

GHOST IN THE CITY

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"GHOST IN THE CITY"¹

Behind the urban spectacles, and behind the spirit of the space, there is something virtual, through which we can represent the city in our mind. If we see things from the perspective of destruction rather than construction, then what will make the city reappear after devastating disasters?

It is the human society itself. Everyday practices and intangible social relations are the things that produced the space. There are **mechanisms and principles** that make the urban system resilient and vibrant. This is the ghost in the city, the spirit of the city, imperceptible but ubiquitous.

I see **urban design as a generator**. It has the opportunity to trigger chain effects through social linkages. I wish to find the essence of urban problems, seek for common solutions from people-oriented perspectives. The outcome of urban design will be universal and also flexible, just like the ghost in the city.

An open city should always be socially dialogical, economically synchronous, and politically to the left.

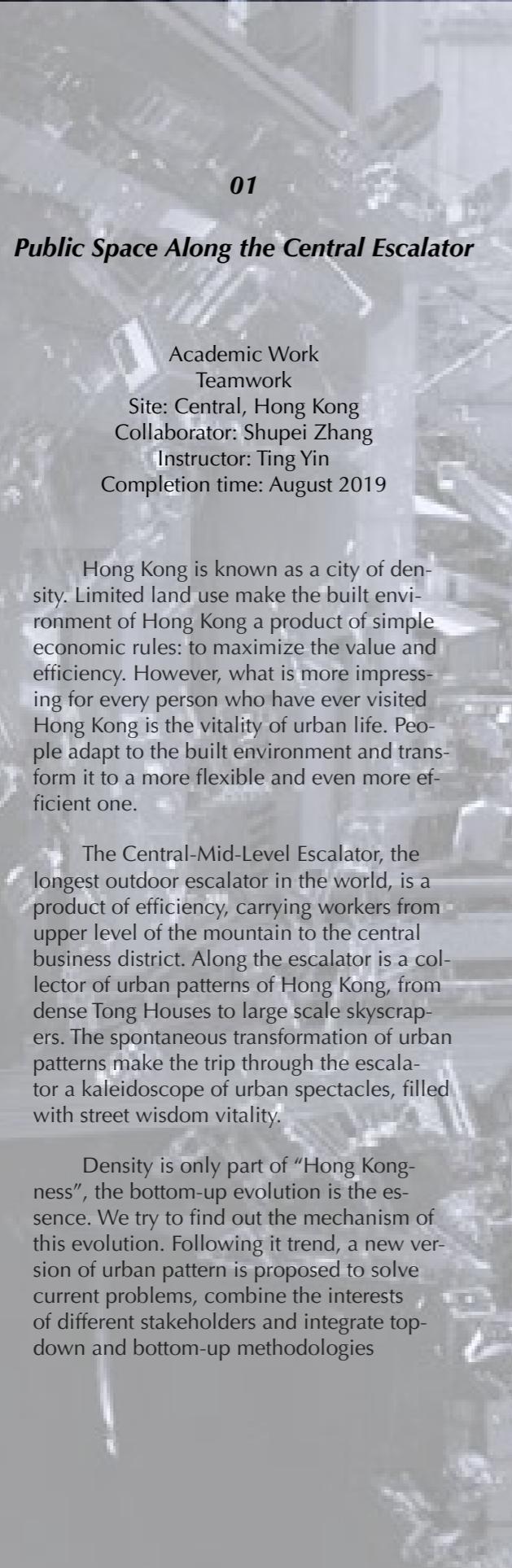
— Richard Sennett

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¹ Michel De Certeau, *Les Revenants de la Ville(Ghost in the City)*, The Practice of Everyday Life Vol.2, University of Minnesota Press, Oct 1998

FORM REFORMED



01

Public Space Along the Central Escalator

Academic Work

Teamwork

Site: Central, Hong Kong

Collaborator: Shupei Zhang

Instructor: Ting Yin

Completion time: August 2019

Hong Kong is known as a city of density. Limited land use make the built environment of Hong Kong a product of simple economic rules: to maximize the value and efficiency. However, what is more impressive for every person who have ever visited Hong Kong is the vitality of urban life. People adapt to the built environment and transform it to a more flexible and even more efficient one.

The Central-Mid-Level Escalator, the longest outdoor escalator in the world, is a product of efficiency, carrying workers from upper level of the mountain to the central business district. Along the escalator is a collector of urban patterns of Hong Kong, from dense Tong Houses to large scale skyscrapers. The spontaneous transformation of urban patterns make the trip through the escalator a kaleidoscope of urban spectacles, filled with street wisdom vitality.

Density is only part of "Hong Kong-ness", the bottom-up evolution is the essence. We try to find out the mechanism of this evolution. Following it trend, a new version of urban pattern is proposed to solve current problems, combine the interests of different stakeholders and integrate top-down and bottom-up methodologies.



The urban pattern is not a statistic system, but a dynamic one with bottom-up modifications.

Hong Kong: A City of Transformation

Starting as a colonial city, the history of Hong Kong is turbulent. Hong Kong Island witnessed the tremendous change of urban environment in the past 150 years. It went through population explosion of immigrants from mainland China, who built up thousands of shanties on this small island. It witnessed the destruction of these shanties by a horrible fire and also the construction of skyscrapers in the world financial centre.

Along the contour of Hong Kong Island, an escalator was built, cutting through the areas which present the transformation of the city.

Mid-Level Escalator: A Representative of Vertical Efficiency

The escalator was built for transportation purpose. Hugely shortened the time for residence who live on the mountains to commute down to Central financial centre along the coast. With shops, bars and historical spots along the escalator, it has become a famous tourists' destination to see the hustle and bustles in HK. Finished construction in 1993, the escalator carried 80,000 people every day, presenting the extremely busy and lively image of an Asian metropolis.

Along the escalator: The evolution of urban patterns

1 Efficiency: to maximize the utility of land

The escalator was built for transportation purpose. Hugely shortened the time for residences who live on the mountains to commute down to Central

financial centre along the coast. With shops, bars and historical spots along the escalator, it has become a famous tourists' destination to see the hustle and bustles in HK. Finished construction in 1993, the escalator carried 80,000 people every day, presenting the extremely busy and lively image of an Asian metropolis.

2 Asianess: to fix the rigidness in everyday life

To fix the rigidness of the original built environment, bottom-up and informal solutions were brought out by citizens in Hong Kong. They **combine, subdivide, rearrange** the original patterns and make use of the grids of built environment, vertically and horizontally.

"Hong Kong cannot exist without the informal, because it is the identity of Asian metropolis. They are the ghost of Asianness."²

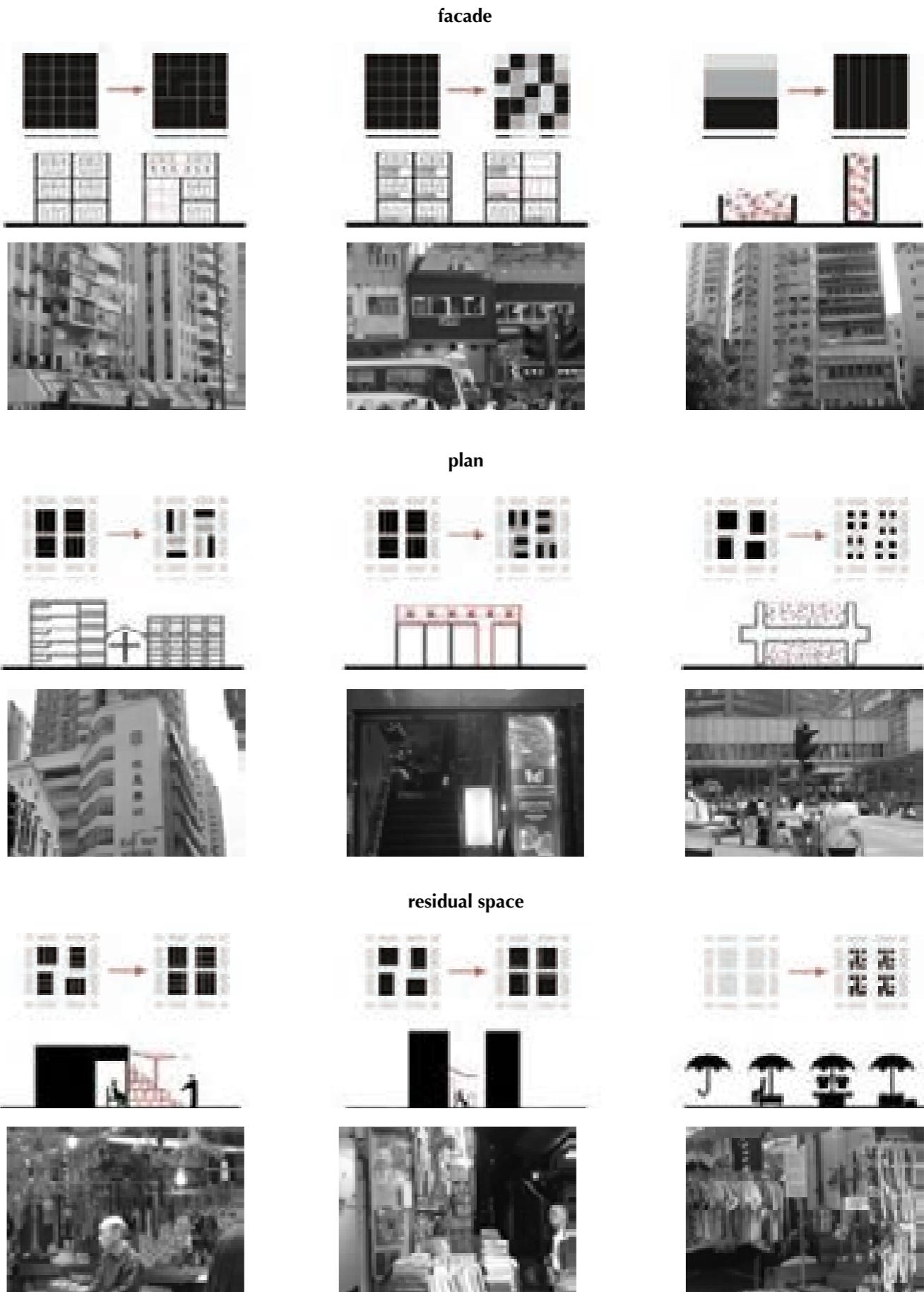
3 Integration bottom-up + top-down evolution

The urban environment is still in development. The conflicts between the built environment and informal solutions have come to a balance and also a dilemma.

Therefore, we try to propose a new version of urban pattern which can combine the efforts made by each side to achieve their stakes. **By integrating their needs in the form of urban pattern, the urban form is transformed toward a more friendly, equitable win-win situation.**

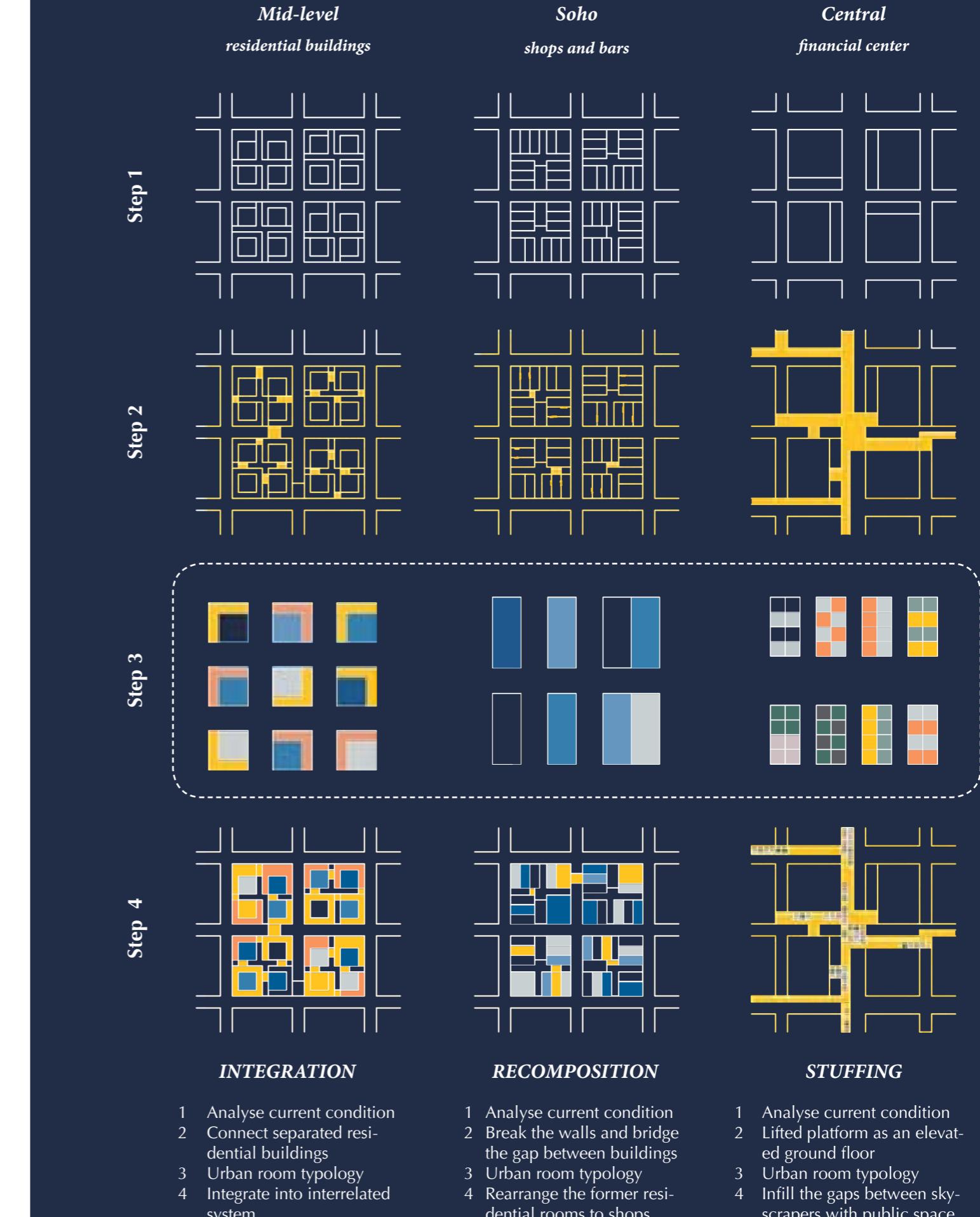
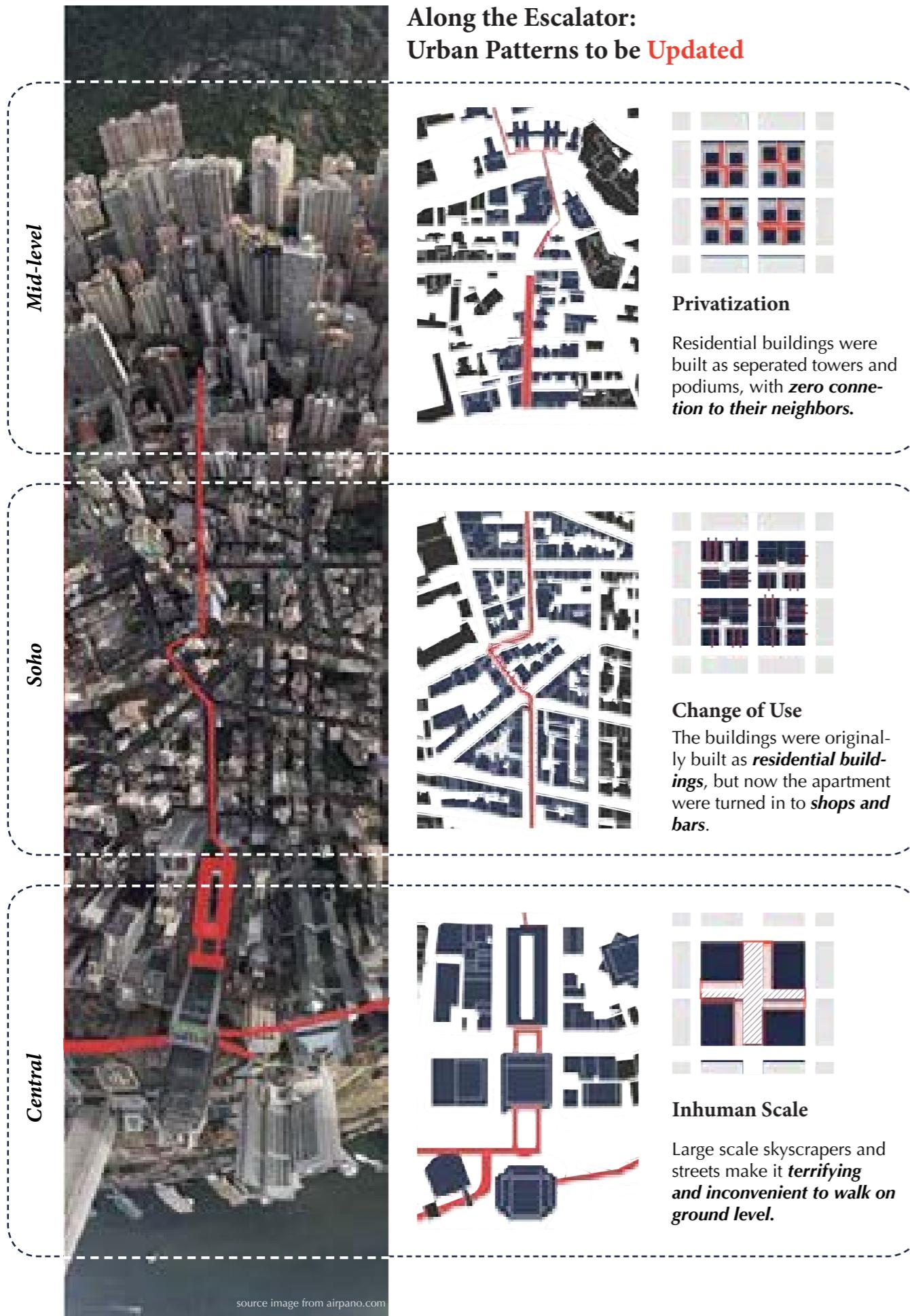


