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조경학석사 학위논문

Landscape planning for urban regeneration of  
historical and cultural district  
- Tanhualin in Wuhan, China -

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of historical and cultural district  
- Tanhualin in Wuhan, China -

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- Tanhualin in Wuhan, China -

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관련 규정에 의거하여 심사위원 및 초빙심사위원의 지도과정을  
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## **Abstract**

With China's rapid economic development and continuously pushing forward the process of urbanization, the contradiction between its progressive civilization and the historical and cultural district of the city has become increasingly prominent. Excessive development has led to the monotony of the cities, which bring about a tendency of interest in the historical and cultural district regional characteristics. Consequently, China is achieving progress in regeneration of the historical and cultural district.

Wuhan is the largest city in central China. It was formalised as a historical and cultural city officially announced by the State Council in February 1986. Tanhualin historical and cultural district was classed as one of the ten typical historical and cultural districts by Wuhan planning department in 2003. It is a part of the crucial areas that indicate the exchange between eastern and western culture of the modern Wuhan. Currently, protection and renewal projects related to Tanhualin historical and cultural district were put forward. However, these projects only focus on the surface, such as the restoration of buildings' surface, but lacks the holistic planning which can really reflect the historical and cultural characteristics of the district.

Historical and cultural district, as a unique city image, reflects the history, culture and natural beauty of the city. However, the historic

waterfront was occupied with new buildings and natural hills are occupied by illegal houses. The living culture and landscape are not regarded as an object of preservation. Therefore, its unique historical-cultural identity is gradually disappearing.

In this paper, the objectives is to analyse the spatial features of Tanhualin district, to research on the historical and cultural background and environment, in addition to recognize the value of historical and cultural landscape and how it accord with modern society by proposing landscape planning base on the research.

This paper suggests recovering the historic image through landscape planning. All the surrounding areas as well as the entire city will influence by this project. Moreover, it will raise awareness about the importance of the landscape for the urban planning afterwards.

■ Keyword: Tanhualin district, connection, urban regeneration, historic image, culture

■ Student number: 2012-24084

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# Chapter 1: Introduction

## 1.1 Background and Objectives

With China's rapid economic development and continuously pushing forward the process of urbanization, the contradiction between its progressive civilization and the historical and cultural districts of the city has become increasingly prominent. The transformation of the city is changing since many are carrying out the transformation of the old city. A lot of old cities were torn down and rebuilt as high-rise neighborhoods, which preserve less historical and cultural districts.<sup>1)</sup> It brings about a tendency for people to take interest in the historical and cultural districts. Consequently, China is making progress on the regeneration of historical and cultural districts.

Wuhan is the political, economic and cultural center of Hubei Province, and is the largest city in central China with a population of 10,220,000 people. Wuhan consists of Wuchang, Hankou and Hanyang. It is a major transportation hub, with dozens of railways, roads and expressways passing through the city, meaning that Wuhan is sometimes referred to as the "Chicago of China." Wuhan City was formalised as a historical and cultural city officially announced by the State Council in February 1986. Tanhualin historical and cultural district was classed as one of the ten typical historical and cultural districts by Wuhan Pla

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1) Huang juan and Tan yuan. "Protection approach for historical and cultural street." *Policy and Information* 2013, 06: 271-274.

nning Department in 2003. Since then, the government has supported special protection for this district. It is a part of the crucial areas that indicate the exchange, collision and integration between traditional and modern culture of the modern Wuhan, as well as a collection of various historical and cultural features accompanying the development of Wuhan City. Currently, certain protection and regeneration projects related to Tanhualin historical and cultural district have been put forward. 'Planning Measures for Protection and Utilization of Tanhualin' was implemented by Wuchang government in July 27th, 2006. 52 historic buildings were restored as a result of the project. Meanwhile, 'Wuchang cultural industry development plan (2006-2010)' was put forward. Creative industries were introduced to the Tanhualin district, forming an artistic area with traditional handicraft shops, book stores and cafes. Tanhualin district gradually became a popular area for tourists to visit. In 2008, 'The protection and revival plan of ancient Wuchang city' planned to connect Tanhualin district to the Shouyi plaza from north to south. However, these projects only focus on the surface, such as the restoration of the buildings' outer appearance, but lack the holistic planning which can really reflect the historical and cultural characteristics of the district.

Historical and cultural districts create a unique city image, reflecting the history, culture and natural beauty of the city. However, the historic waterfront was spoilt by the buildings; areas of natural beauty are occupied by illegally built structures; historic buildings are not

essentially being protected and renovated. As a consequence, the historical and cultural features are fading away.

In this research paper, the objective is to analyse the spatial features of Tanhualin district, to research the historical and cultural background as well as the environment, in addition to recovering the historic image and activate the whole neighborhood by proposing landscape planning based on this research.

## 1.2 Design scope and process

### 1.2.1 Design scope and method

Tanhualin historical and cultural district is located in Wuchang, Wuhan. It is on east and north of Zhongshan Road, west of Jiefang Road, south of Liangdao Street. The range of the research area is 1.04km<sup>2</sup>. The streetscape design focuses on the northern part of Tanhualin district.

[Table 1-1] Site basic information

Location	Tanhualin, Wuchang, Wuhan, China
Total area	1.04 km <sup>2</sup>

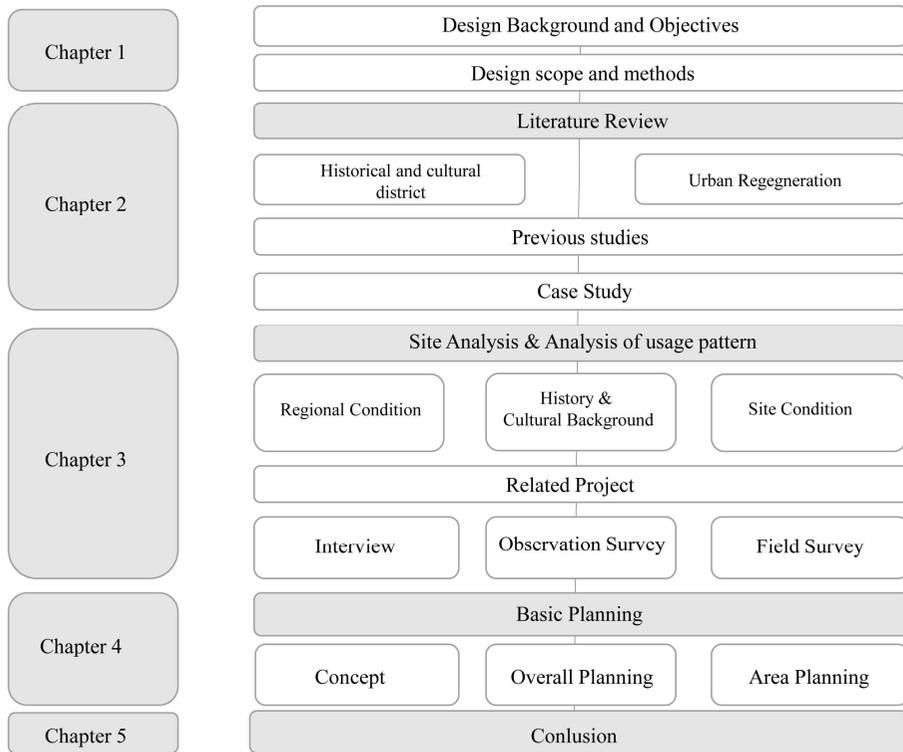


[Figure 1-1] Site Location and Scope

Firstly, it is important to illustrate the unique characteristics of the historical and cultural district, referring to the related ordinances and regulations. Secondly, a study of the relevant design cases and related

urban regeneration projects should be carried out to learn from their design, theory and method. Thirdly, for Tanhualin historic district, collecting and reading the historical data or relevant historical documents, such as local yearbooks, local history, publications, regulations, scenic descriptions from Wuhan City library and archives. Reorganize the historic background, social environment and other relevant information related to the Tanhualin district from these data, analysing original cultural features. Fourthly, field surveys should be undertaken on the basis of the preliminary understanding of Tanhualin district analysing the current condition and the change of historic environment in the district. Fifthly, interview and observation survey will be carried out, from which the usage pattern, characters, problems, and the reasons of cultural loss of the district can be grasped. Finally, suggestions towards the overall planning with the concept of historical and cultural continuity based on the preliminary studies will be made.

