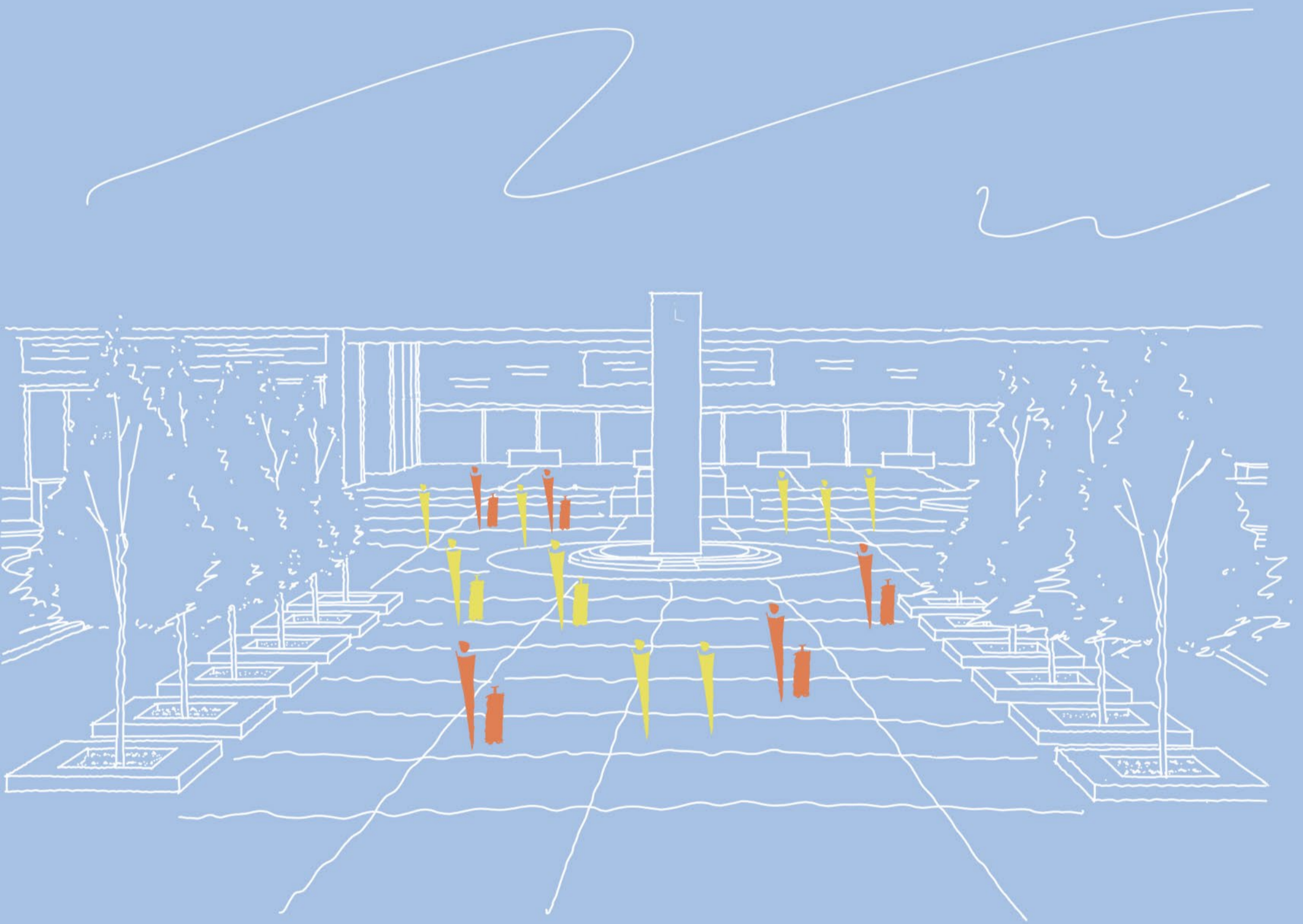


Space and Place in Urban Design

Revitalize possible social values in the context of
Shanghai transportation hub



Final Report:
Space and Place in Urban Design: Revitalize possible social values in the
context of Shanghai transportation hub

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01

Introduction

01.1 Personal Motivation
Study Approach

01.2 Relevance

01.3 Context

- a) Regional Scale
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- a) Short term & Long term Vision
- b) Scenario

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01.1 Personal Motivation

Personal interests for this study come from many different aspects. Firstly, definitions of space and place are discussed in architecture, planning, humanistic geography, and even psychological aspects. "Creating places" or "Designing Spaces" are two conflicting and interrelated design methods. Jane Jacobs and Jan Gehl mention the public and people, how people express their perceptions and positions on the public place. Space needs human beings to emphasize vibrant, diverse and livable values, which links with the phenomenon of place. What programs can be supported for creating places in the specific context.

Secondly, the public in China contains various culture interactions, which presents unique characteristics. After about 4 years' study in the Europe, it is attractive to compare public definition in western with that in China. In general, Chinese people would like to live in a small community instead of socializing in a large public space. Is that possible to implement western theories on Chinese context would be an interesting challenge.

Finally, transportation hub is a complicated socio-spatial problem in the urban transportation, especially for China with the high rate of population. Conflicts always occur here such as passengers and native citizen, people's flow and vehicle's flow, demand of facilities and supply. Presenting this project to the municipality might contribute for improving public nature relates to overlapped transportation network and promoting human factor as one of the design philosophy in urban projects.

01.1 Study Approach

This master thesis is a research and design-orientated project, focusing on the social public and human factors in transportation hub on the scales of urban design and human design. In addition, the configurations of different transportation networks are discussed on this project, public place needs well accessibility for everyone. The last is the urban integrity, due to little movement, too crowded, deteriorating, decrease of liveability and weakening of economic position.



Fig.01.1 (a) Shanghai Transportation Hub (photo by google picture)

01.2 Relevance

Social Relevance

It is relevant for the society to have the vibrant and high quality of public place in the transportation hub of Shanghai that is one of the important economic centers in China. City is developing and growing rapidly these years, but designers focus on too many economic effects on urban projects. Public space becomes commercialization, which lacks human factors. "How people use the public space" and "How people perceive the public space" are neglected by designers. The diagram below reflects people's evaluation of the front-square of the transportation hub.

Dianping. Com (website for people comment on)

- a) "Too many people at the square, most of them are outsiders. The air quality is too poor."
- b) "The square is dirty, disorderly and bad."
- c) "There are many shops and restaurants around the this main railway station, which is good. But it is hard to see any Shanghai native residences come here, maybe it is not enough attractive."

News.163.com

"It is difficult for people, especially for stranger, find their way at the square of shanghai transportation hub."

Academic article by students from Tongji University

"The space on the square is not used very efficient, some space is quite crowded, even exceed capacity, but some space comparative less used."

"Seats on the square cannot meet people's requirement, some of them lack roof to block sunshine or rain."

"Complicated traffic lines and too many entrances make the whole system chaotic."

"Too many billboards and lack of legibility."

Due to high rates of population, transportation hub is the most chaotic space in China. A large number of passengers are waiting on the square under the poor condition. The space is also not welcomed for local residences, social activities are disappeared.

Moreover, conflict between people and vehicles' flow is occurring in the transportation hub. Space is not well distributed, which causes low efficiency usage.

The last is the urban fragment, it is common to see the gap by railyards has negative effects on urban integrity. North and South areas are separated by the rail and Suzhou river. Public places work as the city "nodes" contribute for spatial connectivity and social stability.

Scientific Relevance

The scientific relevance of this thesis is reflected into two different aspects. One is the bringing western theory to the Chinese context. First is the debate between "space" and "Place". According to Relph and Tuan, two thinks of humanistic geography, space refers to the location without any social connections to the human being. Place can be described as a spatial location created by human experience. Although "creating places" is difficult to achieve, it is still the crucial concerns of designers. Second are some theories concerning how to make a good city or place. Jan Gehl and Jane Jacobs are leading to make a lively city. In addition, Montgomery and Carmona contribute to some principles of place-making. Third are some researches about human activities and behaviors. For example, Whyte introduces the research of social lives in the small urban spaces.

Those western theories build the framework for the design. Although all of them have great values of urban design, it is necessary to critical think all sources whether they are fit Chinese context.

The other scientific relevance is about the composition of different scales, the combination between the largest planning scale and the place scale or human scale. The largest planning scale illustrates the long-term strategy for the whole district, even the Shanghai city. "How could make this transportation hub more integrate with people who live here and promote the urban transformation". The small scale would focus on people's flow and facilities.

01.3 Context

Regional Scale

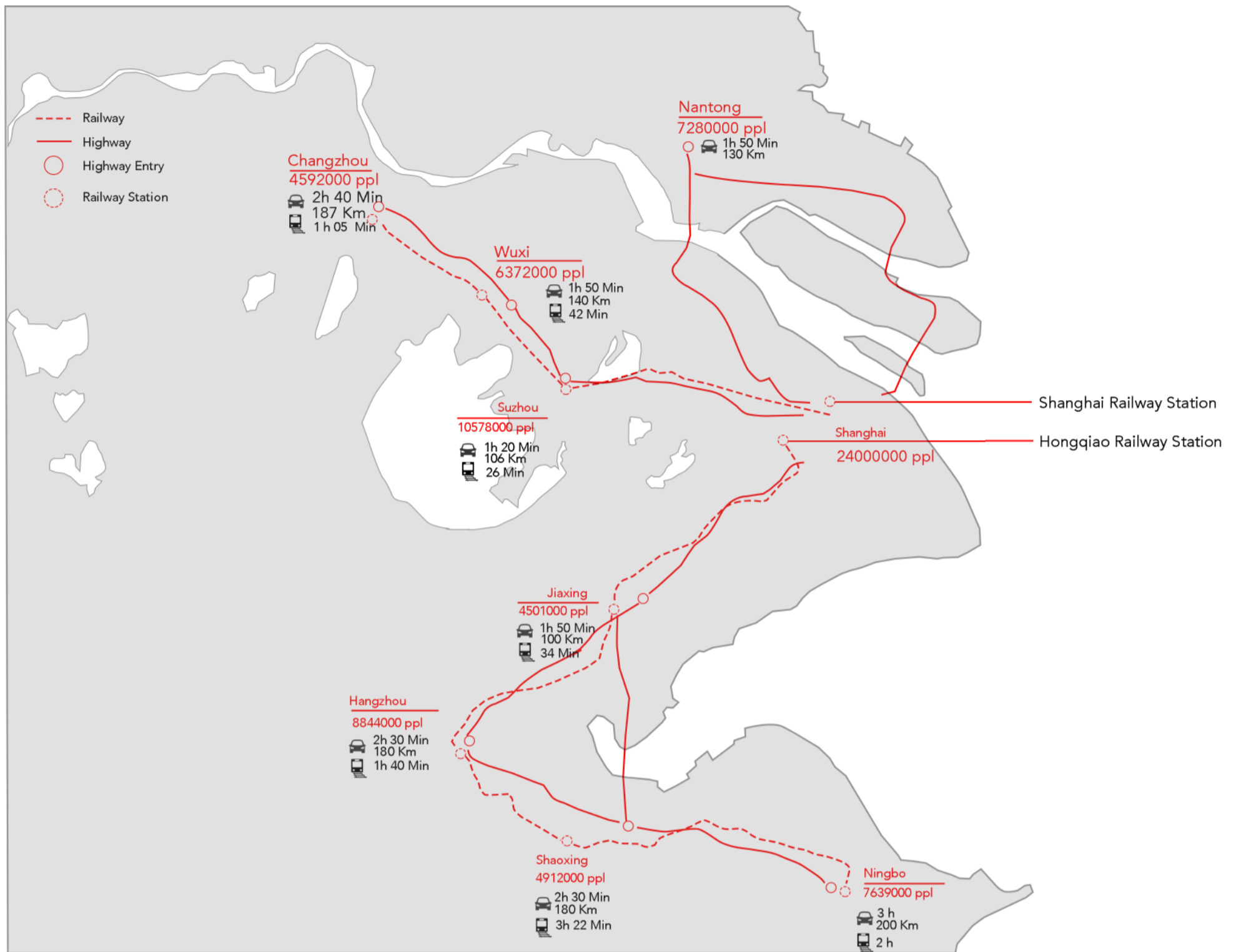


Fig.01.3 (a) Regional Analysis of Yangtze Delta Area (drawing by author)

surroundings (Abstract)

Shanghai is located at the East of China with about 24 million people. Shanghai main railway station links the city to the other surroundings urban area, roughly an hour train ride. With the development of rail transit system in the Yangtze Delta area, this railway station becomes the important articulation of transportation system. Shanghai is the commercial and business center in China, it attracts many migrants and travellers, seeking for their jobs and enjoying urban life respectively. What programs and projects could be provided to support increasing people population by designers?

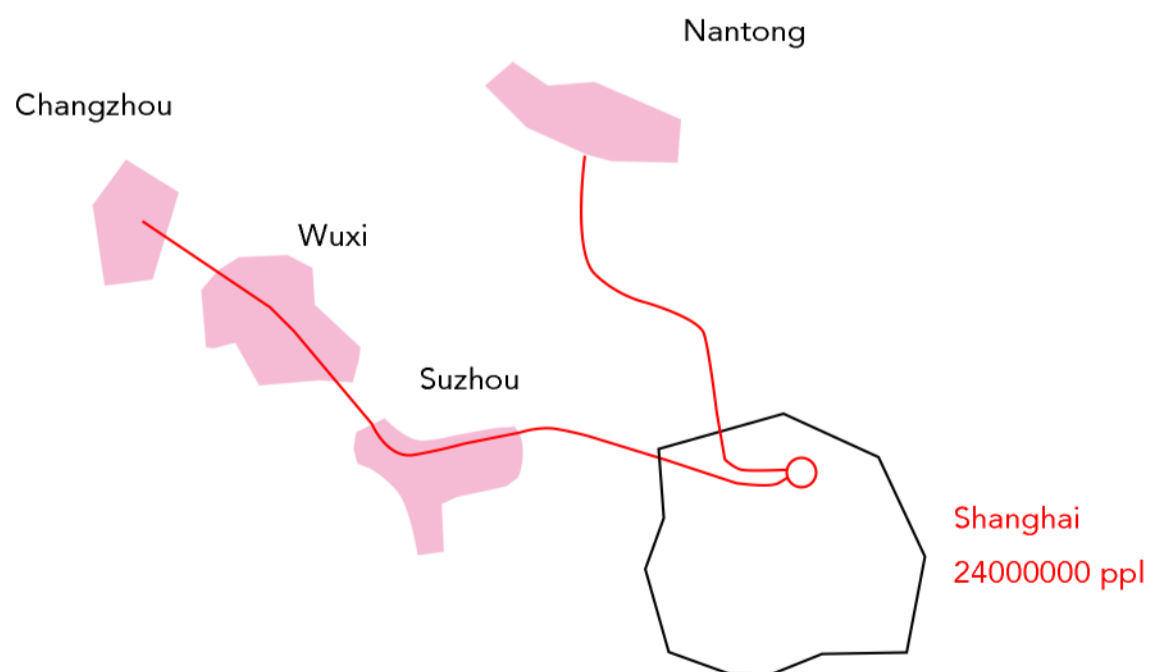


Fig.01.3 (b) Abstract Drawing of Yangtze Delta Area (drawing by author)

01.3 Context Background

Shanghai railway station is built in 1987 (Zhang, 2015), it becomes the first fully functional railway station in Shanghai. Statistics state that about 120 thousand people would use this railway station daily in the normal season; the number is twice in the peak season such as spring festival. Due to the development of subway, the subway station is established on the south square of railway station, which promotes the process of transportation hub. However, this district is losing vitality and social life. From people's perspective, this district is only known as a main railway station, though some commercial buildings still exist. A large number of people are using this transportation hub daily, but rather few of them would like to stay there, due to the poor built environment. Some reasons of this stagnated situation could be summarized into following categories.

The old urban structure hinders urban development

Transportation hub is located in the Zhabei district that is one of the oldest districts in Shanghai. Urban structure is fixed and set at the early 20th century. Railway station works as the main role to promote urban development. In 1992, planners claim the policy of "sleepless city" in Zhabei district to make it as an economic center in Shanghai (Zhang, 2015). Due to amounts of old buildings and outdated environment, Zhabei district could not attract investors anymore. Many poor residences houses with intolerable living condition and unmaintained commercial buildings limit urban transformation.

Backward function and environment of transportation hub

With the rising of commercial demands, people are seeking for higher qualities of living condition. Diverse commercial structures attract more people. Shanghai is a polycentric city with high dense population. Following other economic centers' development (fig.01.3 (e)), transportation hub with few functional aspects in Zhabei district is neglected by people. Compared with Hongqiao railway station that is another high-speed railway stations in Shanghai, a prosperous commercial corridor attracts passengers. In addition, the front square in the shanghai railway station is suffered from heavy people's flow (fig.01.3 (f)). Urban design lacks the communication between users and designers. Although some public seats with greenery are set on the square, most passengers are still sitting on the ground with heavy luggage. The chaotic environment with single social and economic structure intensifies the conflict between native citizens and passengers (Cong et al, 2009). Transportation hub is the important public place to emerge culture exchange, because it contains people with different background. However, if the transportation hub is nothing more than people, social activities are hardly happened.

	Normal Season	Peak Season
Shanghai	120000	300000
Rotterdam	110000	110000

fig.01.3 (c) Statistic of Passengers Volume (drawing by author)



fig.01.3 (d) Image of "Sleepless City" (photo by google picture)



fig.01.3 (e) Image of Economic Center, "NanJing" Road (photo by google picture)



fig.01.3 (f) Image of the Heavy People (photo by author)

01.3 Context

Background

Geography restricts urban integrity

It is obvious that railyards isolate urban topography; north and south area are separated by railway. People who want to walk across the railway have to use metro station, only few information signs could tell you the right routes. Spatial connectivity is being challenged. Is this possible to have physical connections to moderate negative impacts caused by railway? Suzhou River worked as the way of transporting goods before 21th century. For now, series of environment problems such as pollution and flood make negative impacts on urban development. From the perspective of geography, it cuts off the connection of two districts. Some strategies need to be implemented to improve urban fragment.

Reference

Zhang, J. (2015) ' Modification of the Shanghai Railway Station' *Design & Research*, pp. 94-98.
Liu, C., Gao, S., Luo, J. & Liu, H. 'The research to the Use of City Square: The research to the South Square of Shanghai Raiway Station', *Architectural Journal*, pp. 93-98.



fig.01.3 (g) Polluted Suzhou River (photo by google picture)



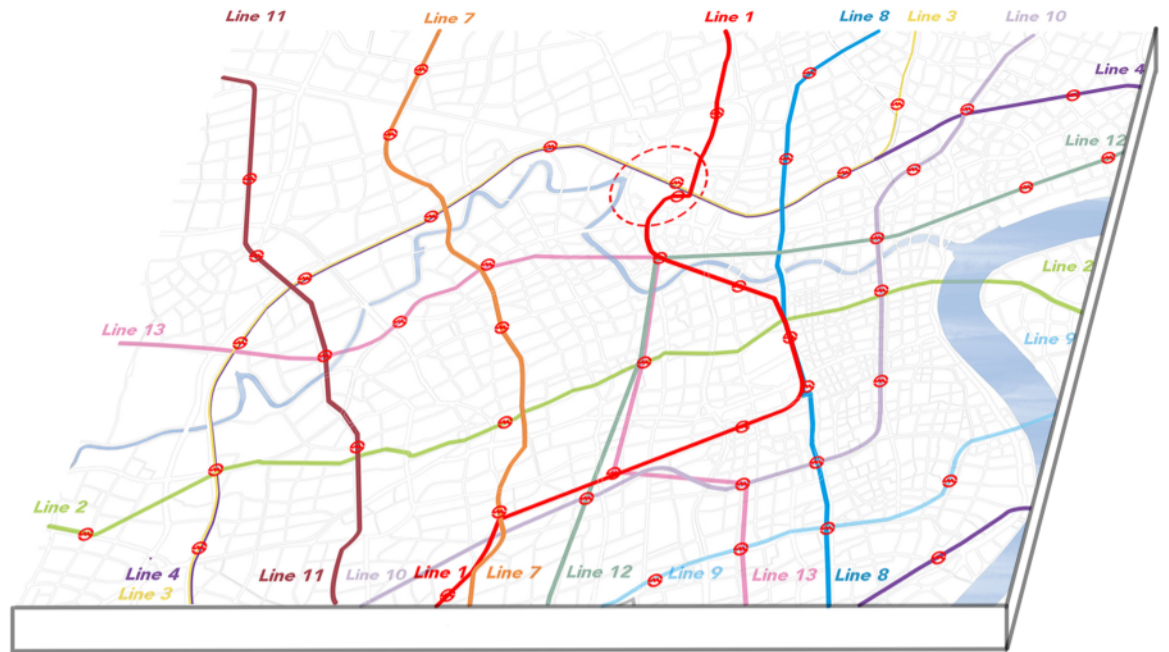
fig.01.3 (h) Railway (photo by google picture)

01.3 Context

Metro & Vehicle Network

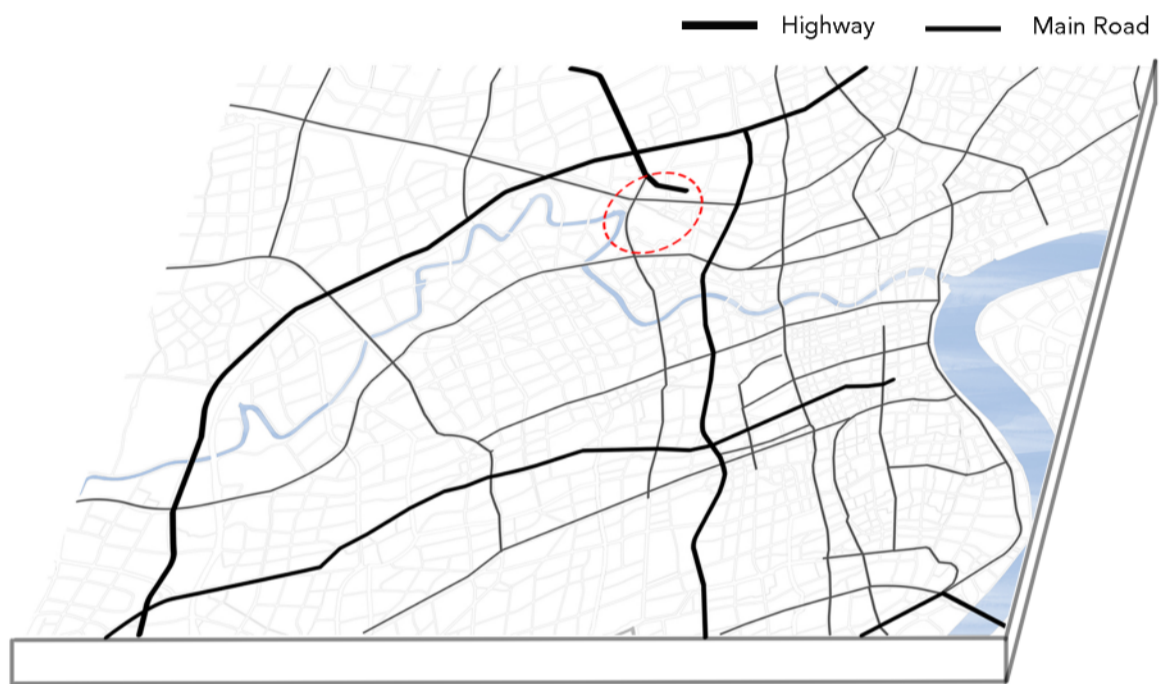
“Metro Network”

Shanghai has rather complicated metro lines, three different metro lines are coming through this project area.



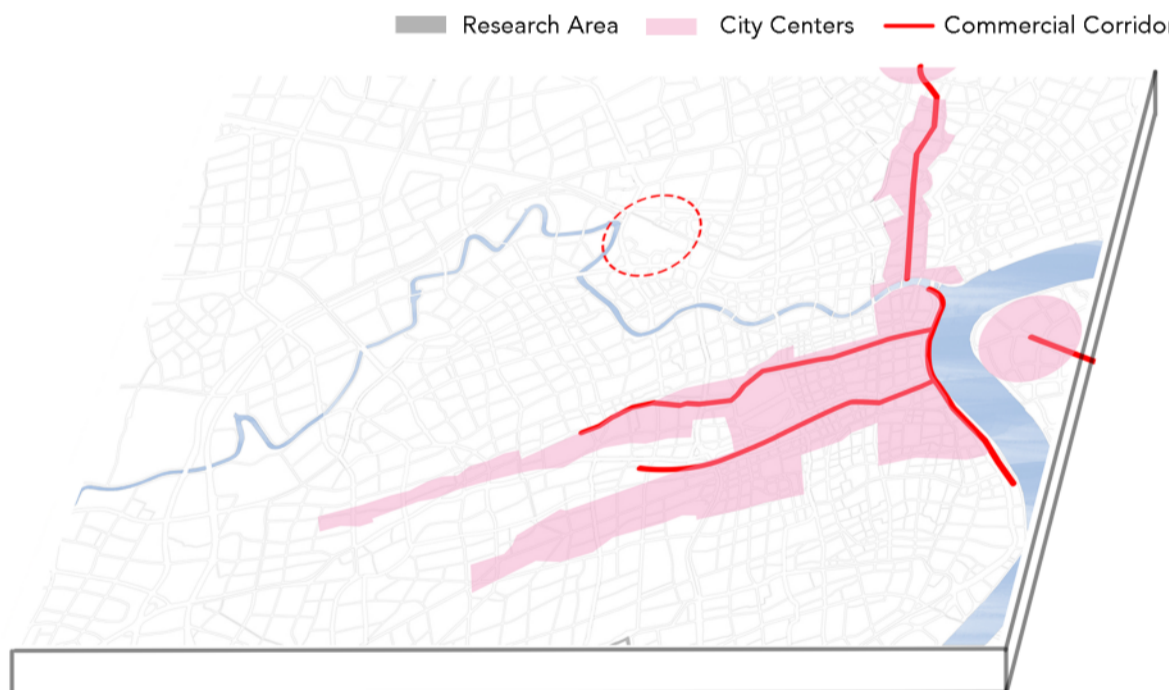
“Vehicle Network”

It is obvious that vehicle’s flow is heavy around transportation hub.



“Commerial Network”

Main commercial and city center of Shanghai is not far away from this project area.



“Railway Network”

The orientation of this rai line is only leading to the west of China.

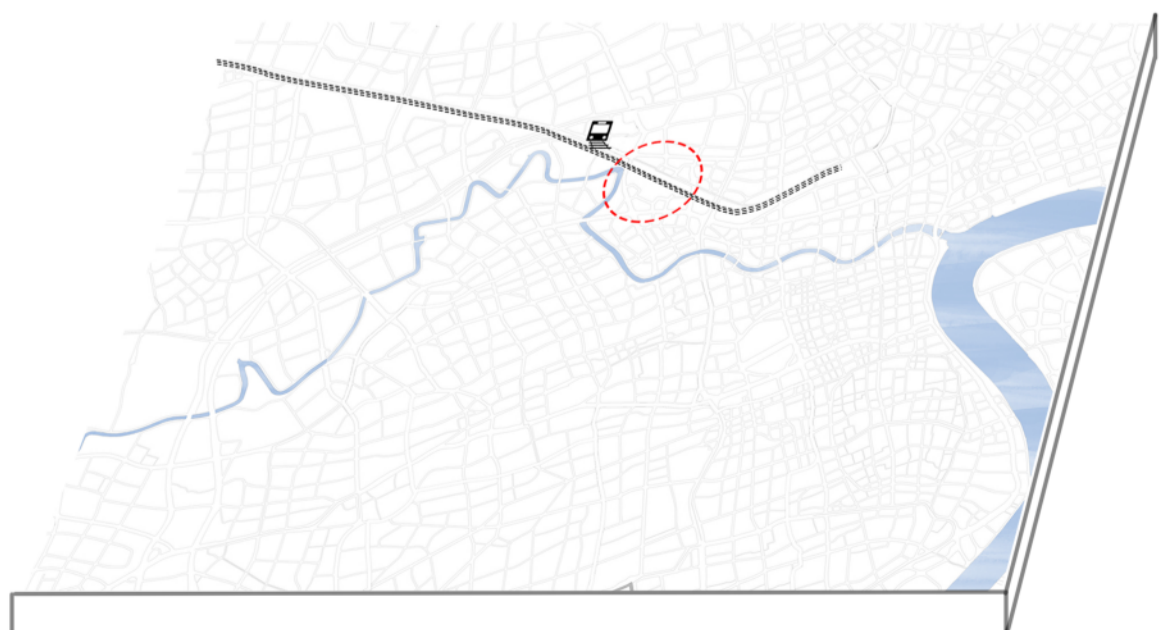


fig.01.3 (i) Overlapping Network Analysis (drawing by author)

01.4 Problem Statement

Problem Statement: Due to the geography and socio-economic restrict, development of the Shanghai main railway station is stagnated. Suzhou River and railyards create negative effects on spatial connectivity. The large number of people and heavy flows of vehicles with huge billboard make the area chaotic. The direct consequence for this situation is deteriorating and degrading social and economic activities. In the large scale environment, urban integrity is being challenged. The alternative strategy concerning public quality is necessary to maintain social vitality.

Problem Definition

1. Lack of public facilities to meet people's demand

2. People's flow is not well distributed

3. Urban fragment is caused by rails

4. Function of space is not diverse, passengers are the only users

5. Lack of people's perception

Objectives

1. Distribution and Provision Facilities for Different ages group

Create more seats with cover, shades and vegetation, even legal business peddler for different ages passengers who are waiting on the square.

2. Promote more balanced people movement

Reorganize people's flow to increase spatial efficiency by implementing various colorful edges or other attractions

3. Connect other isolated areas with public place

Extend public place on spatial and social identification to link with other communities, which increases social and economic connectivity

4. Diversity is nature to public place

Various spatial functions attract more potential targets

5. Increase sense of belongings of public place

Most passengers are not native citizens, they have their own culture and background. The behaviors and feelings of public place users are prominent in urban design. Is it a safe and comfortable place? Could users find their positions on the place?

01.5 Aim

Opinions on internet, newspaper, specific literatures and interviews... (Main Station Shanghai)



Internet Opinions



"Too many people at the square, most of them are outsiders. The air quality is too poor."



"The square is dirty, disorderly and bad."

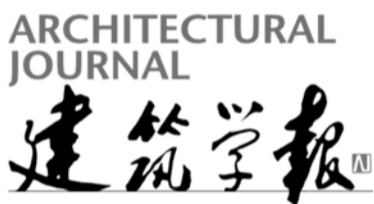


"There are many shops and restaurants around the this main railway station, which is good. But it is hard to see any Shanghai native residences come here, maybe it is not enough attractive."



Newspaper

"It is difficult for people, especially for stranger, find their way at the square of shanghai transportation hub."



Student's Research

A) The space on the square is not used very efficient, some space is quite crowded, even exceed capacity, but some space comparative less used.

B) Seats on the square cannot meet people's requirement, some of them lack roof to block sunshine or rain.

C) Complicated traffic lines and too many entrances make the whole system chaotic.

D) Too many billboards and lack of legibility.



Interviews



"This is the first time to visit Shanghai with my girlfriend. I need to wait about 4 hours for my train. This square is large but too boring, i am trying to search anything interesting places to go."



"Sometimes the front square is too dirty and crowded, it is hard to find anything to do. If i'm a designer, i would reorganize this area to catch more native residences to make this space lively."



"We are waiting for our trains to hometown. we have to sit on our baggage, cuz there are not any seats here. (Actually, many seats are empty on the west of this square). It is better to find a place to deposit our baggage."



"Shanghai is not a good city to welcome strangers. We always lose our way in this square, so it is better to sit here to see if our train is on time."

The Aim...

In order to the problem illustrated by media, the project is to transfer low quality urban space to vital public place, which vibrates and diversifies social values and promotes spatial connectivity.

01.6 Research Question

what is the definition of space and place in urban design?

How to create **places** which derive from the human approach of **socio-spatial intervention**, in order to improve **public quality and the integration of urban fragments and networks** in Shanghai **transportation hub**?

what kinds of social spatial intervention?

How local public quality looks like?

How to contribute for urban integrity?

In order to answer the main research question of this project, some subquestions relate to social-spatial aspects are raised.

1. What does the meaning of place in urban design?

How to distinguish between place and space?

Space and place are two important different concepts in the humanistic geography. Two important thinkers give the contributions on defining space and place, one is the Yi-Fu Tuan, the other is Edward Relph. According to Tuan, space is the location without social connections to human being. Place emphasizes the location that is experienced by human. Those two different concepts leave the question to urban designers, how to make a real public place concerning human psychology?

3. What is the definition of public in China?

China is a long history country with diverse culture and social structure. Shanghai is the economic center in China. It is obvious that public in Shanghai is different from that in some western countries. European people would like to sit down, sunbathing and socialize with each other in a public place. The question is aimed to offer exact design background of public activities.

2. What kinds of social spatial intervention could be implemented into transportation hub to improve public nature and space perception?

In order to improve public nature, how to measure the quality of public place is the primary question. The quality measurement should be divided into functional aspects and psychological aspects. Different social spatial interventions are created following these two aspects. With the question it is aimed to explore possible interventions contribute to increasing quality of public in transportation hub.

4. What strategies relate to social aspects should be implemented in the public square of transportation hub to avoid urban fragment?

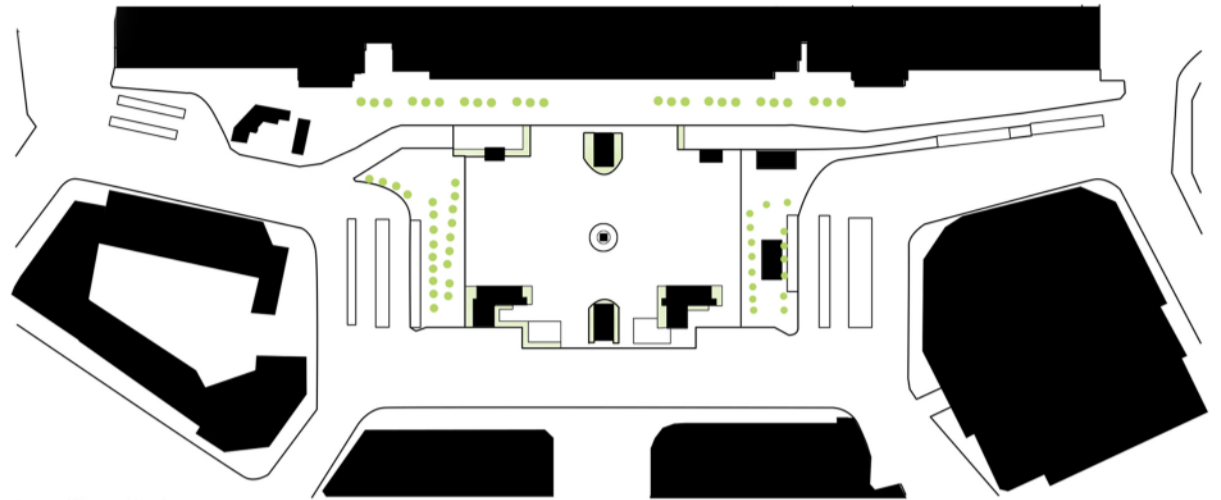
Urban fragment often happens at transportation hub, due to the gap created by railyards. North and south are suffered from isolated situation. Social values are the result of improving public quality. This question is aimed to discuss the potential of possible strategies to improve spatial connectivity. Basically, public place should connect other communities in the urban fabric.

01.7 Problem Analysis

01.7 (a) Facilities for Passengers and Local Citizens

Figure 01.6 (a) illustrates the existing facilities (seats) for people. Designers organize all seats at two sides of this front square of the transportation hub, which could ensure fluent people's movement. In addition, seats with trees would offer comfortable sitting environment via integrating shades and sun lights. However, all seats are occupied. Some passengers have to seat on their luggage, even on the ground. Most people would like to stay at the right side of the square, because it is close to two metro stations. Some passengers always complain that they are unable to find seats. Lacking public facilities is the common social issue in this area.

A. Trees & Seats (Map) ● Trees with seats (5-6 People)



B. People's Stay (Reality) ● 8-9 People ● 5 People

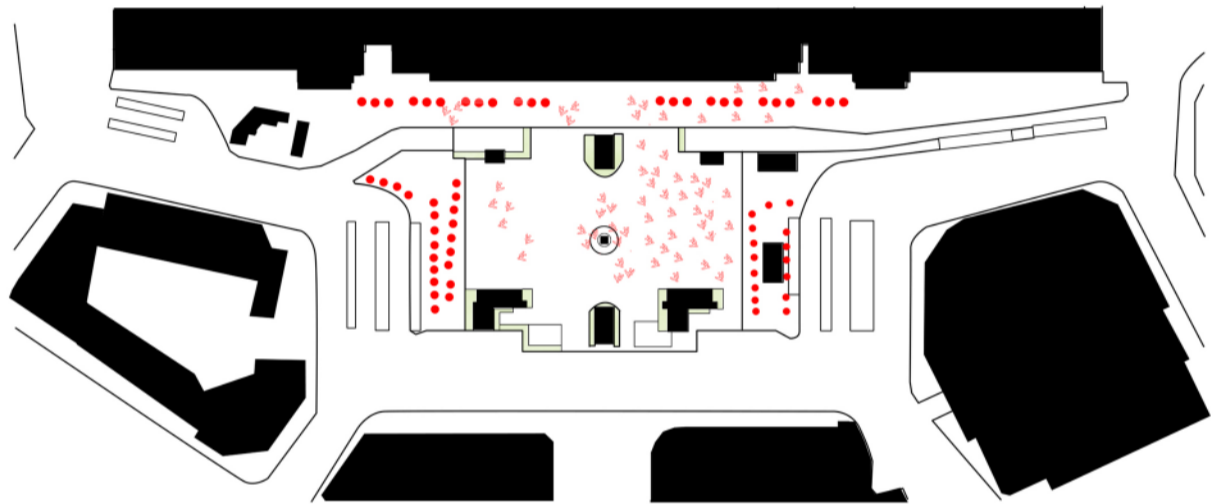
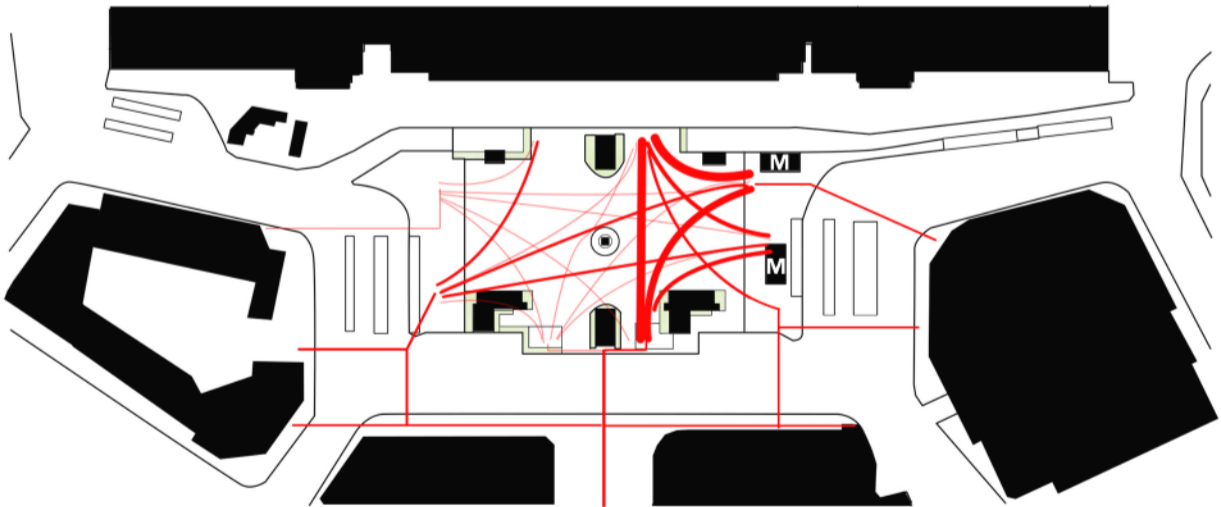


fig.01.7 (a) Public Facilities (drawing by author)

01.7(b) People's Flow & Vehicle's Flow

People's flow is not well distributed in this front square of the transportation hub. People's flow is quite heavy at the right side of the square. In addition, vehicle's flow including bus and taxi is complicated and chaotic. Is that possible to separate the taxi or general vehicles from the public bus? Furthermore, too many bus stops at different spots might cause the weakness of spatial legibility.

A. People's Flow — >20 / M — 15-20 / M — 10-15 / M — <10 / M



B. Vehicle's Flow

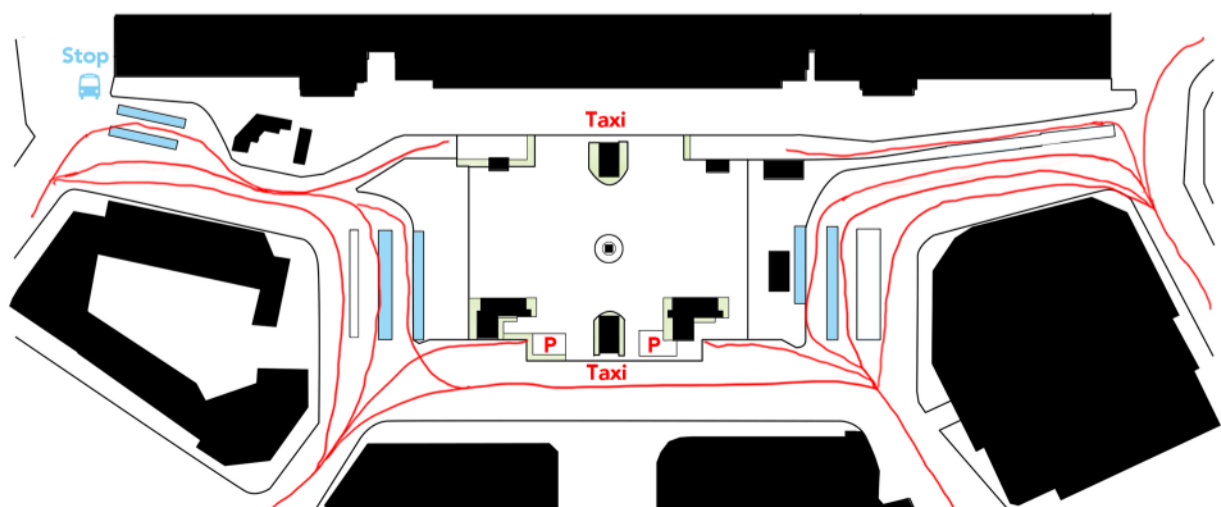
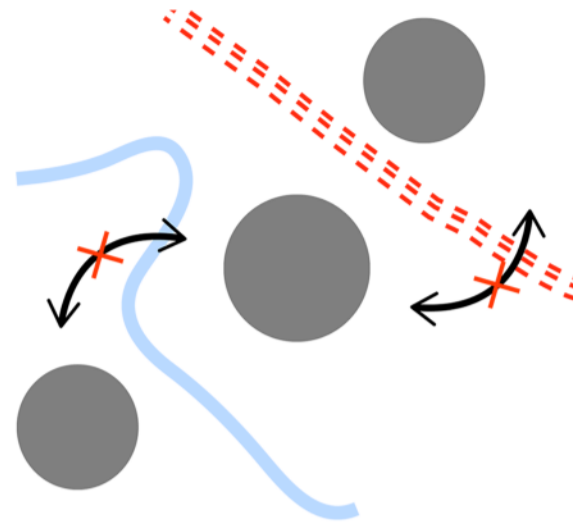


fig.01.7 (b) People & Vehicle's Flow (drawing by author)

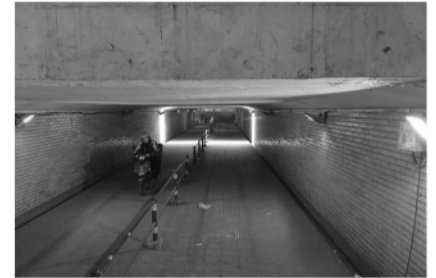
01.7 Problem Analysis

01.7 (c) Urban Integrity

Spatial connectivity is challenged by the negative effect of the rail and landscape, which causes spatial isolated. The way to walking across the railway is to use the dark tunnel or take the metro, which causes the extremely inconvenient. Public space could be used as a tool to link each separated urban space via rebuilding low-speed network.



walking pedestrian tunnel a



walking pedestrian tunnel b

fig.01.7 (c) Urban Integrity (drawing by author)

01.7 (d) Designers & Users

The diagram here compares design purpose of this front square with the current situation. Designers want to make the square as an integrated space both for passengers and local people. People with different backgrounds could share the space and exchange their culture. However, some interviews with passengers and locals evidence that people only see this study area as a railway station, only passengers would use this space. Students in Tongji university conclude the front square in the research paper: "it is a rather special square. Citizens use it is not based on the spatial quality but they have to use it for travel and transfer."

Designer's Mind (On Paper)



User's Mind (Reality)



fig.01.7 (d) Designers & Users (drawing by author)

01.7 Problem Analysis

01.7 (e) Cognition of Public (Chinese & Western)

This diagram illustrates the comparison on the definition of public space between Western and Chinese people. Western people would like to sit down, sunbathing and socialize with any people whether acquaintances or stranger in the public space. Chinese people, always in a group, seem more active on using public space than western people. They see public space as a "stage" on which they could express their culture. According to Orum (2009), Public space in Shanghai is not only a place to meet and talk, but also to enact cultural scripts that help to keep alive what it means to be Chinese today.

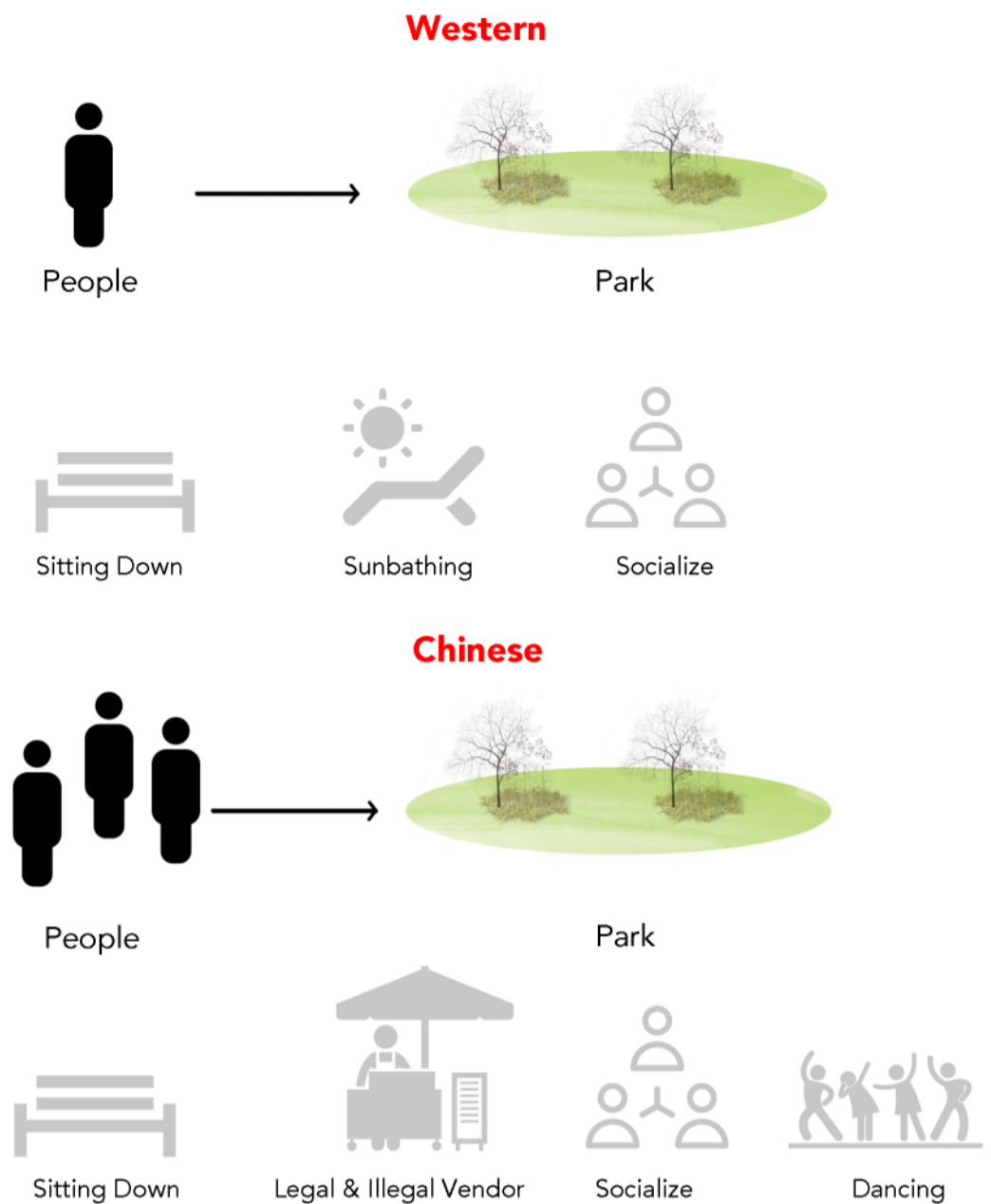
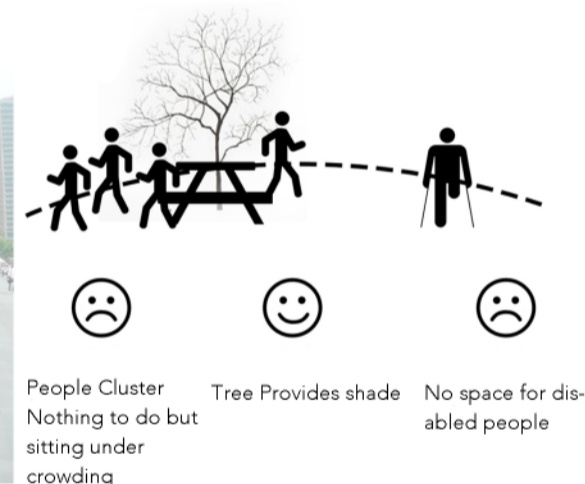
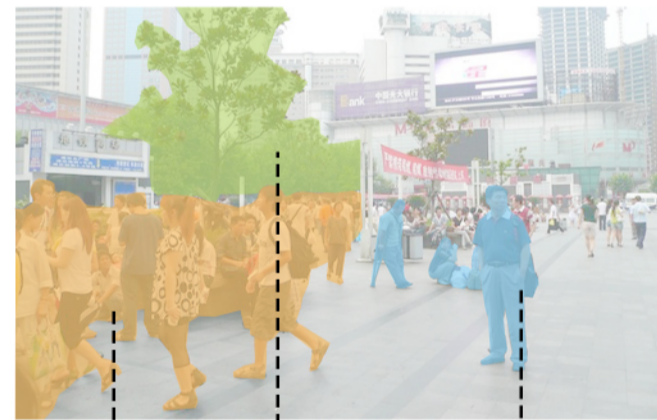


fig.01.7 (e) Public Definition (drawing by author)

01.7 (f) People's Perception

It is hard to describe people's perception by architectural drawing. Two photos with interviews on the site visit could tell interesting stories. Photo A is the front square in the morning. A large group of passengers are gathering at right side of the front square (left side in the picture) without any social interaction. People only talk with their friends or relatives. I guess the waiting space is uncomfortable, no one want to sit under the people's cluster. I ask one guy who is anxious to looking at the train information screen "how do u feel this space?" He says "The space is too huge and gathered by too many people. I always get lost, the environment is terrible." He is struggling to find something to do for spending more than 4 hours waiting time. Photo B shows the front square in the peak time. Due to the spring festival, a large number of people are using the square. The space becomes chaotic and crowded.