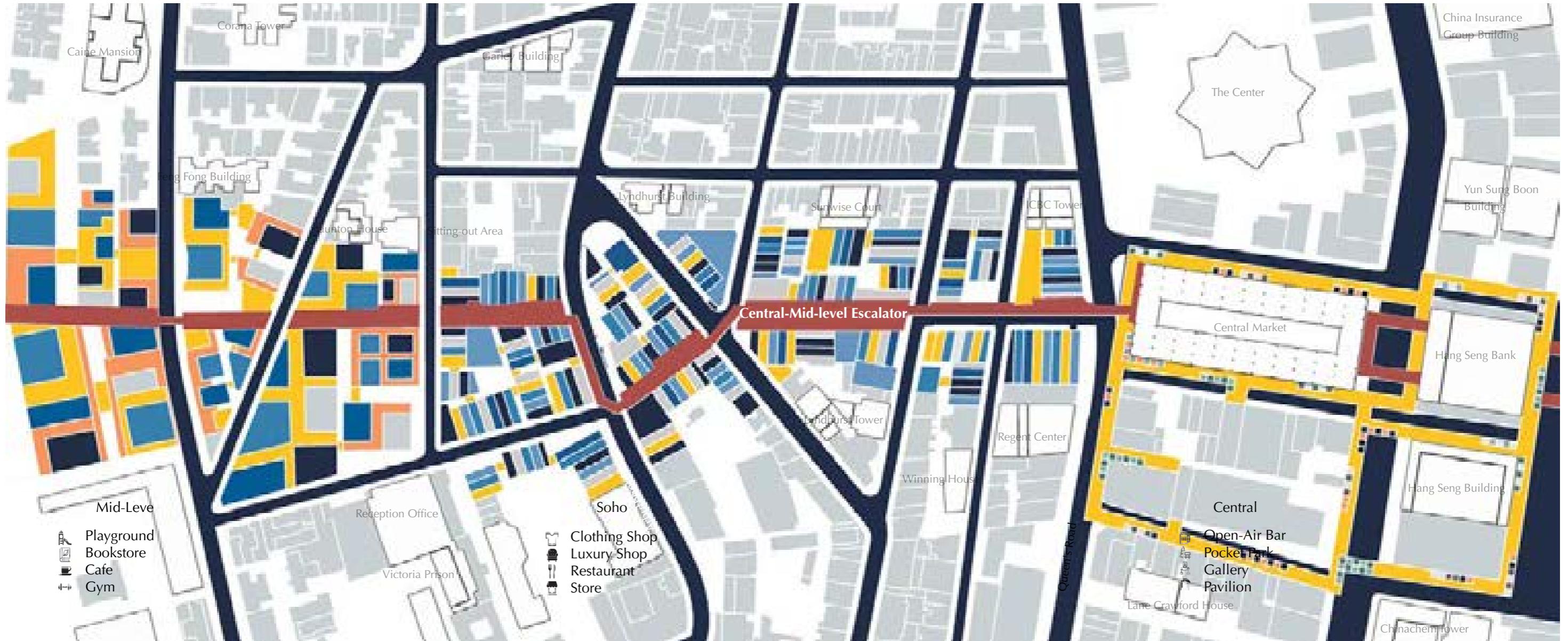
Photos credit to Georgios Teknais



Photos credit to Zhang Weiping

The Evolution of Urban Patterns, horizontally and vertically





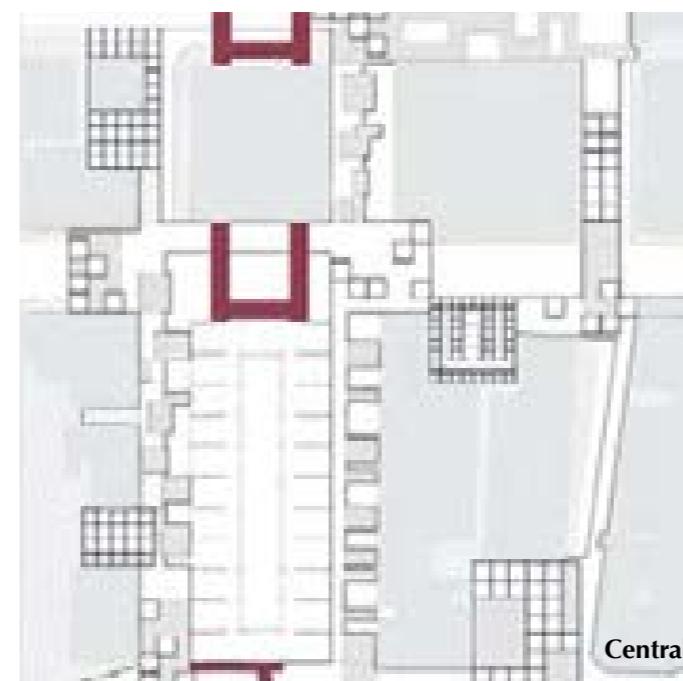
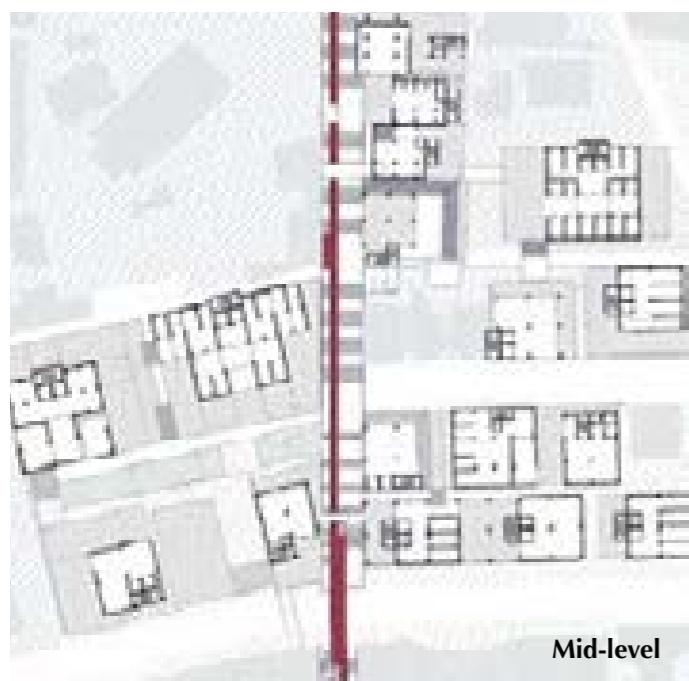
Urban Patterns Along the Escalator

The form of present urban pattern can not meet up with the needs of current activities. Public spaces could be re-created from high-density spaces.

At **Mid-level**, the area is filled with high-rise residential buildings. The tops of the podiums were meant to be the compensatory space for activities on the ground. But the area of a single building is limited and facilities for each building were monotonous and repetitive.

At **Soho**, former residential buildings were turned into various kinds of merchandizing activities. The form of residential buildings can no longer satisfy the needs of different shops.

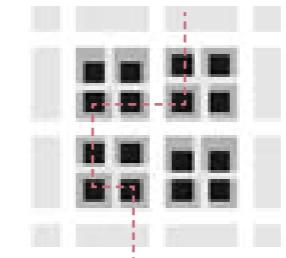
At **Central**, skyscrapers and wide roads make the walking experience on ground level uncomfortable. It also has great shortage on green land and leisure spaces for office workers to relax.





INTEGRATION

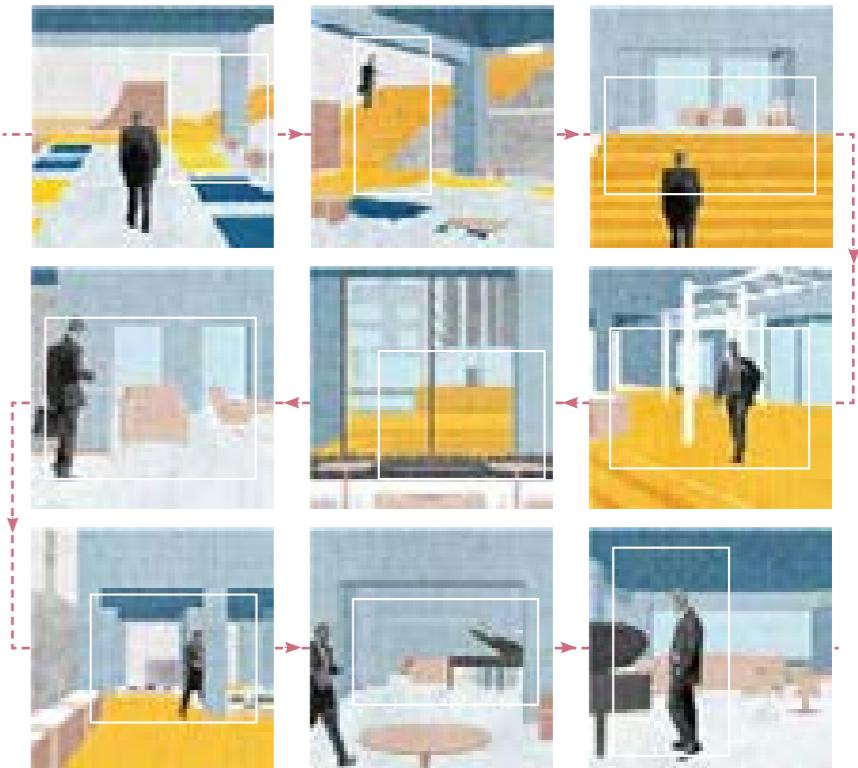
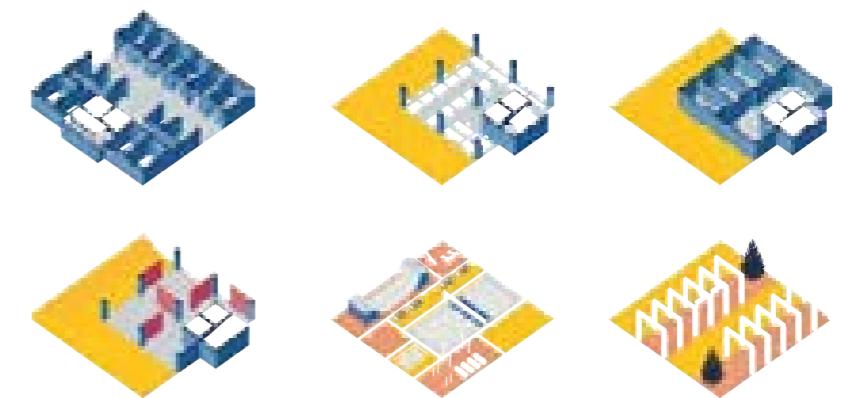
Mid-Level: Residential Buildings



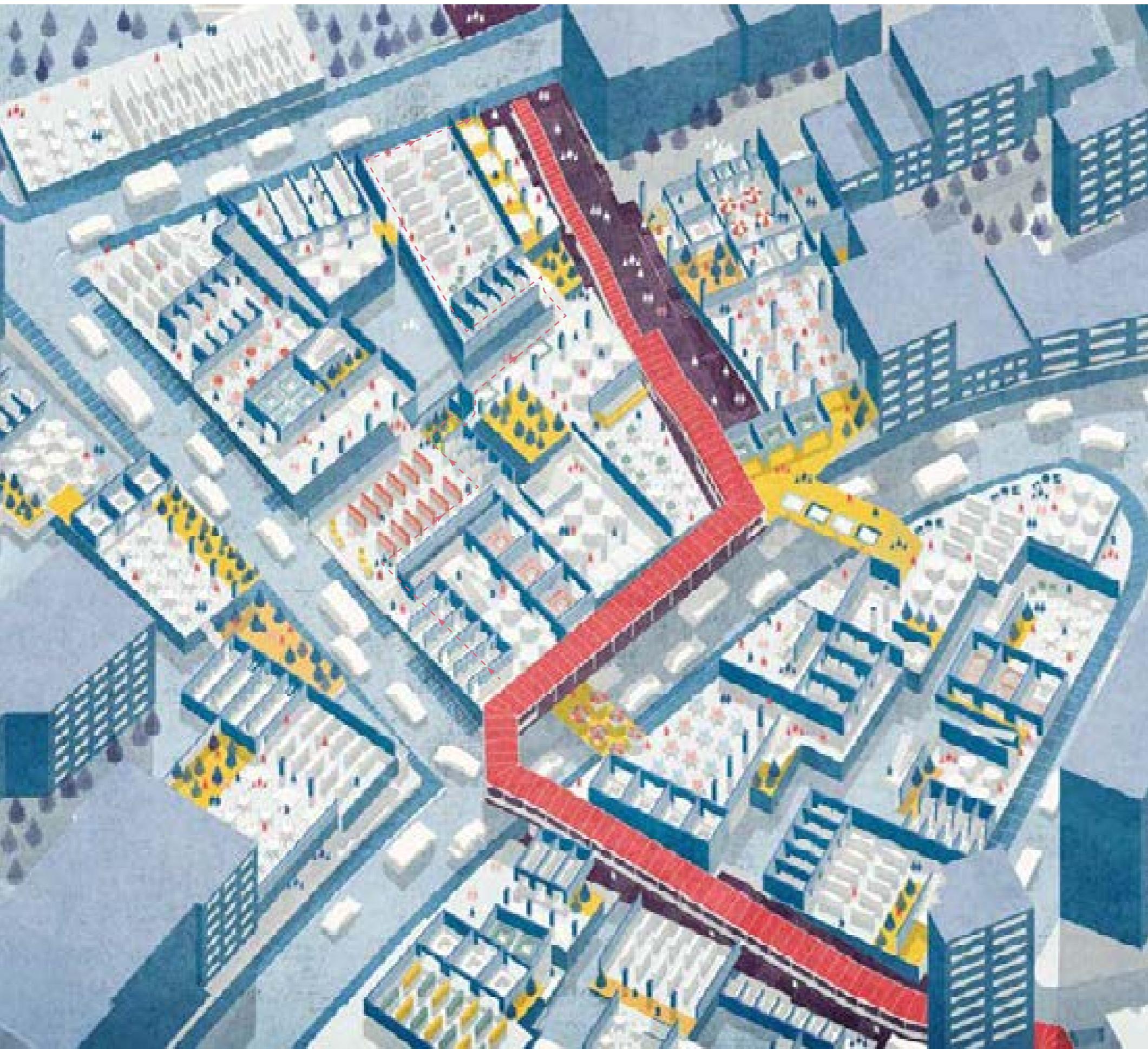
Connect the top of the podiums and made them cultural and exercise spaces for the neighbourhood. From monotonous and repetitive activities to an integrated system of outdoor activities. An experience of passing through indoor and outdoor urban rooms.

Community Space

Urban rooms for community activities, such as exercise, gathering and community events.

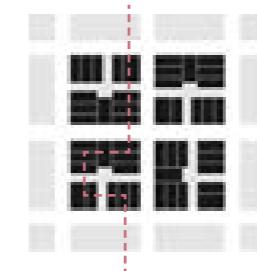


walking in and out



RECOMPOSITION

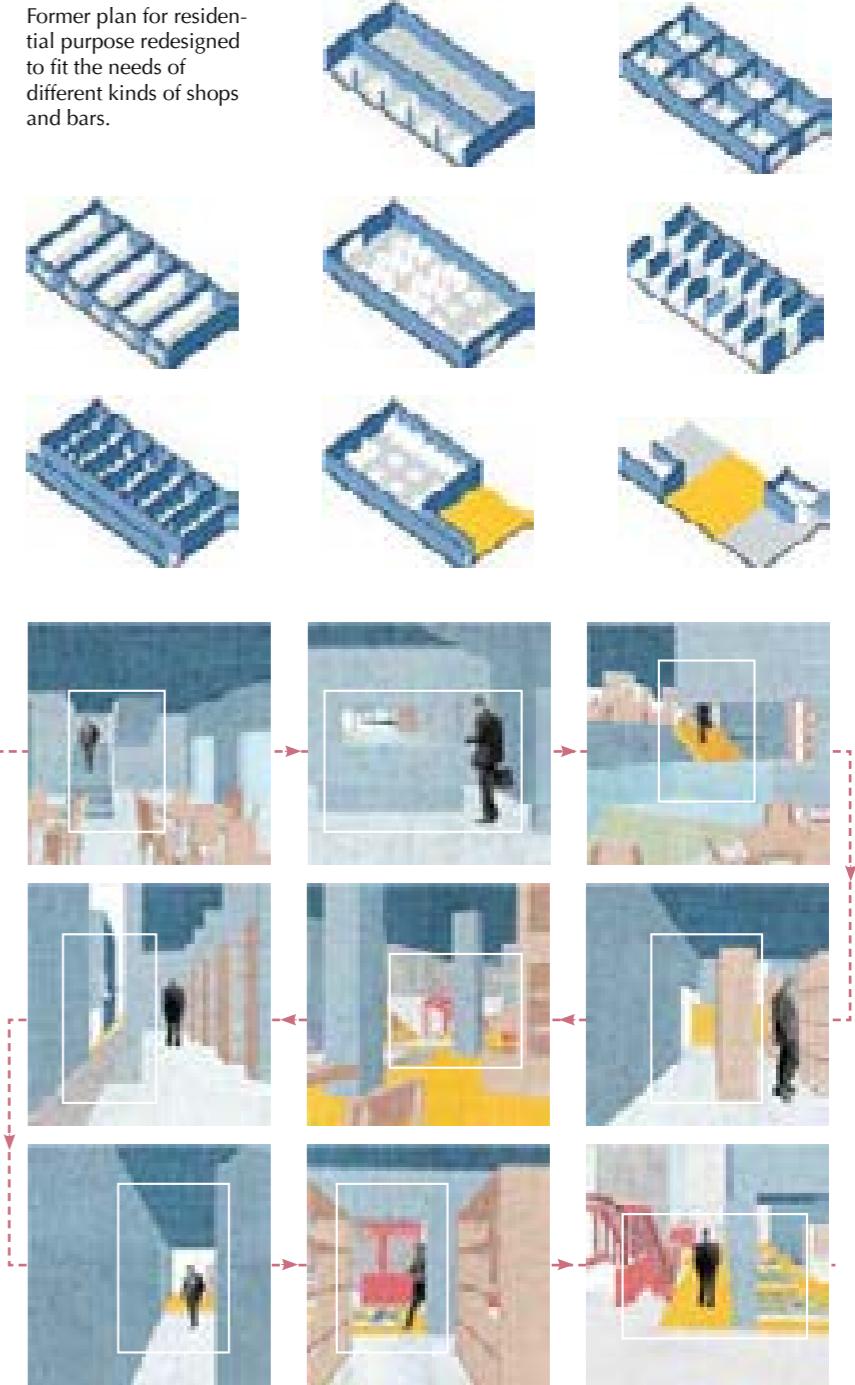
Soho: Shops and Bars



Combine and subdivide rooms to fit different needs of shop. Breaking down the walls and bridge certain gaps between buildings to create an unblocked circulation, this will give meanders an endless experience of passing through.

Commercial Space

Former plan for residential purpose redesigned to fit the needs of different kinds of shops and bars.