## 1.2.2 Design process



[Figure1-2] Design Process

## Chapter 2: Literature Review

### 2.1 Historical and cultural district

#### 2.1.1 Concept of historical and cultural district

A historical and cultural district, is a special type of cultural heritage as well as a place for the general public recreation. According to the Article 14 of “Cultural Relics Protection Law of the People’s Republic of China”: ‘Towns, neighborhoods or villages with an unusual wealth of cultural relics of important historical value or high revolutionary memorial significance shall be verified and announced by the peoples governments of provinces, autonomous regions, or municipalities directly under the Central Government as famous neighborhoods, villages or towns of historical and cultural value, and reported to the State Council for the record.’ Moreover, ‘Regulation on the Protection of Famous Historical and Cultural Cities, Towns and Villages’ defined a historical and cultural district as a certain amount of area which is particularly rich in heritage preservation and historic buildings in their completeness and which truly reflect the traditional pattern and historic features approved by the provinces, autonomous regions and municipalities. Academically, it generally refers to a "historical location." 2)

In the officially definition by Wuhan government, a historical and

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2) Zhang, Song(2007). *Urban heritage conservation international and domestic regulations charter selected*. Tongji University Press.

cultural district requires a relatively complete historical character, historic buildings and historic environment elements that constitute historical features of which remain essentially true to the original form. The total areas of a historical and cultural district should not be less than one hectare, historical and cultural relics and historic buildings should be more than 60% of the total building areas within the protected area. It should be controlled by defining the core protection area, construction control areas and environmental coordination areas. In addition, building activities should be based on repair, maintenance and improvement in core protection areas.<sup>3)</sup>

### 2.1.2 Value of historical and cultural district

Historical and cultural districts compose the historic environment of a city, whose existence itself is a historical belt of urban development, retaining the historic character of the city. Furthermore, as a real illustration, it reflects the changes in the city's historical and cultural development.<sup>4)</sup> Historical and cultural district has various value as follows:

Firstly, it represents a period of historic features and characteristics of a region with a common design, construction material and construction

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3) China Academy of Urban Planning and Design(2005). *Code of conservation planning for historic cities*. China Architecture & Building Press.

4) Yang Xin-hai, "The true nature and the preservation principles for the historic blocks." *Human Geography*, 2005, 05:48-51.

organization. Historic buildings and cultural customs of the historical and cultural district, which is recognized as a historic relic, have been handed down for several generations. As a physical entity, it notes the historical information of the city. Secondly, it has a material form of succession and continuity. The historical and cultural district, which has contact between the many different stages in the time span of the city's life, transmits the historical information from the past to the modern and the future, with succession and continuous features. Thirdly, there are various architectural features due to the different types of buildings, resulting in a collaboration between the various functional purposes, so as to achieve a realm of harmonious integration. Fourthly, historical and cultural district is a continuation of cultural memory, so that contemporary society has been associated with the past, making interpretation of the past as well as making progress for temporary. Fifthly, the historic district can create economic benefits, such as tourism. Aesthetic and values indirectly raise the brand effect of the historical and cultural district<sup>5)</sup>

### 2.1.3 Related law and regulation in China

Before 1949, urban development was undertaken mainly to deal with urban decay problems. As the first publication of the list of historical

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5) Baoxiu Zhang(2013). *2012 Beijing studies international symposium on preservation and renewal of historic cultural districts*. Intellectual Property Press

and cultural cities in 1982, China began to pay attention to the protection of historical and cultural district driven by domestic and international cultural heritage protection activities.<sup>6)</sup> With the initial development of the economy during this period, urban regeneration work had commenced. However, theoretical research and the system for the historical and cultural district was still at a relatively blank stage. In 1996, the Tunxi meeting illustrated that the protection of historical and cultural district had become an important part of the protection for historical and cultural heritage, after which protection regulation was gradually improved and became a framework for the protection and regeneration. Since then, China began the exploration for a theory of urban protection and regeneration of historical and cultural districts.

[Table 2-1] Regulation on historical and cultural district<sup>7)</sup>

Event	Time	Main contents	Significance
First 'State-list famous historical and culture cities' published by State	1982	Special focus on the old towns which can reflect history and culture • Should take effective measures for strict protection • To draw a protective zone around the historical sites, take the necessary restrictions on new construction, expansion, renovation project within this range	Formal introduction of the concept of conservation and protection methods from international counterparts. Comprehensive protection measures were taken in some important historical and cultural cities. Although the concept is not much related to historical and cultural district, it has noticed the control zone of construction
Second 'State-list famous	1986	the traditional district that has cultural relics, or be able	Formally proposed the concept of historical and

6) Li Guang-xu, "Analysis of relative concept on protective planning in historical and cultural blocks." *Shanxi Architecture* Vol.35 No.19, 2009,07: 20-21.

historical and culture cities <sup>7</sup> published by State		to better reflect the ethnic characteristics of a historical period can be announced to be historical and cultural district by local government	cultural district; Protection policy of historical and cultural district has been confirmed by the state
Conference on historical and cultural district, Huangshan	1996	Clearly states that "the protection of the historical and cultural district has become an important part for the protection of historical and cultural heritage. At the same year, established a special fund to protect historical and cultural city, mainly for conservation planning and maintenance	Began to offer economic aid for historical and cultural district
Management approach for Tunxi district, Huangshan	1997	offered a confirmation on administrative regulations for protection approach	Began to offer legal support for the protection of historical and cultural district
Law of the Peoples Republic of China on Protection of Cultural Relics	2002	new vision added protection clause of historical and cultural city	The protection of the historical and cultural district has become a part for the protection of historical and cultural heritage
Code of conservation planning for historic cities	2005	explained the objectives and principles of the protection ; delineate protection boundaries, content and protection methods	off special regulation on planning of historical and cultural district
Protection Planning of Wuhan Famous Historical and Cultural City	2013	developed from the Code of 'conservation planning for historic cities(2005)', providing a combination of features of historic preservation in Wuhan.	basis of construction and management for the historical and cultural district in Wuhan

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7) Weng, Da-lai. "Renovation of Urban Historical and Cultural District." *China Academic Journal Electronic Publishing House* 2011,11: 35-40.

## 2.1.4 historical and cultural district in Wuhan

On the basis of the 10 historical areas established by ‘Wuhan Urban Master Plan (2010-2020)’, six blocks with traditional characteristics were as a supplement delineated by ‘System planning of historical and cultural district in Wuhan main urban areas’(2010). These areas are regarded as the concentrated expression of Wuhan distinctive historic characteristics.

[Table 2-2] Historical and Cultural district in Wuhan<sup>8)</sup>

No.	Name	Level
1	Jiangnan Road District	Historical and Cultural District
2	Qingdao Road District	Historical and Cultural District
3	Site of the August 7 Conference	Historical and Cultural District
4	Yiyuan Road District	Historical and Cultural District
5	Tanhualin District	Historical and Cultural District
6	Shouyi District	Historic Area
7	Peasant Movement Institute District	Historic Area
8	Hongshan District	Historic Area
9	Qingshan ‘Red house’ District	Historic Area
10	Luoji Mountain District	Historic Area
11	Dazhi Road District	Traditional Characteristics Blocks
12	Liuhe Road District	Traditional Characteristics Blocks
13	Hanzheng Road District	Traditional Characteristics Blocks
14	Hangang District	Traditional Characteristics Blocks
15	North Guishan District	Traditional Characteristics Blocks
16	Xianzheng Street District	Traditional Characteristics Blocks

·Historical and Cultural District: a historical and cultural district must be approved by the provinces, autonomous regions and municipalities; with total

8) *System planning of historical and cultural district in Wuhan main urban areas.*  
Wuhan Land Resources and Planning Bureau, 2010.

area of more than 1 hectare; historical and cultural relics, and historic buildings should be more than 60% of the total building areas within the protected area.

·Historic Area: Areas with abundant historical relics, intensive modern historical sites and historic buildings and heritage, with a certain size; historic areas can truly reflect the history of Wuhan traditional style and local characteristics

·Traditional Characteristic Blocks: the areas with less historical relics, which cannot reach the standards of a historical area, but carry an important historical and cultural atmosphere; its architectural style, spatial pattern and landscape reflect the traditional style of a certain historical period and ethnic characteristics.

## 2.2 Urban regeneration

### 2.2.1 The concept of urban regeneration

Urban regeneration is aimed at reviving the old urban areas due to the expansion of the city by either making improvements in current infrastructure or rebuilding. In general, urban regeneration is interpreted as ‘rehabilitation and activation of the city’ in the dictionary. Recently, urban regeneration has been discussed intensively as a new paradigm that reactivates the overall urban functions. Therefore, the proposition of urban regeneration is to reactivate the city through spatial structure reconstruction, land use rationalization, physical maintenance and offering various programs.<sup>9)</sup>

### 2.2.2 The range of urban regeneration

It is necessary to comprehend ‘urban regeneration’ as focusing on various aspects rather than on one specific aspect. Also, urban regeneration covers a wide range. Since urban regeneration has the ultimate object to reactivate the declined area, the main contents can be viewed separately as environmental, social and cultural aspects.

#### (1) Environmental aspect

In terms of the physical environmental aspect, urban regeneration can

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9) Lee, Joo-hyung(2009). *The Urban Regeneration Paradigm of the 21st Century*. Boseonggak.

provide an opportunity for the population to increase in the area due to its environmental attractiveness. It is intended to provide a balance between the systematic maintenance and new development by viewing the declining district as a target. In particular, the city center, as the center of business, community and culture, has a considerable influence on the entire city in terms of spatial and functional status.

### (2) Social aspect

In terms of the social aspect, ensuring social diversity is part of the principal objectives of sustainable urban regeneration. The objective of social diversity is tantamount to attract residents as well as avoid the residents leaving. Specifically, it includes not only the public facilities maintenance, establishment of function and use of the area, management and operation of urban infrastructure, but also includes activities such as regional promotion, variety of programs, and maintenance of vegetation. Social-cultural characteristics can be maintained and space quality can be improved only under the participation of the inhabitants throughout the whole process.