Photo A

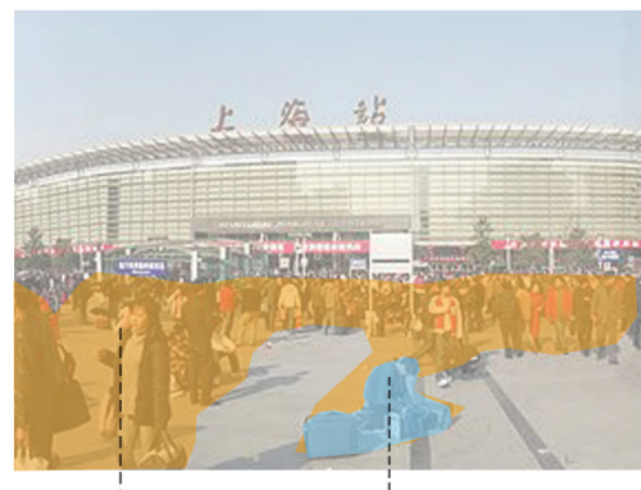


"People Cluster" no talking, no social interaction

Trees shade the sunlight and provide nice sitting place

No facility for disabled people
The guy is struggling to find something to do for spending more than 4 hours waiting time

Photo B

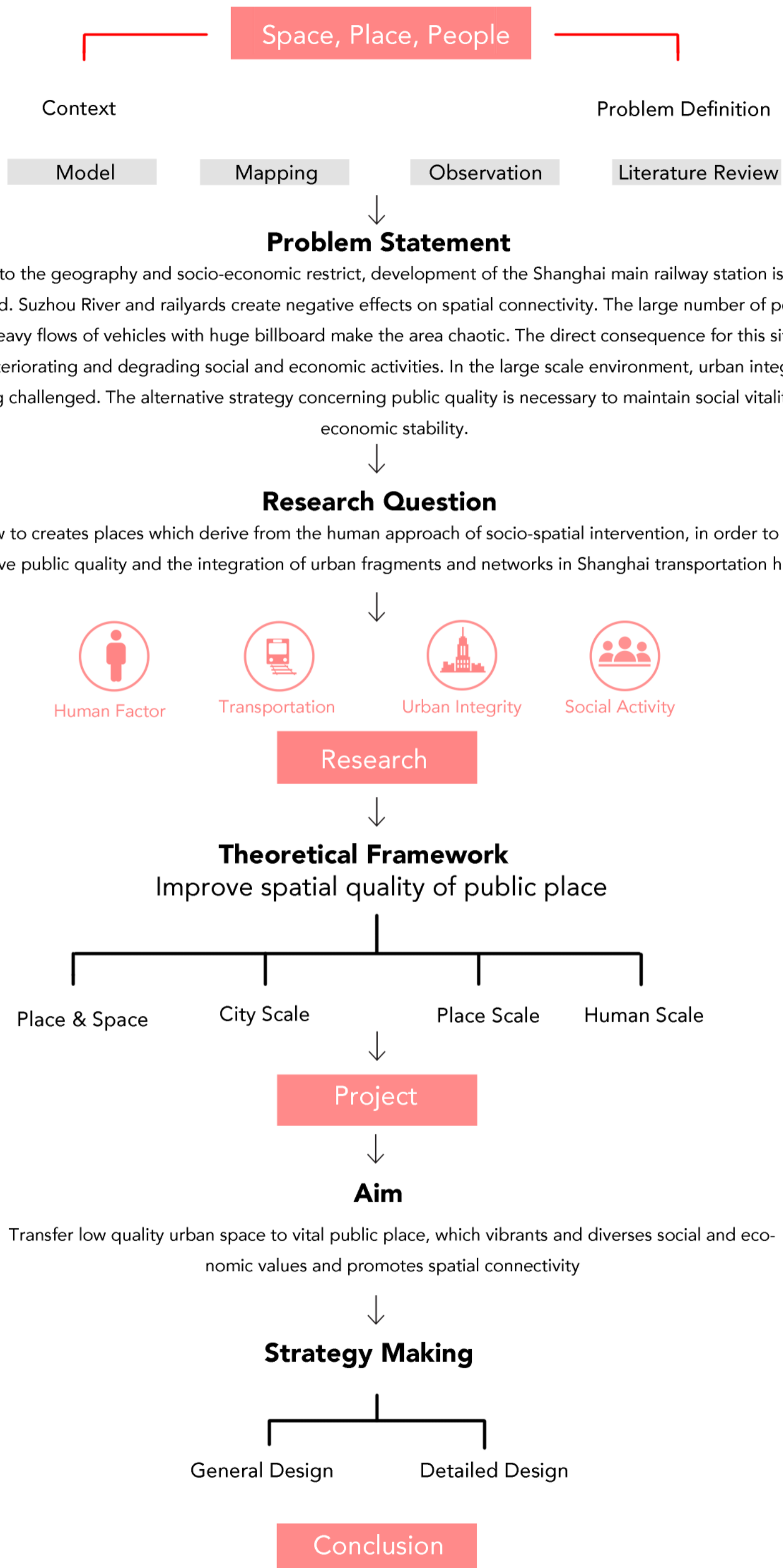


Only people, people and people

Have to sit on the ground and people

fig.01.7 (f) People's perception (drawing by author)

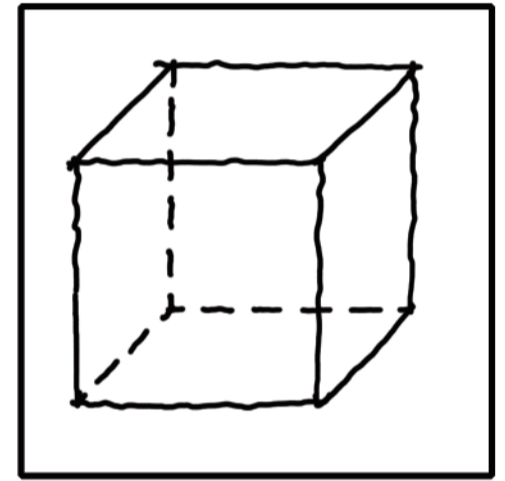
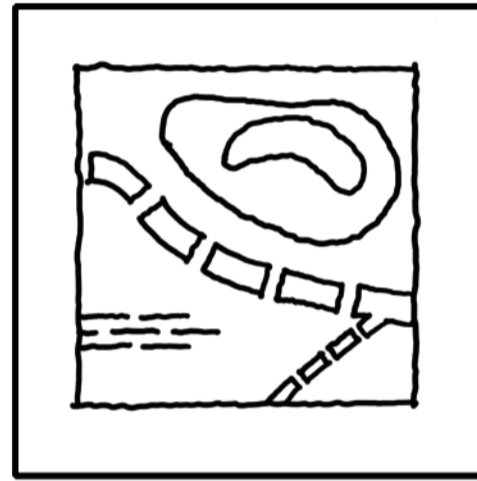
01.8 Thesis Structure



01.9 Methodology

The methodology of this project has two components: research and design. In the research, literature review is necessary for building the design framework. "What is the space & place?" & "what is the definition of public place in China" describes the background of the research. In order to improve public place, it is significant to know "how". In addition, diagram drawings that are based on theory form the toolbox of the design. Observation is the key step in the research which helps designers to know the "reality".

The second part of the methodology is mapping and modeling. Mapping establishes the image of the design proposal and the connection between people and environment. Model offers the spatial images of the design.



Literature Review

- Concept of space and place
- Context and background of the project area
- Definition of public in China
- How to make the public place
- People's behavior in urban space

Observation

- Human Behavior
- Spatial quality
- How people use the space

Mapping & Drawing

- Spatial quality
- Analysis & design proposal

Digital Model

- Analysis in model scale
- Analysis & design proposal

01.10 Hypothesis

Short-term & Long-term Vision

The design-based project is going to improve spatial nature in Shanghai transportation hub area. Hypothesis would discuss the future image of the project area. In general, what are the final products of this study area? The answer is illustrated by two diagrams, one is the long-term and short term vision, which emphasizes the scale. The other is the scenario map based on the timeline.

Short-term & Long-term Vision (fig.01.10(a))

Level one is the front square of the transportation. The short vision is going to solve the basic problems of the waiting passengers. Clear spatial legibility and decent public facilities are two main design points. Level two focuses on the public place, spatial connectivity and social regeneration of the main district. How to reconstruct the project area for increasing social values? Level three, also called long-term vision, is trying to make the station more integrated with its surroundings and significant in the lives of locals. This is not only a railway station area, it is a place!

10-15 year's Scenario (fig.01.10(b))

a) 1-3 years: The transportation hub is transferred into a place with high spatial quality for both locals and passengers. The front waiting square could provide enough space and facilities for passengers and has ability to distribute heavy people's flow.

b) 4-8 years: The design is going to solve urban fragment via extending place concept. The front waiting square could be extended to the riverside for increasing the connection between transportation hub area and Suzhou riverside. In addition, the concept green bridge is implemented to link the railway yard. Furthermore, commercial corridor offers more options for people.

c) 8 to 13 years: The transportation hub area becomes another social and economic center to attract more investors and promote urban transformation. The project area is not only known as a main railway station, it is a multifunctional area.

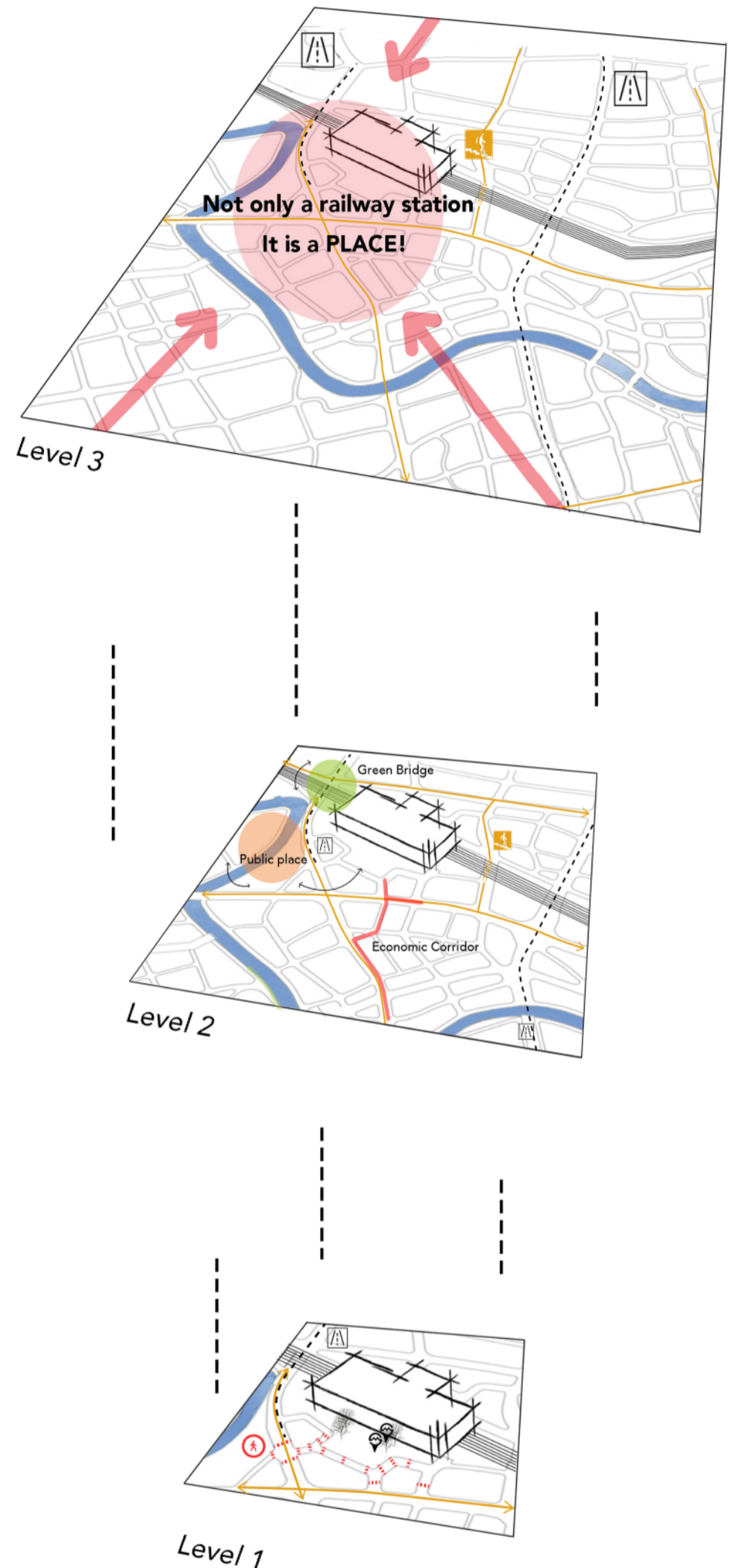


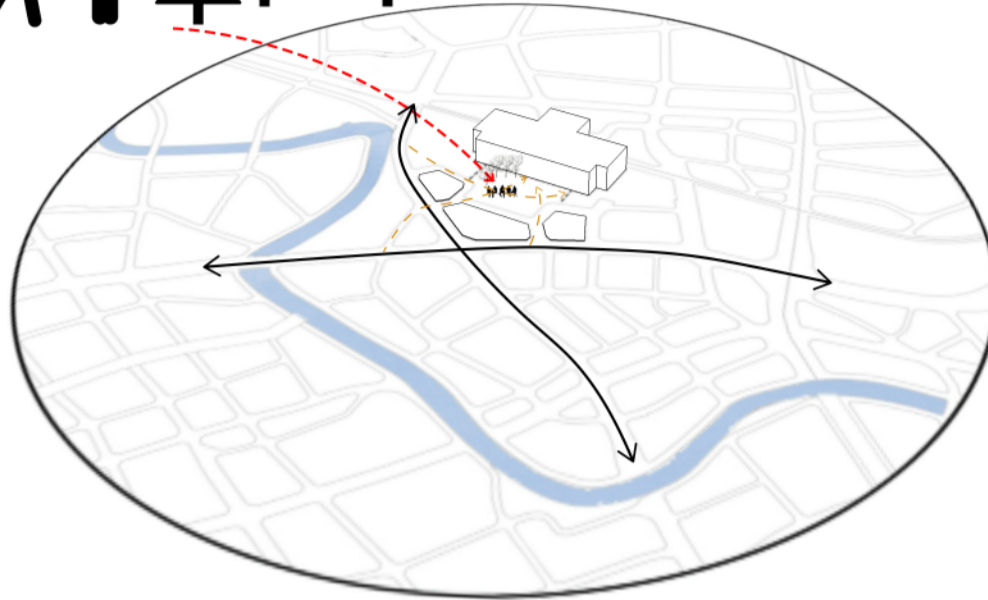
fig.01.10 (a) Long-term & Short-term Vision (drawing by author)

01.10 Hypothesis

10 - 15 Years' Scenario



Transportation hub as a place with high spatial quality for both locals and passengers

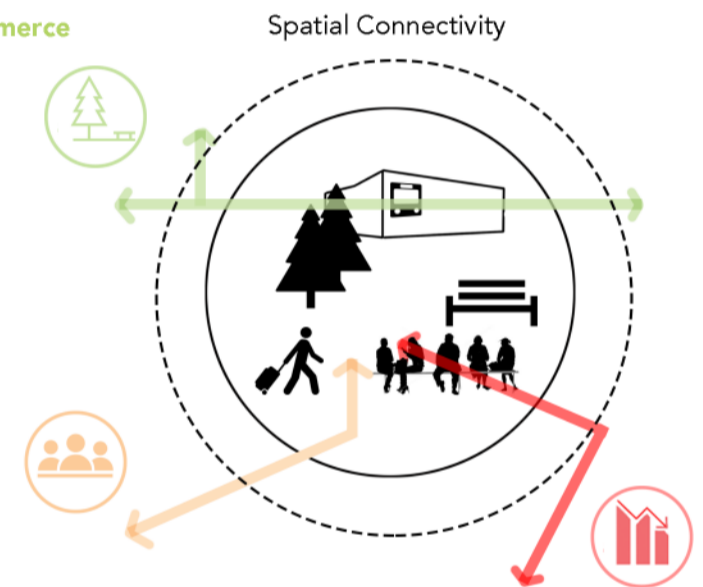
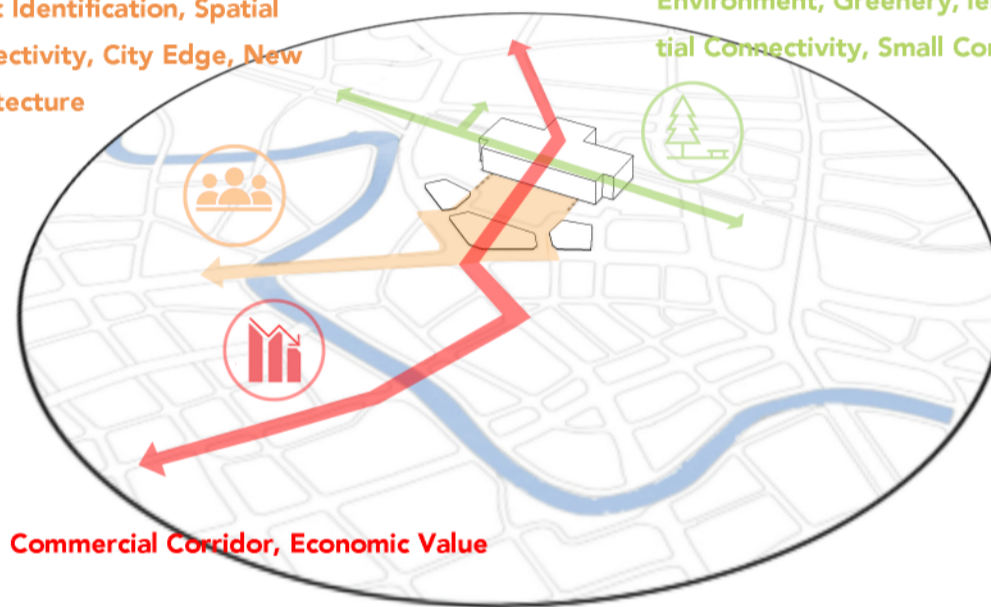


1 to 3 Years

public Identification, Spatial Connectivity, City Edge, New Architecture

Environment, Greenery, leisure, Spatial Connectivity, Small Commerce

Extend place concept to solve urban fragment



4 to 8 Years

Another social and economic center to attract more investors and promote urban transformation

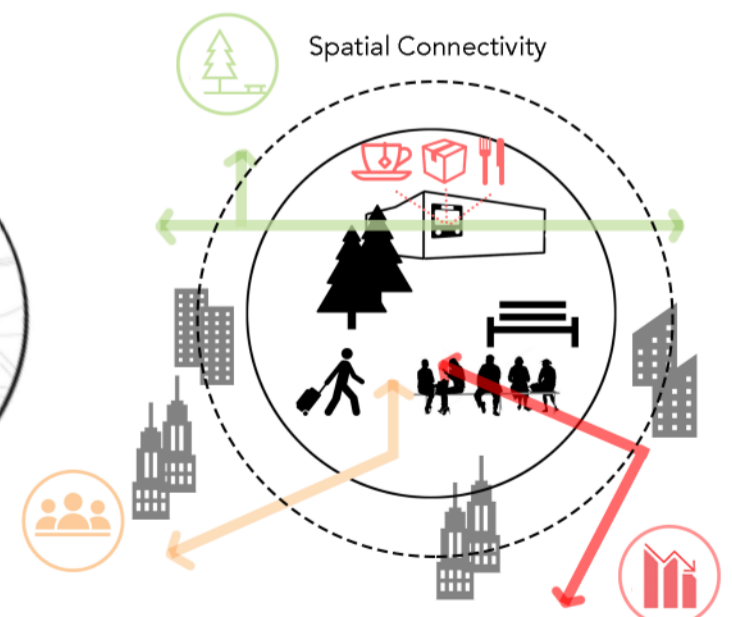
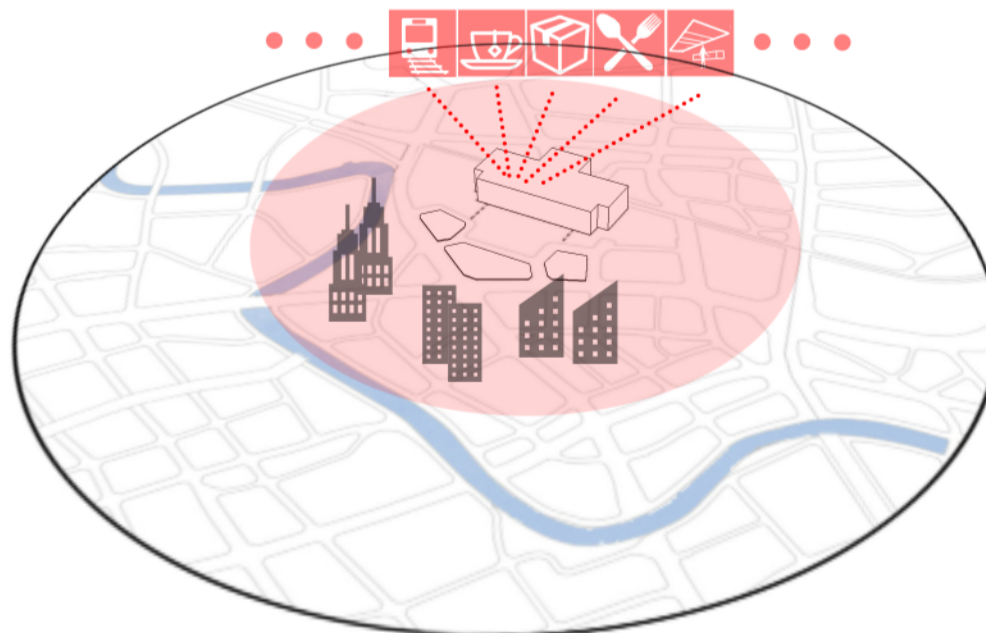
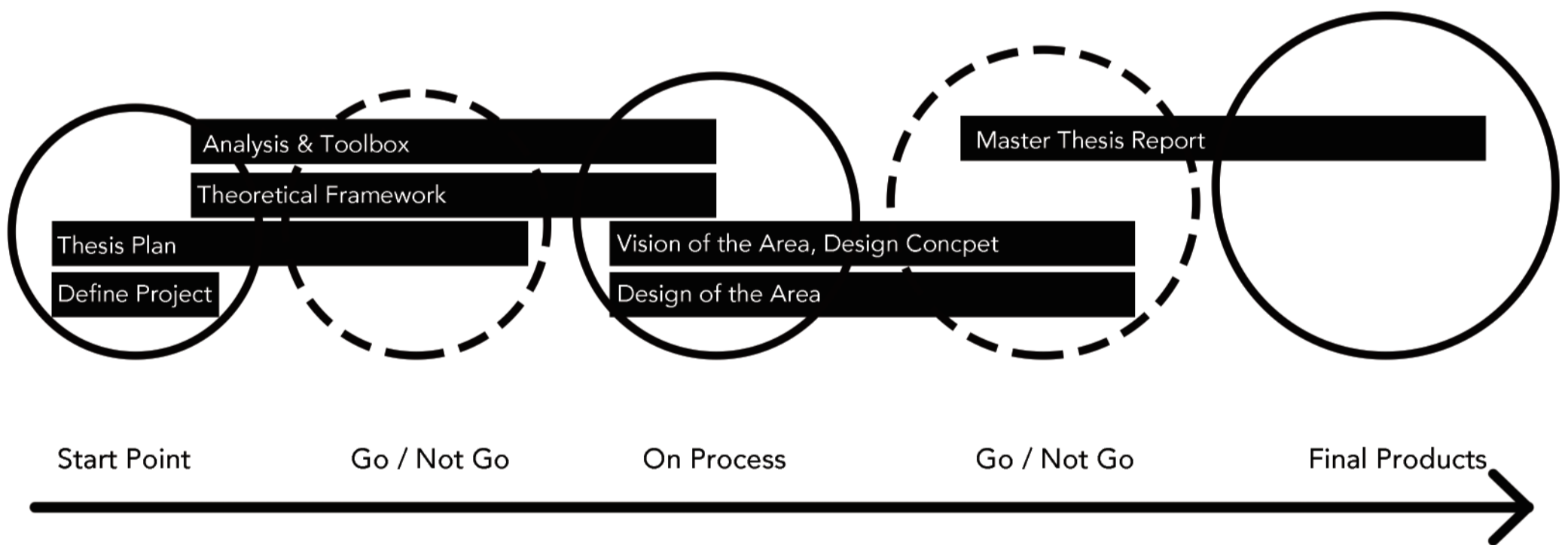


fig.01.10 (b) Scenario Mapping (drawing by author)

8 to 13 Years

01.11 Time Planning

This section illustrates the time planning of the project. The diagram below introduces important structures and key components of each presentation. Roughly concluded the first half of the whole project is focused on creating thesis structure, theoretical framework and toolbox. Toolbox relates the theory to spatial design and guides the design proposals. In addition, the second parts of the thesis are intended for forming design proposals and details of the project area. Finally, master thesis and public presentation are produced at the end of graduation year.



02

THEORY & Toolbox

02.1 Introduction

- a) Notion Conceptual Model

02.2 Literature Review Paper: "How to transfer urban space to public place via urban design: social spatial intervention for improving public qualities in Shanghai transportation hub."

02.3 Theoretical Framework

- a) Space & Place
- b) Urban Approach & Toolbox
- c) Human Approach & Toolbox
- d) Spatial Quality
- e) Understanding Urban Network

The major and core of theoretical framework focus on the formation of place in urban design and improving spatial quality of public places in city. Literature research includes studies of concepts of spaces and places, which builds the frame of the thesis topic. In addition, this chapter illustrates how to make the place via two aspects, the urban approach and human approach. In the urban approach, many well-known researchers such as Gehl and Jacobs provide principles and recommendations for promoting lively and safe city. Moreover, public place is an important component of the city. How to make the place is analyzed and mentioned by other researchers and designers such as Montgomery and Lynch. Based on these references of urban approaches, general spatial strategies for public places and city development are built. Third part is the human approach. People is the main issues of the public place, their perception and experience would affect public qualities. Human approaches contribute to detail designs. Although theoretical framework has separated categories, overlapping aspects are unavoidable. After these literatures around "Place", how to define the spatial quality is explained. Some important ingredients regarding improve public quality are introduced by several researchers. At last, the understand of network is this these paper is proposed.

The second line of theoretical framework is the toolbox. Theory is always on the paper if designers could not relate it to the reality. Each approaches followed with toolbox guarantees closely connections with project area. In addition, toolboxes are built among three different scales: city scale, place scale and human scale. Last is some case studies to express images about how this project would work.

02.1 Introduction

Notion Conceptual Model



"Main Scope"



"Related Scope"

fig.02.1 Main Scope & Related Scope (drawing by author)

02.2 Literature Review Paper

How to transfer urban space to public place via urban design

Social spatial intervention for improving public qualities in Shanghai transportation hub

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January 2017

Abstract – In general, people and environment are two main properties in today's strategy plans of urban development, which are also essential elements of urban design (Carmona et al, 2010). Designers promote more on human dimension design that reflects spatial dimension of environment such as the eye level city in their urban design topics. Gehl (2010) contributes to the idea of "poor maintained urban environment" and "car oriented", which causes the deserted space. In some cases, place has different meanings with space. According to Tuan (1977), space could be described as a location without any human beings, but place refers to how people use and perceive the space. In fact, only the minority of urban space is being used as public place. On the one hand, those unpopular spaces do not consider into human approach, lack attractive functions and reasons for people to use it. On the other hand, some poor urban space work as main transportation hub that is crowded with people in the low quality of human psychological aspects. Transportation hub (railway station and metro station) is a special space that holds both necessary and optional activities. Recently, the square of the transportation hub that aims to serve passengers and citizens suffers from many problems of public qualities (Juxin, 2015). Some spatial interventions that refer to human factor aspect are essential for improving nature quality of transportation hubs.

Keyword - Public Place, People, Space, Environmental Friendly, Human Behavior

1. Introduction

Currently, the purpose of urban design in long-term strategy is to achieve lively, safe, sustainable and healthy city (Gehl, 2010). The city is constituted by building, environment, public place and lives. Public place reflects the quality of urban life of the whole city, the interaction between people and environment always occurs at the high-quality place. However, due to the restriction of facilities and environment, not all-urban space could be considered as public place, such as crowded and sordid square. Figure 1 illustrates the current situation of the front waiting square of Shanghai main transportation hub. It seems like that people are staying under a quite uncomfortable environment. Dirty, chaotic and noisy environment forms this transportation hub as the urban space rather than public place. Sime (1986) suggested that designers should "creating places" rather than "designing

spaces" during their design process, even though it is difficult to achieve that goal by physical design alone. "Designing spaces" is the design process that architects focus on the properties of geometric space without adequate approach relating human activities and experience (Sime, 1986). "Creating places", as opposed to space, indicates the strong emotional communication between people and physical environment. It is necessary for urban designers to think about strategies that could convert urban space to public place. In the small scale, the place enhances people's positive emotional such as comfort, happiness and enjoyment. Diverse and vibrant social values are increased by high-quality public place in the medium scale. For the large scale, lively, safe, sustainable and healthy city is achieved via improving public place. This essay starts as the conflict discussion between the

02.2 Literature Review Paper

concept of space and place in urban design. Next part would illustrate spatial intervention of increasing public qualities at Shanghai railway station. Firstly, briefly context information is introduced. In addition, interventions that refer to urban approaches for improving quality of transportation hub are discussed. Last is the human approach about how to increase people's perception and activities on the transportation hub. This review paper will discuss and examine the spatial intervention to transfer urban space to public place, transportation hub as the case in this paper.

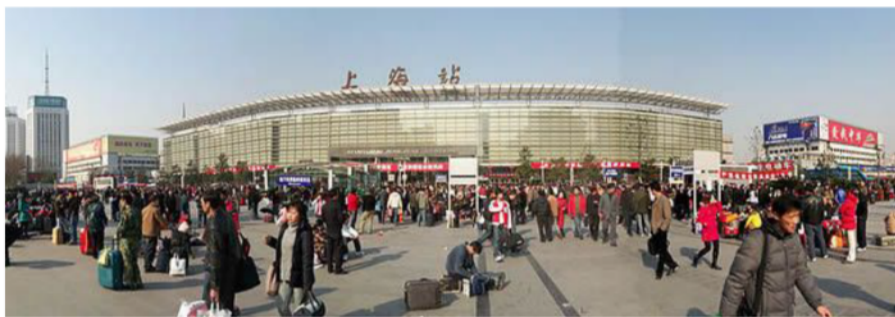


Figure 1: Photo showing crowded, low-quality front waiting square of Shanghai main transportation hub
Source: (Google Image, 2016).

2. Space and place in urban design

As mentioned at the Introduction, the concept of space and place is described by Tuan (1977). The space is the geometric property without human being, but place emphasizes the personal emotion. Moreover, Relph (1976) summarized this concept in the book "Place and Placelessness": "Space provides the context for places but derives its meaning from particular places." In addition, Relph (1976) mentioned: "the essence of place lies largely in the unselfconscious intentionality that defines places as profound centers of human existence." These two important thinkers depict the place has strongly relationship with human behavior; it is a synthesis of physical environment, action and conceptions. For the urban designers and planners, the term place has significant meanings. These urban experts should understand what the exactly concept of place is in the city scale and how to make the public place. Figure 2 shows the transition from space to place. According to Sime (1986), the concept of place is composed of space and people. First of all, the large empty space and some service buildings form the "space". Secondly, some outdoor chairs and bollards define different spatial properties, which attracts some people to have human behaviors here. In that case, the urban space is going to be public place. At last, stairs re-

inforce the public attribute; markets and center statue shape the spatial identity. All these elements contribute to making the popular gathering place in which social activities are occurred. From the designers' perspective, the value of the term "place" is represented by the "sense of place". Sime (1986) emphasizes that the environmental landscape, the historical site, public urban facilities and even the small traditional market would contribute to personal self-identity. Furthermore, the principal function of the "place" is to bring the sense of belonging and identity for users (Sime, 1986). People would perceive it is their place and be willing to have social activities on it. Carmona (2010) used the diagram to explain how urban design action could have positive impacts on the potential of place (Figure 3). From this diagram, it is obvious that the sense of place could be achieved by physical setting (design elements), activity (people's life and behavior) and the image or meaning (environment, legibility). It is possible for designers and planners to convert urban space to public place by precisely strategies.

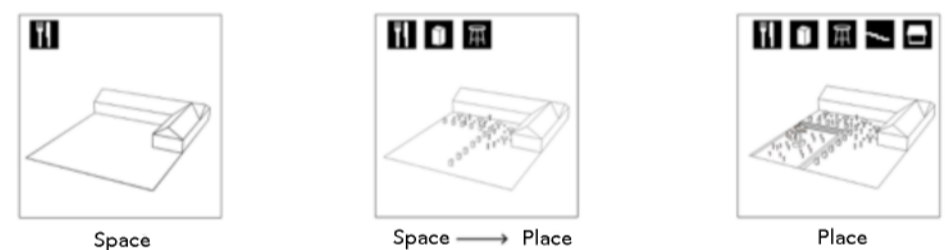


Figure 2: Drawing showing how the place is formed, which is on the basis of the theory "Creating Places or Designing Spaces?" (Sime, 1986).
Source: (hongyi, 2016).

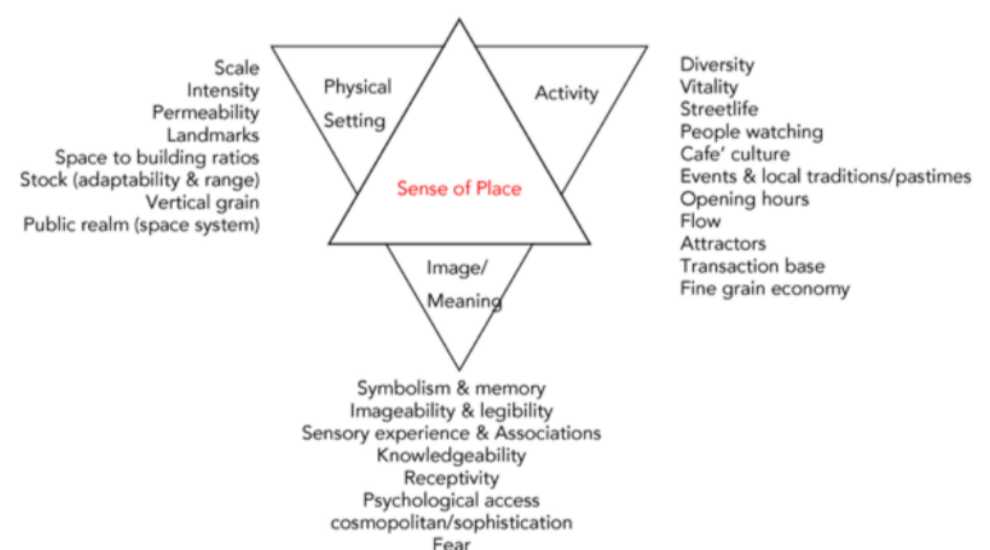


Figure 3: Diagram showing how urban design actions can contribute to the potential of place.
Source: (Carmona, et al, 2010).

02.2 Literature Review Paper

2. Spatial intervention of improving public qualities

Urban designers and planners need to consider what kinds of social spatial interventions are implemented for making public place. The term "place" extends the attention of the physical space to the people's experience of being in the particular environment (Sime, 1986). It is necessary to divide spatial interventions into urban approaches and human approaches. Urban approaches describe interventions relate to spatial environment for people and human approaches reflect how people perceive the built environment. These two interactive approaches promote for place making. In addition, this review paper use front waiting square of shanghai transportation hub as a case; most interventions are selected to coincide with the current situation of this location.

2.1 Context & Background

Shanghai transportation hub links the city to the other surroundings urban area, roughly an hour train-ride. With the development of rail transit system in the Yangtze Delta area, this railway station that is the main function of this transportation hub becomes the important articulation of transportation system (Juxin, 2015). Due to the development of subway, the subway station is established on the south square of railway station, which promotes the process of transportation hub. However, this district is losing vitality and social life. From people's perspective, this district is only known as a main railway station, though some commercial buildings still exist. A large number of people are using this transportation hub daily, but rather few of them would like to stay there, due to the poor built environment.

2.2 Urban Approach

The spatial intervention that refers to physical environment is concluded as urban approach. Urban approaches relate to the theory concerning how to make the lively city and place such as Gehl (2010), Jacob (1961) and Montgomery (1998). In addition, these approaches would contribute for inner city quality.

a) Diversity is the nature

Jacob (1961) gives arguments that mixed uses and different activities are indispensable to generate diversity. Diverse and mixed functions and social and cultural activities would increase public participation during a day. Mixed use emphasizes that urban area must serve more than one primary purpose (Montgomery, 1998). Various purposes attract more people with different ages and

more potential activities would happen during a day. Currently, front square of transportation hub has only one function: waiting. Retails, markets and even social activities not only serve passengers, but also attract other citizens.

b) Invite more people to walk, bike and stay in the place
The prerequisite of the lively city is more people would like to promenade, bicycle and stay in the city (Gehl, 2010). In the city scale, the clear city space hierarchy and small space dimensions could encourage lives in the city. Front square in Shanghai transportation hub works as the "node" of the district, the center of people's movement and social gathering. In order to achieve lively purpose, the clear demarcation between public, pedestrian-friendly square and high-speed vehicle traffic is necessary.

c) Different kinds of people need different types of space
This intervention seems to strongly tie with the diversity. But diversity describes mixed uses and multi-functional characteristics; this intervention emphasizes different people's requirements. According to DETR & CUBE (2000), the varied environment satisfies different personal conditions. The elderly requires quiet, well-maintained public place with seats. In china, they also need the space for exercise, especially with green landscape. Teenagers prefer staying in the open fields regardless of the poor quality of seat facilities. Long-wait-time passengers always want to have soft seats and shelters, even with some entertainments. Open space need to be well divided to achieve varied spatial occupancy.

d) Attractive public places with visual stimulation create sense of place

Montgomery (1998) stated that landmarks, meeting places and smaller scale signatures are principal elements in the life and design of cities. The spatial identity and stories are reflected by visual stimulations such as landmarks. These symbolic structures create the sense of place via forming memory and psychological access. The old railway station itself is one of the landmarks of the district. In addition, the clock tower on the square expresses its unique culture of the city.

e) Soft edges for the strong imageability

City's edges are where indoor and outdoor life can interact, where building and city meet (Gehl, 2010). The term "edge effect", by definition, describes that people always

02.2 Literature Review Paper

seek for edges to stay for a while, because people's back covered so that no dangerous would come from the behind. Soft edges contribute to forming imageability via lively people's activities (Figure 4). Front square of the transportation hub is the semi-enclosed structure in which edges have potentials for social activities.

f) Legibility, well-defined place and easy to understand surroundings

Legibility affects city's imageability: the extent to which different elements of the city are organized into understandable and recognizable patterns (Montgomery, 1998). For transportation hub, legibility refers to whether all elements are well distributed or not. Whether it is possible for all people perceive and understand surroundings easily.

g) Landscape and environment for recreation

Public landscape and environment such as green space and water are important for city life. Landscape itself is one of the recreations for people to pass their time.

h) Well-distributed people's attractors to cause well people's flow

Different types of movements such as vehicles, pedestrian cause major urban issue (Montgomery, 1998). In addition, safety is the principal characteristic of the high-quality city life. Transportation hub has heavy pedestrian's flow. It is important to organize attractors to ease pressure of people's flow and ensure safety.

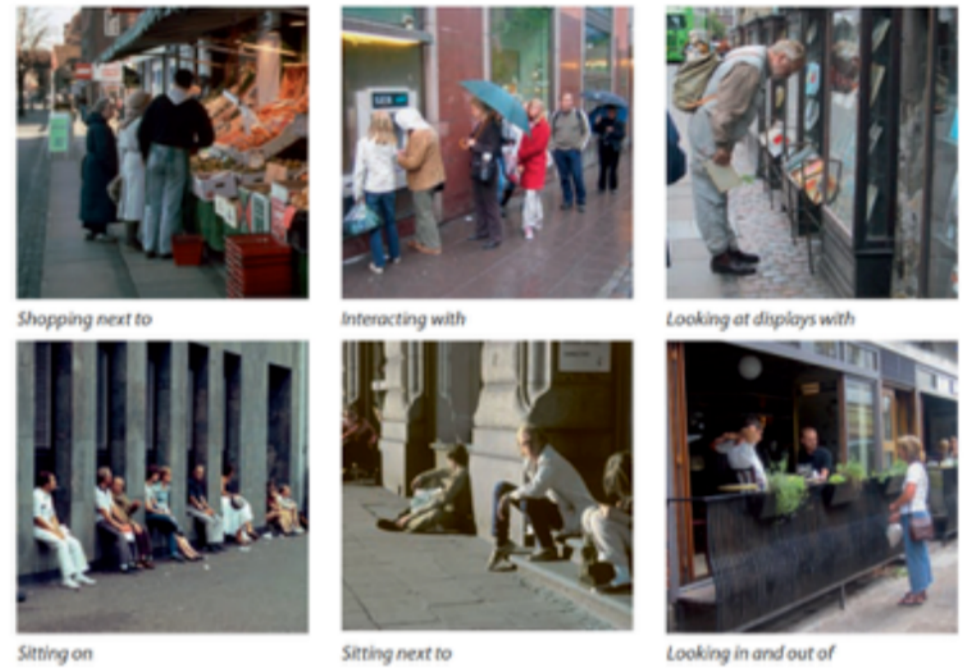


Figure 4: the photo showing the edge activities. Soft edges have potentials for promoting social activities. Source: (Gehl, 2010).

2.3 Human Approach

In order to improve the environment of the public place, it is essential to understand what are the design requests for varied activities. Compared with the urban approach, these strategies relate to human dimension emphasize how people feel and perceive public places. In addition, human approaches link to the theory about researching people's behavior in the public place and what the good public place is in people's mind. Figure 5 is the diagram made by Gehl (2010) to illustrate different types of activities and their characteristics:

Necessary Activities: waiting for a bus or walk to school are more or less compulsory activities for people during any weather conditions, it takes place regardless of the quality of the physical environment.

Optional Activities: only occurring during suitable condition. Time and place need to be suitable and also the weather. For example, taking a walk, sitting and sunbathing.

Social Activities: activities depend on the participation of others in public spaces, example: children at play, greeting, and conversation (Gehl, 2010).

High quality of physical environment could attract more optional and social activities. "Waiting vehicle" is the necessary activity at the transportation hub, highly quality environment of the front square could attract more optional activities such as dancing and social activities such as conversation. According to Gehl (2010), human approaches are divided into three parts: protection, com-



02.2 Literature Review Paper

fort and delight. Each component illustrates different design demands for activities (Figure 6).

a) Protection

The public place is good for protecting users from traffic accidents, violence and unpleasant sensory experience so that people would feel safe, security and pleasant (Gehl, 2010). High-speed traffic, especially for transportation hub, always has bad impacts on the city life. Designers should separate public square from main traffic line. In addition, crime and violence need to be avoided at the public realm. Good lighting design and organizing continual functions at day and night would cause more eyes on the street, which ensures security. Moreover, sensory experience reflects bad weather (wind or rain) and poor environment (dust, noise, cold). Some supporting facilities made by designers contribute to ease those unpleasant sensory experiences.

b) Comfort

Comfort reflects the possibilities for people to walk, stand, sit, see, talk, listen and play. The place under comfortable condition promotes more optional and social activities. Walking, standing and sitting are three fundamental behaviors at the urban place. Gehl (2011) mentioned the sitting opportunity at "life between buildings": *To improve the quality of the outdoor environment in an area by simple means, it is almost always a good idea to create more and better opportunities for sitting.* Sitting demands the climate and spatial quality. Types of seating could be divided into primary seating and secondary seating. Primary seating is the normal seating facility, benches and chairs need to be provided for elderly and disable people. Secondary sitting is the supplementary seating place such as stairs and ledges. Walking and standing are both require space and soft edges. Interesting and well-designed façade provides reasons for people to walk along with or stand for a while. In addition, the seeing and talking both demands suitable atmosphere. Interesting views, unhindered sightlines and low noise level would increase these two behaviors respectively. The last is the playing and exercising, which only would occur under high quality of public place (Gehl, 2011). This activity demands the pleasant surrounding, adequate space and people.

c) Delight

Delight expresses human scale design, opportunities to

enjoy the pleasant climate and positive sensory experience. Human dimension has always been neglected and overlooked for decades (Gehl, 2010). Space and buildings are requested to fit human scale, which indicates providing good space for pedestrian. In addition, climate affects social lives on the public place. According to Whyte (1980), the people always like to sit where there have sufficient sunlight. Among sun, shade or in-between, the best time to sit beneath the tree is when the sunlight is shade from. Furthermore, positive sensory experience indicates detailing design, material, tree and water. Whyte (1980) illustrates trees provide the combination of shade and sunlight. Water influences the public place not only in the sound, but also in the "access". Water, as the fountain, offers a possibility for people to play with it.

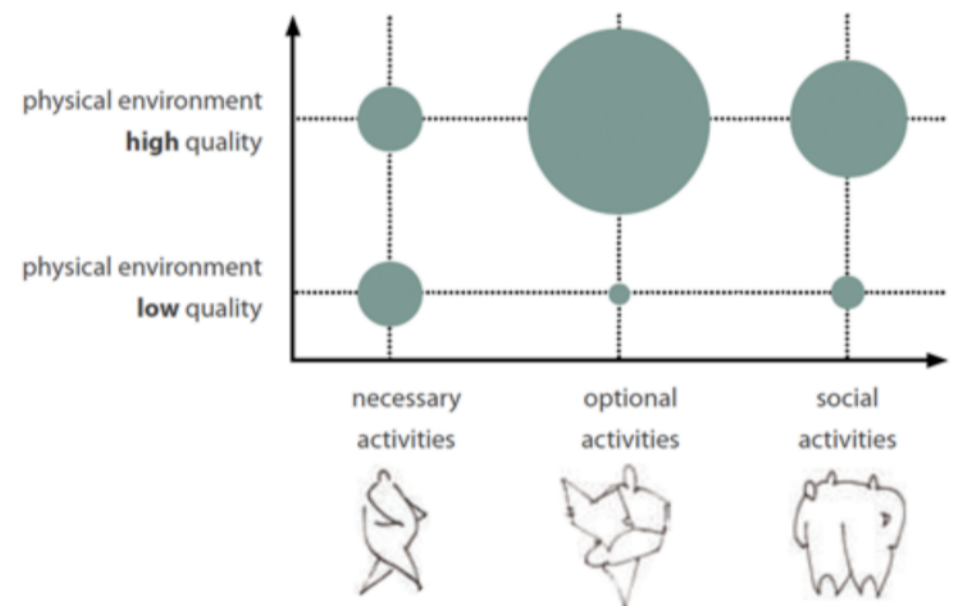
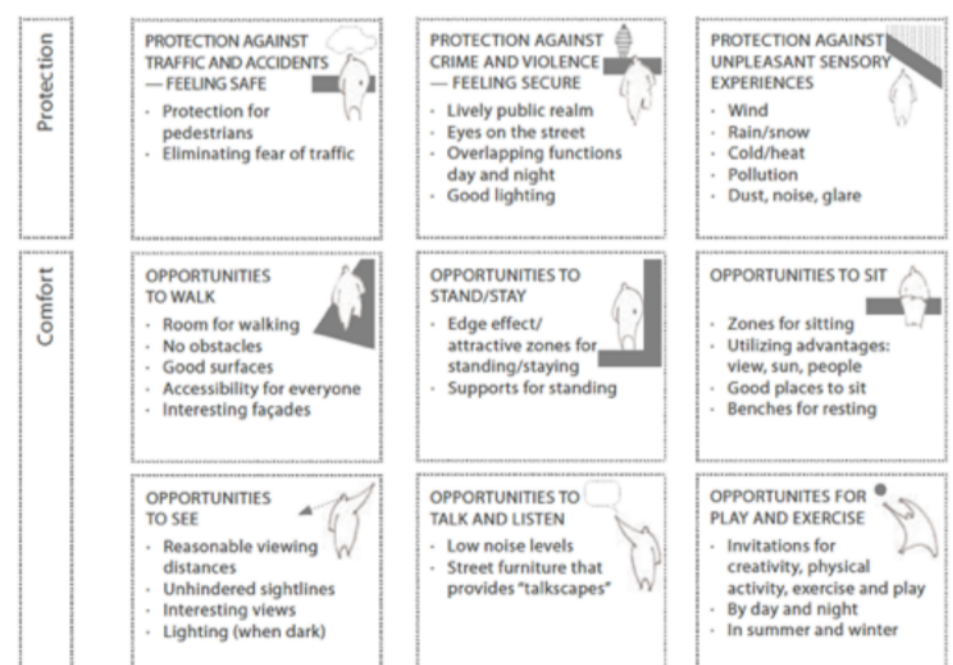


Figure 5: the diagram showing the relationship between activity and physical environment.

Source: (Gehl, 2010).



02.2 Literature Review Paper



Figure 6: the diagram showing the quality criteria about urban place.

Source: (Gehl, 2010).

Conclusion

Urban space should be designed in the way that people would be satisfied and welcome, then the concept of space is going to be public place. Space provides the context without human emotion. Place is the high quality urban space in which various social activities and city lives are happening. In order to achieve lively and safe city, it is necessary for designers to transfer urban space to public place via social spatial interventions. Those interventions have to be considered into urban and human scale. Urban scale illustrates interventions on the physical environment to improve public qualities. Human scale indicates factors affect people's perception and behavior on the place. Although some interventions are overlapped in these two types of intervention, the scale is different. One is the public place and the city, and the other is public place and human.

The front square of transportation hub is the place in some particular cases. For example, Vancouver metro station (Figure 7) creates a more natural transition from one space to the other (Durmisevic & Sariyildiz, 2001). The pleasant landscape beside the station provides the opportunity for passengers and citizens sitting, staying, seeing and talking. Lively social lives and activities change this urban space to the popular public place. However, some front squares of transportation hubs in developing country are still under poor condition. Designers still treat these front squares as only a space for waiting vehicles (train, bus, and metro), not a place for social gathering, which stagnates the development of the social vitality.



Figure 7: photo showing the waiting place of the metro station. It is more than a space for waiting.

Source: (Google, 2016).

02.3 Theoretical Framework

02.3 (a) Space and Place in Urban Design

The concept of place could be traced back to writings of Aristotle who is the famous ancient philosopher, place illustrates the "where" dimension in people's relationship to the physical environment. In the modern time, two famous researches in the humanistic geography, Yi-fu Tuan and Edward Relph, contribute to define space, place and the differences between these concepts. According to Tuan (1977), space that is more or less abstract could be described as a location without human being. In addition, this concept would not encourage and invite people to gather by human behavior.

On the contrary, the concept of place is more than a location and can be described as the location created by human experience. Edward Relph has the similar idea with Tuan. In the book "Place and Placeness", Relph (1976) stated "Space provides the context for places but derives its meaning from particular places." Furthermore, significance and essence of the place are summarized by Relph.

Significance of place in human experience that goes far deeper...It is apparent in the actions of individuals and groups protecting their places against outside forces of destruction.. To be human is to live in a world that is filled with significant places. To be human is to have and to know your place (Relph, 1976).

The essence of place lies largely in the unselfconscious intentionality that defines places as profound centres of human existence (Relph, 1976)

Relph introduces (1976) some of the diverse meanings of place by the broad range of spatial scales.

1) Pragmatic or Primitive space

Pragmatic space is always the space of instinctive behavior and unselfconscious action in which we always act and move without reflection (Relph, 1976). It is an organic space without any images or the concept of space and spatial relations. For example, the environment in which animals survive is one of the primitive spaces.

2) Perceptual space

There are several levels of the awareness and abstraction of the space, the perceptual space is the most immediate form. According to Relph (1976), perceptual space is the space of action centred on immediate needs and practices. The paths or trails can be the perceptual space if they have specific meanings. In addition, perceptual space could be the direct emotion encounters with the spaces of the environment. It can be tied in with the personal ex-

perience on the landscape.

3) Existential space

Existential space is the inner structure of space as it appears to us in our concrete experience as member of a group. In addition, existential space is not only a merely passive space waiting to be experienced, but is constantly being created and remade by human activities. In general, existential space is both experienced and created unselfconsciously in specific culture. For example, existential space can be reflected in a highly self-conscious way when someone is attracted by the beauty of the landscape; or a unselfconscious way as someone says 'hello' to the guy in the street.

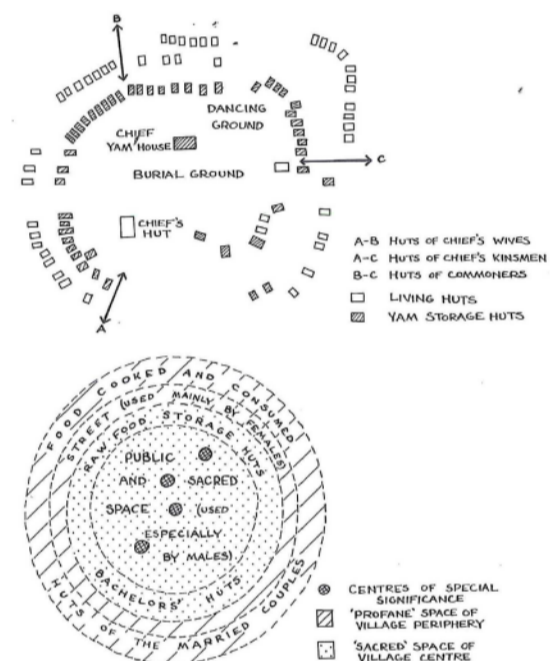


fig.02.3 (a) Village Structure, illustrating the structural features of the existential space of Trobriand Islanders (picture from 'place and placelessness' by Edward Relph).

3.1) Sacred space

Sacred space is the religious experience; it emphasizes the concept of symbols and meaningful objects in urban design. For example, the symbol 'n' could be regarded as the 'door' in the urban design's scope.

'n'



fig.02.3 (b) 'n' & 'door' (photo from google image).

02.3 Theoretical Framework

02.3 (a) Space and Place in Urban Design

3.2) Geographical Space

The environment is composed by different levels of space with unique names. In general, the geographical space is not objective and indifferent but full of people's experience. For example, the sea is 'vast'; the mountain is 'impassable'. The structure of the geographical space is illustrated by Norberg-Schulz's diagram (fig.02.3(c)). The diagram represents the change from lowest scale to the largest scale and increasing humanization of space (Relph, 1976).

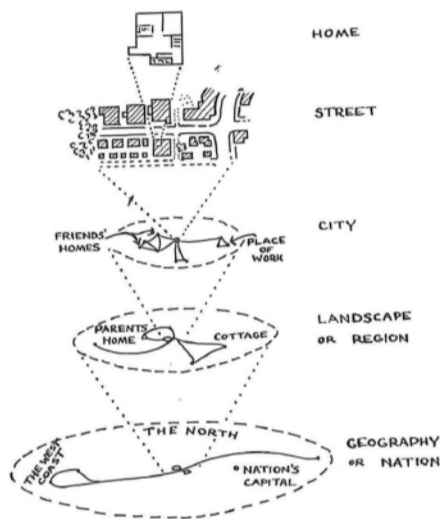


fig.02.3 (c) Vertical Structure of the Existential space (drawing from 'place and placeness' by Edward Relph).

4) Architectural and urban space

Existential space is the experience of space formed by unique culture and social structure. In contrast, architectural space involves the deliberate attempts to create spaces.

5) Cognitive space & Abstract Space

The abstract construct of the space derived from the identification of space as the object for reflection or development. The difference between cognitive and abstract space is that the abstract space has more logical relations to guide the space description.

Space and place are two interesting opposite concepts, which generates reflections in today's urban design. What is today's urban design? Mathew Carmona (2010) used four themes to explain the question. " First, that urban design is for people; second, the significance of 'place'; third, that urban design operates in the 'real' world, with its field of opportunity constrained by economic (market) and political (regulatory) forces; and fourth, the importance of design as a process (Carmona et al, 2010)." Generally speaking, urban design relates

different fields of opportunities to make better place for people. It is important to transfer urban space to public place, which improves people's lives. According to Carmona (2010), due to the poor maintained environment, only minority of urban space is being used as public place. How to transfer the space to the place? Jonathan D. Sime (1986) said " The term 'place', by definition, extend the focus of attention beyond geographic space to the experience people have of being in particular landscape environment. The value of the term 'sense of place' is in highlighting the 'sense of identity' of particular environments. The importance of preserving landscape, historical sites or public urban setting which contribute to people's self-identity is an important message to designers. A person acquires a sense of belonging and purpose which give meaning to his or her life, the primary function of 'place' is to engender a sense of belonging and identity". Sime (1986) summarized that the value of 'sense of place' would promote the transition from urban space to public place. Moreover, Carmona used the diagram to further explain the meaning of 'sense of place' that could be divided into 'physical setting', 'activity and 'Image'. Each component contains many key words. 'Physical setting' relates to the physical design made by designers to improve the spatial quality. 'Activity' emphasizes human behavior. Lastly, 'image' connects to the human psychology. Next paragraph would discuss how each component relates to forming public place.

