and building typologies

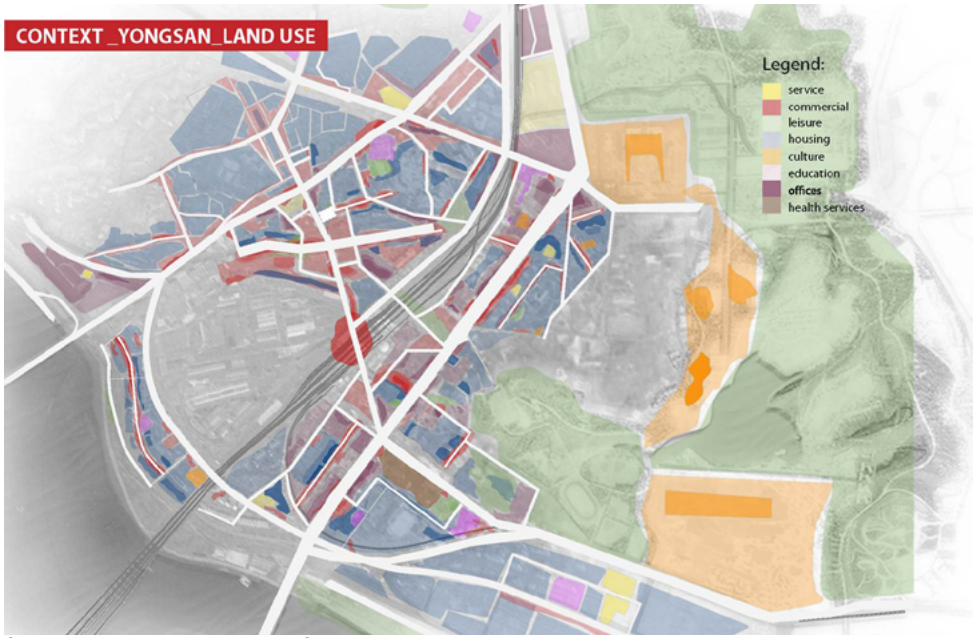


fig.3.13 Present Land use of the site

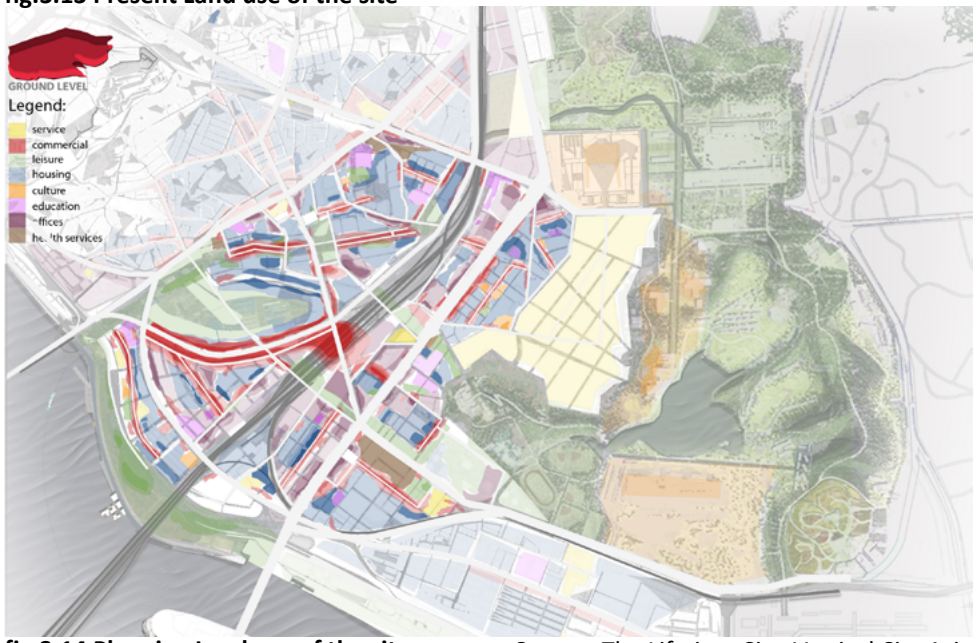


fig.3.14 Planning Land use of the site

Source: The Lifetime City, Vertical City Asia

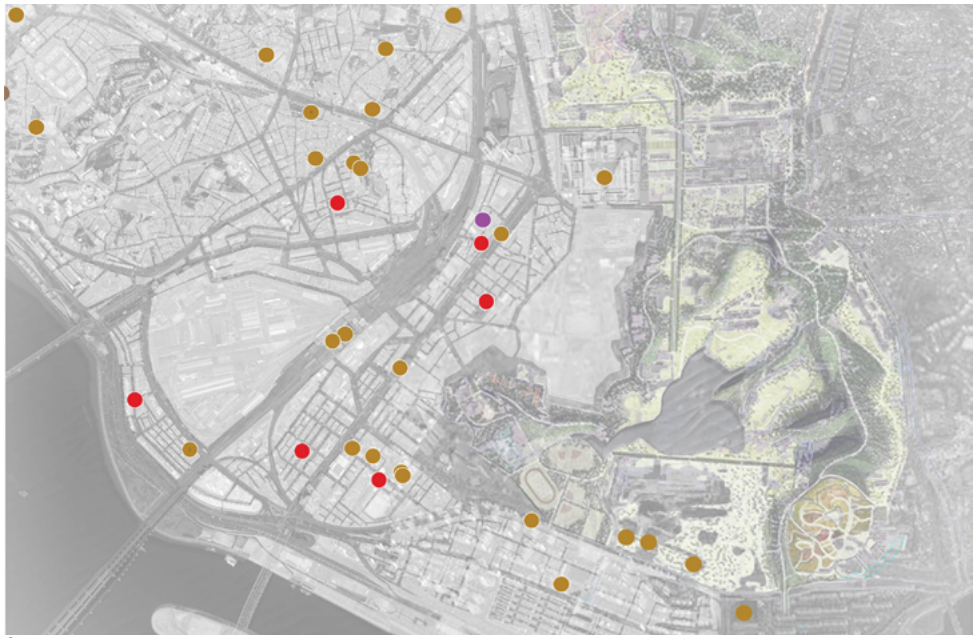


fig.3.15 Present services distribution

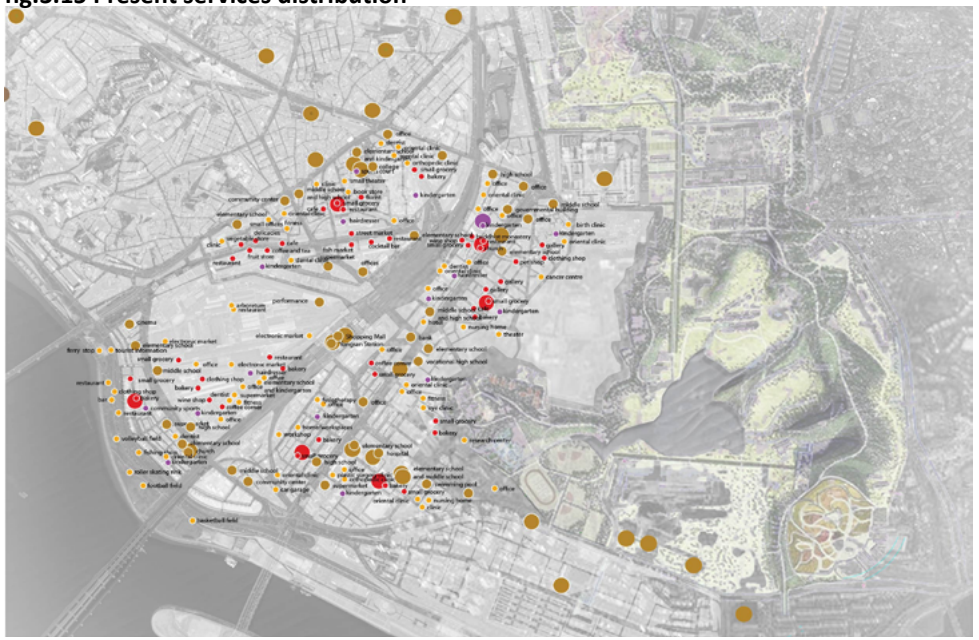


fig.3.16 Planning services distribution

fig.3.17 Present green situation

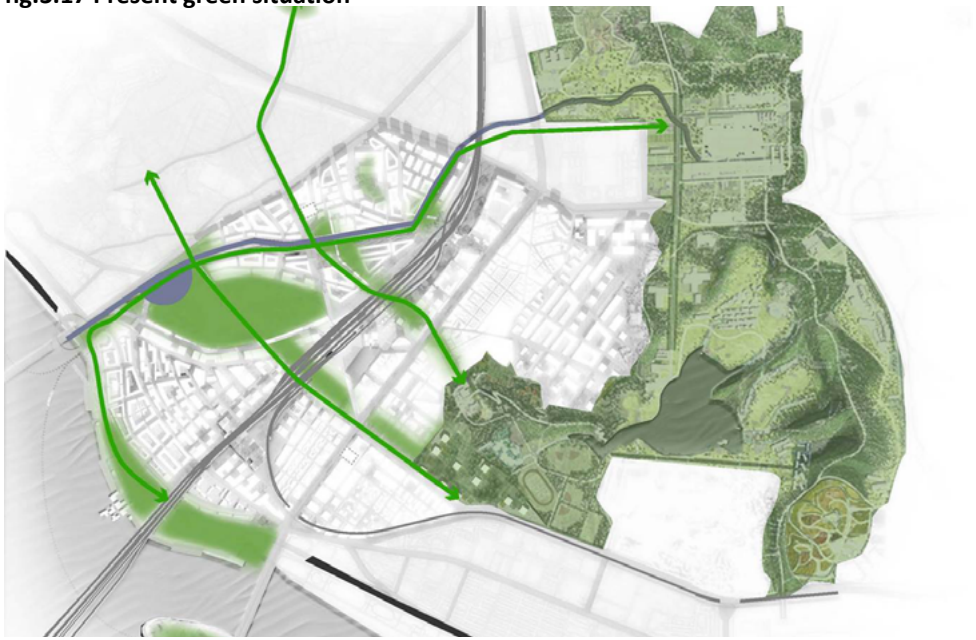