### (3) Cultural aspect

In terms of cultural aspect, the object of urban generation is to reproduce the cultural heritage from various environmental components in order to implement the cultural space. Also, it is important to grant the diversity of the urban environment and ensure the identity of the urban landscape.

### 2.2.3 Historical-cultural resources and urban regeneration

Sustainability comprises of ecological sustainability, social sustainability and economic sustainability. However, the possibility of cultural sustainability being an addition to the concept of sustainable development is being discussed recently. The UNESCO Universal Declaration on Cultural Diversity (2001) clarified that cultural diversity is the common heritage of humanity. Cultural diversity is a sense of satisfactory, intellectual, emotional and spiritual growth rather than simple economic growth. Therefore, the historic cultural aspect is an essential part of urban regeneration that points towards a people oriented city. E.H. Carr has explained the significance of history as it gives a delicate indication of the future. In terms of the city, the historical and cultural environment would make some implication on the city's future as well as form the identity of the heritage, through which can contribute to economic development.

### 2.2.4 Related regeneration project

In 2003, Wuhan Municipal People's Government promulgated the 'The protection and management of Wuhan cultural sites and historic buildings', which clearly states that the 'Municipal People's Government can implement the protective renewal of historic town in accordance

with the needs of urban planning and development of urban construction.’

In 2008, Wuchang City has been compartmentalized into "two axes five areas" according to the ‘Preservation and Regeneration Plan of Wuchang Thousand-year-old Historic Town’. Two axes, Sheshan eco-axis and the Shouyi humanity-axis, are aiming to combine a natural ecological green landscape and a cultural space with a historical atmosphere.

In 2010, "Wuhan Urban Master Plan (2010-2020)", which is approved by the State Department's proposal that cultural sites refer to a region that primarily reflects the historical evolution of urban form and the traditional feature of the city. It includes, the Hankou Concession Site, Hanzheng Street Traditional Commercial Site, Hanyang Cultural Site, Wuchang Historic Town. “System planning of historical and cultural district in Wuhan main urban areas” focus on the main problem for the renewal and protection of historical and cultural district in Wuhan, proposed protection and utilization for an overall goal, principles, methods and frameworks. Moreover, it is a practical guide since the establishment of graded protection system as well as the preparation of the control guidelines for data files of historical and cultural district.

The regeneration of the old cultural sites has experienced an evolution from a simplistic focus on protection of the individual buildings, to the overall level of a protection concept based on historical patterns of its

style. As a result, it developed protective strategies for diverse characteristics to promote the regeneration of the old cultural sites.

## 2.3 Previous studies

### (1) Tanhualin District

Yan Chao-wei(2006) researched the monograph of Tanhualin district. It presented and analysed Tanhualin district in detail eight aspects including geography, historical events, religion, education, health, construction, figures and anecdotes. It is an important reference to the renewal of Tanhualin district. Hu You-bing(2006) has made planning for the control and protection of buildings, streets and surrounding environment, especially for the protection of historic buildings. Li Hui-rong(2006) identified problems in Tanhualin district and suggested the ‘regenerative’ protection programs to the spatial culture and traditional lifestyle. Zhang Ying(2012) studied the preservation and current status of the vegetation of Tanhualin district and put forward specific protection programs.

### (2) Historical and cultural district

Peng Hui-feng(2000) uses Ping’an Street as an example to introduce the combination of traditional and modern styles by considering both historical buildings and the surrounding environment. Lu Chun-xia (2003) indicates the old city- Suzhou, applying the color theories as the

main approach to city planning to show the importance of color and the possibility of color control and management. Chen Yu(2006) explains the cultural character of urban streetscape and illustrates the problems of insufficient characteristic streetscape in China. Tian Qi-wen(2013) did research on commercial space design regarding historical and cultural district regeneration. Different locations and cultural backgrounds have a significant influence on planning.

### (3) Urban Regeneration

Chang You-kyoung(2012) analyses spatial and formational characteristics, and the application of the dwelling renewal method for the Shikumen Linong House in the Xintiandi complex, which demonstrates how the renewal of historical buildings can activate the whole area. Choi Kang-rim (2013) uses the public open space renewal project of Gwanbok-ro cultural street as an example to explain the key role of an organization based on a governance system that leads to an integrated design project.

## 2.4 Case Study

### 2.4.1 Cases in Wuhan

#### (1) Jiangnan Road

In 2000, Jiangnan Road was transformed into a commercial area and the road was changed into a pedestrian street. The transformation followed the original traffic path.

[Table 2-3]Basic information of Jiangnan Road

<b>Name</b>	Jiangnan Road
<b>Time</b>	2000
<b>Location</b>	Zhongshan Avenue 1505, Jiang'an, Hankou, Wuhan
<b>Image</b>	 Street view                      Traditional furniture
<b>Historical location</b>	Jiangnan Road historical and cultural district
<b>Theme</b>	Commercial street

Furthermore, three open spaces with landscaping imagery which can reflect the cultural characteristics of Wuhan were designed on the pedestrian street. The project regulated advertising signs along the street and added lighting devices for the historic buildings, open spaces and plants, enriching the night view of the pedestrian street.

For the original buildings on both sides of the pedestrian street, a three-stage classification process was put forward. The first category is for 13 outstanding historic buildings. The project restored the original appearance of historic buildings to they were before to ensure the authenticity. The second category is for the historic buildings with typical features and characteristics. It maintained the original style while allowing appropriate changes. The third category is for modern buildings, which were designed to match the overall style.

For the pedestrian street, the project highlights the historical and cultural elements. Also, it opened up several open spaces such as a small square in the closed and linear streets to vary the streetscape.

## (2) Wuhan Tiandi

Wuhan Tiandi references the development model of Taipingyang area of Luwan District in Shanghai, which includes Shanghai Xintiandi redevelopment project, creating a comprehensive development project that consists of residential areas, offices, hotel, restaurants and entertainment areas as well as other multi-purpose facilities. Wuhan Tiandi commercial pedestrian area is part of the Wuhan Tiandi project.

[Table 2-4]Basic information of Wuhan Tiandi

<b>Name</b>	Wuhan Tiandi commercial pedestrian area
<b>Time</b>	2009
<b>Location</b>	Zhongshan Avenue 1505, Jiang'an, Hankou, Wuhan
<b>Image</b>	 <p style="text-align: center;">Master plan</p>
<b>Total area</b>	33,000m <sup>2</sup>
<b>Building area</b>	56,000m <sup>2</sup>
<b>Volume rate</b>	1.7
<b>Historical location</b>	Liuhe Road historic district
<b>Theme</b>	Concession



[Figure 2-1] Bird view of Wuhan Tiandi



[Figure 2-2] Open space in Wuhan Tiandi

There were 22 historic buildings within the site. But the planners chose to preserve and repair 6 valuable historic buildings. The project created a good accessibility inside the district with a large density grid street which is suitable for walking. 9 to 10 low-rise buildings with small

mass composed a building-group as a rectangular shape of 40 to 50 meters long, 30 meters wide, organized by streets between the groups. As a result, it enhanced the permeability of the view and accessibility of the neighborhood, which improved the economic value of the shops.

Wuhan Tiandi commercial district acts as a transition area between the historic sites and Wuhan Tiandi residential projects. Although the district was transformed from a historical residential neighborhood into a commercial pedestrian area with historical themes, it maintains harmony with the adjacent old district, certainly becoming a complement of public communication space which the old district lacks.

### (3) New Jiqing Street

Old Jiqing Street is a street full of restaurants opened at night, where people eat outside and traditional artists gather and sing and play instruments. It reflects the culture of folks daily life(市井文化).



[Figure2-3] Traditional artist in old Jiqing Street



[Figure2-4] Night culture of old Jiqing Street

The New Jiqing Street project was put forward by 2009 since the restaurants occupied part of the street which raise a problem of pollution and nuisance. It is a redevelopment project that existing

houses were demolished and processed new planning.

[Table 2-5] Basic information of Jiqing Street

<b>Name</b>	New Jiqing Street
<b>Time</b>	2010
<b>Location</b>	Zhongshan Avenue 677, Jiang'an, Hankou, Wuhan
<b>Image</b>	
<b>Total area</b>	20,000m <sup>2</sup>
<b>Building area</b>	38,000m <sup>2</sup>
<b>Volume rate</b>	1.9
<b>Historical location</b>	Jiangnan Road historical and cultural district
<b>Theme</b>	Regional Culture



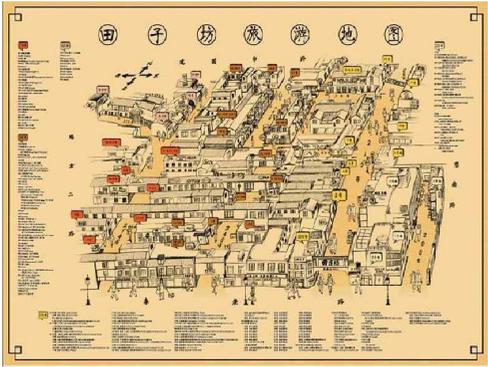
[Figure 2-5] Daytime view of New Jiqing Street [Figure 2-6] Night view of New jiqing Street

Even though it contains some traditional items, well-organized buildings and open spaces, the pattern had totally been changed and it lost its unique characteristics after the project. It has become dull and average compared to other places which result in a deserted place and most of the restaurants have already shut down.