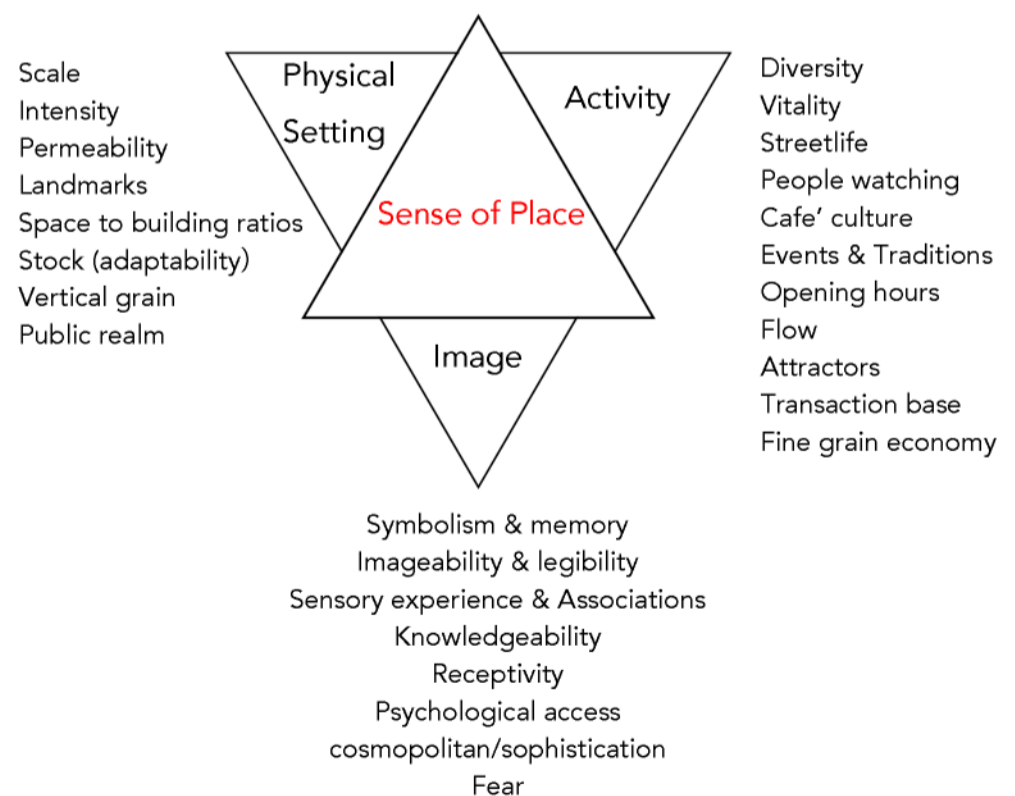


fig.02.3 (d) The Structure of the Sense of Place (drawing from 'Public Places & Urban Spaces by Carmona).

02.3 Theoretical Framework

02.3 (b) Urban Approach (City-scale)

As mentioned at the first part of the theoretical framework, 'sense of place' could be divided into three parts. 'Physical setting' indicates the strategies and designs at the urban environment. This part called urban approach would explain how to make a good city by discussing and analyzing these strategies.

Jan Gehl (2010) who is an architect and urban designers claims that human dimension has been overlooked and neglected in today's urban design. The most obvious evidence is the low priority on public place, pedestrians and the role of city space as a meeting place for urban dwellers. In order to face with the new global challengers, achieving the vision of lively, safe, sustainable and healthy city becomes important and urgent aims and desires. In addition, lively and safe cities fit Jacobs's idea "diversity & safety."

First of all, what is the lively city? According to Gehl (2010), the fundamental of lively city would invite more people to walk, bike and stay in the city space. Moreover, people's lives in public place, social and cultural opportunities and attraction are important components of lively city. Jane Jacobs (1961) said in the book "The Death and Life of Great American Cities ": "Diversity is natural to big cities". Both Gehl and Jacobs illustrates the concept of lively city in the small scale. From urban planners' perspective, their vision of lively city is always based on the long-term plan. The definition from the report of Melbourne is cited not only because the city has been evaluated as the most livable city for six years, but also they involve the influence of livability on health and well-being.

Using a social determinants of health lens, livable communities are regarded as safe, attractive, socially cohesive and inclusive, and environmentally sustainable, with affordable and diverse housing linked via public transport, walking, and cycling to employment, education, public open space, local shops, health and community services, and leisure and cultural opportunities (H. Badland et. al 2015).

Secondly, the concept of lively cities has been stated by designers and planners, the reality question is left: how to make a lively city? Gehl (2010) claims the following lists:

a, Life in the city is a self-reinforcing process. Something happens because something happens because. People come where people are.

b, Key words for encouraging life in the city are: compact, direct and logical routes; small space dimensions; and a clear city space hierarchy.

c, Slower traffic means lively cities.

d, Lengthy stays mean lively cities, staying activities last considerably longer and various staying activities accounted for 89 % of street life.

e, City's edges are where you enter and leave buildings, where indoor and outdoor life can interact, where city meets building, so soft edges make the lively cities (Gehl, 2010).

Furthermore, Jacobs (1961) uses the idea of diversity to achieve the lively city. Four conditions are indispensable, in order to generate diversity.

a, Mix of uses, if it is to be sufficiently complex to sustain city safety, public contact and cross-use, needs an enormous diversity of ingredients. The district, and as many of its internal parts as possible, must serve more than one primary function. These must insure the presence of people who go outdoors on different schedules and are in the place for different purposes, but who are able to use many facilities in common.

b, Permeability, most blocks must be short, frequent crossings and streets.

c, Different Building Ages, mingle buildings with different ages and conditions must be in the district.

d, People, there must be a sufficiently dense concentration of people, for whatever purposes they may be there (Jacobs, 1961)

Thirdly, what makes safe cities different from lively city is that designers have to create the atmosphere of "sense of security" for pedestrian. According to Gehl (2010), the city has suffered from the car invasion for many years. It is the important for designers to consider the concept and strategies of the safe city.

The concept of the safe city: A city that invites people to walk must by definition have a reasonably cohesive structure that offers short walking distances, attractive public spaces and a variation of urban functions. These elements increase activity and the feeling of security in and around city spaces. There are more eyes along the street and a greater incentive to follow the events going on in the city from surrounding housing and buildings (Gehl, 2010).

The following lists are stated by Gehl (2010) to promote for making the safe city.

a, Pedestrians must have priority in mixed traffic.

b, Life in the city means safer cities --- and safe cities provide more life.

c, Life in the street and on the street, mixed functions along the street and friendly edge zones are key qualities for good cities --- also in terms of safety and protection.

d, Sense of security is a good city layout that makes it is easy for us to find our way around.

Similarly, Jacobs (1961) emphasized the idea of safe en-

02.3 Theoretical Framework

environment on the public place and street level.

First, there must be a clear demarcation between what is public space and what is private space. Second, there must be eyes upon the street, those eyes could be something behind the transparency material of building or from shopkeepers. Third, the sidewalk must have users on it fairly continuously. Nobody enjoys sitting on a stoop or looking out a window at an empty street (Jacobs, 1961).

Jan Gehl and Jane Jacobs illustrate their ideas for promoting lively and safe city. Both of them express low-traffic, various functions and space hierarchy for improving built environment. Next part is going to discuss how to make the place.

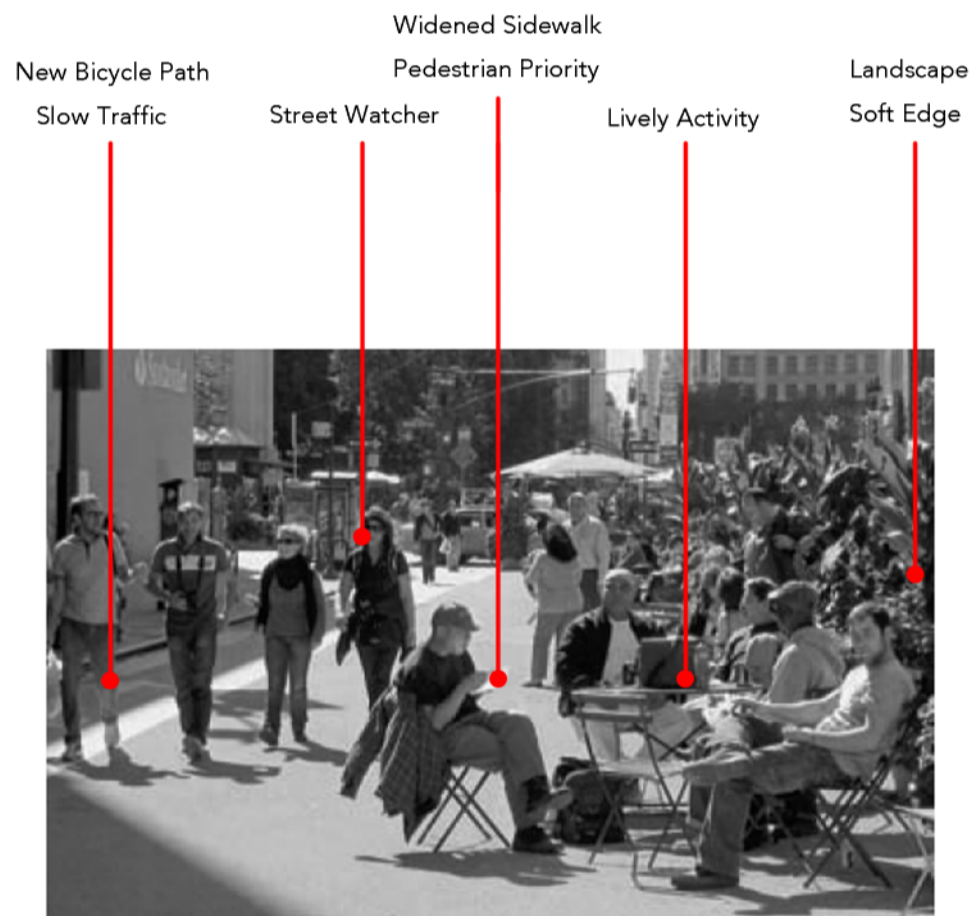


fig.02.3 (e) New York's Plan NYC from 2007, An Example to Express the Meaning of Lively (photo from 'Cities for People' by Gehl).



fig.02.3 (f) Federation Square, One of the Melbourne's New Well-functioning City Space, Better City Place, More City Life (photo from 'Cities for People' by Gehl).

02.3 Toolbox

City-scale

Foreword

The design toolbox is going to transfer the important points of theories to the graphic representation, which indicates the conceptual diagrams of the future design.

Lively City: Self-reinforcing Process

According to Gehl (2010), life in the city is a self-reinforcing process; people always come where people are. The purpose of this project is to bring people together and stimulate people's social exchange. The project area (Shanghai Transportation hub) is a special site that people come here is to use the public transportation. This project should consider how to promote people's social activities at the most extent rather than only bringing more people.

Diversity, mixed users

Jacobs (1961) claims that the idea of diversity could achieve the lively city. Mix of users needs an enormous diversity of ingredients. The ingredient here indicates that the district must serve more than one primary function. The transportation hub at the study area only serves passengers with public transportation and some retails. Is it possible to have more functions for locals to increase social values?

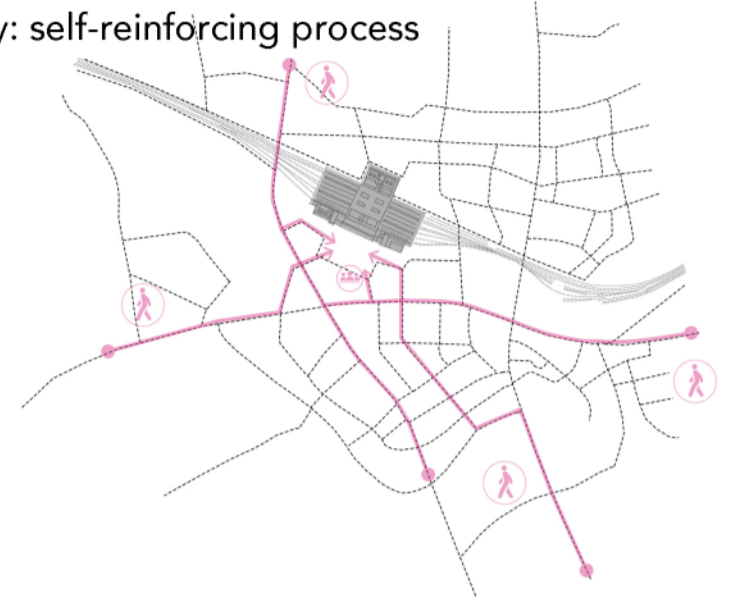
Slow traffic means lively city

In order to achieve design purpose (bring people together, increase social exchange), slow traffic is one of the important methods. Gehl (2010) suggests that slow traffic could reinforce the sense of security and facilitate lively city.

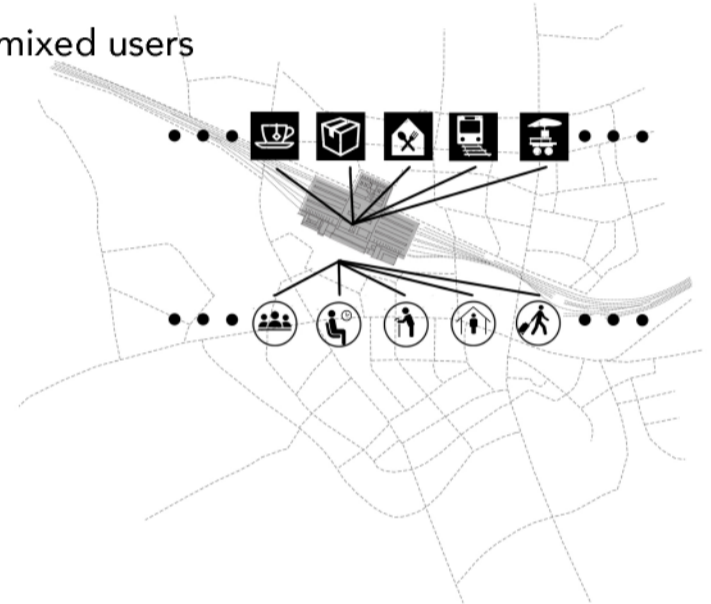
Clear space hierarchy

Both Gehl (2010) and Jacobs (1961) emphasizes the space hierarchy on facilitating lively and safe city. Space hierarchy illustrates that the space is composed by different programs including diverse spatial properties (public, private...). In the design part, the study area should be divided into several small programs with different spatial hierarchies.

Lively City: self-reinforcing process



Diversity, mixed users



Slow traffic means lively city



Clear space hierarchy

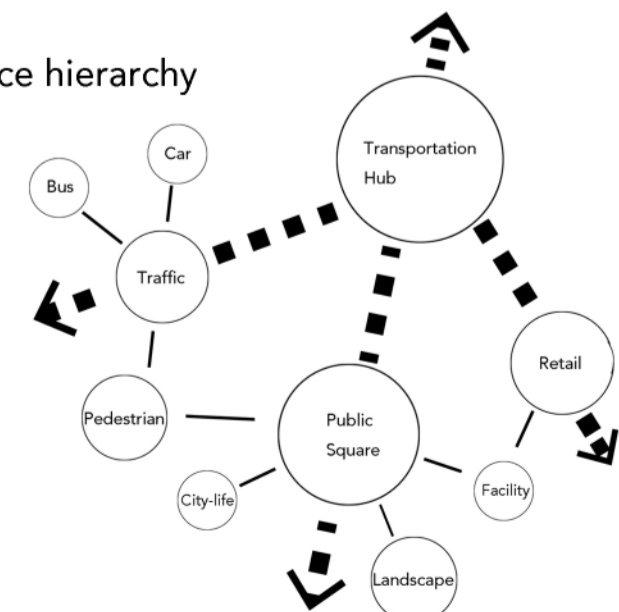


fig.02.3 (g) Toolbox Diagram of the Lively City (drawing by author).

02.3 Toolbox

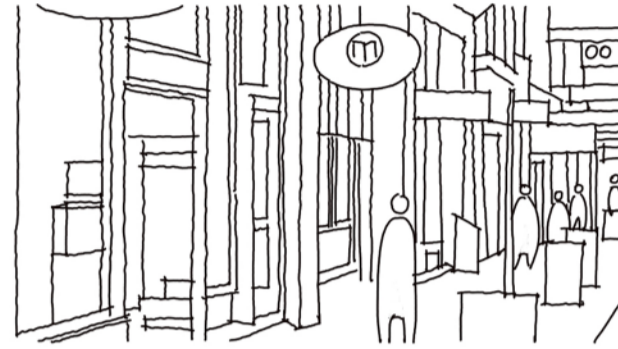
City-scale

City Edge

Based on the theory made by Gehl (2010), the city edge, particularly the lower floors of buildings, has great impacts on life in city space. The city edge is where city and building meet. In addition, edges would define the space between buildings. The city's edges offer a feeling of organization, comfort and security (Gehl, 2010). The diagram on the right illustrates 4 kinds of city edges from the "best" to "worst". The condition 1 is the best and greatest active city edge; it contains small or narrow units, changeful façade material and large variation in functions. This active city edge makes walking distance seem shorter and more interesting. Condition 2 is the friendly city edge, the façade and material is not changeful, although the edge is still separated by small units. Condition 3 and 4 are two negative examples of the city edge with large units and few doors. The street is shrouded by the unwelcome and silent atmosphere.

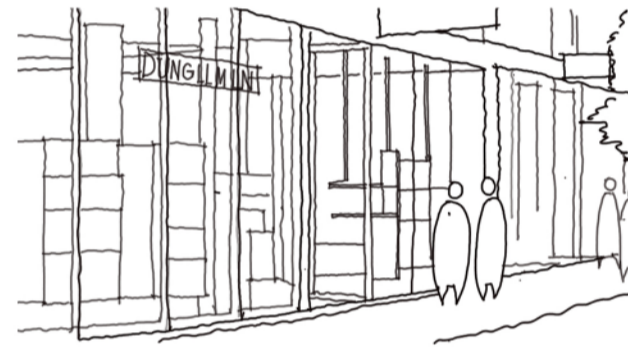
City Edge

Condition 01



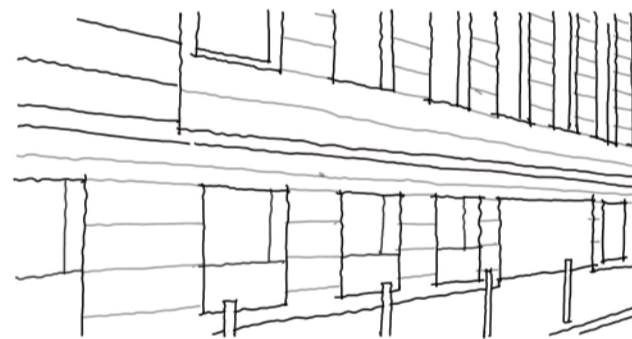
- Active
- Small Units, safe sidewalk
- Large variation in Function
- Changeful facade
- Good detail and material

Condition 02



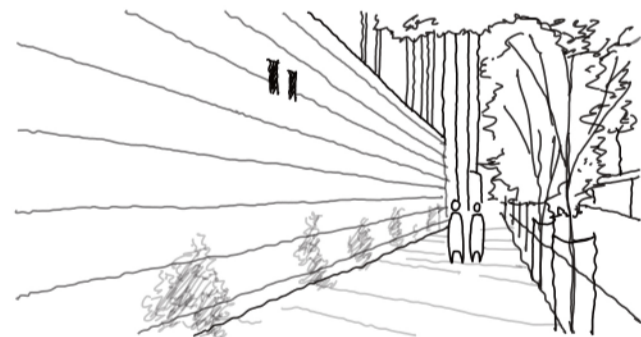
- Friendly
- Small Units, many doors
- Small variation in Function
- Facade relief
- Good detail

Condition 03



- Boring
- Large Units, few doors
- Almost no variation in Function
- Uninteresting units
- Few or no details

Condition 04



- Inactive
- Large Units, few or no doors
- No variation in Function
- Uninteresting units
- Nothing to look at, no details

fig.02.3 (h) City Edge (drawing by author).

02.3 Toolbox

City-scale Model

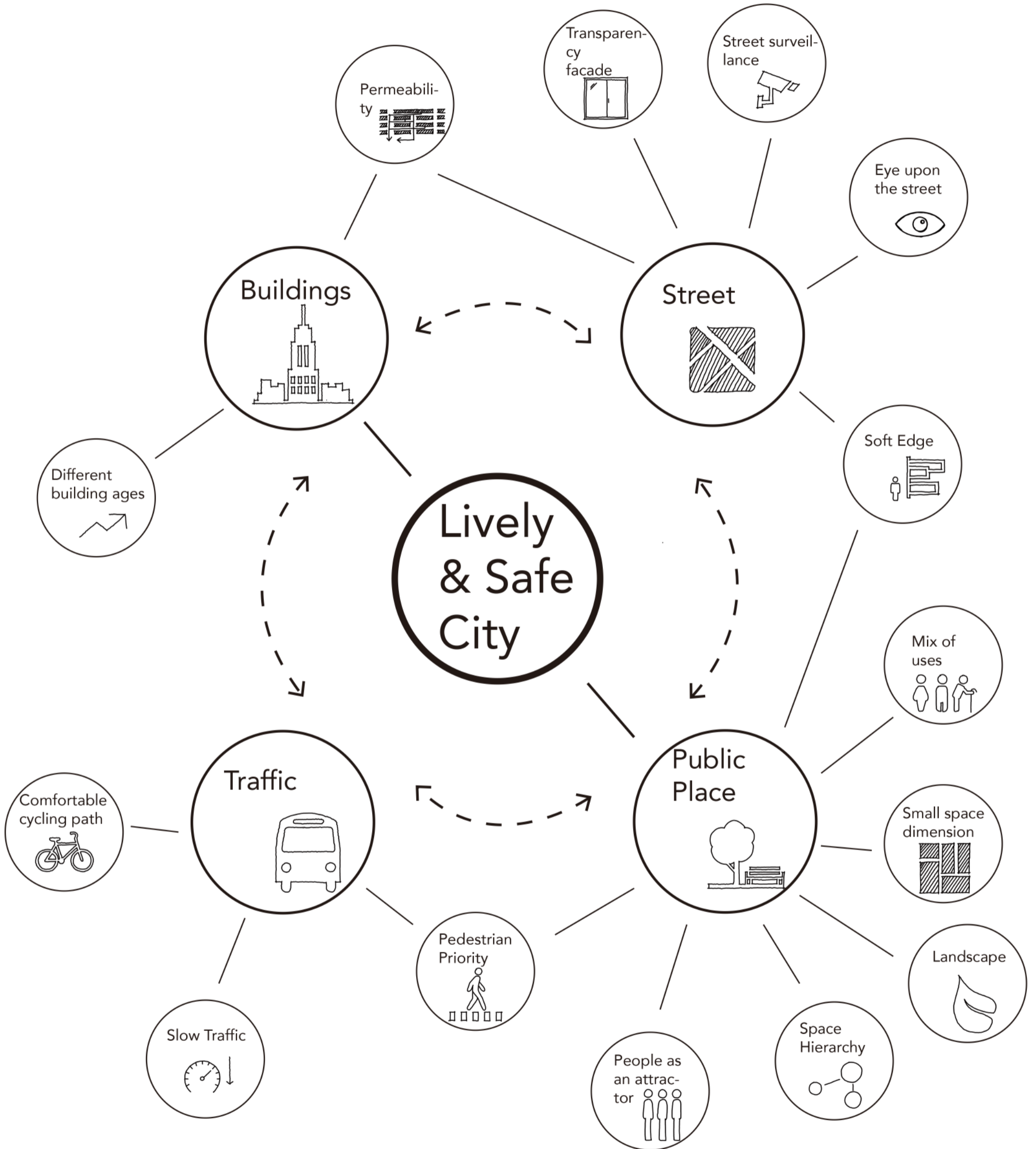


fig.02.3 (i) Model of City-scale Theory (Drawing by Author).

02.3 Theoretical Framework

02.3 (b) Urban Approach (place-making)

Urban Approach involves two different scales, one is the city scale, it indicates the long term vision of the city. The other is the place scale, how to make good public place via spatial strategy. First of all, Kevin Lynch (1960) states five key elements of the place image in the book "The Image of the City."

Paths are the channels along which observers customarily, occasionally or potentially moves. They may be streets, walkways, canals, railroads.

Edges are the boundaries between two phases, such as shores, railroad cuts and wall.

Districts are the medium to large sections of the city areas which the observer can mentally go inside of, and which have some common character.

Nodes are the area of strategic spots where extra focus is given, such as city center.

Landmarks are another type of point-reference, it makes one orient oneself (Lynch, 1960).

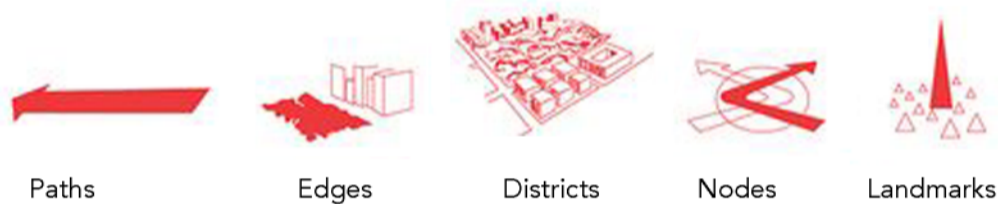


fig.02.3 (j) Five Key Elements of the Place Image (drawing from 'The Image of the City' by Lynch).

Five key elements reflect significant design objectives for the projects. One interesting question is left: how to link these five elements to the project area (transportation hub), in order to make it more realistic? After the research and analysis, the answer is expressed by the diagram below.

Key Elements	Transportation Hub
Paths	Environmental elements of the main roads (accessibility) that emphasize pedestrian friendly are arranged.
Edges	Rails, as the "edge", have negative impacts on spatial connectivity.
Districts	It could be a special district of the city with many service buildings.
Nodes	Itself is a node.
Landmarks	The clock-tower is the landmark.

Five elements offer the framework of design objective to make the public place. Some other researchers introduce the specific ideas on how to form the place. John Montgomery (1998) suggests principles of the place-making that divided the strategies into the "Activity", "Form" and "Image."

Principle of Place-making

Activity

- Pedestrian flow across different times of the day and night
- The complex diversity of primary land uses and activities
- The presence of an active street life and people watching
- Generating the space for transactions, regardless of culture and economy
- Varying different opening hours to stimulate evening and night-time activity
- Growing fine-grain economy
- Seeding people attractors

Image

- Legibility
- Imageability
- Symbolism & Memory
- Psychological Access
- Receptivity
- Knowledgeability

Form

- Achieving development intensity
- Zoning for mixed use
- Building for a fine grain
- Adaptability of the built stock
- Scale
- City Blocks and permeability
- Street: contact, visibility and horizontal grain
- The public realm
- Movement
- Green space and water space
- Landmarks, visual stimulation and attention to detail
- Architectural style as image

Figure: diagram showing the principles and strategies about making place
Source: (Montgomery, 1998)

This diagram is similar with the one that has discussed in the first part at the Carmona's book (2010). According to Montgomery (1998), "Form" is the important factor to affect "Activity" and "Image". In the further paragraph, Montgomery focus on explaining each key point.

Achieving development intensity: The essential condition for achieving urbanity is to generate enough diversity that must be sufficiently complex to stimulate public contact, transactions and street life. In order for this to occur, a city district must have a sufficiently dense concentration of people.

Mixed Use: Vital urban areas must serve more than one primary purpose, preferably more than two. These primary purposes, and the 'secondary' activities they attract, must ensure the presence of people on the streets and in the spaces and buildings across different times of the day.

Fine Grain: A lively city scene is lively largely by virtue of the collection of small elements and in particular its commercial diversity. The difference between urban areas which are dull and those which are vital can be traced to the presence or lack of small enterprises.

02.3 Theoretical Framework

02.3 (b) Urban Approach (place-making)

Adaptability: Places which continue to succeed despite changes in economic conditions, technology and culture do so because their built form is itself mixed and/or highly adaptable.

Human Scale: A related point is that most successful urban places operate at several scales, but importantly are more rather than less intricate, are capable of being walked in under 10 minutes, and have a large number of intersections.

City Blocks and Permeability: The first is that most (not necessarily all) city blocks must be short, thus providing more streets to walk down and more opportunities to turn corners. This can also be achieved where the street pattern includes alleys and courtyards.

Streets: Contact, Visibility and Horizontal Grain: The successful street will have users on it fairly continuously, watching and being watched. There will also be a clear demarcation of public and private spaces, places to promenade and shelter from the wind. Good streets have well-defined edges and a quality of transparency or visibility at their edges.

Public Realm: The public realm in a city performs many functions, not only by providing meeting places but also in helping to define the built environment, offering spaces for local traditions and customs.

Movement: Traffic calming, public transport and road building are major urban issues.

Green Space and Water Space: Public green space and water areas are important to city life for many reasons, including recreation, health, setting and understanding.

Landmarks, Visual Stimulation and Attention to Detail: Landmarks, meeting places and smaller scale signatures have always played an important role in the life and design of cities.

Architectural Style as Image: The essential task is to design the form of the city in such a way as to achieve city diversity, activity and urbanity (Montgomery, 1998).

Each condition makes the positive impacts on place qualities, which helps to build the frame of design. Not only these urban researchers, but also government and organization pay attention to make highly quality place. In the UK, department of the environment, transportation and the regions (DETR, 2000) formulate the document for architecture and the built environment to guide place making. Some lists are slightly similar to Montgomery's theory:

Objective of Urban Design

Character: Own identity of local context to emphasize sense of place.

Continuity and enclosure: The clear demarcation between public and private areas, clearly defined, coherent.

Quality of the public realm: Attractive, safe and functional public space.

Ease of movement: Accessibility, well designed street, make pleasant and safe experience for pedestrian.

Legibility: The place has a clear image and is easy to understand.

Adaptability: Flexible and adaptable public and private environment.

Diversity: The varied environment meets different local requirements.

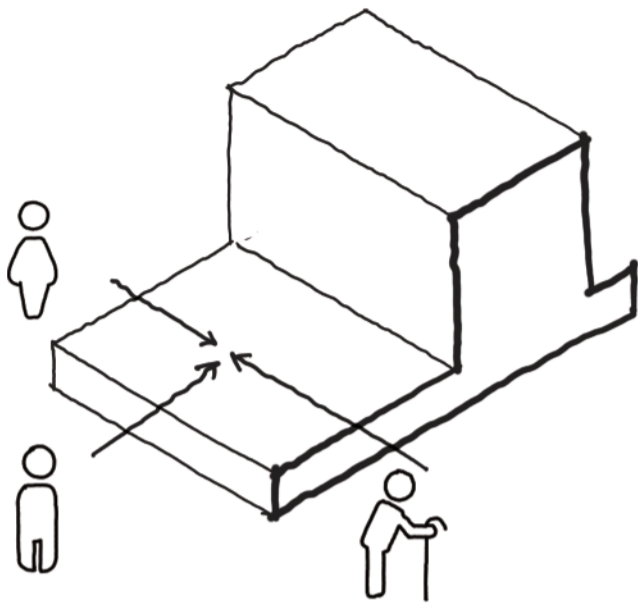
In conclusion, urban approach illustrates possible strategies relate to the physical environment for improving public qualities. After this part research, it is necessary to critical think how to link all these strategies to the project area. The diagram below shows potential changes on the study area.

Conclusion (City Scale & Place Scale) --- Transportation hub as the case

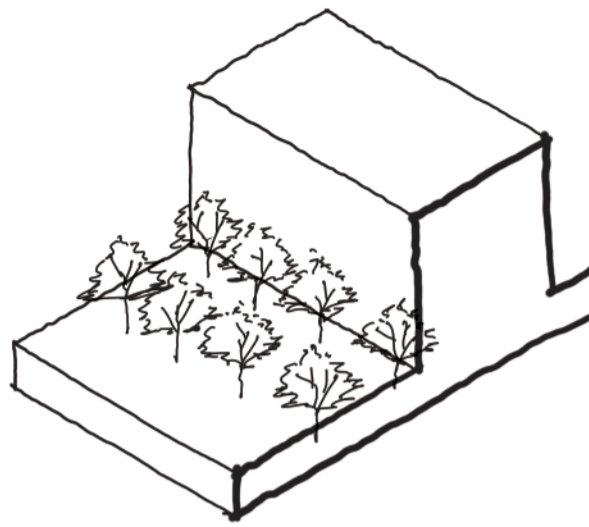
- a) Diverse and mixed functions and social and cultural activities during a day increase public participation
- b) Easy accessible public transportation
- c) Invite more people to walk, bike and stay in the place
- d) Well-distributed people's attractors to cause well people's flow
- e) Different kinds of people need different types of space
- f) Soft edges for the strong imageability
- g) Attractive public places with visual stimulation create sense of place
- h) Legibility, well-defined place and easy to understand surrounding environment, well-enclosed public space
- i) Landscape for recreation
- j) Spatial identity, emphasize the sense of place

02.3 Toolbox

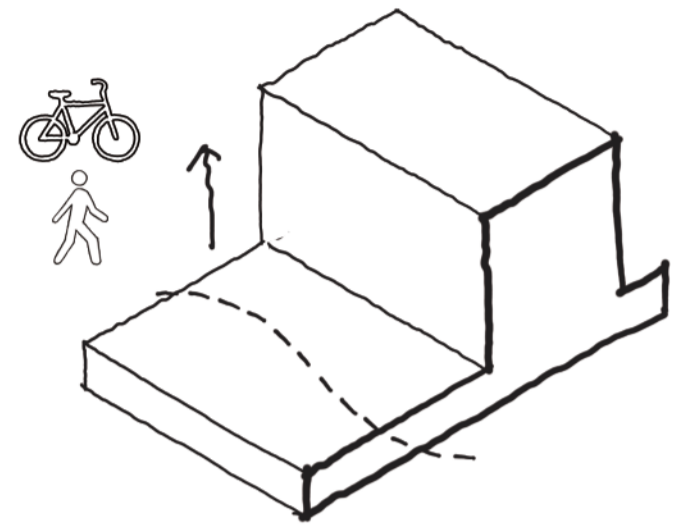
Place-making design Idea



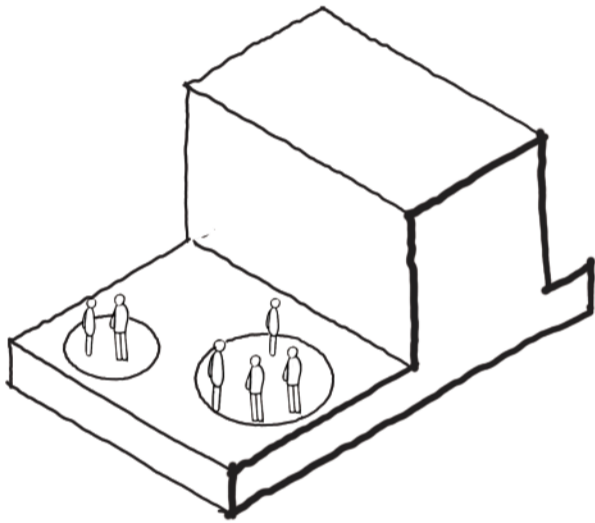
Mix uses



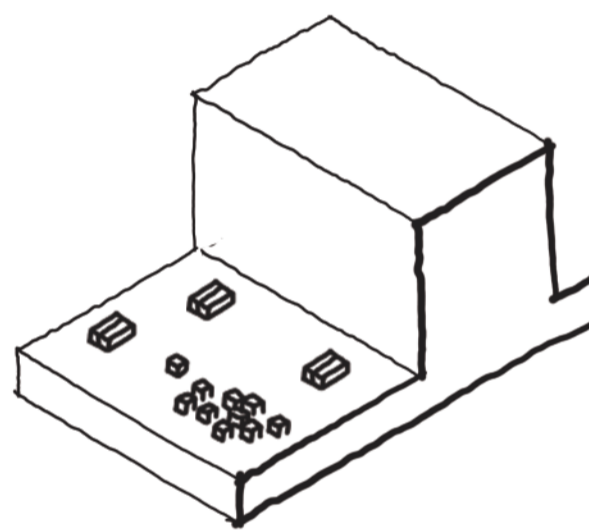
Landscape



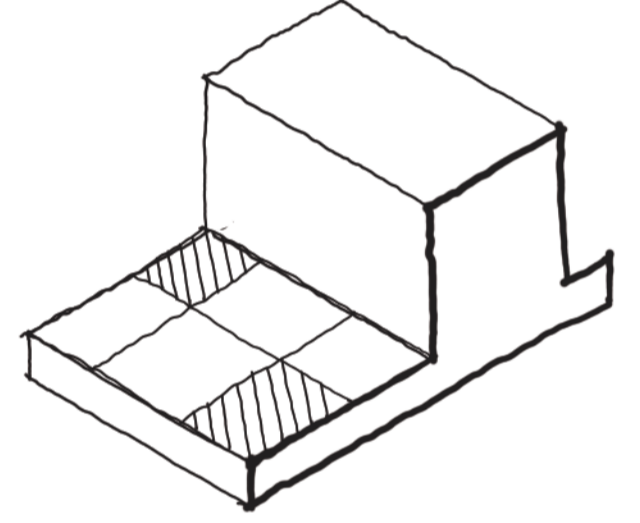
Ease of Movement



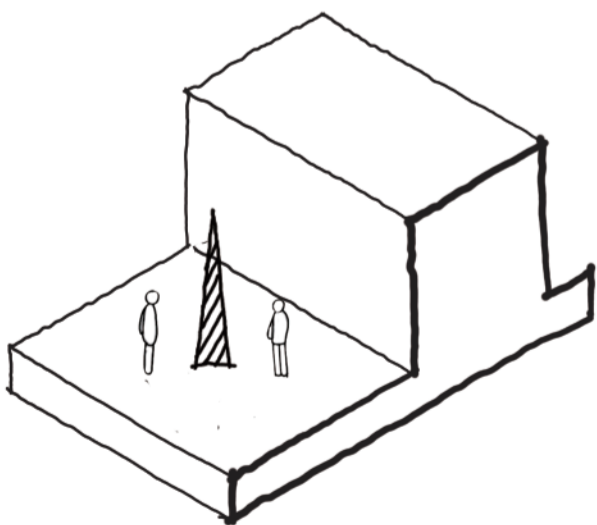
Achieve Intensity



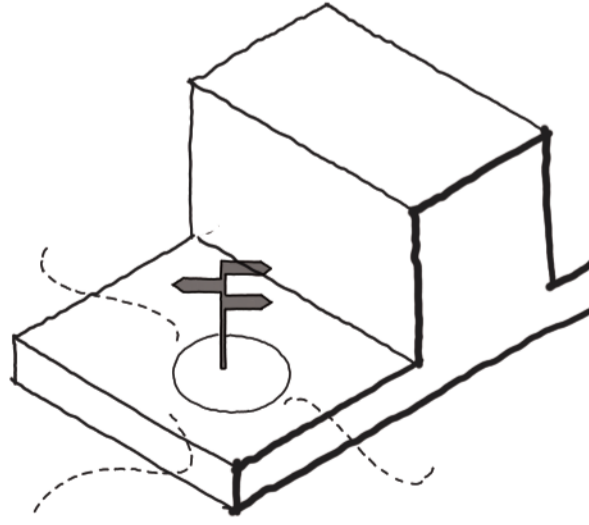
Human Scale



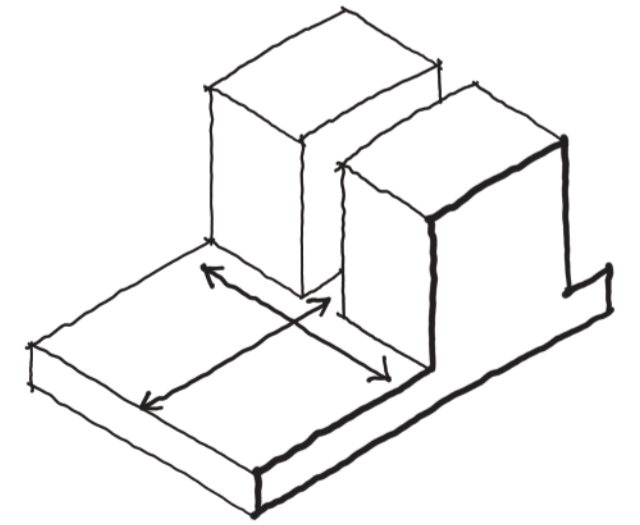
Space Hierarchy



Visual Stimulation & Identity



Legibility



Permeability

fig.02.3 (k) Place-making Design Idea Diagram (Drawing by Author).

02.3 Toolbox

Place-scale Model

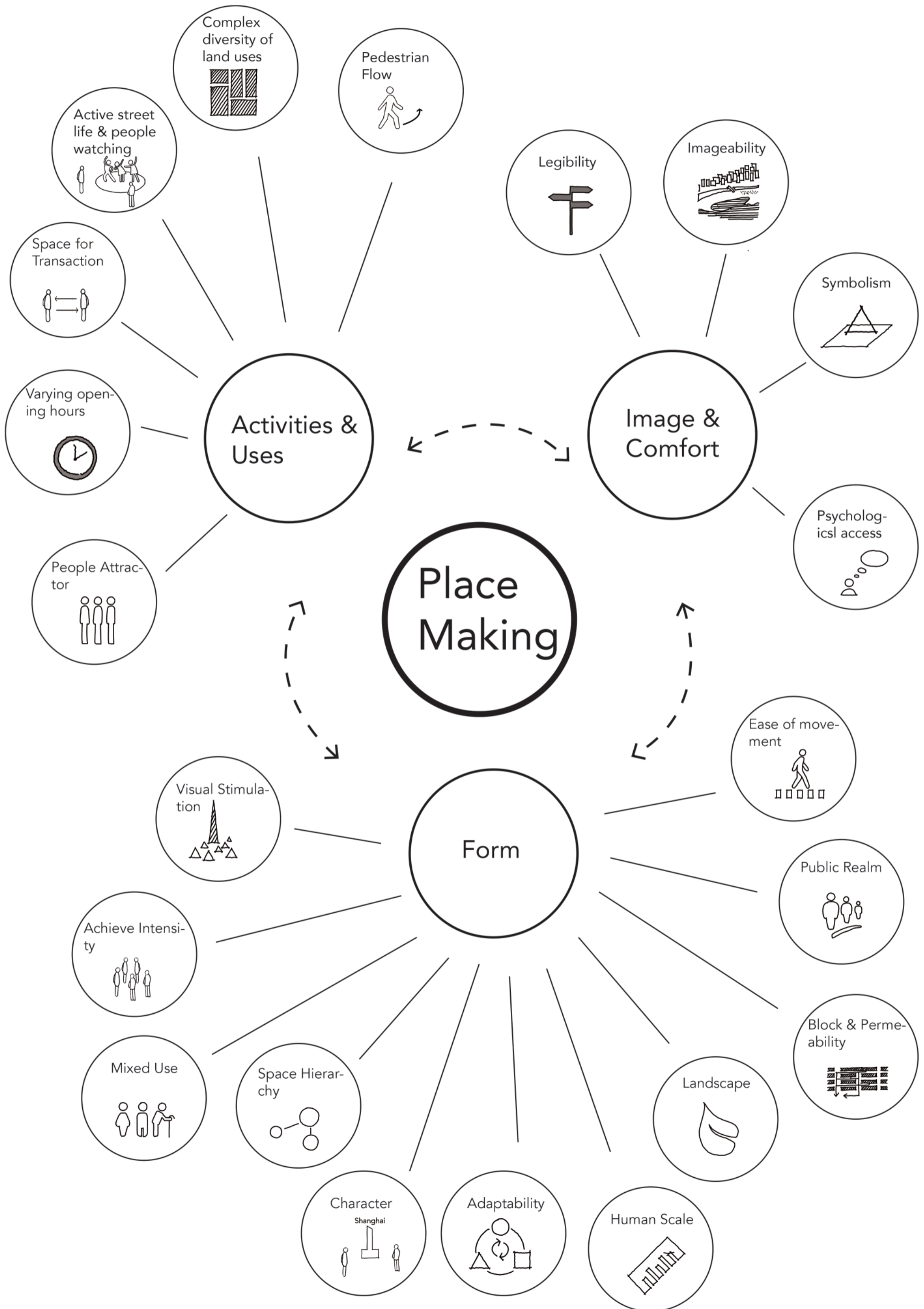


fig.02.3 (I) Model of Place-scale Theory (Drawing by Author).

02.3 Theoretical Framework

02.3 (c) Human Approach

In order to improve the environment of the public place, it is essential to understand what are the design requests for varied activities. Compared with the urban approach, these strategies relate to human dimension emphasize how people feel and perceive public places. This part represent the "Image" and "Activity" in the model that is made by Carmona (2010). First of all, how could physical environment affect people's activities? Jan Gehl (2010) gives the answers at the book "Cities for People".

Necessary Activities: waiting for a bus or walk to school are more or less compulsory activities for people during any weather conditions, it takes place regardless of the quality of the physical environment.

Optional Activities: only occurring during suitable condition. Time and place need to be suitable and also the weather. For example, taking a walk, sitting and sunbathing.

Social Activities: activities depend on the participation of others in public spaces, example: children at play, greeting, and conversation (Gehl, 2010).

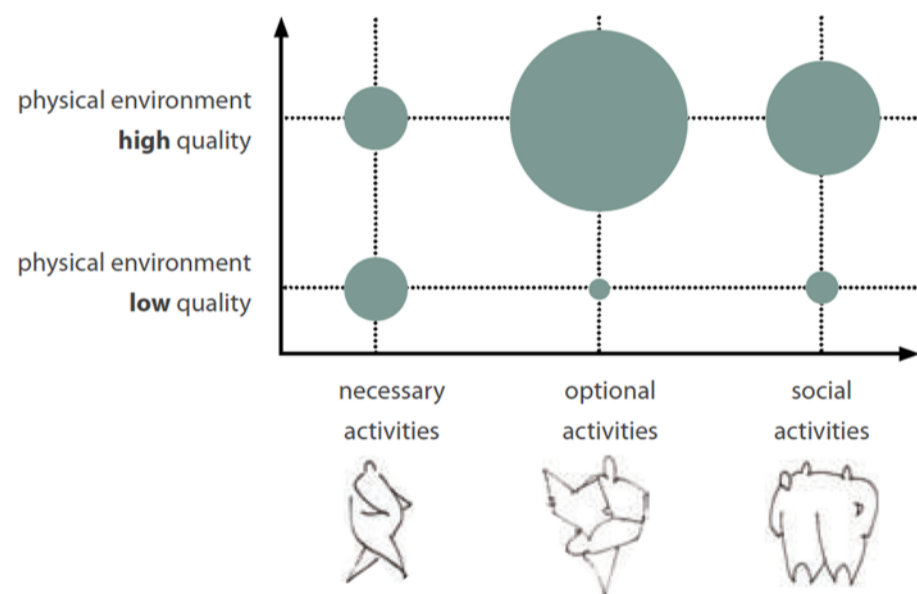


fig.02.3 (m) Activity & Physical Environment (Drawing from 'Cities for People by Gehl).

According to Gehl (2010), a good public place would invite and generate more optional activities and social activities. Those two activities would only happen under the good environmental condition and depend on people's participation. Whyte (1980) in the book "The Social Life of small Urban Spaces" said: "The most popular plazas are sociable places with high proportion of couples. The high proportion of people in groups is an index of selectivity." In addition, what attracts people most is other people, people would like to stay in the main pedestrian flow. Then, more social behavior would happen in the great chance. Furthermore, Whyte (1980) stated

the idea of "Triangulation" that is a process by which some external factors promote the linkage between people and strangers. Those external factors could be some physical objects such as musician and entertainers that offer the chance of communication between strangers and people.

Not only the people and spatial design, good environment and climate would affect people's activities and participation. Whyte (1980) uses sun, wind, trees and water to emphasize the importance of environmental factors.

Sun: Where there was sun, they sat; where there was none, they didn't. Among sun, shade or in-between, the best time to sit beneath a tree is when there is sunlight to be shaded from, access to the sun should be protected.

Wind: Most new urban spaces are either all outdoors or all indoors; more could be done to encourage inbetweens. With the use of glass canopies or small pavilions, semi outdoor spaces could be created that would be usable in all but the worst weather.

Trees: Developers should be encouraged to combine trees and seats, overlapping foliage of the tree provide a combination of shade and sunlight.

Water: Among sorts of water form in the public space, the one major respect is something lacking: access. The great thing about water is the sound of it.

In order to make the good public place, it is important to know what the good public place concerning human's perspective. Jan Gehl (2010) divided the quality criteria into three parts: Protection, Comfort and Delight. Protection indicates the public place should protect users from a) traffic and accidents, b) crime and violence and c) unpleasant sensory experience.

- a) traffic and accidents (feeling safe):
 - 1) Protection for pedestrian
 - 2) Eliminating fear of traffic
- b) crime and violence (feeling secure):
 - 1) Lively public realm
 - 2) Eyes on the street
 - 3) Overlapping functions day & night
 - 4) Good lighting
- c) unpleasant sensory experiences
 - 1) Wind
 - 2) Rain/snow

02.3 Theoretical Framework

02.3 (c) Human Approach

- 3) Cold/heat
- 4) Pollution
- 5) Dust, noise, glare

Comfort provides opportunities for basic people's activities including a) walk, b) stand, c) stay, d) see, e) talk & listen and f) play.

- a) walk
 - 1) Room for walking
 - 2) No obstacles
 - 3) Good surfaces
 - 4) Accessibility for everyone
 - 5) Interesting façades
- b) stand/stay
 - 1) Attractive, functional edges/attractive zones for standing/staying
 - 2) Supports for standing
- c) sit
 - 1) Zones for sitting
 - 2) Utilizing advantages: view, sun, people
 - 3) Good places to sit
 - 4) Benches for resting
- d) see
 - 1) Reasonable viewing distances
 - 2) Unhindered sightlines
 - 3) Interesting views
 - 4) Lighting (when dark)
- e) talk and listen
 - 1) Low noise levels
 - 2) Street furniture that provides 'talkscapes'
- d) play and exercise
 - 1) Invitations for creativity, physical activity, exercise and play
 - 2) By day & night
 - 3) In summer & winter

- b) positive aspects of climate
 - 1) Sun/shade
 - 2) Heat/coolness
 - 3) Breeze
- c) Positive sensory experiences
 - 1) Good design and detailing
 - 2) Good materials
 - 3) Fine views
 - 4) Trees, plants, water

In conclusion, urban and human approaches represent two different kinds of strategies for improving the spatial quality of urban space, although some overlapping parts are unavoidable. The urban approach relates to the spatial design and the human approach links to the human behavior, which fits the concept of place is made by space and people.

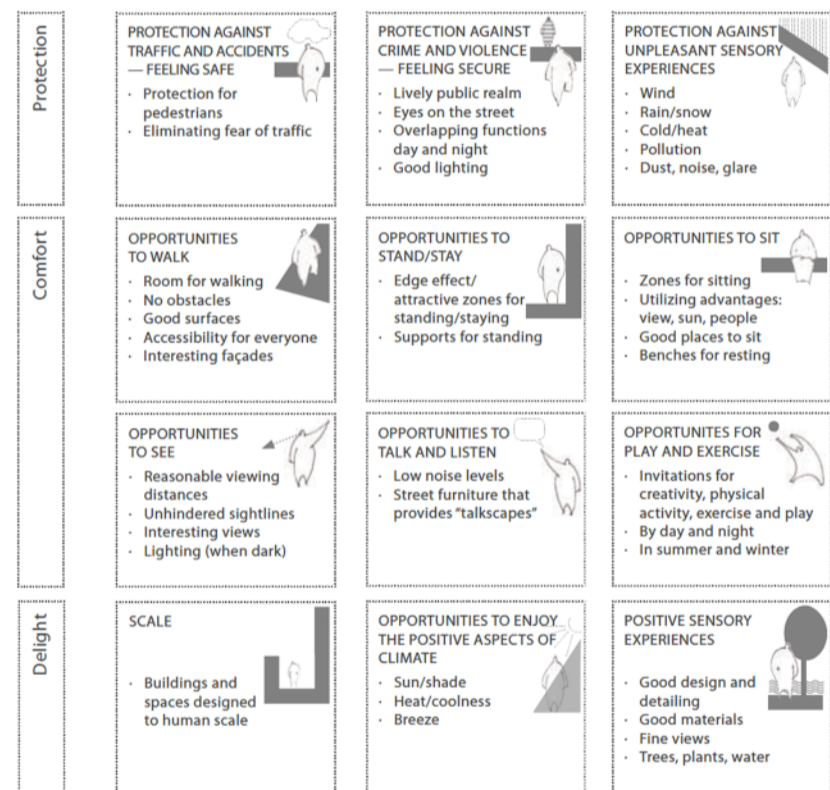


fig.02.3 (n) The Quality Criteria about Urban Space (Drawing from 'Cities for People by Gehl).

Delight provides positive experience for people on the public place including: a) scale, b) positive aspects climate and c) positive sensory experience.

- a) scale
 - 1) Buildings and spaces designed to human scale

03.2 Toolbox

Definition of Place in Urban Design (fig.02.3 (o))

The project is going to transfer the urban space to public place by human approach intervention. The most important concept is to understand what the exactly concept of place is in the city scale and how to make the public place. The diagram shows the transition from space to place. First of all, the large empty space and some service building such as restaurants form the "space". The "space" here is only a spatial concept without any human experience. Secondly, some outdoor chairs and bollards define different spatial properties, which attracts some people to have human behaviors here. In that case, the urban space is going to be the public place. At last, "place" is generated by spatial quality and human activities. Stairs reinforce the public attribute; markets and center statue shape the spatial identity. All these elements contribute to making the popular gathering place in which social activities tare occurred.

Key Elements to Increase City Life (fig.02.3 (p))

This diagram is the brainstorm to consider how to increase city life at one empty urban space. Methods or Ideas are divided into four main parts: public facility, social factor, spatial factor and environment. All those methods relate to human orientated design. For example, the simple green tree would increase possibility for people's stay, the famous small food cart would make an impression of the space in people's mind and stairs or enclosure structure would form the spatial demarcation.

People's behavior Analysis (fig.02.3 (q))

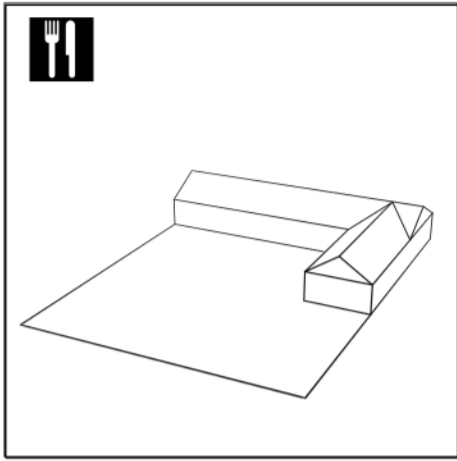
This brainstorm diagram is going to analyze different types of people's demand and their behaviors at Shanghai transportation hub. Long-wait-time passengers who have to wait their train for more than 3 or 4 hours are seeking for some interesting things to do. At present, this study area only could offer insufficient space to sit and some retails. Based on the research and interviews, people want to have the pleasant urban environment, the small "see & go" attraction, the space for luggage store and more social activities. In addition, for the family group (both passengers and locals), they need facility for children, out door space for drinking and even cheap traditional food cart. This diagram would provide ideas for future designs to create a place that could meet different people's demands.