fig.3.18 Planning green integrations

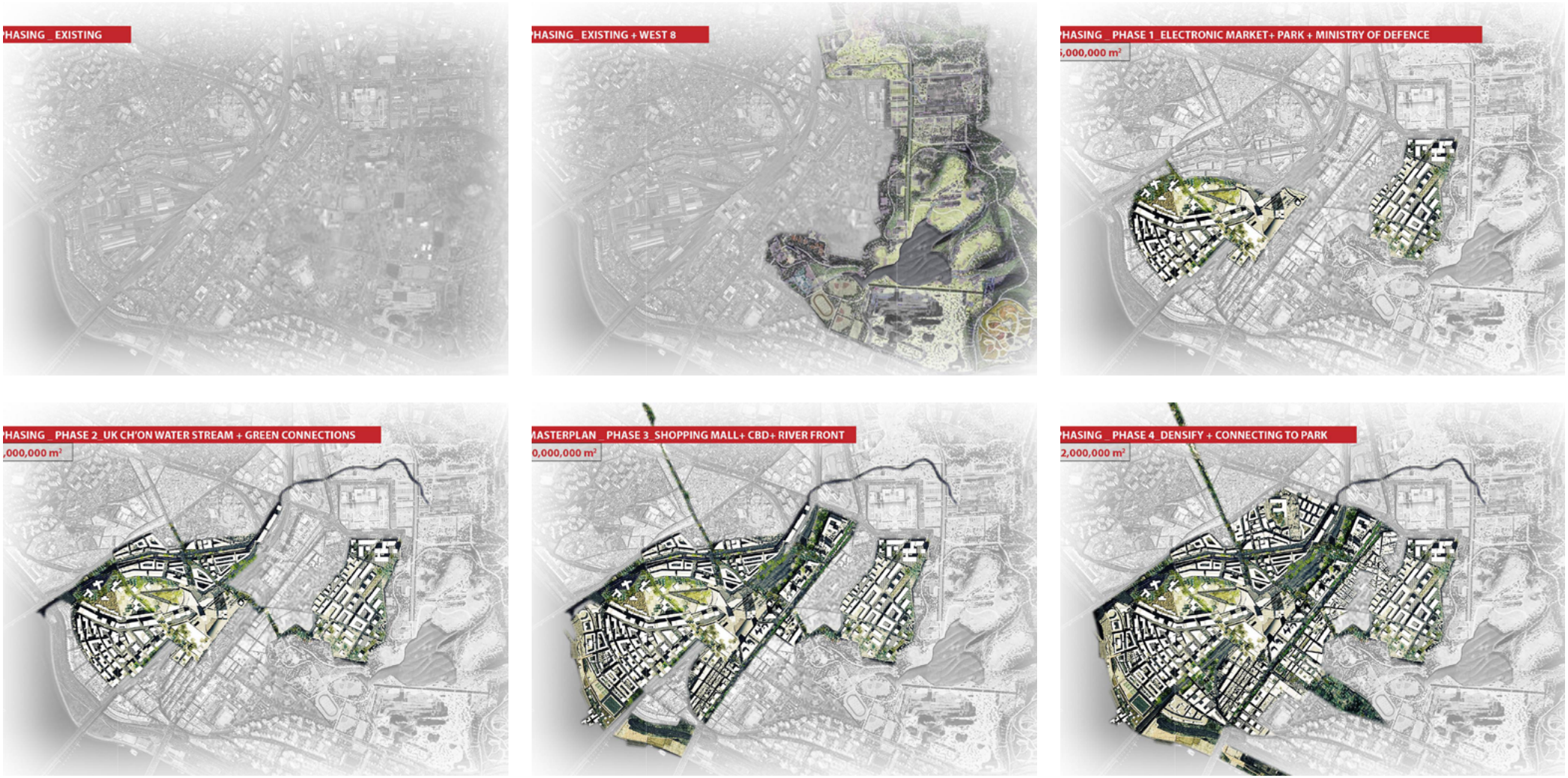


fig.3.19 Phaseing of Life time city in Yongsan

Source: The Lifetime City, Vertical City Asia

MASTERPLAN _

ster plan

3.2 Zoom in

Besides the difference in scales, lifetime neighborhoods also differ by the urban function its location has. In the new centrality district, similar design principles of above apply meanwhile specific design principles are needed.