## 2.4.2 Cases in China and overseas

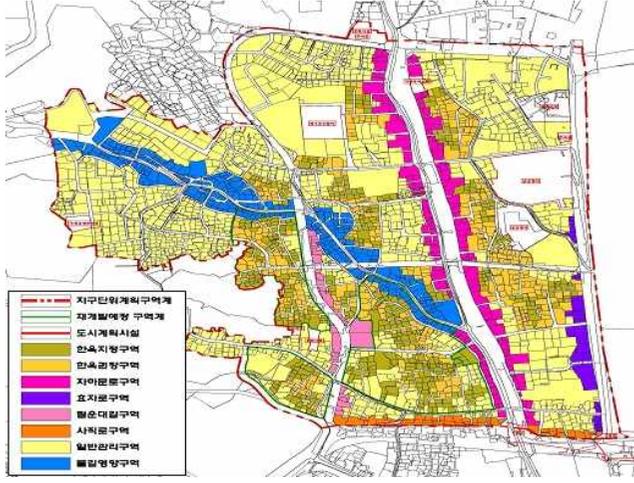
### (1) Tianzifang

[Table 2-6] Study of Tanzifang

<b>Location</b>	Shanghai, China
<b>Scale</b>	Total area: 7 hectare; Building area: 20,000m <sup>2</sup>
<b>Character</b>	<ul style="list-style-type: none"> <li>-Continue spirituality in historic buildings synchronously by weaving and recovering the traditional space</li> <li>-Building facade is mainly for protection and repair; building internally regenerated through functional transformation or innovation</li> <li>-Maintain the old residential part</li> </ul>
<b>Image</b>	<div style="text-align: center;">  <p>plan</p> </div> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>image</p> </div> <div style="text-align: center;">  <p>image</p> </div> </div>
<b>Implication</b>	<ul style="list-style-type: none"> <li>-Create new open space by grasping the space scale</li> <li>-Utilize the old buildings to recover the traditional space</li> <li>-Combine daily life of old residents into the planning of the historic district</li> </ul>

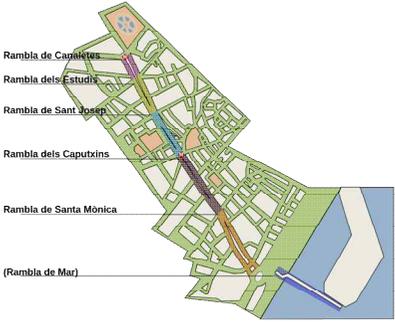
(2) Seochon

[Table 2-7] Study of Seochon

<b>Location</b>	Seoul, Korea
<b>Scale</b>	582,297m <sup>2</sup>
<b>Character</b>	<ul style="list-style-type: none"> <li>-Protect the historical-cultural resources and environment</li> <li>-Suggest detail protection and renovation planning of Hanok</li> <li>-Small scale streets form flowing alley</li> <li>-Divide into 8 parts and suggests specific planning in each</li> <li>-Recover the historic image</li> <li>-Restore the old stream</li> </ul>
<b>Image</b>	 <p style="text-align: center;">plan</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p style="text-align: center;">image</p> </div> <div style="text-align: center;">  <p style="text-align: center;">image</p> </div> </div>
<b>Implication</b>	Recover the historic image through different approaches on protection and renovation of historic buildings, keeping the street pattern and activating the alleys.

### (3) La Rambla

[Table 2-8] Study of La Rambla

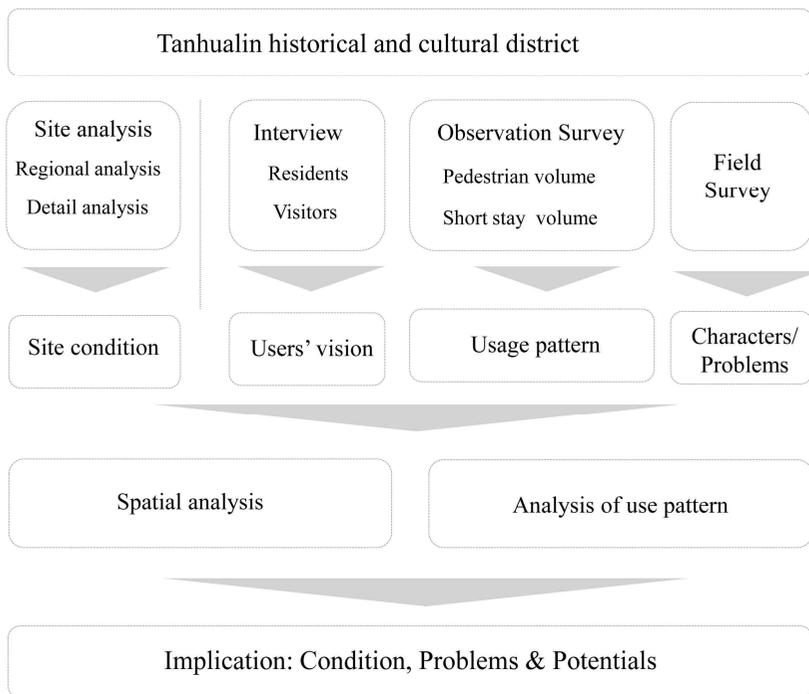
<b>Location</b>	Barcelona, Spain
<b>Scale</b>	Length: 1.2km ; Wide: 18m
<b>Character</b>	<p>-Pedestrian zone down the middle; two lanes of traffic with a lane for parking and deliveries on each side of the strip</p> <p>-Boast an incredible variety of street life: cafes, shops, markets, vendors, street theater and historic sights.</p>
<b>Image</b>	<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Bird View</p> </div> <div style="text-align: center;">  <p>shops on the pedestrian</p> </div> </div> <div style="text-align: center; margin-top: 20px;">  <p>Plan</p> </div>
<b>Implication</b>	Promote the surrounding areas by creating pedestrian.

# Chapter 3: Site Analysis·Use Pattern Analysis

## 3.1 Site Analysis

### 3.1.1 Outline

Site analysis consists of Regional analysis, historical and cultural background and related analysis; Survey of use pattern consists of interviews of residents, interviews of visitors, observation survey and field survey.



[Figure 3-1] Outline of Chapter 3

Tanhualin district is located at the northeast corner of Old Wuchang city and lying inside the city wall between Pangxieja Hill and Huayuan Hill. It extends from east to west in parallel with the two hills. To be precise, the Tanhualin district refers to the 1.2-kilometers narrow belt, from Zhongshan Road in the east to Deshengqiao Street in the west.

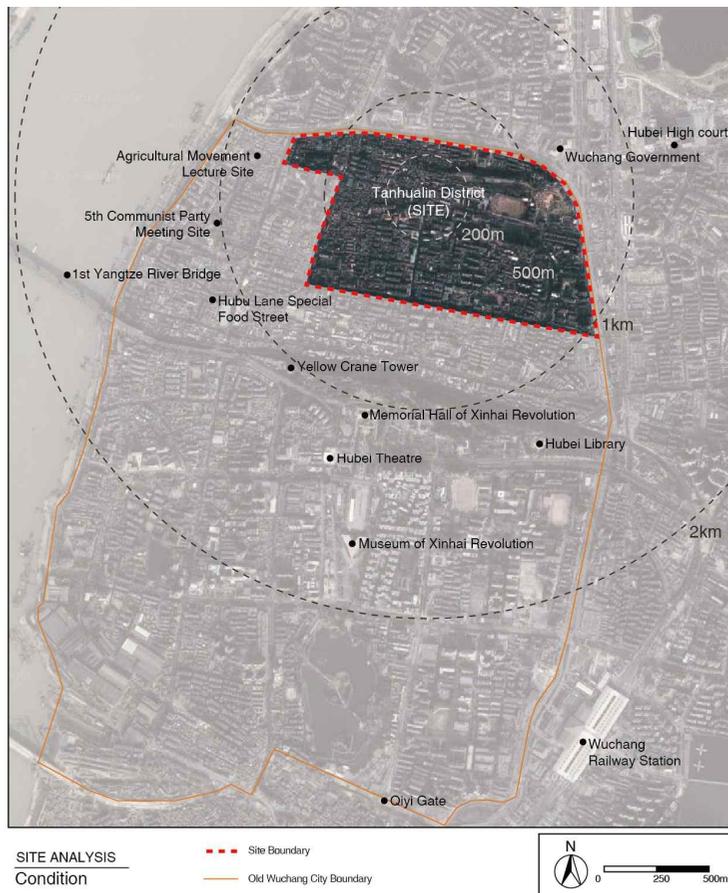
Pangxieja Station of Subway line2 that is constructed in December 2012, is on the northeast corner of Tanhualin district. It is close to the Yellow Crane Tower and Shouyi Park on the south.

Tanhualin district is famous for its various kinds of architecture with a range of styles especially for the buildings that can date back to early modern history, combining historical and cultural features of nature, ancient styles, religion, education, architecture, street and many others featuring as one. Moreover, not only did it witness the development of modern culture in Wuhan, but also its formation and development of architecture and urban space still have far-reaching implications until now.

### 3.1.2 Regional analysis

#### (1) Surrounding

Yellow Crane Tower, as the landmark in Wuhan, is located on the south of the site within 1 kilometer. Many renowned tourist sites and the General Office are also located near the site.