02.3 Toolbox

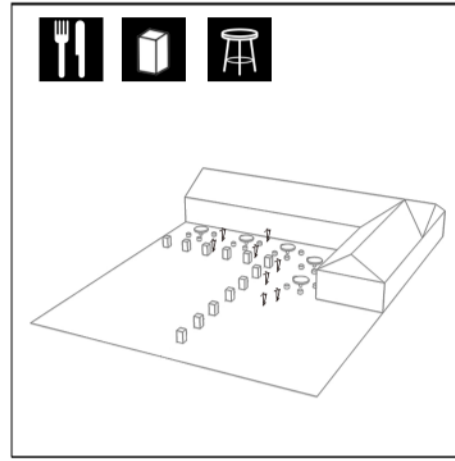
Definition of Place & Human Oriented Elements

People, Space, Place

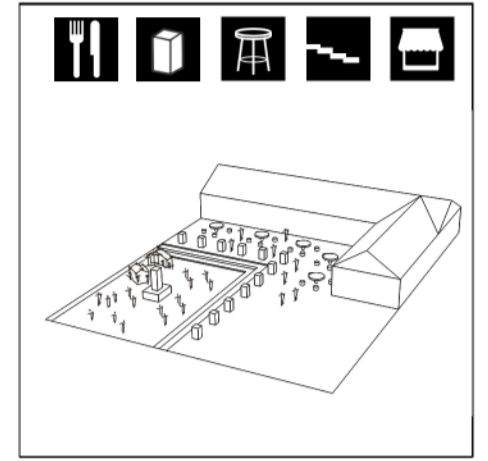
The meaning of place in urban design



Space



Space → Place



Place

fig.02.3 (o) The Definition of Place in Urban Design (Drawing by Author).

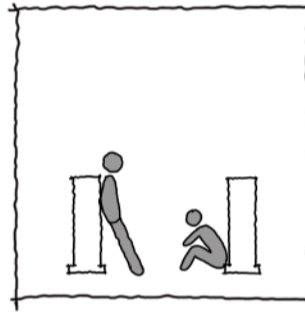
Key Elements to Increase City Life

Convert Space to Place

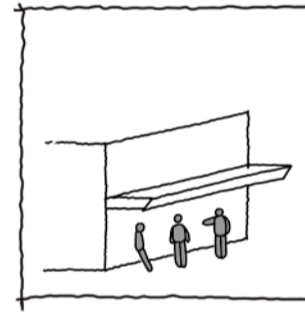
Facility



Tree



Bollard



Soft Edge

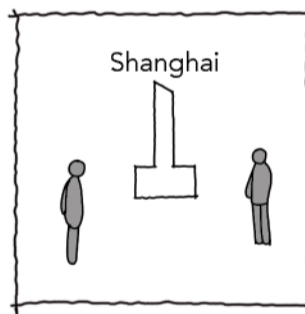


Seats

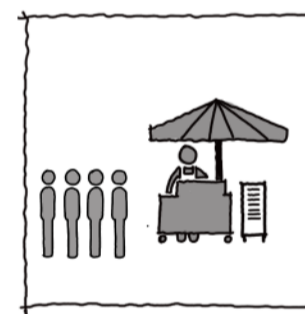
Social Factor



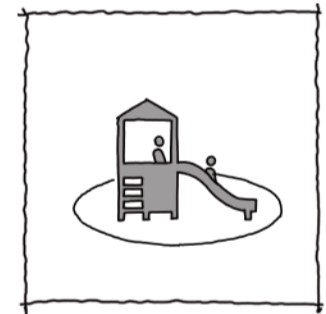
People's Activity



City Identity



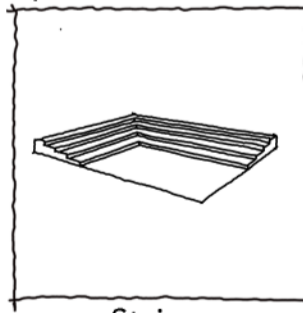
Food Cart



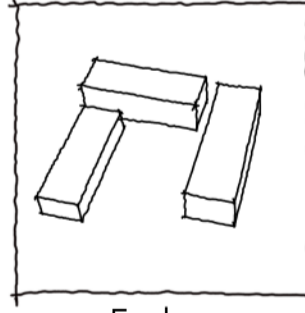
Children Playground



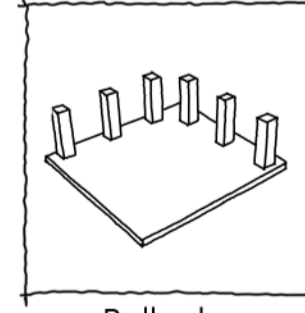
Spatial Factor



Stairs

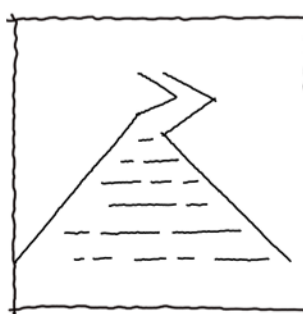


Enclosure



Bollard

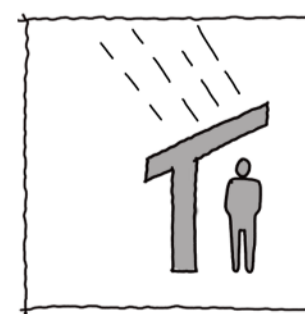
Environment



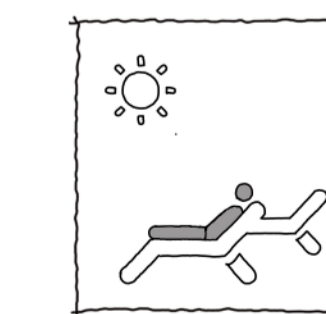
River



Landscape



Rain



Sunshine

fig.02.3 (p) City Life Brainstorm (Drawing by Author).

02.3 Toolbox

People's Behavior Analysis

Shanghai transportation hub

Type	Now	Wants	Potential People's Flow
<p>Long-wait-time passenger</p> 			
<p>Short-wait-time passenger / Transit</p> 			
<p>Elderly (both passenger & Residence)</p> 			
<p>Family (both passenger & Residence)</p> 			
<p>Farewell / Picking up Friends</p> 			

fig.02.3 (q) Brainstorm of People's behavior (Drawing by Author).

02.3 Toolbox

Human-scale Model

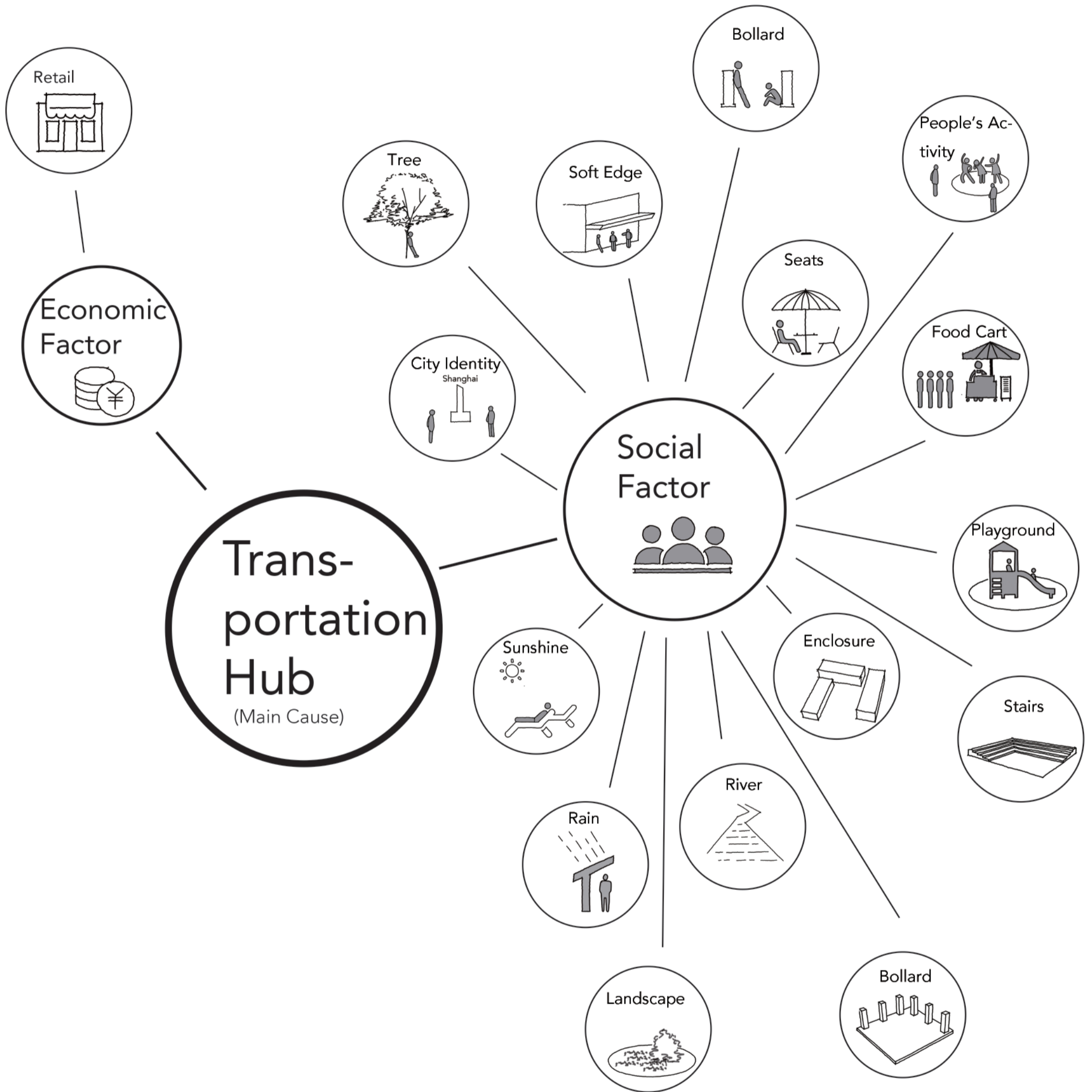


fig.02.3 (r) Model of Place-scale Theory (Drawing by Author).

02.3 Theoretical Framework

02.3 (d) Spatial Quality

The definition and approaches of the “place” are introduced at the earlier sections. In summary, those eminent researchers such as Jan Gehl and Jane Jacobs are working at the urban space to meet the goal of place making. In general, urban designs’ responsibility is to improve the spatial quality or public quality by intervention and strategies, based on that, the “place” is formed in people’s mind. This section is going to discuss the definition of the spatial quality and the different ingredients to improving the public quality.

One of the problems for modern urban design is the large-scale privatization and the loss of public life (Jacobs & Appleyard, 2008) The quality of the urban design or urban space directly influences the people’s life. According to Ewing & Handy (2009), it is possible to measure the urban quality or spatial quality by five important elements: imageability, enclosure, human scale, transparency and complexity. Those five elements affect the public quality directly, which is supported by several literatures.

a) Imageability

In order to define the imageability, it is necessary to understand the urban perception. Donald Appleyard (1970) illustrated three characteristics types of urban perception: Operational, Responsive and Inferential.

Operational character: As a person uses the city, performing various tasks, he selects particular aspects of the environment for the purpose of carrying out these tasks. This kind of perception, directed by activities and operations in the environment, is frequently neglected in environment planning and design.

Responsive character: It is much more responsive to the configuration of physical environment. The perception is more passive than active. For example, signs, billboards or gas station would cause people’s response.

Inferential character: As we grow up, we develop a generalizable system of environmental categories, concept, and relationships which form our coding system for the city - our personal urban model. When we encounter a new city, we match each new experience against our general expectation.

As the consequence of these types of perception, urban knowledge is a complex and multilevel of the city. The structures of the city could be recalled as actions (Appleyard, 1970). It is easy to image the description of journeys always concentrate on changes of action events such as stops and congestion. Due to those actions and movements, spatial images are transformed. Kevin Lynch (1960) defines the imageability as a quality of the physical

object that evokes the strong image in the observer: *It is that shape, color, or arrangement which facilitates the making of vividly identified, powerfully structured, highly useful mental images of the environment.*

As the consequence of these types of perception, urban knowledge is a complex and multilevel of the city. The structures of the city could be recalled as actions (Appleyard, 1970). It is easy to image the description of journeys always concentrate on changes of action events such as stops and congestion. Due to those actions and movements, spatial images are transformed. Kevin Lynch (1960) defines the imageability as a quality of the physical object that evokes the strong image in the observer.

In order to propose the highly imageable city, Lynch (1960) introduces five elements that have already discussed at the previous section. Here is going to describe the design criteria of these five elements.

In order to heighten the imageability of the urban environment is to facilitate visual identification and structuring. The paths as the network of movement are key lines that should have some special quality that marks them off from surrounding margins. In addition, streets are perceived as a thing which goes toward something. The path should support the perceptually by strong destinations, the gradient or a directional differentiation so that it is give a sense of progression.

The edge as well as the path gains strength if it is visible for some distances and marks. Lynch (1960) suggests two ways for increasing the visibility of the edge; one is increasing its accessibility. The other is to construct high overhead edges, visible for long distances.

The first prerequisite for perceptually is the achievement of identity by singular and special urban elements such as walls, floors and details. The essences of those elements are creating the distinct an unforgettable place. The node is more defined if it has a sharp and closed boundary. Furthermore, one or two remarkable objects would be the foci of attention. Last, the coherent spatial form can make it irresistible.

The city district as the collection of homogeneous character, is recognized by clues which are continuous through the district. The main spatial characteristic is homogeneity.

Imageability is also relating to the “sense of Place”. Gehl (1987) suggests this phenomenon on the examples of famous Italian city squares: *life in the space, the climate, and the architectural quality support and complement*

02.3 Theoretical Framework

02.3 (d) Spatial Quality

each other to create an unforgettable total impression. All factors work together to give the space a pleasing ending.

b) Enclosure

Urban spaces are defined and shaped by vertical elements such as buildings and walls. According to Ewing & Handy (2009), several theories have verified the sense of enclosure makes the outdoor spaces seem room-like. In the urban level, enclosure is formed by streets and unbroken building fronts with equal height. The buildings become the "wall", the street is the "floor" and the sky project could be the invisible ceiling. Enclosure would lead to the sense of position and hereness. Gordon Cullen (1961) describes the enclosure in the book "The Concise Townscape":

Enclosure, or the outdoor room, is, perhaps, the most powerful, the most obvious, of all the devices to instill a sense of position, of identity with the surroundings . . . it embodies the idea of hereness . . . (Cullen, 1961)

In addition, the distinct and definite shape would propose the positive outdoor space (Alexander et al, 1977). Similarity, the Jacobs (1933) claims that people feel comfortable to fixed boundaries as something safe, defined and memorable.

Not only the buildings and streets, in the urban suburb, rows of trees could create the sense of the enclosure. According to the Arnold (1993), trees define the space both horizontally and vertically. For horizontal aspect, trees as the buildings or streets form the visual enclosure of open space. For vertical aspect trees provide ceiling of branches and leaves.

Visual termination points could also contribute to the spatial enclosure. Cullen (1961) stated that the focal point is the sign that could attract people's attention. The focal such as prominent buildings, monuments and fountains or good views at the end of the street could achieve the enclosure in all direction. In general, the layout of the street network influences the sense of enclosure. The rectilinear grid is creating a long straight sight line, but breaking the sense of enclosure made by buildings and trees. The irregular grids would create the visual termination point that helps to enclose the space (Ewing & Handy, 2009).

c) Human Scale

Designs would have different definitions of human scale.

In Ewing & Handy's report (2009), several researchers such as Alexander transfer the human scale to the height of the building, width of the street, and even the human speed. In addition, Gehl (1987) states that the personal interaction distances play a role for human design.

Those ideas of human scale are concentrated in technical figures of the design, but it is still possible to push the definition of human scale to the further level. The purpose of the human scale design is to increase the relationship between people's quality of life and built environment, especially in the small scale. In some ways, the human scale could be transferred to engaging people's stay that is one of the goals of human scales. According to Gehl (2006), engaging people's stay is one of the abstract ingredients for improving public quality. City life is changing and seeking for various facilities for support.

City life has changed from being a rather narrow shopping-oriented experience to something far more complex. City space must continue to provide a flexible framework for many varied activities from large events that require massive organizational planning and many people to carry out the work, to small daily errands that take place automatically (Gehl, 2006).

Gehl also emphasizes some public facilities for human oriented purpose: Marketplace, Music, Entertainment, et al. Allen Jacobs & Donald Appleyard (2008) illustrate some goals for urban life. Public participation is in some of those goals.

Access to opportunity, imagination, and joy: People should find the city a place where they can break from traditional molds, extend their experience, meet new people, learn other viewpoints, have fun.

Community and Public Life: Cities should encourage participation of their citizens in community and public life. The public environment, unlike the neighborhood, by definition should be open to all members of the community.

d) Transparency

Transparency in the literal meaning is the material condition, the inherent quality of substance, like the glass. For the perspective of urban level, the transparency is relevant to street edge if it is easy to be perceived, or in some ways, it is about accessibility. According to Jacobs (1993), the perception of human activity is created by many entryways, while those with blank walls and garages keep people far away. In addition, trees as the partial transparency tents are affording awareness of the transparency (Arnold, 1993). Transparency refers to the

02.3 Theoretical Framework

02.3 (d) Spatial Quality

degree to which people could see something behind the edge of the street and emphasizes how people easily could access to the space. Furthermore, transparency works as the greatest interaction between indoors and outdoors at the street level.

e) Complexity

Complexity as the urban quality is referring to the collections of fundamental properties. Ewing & Handy (2009) states that too little urban information causes the sensor deprivation, while too much creates sensory overload. Urban streets in highly complexity offer various interesting things to read, such as building details, signs, details and people.

The complexity of the street is affected by varying building shapes, sizes, materials and colours. Jacobs & Appleyard (1987) introduces the narrow buildings in varying arrangements contribute to complexity, while wide building subtract. In addition, the function of trees works as the texture detail of the façade, which makes up for the loss from modern architecture (Arnold, 1993). Furthermore, street furniture could add the complexity. According to Jacobs (1993), streetlights, fountains, benches, and other street furniture make the regal and special places.

Signs on the street are the major source of complexity. If the signs are well organized, they will add visual interest, making the space more inviting and creating the sense of place. Cullen (1961) describes the signs:

...the most characteristic, and, potentially, the most valuable, contribution of the twentieth century to urban scenery.

However, if signs are not well designed, they will make a chaotic and unfriendly space. Allen Jacobs (1993) used Hong Kong as a example to point the chaotic environment that is caused by street signs. Gehl (2006) also states the visual pollution by advertisement signs:

The most offensive examples are the many large adverts displayed on scaffolding erected in the most visible spots on the urban scene.

The last, presence and activity of people could express the complexity. Those people as the dynamic objects represent the images of urban lives. The idea of complexity is not reflected by the static object, but the constant motion.

02.3 Theoretical Framework

02.3 (e) Understanding Urban Network

The definition of urban network is always referring to the street or infrastructure, which indicates the route from one point to the other without any human experience. However, in this section, the urban network is illustrated as a people movement, it is not merely an infrastructure. Some literatures and cases would be explained.

a) Louis Kahn's Philadelphia (fig.02.3 (s))

Louis Kahn evolved idea of movement system at the Philadelphia. According to Venturi & Brown (2005), Louis Kahn is going to transfer the grid of city (infrastructure) to the plaid by separating different types of movement onto different streets. Louis Kahn's working gives the enlightenment on connecting the human experience to infrastructure.

b) Denise Scott Brown's Viewpoint

Venturi & Brown (2005) states that activities of people in cities and buildings can be seen as patterns. Those patterns could be established at the street. Streets could be many roles. According to Brown's interview (2007), the basic function of the streets is channel for the circulation of people, goods and vehicles. In addition, streets give access to places for settlement, rooms for activities and tell the travellers where they are, which is the publicity function. Furthermore, the role of streets works as the linkage between public and private, which is described as "the street through the building" called by Brown (2005). The street always ties to the exterior pathway that leads to the internal buildings.

c) Campus map Planning

Campus map planning could explain the idea of people movement as the important definitions of urban network. The purpose of this campus planning is to improve the campus circulation and create better affiliation between students' lives and space. First, designers force students' purposes in the campus street: working and home (fig.02.3 (t)). Secondly, streets in the campus are reorganized by different people's purposes (fig.02.3 (u)). For example, architecture students are seeking for small studios, while scientific students need laboratories. After that, the street or networks are not only a infrastructure, it is more relating to people's demands and emotion.

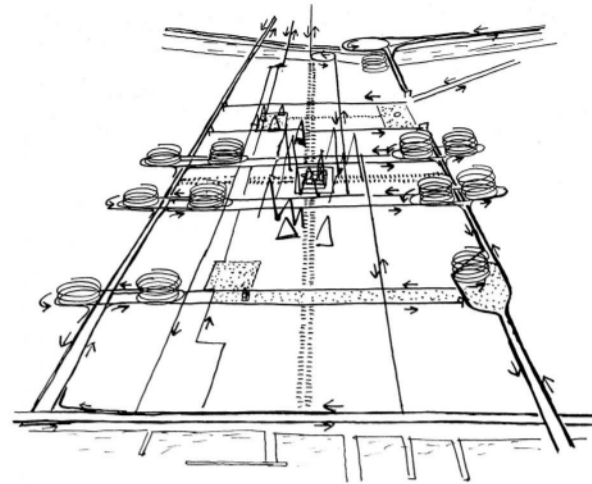


fig.02.3 (s) Louis Kahn's idea of movement at Philadelphia (drawing by google image)

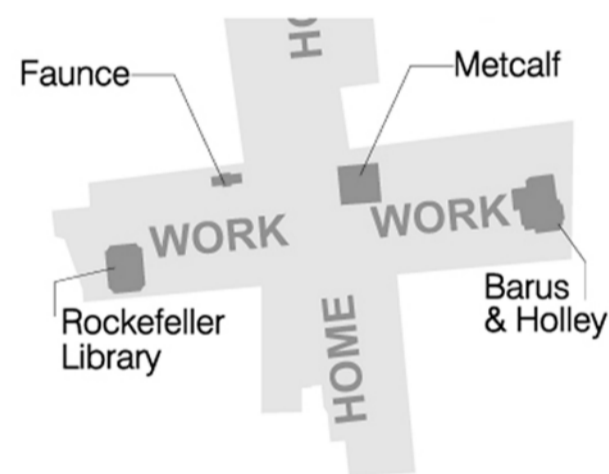


fig.02.3 (t) Work & Home Axis (drawing by google image)



fig.02.3 (u) People Movement at Campus Planning (drawing by google image)

03

Strategy & General Design

03.1 Case study analysis

- a) Western railway development
- b) Hong kong's railway station plan

03.2 Site Analysis

- a) City Scale
- b) District Scale

03.3 Design Concept

03.4 Strategy Making ---Approaching the Place?

- a) Design Conceptual Model
- b) Strategy Illustration
- c) From Theory to Design

03.5 Place Argument

03.1 Case Study Analysis

Foreword

Last chapter illustrates the discussion between “Space” and “place” via different scales. Many important researchers in this scope introduce several methods and models on transferring urban space to public place to meet the goal of lively city. This chapter is going to applying theoretical knowledge into specific object and location --- railway station. Cities are not the only about movement but also places for occupation (Marcus & Nordstrom, 2012). Urban design is the fundamental and direct tool for designers to affect attributes of urban life. Railway station as the important public transportation cause negative impacts on urban lives in many European cities (Bertolini & Spit, 1998). First of all, in terms of the spatial quality, city structure is fragmented by rail lines. Secondly, for human behaviors, people who go to the railway station always hold direct purpose --- taking trains and other public transportations. People refuse to go and gather there if they do not want to use trains. Under the influence of this direct purpose, citizens always neglect that railway station is the part of urban structure. Based on the theory made by Bertolini and Spit (1998), the railway station should have two basic identities. It is a node: a point of access to trains and other transportation networks. It is a place: the specific section of the city with the concentration of public infrastructure and human behavior. In the context of developing city, especially for China, railway station is a transportation node rather than place. Some case studies of the railway station in the Western Countries (fig.03.1 (a)) here as good precedents solve the urban issues and stimulate railway redevelopment. Due to the culture difference between Western Countries and China, the redevelopment of railway station in Hong Kong (fig.03.1 (b)-(c)) is another important case study analysis.

Platform (Vastra City, Stockholm & Messina District, Paris)

According to Bertolini and Spit (1998), the main players in railway station area redevelopment are the national railway company and the municipalities. When the Swedish national railway company was privatized in 1988, a real estate division was created to turn station into modern travel centers. The central aim of the project at the Stockholm station is to create an excellent place for occupation with top quality. Designers propose the “platform” idea above the railway lines to form the open public space linking bus terminal and rail station as well as huge commercial and social space.

Permeability (Delft)

The initial Delft railway station was located on the Houttuinen, close to the current location. The first train passed through it on 31 May 1847. Due to the obstruction by rail lines, the old historical city center of Delft lost the connection to the north of the Delft city. In addition, two-track railway viaduct at the station is too cramped and produces noise and safety risks. Designers and Planners propose the project called “Spoorzone” including new railway tunnel and underground station, additional offices and new landscape design to redevelop station area. Permeability becomes the design concept to increase spatial connection between historical city center and northern area.

Transit Nodes & Public Space (Hudson Yards)

Hudson Yards is a large-scale redevelopment program that is planned and constructed at the city of New York. The project is being currently constructed over the rail yard; it is expected to create 16 skyscrapers including office, residences, retails and social plaza. Due to extension of the New York City Subway’s trains, Hudson Yards becomes the important transit nodes. In addition, open public space such as park and boulevard transfers old rail yard to the attractive city environment.

Edge as the Landscape (Regensburg Innerer Westen)

The reorganization and development of the inner city railways and their adjacent areas is one of the most important urban development projects in the coming years. Due to the negative impacts caused by train such as noise, the large park including several public social facilities is built to separate rail lines from residential housings. More people would like to go and gather at this new pleasant landscape area, as a result, the spatial connectivity between rail lines and urban fabric is increased.

Densified Edge (Europaallee, Zurich)

The new district is being created in the heart of Zurich and located behind Zurich’s main train station, which runs parallel to the train tracks. The new district containing flats, offices, hotel, shop and restaurant forms the unique edge of rail lines. The unusual mixed programs for the site comprise retail space on the ground floor with offices and apartments above. Furthermore, it is interesting to make a truly metropolitan building at the prominent corner location within the master plan.

03.1 Case Study Analysis

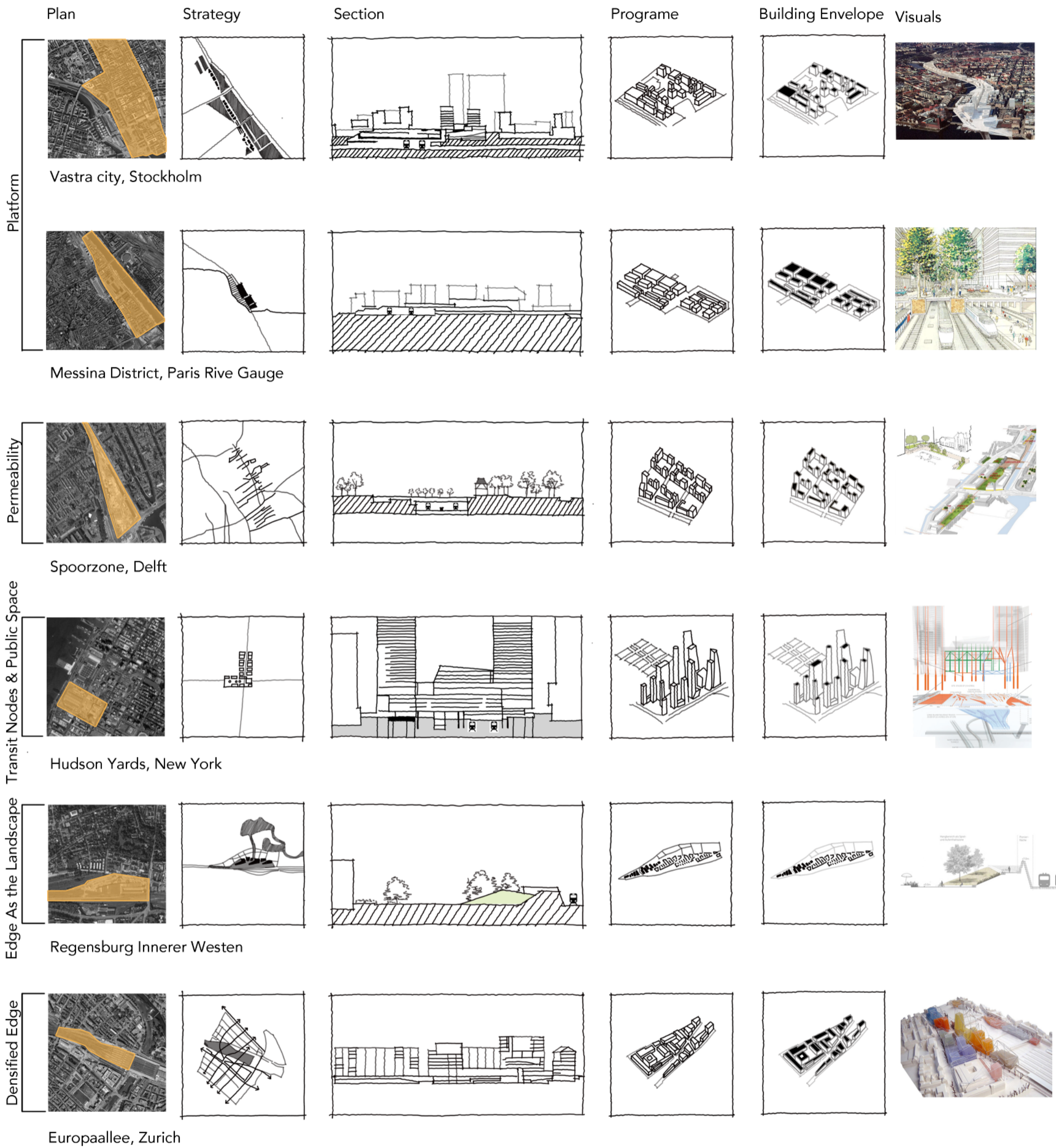


fig.03.1 (a) Case Study Analysis ---Western Country Station (Drawing by Author).

03.1 Case Study Analysis

Kowloon Station --- Integrated Property Development

Kowloon Station

Sited above the Kowloon station (fig.03.1 (b)-(c)) in Hong Kong, the building is combined with the public transportation that carries 11 million passengers per day. It connects Hong Kong international airport to mainland china via various transportations. This project named "Integrated Property" aims to combine railway station with other functional buildings for maximizing the development potential and land value. In addition, the project is evaluated as "vertical city" emphasizing the complex land properties (retails, offices, hotels and landscape) and promoting social activities. Furthermore, this station becomes another "city" in the district and achieves highly social vitality. The meaning of this project could be illustrated into three levels. For passengers, the project connects railway station with bus terminal, taxi and airport to the greatest extent, which emphasizes clear circulation. For district, social values are increased because more people would like to gather and stay at this project area. For Hong Kong itself, this project is the attempt to propose complex land properties for improving the quality of the urban lives.

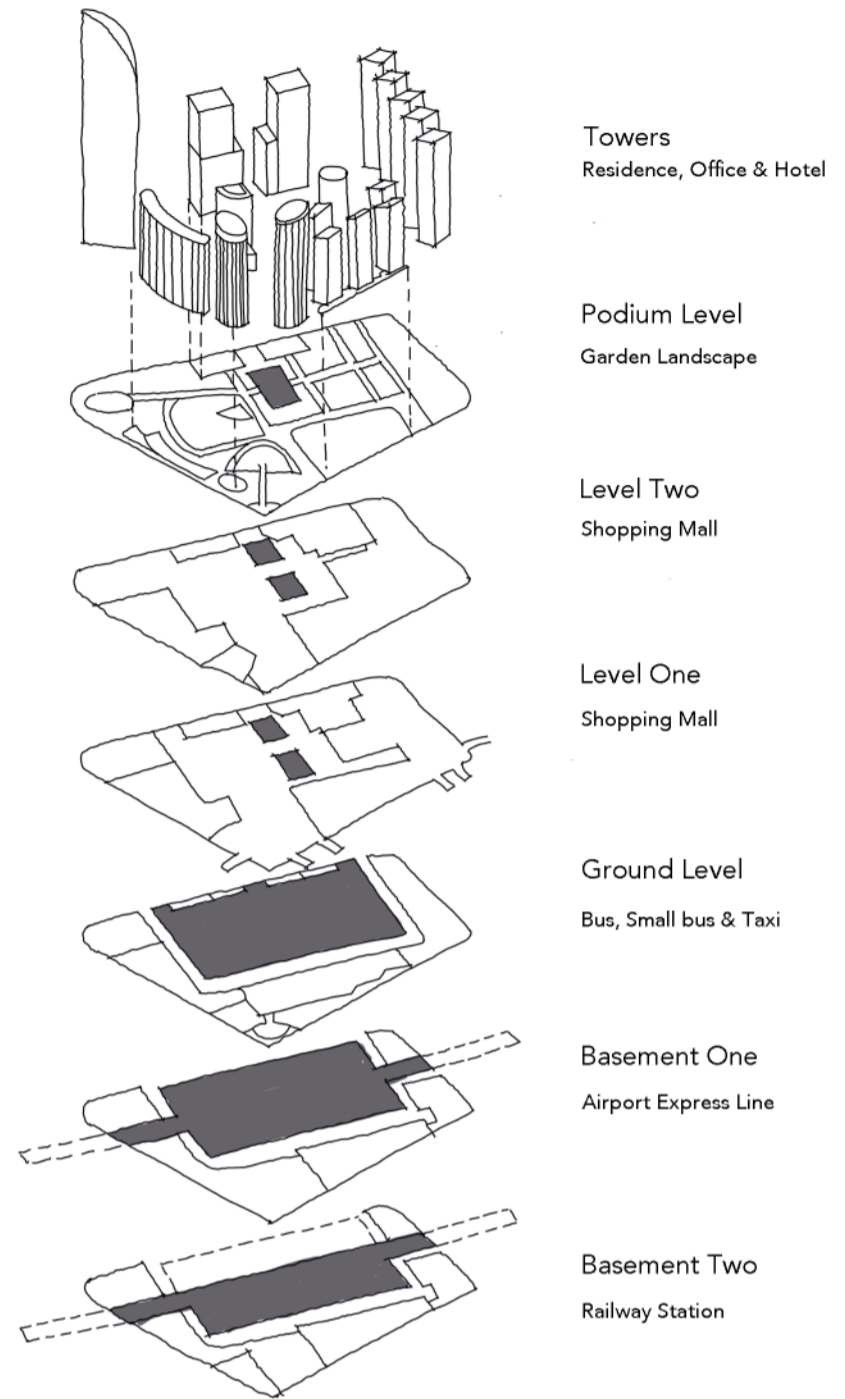


fig.03.1 (b) Case Study Analysis --- "Vertical City" Functional Analysis (Drawing by Author).

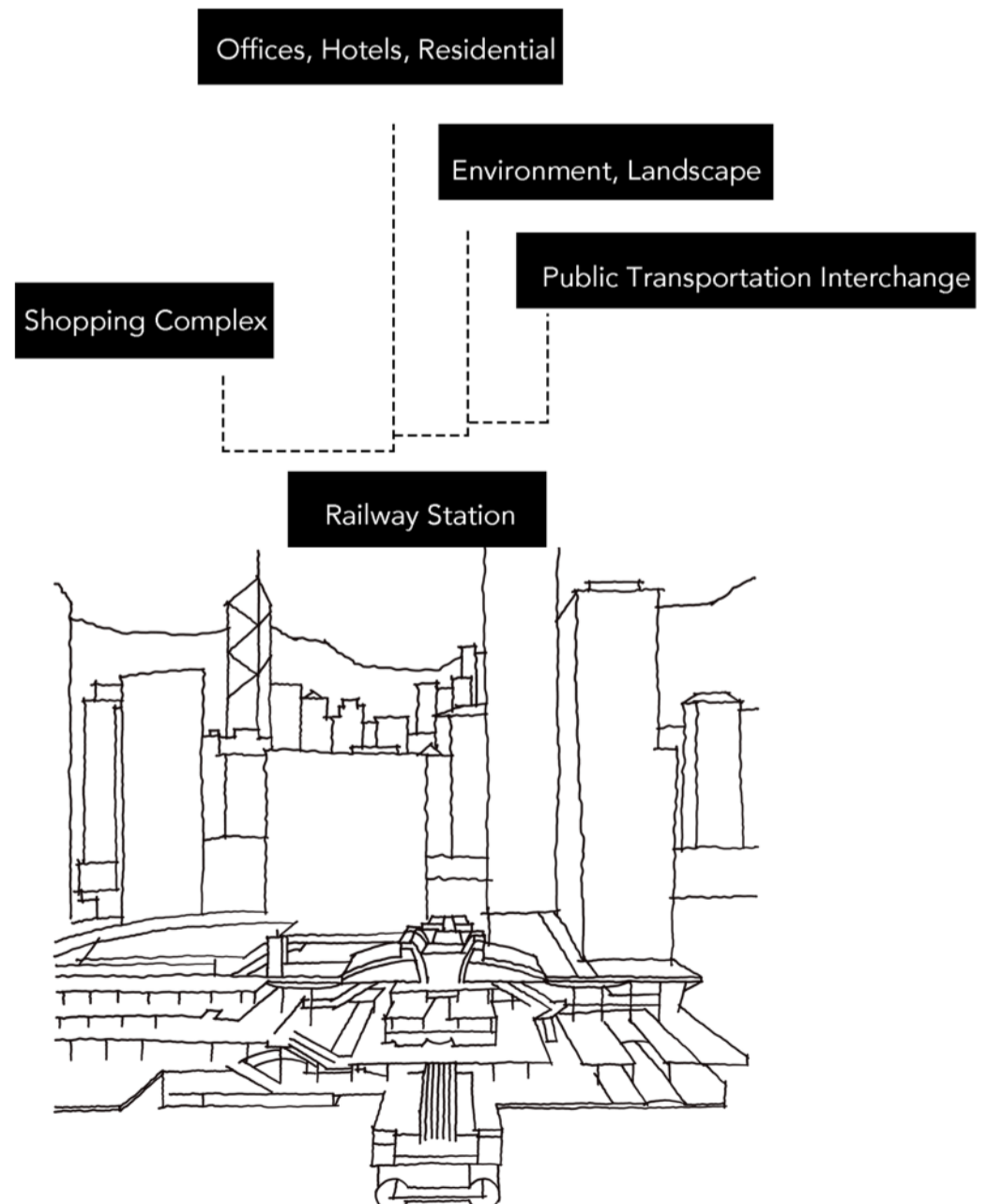


fig.03.1 (c) Case Study Analysis --- "Vertical City" Section Drawing (Drawing by Author).

03.2 Site Analysis

City Scale

Site analysis is composed by two different scales, city scale and district scale. In the city scale, the analysis is going to illustrate the relationship between this study area with Shanghai city. Furthermore, which probable effect does this project has on the city development? In the district scale, some mappings would reflect the basic information of this district, which is more relating to the design part.

Shanghai's City Structure (fig.03.2 (a))

The main city center of Shanghai is developed along two historical rivers, Suzhou River and Huangpu River. Due to the urban development, the city structure becomes more complicated and is formed by three urban rings. The project area is located in the inner ring and relative close to main city center. Shanghai is a polycentric city, under the main city center, several sub-centers are built in the inner and medium rings. In addition, under those sub-centers, the culture and social or educational centers as the third level (Brown Color) are developed these years.

Connectivity (fig.03.2 (b) - (c))

Project area as the main transportation hub is easily to connect with western and northern cities in China. In general, this area has strong national and regional connectivity. A large number of people would arrive and depart through this transportation hub. However, this area is losing its social values. The single function could not propose high quality urban life. This area is nothing more than the transportation articulation.

Probable Vision in City Scale (fig.03.2 (d))

This project is going to focus on the spatial changes in this area itself. The study area is located at the transportation hub and along the Suzhou River; it has potential to be developed as one of the culture and social centers, the third level of the city. In addition, the study area would emphasize the traditional Shanghai's culture and slow traffic system. This project will propose a pedestrian friendly, transit linked and mixed-use urban area.

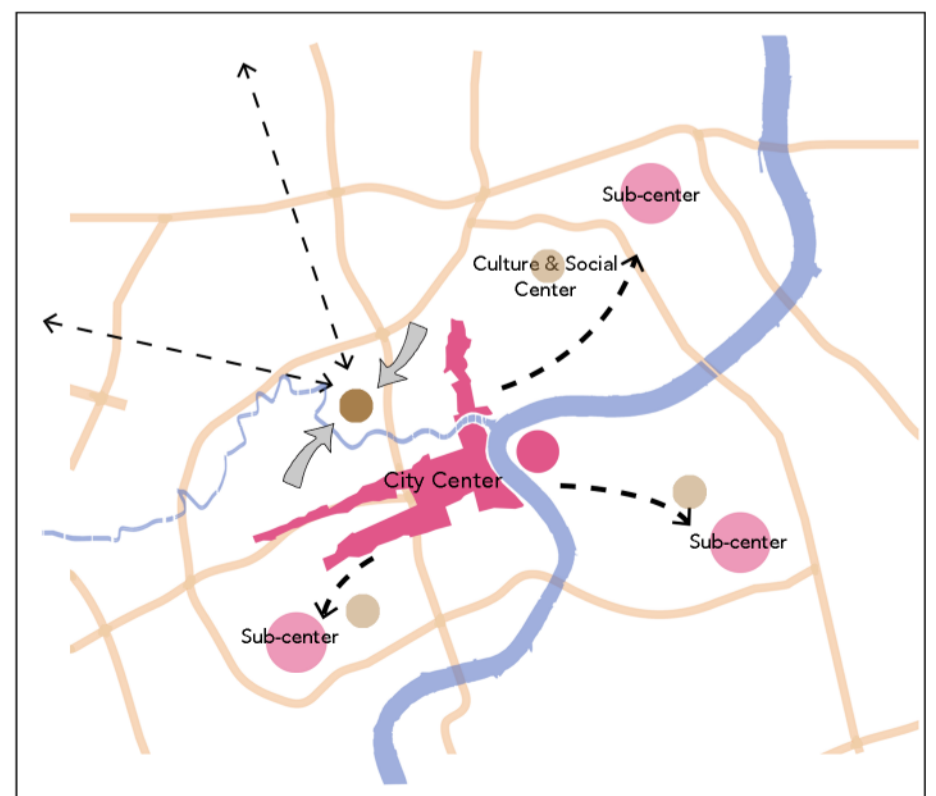
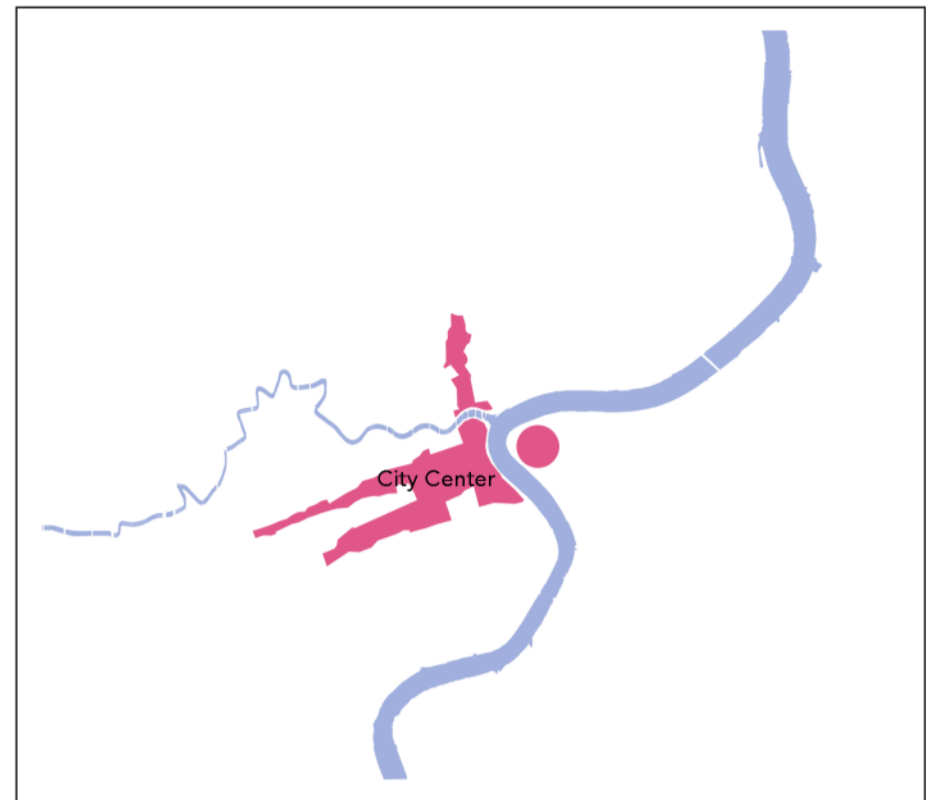


fig.03.2 (a) Shanghai's City Structure (drawing by author)

03.2 Site Analysis

City Scale



fig.03.2 (b) Connectivity between Shanghai and Other Cities(drawing by author)

03.2 Site Analysis

City Scale

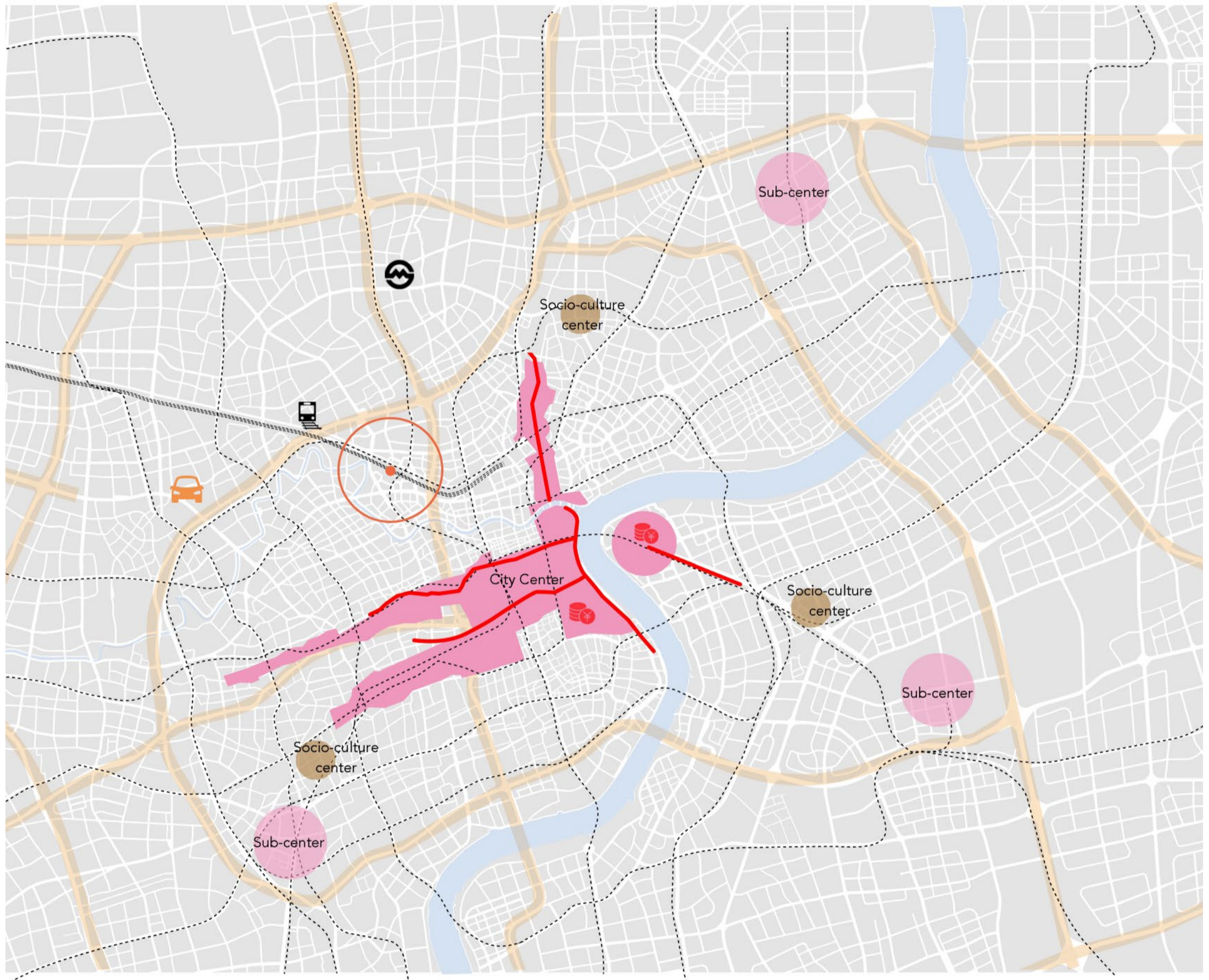


fig.03.2 (c) Connectivity in Shanghai (drawing by author)

03.2 Site Analysis

City Scale

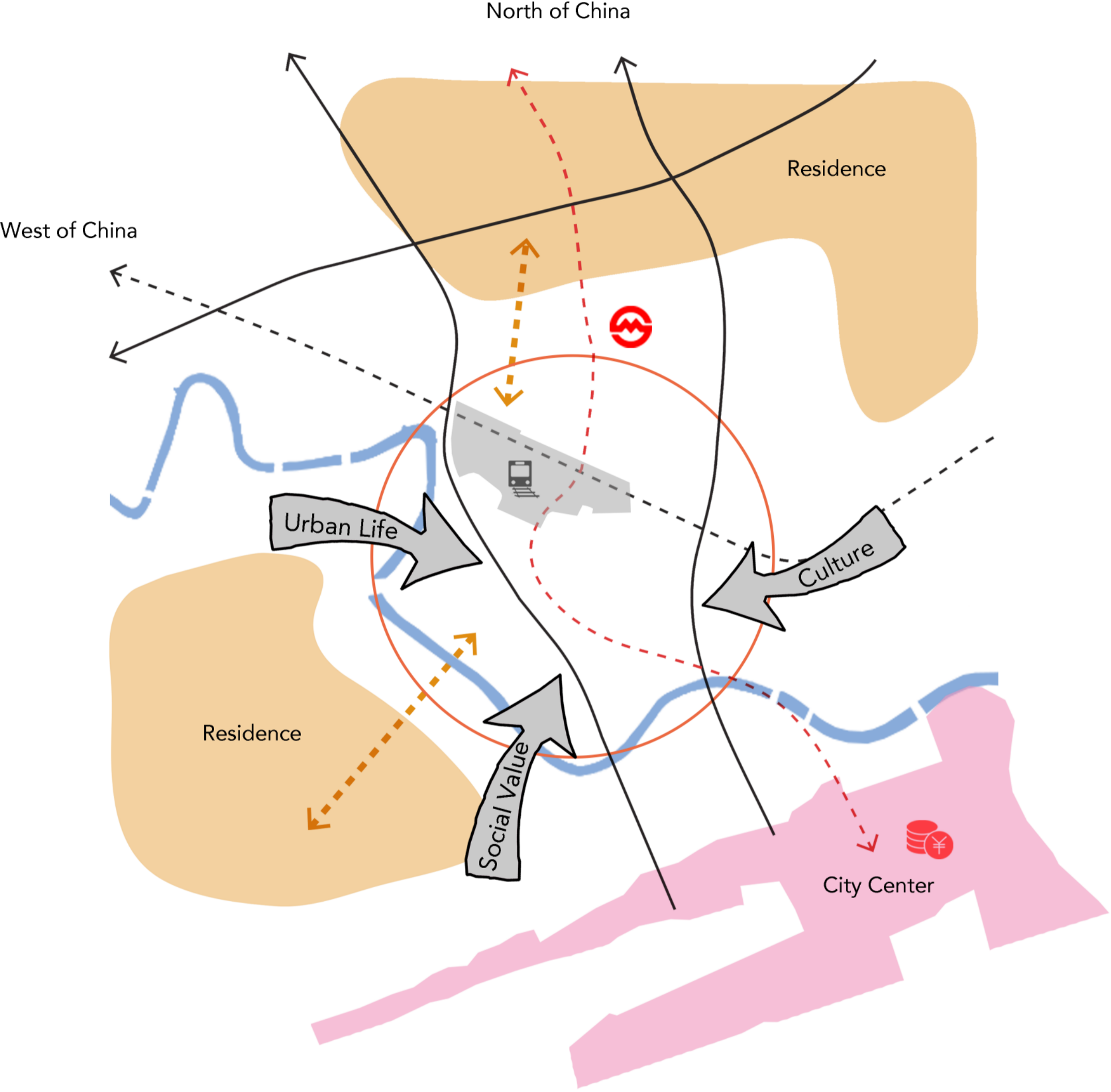


fig.03.2 (d) Probable Vision in City Scale (drawing by author)

03.2 Site Analysis

District Scale

Shanghai transportation hub contains main railway station, metro station and bus stop is located at one of the oldest Shanghai districts. The geographic location of the project is surrounded by the Suzhou River and the railway. Due to the mixed functional land use, the building morphology is diverse and complicated. Site analysis offers the basic information and background for the design.

egies could be implemented into these two different squares respectively?

a) Distance and Walk Speed (fig.03.2(d))

The first analysis map tells the image of distance concept. Riverside is not very far away from the main railway station. On the contrary, it only takes 5 to 10 minutes for the young people. Moreover, it is rather close to the center of the district. This diagram indicates that it is possible to build the slow traffic network to connect the transportation with other urban fabrics.

b) Road System & Infrastructure (fig.03.2(e))

Several major roads are working as the main traffic junction. One is passing across the railway, which is the flyover. Unfortunately, the flyover is only used for vehicles. Bus stops and metro stations ensure easily accessible for all citizens, which allows for the designed public places to be used by wide audience of people.

c) Function Area (fig.03.2(f))

The project area has various land uses such as office, commerce and residence, which allows spatial diversity. The question is how to reorganize them to make a clear "system" for people. The "system" represents the demarcation of private and public space and the clear concept of social values, economic values and landscape.

d) Building Morphology (fig.03.2(g))

Diverse building types provide more possibilities for design. Old industry buildings could be reused as the social infrastructure. High-rise office building is able to redesign ground floor for commercial purpose.

e) South Square & North Square (fig.03.2(h))

This diagram analyzes the difference between south square and north square in the large scale. North and south square are separated by railway, which leads a little bit isolated. From the satellite map, north square is surrounded by many residential housings, but the south square faces more urban structure buildings such as offices and commerce. The question is generating: what strat