Accessibility

From the site map we can see that the district is surrounded by railways and city fast roads. Meanwhile, with the level difference between the site and the Yongsan station plat form, the site likes an island in the center of the area. (fig site information) Base on the concept of lifetime city the accessibility of this site need to be improved. In order to improve the accessibility of this site, a new platform that on the same level with Yongsan station platform will be introduced to the entire site. In results, the site will not only directly connect to Yongsan station, but also make a new connection between the neighborhoods in the south side and the New City Park in the north side.

Meanwhile, to prioritize the quality within this development separate pedestrian and mobile traffic is necessary. In this way, the site could avoid the traffic jam like in Zhongguancun and get a pleasant shopping and living environment, in facility every generation that live and work in this district. In addition, the city fast roads will be downsized to a neighborhood road in order to reduce the through-out traffic and ease the logistic traffic impact to the overall traffic situation in this area.

In order to keep the vitality of this district and improve public space productivity, the streets theme will be defined with different programs instead of mix different programs within one street. As to say, there will be no core street within this district but streets with different themes. The program function defines the hierarchy of the street. The principle is street with higher hierarchy emphasizes the accessibility in regional scale meanwhile creates certain distance with lower hierarchy streets. In contrast, street with lower hierarchy emphasizes on accessibility in local scale. This approach will also avoid the problem from zoning.

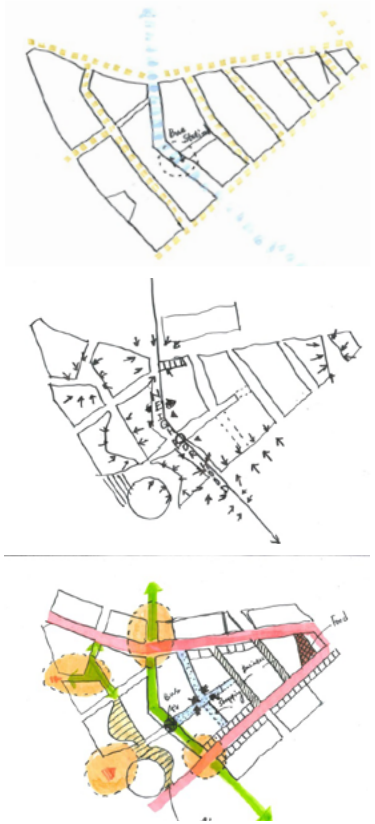


fig.3.30
From Design principles to Strategies

fig.3.20 Zoom in site (the void)

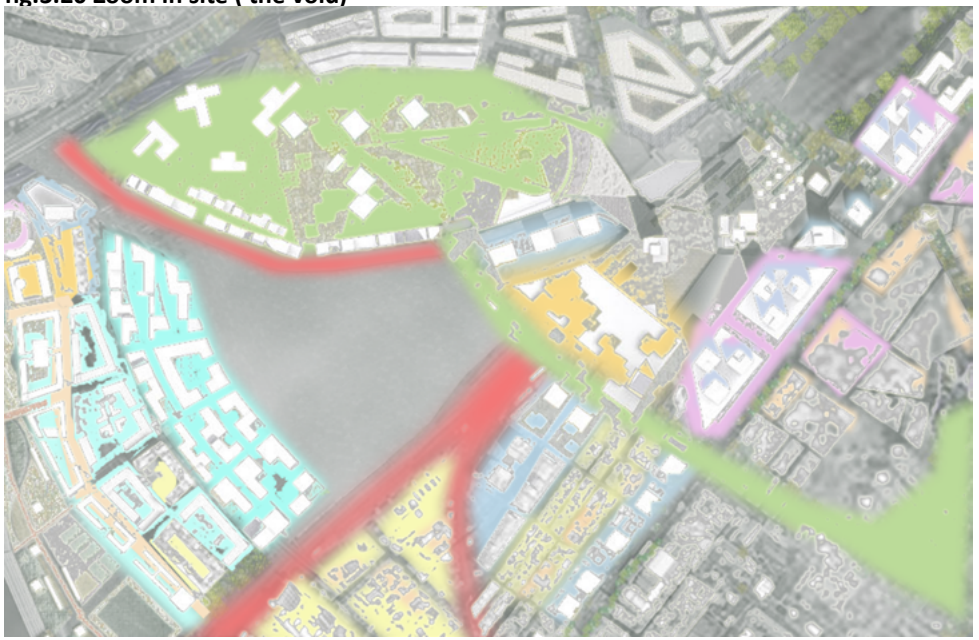


fig.3.21 Founctions around site

fig. 3.22 Platform set-up, to reach on the same level of Station platform

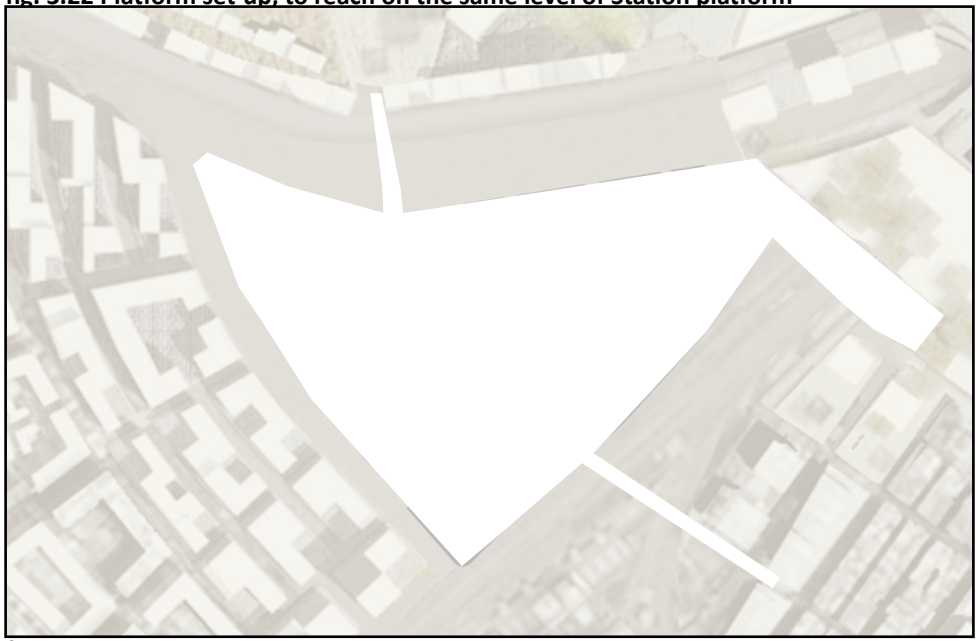


fig.3.23 Connect to the South Neighborhood and North Park

fig. 3.24 Mall-shopping streets close to the hub (regional core streets)

fig. 3.25 Small retail shopping street (local core street)