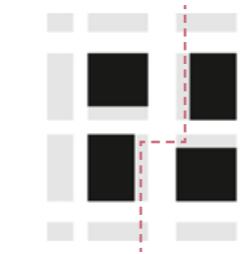


passing through endless rooms



STUFFING

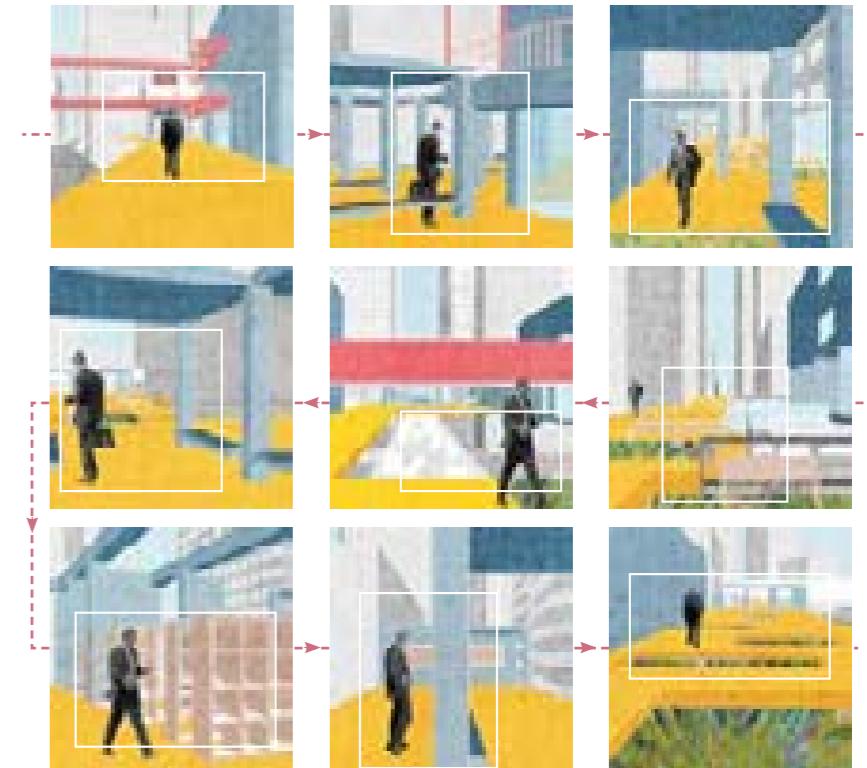
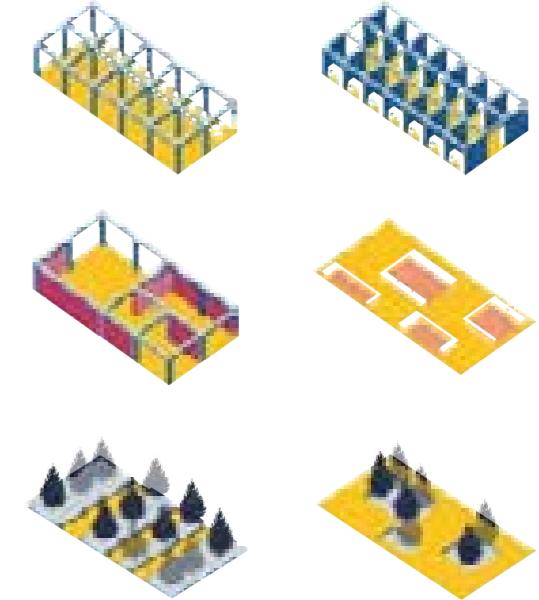
Central: Financial Center



Input an elevated platform between skyscrapers as new ground floor. This platform and functional units of urban furniture being planted upon it will create an elevated urban pattern with street atmosphere.

Recreation Space

Providing public space and facilities for the office workers and citizens to relax during tiresome daily works.



walking through concrete forest



Mid-level

An integrated system of community activities on the top of the podiums

Indoor: providing public facilities, such as community gallery
Outdoor: public space and playgrounds, for gathering and exercise

Soho

An endless experience of meandering

Indoor: clothing shops, cafe and bar, bookshops etc.
Outdoor: residual spaces which can be used for street vendors

Central

Street activities taking place on the elevated ground

Indoor: facilities providing free space to relax
Outdoor: spaces for street arts and other activities to happen

AGE REMIXED

02

Co-living Space of the Aged and the Young

Academic Work
Individual Work
Site: Luohu, Shenzhen, China
Instructor: Jingheng Lao
Completion time: August 2018

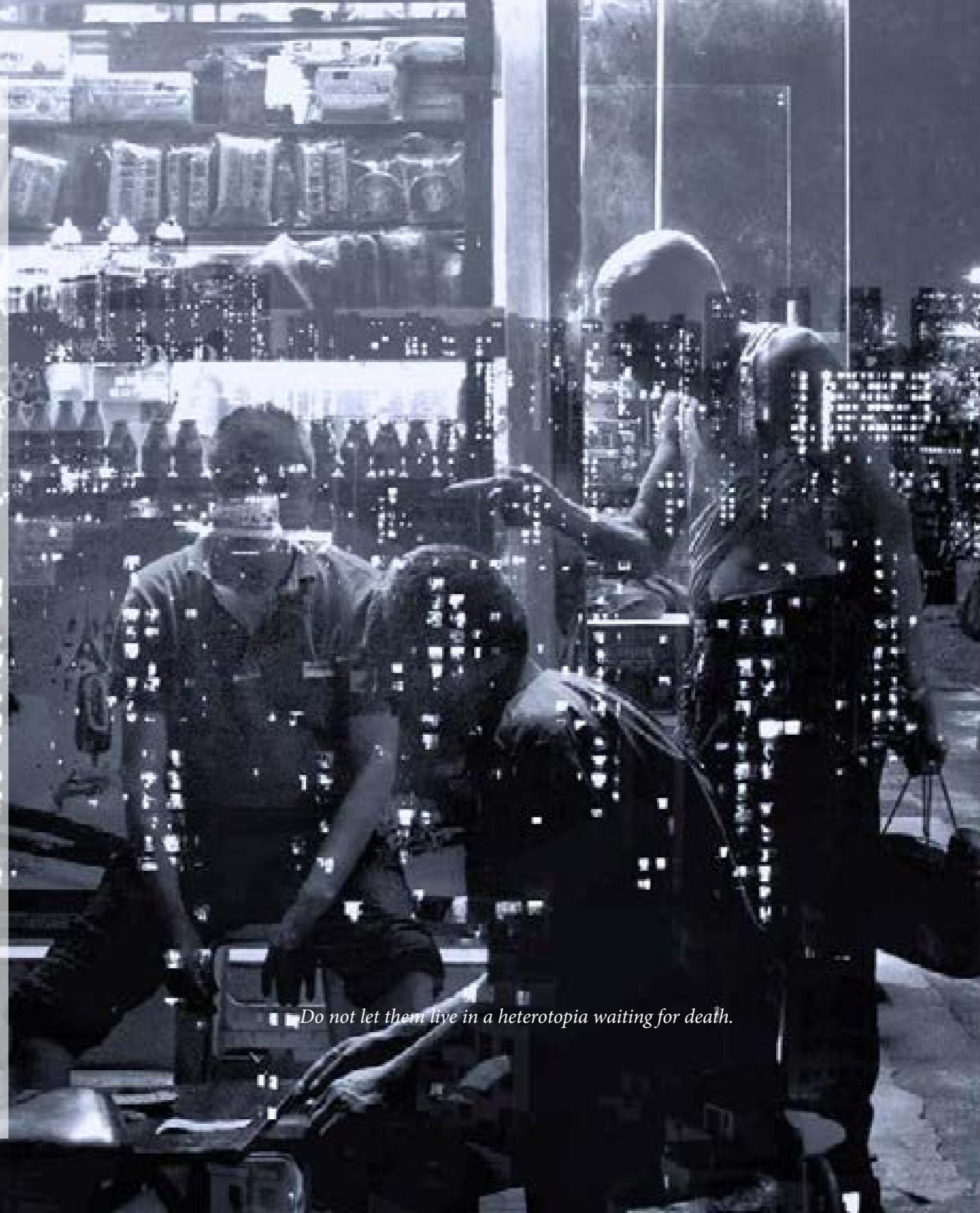
China has long been benefitting from its demographic dividend. Among the emerging mega-cities from the 1980s, Shenzhen is always proud of being the youngest city in China. It is like a heterotopia of young people, the only purpose of people living here is to contribute to the overall development of the city.

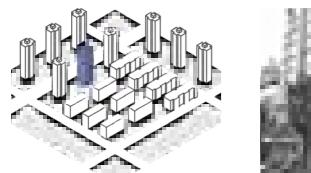
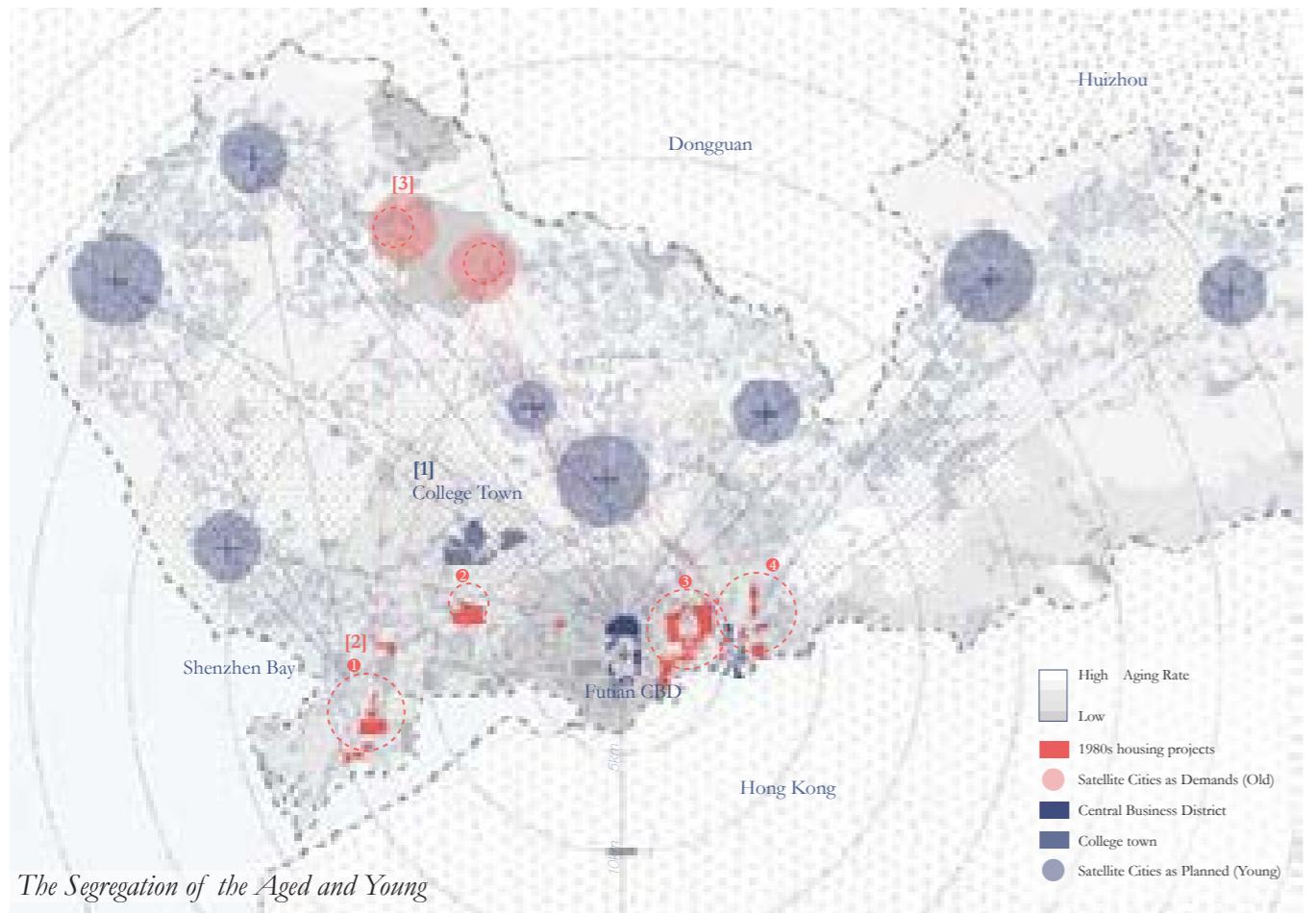
Unlike other mega-cities worldwide, Shenzhen does not have a complete and mature society of a life cycle. The Shenzhen city is young, but the generation of population boom is getting old. But Shenzhen is not ready.

The aged population are always kept away from the city vigor, voluntarily and involuntarily. They moved to community of the aged, cutting out connections to the changeful part of the city. It is always considered that the aged and young cannot live together because of different requirements. But this two age groups are originally supportive companions to the other.

Therefore, I want to propose a form for a co-living community for the aged and the young. They are not brutally juxtaposed to one another, but willingly choose to live together base on common interests.

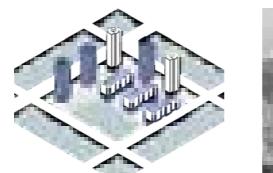
Do not let them live in a heterotopia waiting for death.





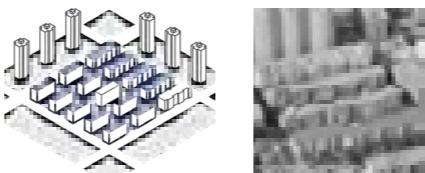
Isolated Retirement Home

Aged people being gathered in retirement homes. There everyday life space is confined to a single building.



Suburbanized

Providing facilities for the aged, real estate companies build aged communities in suburban areas.



Old Residential Blocks

Dormitories constructed in the 1980s provided home for the population explosion. Now, people living here are mostly aged.

Shenzhen, the youngest city in China

The Population Explosion in the 1980s

Shenzhen, the frontier of China's Reform and Opening-up in 1979, became the destination for people seeking more opportunities. In the twenty years after 1979, the population of Shenzhen increased by 1.1 million.²

Now, it's the explosion of the aged population

The first generation of immigrants are getting old, but the city is not ready. Comparing the other cities who has become a mature urban system of multi-generations, Shenzhen is apparently in short of necessary facilities for the aging society (see fig.1).

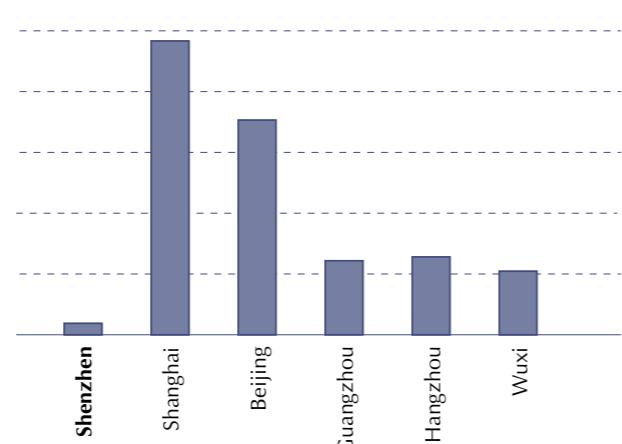
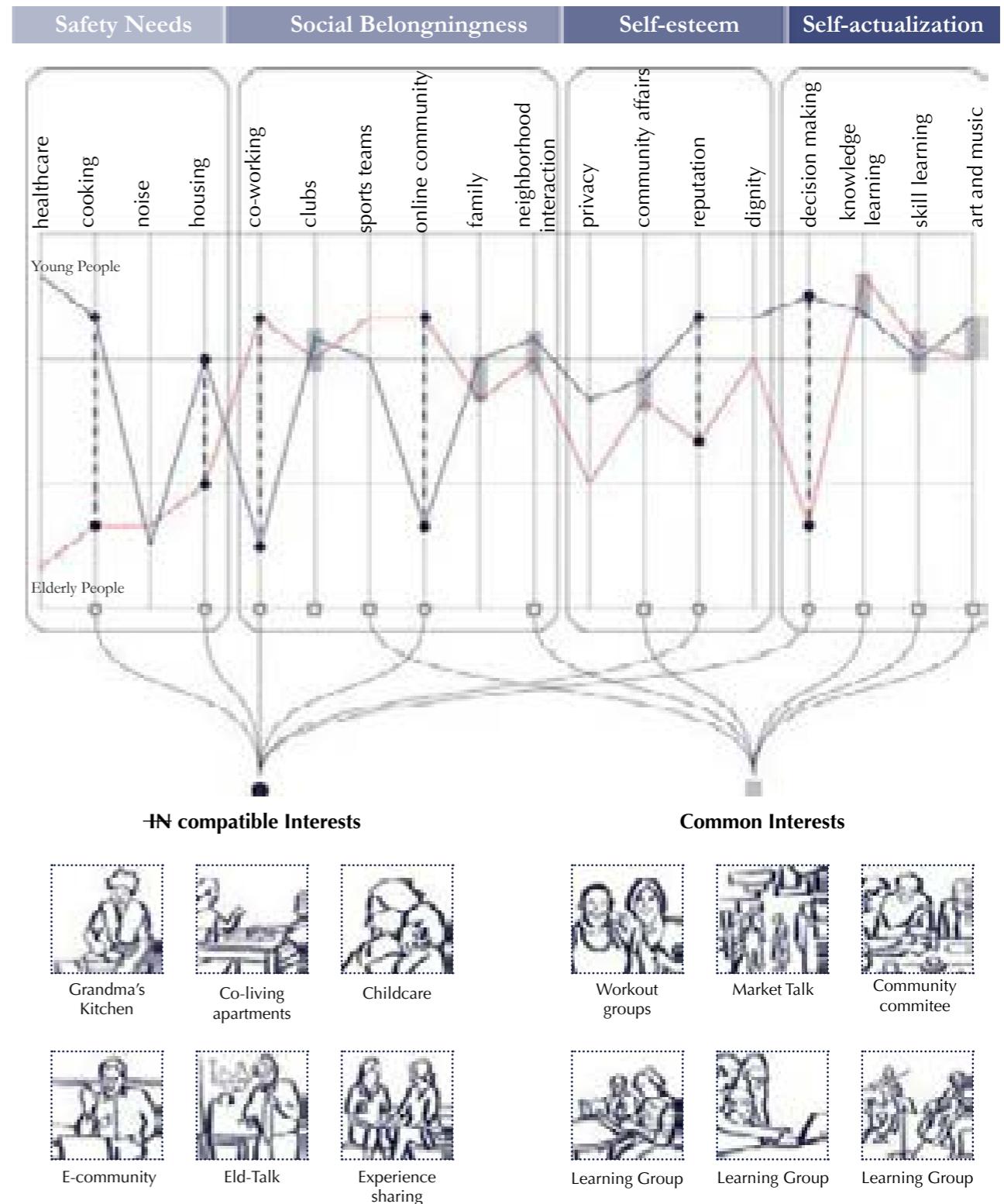


fig.1 Number of pension facilities in 6 major cities in China³



The Metabolism of the City: the aged moving out, the young move in

The aged are isolated from the city, they either move to the suburban commodity housings which provide sufficient supply of facilities for the aged, or going to a nursing home which is a single tower filled with the elderly. They are confined to these places, like living in a heterotopia, in which the only thing for them to do is waiting for the end of their

life. The aged are isolated from the vitality of city.

Co-living of the Aged and the Young

Due to different needs of living requirements and supporting facilities, the aged and young are always separated from each other. However, there are various conditions under which the aged and young can help each other, giving out assistance and companionship which their peer cannot provide.

Reactivate the 1980s Standardized Residential Blocks

From 1978, China began to turn from planned economy to market economy. However, in order to house thousands and millions of people flooding into Shenzhen, state-owned enterprises and public institutions were still providing apartments for employees, which means the housing units were offered as a welfare project from the government.⁴ The ownership of the apartments belongs to the enterprises or institutions, **these apartments cannot be traded by individuals freely as commodity.**

These housing compounds were designed and planned under modernism principles, making them monotonous and homogeneous. But as the urban area of Shenzhen expanded to outer area, these housing compounds benefited a lot for its location advantage at the **city centre**.