03.2 Site Analysis

District Scale

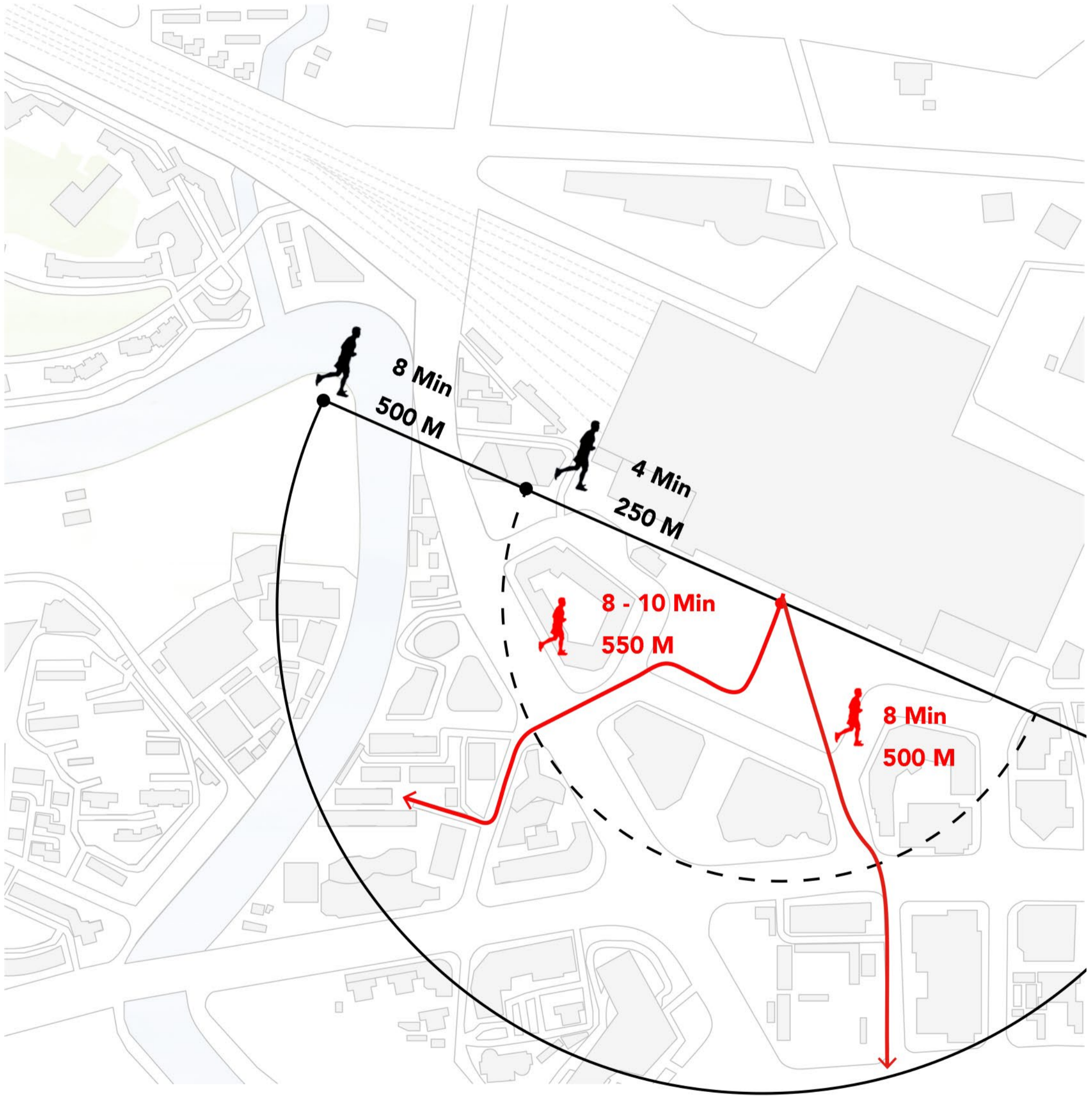
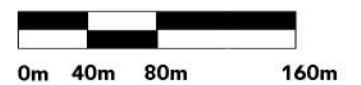


fig.03.2 (e) Distance and Walk Speed (drawing by author)



03.2 Site Analysis

District Scale

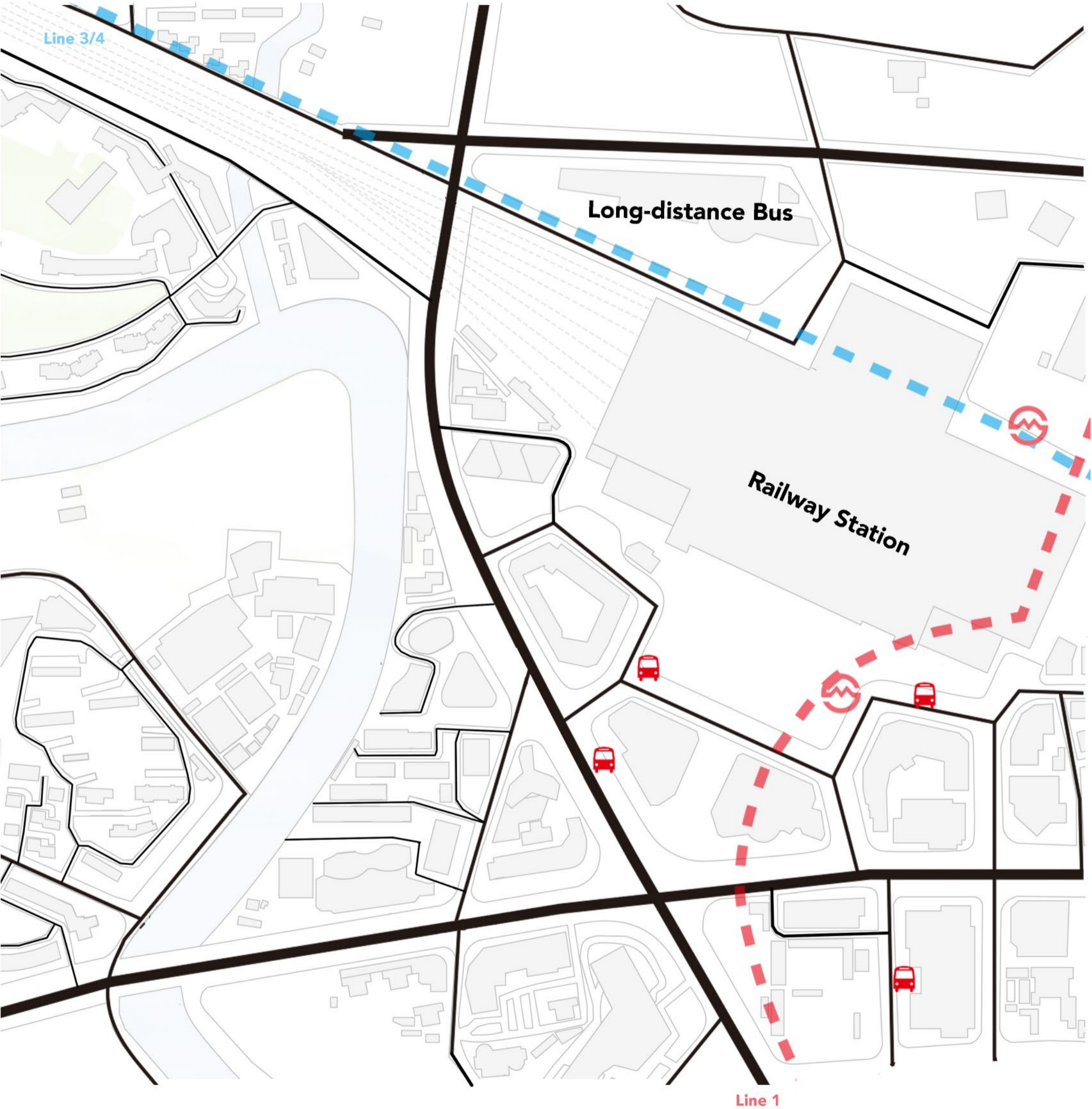


fig.03.2 (f) Road System & Infrastructure (drawing by author)



03.2 Site Analysis

District Scale



fig.03.2 (g) Function Analysis Map (drawing by author)



03.2 Site Analysis

District Scale

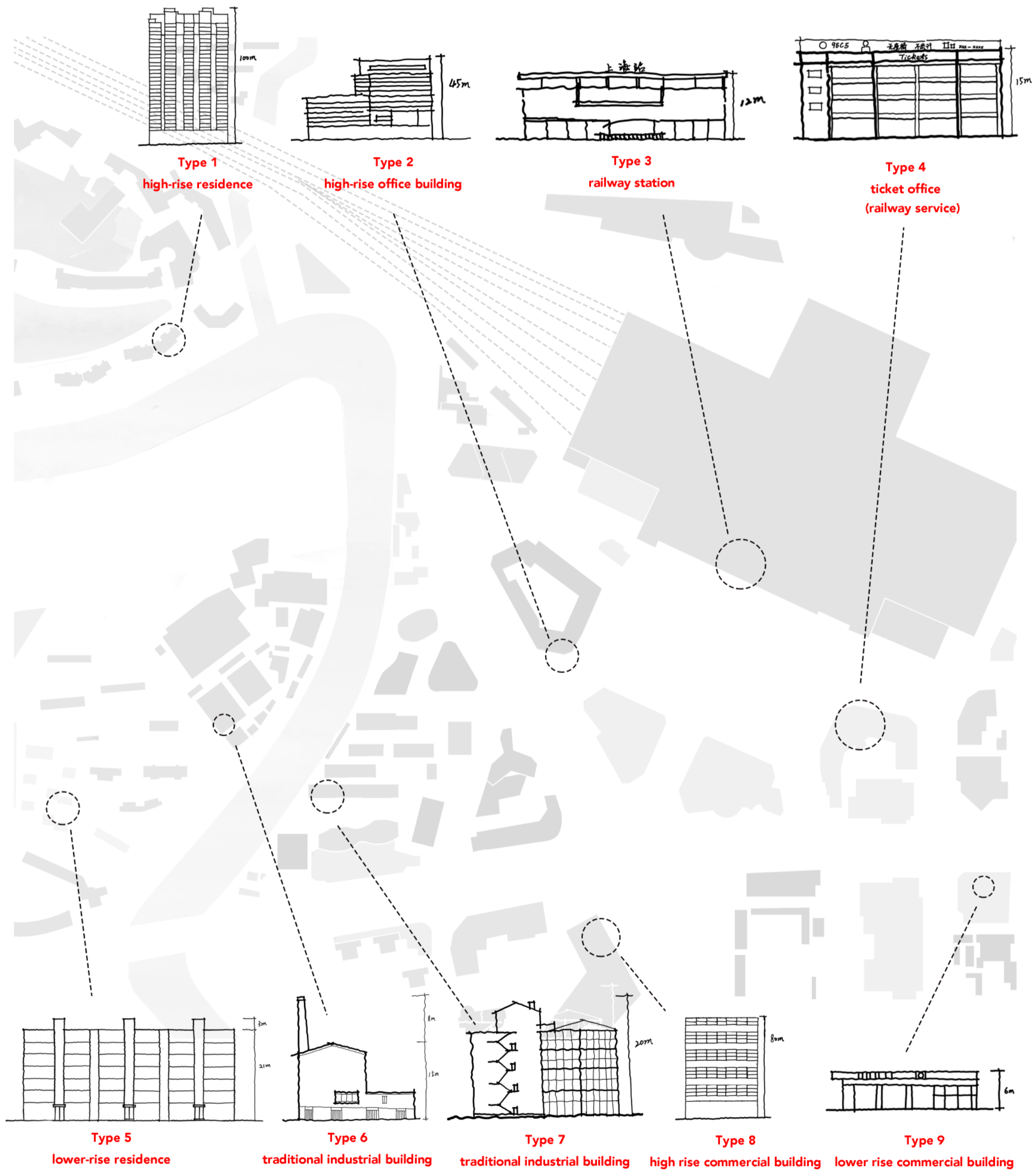


fig.03.2 (h) Building Morphology (drawing by author)

03.2 Site Analysis

District Scale

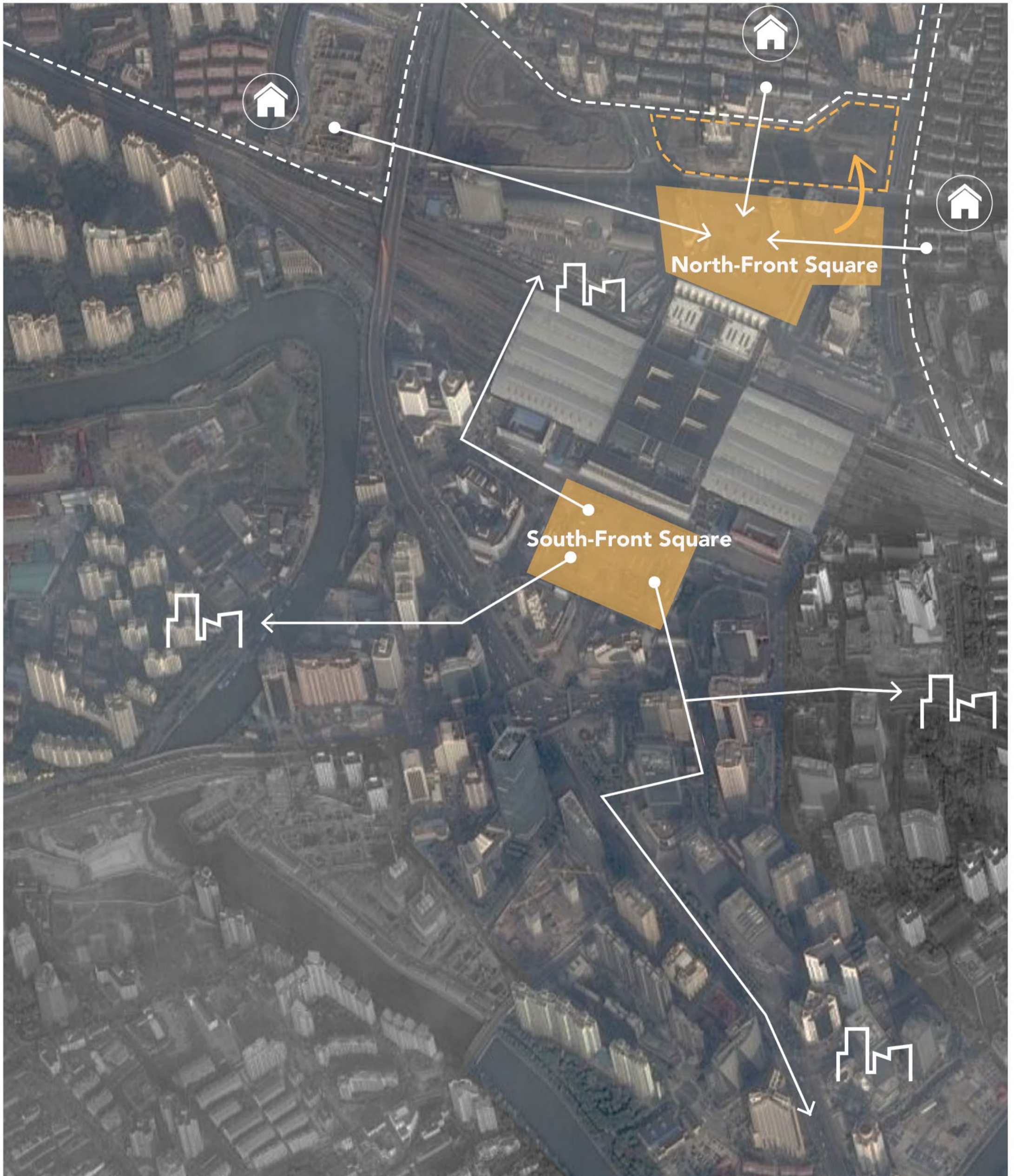
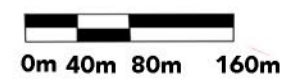


fig.03.2 (i) South Square & North Square (drawing by author)



03.3 Design Concept

Design Concept - step 1

The project area is composed by transportation hub (railway station, metro station and bus stop), Suzhou river and rails. Two squares with few supporting facilities are serving passengers. The first step of the design is to redefine two squares. Due to the different geographical locations (site analysis), south square prefer distributing people's flow, and north square is used for people's stay. "Dynamic" and "Static" are two interesting spatial characteristics.

Design Concept - step 2

The site is divided by three different lines in the second concept map. The orange one is the social line that represents Shanghai traditional culture and social lives. The front square is extended to the riverside, old industrial buildings are reconstructed to social purposes such as teahouse and culture exhibition. In addition, the red line is the commercial corridor, which is for the special passengers and locals. Retail is also the important cause to attract people. The last is the green bridge connecting two sides of the railway station on the rail. It is convenient for people who want to use the long-distance bus terminal and the north square. The green landscape provides pleasant environment for people; it also improves the negative effects made by the rail yard.

Design Concept - step 3

Three different spatial characters are formed; the last important step is the junction. Low speed network is the main intervention to connect each important part. Gehl expresses this idea in his book "Cities for People": "Slower traffic means lively city".

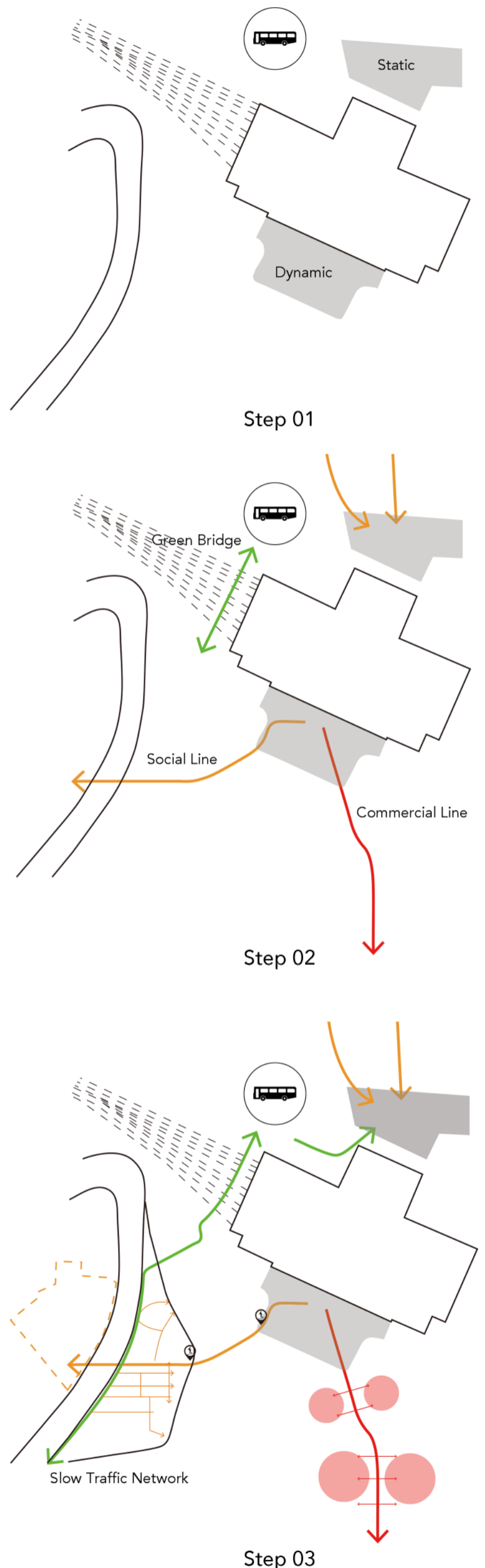


fig.03.2 (e) South Square & North Square (drawing by author)

03.3 Design Concept

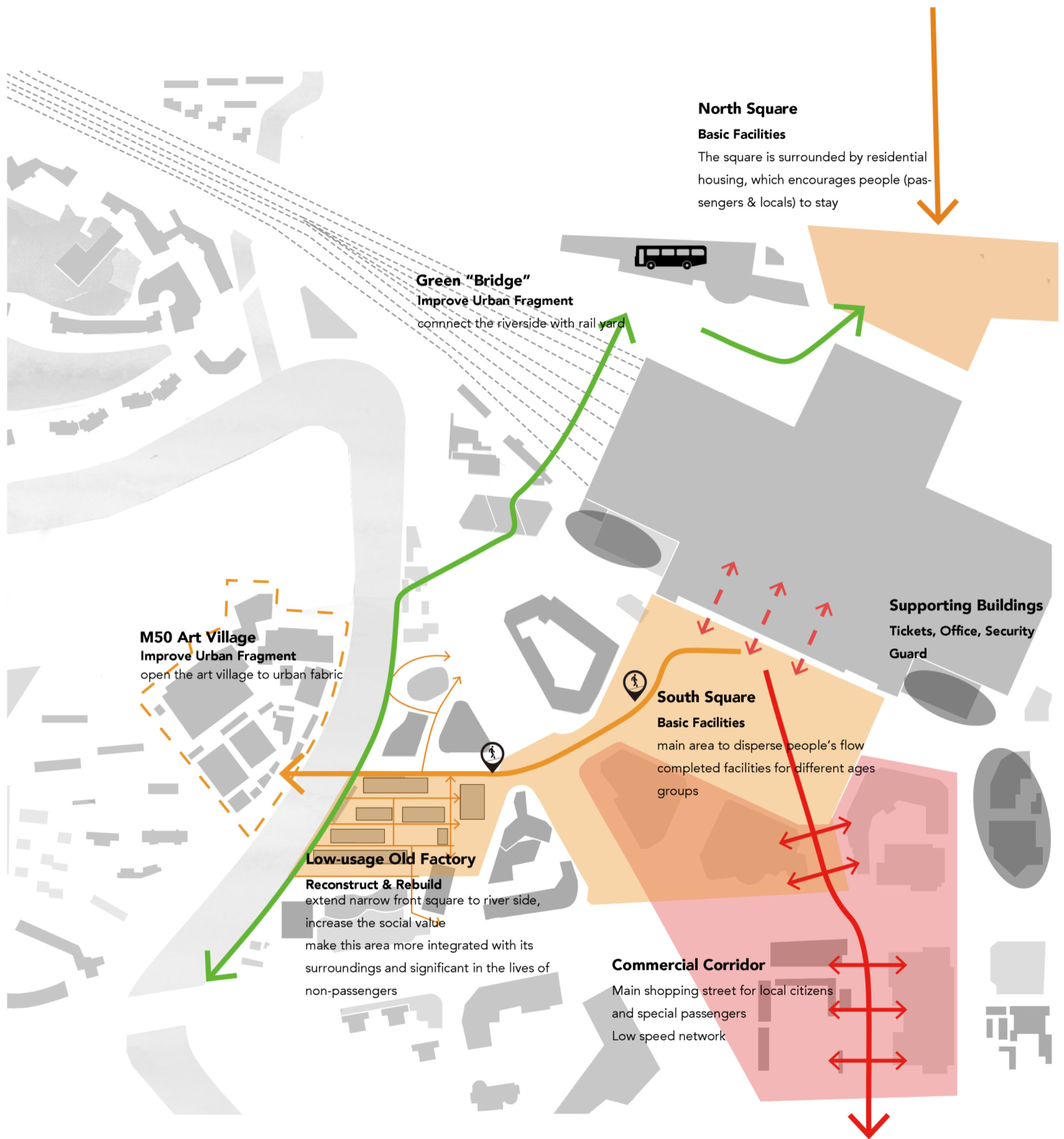


fig.03.3 (b) Completed Concept Map (drawing by author)



03.4 Strategy Making

Design Conceptual Model

Lively & Safe City

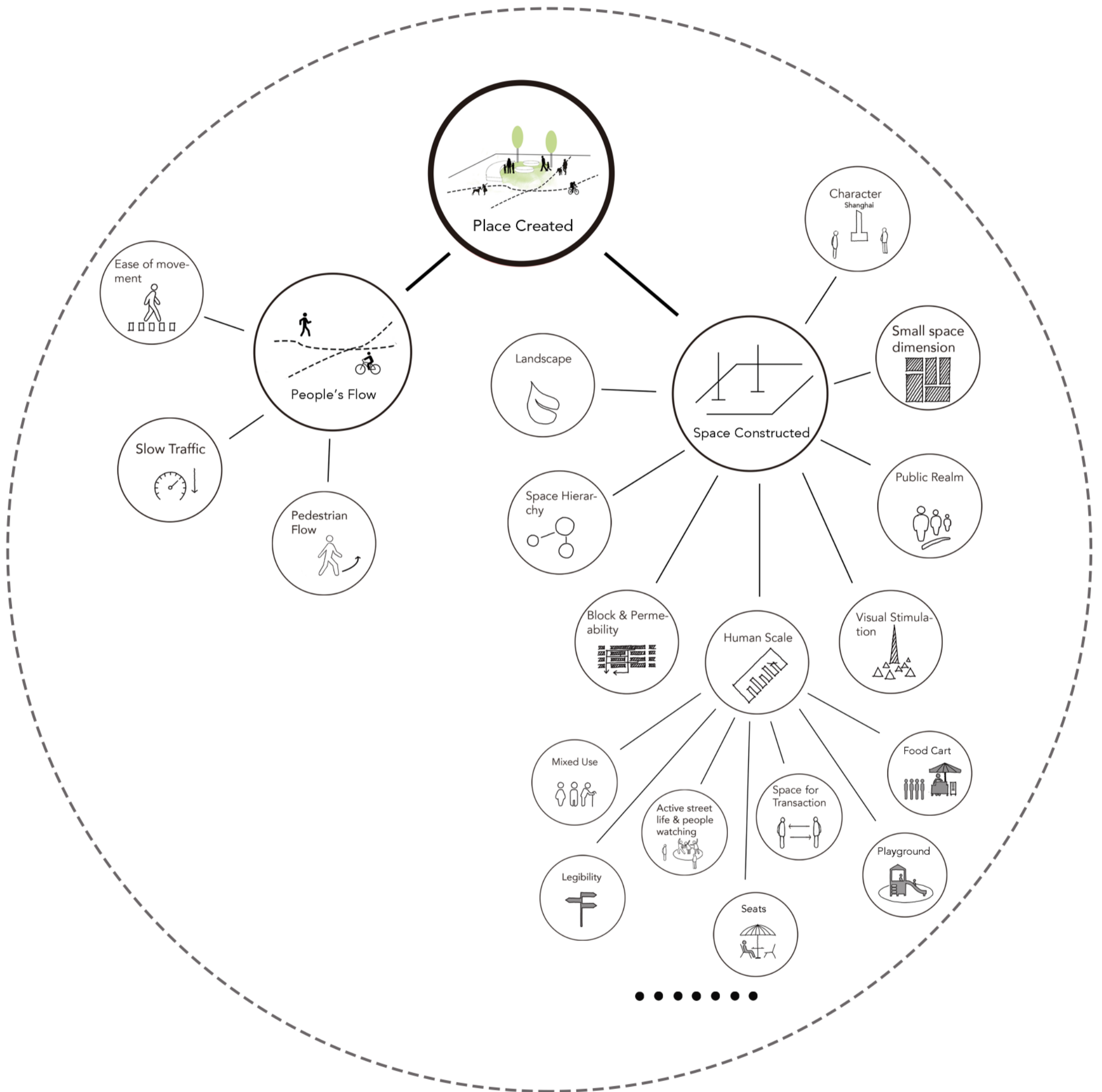
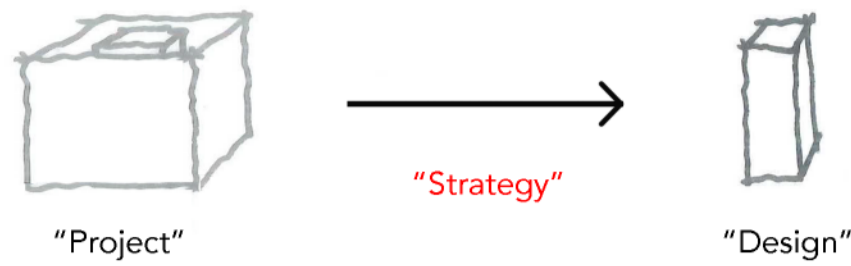


fig.03.4(a) Design Conceptual Model (drawing by author)

03.4 Strategy Making



Strategy Illustration

1. Reorganize and distribute function zone via people's walking lines.

(Social, Economic and Green)

First main strategy is to reorganize the study area by spatial identification that meets people's requirement. In Gehl and Montgomery's theory, space hierarchy and small space dimension are important points to form the good public place. Small space dimension in the large scale reflects the importance of dividing large area reasonably. The space hierarchy emphasizes the relationship of each part. In the project, the social line is made for people both locals and passengers who really want to experience Shanghai traditional culture and live. In addition, the economic line is supporting people's needs and interests on the commerce. The green line connects two sides of the railway station; it also provides the possibility for people to rest, enjoy the city view and sunshine.

a). Social Line

- Transfer and reconstruct the old industrial buildings to activate and revitalize social values in this district. It also could express Shanghai's special character.

- Improve spatial nature of riverside to connect the M50 art village, increase spatial connectivity.

- Implement the concept of "Static & Dynamic" to redesign the south and north front square (South square would be the main object).

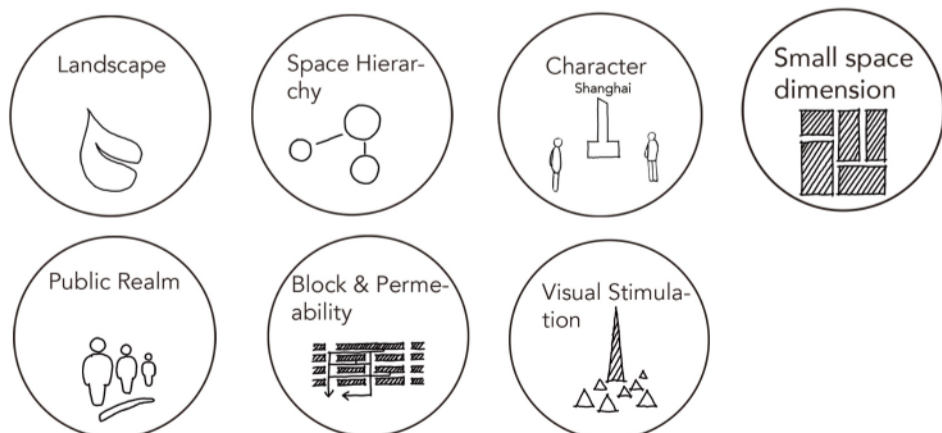
b). Economic Line

- Build commercial corridor (ground-floor design) to serve passengers and locals.

c). Green

- Use landscape "bridge" to connect the space isolated by rails.

(South Square, North Square, long-distance bus terminal)



2. Low-speed network is used as spatial connection.

Low speed network is often described in Jan Gehl and Jane Jacobs's theory. They both suggested that the slow traffic could promote lively and safe city. Spatial identifications are generated at the study area; the next question is how to link them. Low speed network becomes the significant factor for connecting different places. "Low Speed" or "Slow Traffic" does not mean vehicle free, it contributes for using designs to achieve pedestrian priority.

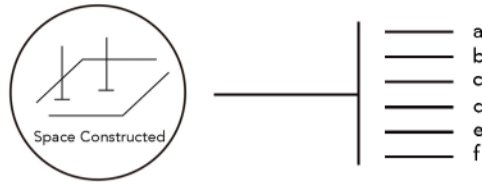


3. Emphasize the relationship between the built environment and people's quality of life in small scale design.

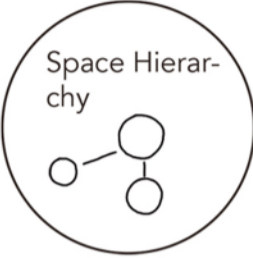
Human dimension is the design approach that is advocated by Jan Gehl in small scale. One of the purposes of the design is to serve and stimulate people's activities. People's sense on the space becomes the necessary design criteria. The human orientated design could be a street plan, even the street furniture design. where is the space for vehicle, pedestrian and sitting area in one street? In addition, how to increase the city life is another part in human dimension approach. For example, the well playground would add more children's activities.



03.4 Strategy Making from Theory to Design



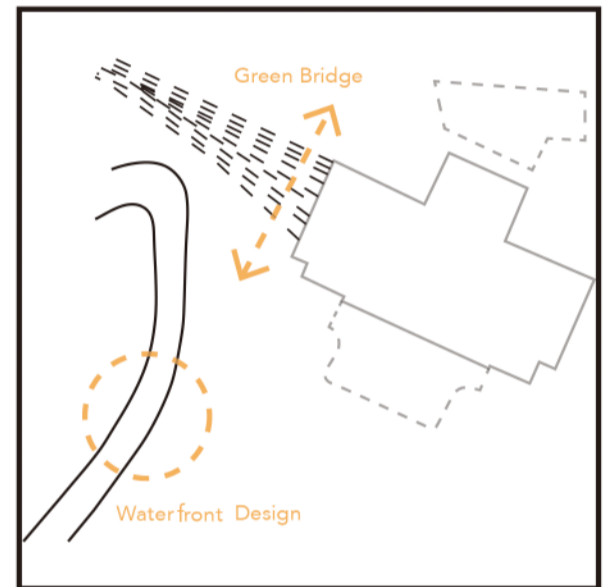
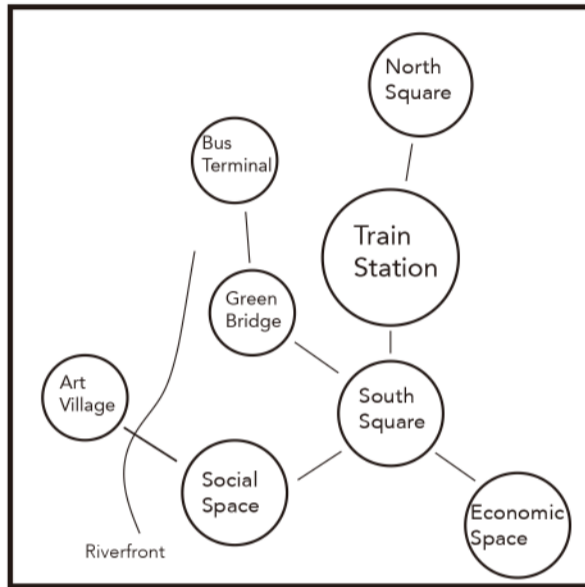
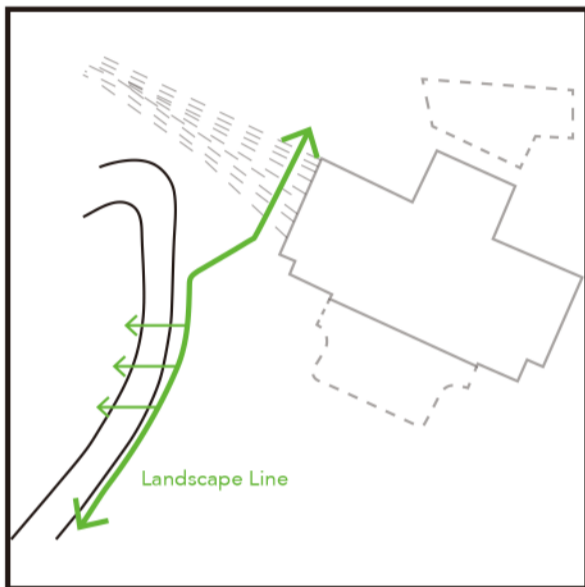
Landscape
Riverfront Rebuild & New Green Bridge forms the city landscape.



Space Hierarchy
Train Station is the main function with other different supporting programs.



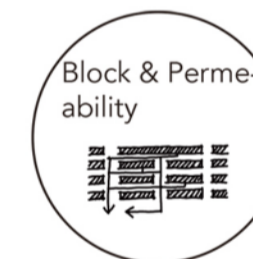
Visual Stimulation
Pleasant waterfront design and green bridge as new landmark could increase visual stimulation.



Public Realm
Creating more public realm could promote place-making.



Small space dimension
In small scale, large space is divided into small blocks for better planning.



Block & Permeability
Well permeability of building blocks could increase possibilities for having social activities.

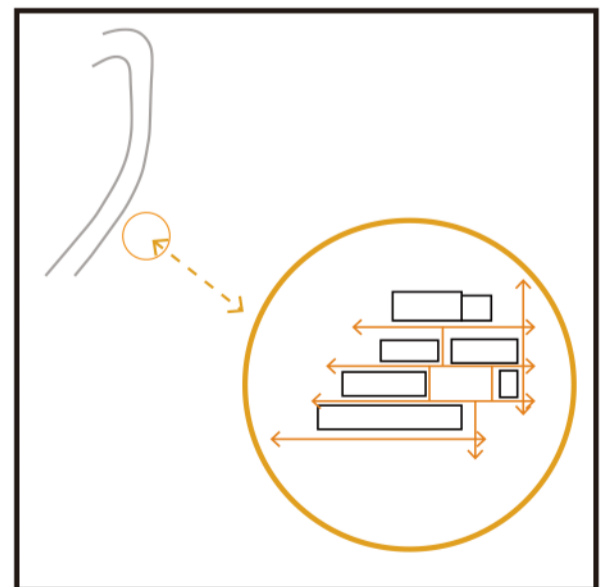
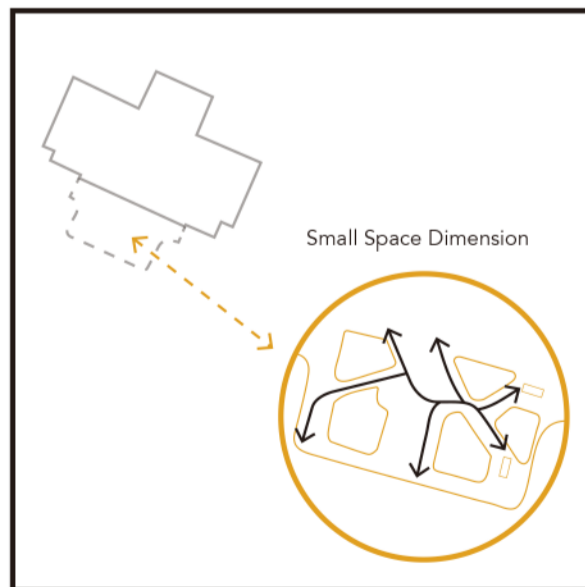
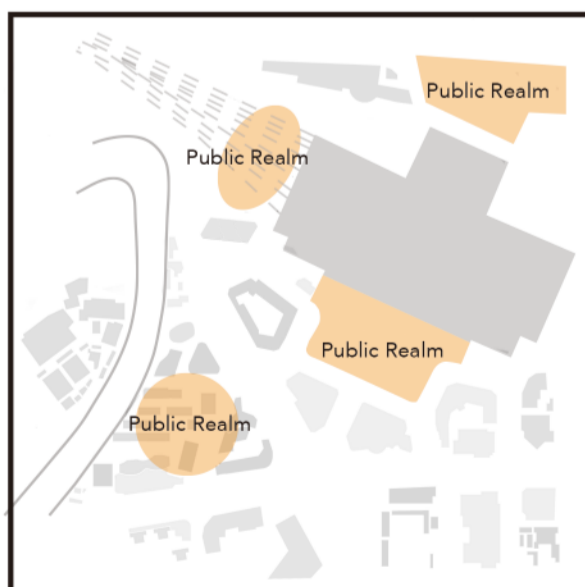
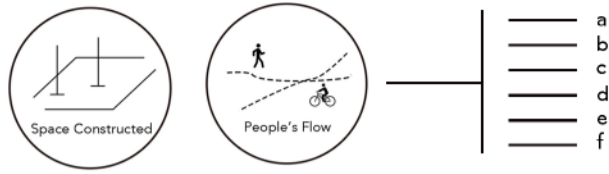


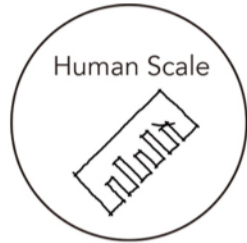
fig.03.4 (b) From Theory To Design (drawing by author)

03.4 Strategy Making

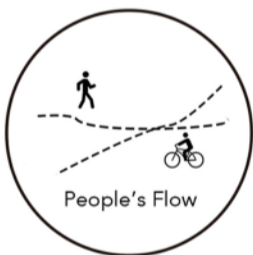
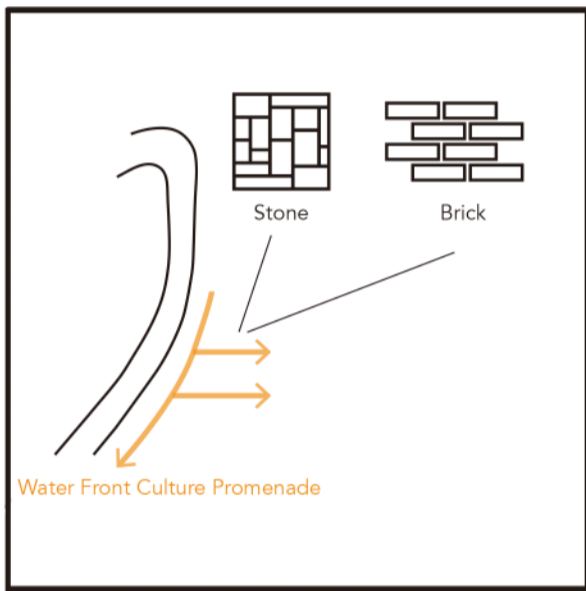
From Theory to Design



Traditional building material and new culture promenade express the special Shanghai's character.



The purpose of the design is to increase the relationship between people's quality of life and built environment, especially in the small scale.



Low-speed network is built to connect all relating design components.

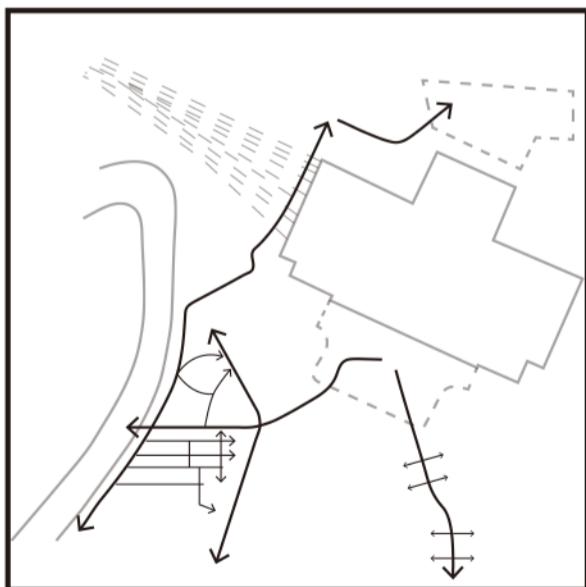
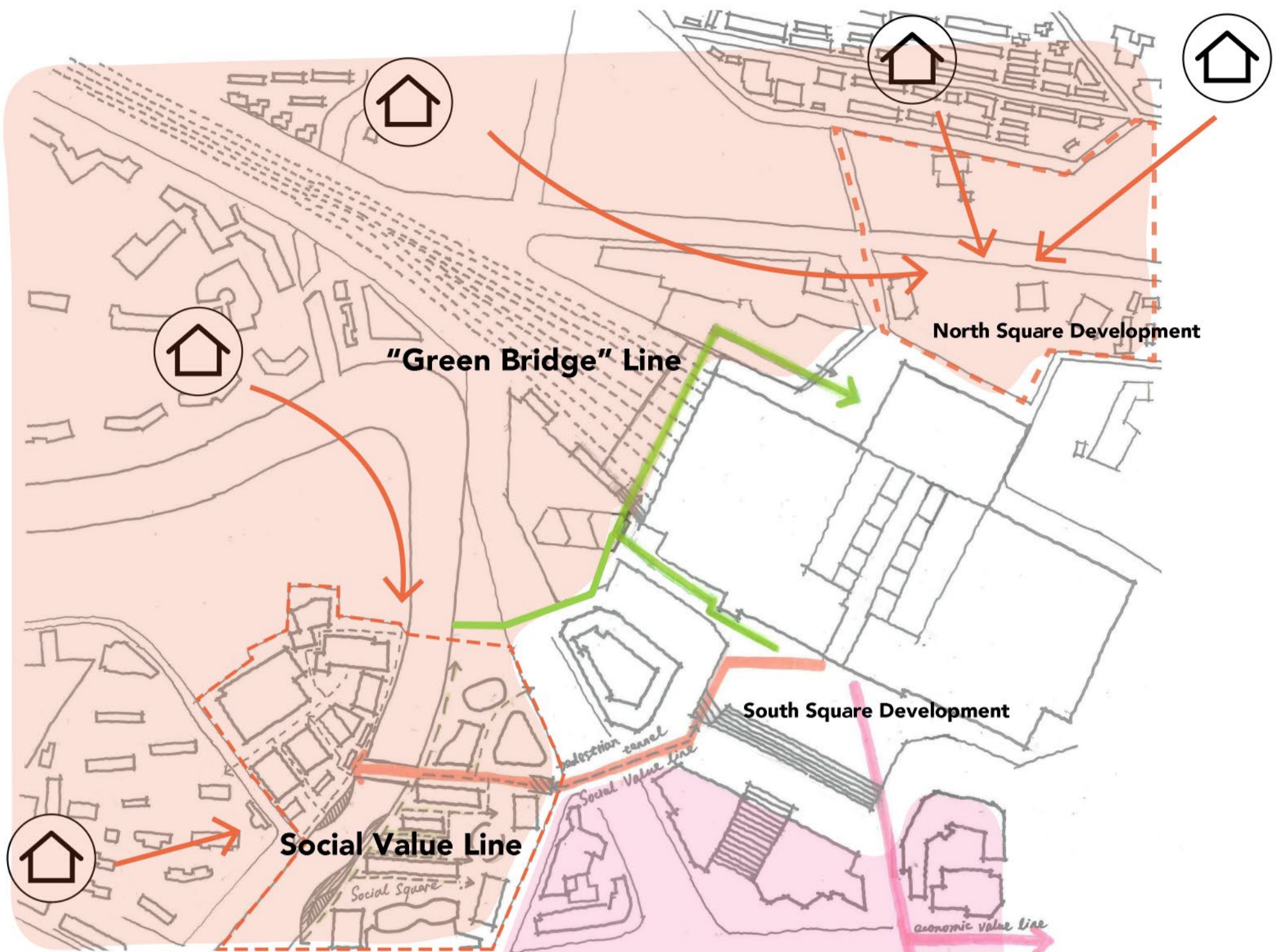


fig.03.4 (c) From Theory to Design (drawing by author)

03.4 Strategy Making

Overview



Economic/Business Value Line

For Passenger
For Local & Office Worker

Relating Program

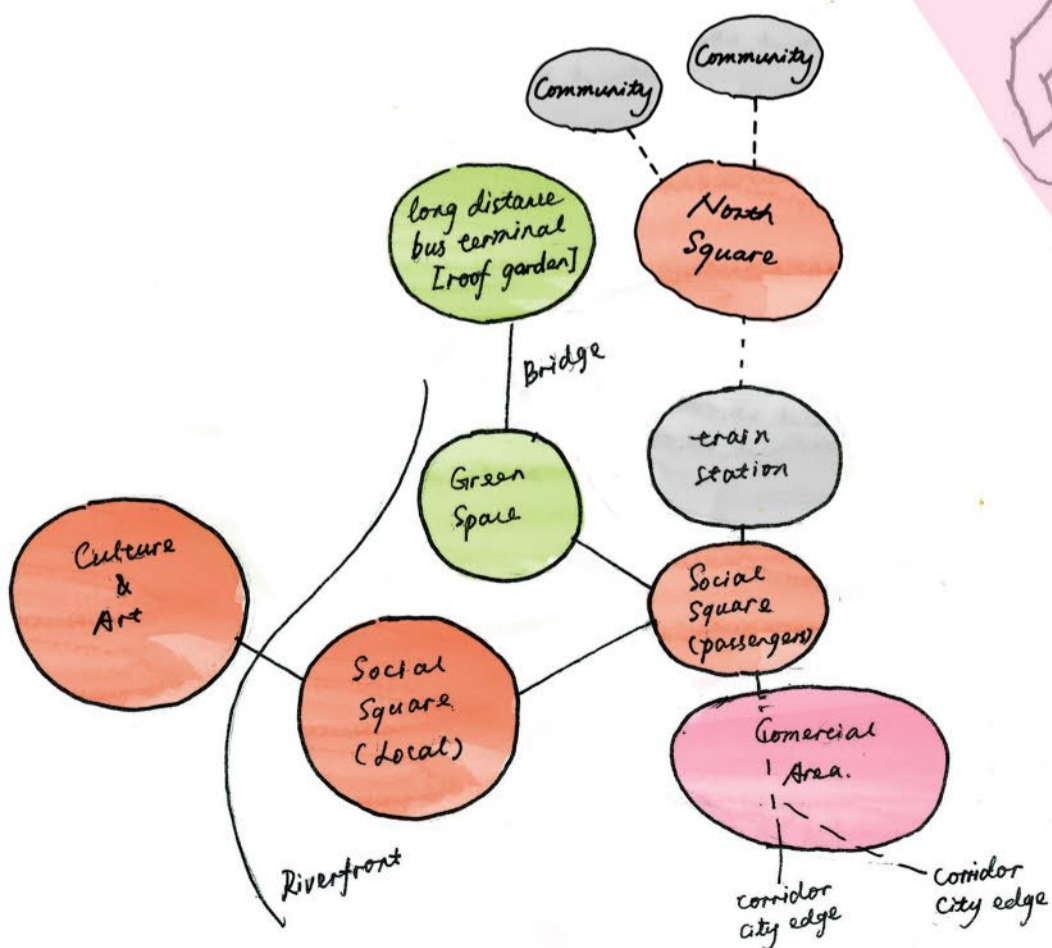
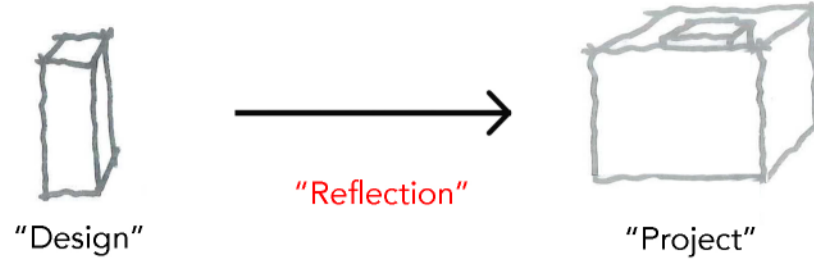


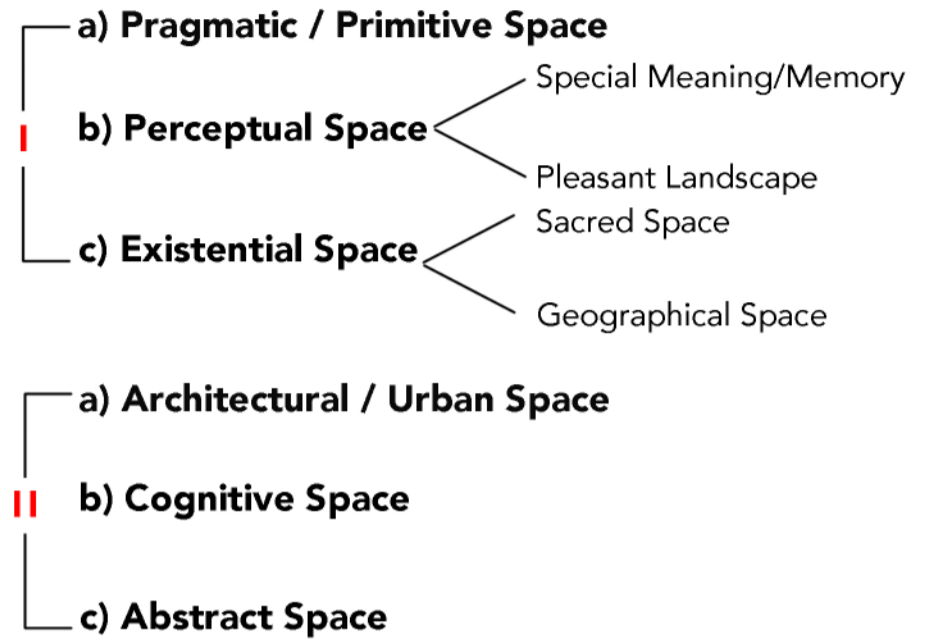
fig.03.4 (d) Overview of Strategy Map (drawing by author)

03.5 Place Argument



Foreword

According to Edward Relph's theory, the definition of the place is composed by some of the diverse meanings. It is obvious that those diverse meanings of place could be one of the important criteria. In the theory, firstly (mentioned at the theoretical framework), Relph identifies modes of spatial experience that are instinctive, emotional and bodily, what Relph calls pragmatic space, perceptual space and existential space. Secondly, Relph identifies modes of spatial experience that are idea, conceptual and cerebral, what Relph calls architectural and urban space, cognitive space and abstract space. In this chapter, diagrams referring those diverse meanings of place would assess the design if it were a place.

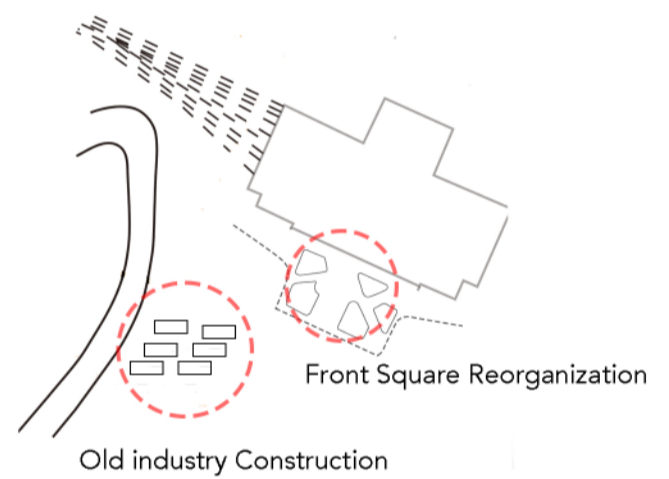


Pragmatic Space, perceptual Space & Existential Space

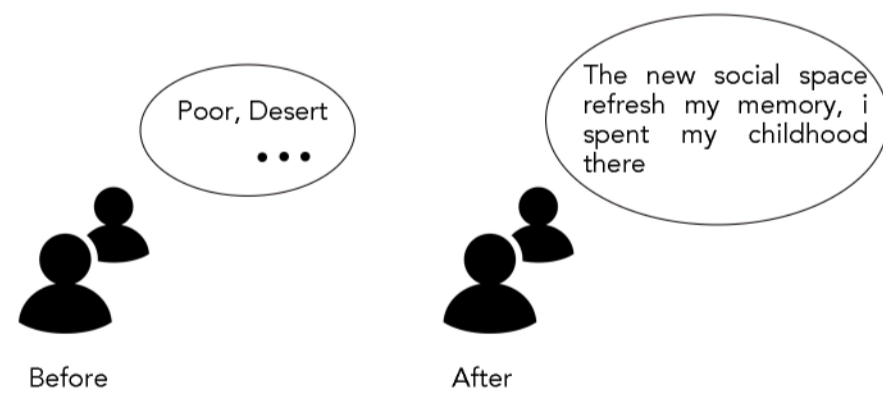
Pragmatic space is the organic environment in which human and animals survive, it is the start point of the space definition. The study area has the property of pragmatic space, of course. Relph (1976) suggested that the perceptual space could be divided into special memory and emotional encounters of the landscape. For example, man is walking on the path as he always did at the childhood; he would have an intimate feeling. One of strategies in the project area is to extend the front square of the railway station to the riverside and reuse the old industrial building. The Suzhou river witnesses the Shanghai's development and implicates traditional culture. In addition, Old industrial buildings in late 90s have potential for stimulating people's memory. This strategy transfers the desert area to highly social values place; as a result, more people would like to gather there. To some extent, people's memory would be refreshed if they worked or lived in those industrial buildings in the past. Due to the history of this Shanghai main railway station, the same influence is also reflected by the front square reorganization. The good front waiting square of this old railway station is not only provided enough public facilities for passengers but also renewal the perceptual space in people's mind. The second part of the perceptual space is emotional expression that could be achieved by the new bridge and pleasant waterfront.