fig. 3.26 Green corridors and residential theme streets

fig. 3.27 Office theme core street

fig. 3.28 Merging

fig.3.29 Open space

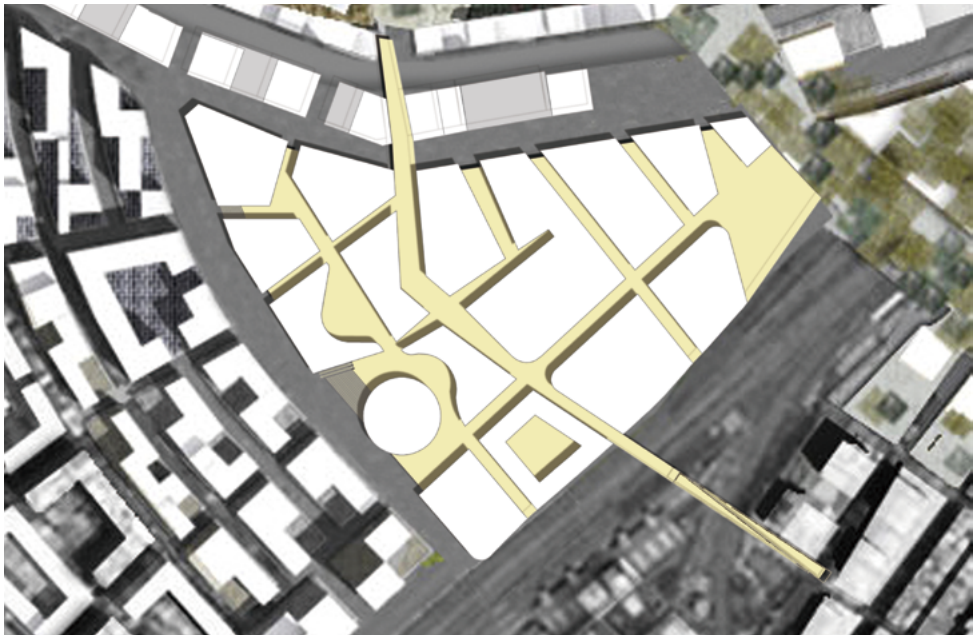


fig.3.30 New electronic market plan

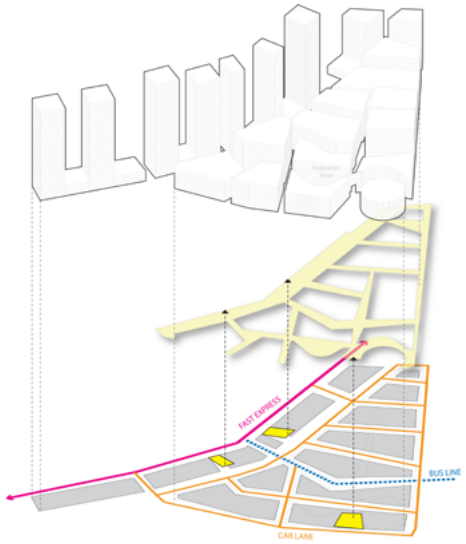
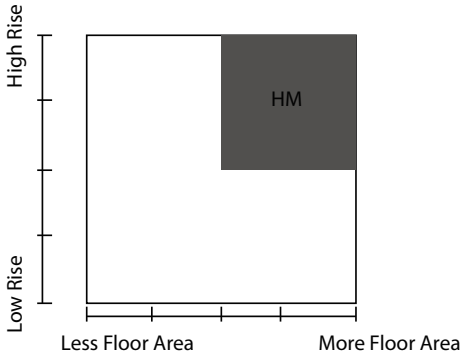
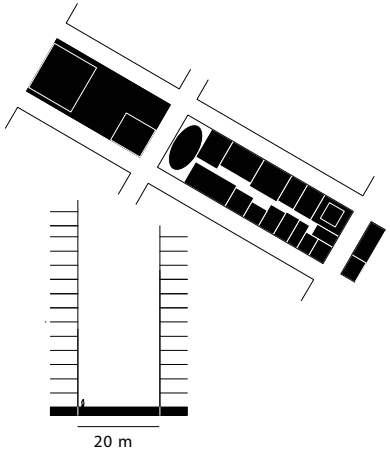


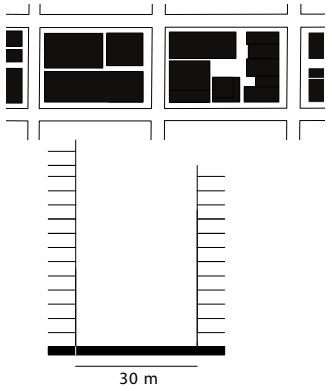
fig. 3.31 Building blocks and the traffic plan



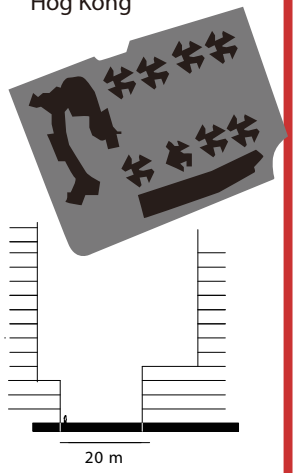
Manhattan Block
New York, USA



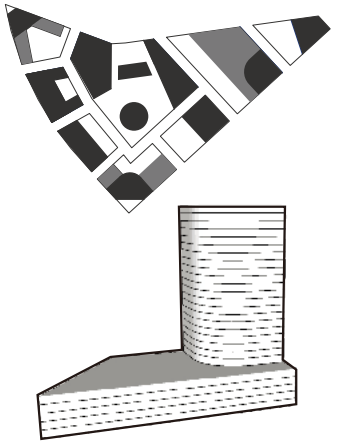
Chicago Block
Chicago, USA



Tseung Kwom
Hog Kong



New Yongsan
Seoul



FAR

10.0

12.5

15.20

9.06 (Avrg)

Site Coverage

*Platform Coverage

*Platform Coverage

fig. 3.32 Research of possible FAR and plan

From design principles to Strategies

In summer, the flowing strategies came from design principles apply. The process of realize the strategies composites the phasing of the project:

1. Introduce a platform that at the same level of the Yongsan Station platform (fig.3.22)

2. Make connections to North and South side of the site, create path from neighborhoods to new park. (fig.3.23)

3. Allocate electronic market program with in two mall-shopping streets which close to the regional transportations.(fig.3.24)

4. Allocate small business, shops in one street that close to the surrounding neighbothoods (fig.3.25)

5. Introduce green corridors, one is to connect to the new park and allocate residential program in this street. The other is to connect the Station. (fig.3.26)

6. Allocate Offices in between the two mall-shopping streets and close to the Station.(fig.3.27)

7. Merging the streets and Program to fit the FAR research (fig.3.28, 3.32)

8. Introduce public spaces at the entrances of the site (from the Station, the new corridors and surrounding neighborhood) and at the entrance to underground (fig.3.29)

9. Form the plan of the site

This design process enables guidance and inclusive governance in sustainable and quality prioritized development projects, especially in metropolitan areas. The frame work of this thesis ensures its evidence-based approach. In this way, I believe I offered a better solution of regenerating Yongsan and meanwhile offering opportunities of growth, in a more sustainable and innovative way.