As the residence reach retirement age, some of them move out to live elsewhere, some has vacant rooms as their children moved out. There leaves vacant rooms for young people who cannot afford high rent at the city centre. By implanting functional blocks, the housing compound can be redeveloped to become a co-living and co-working community, **transforming from a community of single generation to a mature urban system of multi-generations.**

1 Original photo of the cover image credit to Xiaobin

2 Data source: *Shenzhen Statistical Year Book 2016*

3 Urban Planning and Design Institute of Shenzhen, *Special Plan for Pension Facilities in Shenzhen (2011-2020)*

4 Fan Xianwei, *The evolution track of China's housing system and the establishment of long-term mechanism* [J]. Globalization, 2019 (08)



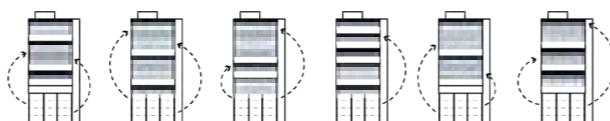
1 Collect population data

Investigating the vacancy rate, age distribution of the neighbourhood and the needs of the residents.



2 Free up lower level spaces

Relocate residents at the lower floors of buildings to higher floors. It will free up spaces above ground level and preparing for further development.



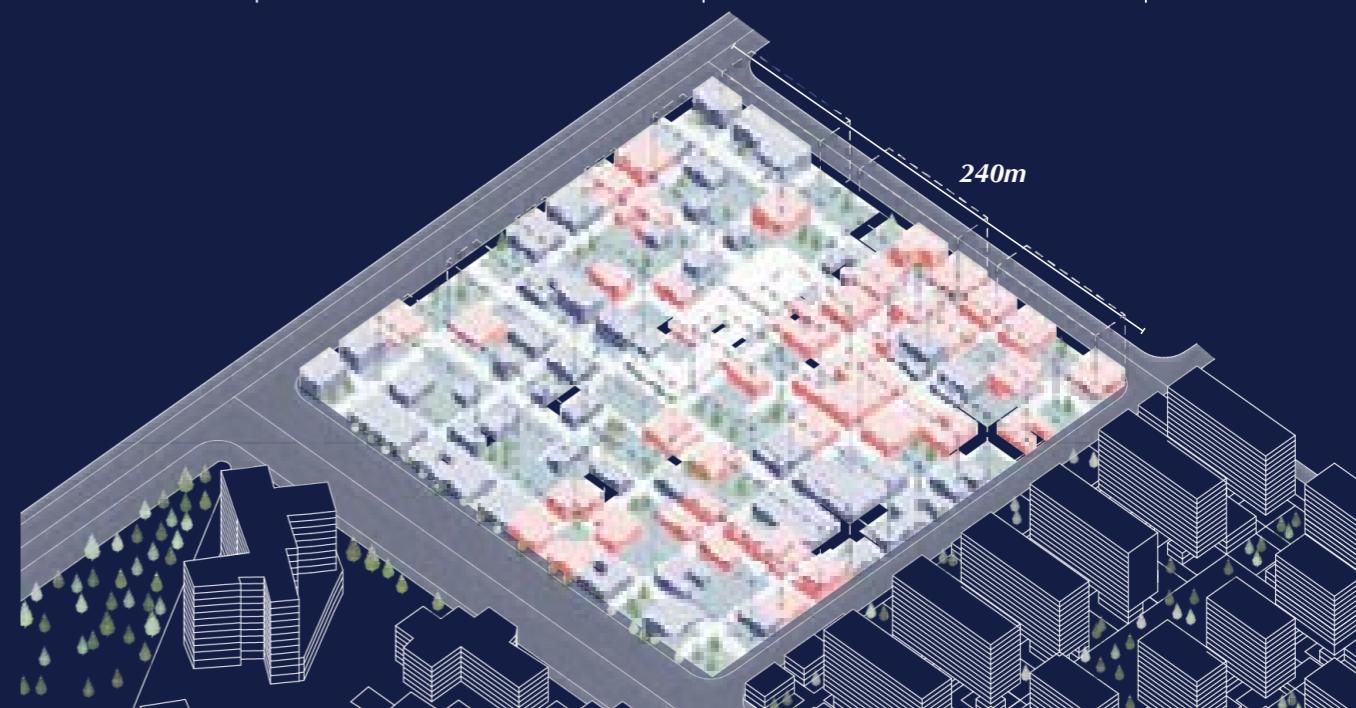
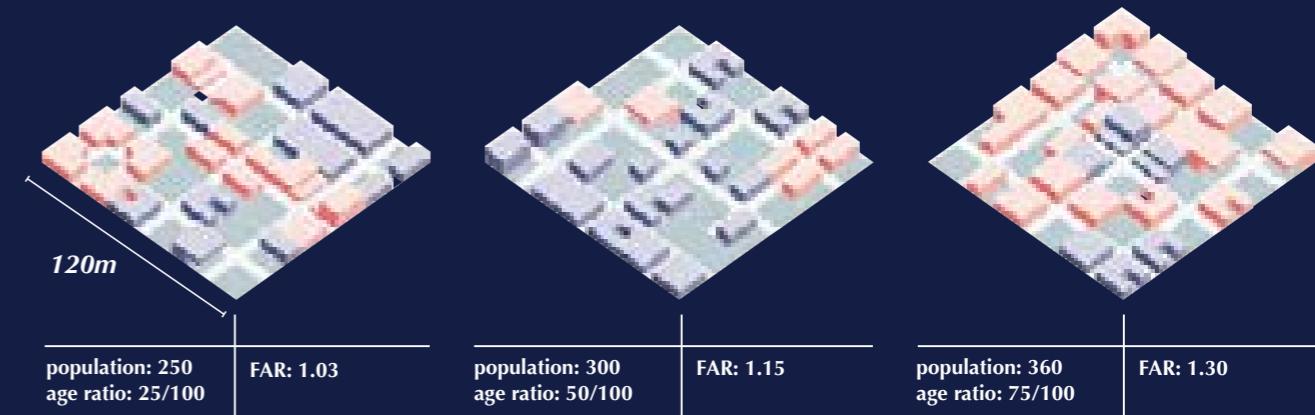
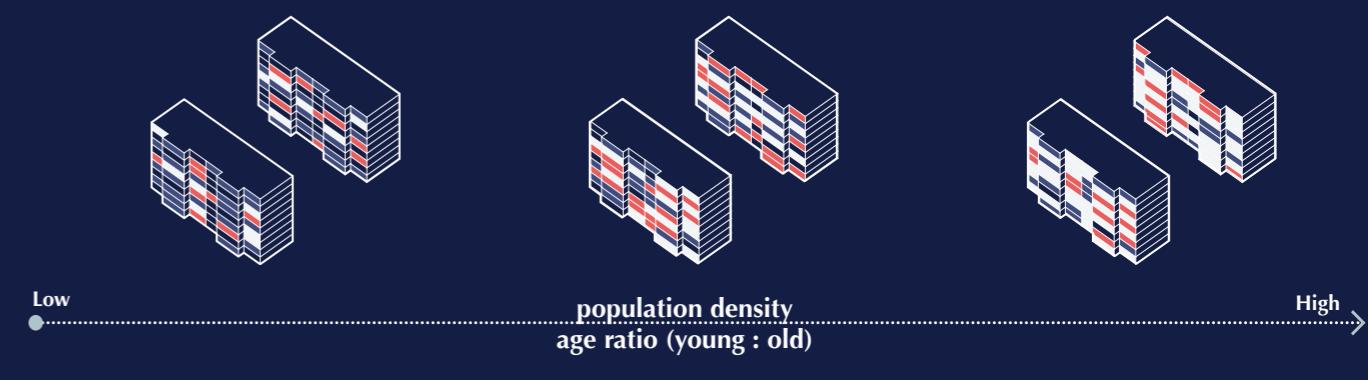
3 Insert functional units

Based on surveys and collected population data, functional units will be inserted to meet up with the needs of old and new residents, the aged and the young.

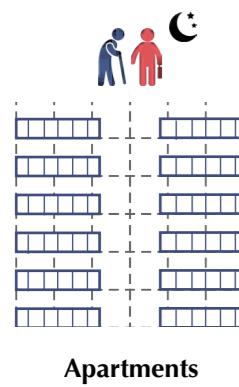


4 Create space for interaction

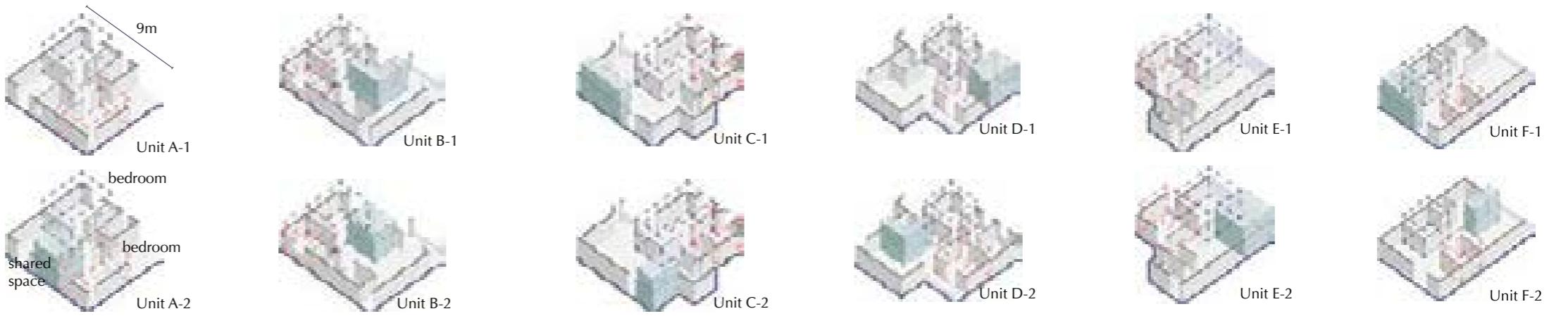
To increase communication and mutual help between the aged and the young, physical spaces for interactions will be created along the edges, such as courtyards and staggered floor.



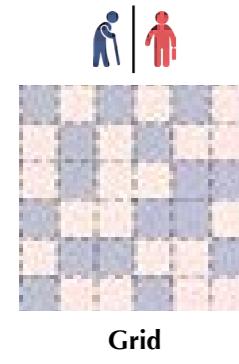
TOWER



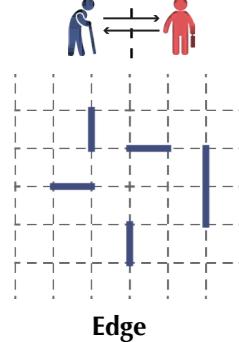
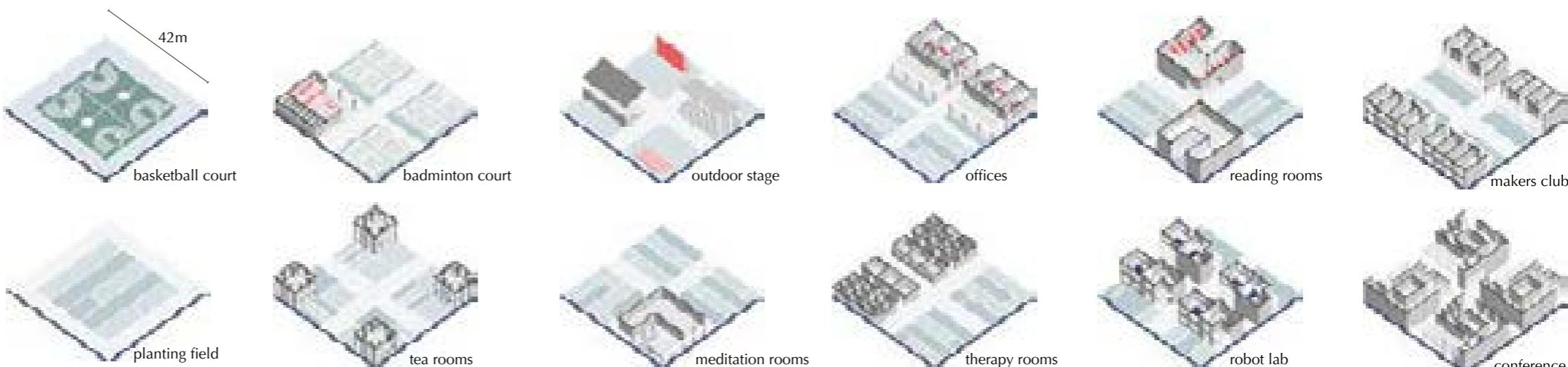
Vacant rooms and apartments of the elderly residents can be rented to young people. To decrease rent, the young can help the aged by helping them with some housework. The aged can also help the young by giving them life guidance, cook for them and do some childcare. A new kind of stem family is to be created.



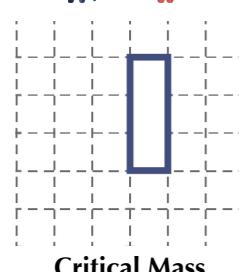
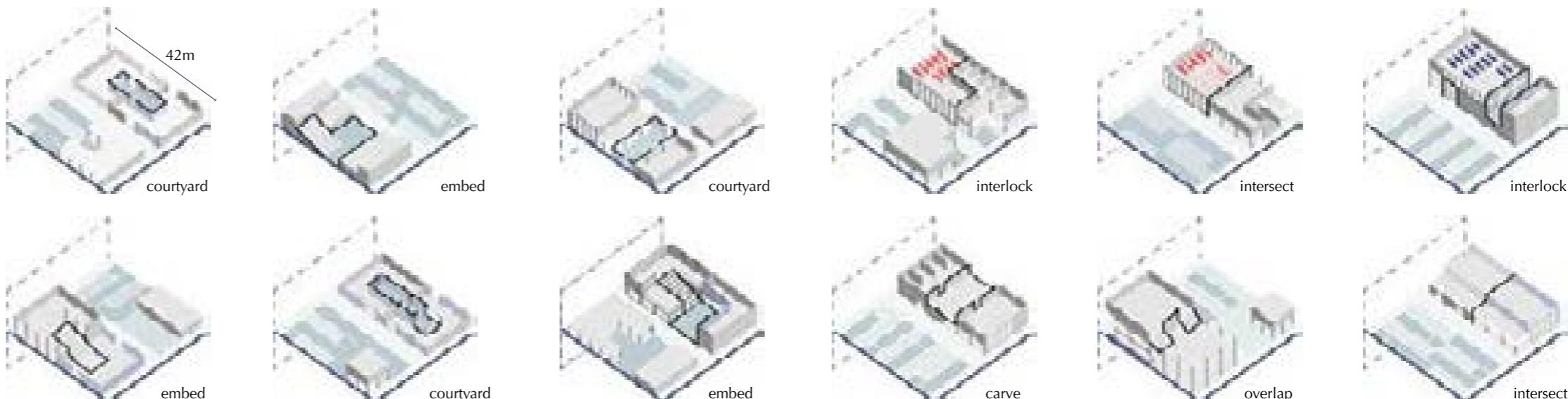
PODIUM



Different age groups have different needs. Co-living does not mean doing everything together, satisfying the basic needs of both age groups require different room types and density. Different type of functional units allows various activities to happen at the same time and at different times.

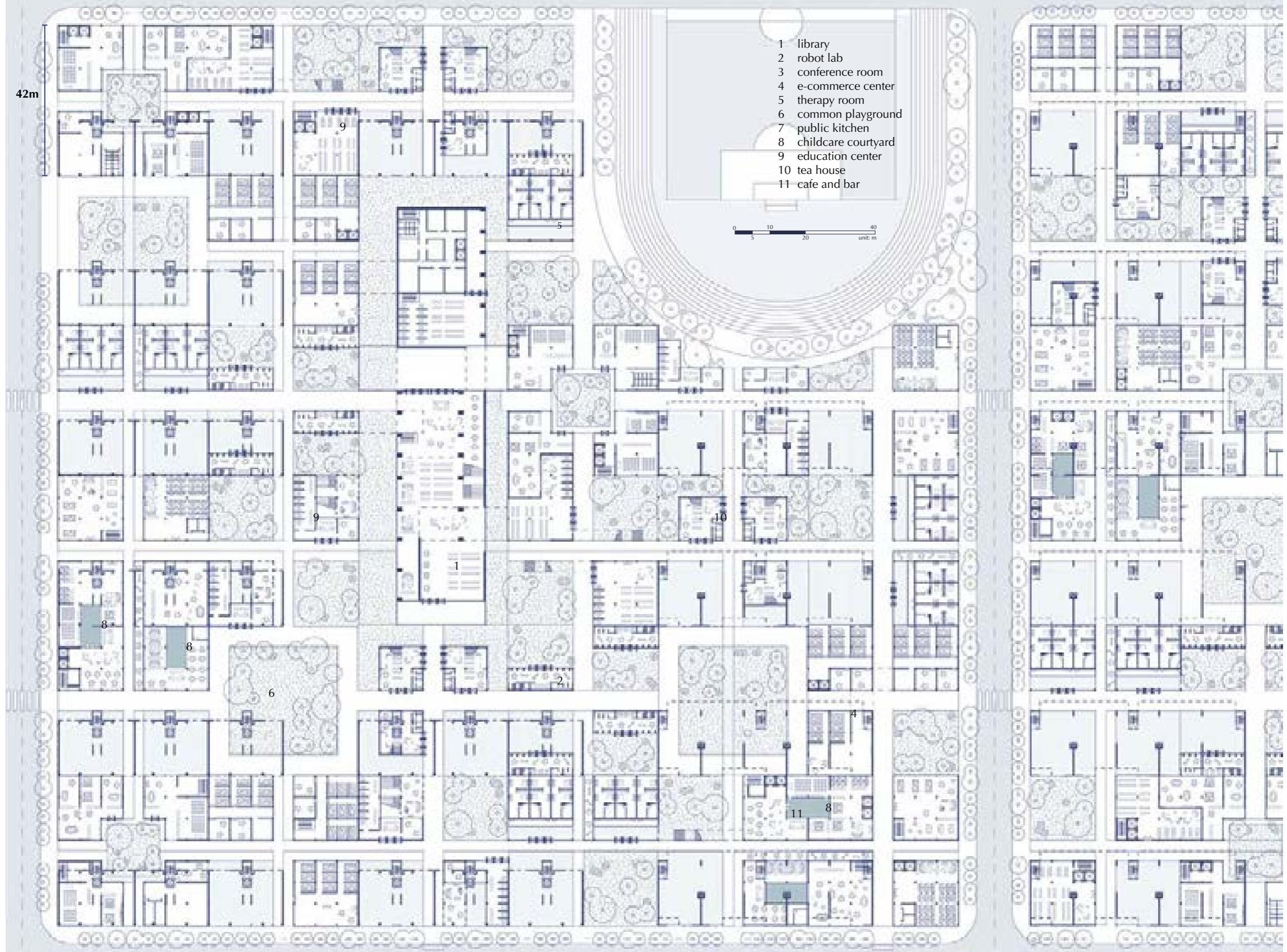


Unexpected interactions happen here. Three types of interaction spaces are proposed: courtyard, interface and staggered floors. This create physical contact or eye contact for the two different age groups to have a glance on one another. This is the place for mutual help and surprises to take place.



Activities of common interests happen here. People at all age have the need of self-improvement. The aged and the young can help each other physically and mentally, improving their body and also their minds.







Apartment: Shared Family Space

The aged and young can help each other as a household. Young people can help with some physical work, the aged will pass life experiences to the young, the young can help the aged with electronic devices.