Script 1

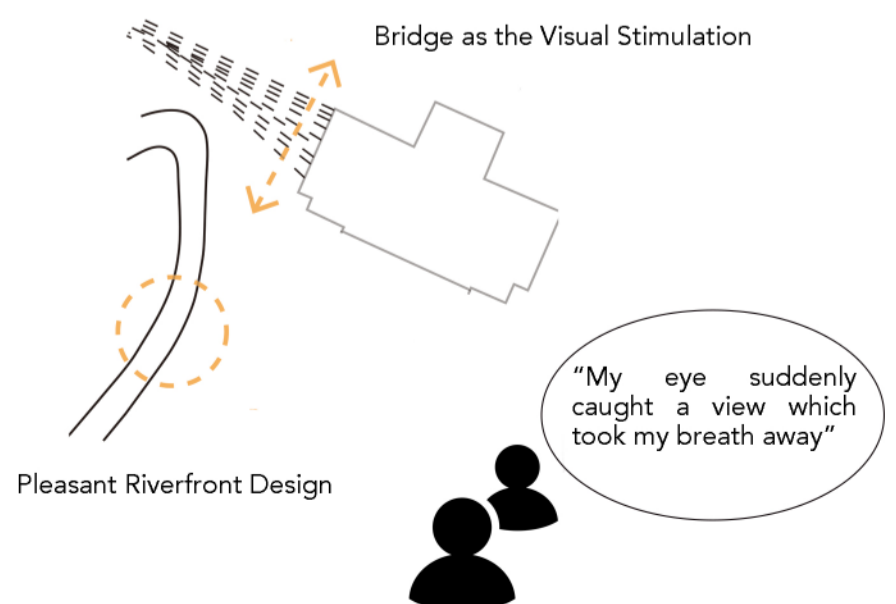
a) Special Memory



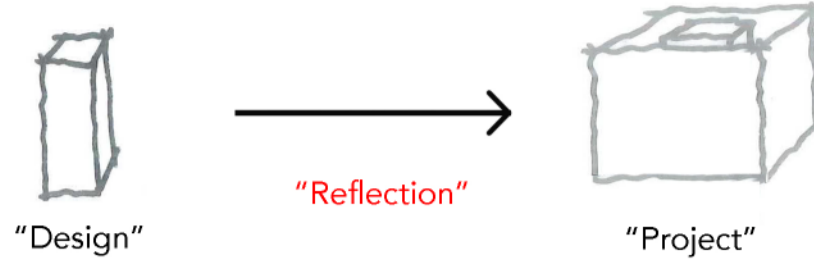
People who worked and lived there before



b) Landscape



03.5 Place Argument



Pragmatic Space, Perceptual Space & Existential Space

Existential space is similar with the perceptual space for reflecting instinctive and bodily modes of spatial experience. The difference between existential and perceptual space is that existential space emphasizes more on the culture relation. Relph (1976) argues that existential space is both experienced and created unselfconsciously in specific culture. The other important point is that existential space is only experienced by individual rather than the summation of the meanings of individual perceptual spaces. Culture defines the existential space and hence it is difficult to experience the space with another culture. In the design, it is necessary to promote Shanghai's traditional culture for passengers and locals. In addition, based on the early research, the definition of public in China is more active and vibrant. Some of space for diverse public purposes should be considered carefully.

The other keyword of existential space is unselfconsciously. The easiest meaning of the unselfconsciously could be explained into a short script. "Two people are walking on the opposite direction in the pleasant public place, then one guy stop to say 'hello' to the other one". Unselfconscious activity will happen because different people are using the same place.

Mental maps as the representation of people's mind on the space here conclude the concept of perceptual and existential space. Before the project, the study area is only known as Shanghai main transportation hub. After serial interventions, the project area has different scales of public facilities to support people's social activities. In the mental drawing, people would draw the green bridge (landmark), riverside (city landscape & culture), industry building (new social zone) and even the pedestrian tunnel (gateway).

Script 2

Unselfconscious Communication

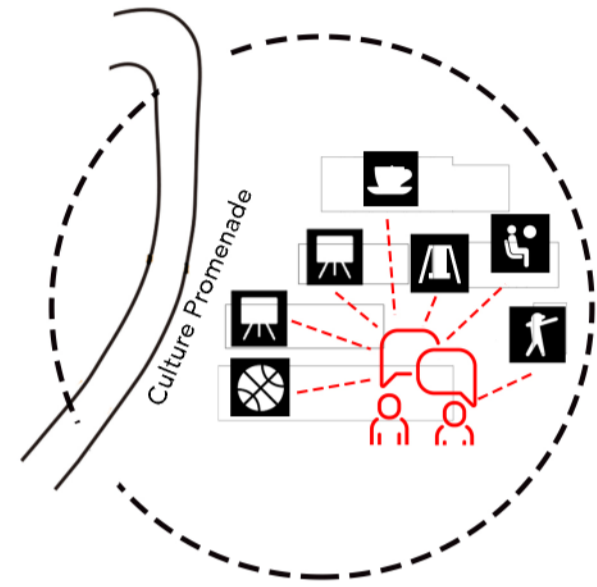
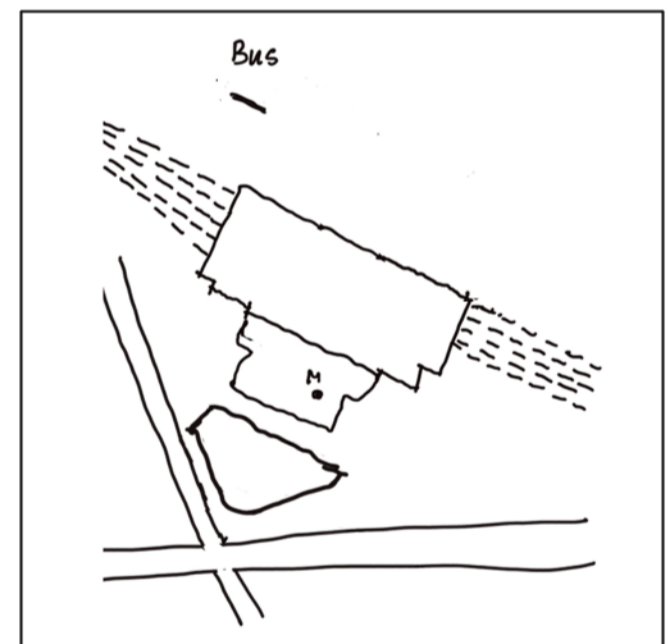


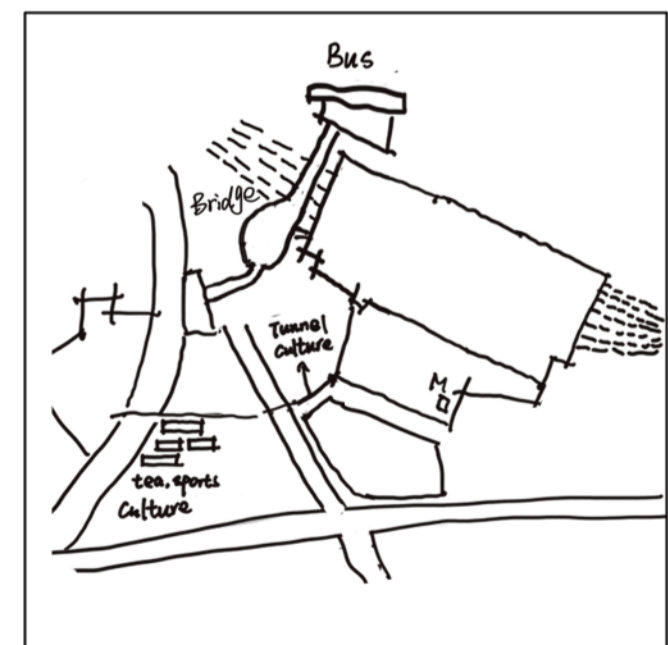
fig.03.5 (b) Unselfconscious activity (drawing by author)

Script 3

Mental Map



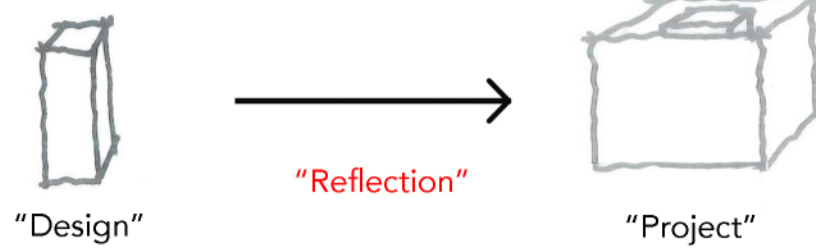
Before



After

. fig.03.5 (c) Mental Mapping (drawing by author)

03.5 Place Argument



Pragmatic Space, Perceptual Space & Existential Space

Geographical space is one of the elements of the existential space. The concept of geographical represents the reflection of man's basic awareness of the world. For example, people would name the space by the subjective emotion. The structure of the geographical space or be more precisely, existential space, is analyzed by many researchers. Gordon Cullen (1971) analyzes the experience of urban space by the perspective of the person in the street (fig.03.5(d)). In the theoretical framework, Norberg-Schulz (1971)'s drawing is illustrated as a more formal analysis of the structuring of existential. This chapter is going to apply Norberg-Schulz's drawing to the study area. First level is the "symbol", waterfront, bridge and front square would be the new existential space in this area. The next level is the street, the basis of people's experience of this area. Third is the urban level, the most entire structures are created though human's effort and purpose. Fourth level is the landscape and environment. The widest and most complicated of these is geography of the nation beyond people's direct experience.

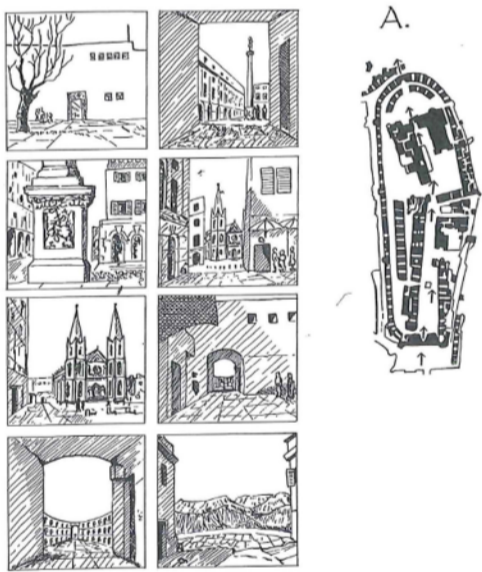


fig.03.5 (d) People's perspective on street (drawing by Cullen)

Architectural Urban Space, Cognitive Space & Abstract Space

The second part of Relph's Theory (1976) is modes of spatial experience that are more ideal and conceptual. The first is the architectural and urban space that is based on the unselfconscious spatial experience, involving the deliberate attempt to create spaces. The diagram on the right indicates the possible design framework.

Script 4

Geographical Space

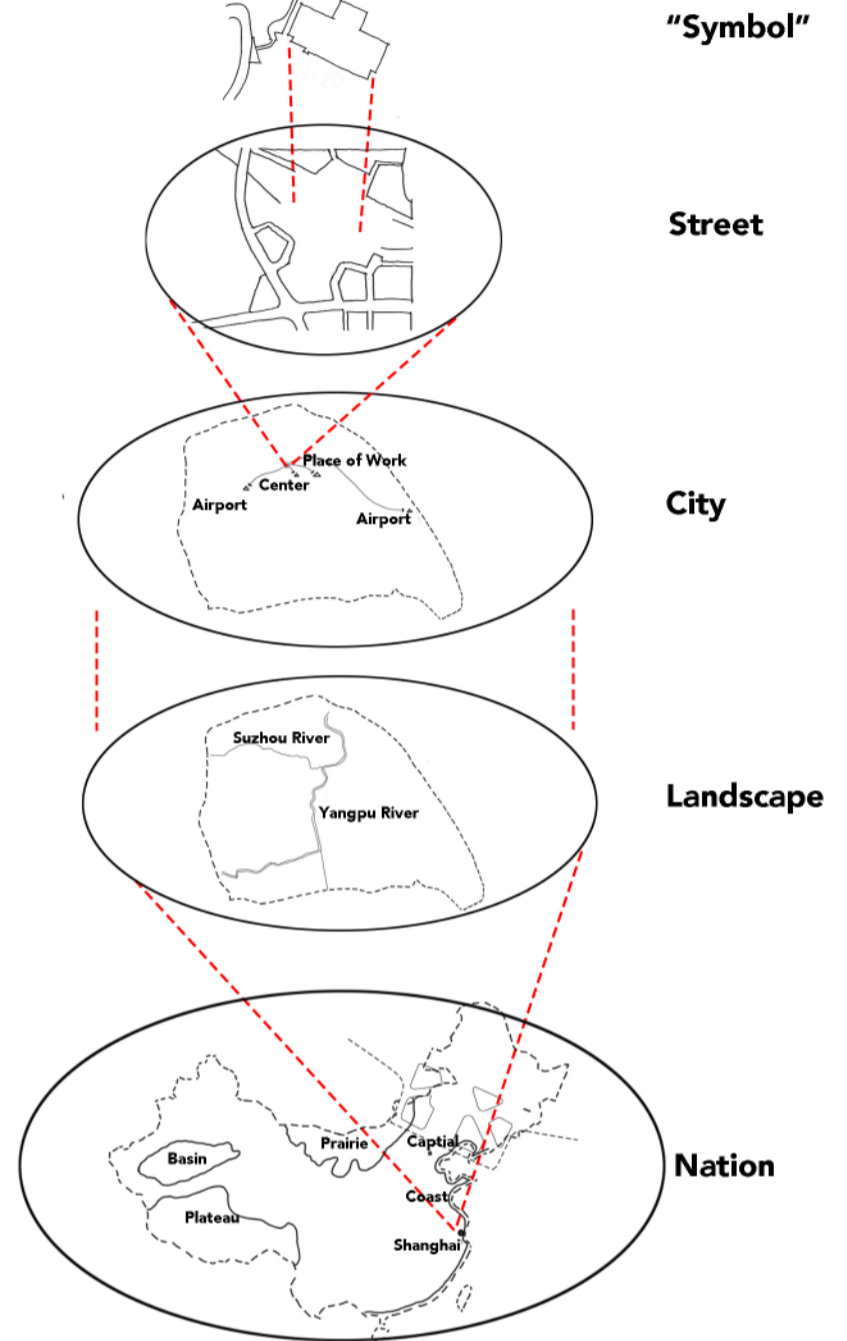


fig.03.5 (e) Levels of Existential Space (drawing by author)

Script 5

Architectural and Urban Space

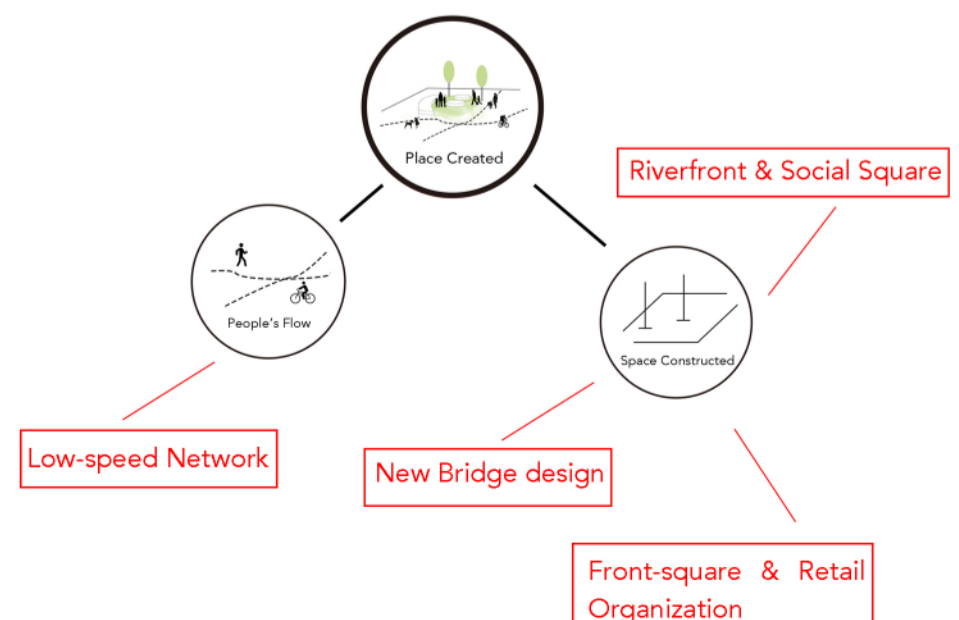
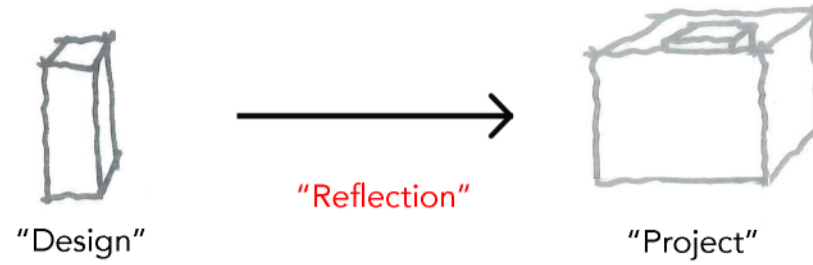


fig.03.5 (f) Design Framework (drawing by author)

03.5 Place Argument



Architectural Urban Space, Cognitive Space & Abstract Space

Cognitive space represents the abstract construction of space derived from space identification as the basic reflection. This concept relates to people's minds and thoughts closely. Mental mapping is the common way to describe the cognitive space (03.5(c)). People would draw what the important space is in their mind. In addition, interview is another way to reflect cognitive space. The design is going to make the study area as a comprehensive urban place. After 10 to 15 years, this study area will not known only a railway station, but also some of diverse urban images.

Script 6

Minds & Thoughts



fig.03.5 (g) Probably thoughts on urban space (drawing by author)

04

Detailed Design

04.1 Low Speed Network Establishment

- a) Low Speed Network 1:2000
- b) Low Speed Network 1:5000

04.2 River-front Design

- a) Design Illustration
- b) Program Description
- c) Plan
- d) Axonometric Drawing
- e) Images

04.3 Urban Bridge Design

- a) Design Illustration
- b) Program Description
- c) Plan
- d) Axonometric Drawing
- e) Section
- f) Images

04.4 Front Square Design

- a) Design Illustration
- b) Program Description
- c) Plan
- d) Axonometric Drawing
- e) Images

04.1 Low Speed Network

Foreword

Last chapter introduces several spatial strategies via the summary of theories for improving natural quality at the study area. In addition, the definition of the place is discussed at specific location. This chapter is going to state detailed designs at the small city scale. First of all, low speed network that is based on the design concept is established to connect important urban components. Next, three detailed designs (riverfront, bridge, front square of transportation hub) in different locations are interpreted for improving the urban quality.

Low Speed Network Establishment

According to Gehl (2010), Jacobs (1961), and many other researchers, low traffic means lively city. Low traffic in the urban design that is comparative small scale represents how the design could promote better spatial connectivity for pedestrian. In this project, in order to meet people's requirements as far as possible, this network is divided into three walking lines. Firstly, the orange line leads people to the new social and culture square along the Suzhou River. The new pedestrian tunnel connects railway station with riverside, which ensures convenience and safety. Secondly, the green line indicates the new urban overbridge for spatial connectivity between two sides that are isolated by rail lines. The last, the red line is used to push pedestrian who want to approach urban shopping center.

The zoom out drawing (fig.04.1 (d)) shows the relationship between new network and other existing urban attributes such as buildings and roads. It is obvious that all new projects (brown color) are being constructed along the green line. Furthermore, this new network takes into consideration potential spatial articulation about future projects, which is reflected by conceptual drawing (fig.04.1 (b)).

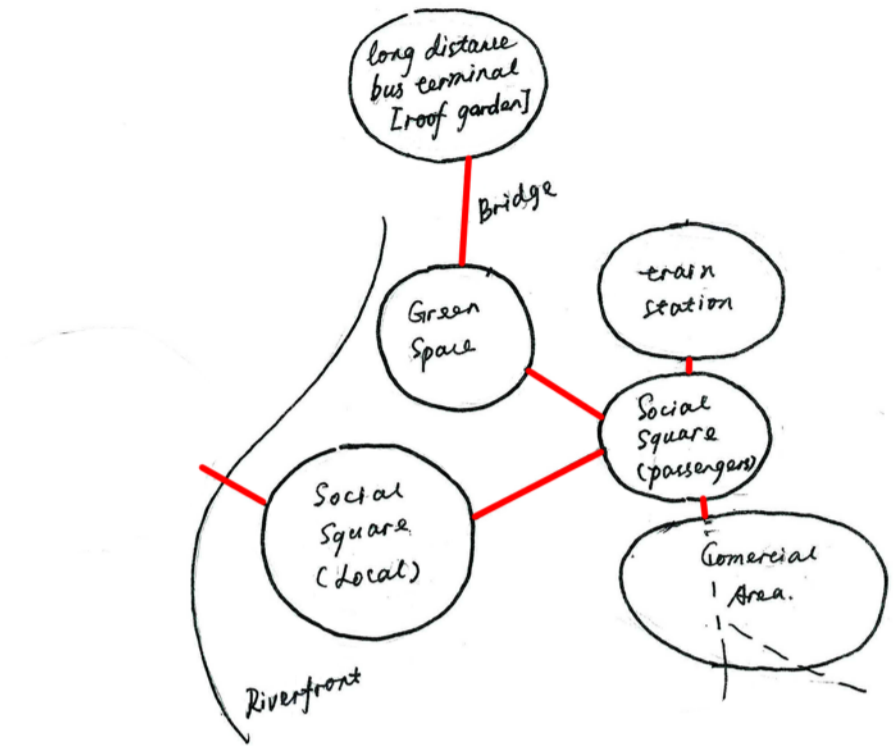


fig.04.1 (a) Low speed Network as the Spatial Connectivity (drawing by author)

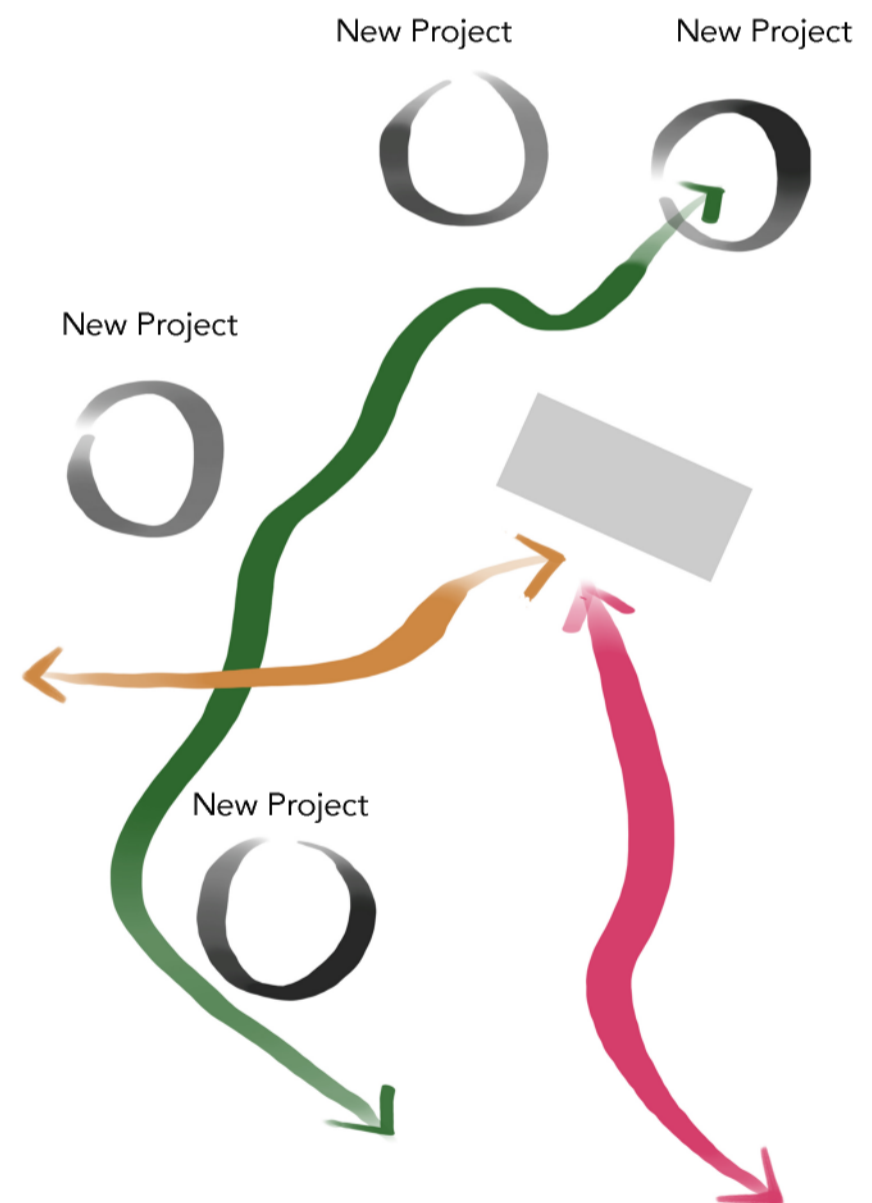


fig.04.1 (b) Conceptual Drawing of Low Speed Network (drawing by author)

04.1 Low Speed Network



fig.04.1 (c) Low Speed Network Definition 1:2000
(drawing by author)

04.1 Low Speed Network

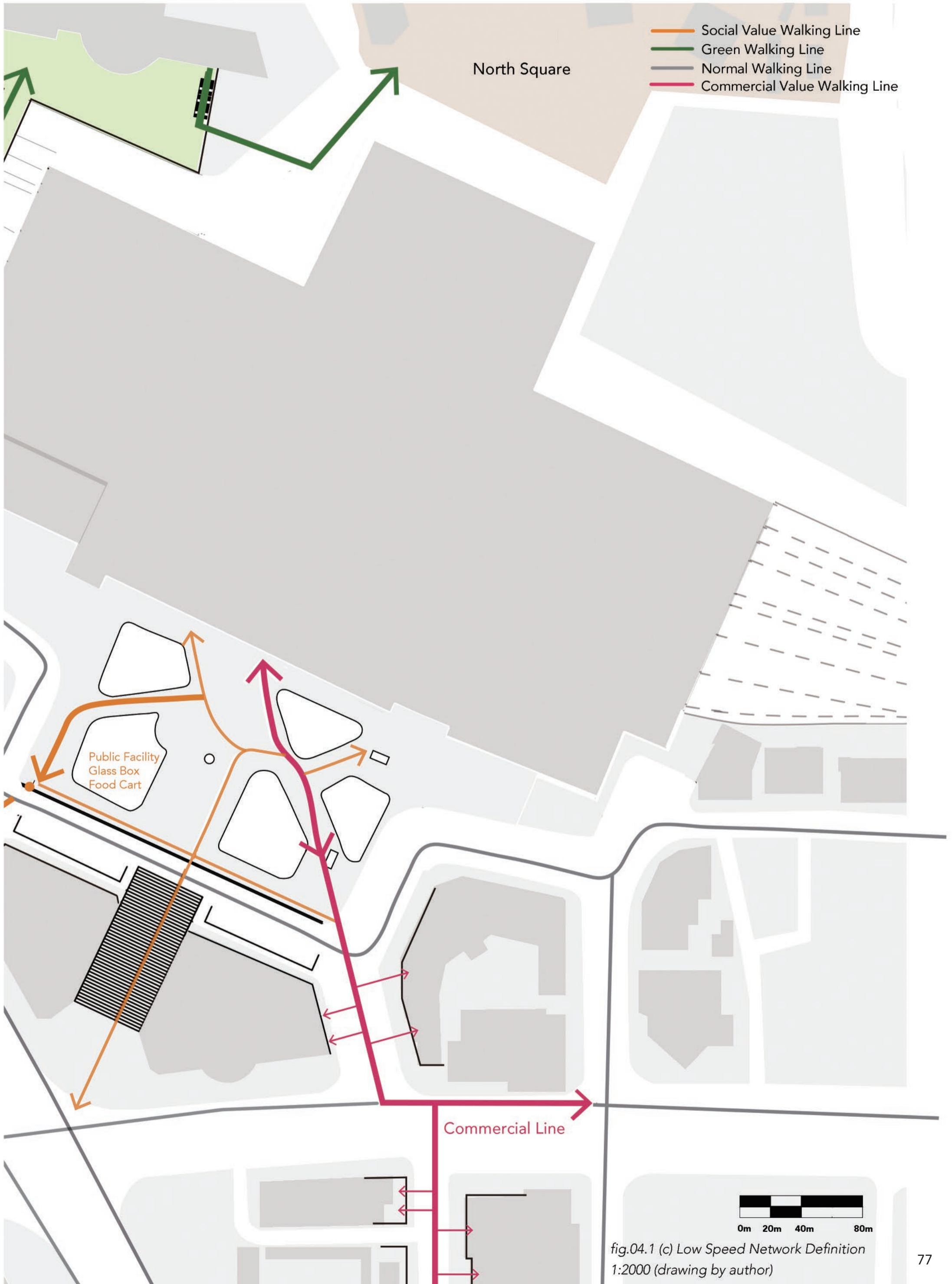


fig.04.1 (c) Low Speed Network Definition
1:2000 (drawing by author)

04.1 Low Speed Network



fig.04.1 (d) Low Speed Network Definition 1:5000
(drawing by author)

04.1 Low Speed Network

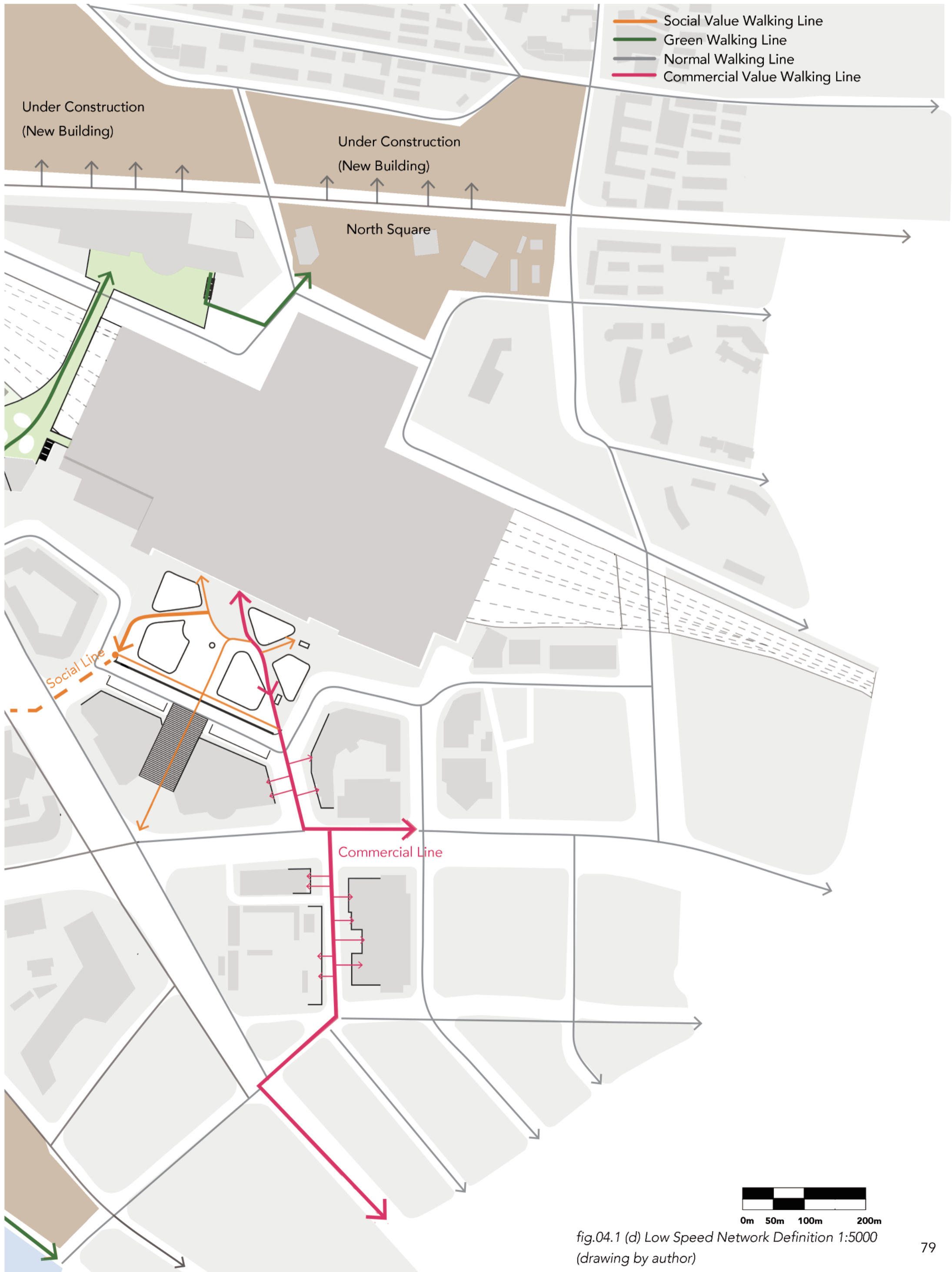


fig.04.1 (d) Low Speed Network Definition 1:5000
(drawing by author)

04.2 Riverfront Design

Design Illustration

Riverfront Design

The purpose of this design is going to rebuild waterfront cultural promenade and reconstruct wasted industrial buildings, which transfers poor quality urban space to the attractive social and culture plaza (fig.04.2 (a)). This new social plaza could meet demands of people in varying ages and backgrounds. For local residences, this new plaza is a public place for stay and social activities. For passengers, it provides the good opportunity to experience Shanghai's culture. In addition, this plaza offers various ways for spending their waiting time. The following would discuss the important points in this spatial design.

a) Building Reconstruction

In order to implement diverse programs referring social factors, Old industrial buildings have to be reconstructed. Currently, Some buildings have already been made changes at the function and façade (fig.04.2 (a)). For example, some small offices and studios are occupied the ground floor, some building space is used as the store-room. However, the usage rate is still low, due to the large amount of empty space at upper floors. One solution of reconstructing buildings is to move ground floor offices and studios to the upper floors, and then new social programs could be occupied at the bottom floor. The other solution is to remove ground floor completely and using "steel truss" and "steel columns" to form an overhead construction. The art and culture exhibition hall or gallery could be occupied into this overhead construction, which increases relationship between building and outdoor space.

b) New Riverfront Landscape

New landscape design along the Suzhou River is creating a pleasant promenade area. Suzhou River is one of the oldest creeks from "Ming" Dynasty. The river witnesses Shanghai's development and accumulates traditional culture. In this project, landscape design offers multiple chances (fig.04.2 (c)) to play, stroll and stay along the riverside, which closes the distance between people and river.

C) Commercial Building Recombination

At the north of the riverfront, some small shops and restaurants blocks people's way, as the result, riverfront promenade is affected in the negative way. The design reorganizes and recombines those small commercial houses into the one complex building (fig.04.2 (d)). The column corridor is made to guarantee the riverfront



fig.04.2 (a) Existing Function in those Industrial Buildings (photo by author)

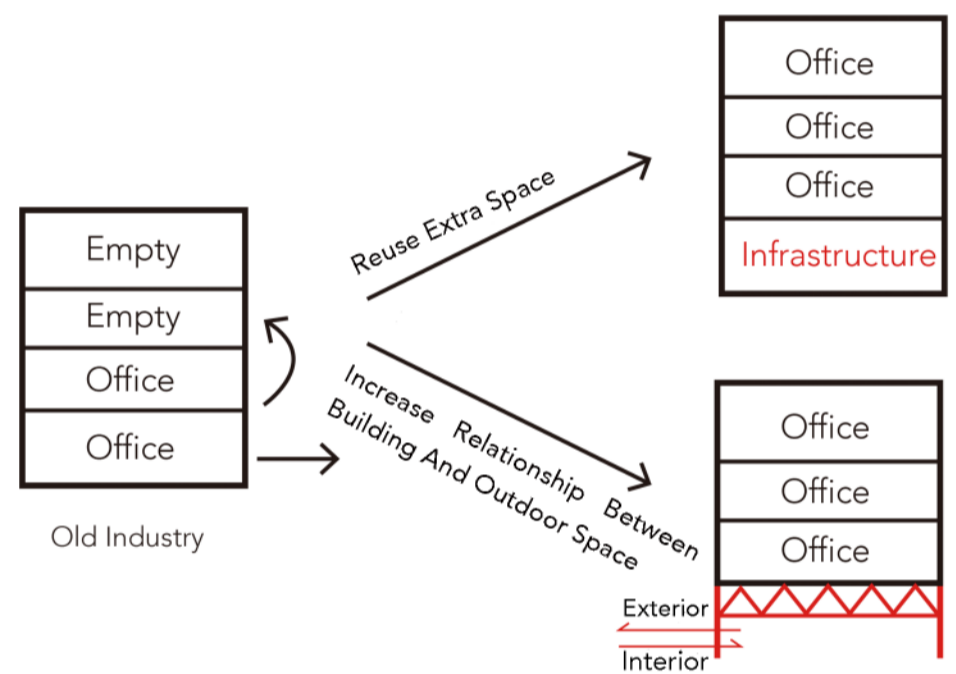


fig.04.2 (b) Building Reconstruction (drawing by author)

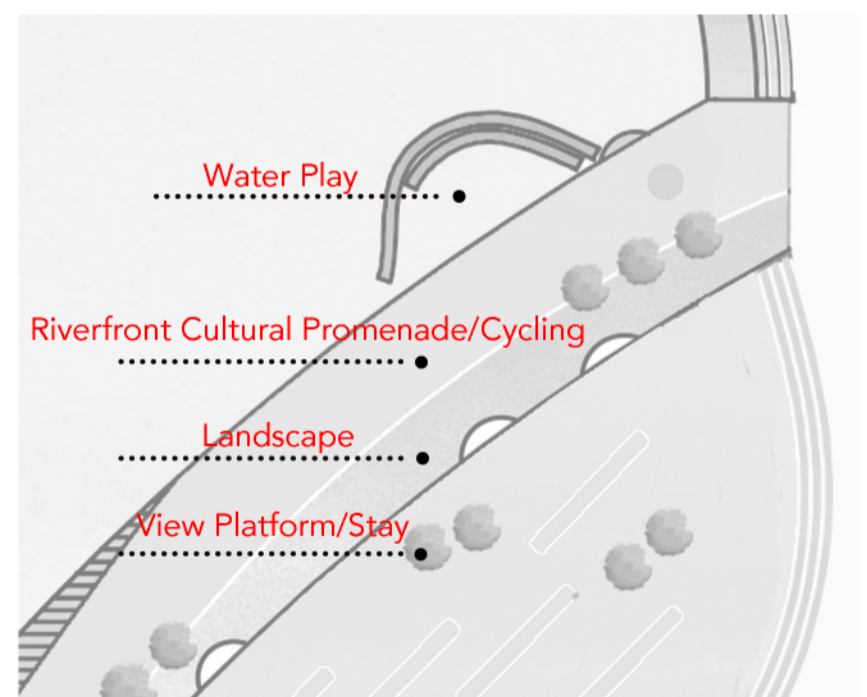


fig.04.2 (c) New Riverfront Landscape (drawing by author)

04.2 Riverfront Design

Design Illustration

promenade continuity. In addition, the garden with other facilities at the roof creates the view platform and connects the new green bridge project (the second design project).

Other Interesting Design Elements

Glass passageway

One building is transferred and constructed to the glass passageway, which could ensure the one straight sight view without damaging spatial enclosure (fig.04.2 (e)). The straight sight view is important in this design. It is hard to attract people if they cannot see what happening is there. When people see this new glass box that is different from other traditional buildings, they would like to go there. "It is a passageway." People are surprised and would continue walking.

Concentration and Dispersal

New programs referring to social factors are implemented into old buildings. Different people in varying ages could find their target buildings. For example, young people would go sports center and businessman prefers selecting Café and restaurant. Similarly, the space that could meet demands of people in different target groups is also important. The outdoor space in the center of this social square contains mixed land uses. For instance, the playground could attract children and the painting wall would catch artists (fig.04.2 (f)).

Culture Gateway Tunnel

In order to maintain the integrity of low speed network, the tunnel is made to connect the railway station with the new social square and riverfront. The tunnel contains some small retails and one gallery of the history of Shanghai railway station, which regards as the gateway to the Shanghai's culture.

Place Reflection

The riverfront design could reflect "place" topic in several aspects. First of all, perception space is formed. New landscape leaves images and refreshes people's memory of Suzhou River. Secondly, reconstruction of old industrial buildings referring cultural expression promotes unselfconscious activities. People with different ages and backgrounds would like to gather in the same place for social activities. Thirdly, architectural and urban space is relates to the new programs at that area. Last, people would feel this area is a fantastic social area, which indicates the cognitive and abstract space is produced in their mind.

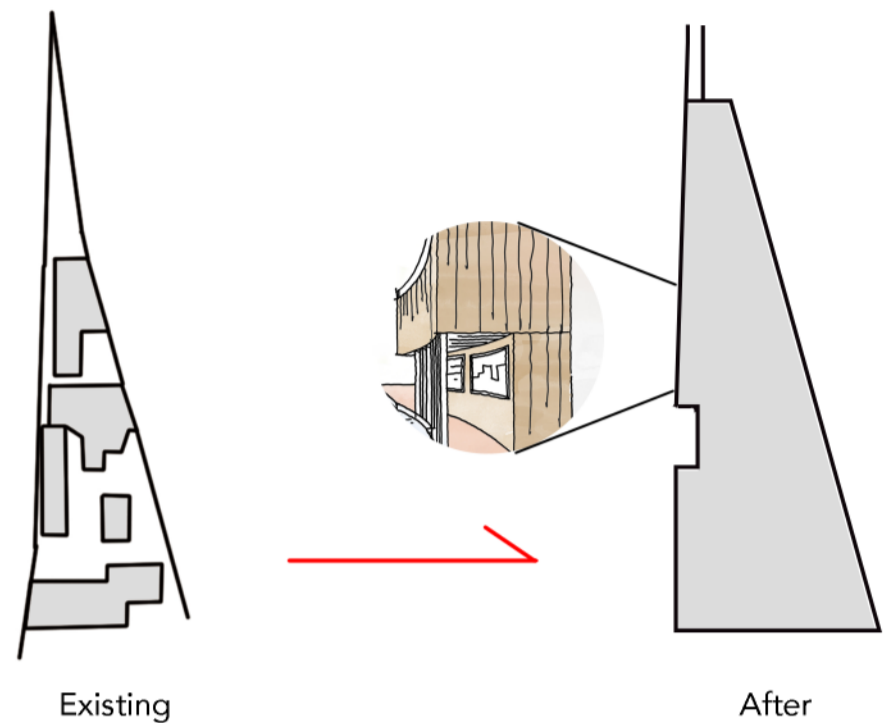


fig.04.2 (d) Commercial Building Combination (drawing by author)

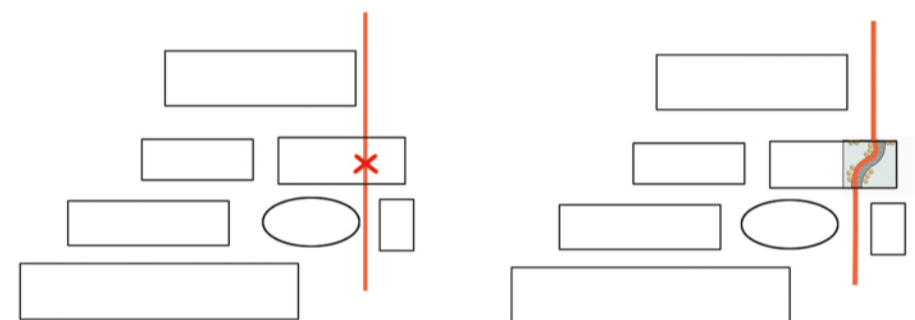


fig.04.2 (e) Glass Passageway (drawing by author)

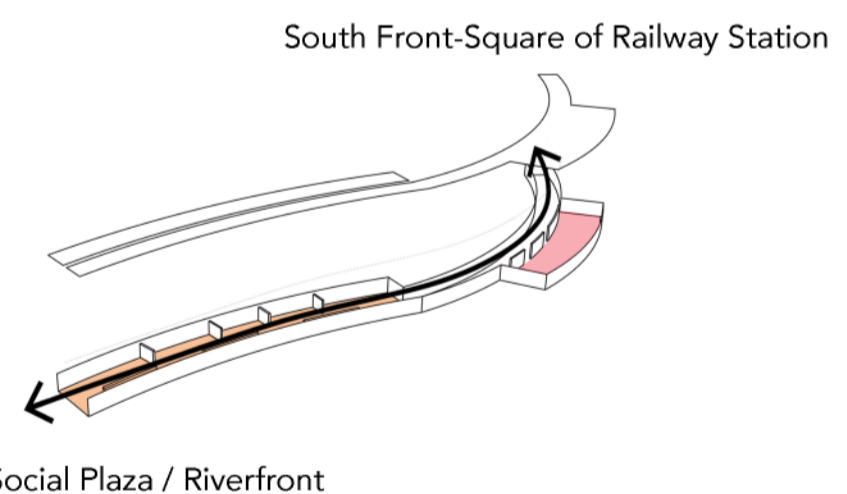






















fig.04.2 (f) Tunnel Design (drawing by author)

04.2 Riverfront Design

Program Description

Industrial Building Reconstruction & Water-front Redesign

Program	Description	People	Area or Length (m2/m)	Hours
 <p>● Train Service</p>	An new comfortable space for serving passenger. They can feel Shanghai's native culture closely via participating social activities.		350 m2	All Day
 <p>● Culture Exhibition</p>	The place to express Shanghai's traditional culture and art.(painting, history, artifact...).		1200 m2	10am to 5pm
 <p>● Interior Sports Center</p>	The sports center is for local residence to increase social values and public participation. Also, some long-wait time passengers have the opportunity to use it.		2000 m2	10am to 10pm
 <p>● Outdoor Facility</p>	The large and well designed outdoor square is made for gathering different kinds of people. (painting wall for artist, playground for children, outdoor fitness for young people, outdoor exercise for old people).		600 m2	All Day
 <p>● Dancing Room</p>	Dancing in a group is a typical way to express Chinese culture, which is loved by middle and old women.		200 m2	6am to 8pm
 <p>● Water Entertainment</p>	Water bus and boating could meet children and young people's requirement.		450 m2	10am to 5pm
 <p>● Tea, Cafe, Restaurant</p>	Old industrial buildings are easily changed to the small cafe or tea shop, which has strong culture atmosphere.		1600 m2	10am to 10pm
 <p>● Waterfront</p>	A good space for strolling and cycling.		50 m	All Day
 <p>● New Commercial Complex (hotel, shops, cafe, roof garden.....)</p>	Reorganize some small hotels, shops and restaurants into one sythetic building for increasing economic values. Roof garden provides a nice view of Suzhou river.		3500 m2	All Day
 <p>● Public Library</p>	Normally, the library is a reading space for local people. But, here, the small public library would work as a "waiting room" to give those passengers who have to wait their train more than 4 hours a space to stay.		460 m2	All Day

04.2 Riverfront Design

Plan a



- | | | | |
|----------------------|--|---------------------|--------------------------------|
| ① Sports Center | ⑤ Public Library | ⑨ Retail, Tea, Cafe | ⑬ Riverfront Culture Promenade |
| ② Exhibition Culture | ⑥ Glass Passageway | ⑩ Train Service | |
| ③ Stage | ⑦ Outdoor Facility
(Painting Wall, exercise...) | ⑪ Office (Retail) | |
| ④ Dancing | ⑧ Traditional Market | ⑫ Residence | |

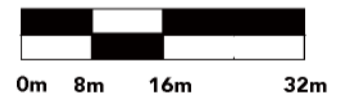


fig.04.2 (g) Plan of Riverfront Design (drawing by author)

04.2 Riverfront Design

Plan b



- ① Water Entertainment
- ② Office (Retail)
- ③ Hotel
- ④ Passage (Meeting, Recreation)
- ⑤ Roof Garden, Outdoor Cafe, Scenery

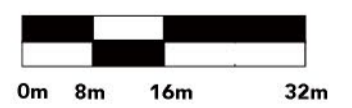


fig.04.2 (h) Plan of Riverfront Design (drawing by author)

04.2 Riverfront Design Axonometric Drawing

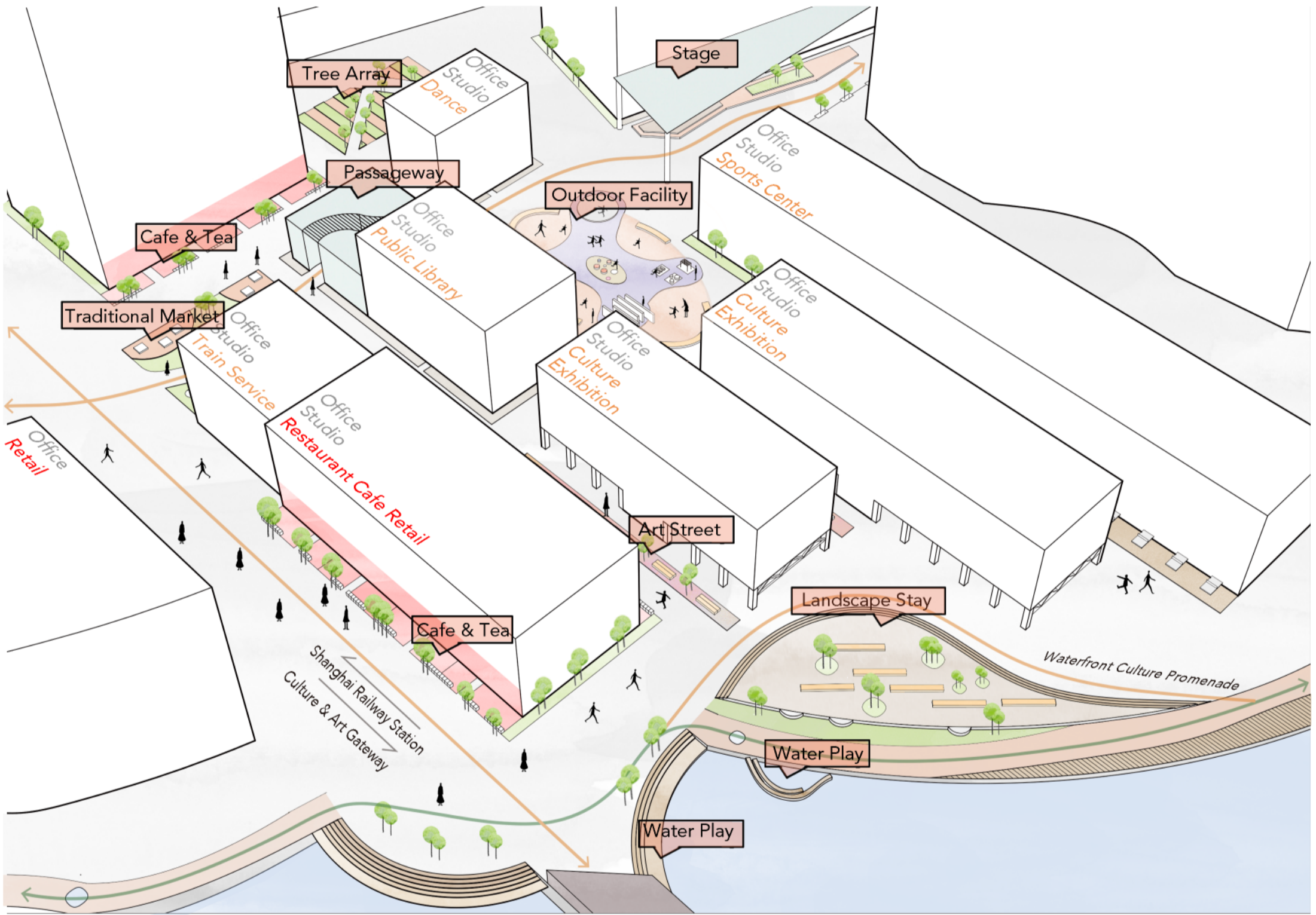


Fig.04.2 (i) 3D Drawing 01 (drawing by author)

04.2 Riverfront Design Axonometric Drawing

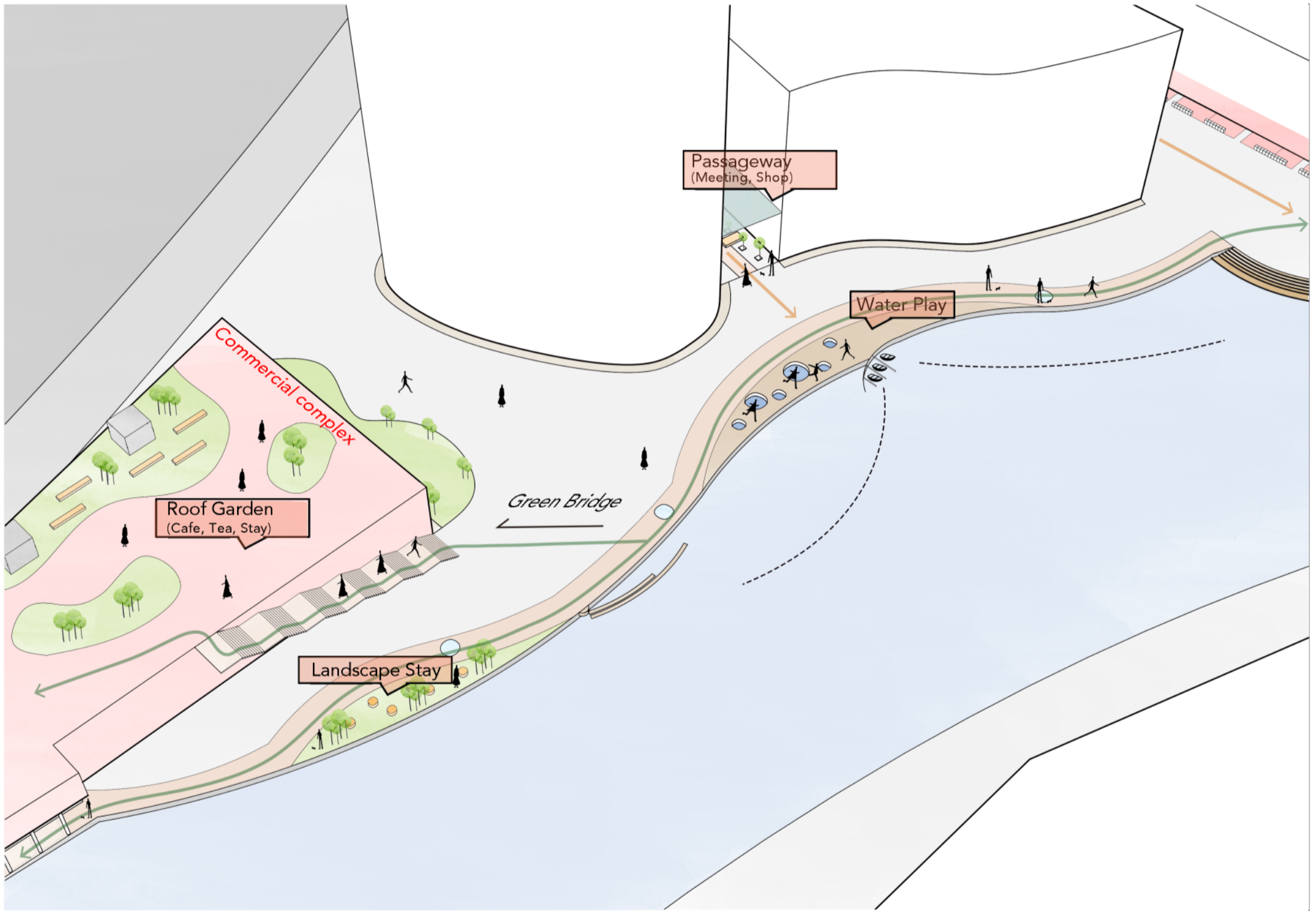


Fig.04.2 (j) 3D Drawing 02 (drawing by author)