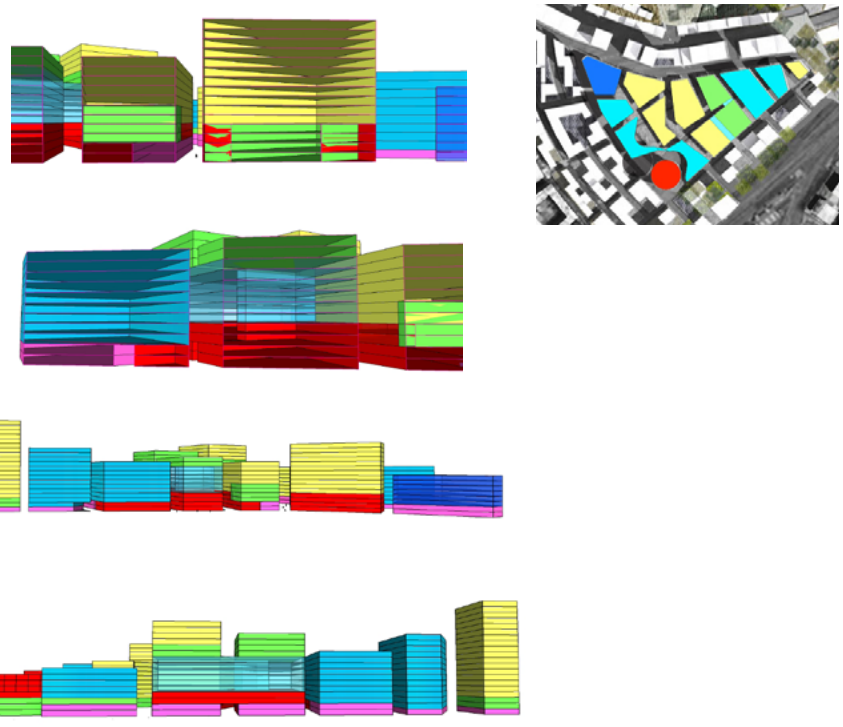


fig. 3.33 vertical mix of programs

fig. 3.34 Program on 1st floor

fig. 3.35 Program on 4th floor

fig.3.36 Program on 8th floor

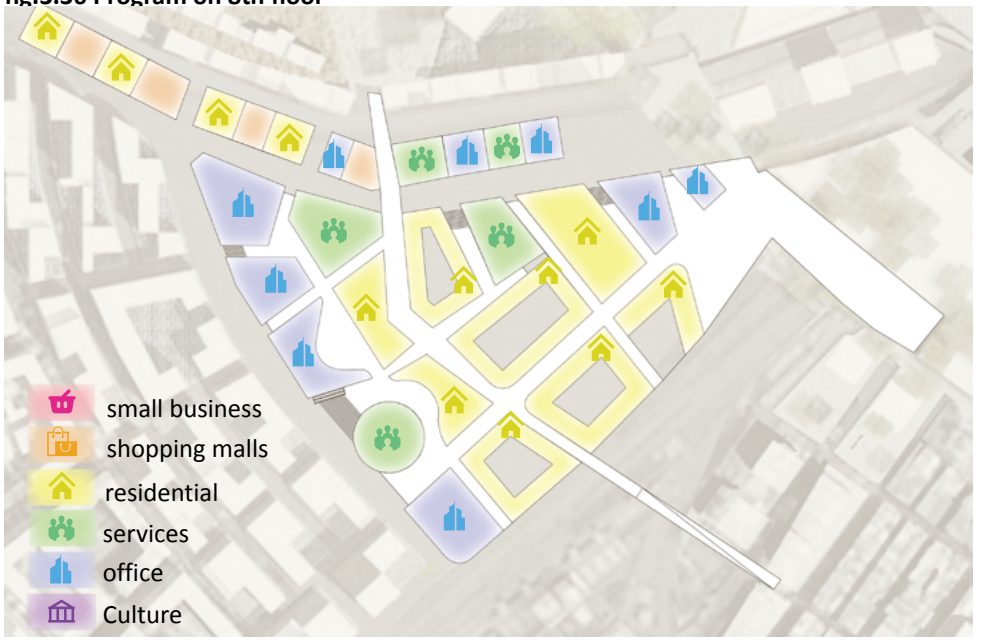


fig.3.37 Program on 20th floor

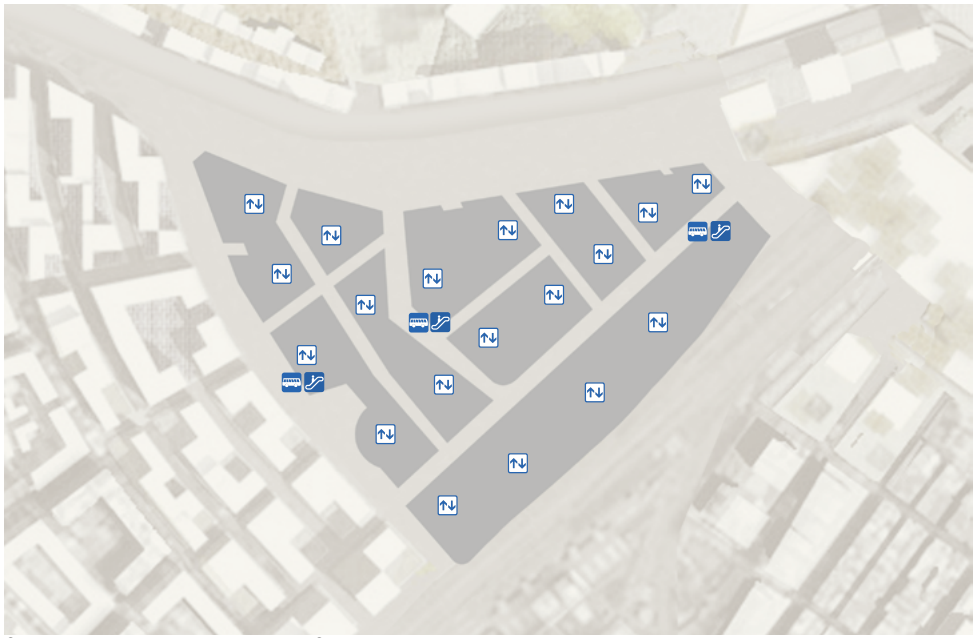


fig.3.38 Program on ground floor

fig.3.39 Private car routes on ground floor

fig.3.40 Logistic traffic routes on ground floor

fig.3.41 Public transportations on ground floor

fig.3.42 Section of site (From east to west)