[Figure 3-2] Analysis of surrounding

(2) Road

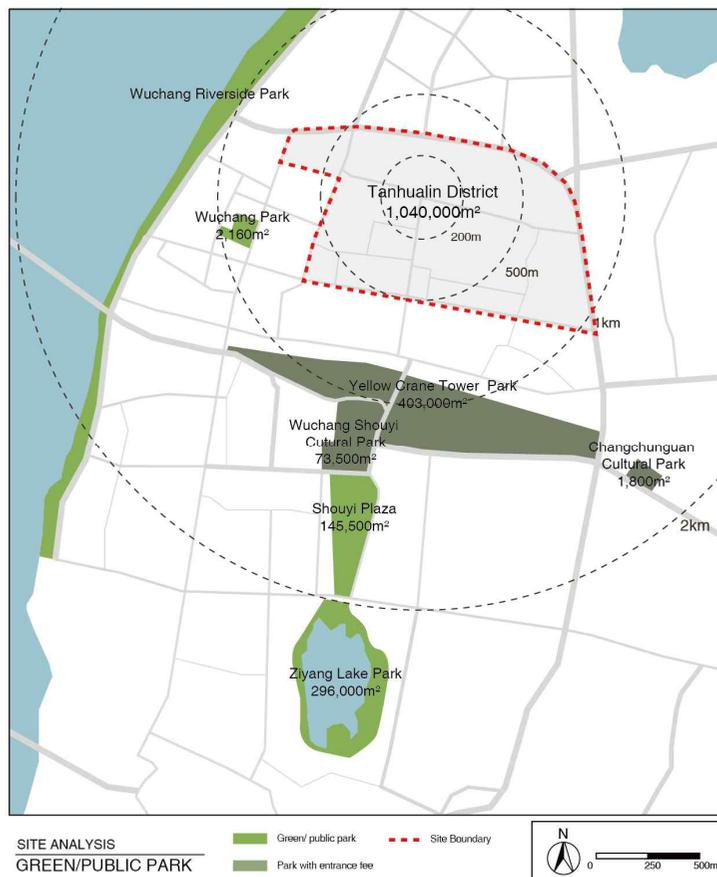
On the east and north of the site, it is the Zhongshan Road with a width of 50 meters. Since Deshengqiao Street on the west is relatively narrow, the main entrance of the district now is on the east intersection of Tanhualin Main Street and south intersection of Yanzhi Road. Furthermore, there is a traffic control on the western part of Tanhualin Main Street: no entry for vehicles from 8:00am to 6:00pm.



[Figure 3-3] Analysis of road system

### (3) Park and Green space

Parks and green space are mainly located in the south of the site forming east-west and an north-south axis. On the west side, there is a riverside park. 2012 Per Capita Public Green Area of Wuhan is 9.92m<sup>2</sup>, which is lower than the standard 11m<sup>2</sup>/per Capita according to the ‘Wuhan Year Book2012’. Especially in Wuchang, the majority of the parks are tourist sites with an expensive entrance fee. There is no public park within 500 meters.



[Figure 3-4] Analysis of park and green space

#### (4) Public Transportation

There is no public transportation inside Tanhualin district. The nearest subway station is Line no.2 Pangxiejia station on the east-north corner. Line no.5, which will be constructed in 2020, will set a new station on the north-west corner of the district. The bus station is on the boundary of the site within a 5-10 minute walk.

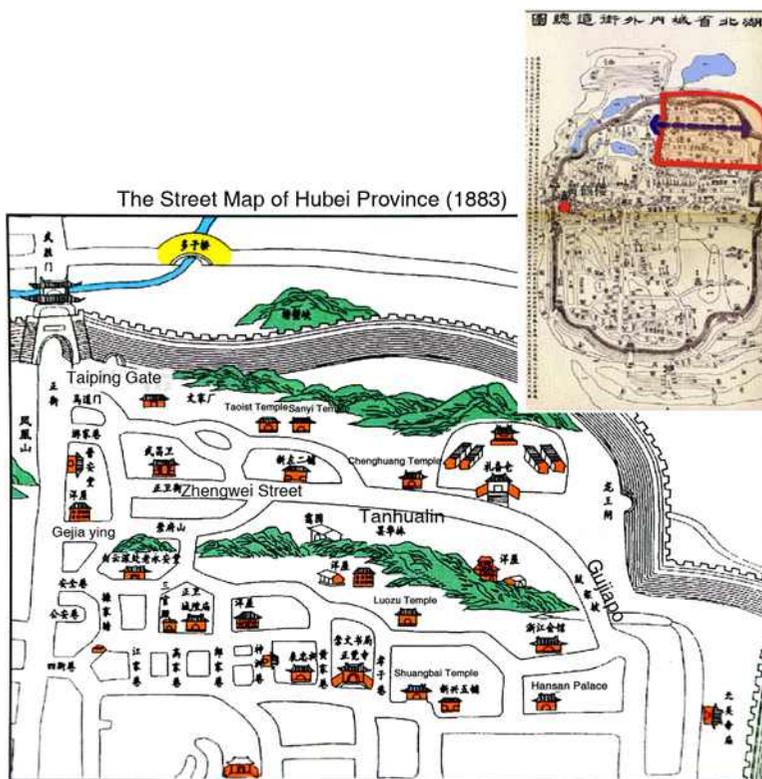


[Figure 3-5] Analysis of transit system

### 3.1.3 History and cultural background

#### (1) Origin of the name

‘Tanhualin’(昙华林) has been recorded as a place name since the Qing Dynasty, appearing in "The Street Maps of Hubei Province " in the ninth year of the reign of Guangxu (1883). As can be noticed in this map, ‘Tanhualin’ at that time referred to the area in the north of Huayuan Hill, east of Zhengwei Street and west of Gujiapo which showed only a part of present Tanhualin district.



[Figure3-6] The Street Map of Hubei Province (1883)

Resource: Wuchang Achieves

There are currently a variety of claims about the origin of place names 'Tanhualin'(昙华林), but the statement in 'Buddhism' that "Tanhualin" derives from the Buddha's words is commonly accepted based on historical research. The meaning of the street name "Tanhua" came from the Tathagata phrase in the Buddhist scriptures-"Lotus Sutra": “优昙钵花, 时以现耳”(a flash in the pan). In Buddhist legend, Epiphyllum(昙花) appeared only when Chakravartin was born, which means that Epiphyllum is uncommon. According to the common argument of classical Chinese and Sanskrit, 'Tanhua'(昙花) is the same as 'Tanhua'(昙华). Furthermore, 'Lin'(林) is an abbreviation of 'Forest'(丛林), which means “monks living together”, which is similar to the trees gathering together and forming a forest. Once there was a Buddhist temple, which was surrounded by a forested area to provide protection. In former days, Tanhualin district was a prosperous area of Confucianism, Buddhism and Taoism. Zhengjuelv Temple, one of the four major temples in Wuhan, is on the south side of Tanhualin district. Wudang Temple and Lingrui Temple can be found on the south side of PangxieJia. Moreover, dozens of temples and foreign religious buildings were marked in the map "The Street Map of Hubei Province ", showing a boom period of eastern and western religion.<sup>10)</sup>

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10) Yang, Chao-wei(2006). *Tanhualin Historical and Cultural District*. Wuhan Press.



[Figure3-7] <Siku Quanshu> Wuchang old City Map

Resource: Wuchang Achieves

## (2) History of Tanhualin district

Public space, individual space and pedestrian networks of Tanhualin district were developing slowly and steady during the Ming and Qing dynasties. Moreover, spatial structure and morphology of public space changed slightly throughout the period. In this period, Tanhualin can be summarised as an expansion mode of "core - axis - network". Due to the special geographical location, Wuchang government, food agency, examination halls had all entered Tanhualin region, which led to the development of this area, forming a Tanhualin centered cereals transportation road. Shops and markets appeared along both sides of the cereals transportation road, leading to the development of the surrounding area, and gradually formed a certain scale of the official sites, merchants and ordinary residential compound.<sup>11)</sup>

11) Pi, Ming-ma(1985). *History of Wuhan over the past Hundred Years*. Huazhong University Press.

The signing of the “Tianjin Treaty” in 1858 further opened up Hankou as well as Wuchuang, from which Tanhualin became a ‘concession territory’ of Western countries for half a century after. Hospitals, schools, churches and other public facilities appeared in the Tanhualin area under the Eastern and Western cultural collision. These buildings were mostly designed and constructed by foreigners, reflecting the more advanced Western architectural style and philosophy at that time. It also had a great impact in the form of Chinese architecture since the entry of these styles and philosophy. Many Chinese with advanced thinking combined Western architectural forms and Chinese traditional houses, constructing of a large number of buildings with an integration of Chinese and Western architectural styles. The majority of local residential buildings are called traditional Jiangxia residential buildings, mostly built of brick and wood. There are several Jiangxia residential buildings have been preserved to the present.