Grid: Separated Activities

Functional blocks located in the grids can satisfy different needs of the aged and the young. Incompatible activities will happen here without disturbing others. The specific function and quantity of blocks are based on the survey among the community.



Edges: From Incompatible To Mutual Help

To free the aged from the separated condition, it is necessary to establish physical, visual and social connections. For example, the aged can help young parents take care of children.



Critical Mass: Common Interests

Facilities like library, swimming pool are for the common interests of the aged and the young. These facilities can satisfy the needs of both age groups and also providing places for communication and mutual help.

BOUNDARY REVITALIZED

03

The Regeneration Of The Secondary Boundary in Shenzhen

Academic Work

Teamwork

Site: Shenzhen, China

Collaborator: Yixin Peng

Instructor: Maoran Sun

Completion time: October 2019

As the frontier of the Reform and Opening-up, Shenzhen is the experimental field for the transition from planned economy to market economy. In a sense, Shenzhen is a city of boundaries. Lines were drawn to demarcate the boundary between Hong Kong and Shenzhen, and the boundary of the Special Economic Zone.

With the integration process of the Pearl River Delta, the boundaries are gradually dissolving. But what remains is the boundary in people's mind and the uneven distribution of public facilities. In 2011, the Secondary Boundary started the deconstruction project. This provided an opportunity to research on and try to solve the problems brought by the physical and mental boundaries.

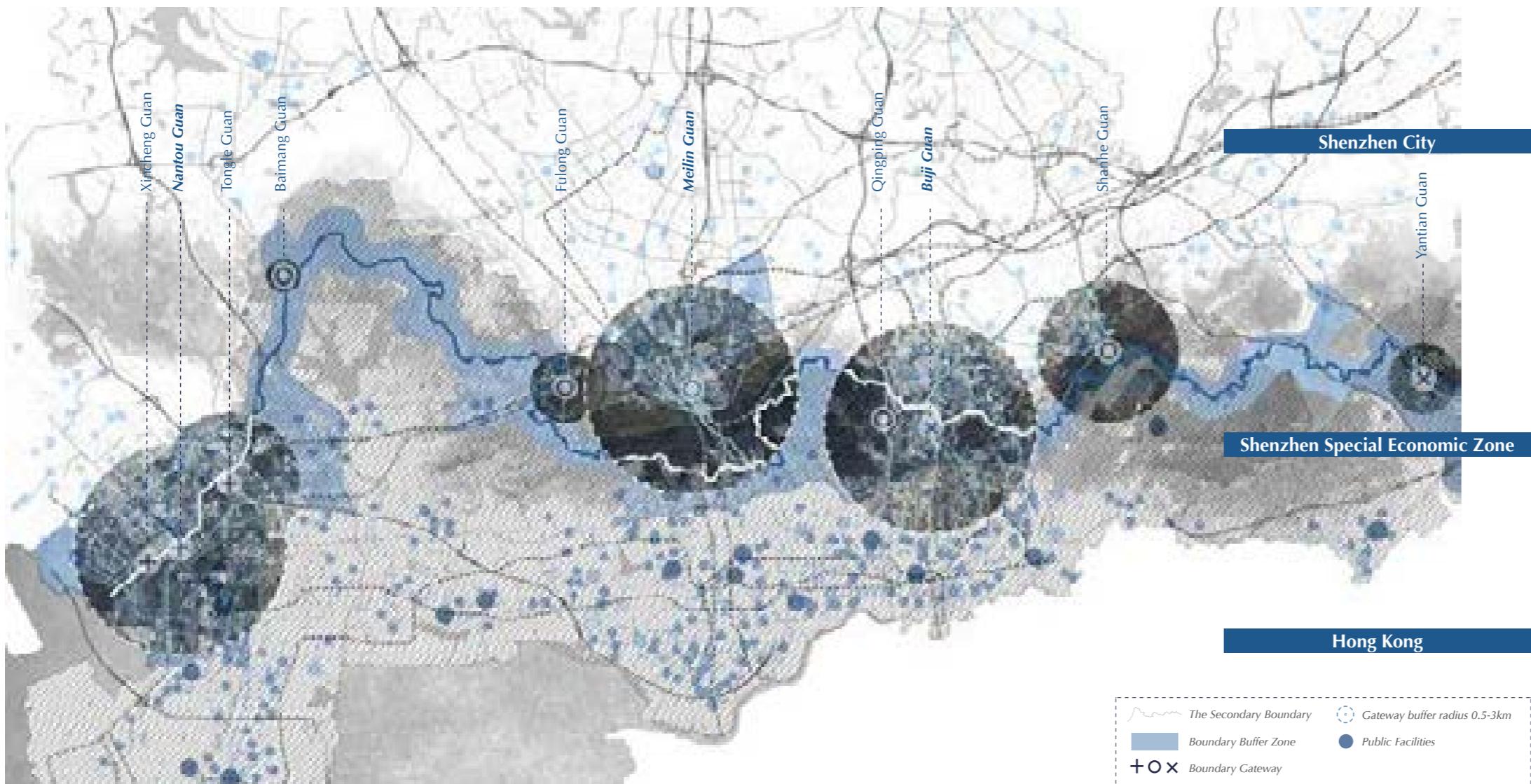
Edges have no directions, but boundaries do. They are always blocking people from a certain side of the boundary. In the case of the Secondary Boundary, the unregistered immigrants are the ones who are blocked by this invisible barrier.

Urban form is the physical existence for activities to happen and social relations to establish. By giving form to the wounded land along the boundary, we wish to turn the boundary condition of separation to border condition of maximized diversity.



Edges have no directions, but boundaries do.

EDGES HAVE NO DIRECTIONS, BUT BOUNDARIES DO.



Secondary Boundary: The Economic And Politic Frontier

Shenzhen Special Economic Zone (SEZ) was a product of the policy of the Reform and Opening-up in 1978. It separated the southern part of Shenzhen, which is adjacent to Hong Kong, from the whole administrative area of the city. As the boundary line between Shenzhen and Hong Kong was being called the First Boundary, the boundary line of the SEZ is named the Secondary Boundary.

Since China was going through an economically and politically sensitive period, the Secondary Boundary did not only demarcate the boundary of certain economic activities, but also took the responsibility of preventing people fleeing from mainland China to Hong Kong. Therefore, an **80 kilometers long barbed fence** was constructed, brutally



above:
sentry boxes and fences of
the boundary in 1980s



left:
officers checking credential

Fig.1 Historical photo of sentry box and fences²



Fig.2 Dissolution of boundaries in Pearl River Delta⁴

- 1 cover image edited from photos taken by Weimao and Fengma
- 2 Image source: nddaily.com
- 3 Data source: 2010 Shenzhen Census
- 4 Joshua Bolchover, Peter Hasdell, *Border Ecologies. Hong Kong's Mainland Frontier*, Birkhäuser, 2016
- 5 Lefebvre H 2003[1970], Translated by Robert Bonanno, *The Urban Revolution*, University of Minnesota Press, Minneapolis MN.

cutting through mountains and villages, enclosing the 327.5 square kilometers of the SEZ. Along the Secondary Boundary, eleven checkpoints were set up to be the only legal gateways to cross the boundary line. Only people with credential would be allowed to enter the SEZ.

The Demolish of the Secondary Boundary

The Shenzhen Economic Zone developed in an astonishing speed. After twenty years of development, **the Secondary Boundary became a huge impediment of urban sprawl**. In 1997, Hong Kong returned to China and became a special administrative region. It was not necessary of the Secondary Boundary to serve as a political barrier. After almost ten years of discussion, the government finally decided to demolish the physical existence of the Secondary Boundary and enlarge the Special Economic Zone to the whole city of Shenzhen. The deconstruction started in 2015.

The eleven checkpoints used to be the only passage ways into the SEZ, which is now the city center of Shenzhen. Even though people do not need to go through the process of authentication, but the traffic congestion problem is severe due to the outdated design of checkpoint buildings. To solve this problem, the reconstruction project of the 11 checkpoints started in 2016, transformed the traffic condition and scenery to a better condition.

However, despite the physical boundary was demolished and site condition being advanced, **the social boundary between inner Shenzhen (the old SEZ) and outer Shenzhen remained**.

Physical Wall Torn down, Social Wall Remains

The essential aspect of the urban phenomenon is its centrality. ...But centrality would also produce hierarchy and therefore inequality.⁵

The old SEZ has become the center of Shenzhen, filled with people who established successful careers and benefited from the development of this one and only special economic zone. Besides the uneven distribution of public facilities due to different level of development, the biggest barrier constructed by the Secondary Boundary lies in people's mind: who live inside the boundary are better than those live outside. Though the barbed fences were torn down, the prejudice of the differences of the two parts of the same city remains.

BOUNDARY - FROM PHYSICAL TO SOCIAL



Fig.3 The history of unregistered workers' immigration to Shenzhen (1979-2019)
Fig.4 The top 5 provinces from which the unregistered workers come from

Non-Registered Workers: Life History Outside The Boundary

Now, as there is no fences preventing people without credentials, who are the people blocked by the secondary boundary from entering inner Shenzhen? The unregistered immigrant workers.

Back in the 1980s, labor-intensive factories were constructed outside the SEZ to support the business inside. Uneducated immigrants came to Shenzhen, worked and lived outside the Secondary Boundary. But they were not considered as real Shenzhen citizens, since they could not satisfy the requirements to be registered permanent residence.

Shenzhen always identify itself as a city welcoming everyone who wants to pursue a better life, but actually, only elites can enjoy the welfare provided. Since the immigrant workers are not registered as permanent residence, they cannot buy apartments here, and their children cannot attend public schools. They were once temporary residence living in outer Shenzhen, and always temporary residence blocked by the invisible barriers.

From Boundary to Border: Strategies Towards an Open City

The deconstruction of the checkpoints and fences provided the opportunity and space to create a more coherent border condition. Richard Sennett defined two types of edge conditions: boundary and border. In boundary zones, activities decreased to minimal; in border zones, different groups encounter and diversity increased to maximum. Therefore, we would like to propose new urban forms to transform this urban boundary to border.

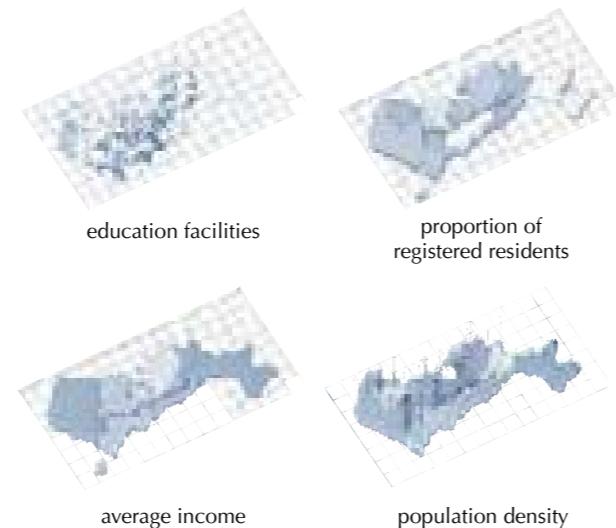


Fig.5 The uneven distribution of population and resources in Shenzhen

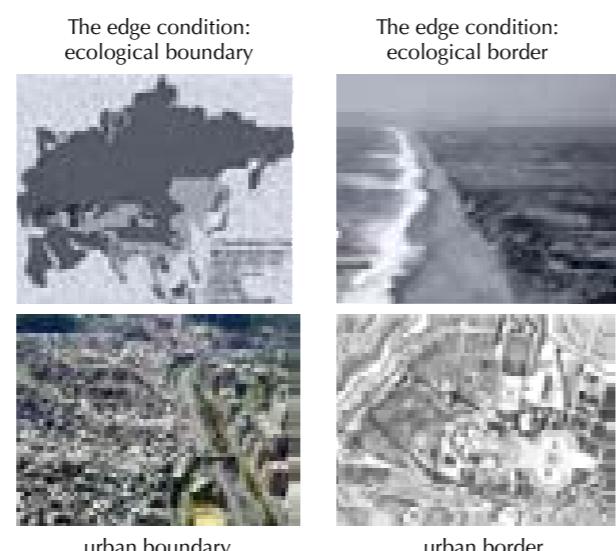


Fig.6 Border condition vs. boundary condition⁸

ISSUE:

How can we upgrade the boundary condition to a border zone of diversity?

Due to its hilly topography, the urban development of Shenzhen has a polycentric tendency. As the only routes connecting the two parts of the city, the 11 checkpoints and surrounded vacant land have the potential to be developed into new sub centers for residence of both side. Functions inserted and new urban form bridging the gaps are proposed as two parallel strategies to increase the diversity and vitality of the border zone.

1 Integrate Social Boundary: Non-Registered Immigrants

Social strategies for the integration of the boundary is to provide space for events and practices that can benefit different parties. (see fig.8) The public and private sector, including government, NGOs and enterprises will cooperate to build up the platform for people, information and goods to circulate. All stakeholders will have the opportunity benefit in this positive loop of feedbacks.

2 Vitalize Physical Boundary: Marginalization, Separation and Over-concentration

The current condition of the 11 checkpoints can be classified into three categories: marginalization, separation and over-concentration. Far from the center of the old SEZ, around checkpoints such as Nantou were marginalized and undeveloped, but high rise residential buildings are invading but confined by the boundary. Some checkpoints situated on mountains, the only connector of the two sides of the mountain is an expressway cutting through the valley. As the only ways into the old SEZ, mega-infrastructure like the railway goes through checkpoints like Buji, the over-concentration of flow of goods and people created a scar on the continuous urban fabric.



Fig.7 Survey among the unregistered workers

Lacking basic services and facilities which should be provided by the government, the unregistered workers are not able to cross the boundary line and obtain better opportunities

6 data source: open data platform of Shenzhen Municipal Government.

7 Liu Baohui, *Research on the development trend of boundary management line of Shenzhen Special Economic Zone - Review and Prospect of boundary management line of Shenzhen Special Economic Zone* [D]. Shanghai: Fudan University, 2006.

8 Richard Sennett, *The Open City*, Berlin, Urban Age, November 2006

9 Ricahrd Sennett, *Building and Dwelling: Ethics for the City*, Penguin, April 2019

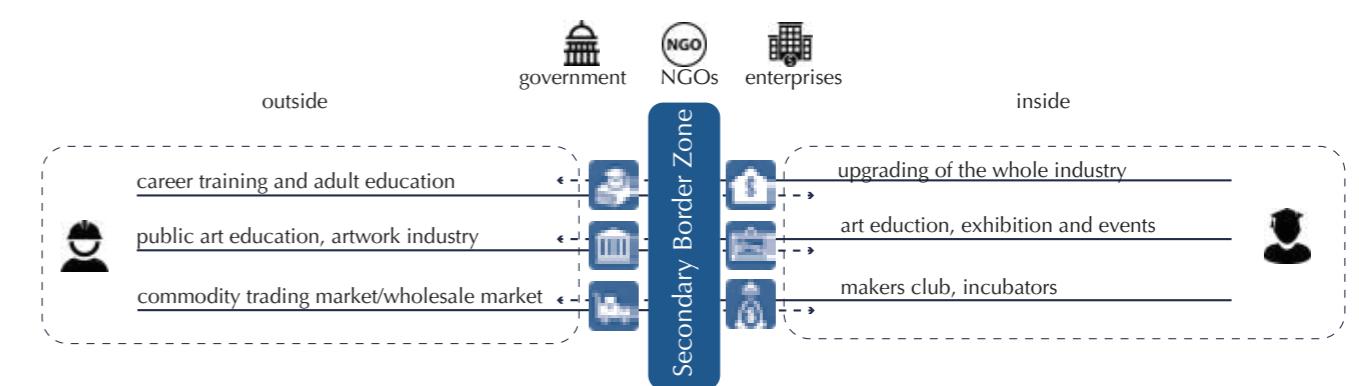
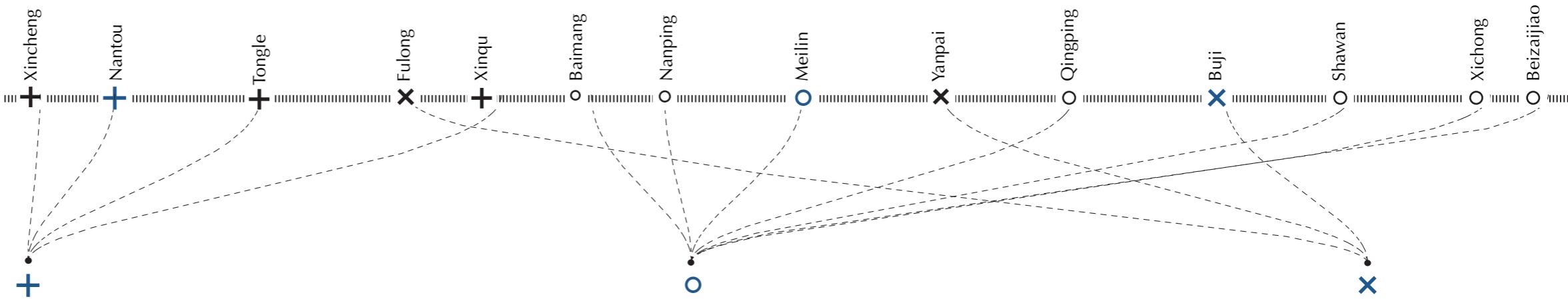


Fig.8. Social strategy for the integration along the Secondary Border Zone

The physical separation caused by the former boundary can be categorized into three types.