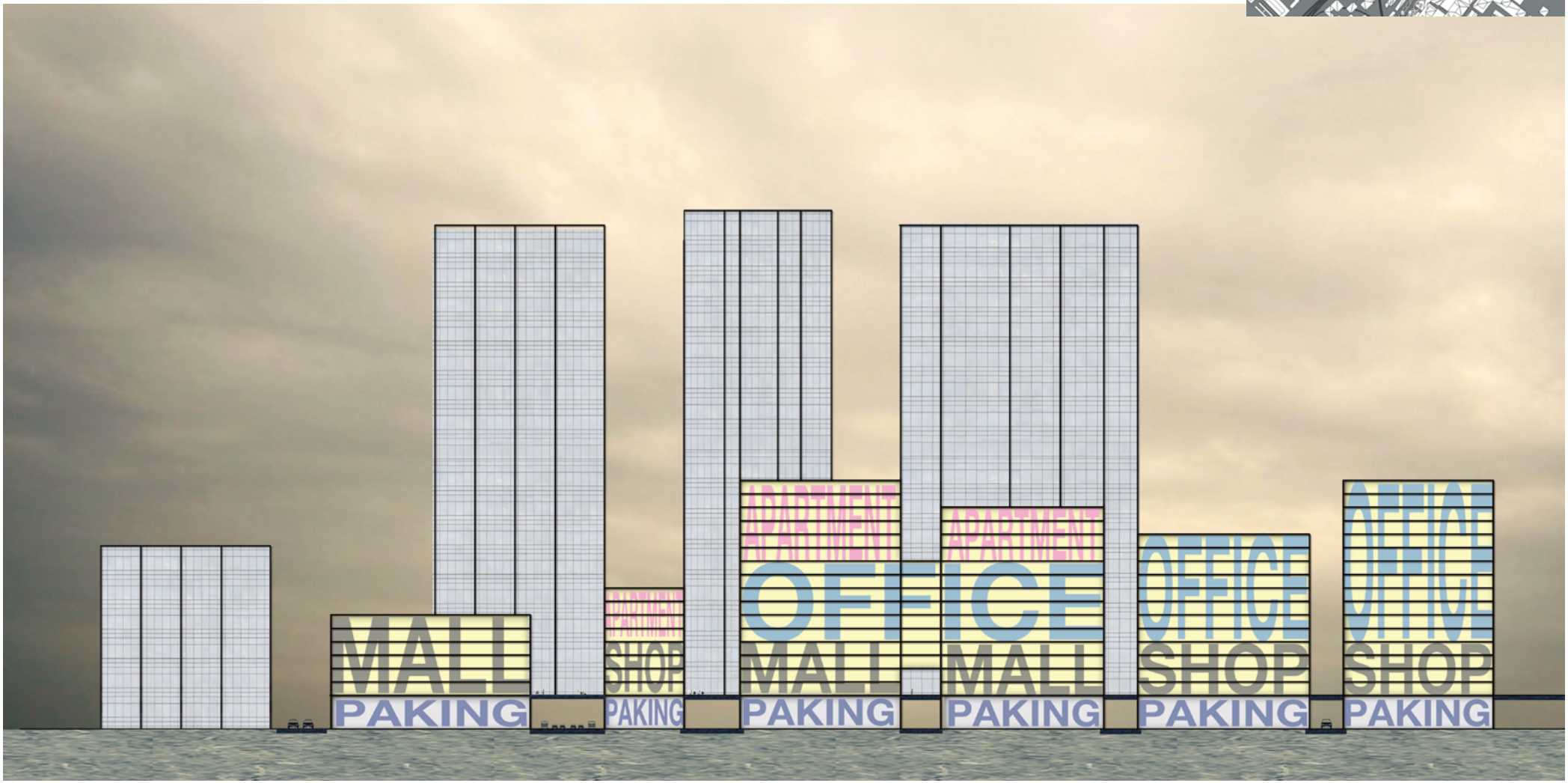
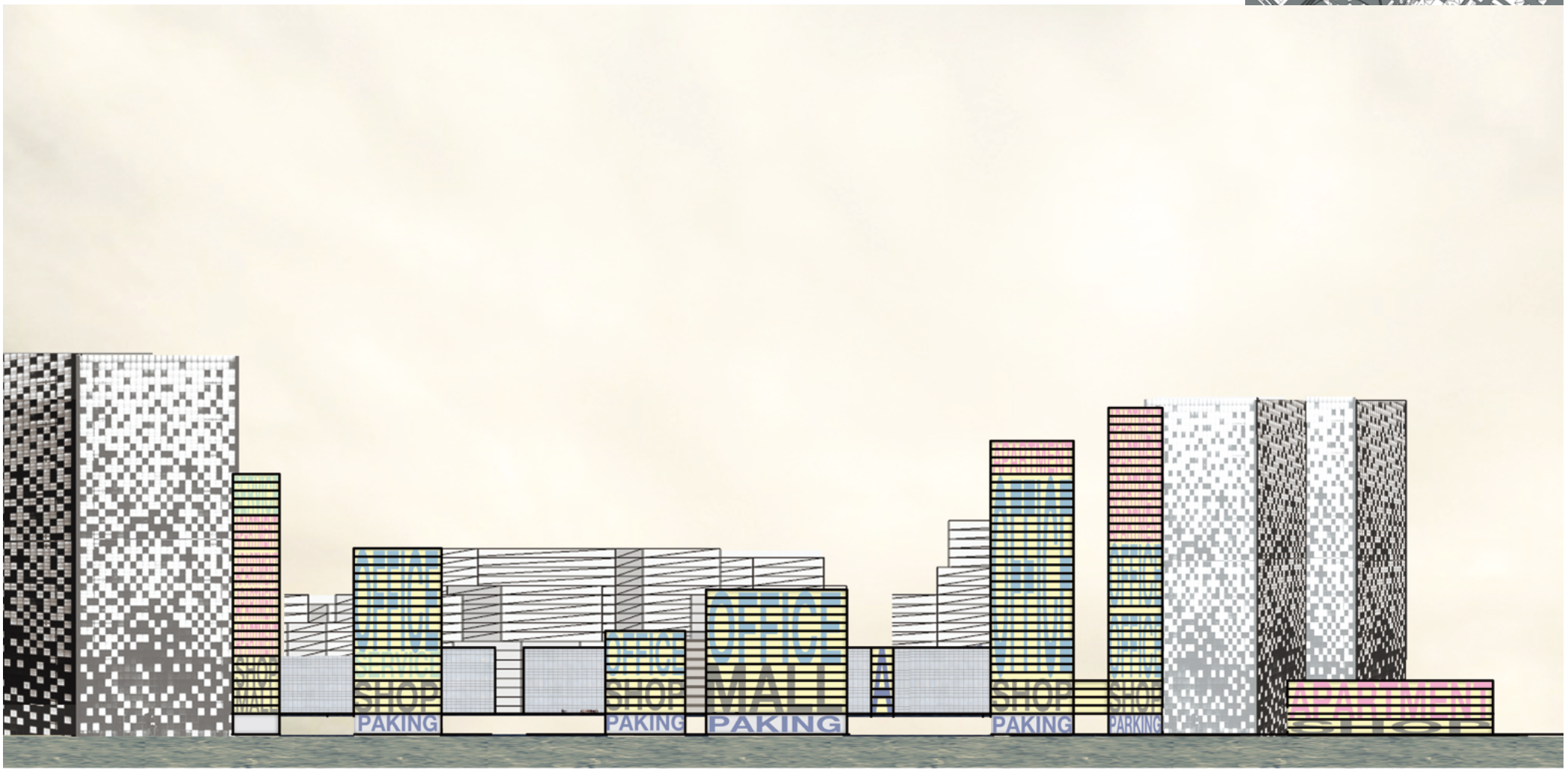