In 1911, after the outbreak of the Wuchang Xinhai Revolution, Tanhualin became a hotspot for engaging in revolutionary activity, where revolutionaries initiated and led a series of large-scale revolutionary propaganda activities. It was an early campaign based on the revolutionary groups “Rizhi Hui” and “Qiyong Society”. Various consulates, schools and hospitals have settled here, due to a shortage of land resources in this period. In order to solve this problem, not only did they rapidly expand the overall spatial extent of Tanhualin area, but also built houses against the hill. As a consequence, Phoenix Hill,

Pangxiejia and Huayuan Hill were getting smaller and Huayuan Hill was affected the greatest. In 1927, Wuhan City Wall was sentenced to be removed so that it could accelerate the expansion of Tanhualin district.

### (3) Cultural Background

#### (a) Nature

Historically, Tanhualin district has a saying of “One Lake Three Hills” , which refers to Sha Lake on the north, Phoenix Hill on the west and surrounded by Huayuan Hill and Pangxiejia Hill. Most of the existing historic buildings scattered on the hillside or between three mountains, create a natural and pleasant atmosphere.



[Figure 3-8]Space structure of Tanhualin district

Resource: Wuchang Achieves

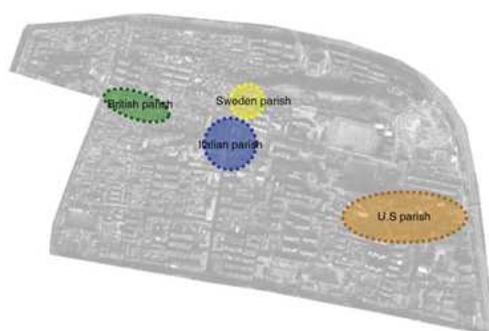
#### (b) Old City Wall

Wuchang old city walls were built along the Pangxiejia Hill, Tanhualin, which is surrounded by water and hills extended along the city walls. It is in line with feng shui theory and also constitutes a unique ancient

culture. The fort ruins, city wall and Zhengwei government site remains to the present day. Especially the religious buildings that witnessed an imperialist cultural invasion of Wuchang City, as well as the monument of the revolution of 1911, War of Resistance Against Japan, the Liberation War and other major historical events, politicians and celebrities, mansions, apartments and other buildings, endowing the ancient city with a cultural and historical value that has a profound monumental atmosphere of the revolution.

### (c) Religion

The ancient Tanhualin district was nominated because of the flourishing Buddhist and Taoist traditions. Up to the modern era of 1861, Tanhualin was affected by foreign religious infiltration and cultural colonialism, forming an Italian parish centered mainly on Huayuan Hill, Gejiaying-centered British parish, Pangxiejia-oriented Swedish parish, Tanhualin main street- predominated U.S. parish.



[Figure 3-9] The distribution of four parishes

Redraw; Resource: Wuchang Achieves

#### (d) Education

Tanhualin district was affected by various educational and cultural factors throughout each period of its development. During the Ming and Qing dynasties, the examination hall was established on the south side of Phoenix Hill so that Tanhualin became an examination place for ‘successful candidates’ from neighbouring towns. Furthermore, Taiping trial House, which is on the south side of Huayuan Hill, was a residence for scholars who came from 70 different towns and villages of Hubei Province in Qing Dynasty. After Hankou was further opened because of the “Tianjin Treaty” signature in 1858, on one hand, Western countries set up a lot of their own schools on the east part of Tanhualin which is the current location of Hubei Medical University. U.S episcopal established Wenhua College and it constantly evolved during the century, becoming the predecessor of Huazhong Normal University. On the other hand, rulers of Hubei Province headed by Zhang Zhidong had opened private elementary and secondary schools.

#### (e)Architecture

Most modern traditional Chinese architecture is well-preserved among the historical buildings in Tanhualin district. Modern traditional Chinese architecture, western architecture, as well as a combination of Chinese and Western architecture formed the Tanhualin overall architectural style, showing a cultural blend between China and Western countries, through which was fully reflected a cultural exchange in the architecture.

[Table 3-1] Historic buildings in Tanhualin district

Type	Name	(Year)	Location	Remark
Education -al Building	Wenhua Univ. Collage of Art	1903	(Now) Hubei College of Traditional Chinese Medicine no.8 bldg.	Wuhan excellent historic building; Secondary protection building.
	Wenhua Univ. Collage of Law	1903	(Now) Hubei College of Traditional Chinese Medicine no.7 bldg.	
	Wenhua Univ. Collage of Education	1903	(Now) Hubei College of Traditional Chinese Medicine no.6 bldg.	
	Wenhua Univ. Christmas Hall	1870	(Now) Hubei College of Traditional Chinese Medicine no.5 bldg.	Wuhan excellent historic building; Secondary protection building.
	Wenhua Univ. Health club	1919	(Now) Inside Hubei College of Traditional Chinese Medicine	Wuhan excellent historic building; Secondary protection building.
	Wenhua Univ. Yanmu Building	1903	(Now) Hubei College of Traditional Chinese Medicine no.14 bldg.	Wuhan excellent historic building; Secondary protection building.
	Wenhua stack room	1920	Tanhualin Street 138-139	Wuhan excellent historic building; Secondary protection building.
	Zixun Women's School academic building	1897	Tanhualin Street 101	
	Wuhan Middle School(Zhenli Middle School)	1890	Tanhualin Street 115	
Administ- ration Building	Office Building of 3 <sup>rd</sup> political department of the Nationalist Party	-	(Now) Inside Wuhan No.14 Middle School	Wuhan historic preservation unit
Ecclesias- tical Building	Tsung Tsin Hall	1864	Gejiaying 44	
	Sweden Parish Main building	1890	Tanhualin Street 95	
	Swedish Consulate	1890	Tanhualin Street 107	
	Sweden Parish clergy building	1890	Tanhualin Street 88, 97, 108	
	Sheng Church	1889	Huayuan Hill 2	
	Sisters Church	1888	Inside Hubei College of	

			Traditional Chinese Medicine	
	Foundling	1928	Huayuan Hill 2	
	Edong Curia	1883	Huayuan Hill 2	
Residential Building	Trditional building1	The late Qing, the early Ming Dynasty	Tanhualinn Street 81	
	Trditional building2	The late Qing, the early Ming Dynasty	Gejiaying 86	
	Half garden(Principal room)	1928	Gujiapo 27	
	Former Residence of Guangji Cai	1930	Gejiaying 94	
	Mansion of Liu	1930	Tanhualin Street 32	
	Mansion of Xu, Yuanquan	1932	Tanhualin Street 141	Wuhan excellent historic building; Secondary protection building.
	Xia, Douying House	1932	Tanhualin Street 141	Wuhan excellent historic building; Secondary protection building.
	Wang, Ze Former Residence	-	Taiping Examination Hall 4	
	Shi, Ying Former Residence	1930	Tanhualin 1	
	Lu, chunrong Residence	1931	Yunjia qiao	
Yan, Daogang Former Residence	1932	Gaojia Lane 17		

Resource: Wuchang Achieves

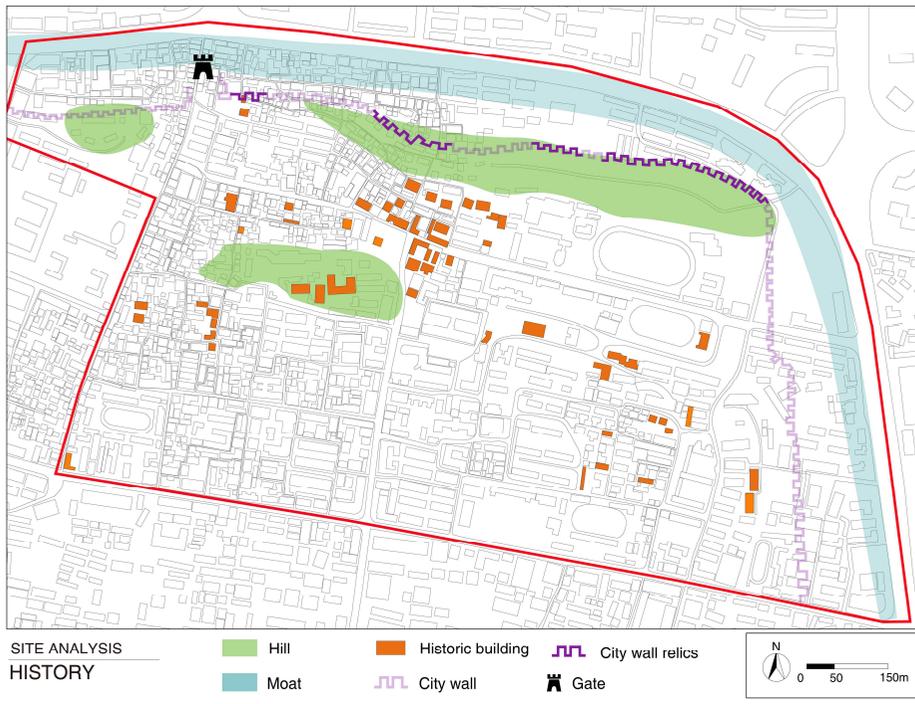
#### (f) Street

The majority of wealthy or famous people's mansions were constructed along the hillside, distributed in Tanhualin main street, Gejiaying, north side of Huayuan Hill and south side of Pangxiejjia Hill. It witnessed the living environment of diverse sectors, reflecting the basic structure and morphology of the historical streets as well as forming a distinctive architectural culture in Tanhualin historical streets. The street network

became diversified and interested thanks to accessible lanes laid out in a north-south direction in this neighborhood, which is vertical to the main street of Tanhualin. Furthermore, these parallel lanes became a major transport link in the area, constituting a complex with a clearly structured street network throughout Tanhualin district.