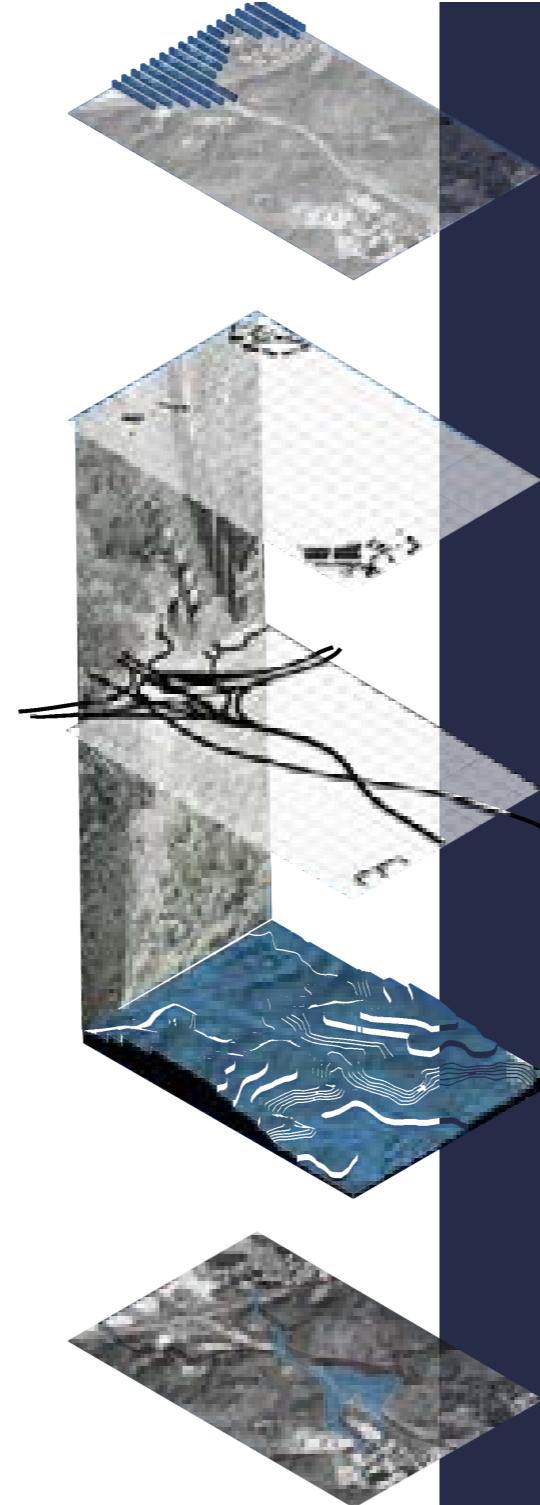
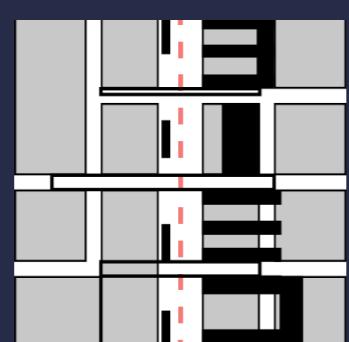
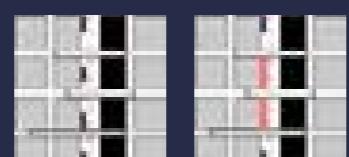
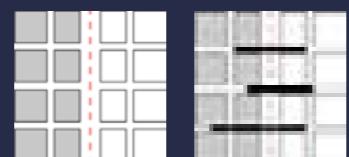
The three selected checkpoints, Nantou, Meilin and Buji are representatives of the three boundary conditions. Also, owing to their critical locations, they have the largest influence on surrounding areas. The urban forms proposed will be universal and adaptable to specific site conditions.



Marginization

The boundary is defined by a river. The vacant land on the inner side of the boundary provide public space for the residents from the high density residential blocks. Urban furniture will be placed, bridges will be built to increase physical connection. Public facilities will locate on the vacant land.

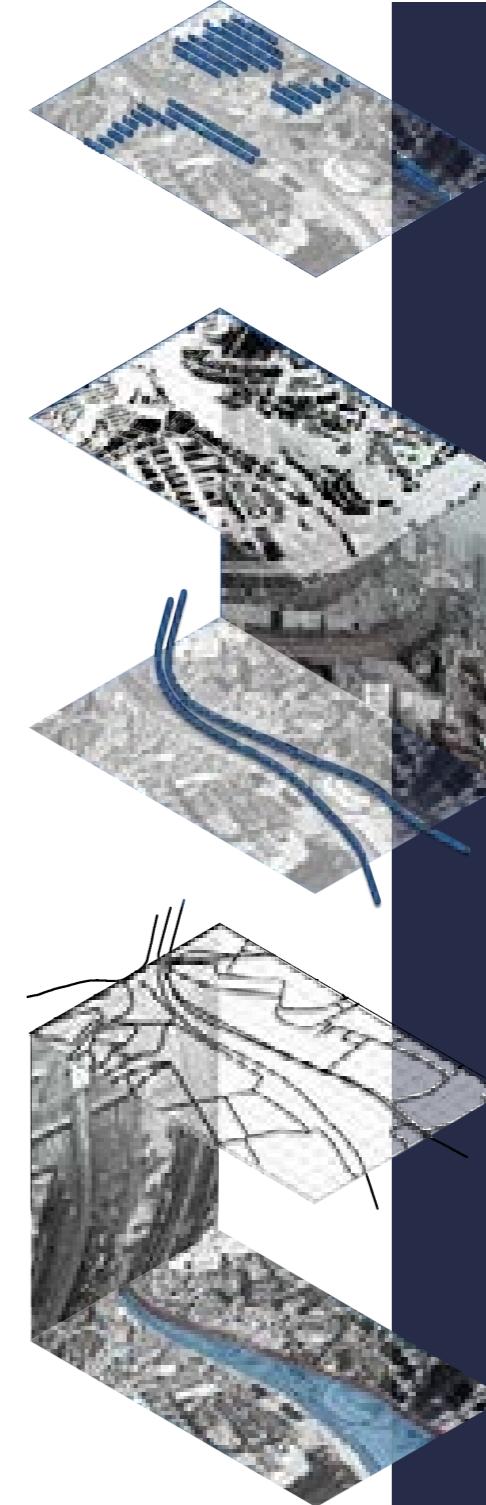
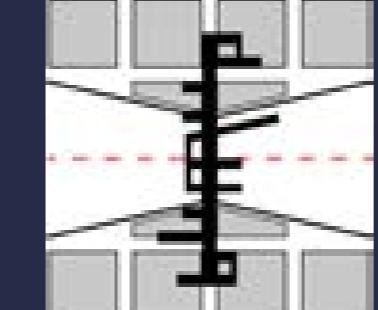
- 1 set boundaries
- 2 physical connection
- 3 social connection through program
- 4 maintain site memory
- 5 customize to certain site



Separation

The expressway cut through the mountain brutally, with no interaction with the environment. A new multi-functional bicycle route will be built above the expressway as a an alternative and more interactive way to pass through the boundary.

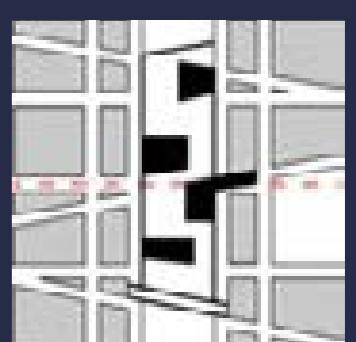
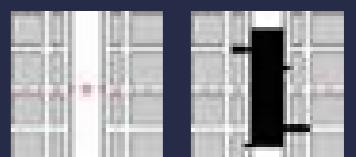
- 1 set boundaries
- 2 physical connection
- 3 social connection through program
- 4 maintain site memory
- 5 customize to certain site



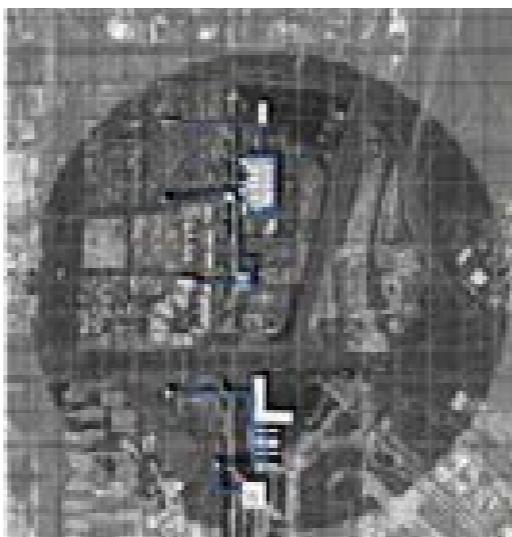
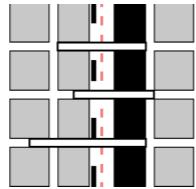
Over-concentration

The huge gap produced by the railway became a huge wound on the continuous urban fabric. A platform will be built to connect both side and host events and activities. The function of transportation centre will also be integrated into the new complex.

- 1 set boundaries
- 2 physical connection
- 3 social connection through program
- 4 maintain site memory
- 5 customize to certain site



Nantou Checkpoint Type 1: Marginization



Distant from the centre of the former Special Economic Zone, this area is relatively vacant and undeveloped. The outer side of the boundary was originally occupied by unregistered workers, resulting in urban villages. Sequentially, the urban villages were demolished and replaced by enclosed residential buildings. Immigrant living in the urban villages were forced to move elsewhere.

Social strategies here aim to break the visible and invisible walls between the urban villages and the enclosed residential blocks. The boundary region will be transformed into a zone of encountering space for the communities.

- 1 **Connect** both side by pedestrian bridges
- 2 **Regenerate** abandoned industrial buildings to public facilities
- 3 **Penetrate** different communities to ensure equal accessibility
- 4 **Input** urban furniture for street activities



Public Space for Every Community

Urban furniture will be input to satisfy everyday activities. Large public facilities will serve as social infrastructure, hosting activities and events in a larger urban range.

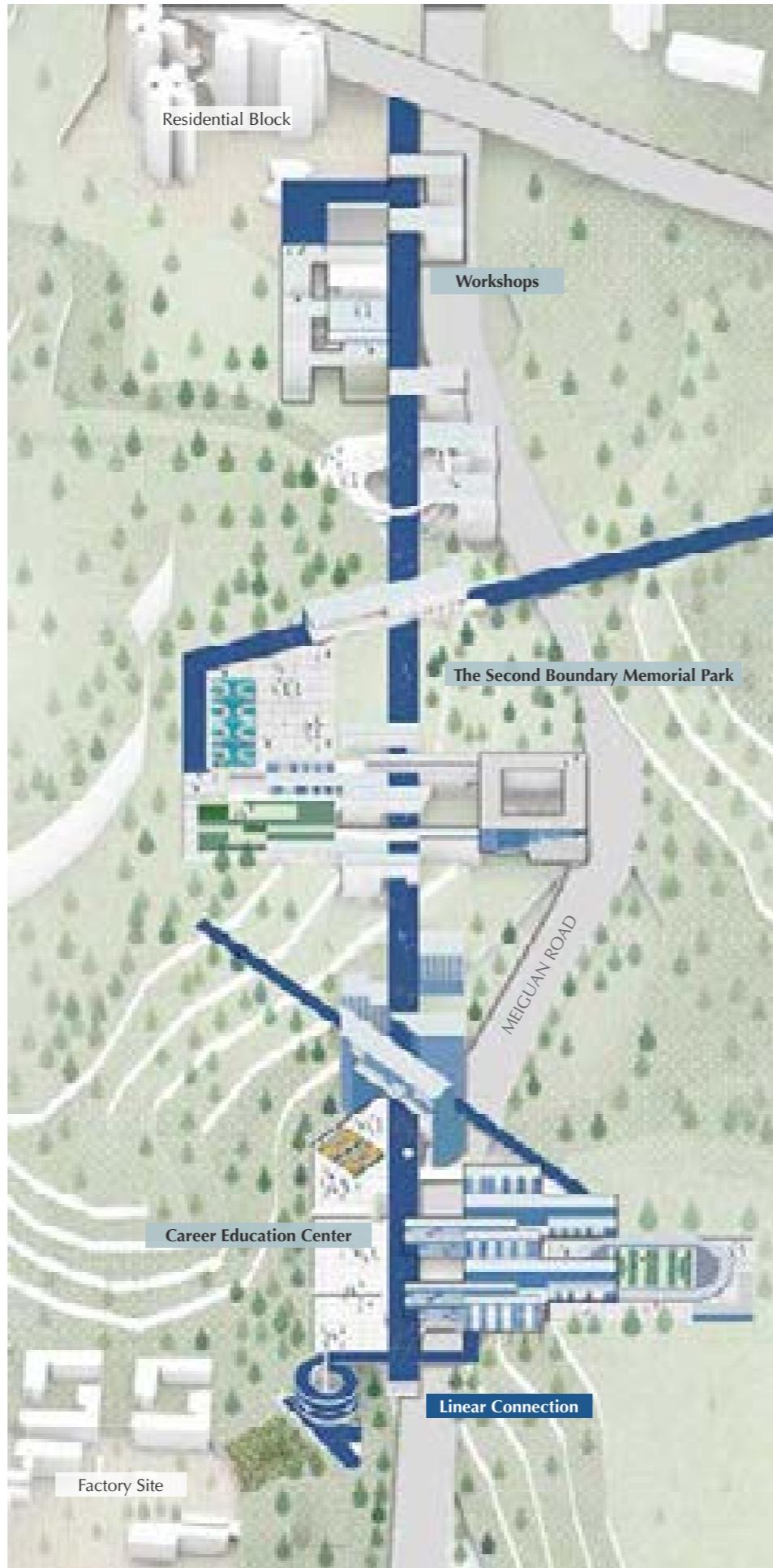
 Meilin Checkpoint
Type 2 : Separation



Mountains and hills in Shenzhen naturally demarcate the inner and outer side of the Secondary Boundary. The expressway only served for the purpose of passing through, making this place boring and have no vitality. To solve the traffic congestion on the expressway and turn this beautiful place into an energetic one, following steps will be taken:

- 1 **Connect** both side multi-functional bicycle route
- 2 **Insert** functional complex
- 3 **Integrate** into the nature

By turning the boundary from a place for passing through to a destination itself, it stands as an essential node of transportation thus have excellent accessibility for people with lower level of mobility. Education activities can happen here to upgrade the skill level of immigrant workers.



Multi-functional Bicycle Routes as a Destination

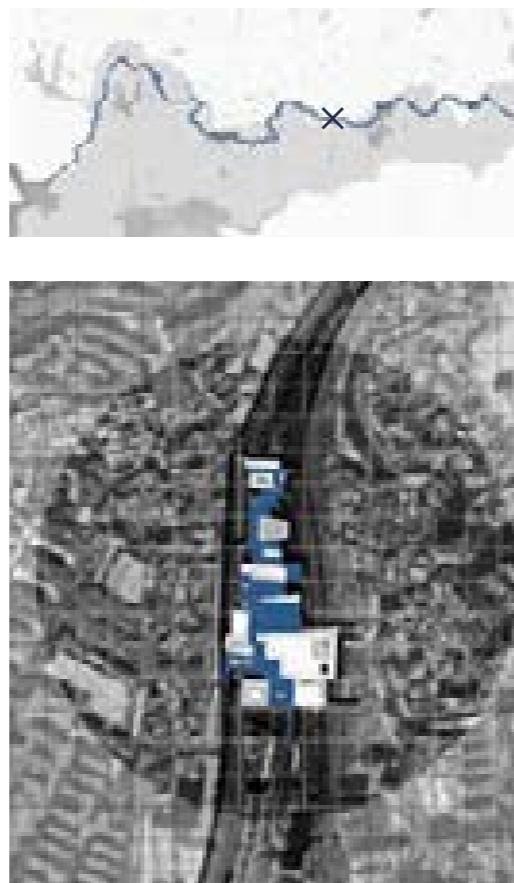
The bicycle route is also a linear gallery and culture centre, a place for people to obtain knowledge without distinctions. Certain functional complex will be inserted along the route, considering the needs of nearby communities.

 **Buji Checkpoint**
Type 3: Over-concentration

It is mainly wholesale vendors gathering around the railway station. They buy products from the wholesale market and distribute it to other parts of Shenzhen. This provides the opportunity for makers to be adjacent to a full range of materials and products. As the land price increased rapidly in the city centre, the platform complex built upon urban void has the potential to provide cheap rent for the vendors and also the makers.

- 1 **Construct** platform and buildings for activities
- 2 **Redevelop** surrounding public space
- 3 **Penetrate** into the urban villages, increase accessibility

With lower rent and comprehensive product, the vendors can earn a living more easily and learn from the makers here. The makers can benefit from the complete system providing daily necessities from the urban villages. To the city of Shenzhen, it will upgrade the industry of clothing wholesale to knowledge industry.



Platform for Agglomeration

The whole product line of start-up business will be agglomerated here, allowing start-up companies and the vendors who provide them with comprehensive and low price products.

COMMUNITY REFLOATED

04

Multi-functional Community Center for the TGR Immigrants

Independent Research and Design
Teamwork

Site: Baidi Town, Sichuan, China

Collaborator: Zhiye Huang

Research advisor: Jingheng Lao

July to November 2018

Reworked: November 2019

I travelled downstream the Yangtze River from Chongqing to Yichang in the summer of 2015, the year before entering college. It was a famous route because it was going to see the Three Gorges Dam.

Since a very young age, the story of the construction of the TGD was a grand show of the development of China. It became the symbol of advanced technology and political power.

But the movie *Still Life* told another story. It is not a story of construction, but a story of destruction. Cities of 2000 years were destructed in two years, and submerged in a moment. What was also submerged was the hometown of 1.4 million Three Gorges Immigrants. They were forced to immigrate to a new town or other provinces hundreds of miles away. They have to start from the ground.

It is now twenty years after the immigration. Young peasants have come to middle age, children have grown up, and the elderly have passed away. After the period of a generation, how are they doing now?

Have they reconstructed what was lost?

Have they savaged their spiritual hometown?

Have they mended their cracked memory and broken social relationships?



***What combines people together?
Where are you from?***

Power: Political Power for Hydropower

As one of the biggest infrastructure projects, the Three Gorges Dam Project aims to mitigate the risk of flooding and generate large amount of hydroelectricity. The water level in the Three Gorges Reservoir (TGR) area will rise by more than 40 meters, meaning that the homes of 1.4 million people will be submerged underwater.

Few of them left voluntarily. Even though the government put the immigration project prior to all other affairs, it is still obvious that to generate great amount of hydropower, the government executed great power to relocate these people.

1.4 Million: The Three Gorges Immigration

As the water level rose from 135 meters to 175 meter, approximately 10,000 square kilometers of land was submerged, leaving 20 counties underwater.

The immigration project was the most important project during the construction of the dam, 1.4 million people sequentially left their home and moved to a new place in almost ten years. The immigration project was divided into three stages, parallel with the rise of water level from 135m to 150m

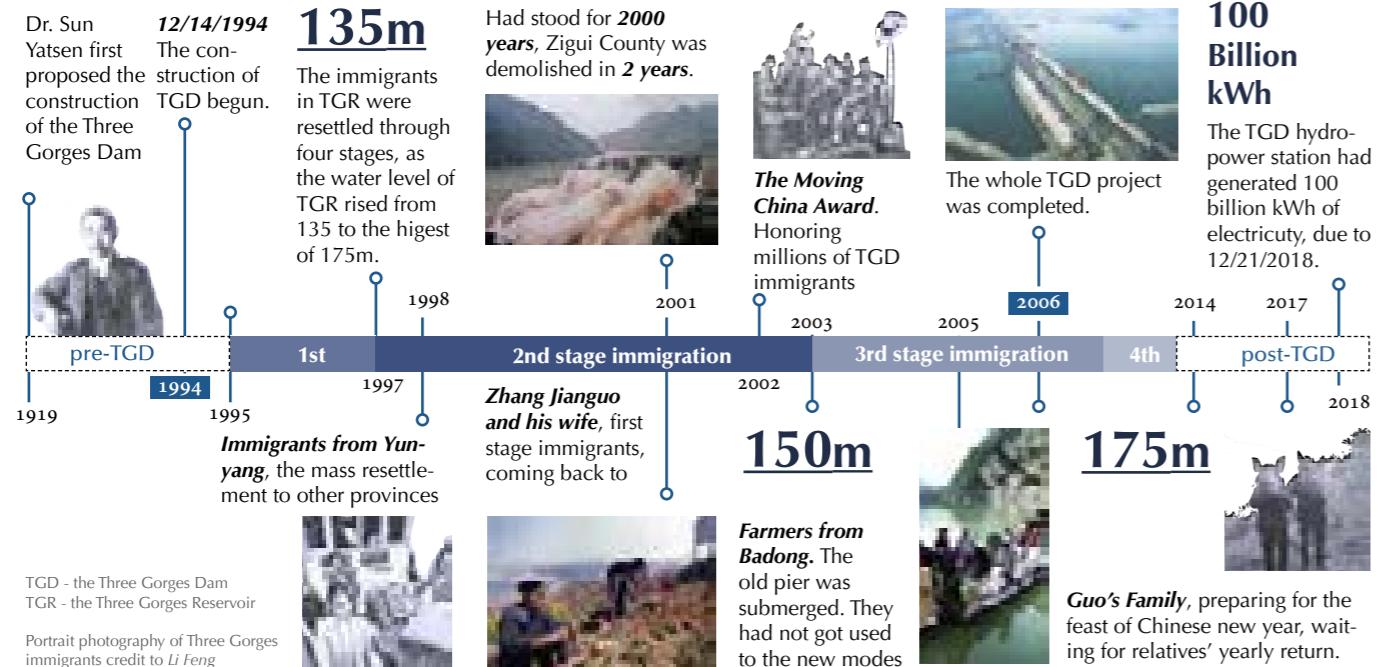


Fig.1 Timeline of the Three Gorges Dam Project
(above: construction history; below: the immigration history)

and finally reached 175m. (See Fig.1)

In the history of PRC, there were two times of large scale involuntary immigration. The first one was during the Cultural Revolution, and the second one was the Three Gorges Immigration.