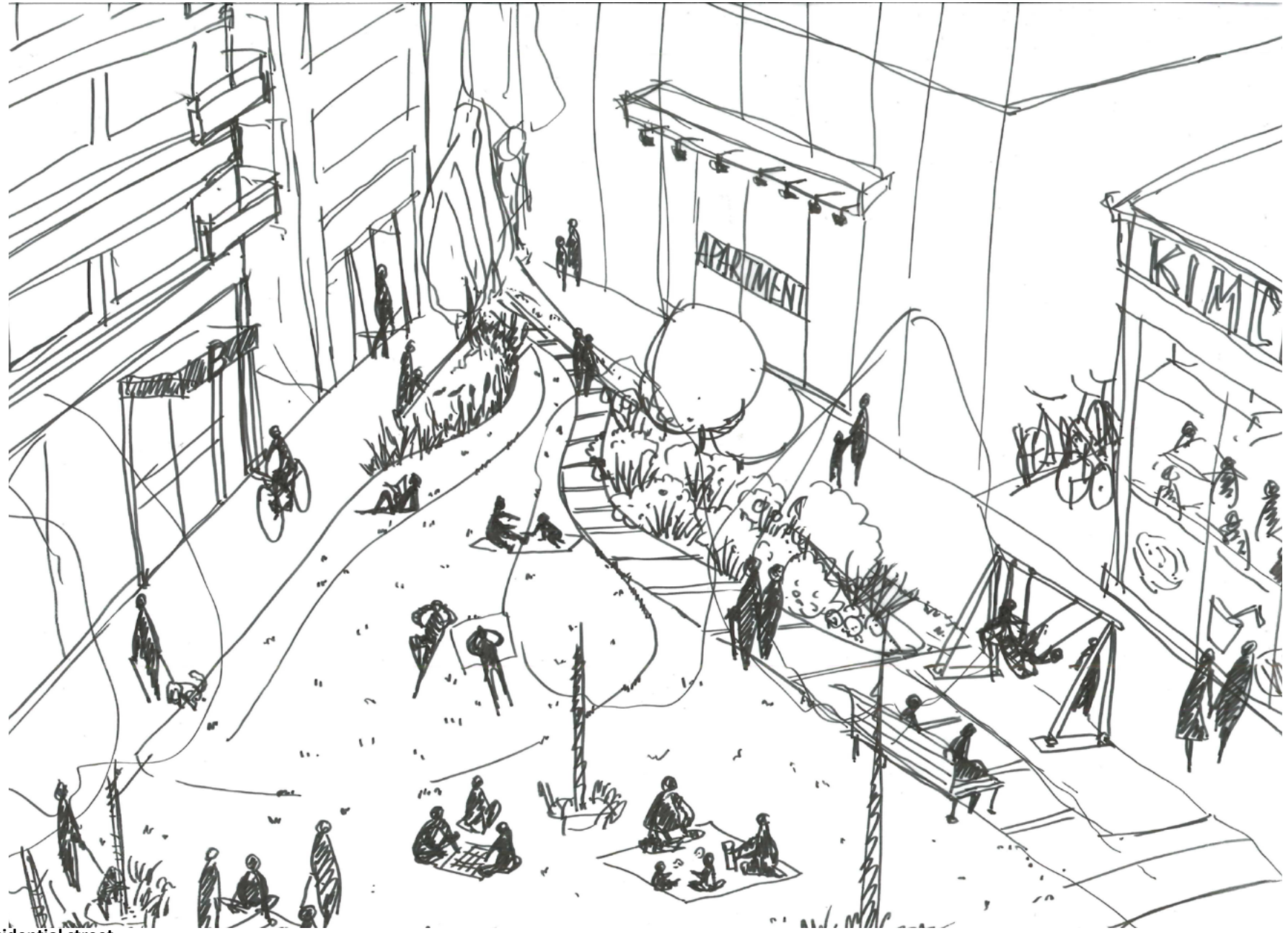
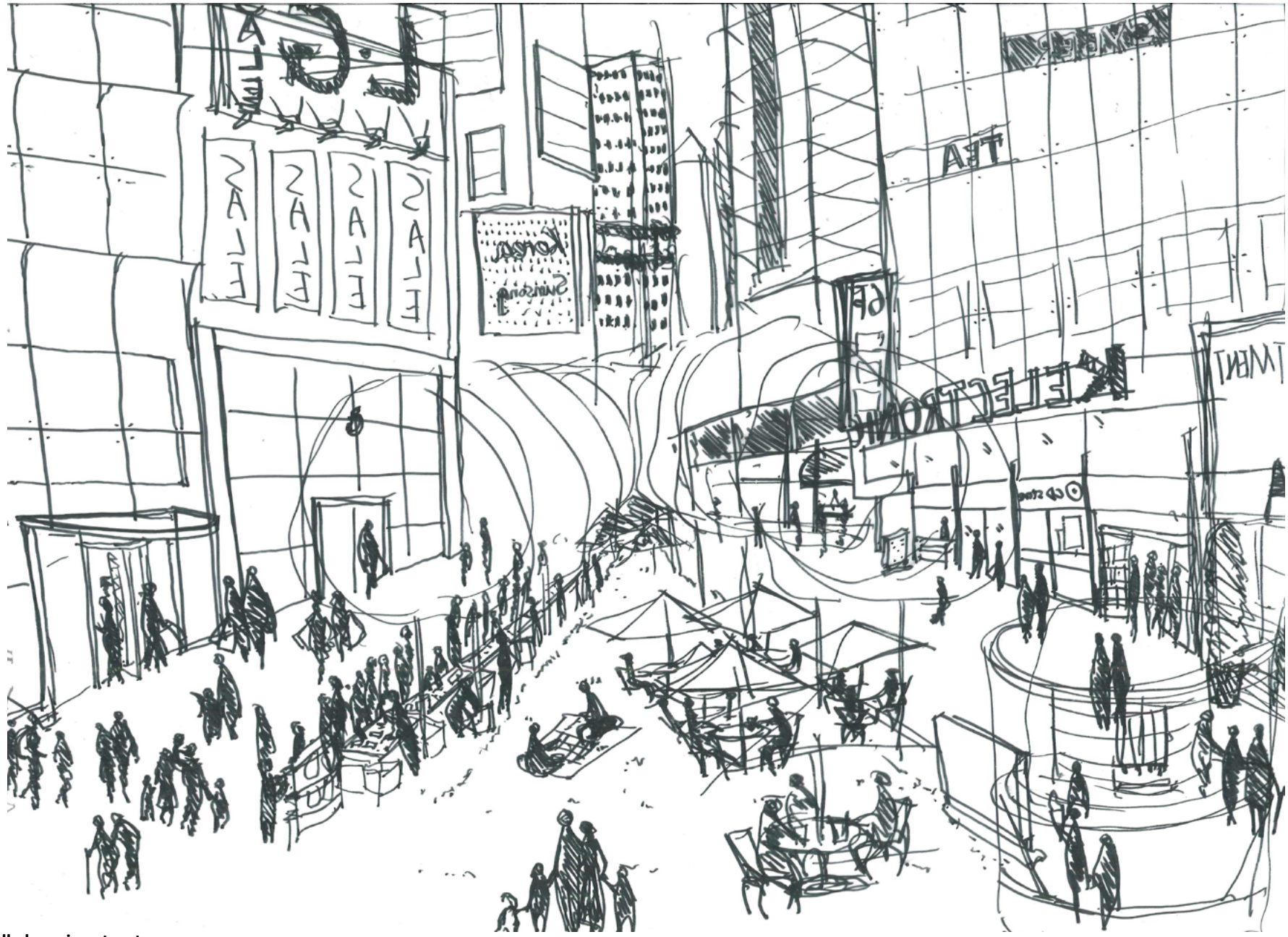