04.2 Riverfront Design Pedestrin Tunnel

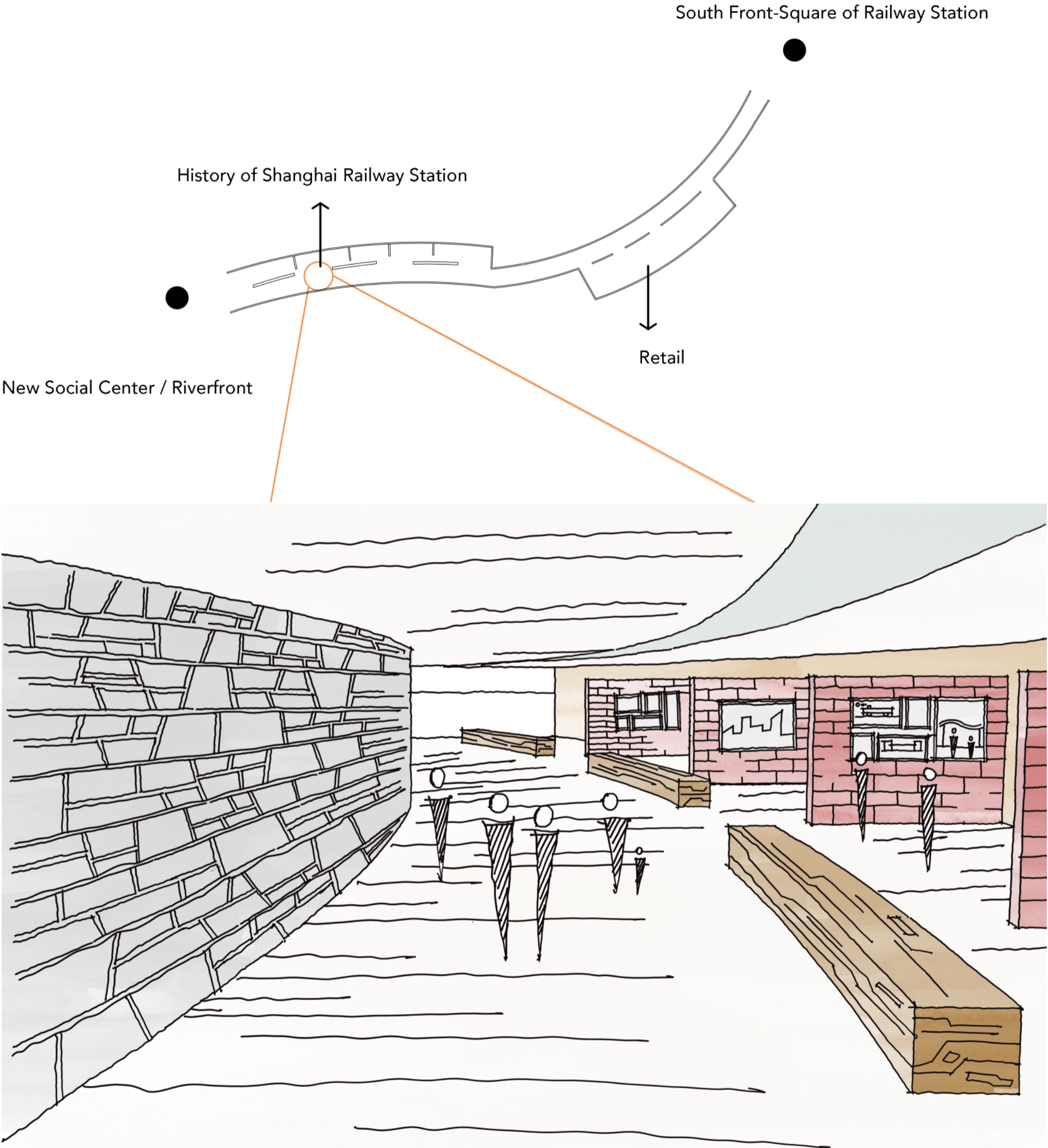
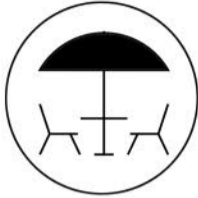
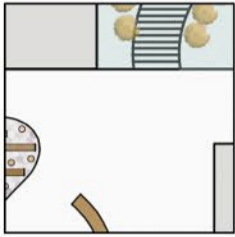


Fig.04.2 (k) The Gateway to Shanghai's Culture (drawing by author)

04.2 Riverfront Design

Images



Street Furniture



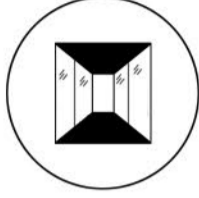
Playground



People's Activity



Landscape Image



Modern Passage

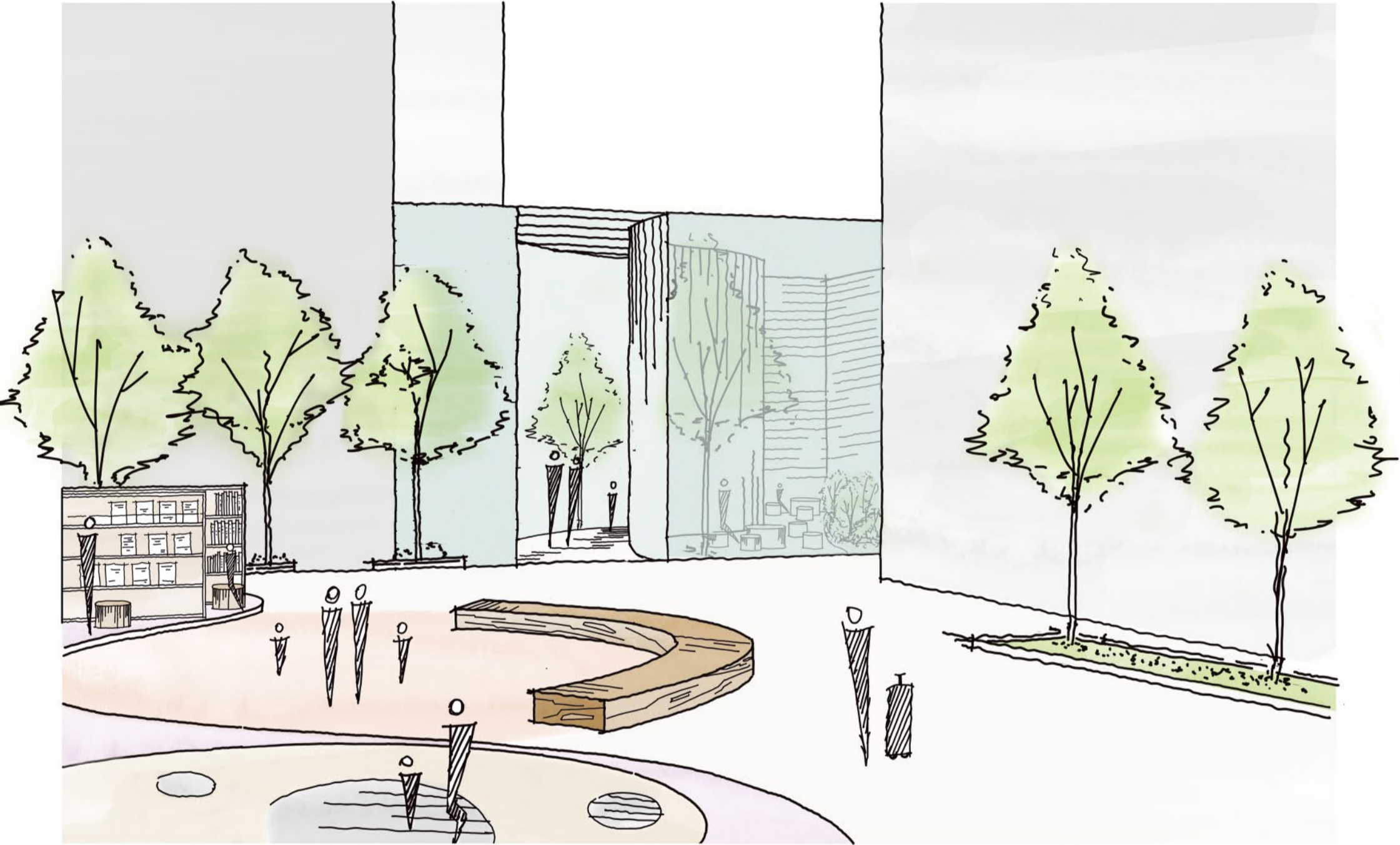
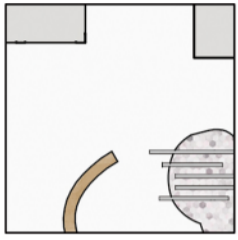


Fig.04.2 (I) Images & Sketches 01 (drawing by author)

04.2 Riverfront Design Images



Street Furniture



Culture Exhibition



Landscape Image



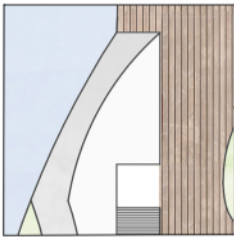
People's Activity



Fig.04.2 (m) Images and Sketches 02 (drawing by author)

04.2 Riverfront Design

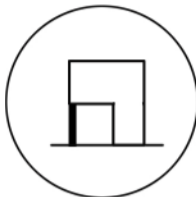
Images



Landscape Image



Staircase



Corridor



Bicycle Path

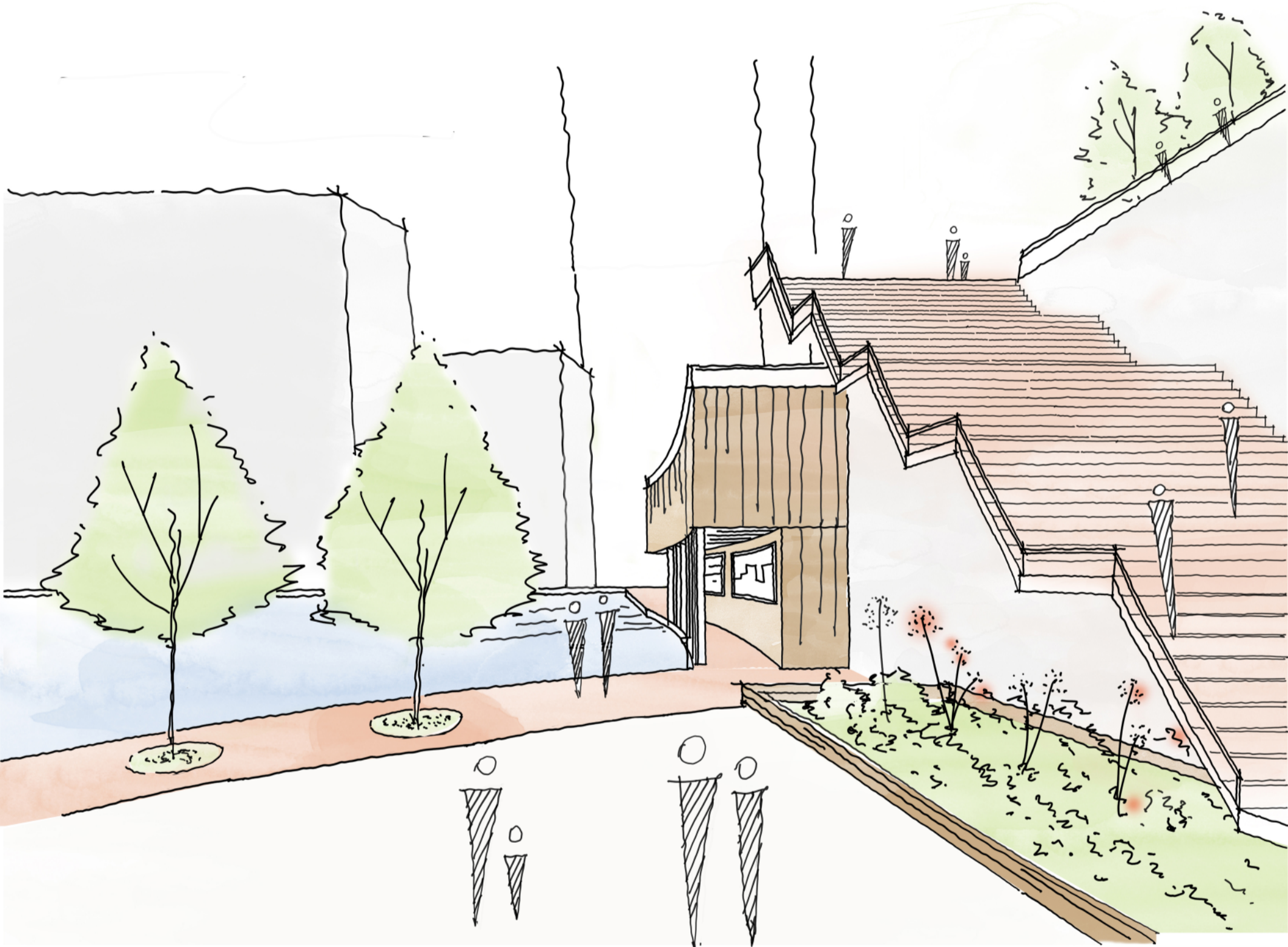
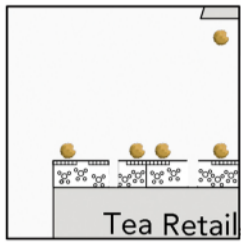
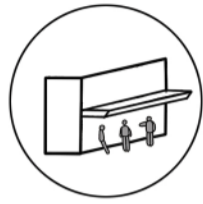


Fig.04.2 (n) Images and Sketches 03 (drawing by author)

04.2 Riverfront Design Images



Street Furniture



Soft Edge



Landscape Image

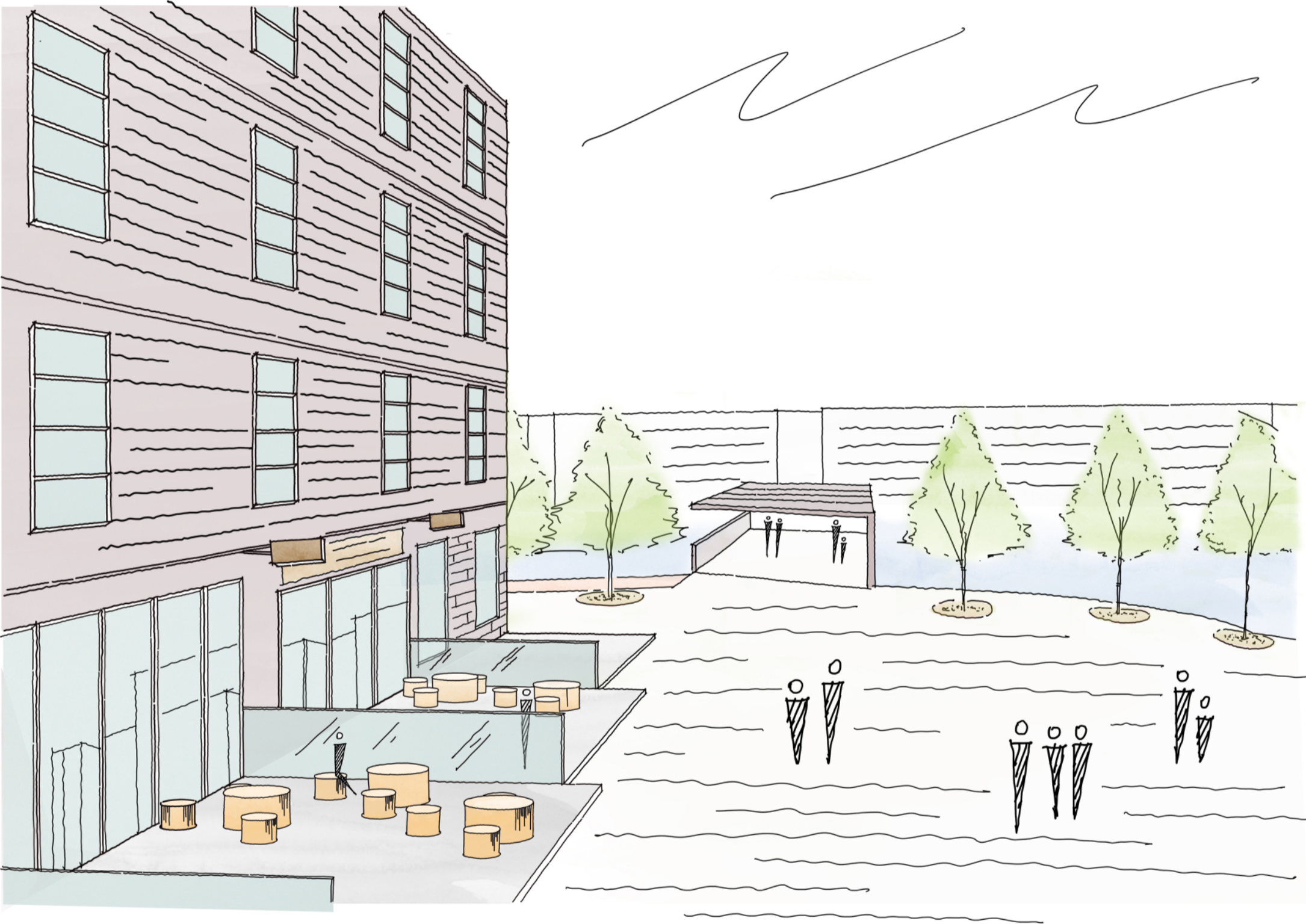
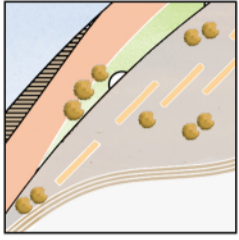


Fig.04.2 (o) Images and Sketches 04 (drawing by author)

04.2 Riverfront Design Images



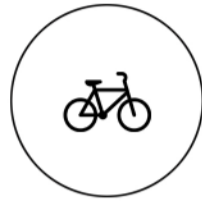
Landscape Image



Staircase



Street Furniture



Bicycle Path

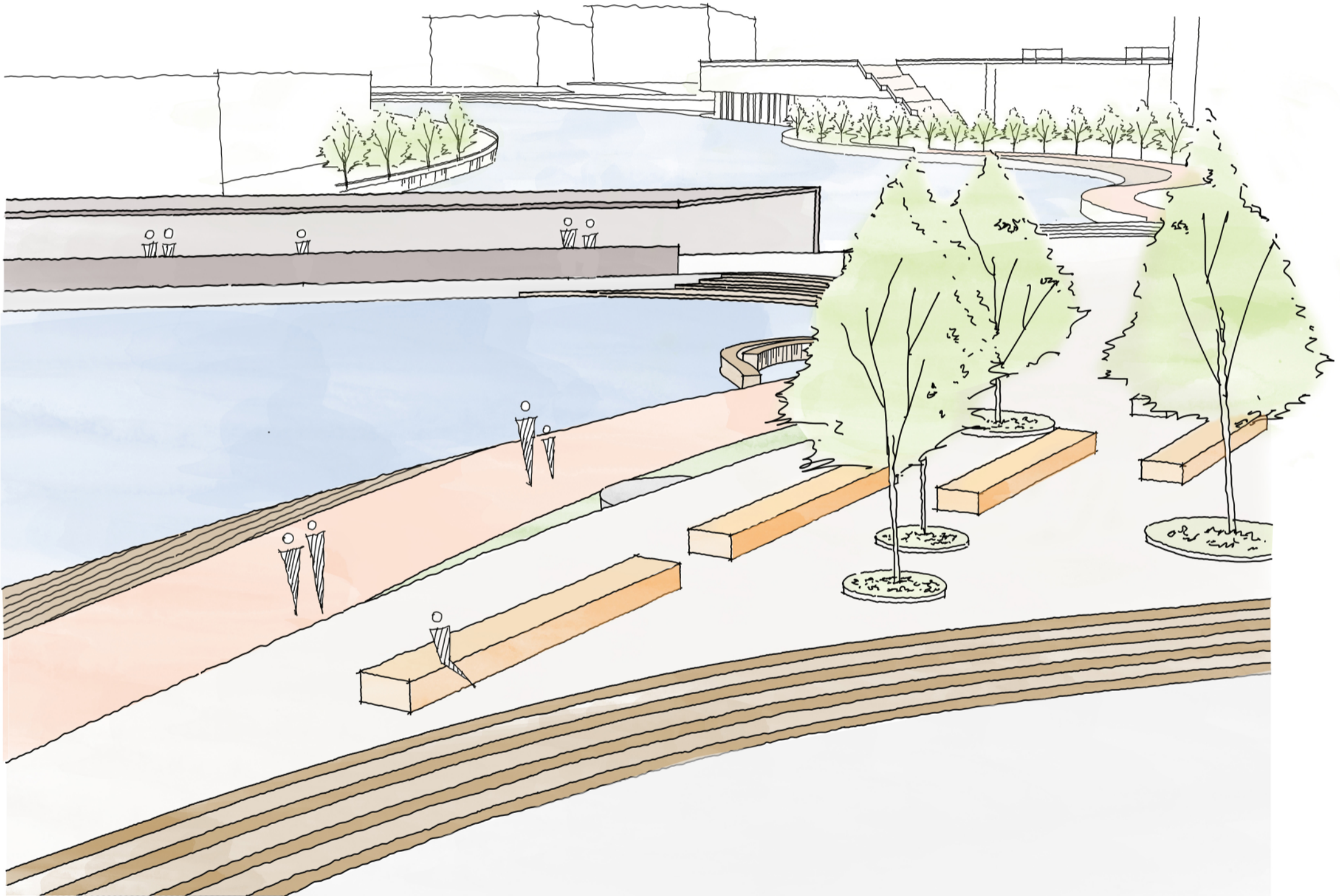


Fig.04.2 (p) Images and Sketches 05 (drawing by author)

04.3 Urban Bridge Design

Design Illustration

Urban Bridge Design

The purpose of this urban bridge design is to increase spatial connectivity between two sides that are isolated by rail lines and ensure clear pedestrian network. In addition, this new urban bridge as the urban landmark or urban landscape is approaching the "place". First of all, the new bridge is the important pedestrian walkway to increase spatial legibility. Secondly, the picturesque design offers the direct emotional encounter of landscape for people. People could overlook the city view and immerse the pleasant environment at this urban bridge. Last, the design leaves the unforgettable images in people's mind.

Two precedents referring urban bridge design offer some important design ideas. One is the Moreelse Bridge (fig.04.3 (a)) in the Utrecht that connects the two sides of railway station. The design is focused on presence, efficiency and functionality. The bridge is characterized by a lay-out in a single clear, open gesture with high degree of recognisability and the natural presence. As a result, the design offers the clear circulation for cyclists and pedestrians who want to walk across the rail lines. The second is the street bridge made by OMA Studio in Washington. The design transfers the fundamental concept of the bridge (spatial connectivity) to the public place. The bridge contains diverse programs such as the performance space and a café, as well as plenty of open space for plazas, lawn and urban agriculture plots.

Both of those two projects offer prominent design experience in this graduation project. The bridge design in this graduation project tries to combine the clear circulation of Moreelse Bridge with diverse social programs of OMA's Bridge. On the one hand, this urban bridge reinforces the idea of slow traffic. People could walk from north area of the district to the riverside conveniently. On the other hand, the bridge contains many programs that could be divided into "Relax", "Gather", "Learn" and "Play". The lawn and stay zone in this project represents the concept of "relax". Gather hall in the center of the bridge promotes more social activities. Urban garden contains various Chinese traditional flowers and plants, which would give more opportunities for "learn". At last, the ideal of "play" could be represented by the image about kids playing at the sculpture park.



fig.04.3 (a) Moreelse Bridge (Photo by Archdaily)















fig.04.3 (b) Street Bridge by OMA (Photo by Archdaily)

04.2 Riverfront Design

Program Description

Urban Bridge Design

Program	Description	People	Area or Length (m2/m)	Hours
 ● Tea, Cafe, Restaurant	Commercial buildings offer better service for people.		750 m2	10am to 10pm
 ● Flower Garden	Flower Garden provides the opportunity for learning and enjoying the beauty of the landscape.		480 m2	All Day
 ● Lawn	The lawn as the important city landscape provides the good urban environment for people to stay.		500 m2	All Day
 ● Sculpture Park	Sculpture Park that tells much story about culture and art could express Shanghai's traditional identity. Children always like to play in that sculpture park.		320 m2	All Day
 ● Stay Zone	The outdoor space with trees and other facilities makes the nice space for stay.		460 m2	All Day
 ● Gather Hall	The large space containing viewing platform and interesting landscape structure offers opportunity for having social activities.		2500 m2	All Day

04.3 Urban Bridge Design

Plan a



- ① Retail, Cafe, Tea
- ② Gather Plaza
- ③ Lawn
- ④ Train Warehouse
- ⑤ Railway Station

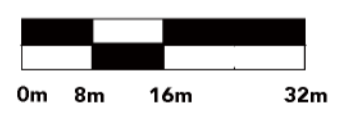


Fig.04.3 (c) Plan of the Urban Bridge (drawing by author)

04.3 Urban Bridge Design

Plan b



- ① Flower Garden ③ Stay Zone (Cafe & Tea) ⑤ Long-distance Bus Terminal
- ② Sculpture Park ④ Roof Garden, Outdoor Cafe ⑥ Railway Station

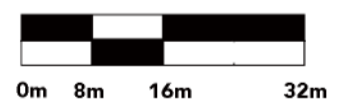


Fig.04.3 (d) Plan of the Urban Bridge (drawing by author)

04.3 Urban Bridge Design Axonometric Drawing

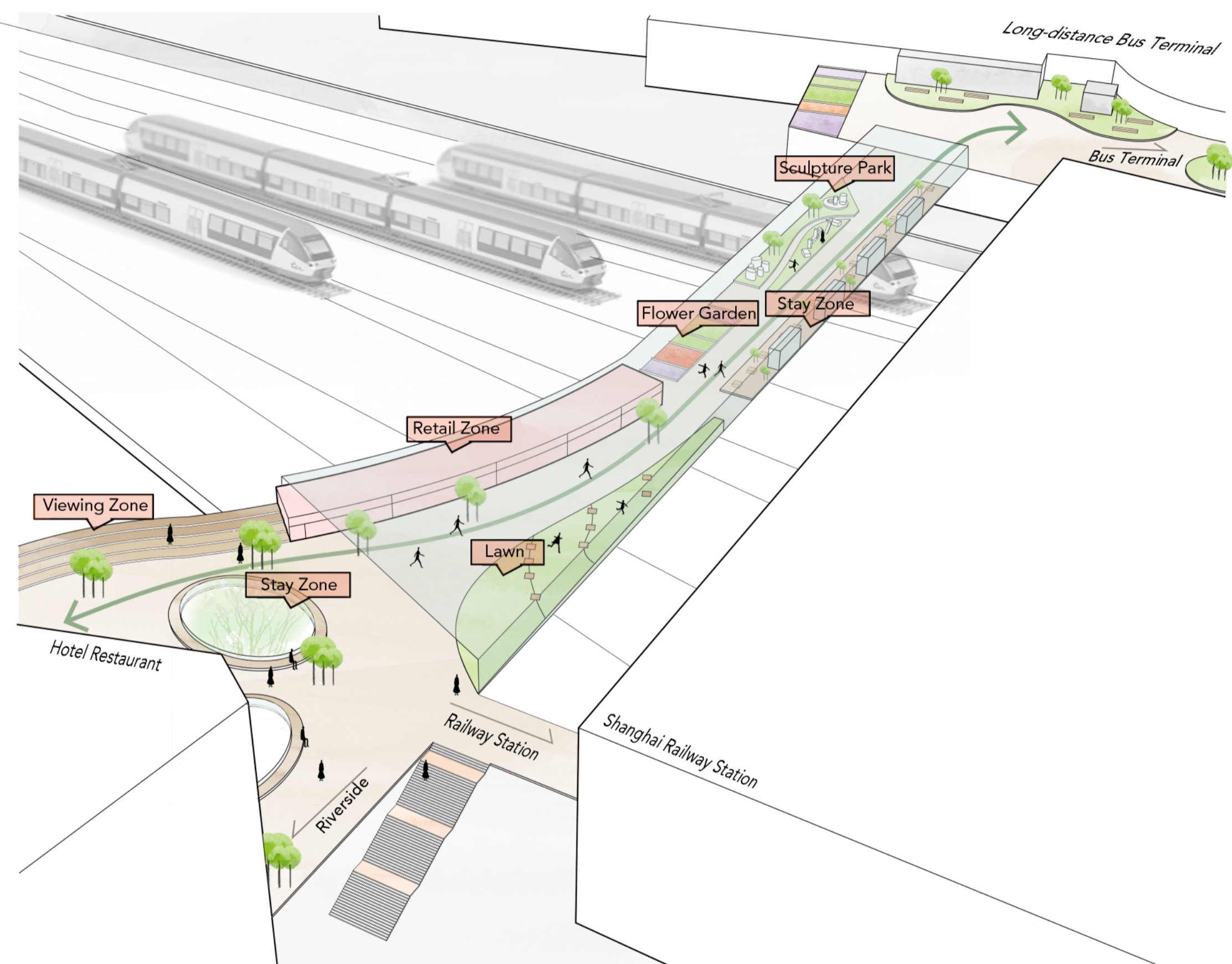


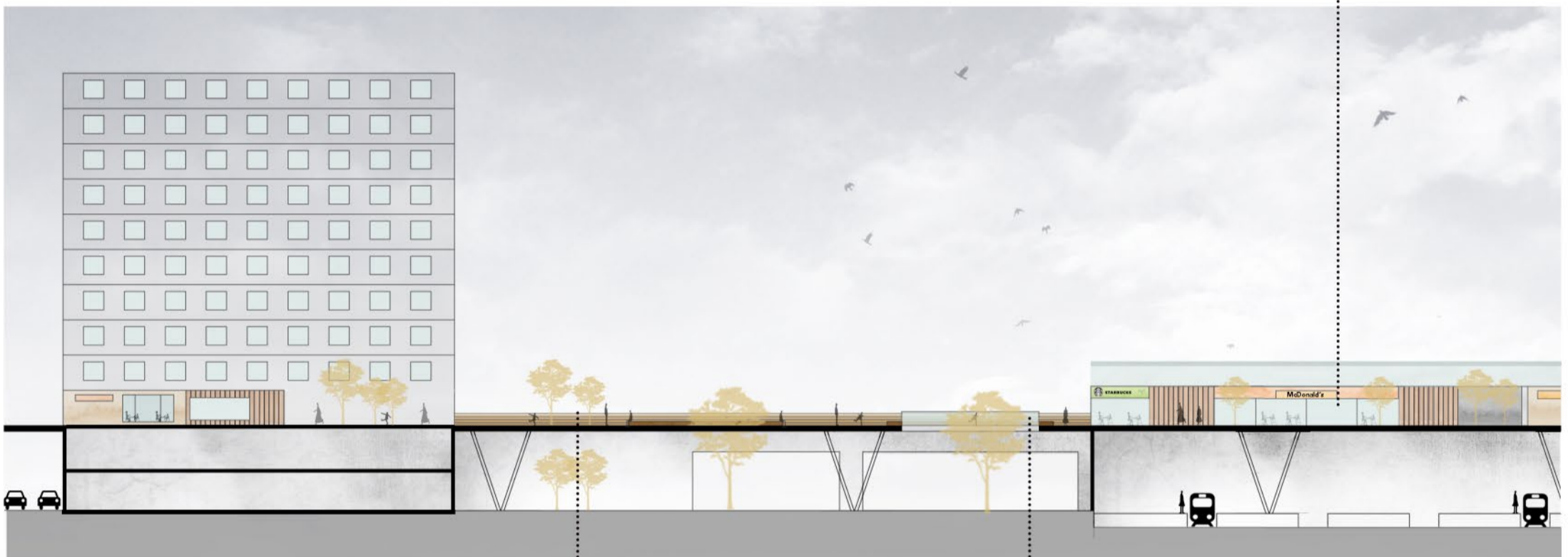
Fig.04.3 (e) 3D Drawing (drawing by author)

04.3 Urban Bridge Design

Section a



Retail Zone



Viewing Deck

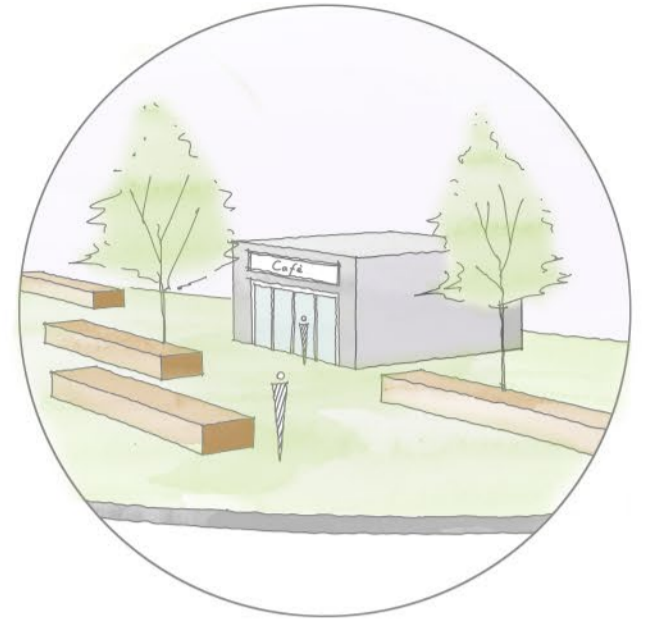


Seat Zone

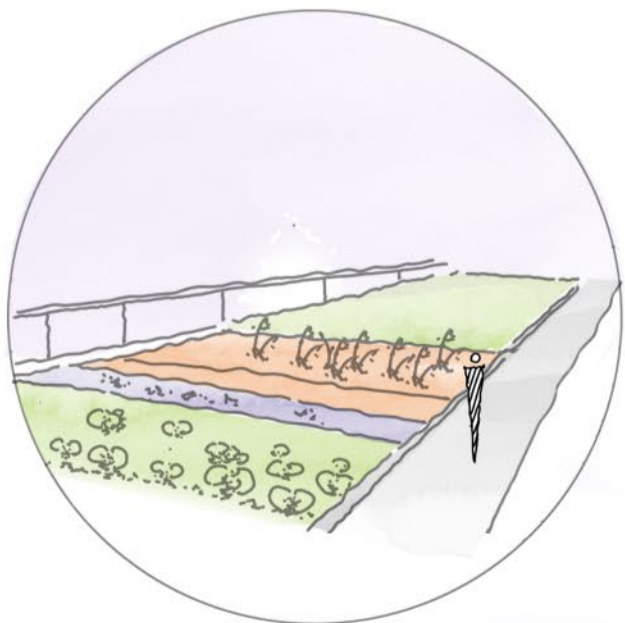
Fig.04.3 (f) Section of Urban Bridge Design (drawing by author)

04.3 Urban Bridge Design

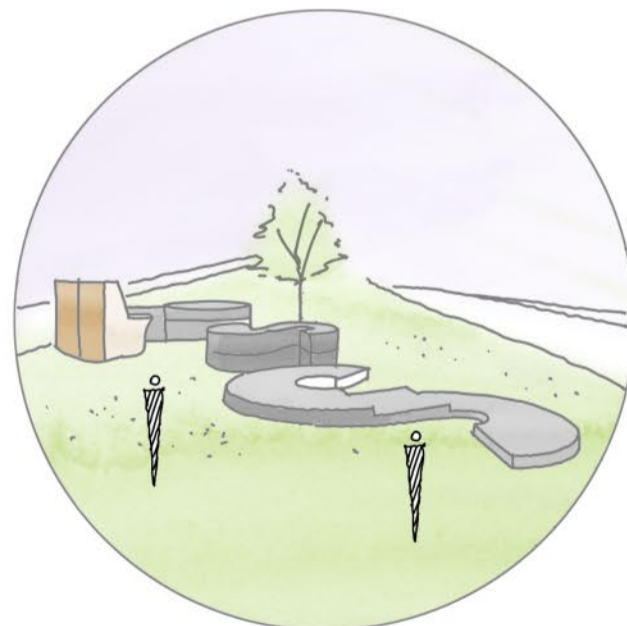
Section b



Cafe Garden



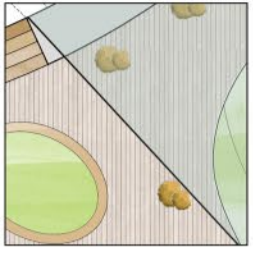
Flower Garden



Sculpture Park

Fig.04.3 (g) 3D Drawing (drawing by author)

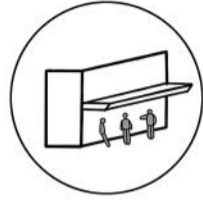
04.3 Urban Bridge Design Images



Landscape Image



Staircase



Soft Edge

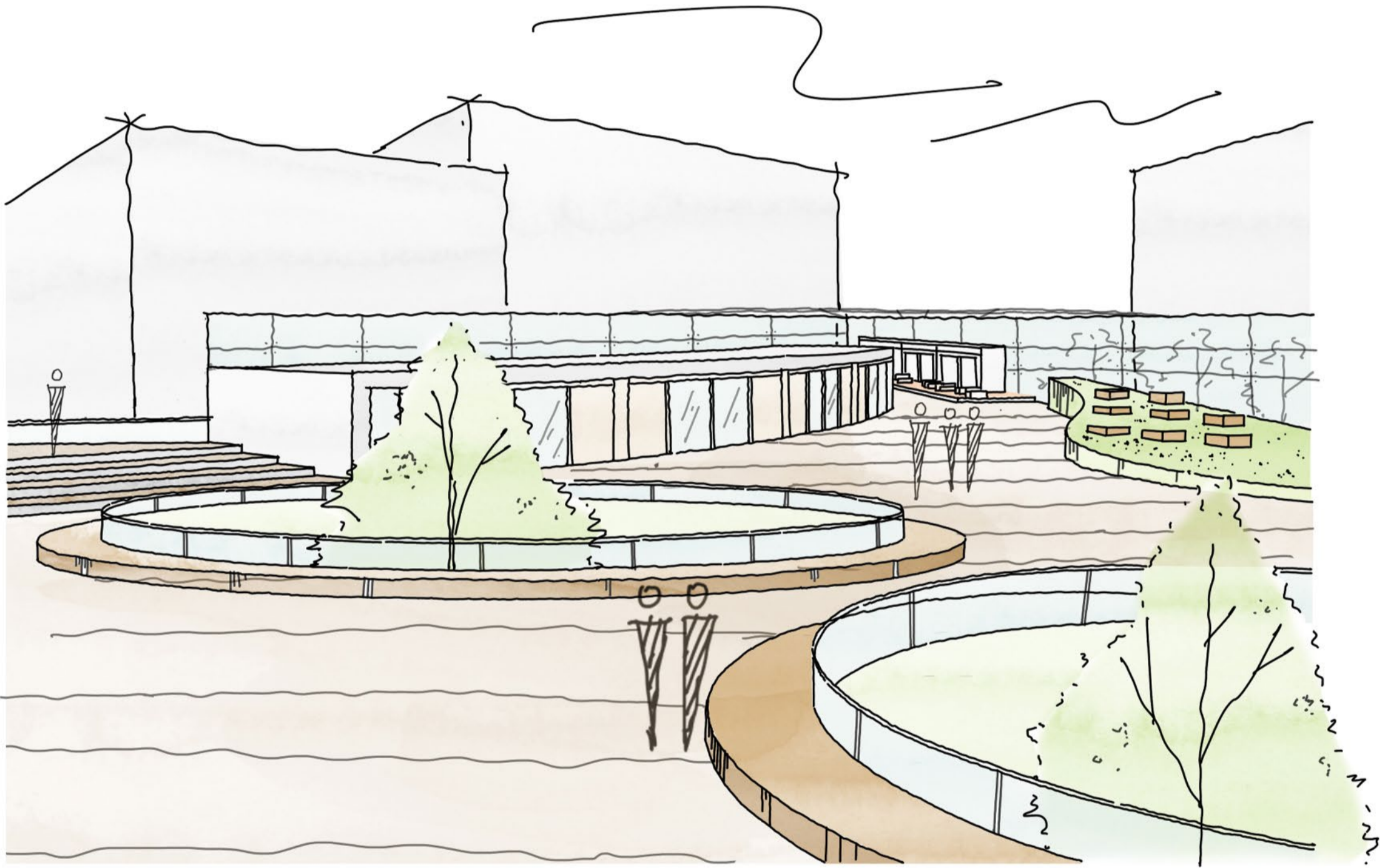
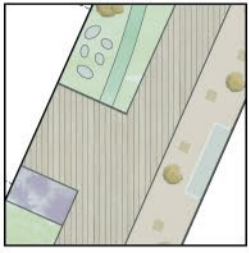


Fig.04.3 (h) Images and Sketches 01 (drawing by author)

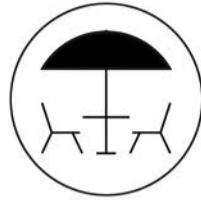
04.3 Urban Bridge Design Images



Flower Garden



Sculpture Park



Street Furniture



Fig.04.3 (i) Images and Sketches 02 (drawing by author)

04.4 Front Square Design

Design Illustration

The last design is the front square of the transportation hub. The purpose of this design is to create high quality of public place for both passengers and locals and increase spatial coherence with other urban fabrics.

New Landscape & People's Flow

Based on the design concept, the south square is defined as the "dynamic concept" for distributing people's flow. According to the drawing of current people's flow of this south square, the square is divided into several small parts for leading people's route (fig.04.4 (a)). In addition, bus stops are concentrated into one structure, which increases the environmental legibility. General vehicles for picking up friends and taxis are only allowed to drive on two sides of the square. The pedestrian tunnel is at the left side of the square to connect with the riverside.

Box Art

The other important design idea is the "box" (fig.04.4 (b)). The "box" works as the flexible and adjustable public facility to increase spatial vitality. The smallest "box" is "buy & go" retail for people who are hurry to catch their transportations and the small individual seat room. The medium "box" is the group seat room for group chatting and recreation. The largest "box" is the show house that could express Shanghai's culture.

Interior Public

The interior public is the spatially contained environment with the public attribution. This new public form could increase relationship between exterior and interior environment. One of the important examples of the interior public is the commercial public space that becomes an important part of urban space in China (Song, Zhu & Song, 2012). Some benefits of this commercial public space are increasing spatial efficiency, solving problems of urban public space and emphasizing human oriented design. In this design, the façade of the railway station is transferred into this commercial public space (fig.04.4(g)). The simple function of the railway station is replaced by mixed land uses, which leads to the multiple and interesting urban space.

Place Reflection

The meaning of the "place" in this design area is to replace sole function by multiple social facilities. In this design, the transportation hub is more than the railway station, metro station and bus stops with few retails; it is the important component of urban lives. The "idea" of

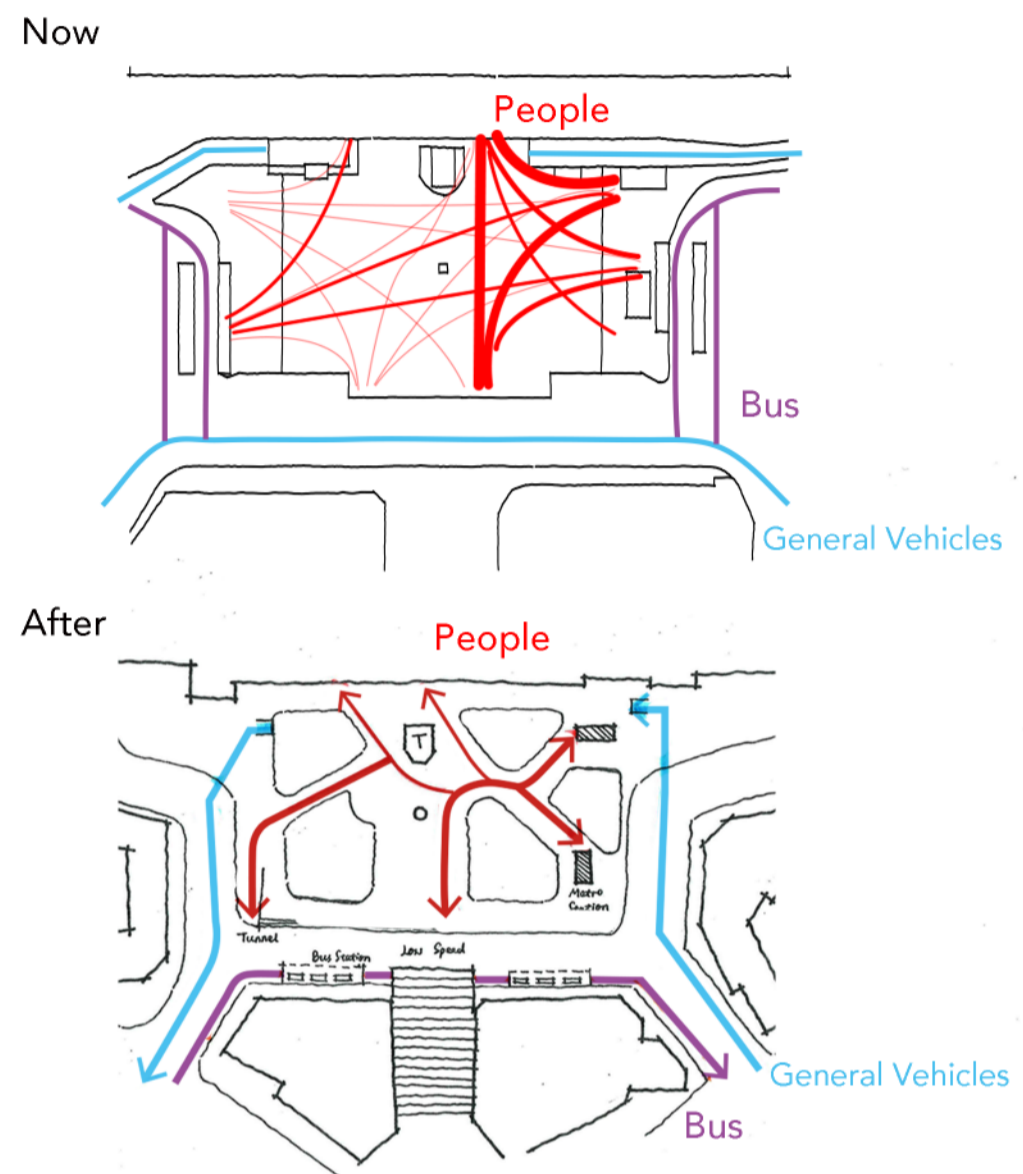
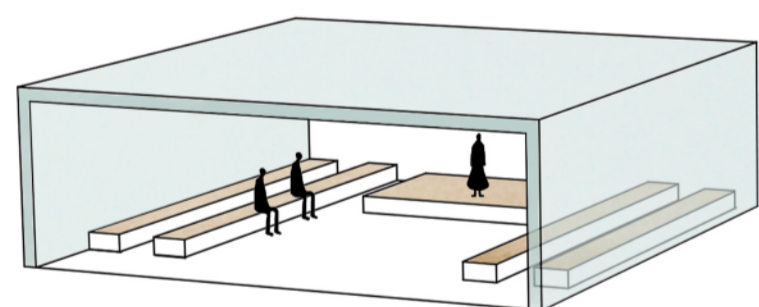
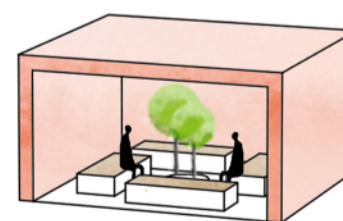


fig.04.4 (a) New Landscape & People's Flow (drawing by author)



12 * 12 Box (show house)

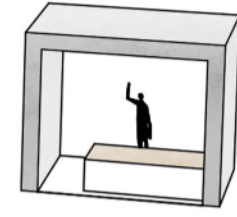


5 * 5 Box (group seat room)

04.4 Front Square Design

Design Illustration

place could be reflected as follows. Firstly, clear landscape that could lead walking flow increases the environmental legibility. Secondly, multicolored boxes, interior public structures and pleasant landscape form images in people's mind. The design transfers the chaotic environment to the highly social value place, which refreshes people's memory on that old Shanghai railway station. Thirdly, boxes and other urban furniture with different materials make the place recognizable. Last, the existential space is produced by this design in two aspects. One is the culture aspect. Based on the previous research, culture defines the existential space and hence it is difficult to experience the space with another culture. Chinese people would like to stay and play in a small group with acquaintances. Three types of box could meet that special requirement. Second is the unselfconscious activity that would happen at the place used by different people. This design is going to provide various public facilities for people with different ages and backgrounds.



