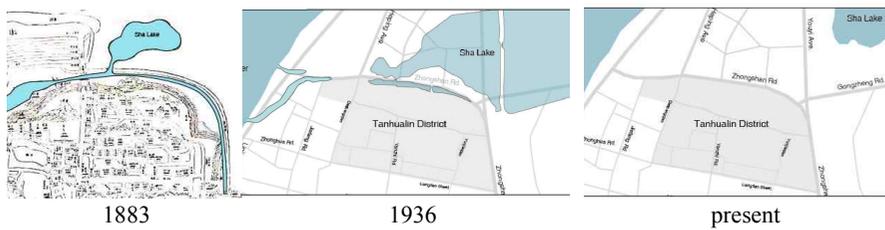
#### 3.1.4 Analysis of related history map

Historical patterns can be traced from the old maps. Since Tanhualin district is on the northeast corner of Old Wuchang city with a traditional city pattern, historically it had the city wall, Wusheng Gate, hills and a city moat. The main street (Deshengqiao Street) played an important role in the history that connected the outside and the centre of the city through Wusheng Gate. The moat was filled and became a road and residential area. However, nowadays this is the most affected area by flooding in summer. Even though the old city wall was removed in 1927, rudiments remain on the hills. Huayuan hills gradually disappeared over time. Pangxiejia Hill and Phoenix hill are occupied by illegal squats. Historic buildings can be dated back to modern history as a reflection of the combination of western culture and traditional Chinese culture. The historic buildings are dilapidated and so the government has restored 11 of them, and most of the historic buildings were changed for other use.



[Figure 3-10] Analysis of related history map

### 3.1.5 Waterway



[Figure 3-11] Historic change of waterway

As can be traced from the historical map, the Sha Lake on the northeast of Tanhualin district is becoming smaller and the city moat has disappeared now. The connection between Yangtze River and Sha

Lake no longer exists.(Zhang, Ying 2012)

■ Torrential rainfall and flood problem

Every storm can cause serious waterlogging due to inadequate drainage. Low-lying terrain areas were flooded. The torrential rainfall causes economic losses of at least a thousand million, and can even cause injury or death. Throughout history, Wuhan has suffered from water problems, including several occurrences of flooding, especially catastrophic floods which happened in 1931,1935 and 1998. This can be seen from the monthly volume of precipitation:

[Table 3-2] Monthly volume of precipitation(mm)

year/ month	1	2	3	4	5	6	7	8	9	10	11	12
2002	34.5	93.4	154.5	333.6	165.7	153.3	204.8	147.1	20.6	58.7	61.2	88.7
2003	36.5	98.1	127.8	224.5	97.7	195.7	301.7	93.9	48.1	61.2	79.9	21
2004	23.5	72	40.2	126	170.7	322.9	435.7	199.7	53.9	1.3	53.8	42.5
2005	32.9	110.6	46.6	65.9	176.6	179.5	108.6	93	150	8.3	143.4	1.2
2006	48.4	89.4	23.9	126.6	184	53.2	235.7	107.1	49	58	48	23.8
2007	65.8	114.2	108.7	50.3	205.2	126.6	176.5	62.3	14.6	25.7	40.8	32.5
2008	72.4	20.7	79	54.3	344.2	129.4	148.1	240.7	40.8	92.5	39.1	5.6
2009	185	122.9	69.7	197.7	132.1	306.7	95.9	38.8	41.8	23.9	67.7	42.3
2010	28.5	49.5	150.5	140.3	138.7	152.7	389.7	83.6	91	83.5	14.6	15.2
2011	15.6	19.2	21.1	36.2	76.8	433.9	89.4	133.8	59.4	51.5	33.8	5.5
2012	26.8	41.9	109.4	44.6	159.7	192.1	245.6	131.7	107.8	131.1	11.2	51.7

[Table 3-3] Volume of precipitation(mm) in rain season 2014(June23-July18) in Wuhan urban area

	Jiang'an	Jiangnan	Qiaokou	Hanyang	Wuchang	Hongshan
Volume	121	116	143	114	151	120

Resource: Wuhan Water Authorities

Wuhan's annual volume of precipitation is 1240.6mm, and rainfall mainly happens in the summer, especially during the rainy season. Occasionally, the daily volume of precipitation exceeds 120mm/day, even 42mm/hour, which is more than the drainage load which can take a maximum precipitation of 100mm/day, 35mm/hour, causing waterlogging problems. As can be seen from the volume of precipitation during the rainy season in Wuhan urban area this year, Wuchang has the largest volume among 6 urban areas.



[Figure 3-12] Waterlogging points in Wuchang 2013

Resource :Wuhan Water Authorities

·Green point: will become a waterlogging place when torrential rainfall

·Red point: will become a waterlogging points are located when flooding

One of the serious water logging point is on the west of Tanhualin district.



[Figure 3-13] Waterlogging on Zhongshan Road(north)

Resource : Xinhua News.

Zhongshan Road on the north of Tanhualin district also suffers from waterlogging problem during the rainy season. The reason can be easily denoted from the watershed analysis as follows:

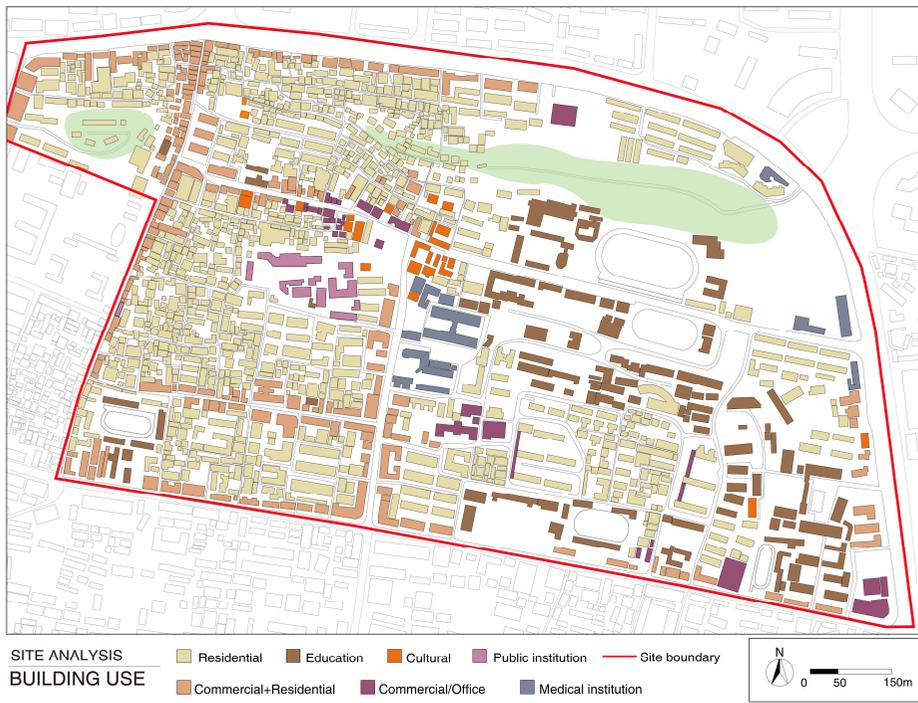


[Figure 3-14] Watershed analysis in Tanhualin district: redraw from topography

From analysis of watershed in Tanhualin district, most of the water flow into the Zhongshan Road on the north, which is the low-lying area of the boundary.

### 3.1.5 Building use

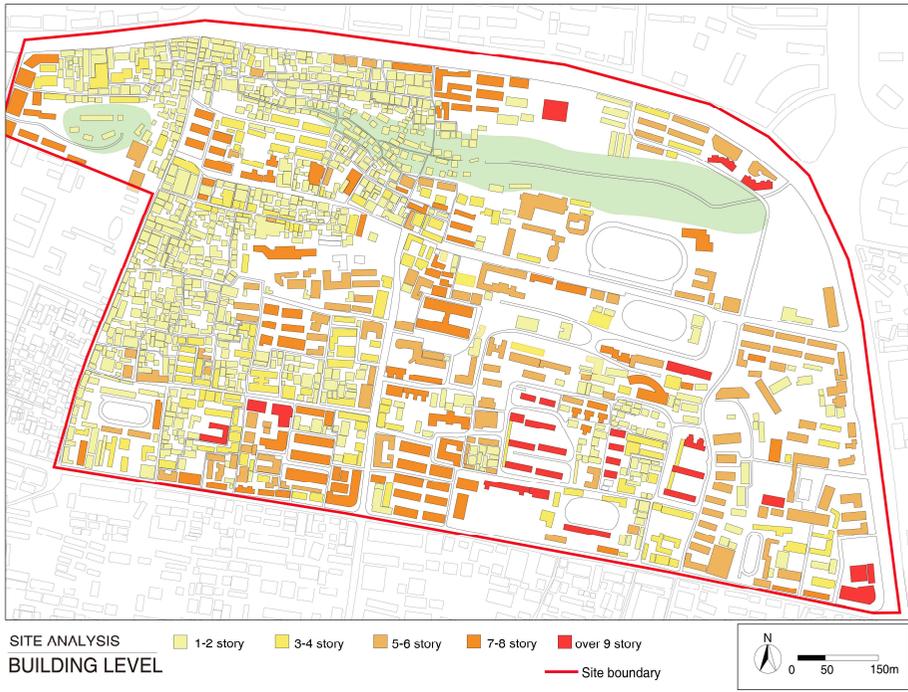
The eastern part of Tanhualin district is mainly an educational district. High-rise buildings gather and the frontage buildings are for both residential and commercial use. Low-rise buildings are found mostly on the west part of Tanhualin district. On the west part of Tanhualin main street, which is the principal sight-seeing area, buildings are for commercial and cultural use.