fig.3.43 Section of the site (from South to North)





44 Atomsphere of residential street



45 Atomsphere of mall-shopping street

fig.3.46 Visual of recidential street

ll-shopping street

Reflection

The project made me think a lot about what an urbanist do. I and the competition team had done a lot of research in the beginning. However, when it comes to the design phase, there is still a lot of research need to be done. During the process of data analysis, I find out there are so many key problems that cannot be solved by spatial design or planning. Especially when I try to criticize the current planning system, I felt I have to get some basic economic and sociology knowledge to understand why a plan failed. Most of the time, the spatial design is not the reason of the failure.

Yongsan dream hub is just the case. The power of urbanists is limited, as the case study of the three different electronic in Asia, we can see the most important and effective stake holder is the government. Policy making has a much more weight on whether the project will be successful than the urban design. However, even the most strong and powerful government cannot insure a project's success. If one has to blame the urbanists, they held responsible for not fully understanding the relationship between economy, sociology and urban planning. In another word, a good urbanist needs to be able to offering flexible response to vary urban conditions on a basis of understanding the limits of urban design.

The whole master program emphasis two words: flexibility and coherence. However, when we talk about them we only talk the narrative meanings of these two words within the field of urban design and urban planning. In my opinion, the more important thing is to make student realize the borders of in between the urbanism and economy and sociology. Also I felt the borders are, in most of the cases, the problem fields of the failed designs/ plans. However, it does not mean that an urbanist should also be an economist or a sociologist. The point of the study of the interdisciplinary is to understand the limits of different fields, thereafter to have a better understanding of each own field.

This thesis also intend to discuss the these borders issues that is why I spend much paragraph to talk about the economic and politic development in the history of Seoul, and how these facts influenced the planning of Seoul. Although spatial design is the final product, but the emphasis of this thesis is not how the site will look alike, but how to form a strategy plan by researching in the interdisciplinary field.

Speciall Thanks to my tutors Henco Bekkering and Qu Lei, who not only help me to overcome the difficulties in study, but also encourage and inspire me to overcome the difficulties in mind. Thanks for their understanding of my situation and great patience they have for me.
Thanks Leo van der Burg, the examier who has been more than kind and patientce with me.
And great thanks to my dearest friend Li Sun who encourages me to finish this thesis and accompany me through the most difficult time in my life.

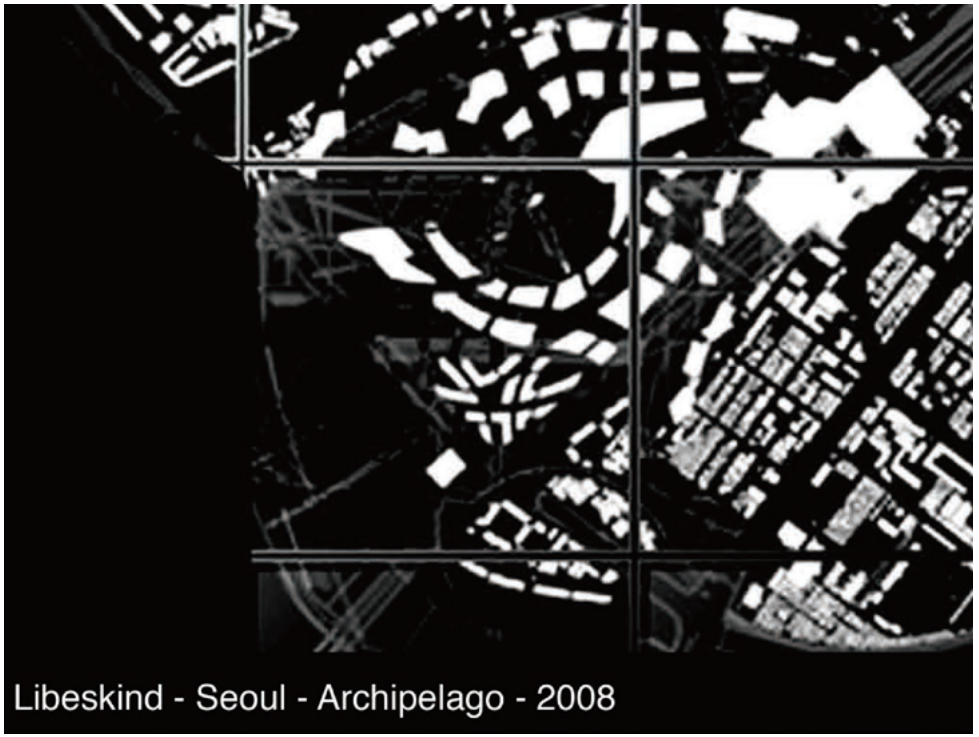


fig.3.47 Refections on Dreamhub Yongsan

Bibliography

Schuman, M. (2010). *Overview: The mircle examined*, *Korea 2020*

Barton, D. (2010). *Preface:Korea's next Chanllenge*, Korea 2020

Roach,S.S. and Lam,S. (2010). *How will Korea compete in the global economy of tomorrow? Korea 2020*

Schwab,K. (2010). *Imagining Korea's competitive future,* Korea 2020

Know, M. (2010). *Seoul City Criticized for Demolition of Hanok,* http://www.koreatimes.co.kr/www/news/nation/2010/03/113_63047.html

Cho,J (2005).*Urban planning and urban sprawl in Korea*, Urban Policy and Research, Vol.23, No.2, 203-218

D.Lee, C.Choi(E), (2009). *Urban planning of Seoul*, Seoul Metropolitan Government

Nelson, A. C. & Duncan, J. B. (1995). *Growth Management Principles and Practices* (Chicago: Planner Press).

Ohn, Y. -T. (2001). *An Application of the Networking Method to Prevent Urban Sprawl*, Report by the Korea

Carmona, M. I.; Silva, R. T. (2009). *The Cities, the States and the Markers: in Search of Sustainability,* Human settlement development Vol.IV, (p.318)

Unknown. (2007). *Seoul, South Korea Cheonggye Freeway*, http://www.preservenet.com/freeways/FreewaysCheonggye.html

Hwang,K.Y. (2003). *Restoring Cheonggyecheon Stream in the Downtown Seoul,* P1,http://www.globalrestorationnetwork.org/uploads/files/LiteratureAttachments/270_restoring-cheonggyecheon-stream-in-the-downtown-seoul.pdf

Howe, N; Jackson, R; Nakashima, K, (2007). *The Aging of Korea -Demographics and Retirement Policy in the Land of the Morning Calm*, from Center for Strategic and International Studies

LIU, Y. (2011). *A though battle in the age of "Silver Hair", 2011*, Urban China, Vol 49. No.17, pp.80

LIU,Y.(ed.), (2011). *"Anti-aging strategies" in foreign countries,* Urban China, Vol 49. No.19, pp.84

OECD, (2011). *Pensions at a Glance 2011: Retirement-Income Systems in OECD and G20 Countries,* from http://www.oecd.org/els/social/pensions/PAG

WANG, W., (2011). *The positive aspect of aging city*. Urban China, Vol 49. No.8, pp.34-35

WANG, W. J., (2011). *When thirties meet sixties, Urban China*, Vol 49. No.16, pp.71

H.Zweardo.(2015).*The Cheonggyecheon River Restoration Project: The Restoration of Environmental, Social & Economic in Seoul,* http://www.nclurbandesign.org/uncategorised/cheonggyecheon-river-restoration-project-restoration-environmental-social-economic-seoul/#comment-661,

Unknow. (2014). *Zhongguancun Figures Analysis Report,* http://www.zgc.gov.cn/fzbg/

Unknow.(2015). *Akihabara Archives*, http://akiba.or.jp/archives/index.html

Unknow,(2012).*Global Geek Tour: Overview of Yongsan electronics market,http://dangerousprototypes.com/2012/03/13/global-geek-tour-overview-of-yongsan-electronics-market/*

Unknow, (2011). *IT tourism(IT shu wei you),*http://www.visitseoul.net/cb/article/article.do?_method=view&m=0004003002004&p=cb&art_id=795&lang=cb