3 * 3 Box (small seat room) 3 * 3 Box (small retail)

fig.04.4 (b) Box Art (drawing by author)

04.4 Front Square Design

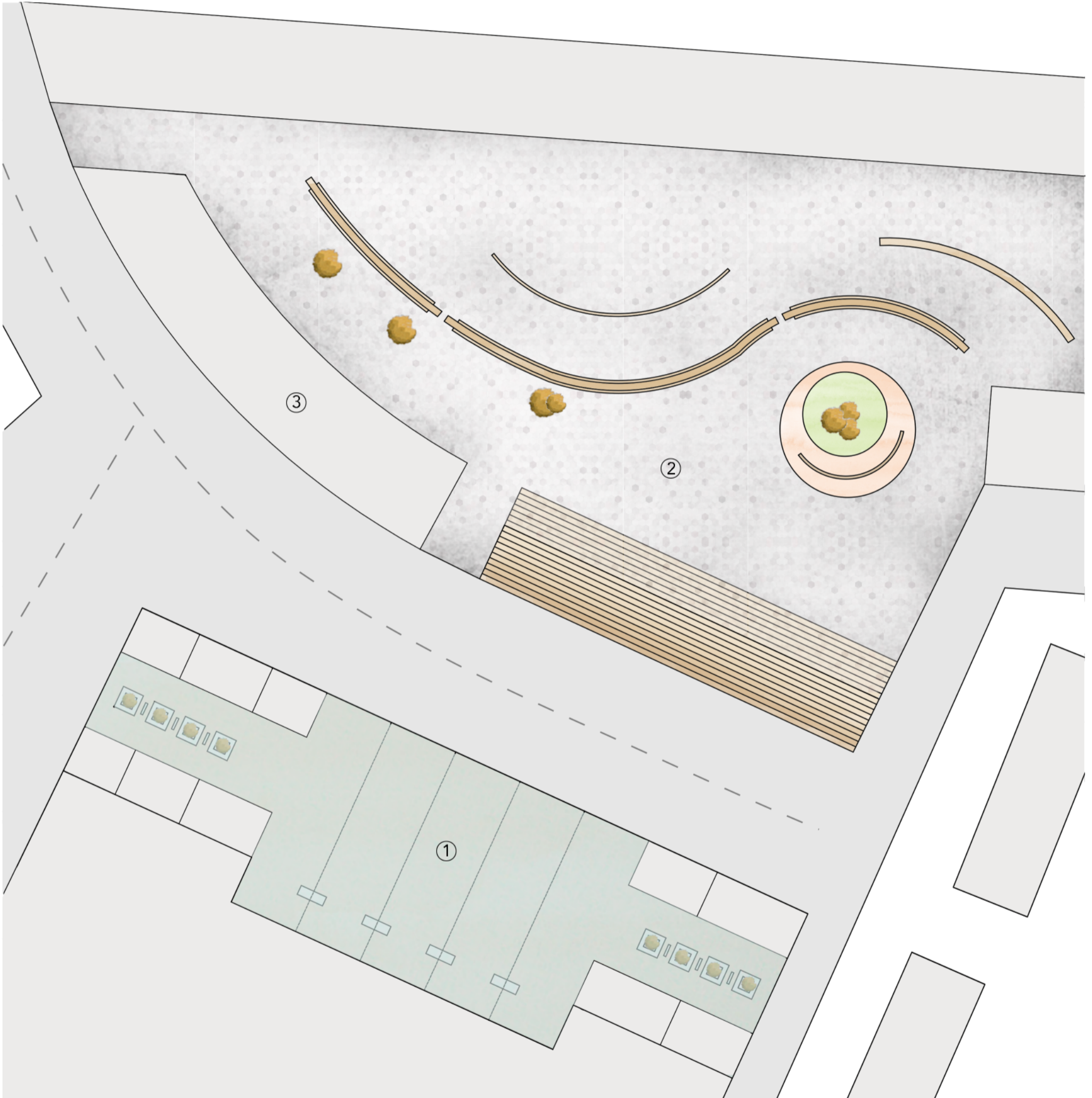
Program Description

Front Square Design

Program	Description	People	Area or Length (m2/m)	Hours
 <p>● Bus Stop</p>	The new large bus stop replaces scattered bus stops, which increases spatial legibility.		1280 m2	All Day
 <p>● Interior Passage</p>	The transparency roof links two shopping malls creates the new commercial public space.		3500 m2	All Day
 <p>● Train Service</p>	The trains service including information desks and train ticket windows provides better service for passengers.		1400 m2	All Day
 <p>● Commercial Buildings</p>	Commercial buildings beside the railway meet people's demand.		10000+ m2	10am to 10pm
 <p>● 3*3 Box</p>	Box as the flexible and adjustable element offers diverse public facilities. Small box could be retail and individual seat room.		9 m2 each	All Day
 <p>● 5*5 Box</p>	Medium Box is the group seat room for chatting and recreation.		25 m2 each	All Day
 <p>● 12*12 Box</p>	The large box is the show house that increases vitality.		144 m2 each	10am to 8pm
 <p>● Sunken Plaza</p>	The sunken plaza with commercial buildings at the north square gives the pleasant environment for locals and passengers to stay.		10000+ m2	10am to 10pm

04.4 Front Square Design

North Square Plan a



- ① Interior Public (public facility:
retail, train service...)
- ② Sunken Plaza
- ③ Retail

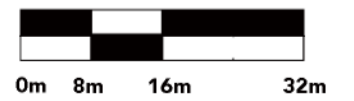


Fig.04.4 (c) Plan of the North Square (drawing by author)

04.4 Front Square Design

South Square Plan b



- | | | | |
|-----------------|---|--|---------------------------------|
| ① Shopping Mall | ④ 12 * 12 Box (show house) | ⑦ Underground Taxi Entrance | ⑩ Shanghai Main Railway Station |
| ② Passage | ⑤ 5 * 5 Box (group seat room) | ⑧ Underground Car Parking | |
| ③ Bus Stop | ⑥ 3 * 3 Box (small retail or small seat room) | ⑨ Interior Public (public facility: retail, train service, baggage deposit...) | |

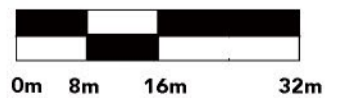
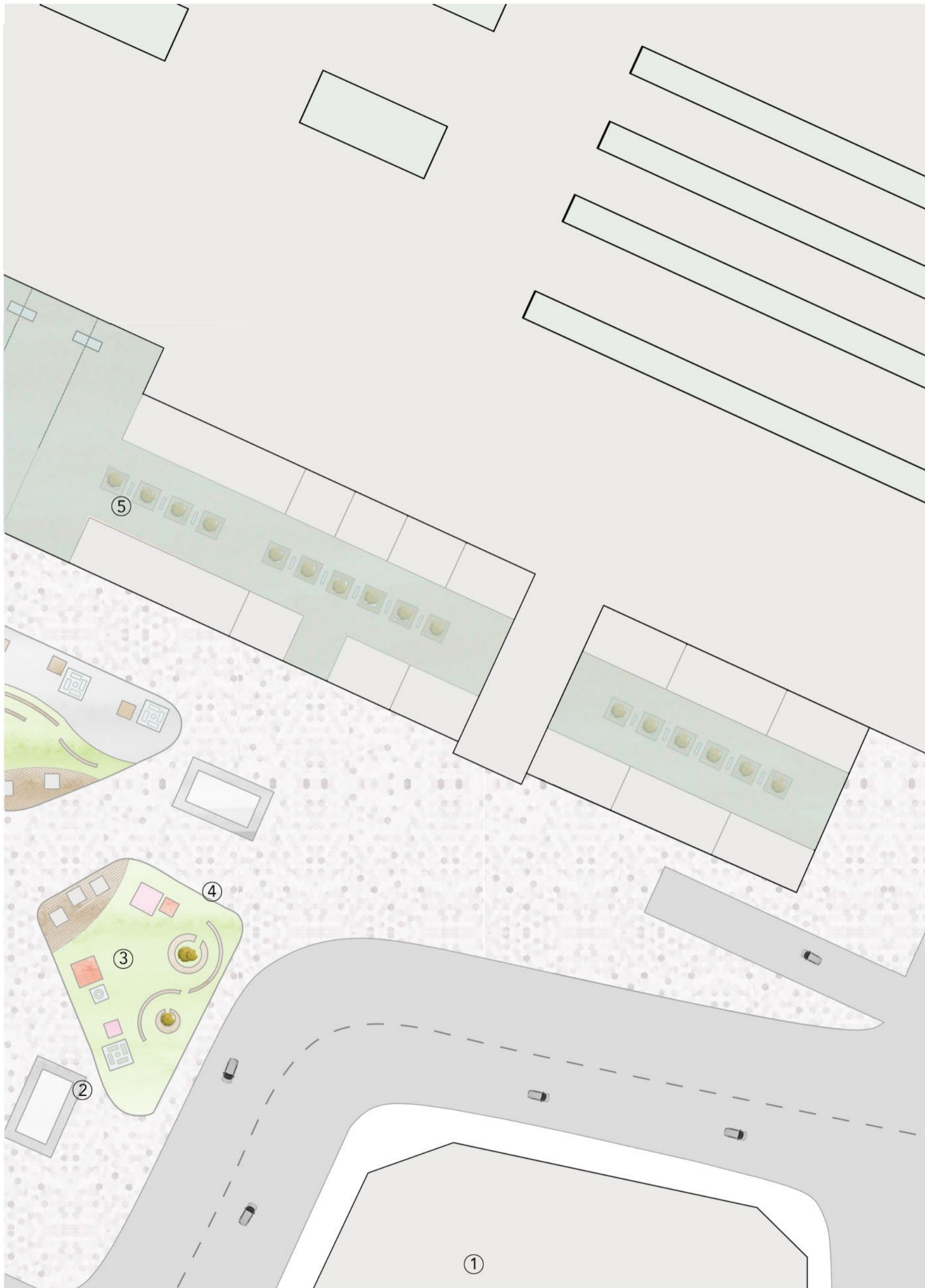


Fig.04.4 (d) Plan of the South Square (drawing by author)

04.4 Front Square Design

South Square Plan c



- ① Shopping Mall
- ② Metro Station
- ③ 5 * 5 Box (group seat room)
- ④ 3 * 3 Box (small retail or small seat room)
- ⑤ Interior Public (public facility: retail, train service, baggage deposit...)

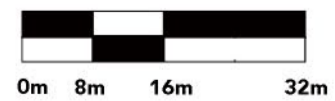


Fig.04.4 (e) Plan of the South Square (drawing by author)

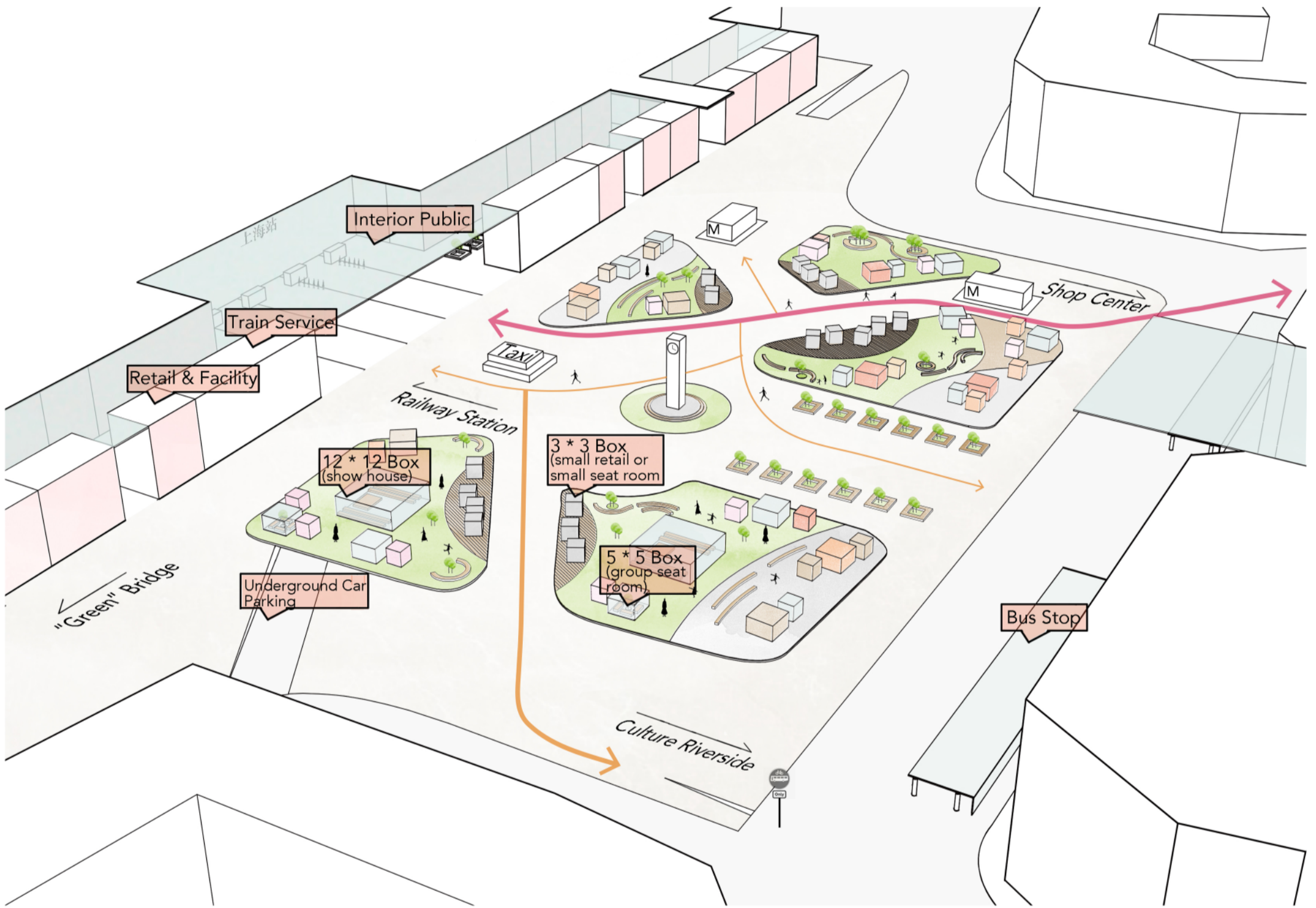
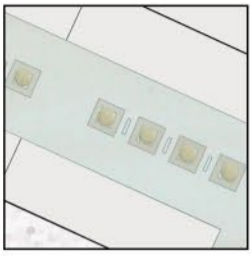


Fig.04.4 (f) 3D Drawing (drawing by author)

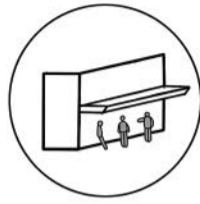
04.4 Front Square Design Images



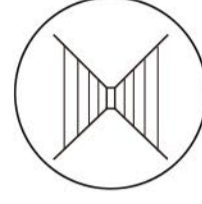
Street Furniture



Landscape Image



Soft Edge



Interior Public

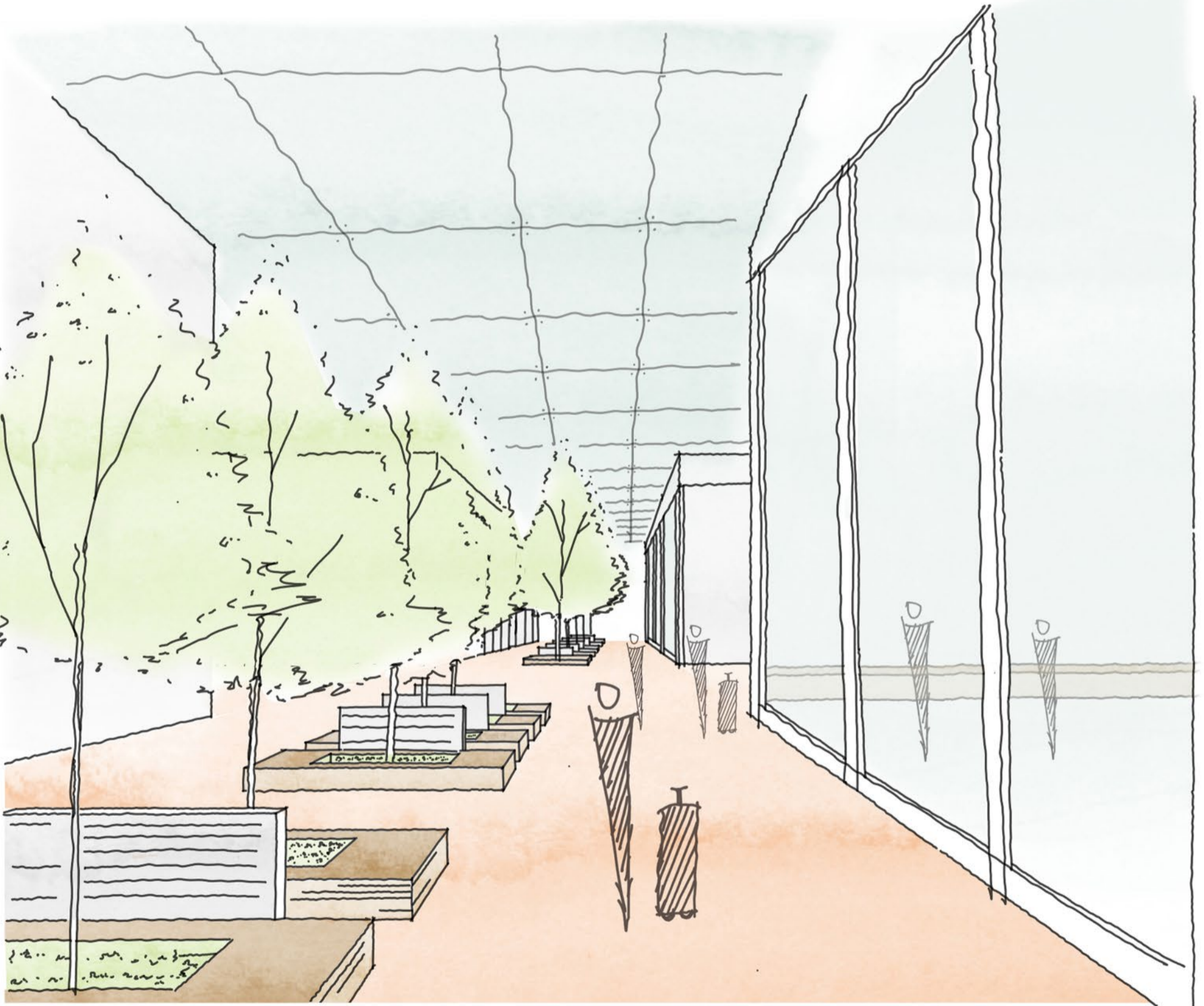
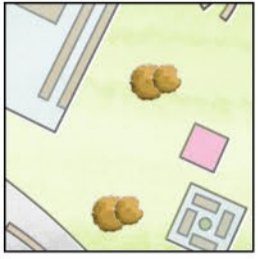
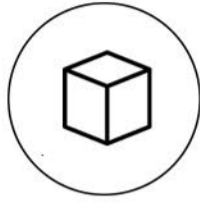


Fig.04.4 (g) Images and Sketches 01 (drawing by author)

04.4 Front Square Design Images



Street Furniture



Urban Image

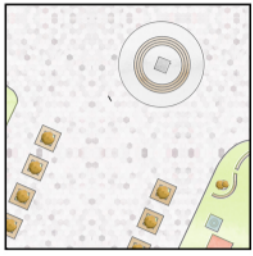


People's Activity

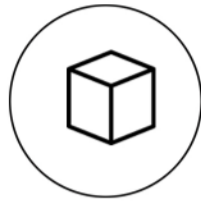


Fig.04.4 (h) Images and Sketches 02 (drawing by author)

04.4 Front Square Design Images



Street Furniture



Urban Image



Landscape Image

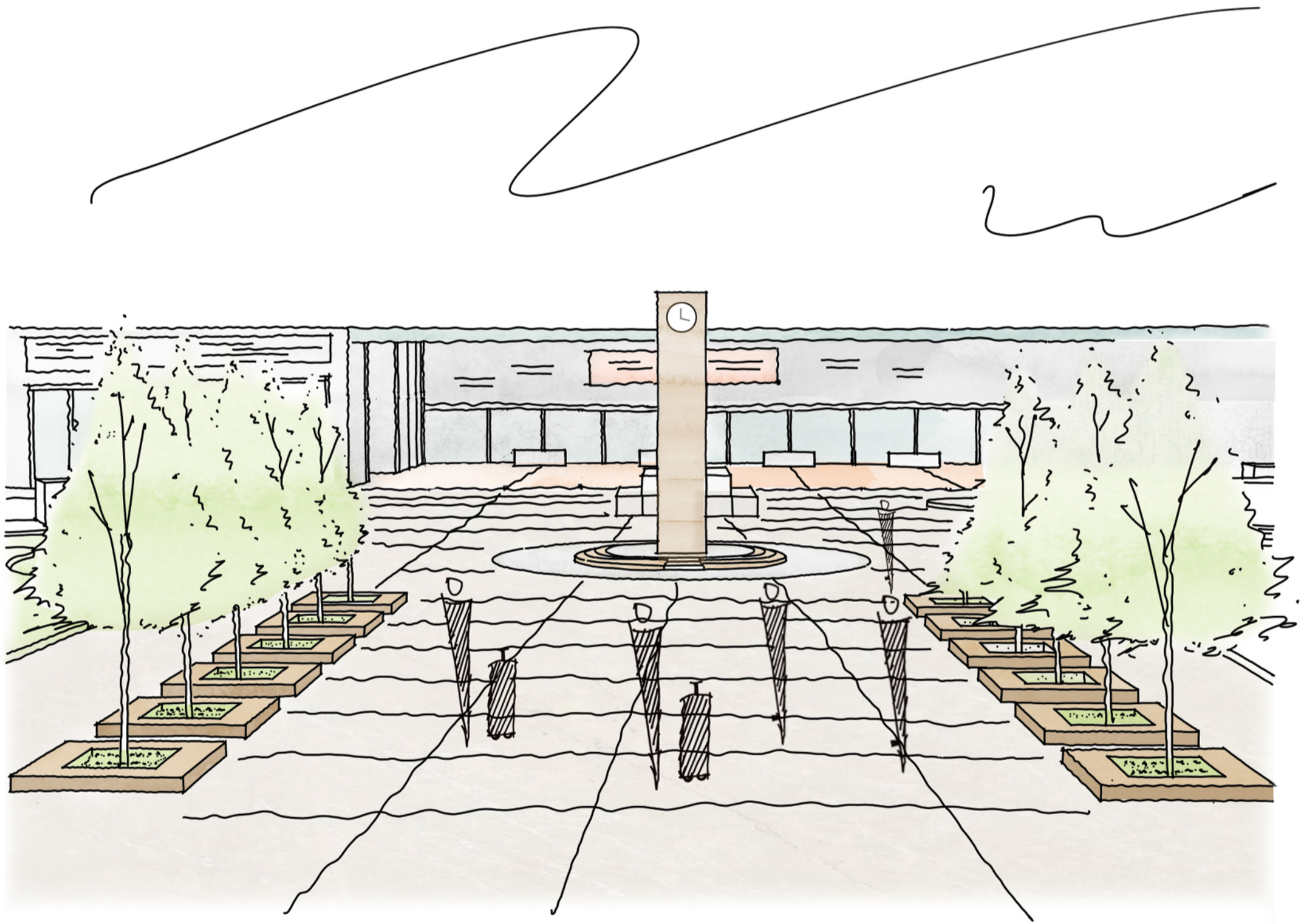
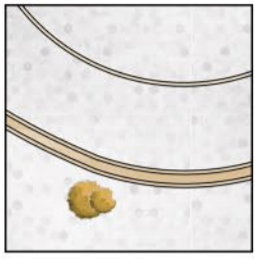


Fig.04.4 (i) Images and Sketches 03 (drawing by author)

04.4 Front Square Design Images



Street Furniture



Landscape Image

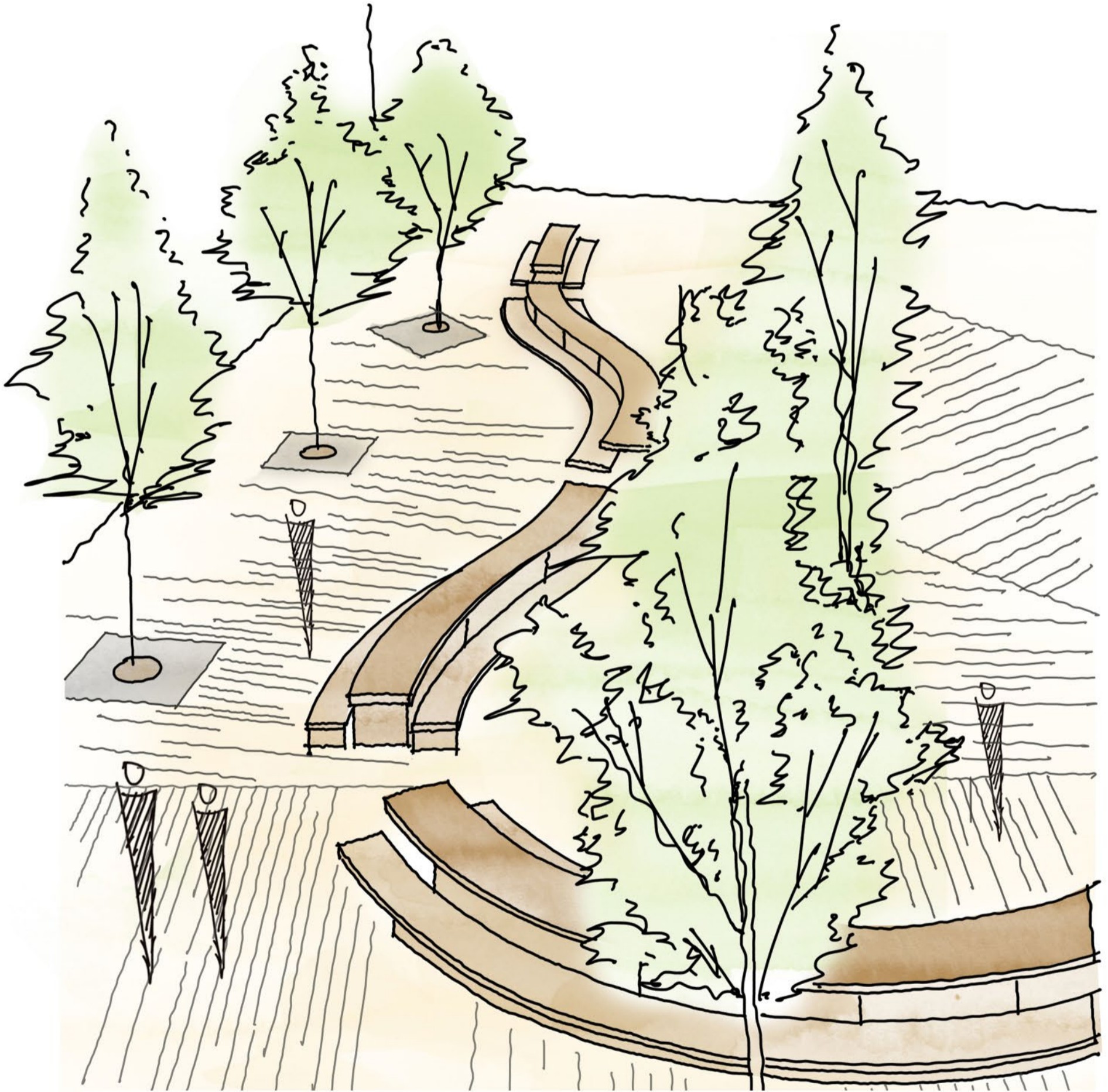


Fig.04.4 (j) Images and Sketches 03 (drawing by author)

05

The Network, The City

05.1 Path of People

- a) Pedestrian
- b) Car Driver
- c) Bikers
- d) Public Transportation users

05.2 Probable "Place" Imagination

05.3 The City

- a) Connectivity
- b) Uniqueness

05.1 Path of People

Foreword

The last chapter is going to discuss the relationship between networks and the city in the larger area, called the Zhabei District. The ultimate responsibility for urban designers is not merely to alter networks spatially but add to the creation place. These mappings are going to show the understanding of the surrounding areas as a part of setting future places. The first part of this chapter is the analytical review of 'path of people' such as pedestrian, car drivers and transportation users. In addition, those people's perception of these routes or networks is added. As mentioned at theoretical framework, networks in the city are not merely the public infrastructure but people's movement. According to people's perception of network, the second part is the mapping referring to the imagination of further place creation. The last part is to review this project through Shanghai's city scale. Although this project is the urban design to solve the social problems and make better urban life in small scale, it is also necessary to redefine this area in Shanghai. In the early section (site analysis), the concept of "social and culture center" redefines the study area. In order to make further explanation, connectivity and uniqueness as two characters would be proposed at the last chapter.

Pedestrian (fig.05.1 (a))

The network of this area is marked by different purposes. The red line indicates the economic feeling for those people who need to do shop and business. People perceive those routes as the way to their offices and shopping malls. The target group is always businessman. The same way to define people's perception could be used for social feeling. The way for people's home and social or culture area is the object. The last is the landscape route for urban promenade. Those routes are important landscape facility such as riverside or green park in people's perception. The abstract pedestrian spatial linkage (fig.05.1 (b)) tells the city is separated and connected by those purposes.

Car Driver (fig.05.1 (c))

The important difference between pedestrian and car driver's perception is that car drivers always focus on the large traffic objects such as traffic signs and road information instead of street details. It is hard for drivers to notice the street character whether it is social domain or economic domain. This mapping would use the road hierarchy to answer car driver's perception.

Bikers (fig.05.1 (d))

Bicycles are not merely the transportation to take people to their destination. As related to the people's perception, popular routes of bikes that are similar with promenade require good environment quality. The mapping is trying to highlight the route for pleasant urban landscape.

Public Transportation Users (fig.05.1 (e))

People's perception on the public transportation uses is based the route to bus stops, metros and railway station and those transportation service radius. In that mapping, the service radius for each bus stops and metro station is around 250 meter. The important routes in this radius are mapped.

Further "Place" Imagination (fig.05.2 (a))

Based on those analytical mapping of people's path, more probable places could be proposed and imaged. Question marks at the map indicate the vacant area along the river, under construction project and railway depot. The mapping is going to give the possible answers on those question marks following people's perception, which is emphasizing "place". As said, the ultimate responsibility for urban designers is to create more places for better urban life.

The City

The last part of this chapter is to discuss the definition of this study area through Shanghai city scale. Although this project focuses on the spatial intervention for improving public quality, it is necessary to reflect this project on large scale. As mentioned at the early chapter (site analysis), this study area has potential to be formed as the social and culture center. Two drawings are made as the conclusion of that definition. The first drawing (fig.05.3 (a)), connectivity, emphasizes the relationship between this study and Shanghai City. Two important metro lines, rail lines and several major roads that go through the study area are highlighted to express the connectivity. In addition, many residential houses around the study area and along two metro lines are mapped, which indicates the possible service group. The second drawing (fig.05.3 (b)) describes the new image of Shanghai's social and culture center after the design, their uniqueness and hierarchy. This study area uses the railway station and riverside as the convenient conditions to make up the lack of culture and social center in that district for both citizens and passengers.

05.1 Path of People

Pedestrian

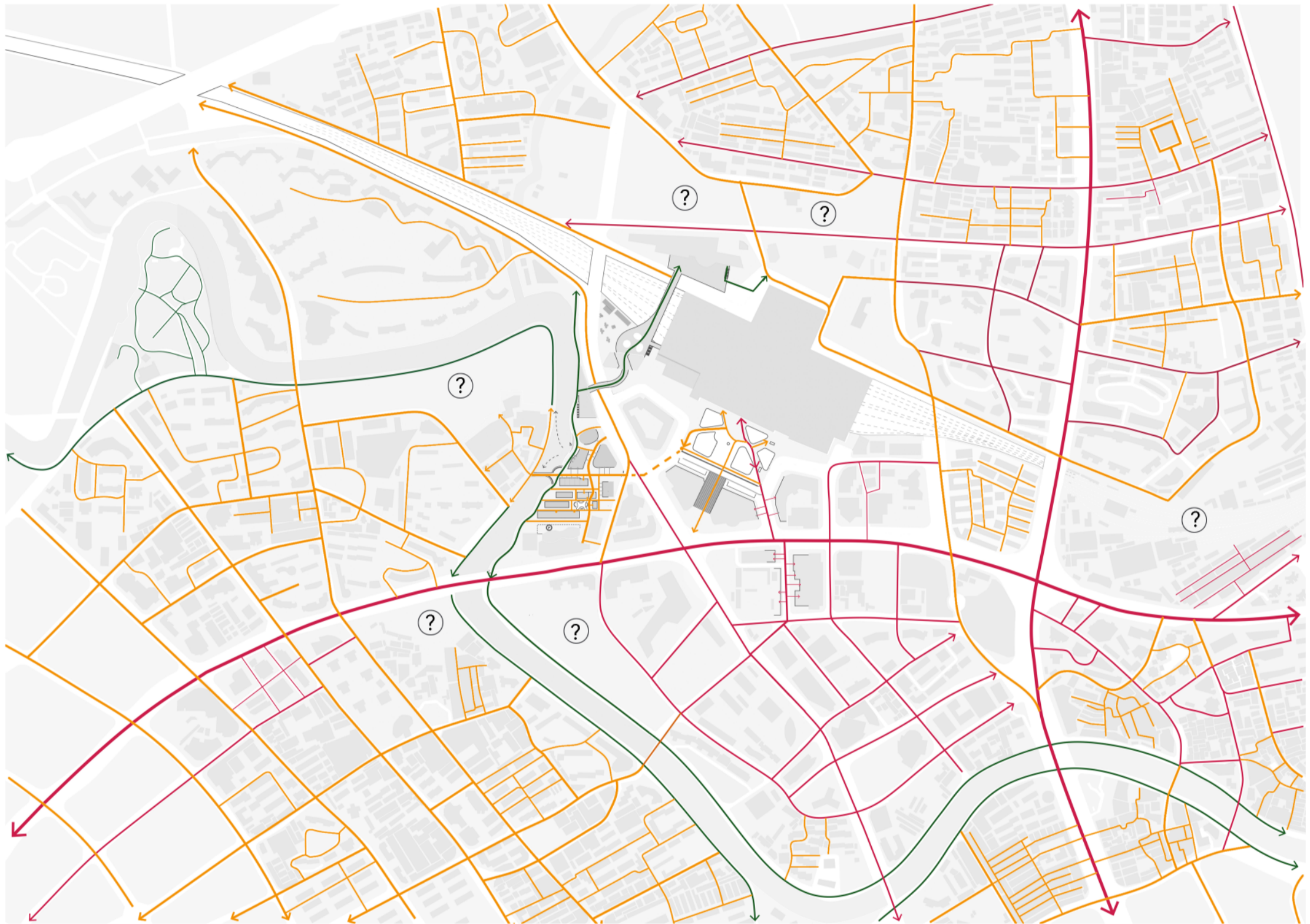


fig.05.1 (a) Pedestrian Path & Their Perception (drawing by author)

05.1 Path of People

Pedestrian

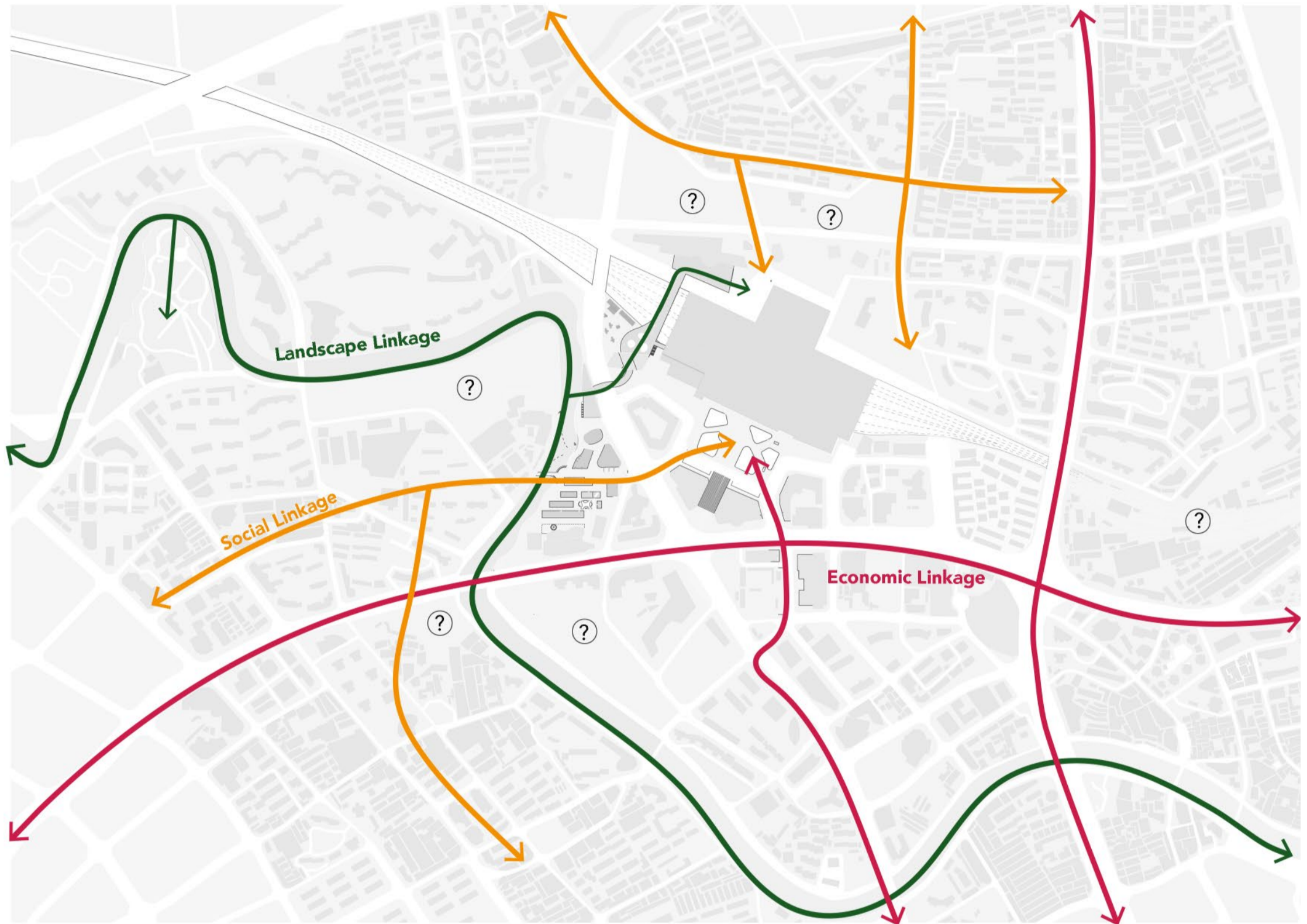


fig.05.1 (b) Pedestrian Spatial Linkage (drawing by author)

05.1 Path of People

Car Driver



"Very High Traffic Volume"
e.g. Elevated Motoway



"High Traffic Volume"
e.g. Main Busy Road



"Normal Traffic Volume"
e.g. Minor Road

fig.05.1 (c) Car Drivers & Their Perception (drawing by author)

05.1 Path of People

Biker




 "Popular Bike Path"

fig.05.1 (d) Bikers & Their Perception (drawing by author)

05.1 Path of People

Public Transportation User



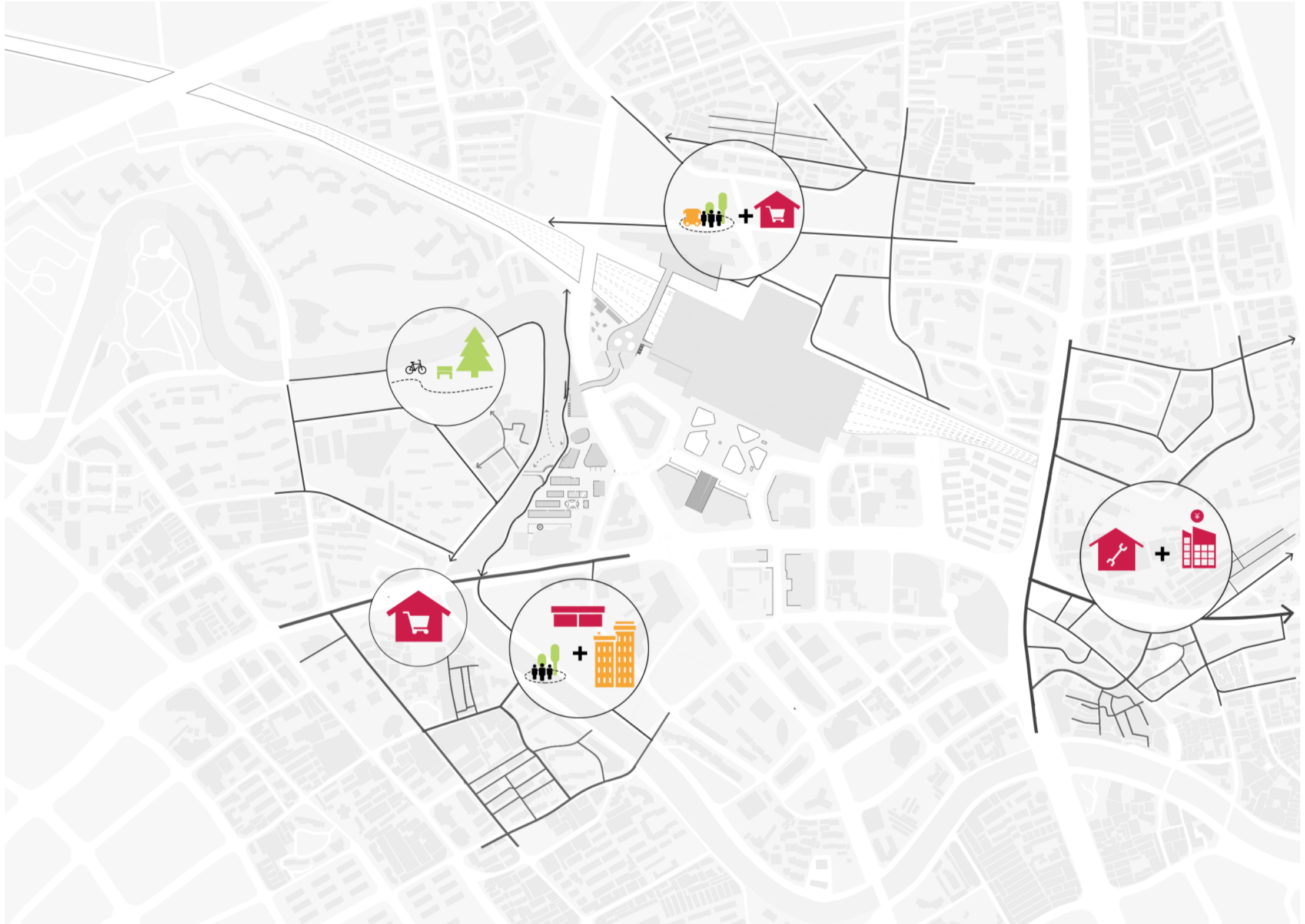
"Transportation Service Radius"



"Public Transport Users' Perception"

fig.05.1 (e) Public Transportation Users & Their Perception
(drawing by author)

05.2 Further "Place" Imagination



Complex Shopping Mall



Bicycle Path



Social Area
+
Neighbourhood & Small
Shops



Warehouse
+
New Office Zone



Social Square
+
Shopping Corridor

fig.05.2 (a) Further "Place" Imagination (drawing by author)

03.3 The City

Connectivity

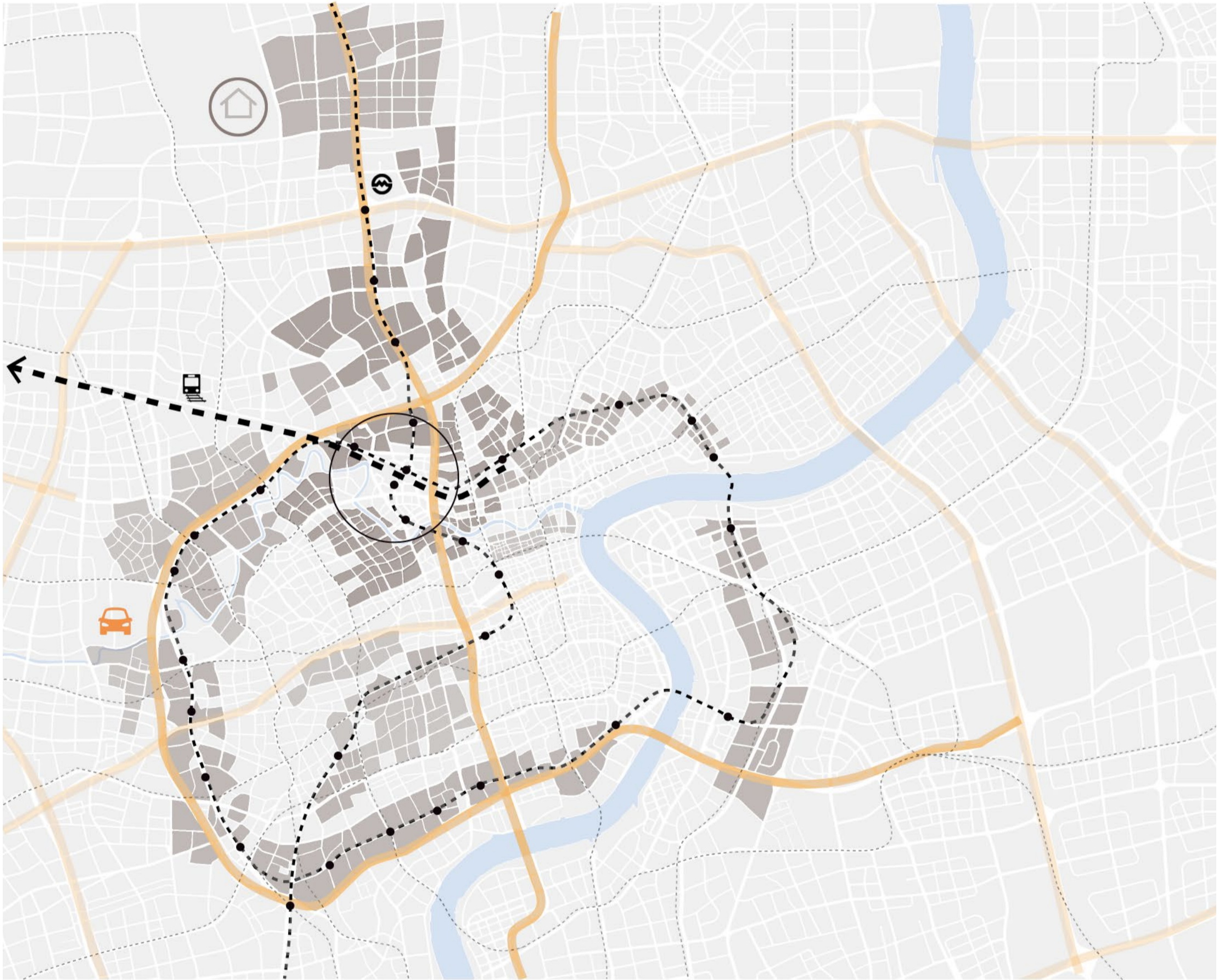


fig.05.3 (a) Connectivity (drawing by author)

03.3 The City

Uniqueness

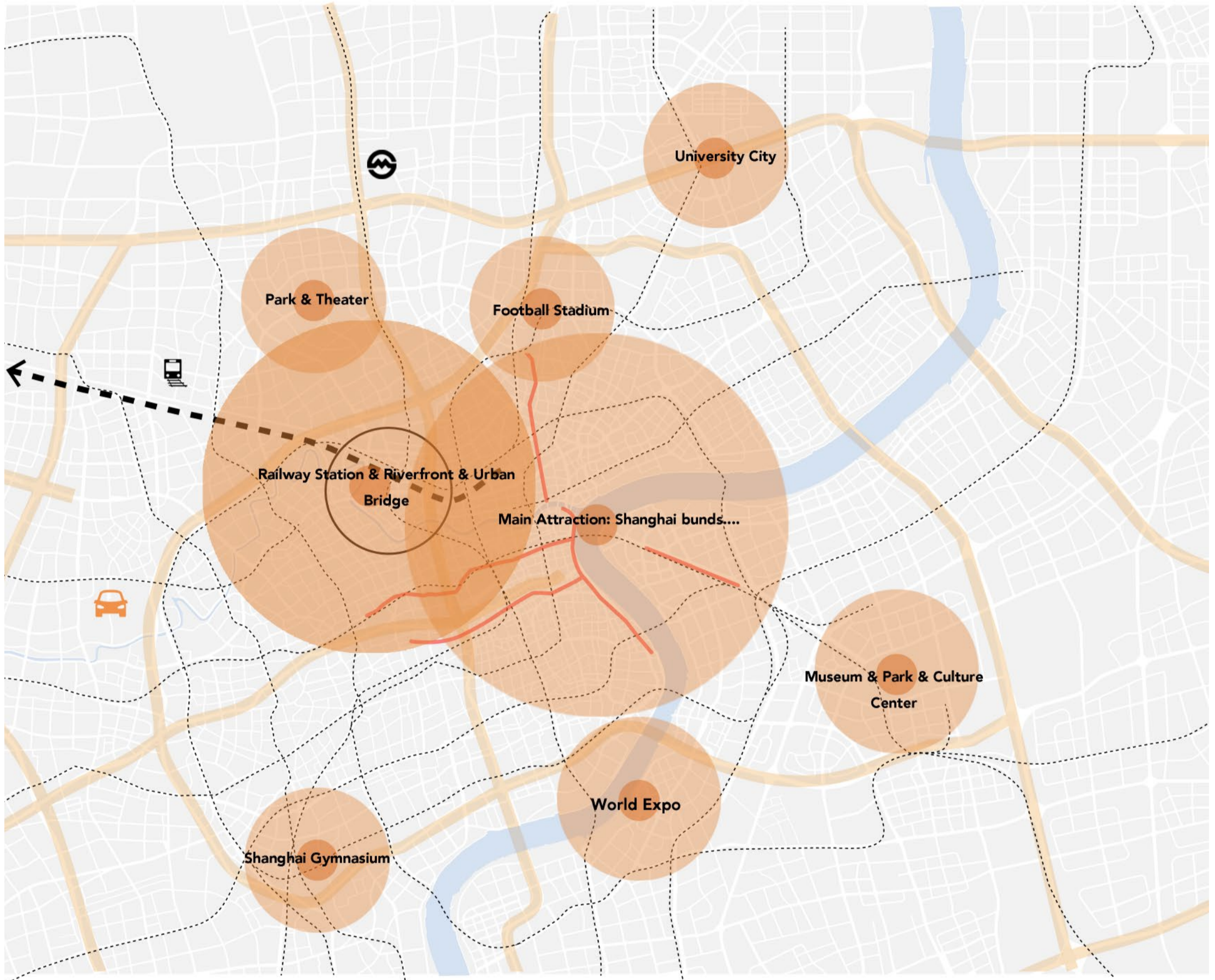


fig.05.3 (b) Uniqueness of Social & Culture Center (drawing by author)

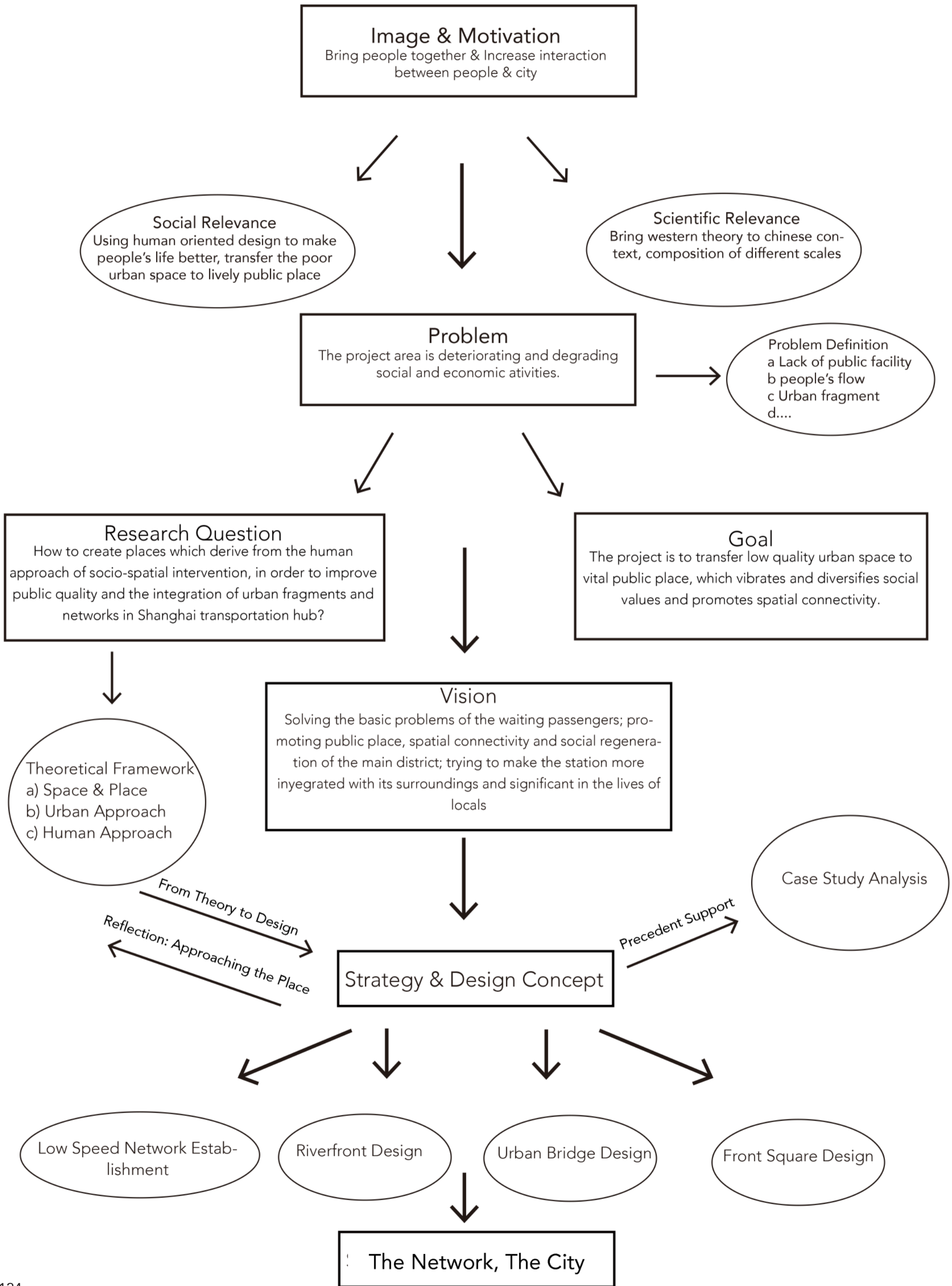
06

Conclusions

06.1 Conclusion

06.2 Reflection & Evaluation

06.1 Conclusion



06.2 Conclusion

Reflection & Evaluation

The purpose of this reflection of the one-year graduation thesis is to reveal if the master fulfilled the education. Personally, this thesis not only tells what you have learned from this program but also to introduce what is your ambition and contribution to the city. The main explanation of my achievements on this project is explained as follows.

Aspect One: The relationship between research and design

The starting point of this project is the fascinating images (fig.05.2 (a)) between people and the city in my mind. The image tells the story about the interaction between people and the city. The city is one large "carrier" for people, and people create pleasant environment for the city. However, people focus too much on the fast economic development instead of social spatial environment, especially in the developing country. Designers neglect the importance of public places and lack the communication with users. In my opinion, the purpose of this graduation project is to transfer urban space to public places for bringing people together and increasing urban spatial quality. The main research question is:

How to create places which derive from the human approach of socio-spatial intervention, in order to improve public quality and the integration of urban fragments and networks in Shanghai transportation hub?

Research has been done during the whole graduation process. It could be grouped into three main components. First is the literature review that tells the exact definition of the space and place and introduces important design criteria for place making. Secondly, the research helps to make the design conceptual model and strategy. Finally, it tests the design to see if it is approach the place. Overall, the research helps to build the design framework.

Aspect Two: The relationship between the theme of the graduation lab and the subject/case study chosen by the student within this framework (location/object)

The graduation lab "Design of the Urban Fabric" deals with the social spatial and physical aspects of urban issues. It aims to answer the question how urban form could contribute to the vitality and liveability in the urban environment. The topic and site responds to the main theme of the graduation lab directly. It relates to making and creating high natural quality of public place. The location is one of the main transportation hubs in Zhabei district in Shanghai. The transportation hub contains

main railway station, bus stops and metro station. Due to the culture and background, the development of public space in China is different with Western countries. Chinese people would like to stay within a small group; it is hard to push Chinese people into a large urban square. There are two reasons for choosing that location. One is the population base; it is easy to see a large number of people are gathering at the front square of the transportation hub for waiting their trains or buses. Second is the current situation that this location is always under the poor spatial quality. It is expected that changes would make the location more vital and lively, that itself will contribute to the regeneration.

Aspect Three: The relationship between the methodological line of approach of the graduation lab

The studio is using pattern language approach in the research. It helps to build design elements and frameworks. Personally, the methodology is used to combine design and research. In addition, the attention is paid to explore case studies. In my project, I call it toolbox. The toolbox is the conclusion of the theory and provides possible guidelines for the design.

Aspect Four: The relationship between the project and the wider social context.

Due to the geography and social economic restrict, development of the Shanghai main railway station is stagnated. Suzhou River and railyards create negative effects on spatial connectivity. The large number of people and heavy flows of vehicles with huge billboard make the area chaotic. The purpose of the project is to transfer low quality urban space to vital public place, which vibrates and diversifies social values and promotes spatial connectivity. In general, this project is changing the railway station area to the better urban environment. As a result, the urban life is improved.

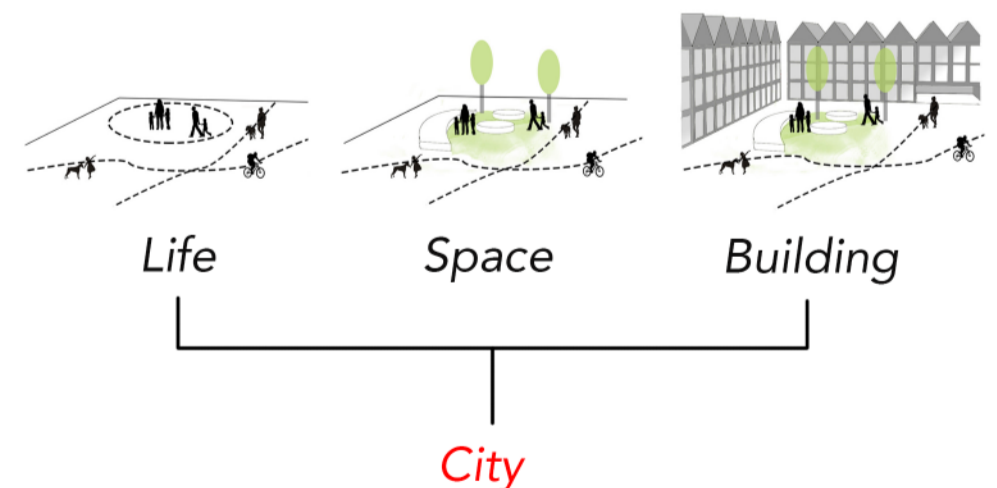


Fig.05.2 (a) Images of People and the City (drawing by author)

07

Appendix

07.1 Bibliography

07.1 Appendix

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07.1 Appendix

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