Underwater: Submerged Homes And Stories

Hometown, villages and counties which were built along the past two thousand years, were demolished in two years, lying underwater as ruins. Houses, ancestor halls, tombs with no significant historical values were all destructed. In Chinese culture, ancestor worship is a vital part of the spiritual life. It is not only buildings that were submerged, but also the physical existence of the spiritual life and the material carrier of their memory and identity.

In 2002, the Three Gorges Immigrants were rewarded the Moving China Award, honoring their sacrifice for the "great project of the nation". Media coverage about the life of immigrants always seems harmonious and prosperous. However, more and more field studies and researches began to review the covered stories, which were not as wonderful as described.

As the social problems were covered, there is no sufficient resources and researches to solve these problems. What was damaged remain damaged.

Relocation: The Hidden Problems

There are two relocation types: moving upwards to mountain area and leaving Sichuan to other provinces, such as Guangdong, Shanghai and Guangxi. A big family or a clan might be separated and assigned to different relocation destinations. Despite the government provided certain amount of economic support to the immigrants, they still suffer a lot in an unfamiliar place.

Divided into different groups, they were separated from their relatives and neighbours. They have nowhere to come back to, as their homes were under water. Besides, these immigrants were mostly peasants, they have no other skills to earn a living when their land and field were lost. (see Fig.2)

- 1 Break of social network
- 2 Loss of cultural identities
- 3 Lack of source of income

Community Center as a Social Connector

A multi-functional community centre will be constructed along the bank, serving as a spatial and social node of the community.

- 1 Reinforce social relations
- 2 Providing professional assistance

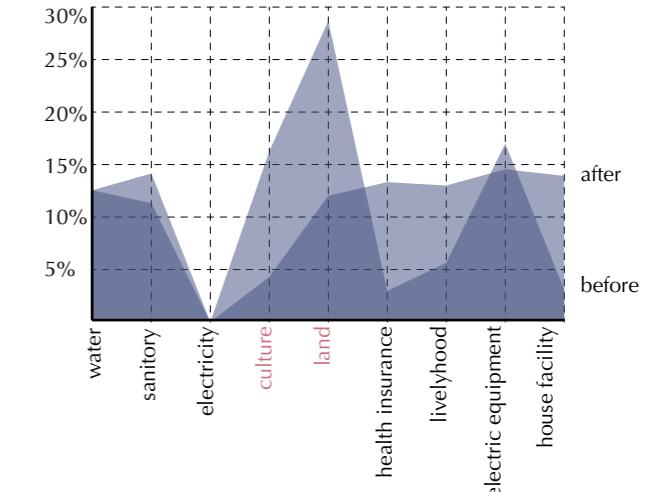
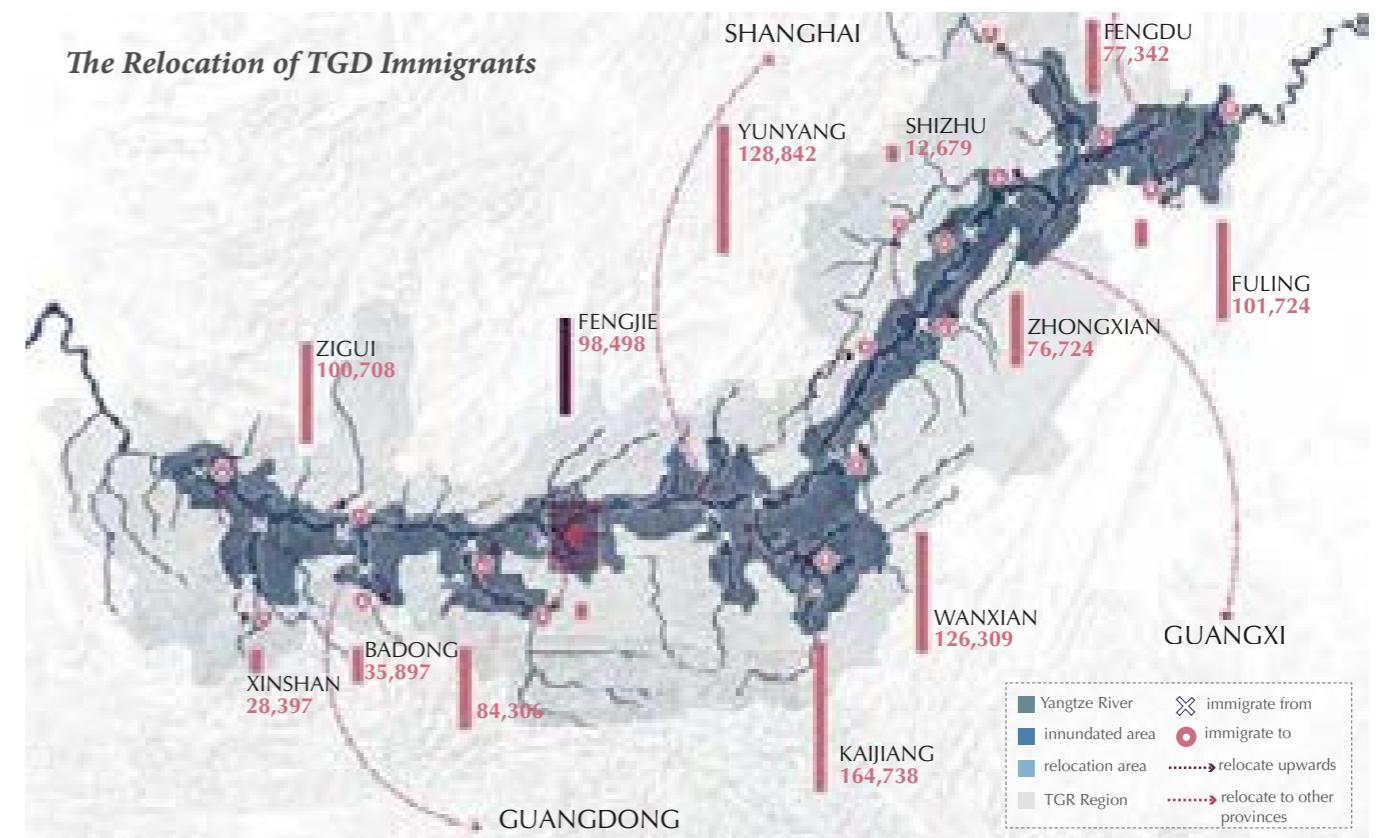
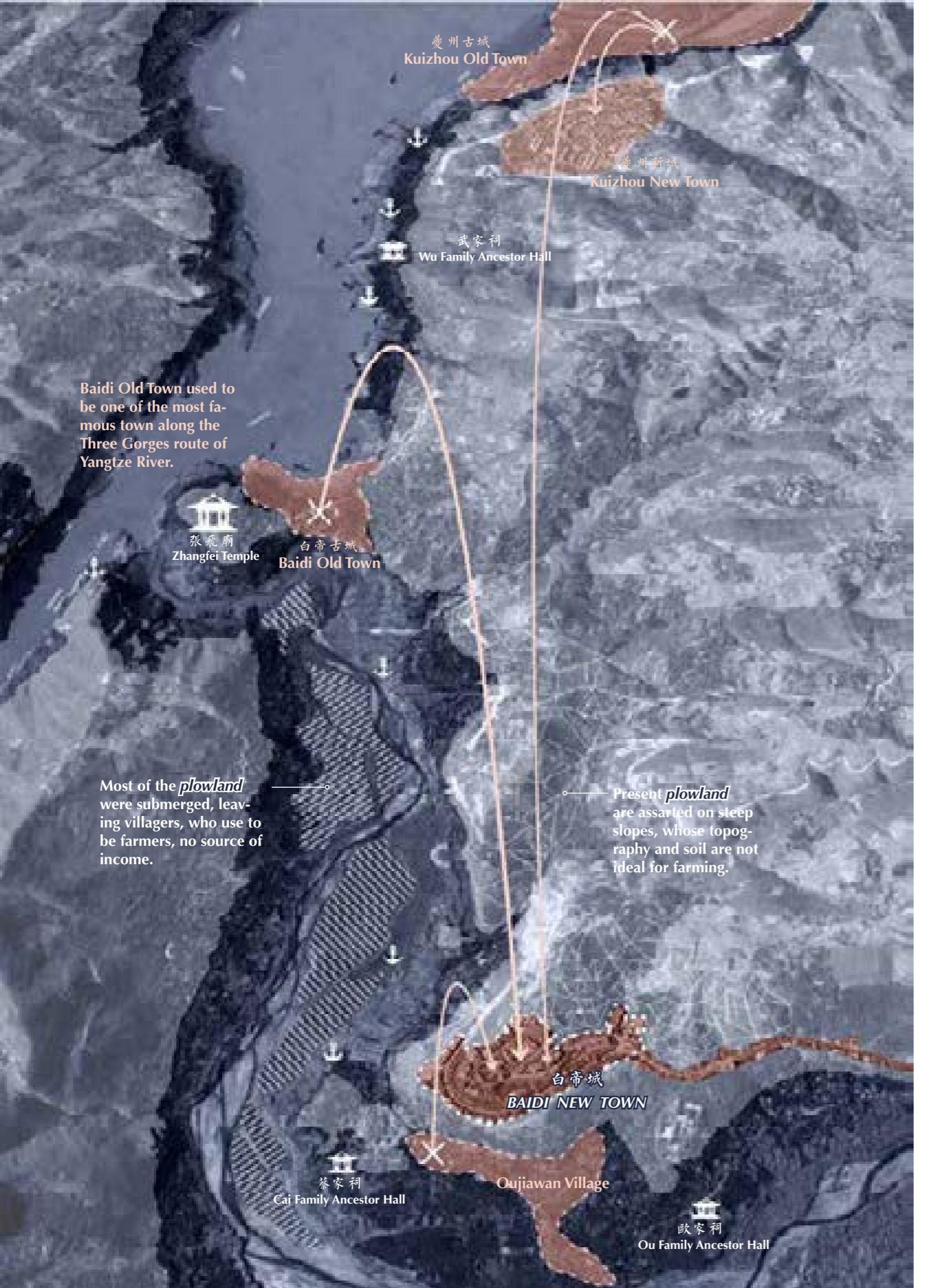


Fig.2 The contribution to poverty

Factor contributing to the poverty condition changed rapidly. Losing local culture and plowland directly led to the decrease of income.

- 1 Source photo of the cover image credit to Simon.JN, Li Feng
- 2 Zeng Wei, Wang Linlin. Study On The Optimization Of The Three Gorges Immigrant Community From The Perspective Of Social Network: A Case Study Of Fugang Street Community, Kaizhou District, Chongqing [J]. Chongqing Architecture, 2017,16 (07): 5-10
- 3 Yue Liu, Chuanmin Shuai, Huimin Zhou, How to identify poor immigrants? - An empirical study of the Three Gorges Reservoir in China
- 4 Zhou Yujin. Cultural Adaptation Of Local Backward Migrants In The Three Gorges Project [D]. Southwest University, 2014
- 5 The Three Gorges Immigration Project Report

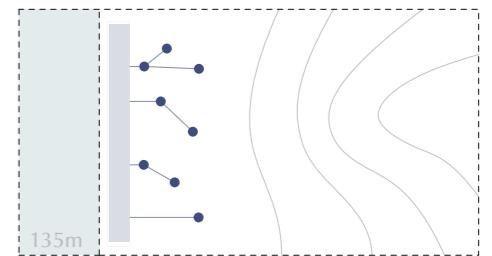
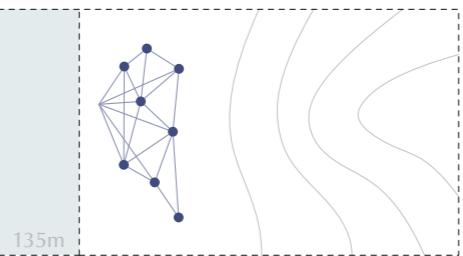




1990s

Close Clanship

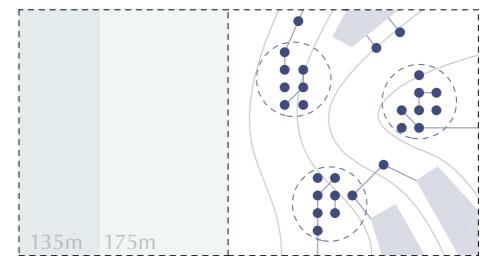
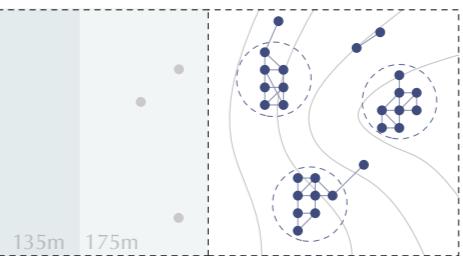
Original social network of traditional Chinese villages. The node of social network (ancestor hall, pier, field) were all along the waterside.



2005

Broke and enclosed

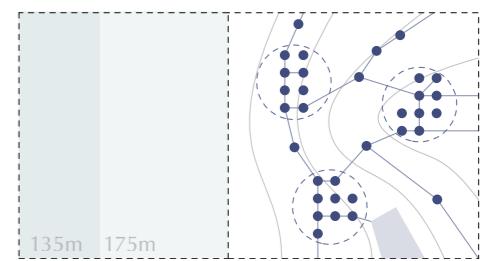
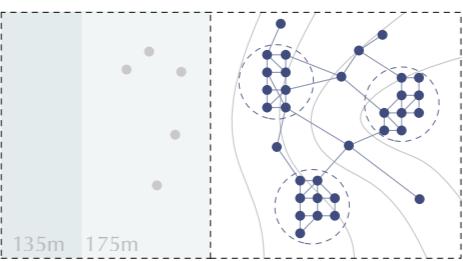
Families from different villages were relocated to a new town. They confined themselves to their acquaintance.



2019

Reconnected

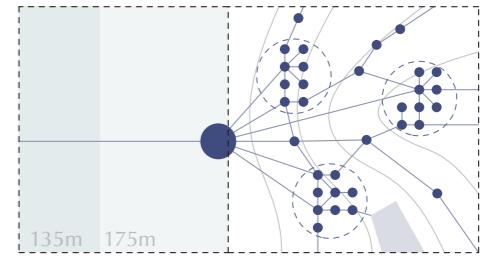
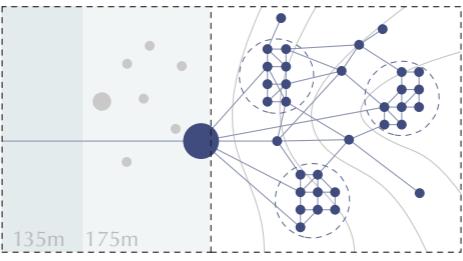
After nearly twenty years of development, new social relations were established. But the new town still lack of a core to the social network.



2022

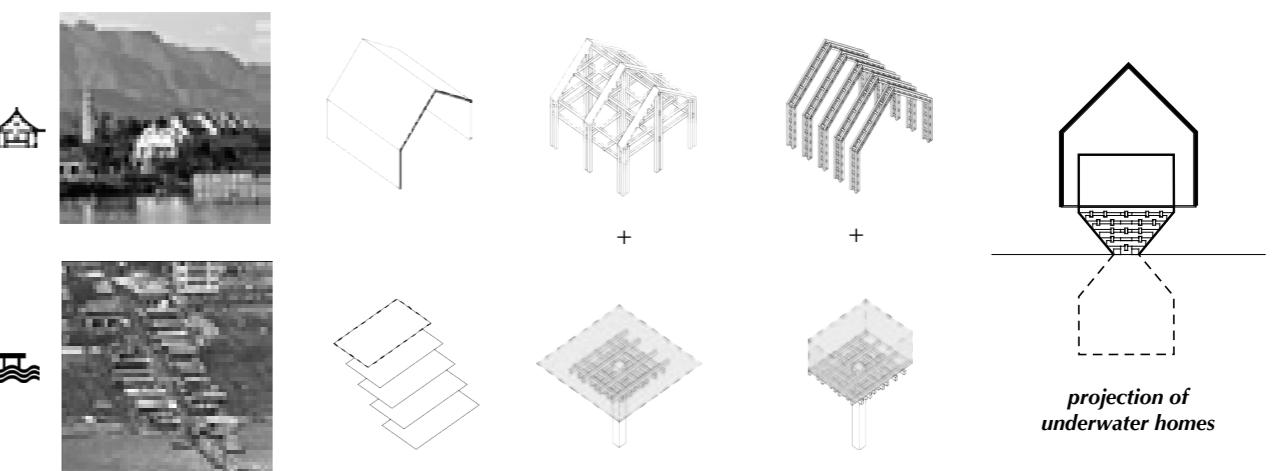
**REINFORCED:
CORE OF SOCIAL NETWORK**

A mixed-use community center serve as ancestor hall and service center. Its versatility re-claimed the waterfront and rebuild their cultural identity.



The Evolution of Social Network

Twenty years of life has healed some wounds and formed new social connections through daily interactions. These relationships, collective memory should be reinforced with a core in the network.

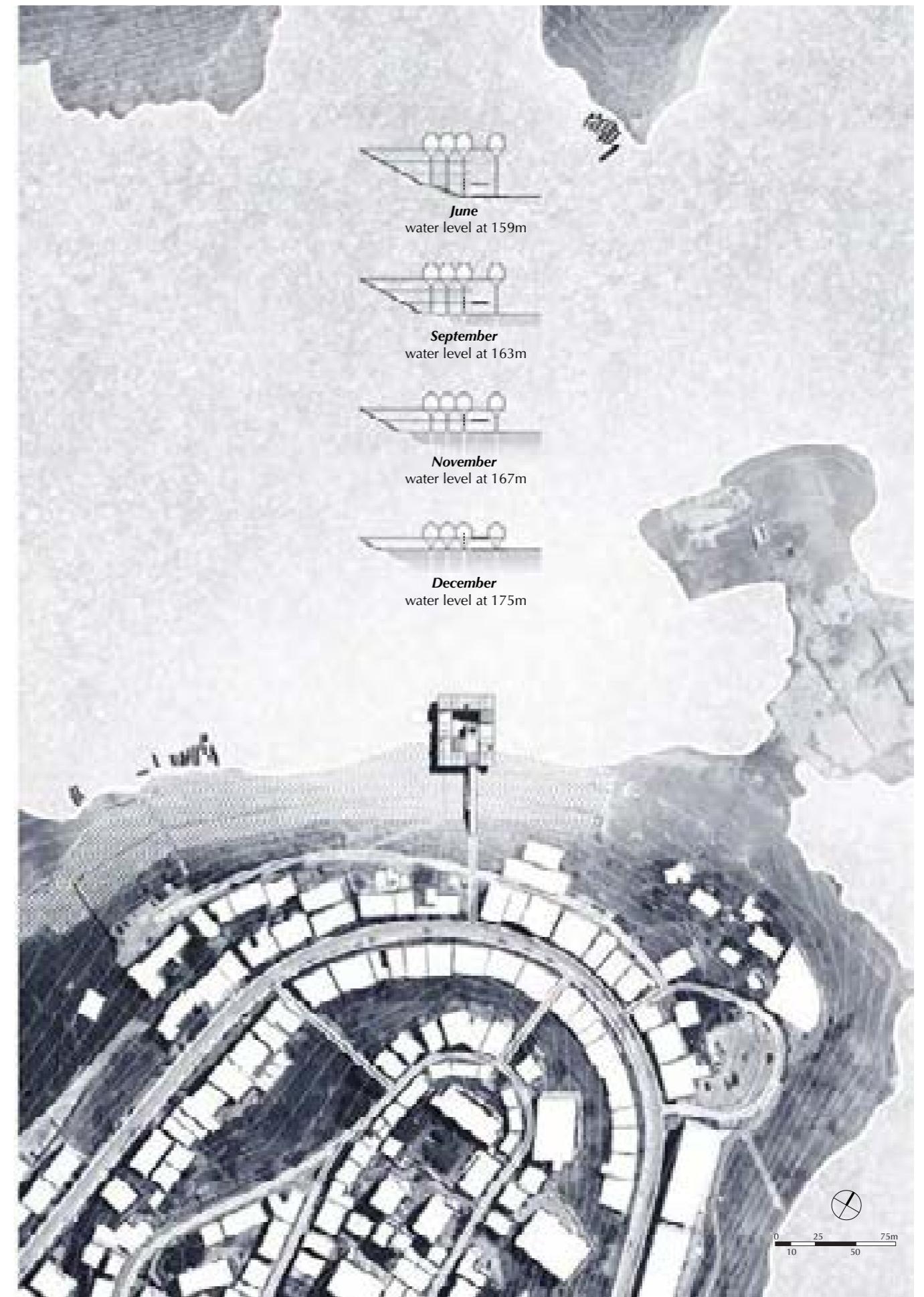


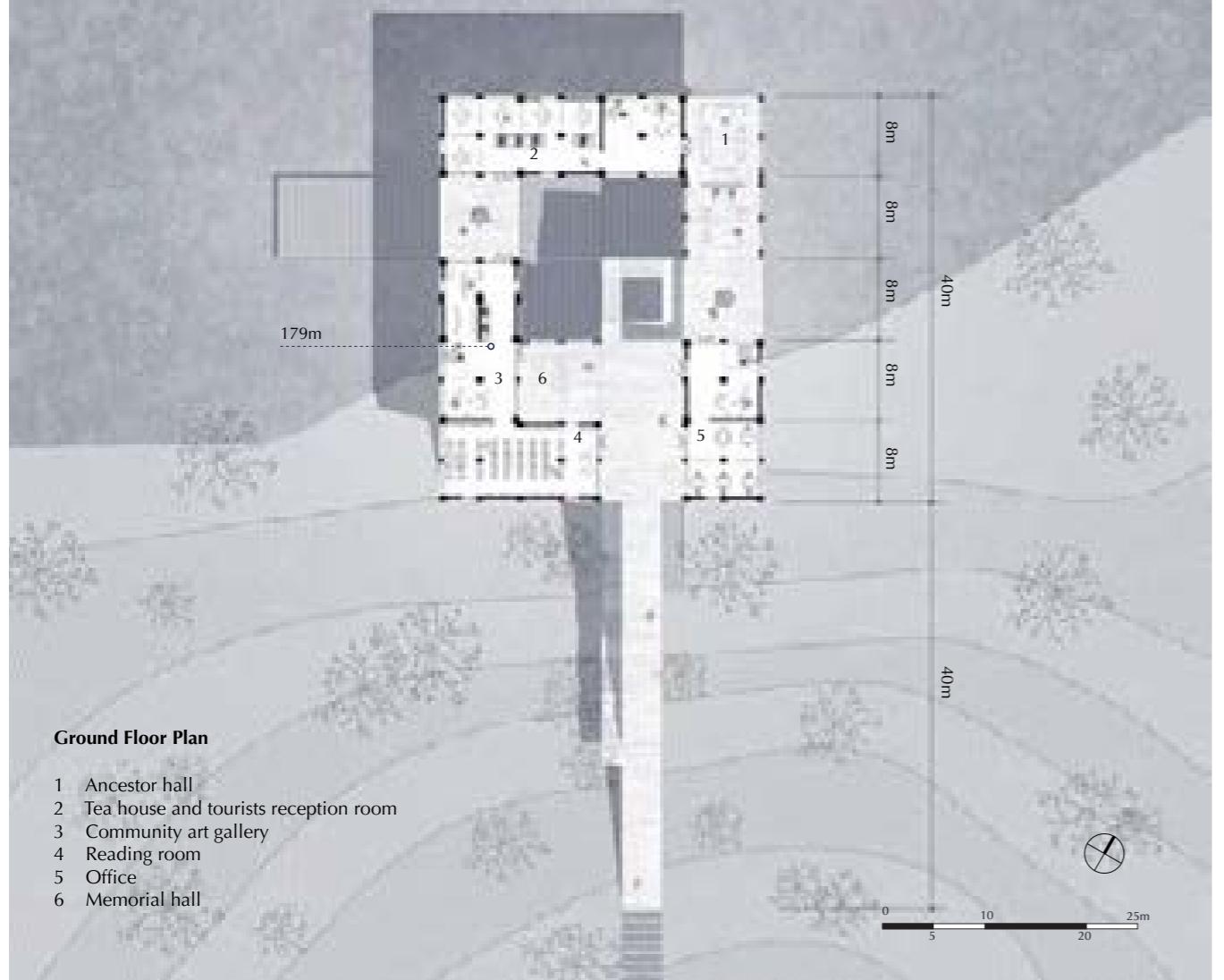
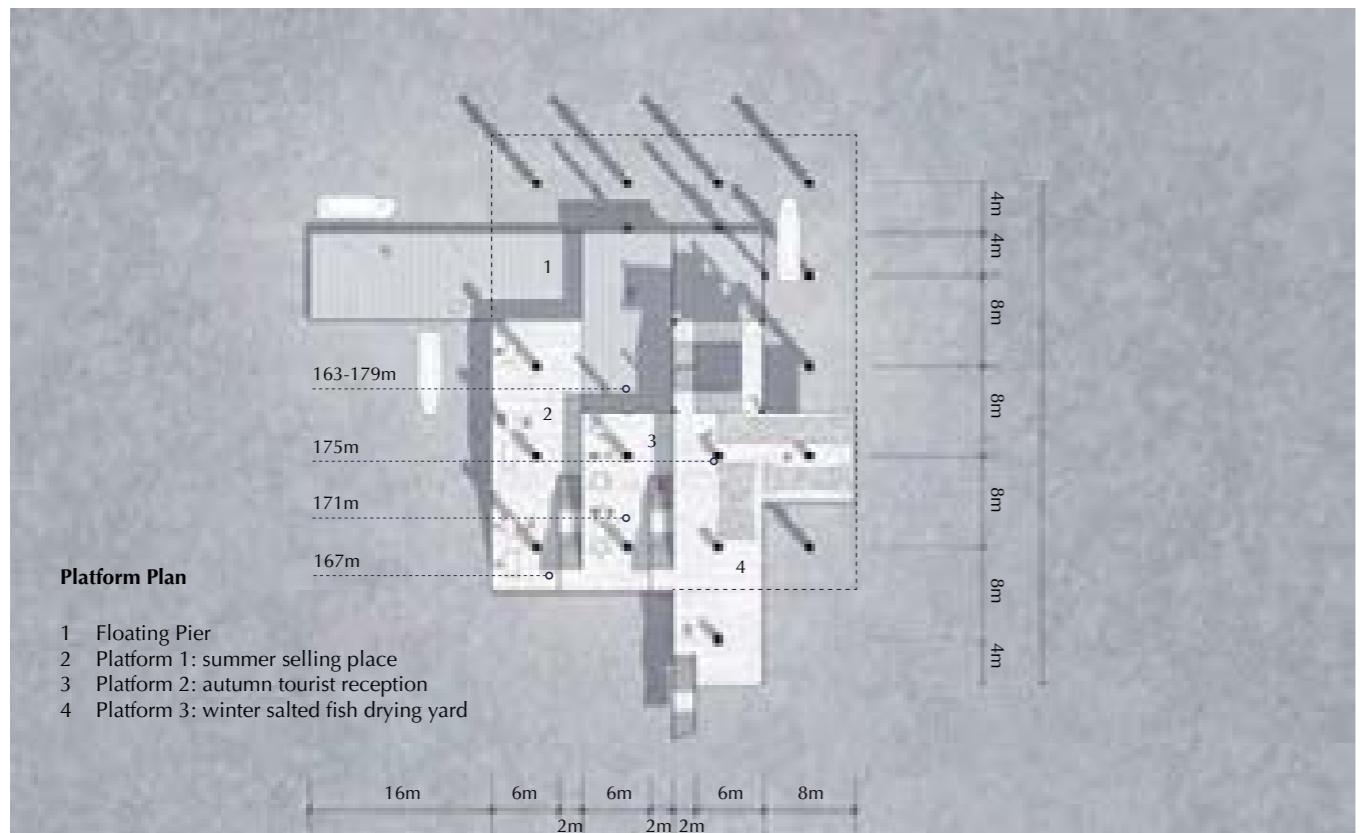
Social Network Connector

Form derives from local architectures, in order to rebuild the culture identity of the community. The projection of the braced bracket system will be an echo of the submerged houses.

Symbol of the Community

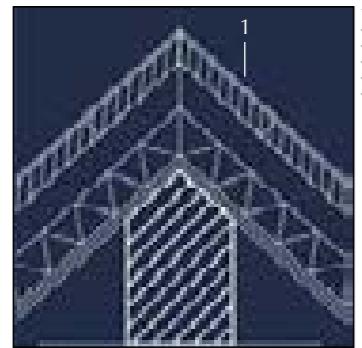
Looking from the Yangtze River, the community centre is like a beacon, announcing the adjacency to home. The projection of the structure reminds immigrants of their submerged home. Critical rooms serve as the new clan hall for gathering and ancestor worship. This is the spiritual space floating on Yangtze River, memorizing the past and directing towards the future. Every new town in the Three Gorges Reservoir can build this community centre and customize it to their own form and functions. Series of community centres representing the submerged memory of the villages will again reveal its identity to people passing through.





Above the water: community center

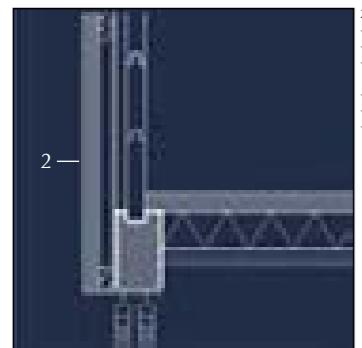
Functional units serve as memorial halls to worship ancestors, lecture room for skill training and education, tea house for leisure time and tourists reception and workspace to handle fish.



Roof

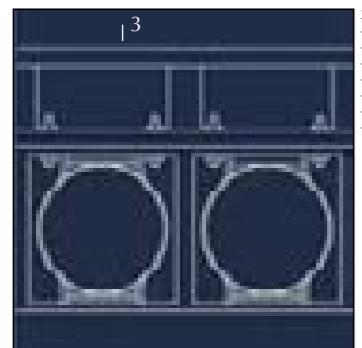
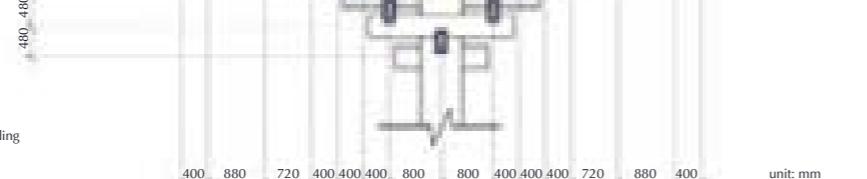
1
- softwood boarding
- wood fibre insulation slab
- vapour barrier
- insulation/batten
- roof beam

[穿斗]
chuān dǒu



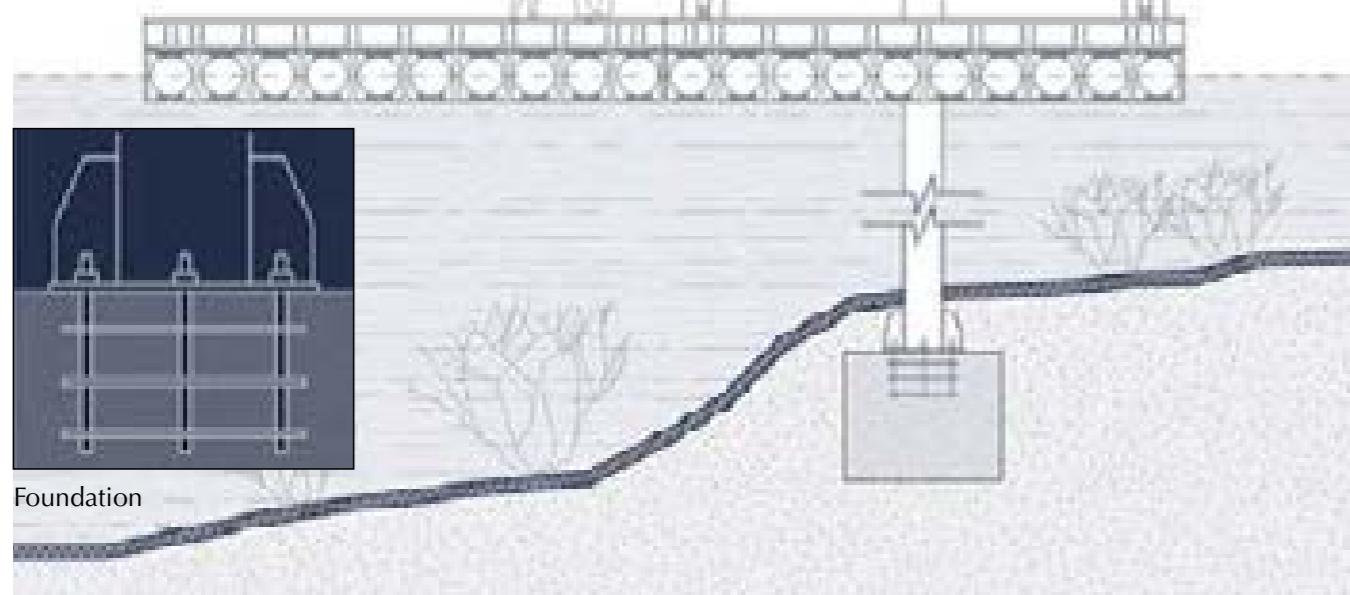
Wall

2
- sawn boarded cladding
- battens
- windproof building paper
- counter batten
- boarding
- grooved column

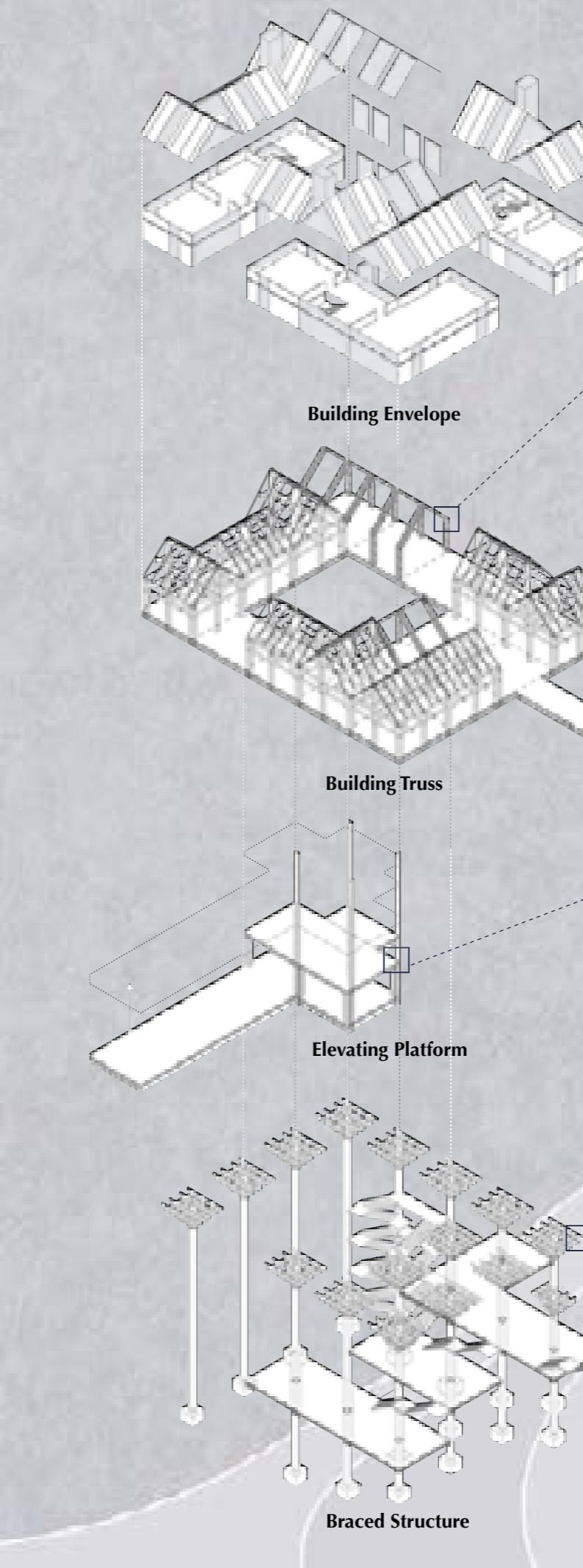


Buoyancy Tank

3
- sawn boarded cladding
- squared pine
- plank
- steel fastener
- steel frame
- HMWHDPE shell
- polyurethane foam



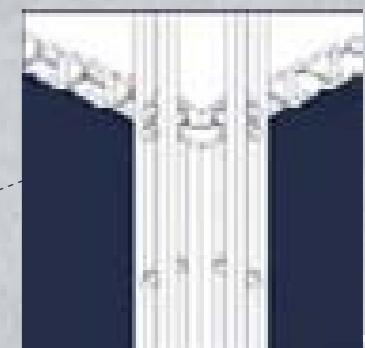
Foundation



Wooden Frame



Wooden Frame



Sliding Rail



Bucket Arch