[Figure 3-15] Analysis of building use

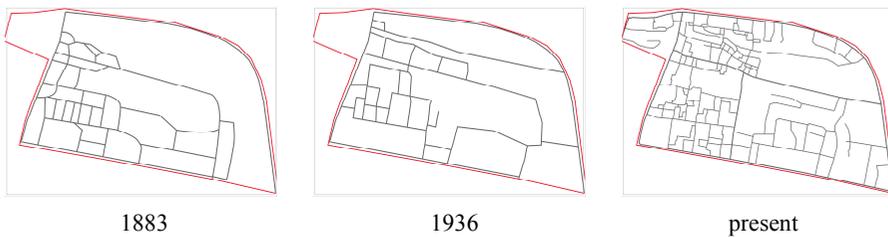
### 3.1.6 Building level

The single and double story buildings situated in the western and northern area of Tanhualin main district were mainly built before 1949 by brick-and-timber structure. After decades of wind and rain, these buildings are under poor condition with old facilities. Furthermore, some have even become dangerous due to disrepair. Among the single and double story buildings, the illegal ones without government approval were mainly situated on two hills. Criss-crossing electrical cables and pipes are dangerous, especially considering that the narrow passage connecting to the mountain cannot allow access for fire engines and ambulances, making accidents incredibly difficult to handle. Therefore, there is a serious security risk posed by the illegal buildings on both hills. 3-6 story buildings are mainly located in the central and eastern part of the district. In addition to educational buildings, the rest were mostly built between 1950 and 1980. 7-8-story buildings that were built between 1980 and 2000 are located mainly in the southern and central area of Tanhualin. Buildings over 9 stories built after 2000 are rarely found in the district. The function of multi-storey buildings is relatively better than 1-2-story buildings, but parts of the buildings are under a large density and floor area ratio. (Li, Hong-rong 2006)



[Figure 3-16] Analysis of building level

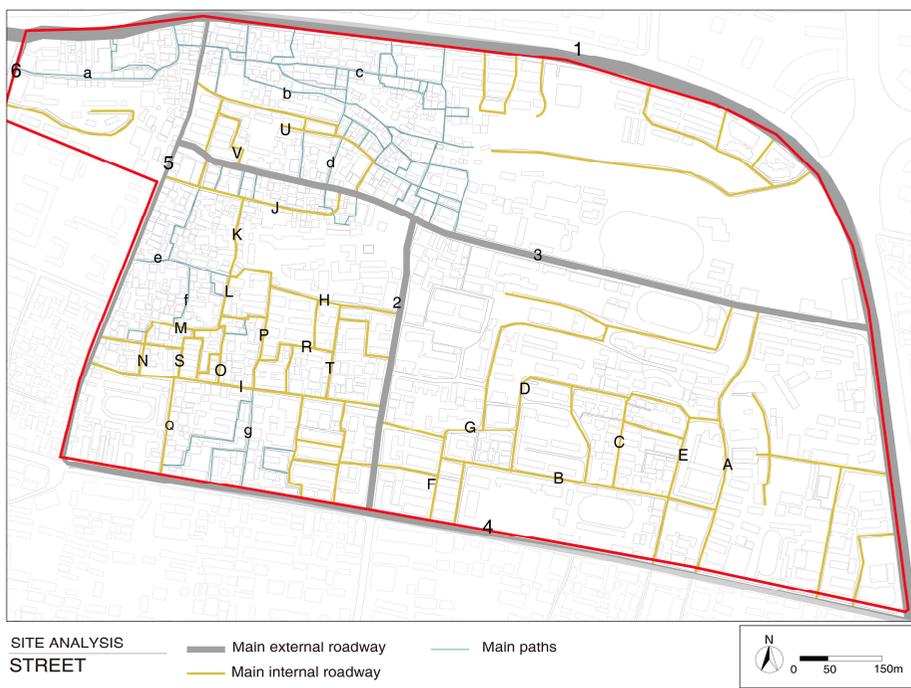
### 3.1.7 Street



[Figure 3-17] Historic change of street

As time continued, significant changes to the streets occurred. During the Ming and Qing Dynasties, the textural quality of the streets developed very naturally. It shows relatively dense distribution of

buildings towards the south of the district. After 1841, the streets gradually expanded to the whole district. The present streets of Tanhualin area can be divided into three categories based on the study of land use condition and the analysis of traffic: External roadway, internal roadway and paths. (Zhang, Ying 2012)



[Figure 3-18] Analysis of street

Tanhualin district has a clear boundary. It's internal area is essentially divided into two parts by Tanhualin Main Street. On the north of Main Street, alleys are presented at two different positions: The streets center on the west side have irregular dendritic distribution, while less streets exist on the east side because of the existing Pangxieja Hill.

It is necessary to take a comprehensive consideration of the relationship

between the various properties and streets and landscapes, in order to grasp and understand the whole district. The comprehensive analysis of three categories in Tanhualin district is reorganized on the basis of the previous studies.

(1) Main External Roadway

[Table 3-4] The status analysis of the main external roadway

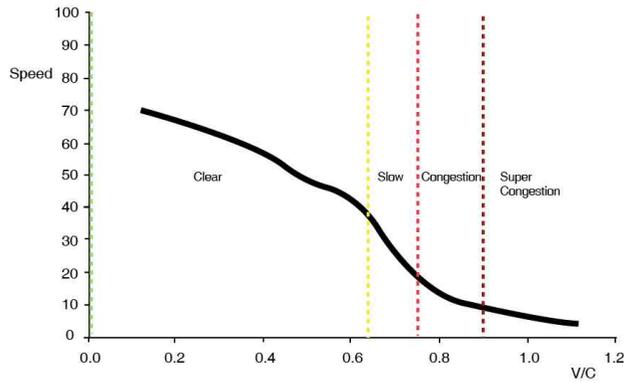
No.	Name	Form	Width (m)	Direction	Function of surrounding area	D/H	Plant layout form
1	Zhongshan Road	Straight+curve	50	East west-north south	Commercial+Administration+Residential	1-12	Line
2	Yanzhi Road	Broken	18-20	North south	Commercial+Residential+Education	0.5-1	Line
3	Tanhualin Main Street	Broken	6-16	East west	Education+Residential	0.6-3.5	Dot+Line
4	Liangdaojie Street	Straight	18-20	East west	Commercial+Education+Residential	0.8-5	Line
5	Deshengqiao Street	Straight	4-5	North south	Commercial+Residential	0.5-1	Dot
6	Jiefang Road	Straight	12	North south	Commercial+Residential+Administration	1.5-2.5	Line

As can be noted from Table3-4, the main external roadway has a larger traffic volume and visitor flow rate due to the importance of its transport function. The diversity and complexity of the buildings along the street have led large interval skipping of D/H. However, roads with D/H greater than 1 take a dominant position, which induces a street space with a clear-view.



[Figure3-19] Traffic volume of the main motorway

Resource: Wuhan Traffic Management Bureau



[Figure 3-20] Standard of traffic volume<sup>12)</sup>

From the statue and traffic volume, Deshengqiao Street is under

12) Volume-Demand-to-Capacity Ratio (V/C) is a measure that reflects mobility and quality of travel of a facility or a section of a facility. It compares roadway demand (vehicle volumes) with roadway supply (carrying capacity).

congestion during most of the day due to its limitation by spatial scales. The traffic in the west of Tanhualin Main Street and Yanzhi Road flows slowly especially during the peak period. The traffic of Zhongshan Road always flows smoothly. (Fuling Zhu, 2006)

## (2) Main Internal Roadway

[Table 3-5] The status analysis of the main internal roadway

No.	Name	Form	Width (m)	Direction	Function of surrounding area	D/H	Plant layout form
A	Yunjiaqiao Street	Curve	3-4	North south	Education+ Residential	0.2-1	Dot
B	Hansan Palace	Broken	4-6	East west	Residential	0.3-1.5	X
C	Gujiapo	Broken	4-5	East west-North south	Residential	0.5-1.5	Dot
D	Majia Lane	Broken	4-7	East west-North south	Residential	0.4-2	Line
E	Qipan Street	Straight	3-4	North south	Education+ Residential	0.6-1	X
F	Shuangbai Front Street	Broken	4-9	East west-North south	Education+ Residential+ Commercial	0.4-0.6	Dot
G	Shuangbai Back Street	Broken	4-12	East west	Education+ Residential+ Commercial	0.7-1.5	Dot
H	Huayuan Hill Street	Straight	8	East west	Education+ Residential	0.4-0.9	Dot
I	Houbu Street	Straight	3-7	East west	Residential+ Commercial	0.6-1.2	Dot+ Line
J	Gejiaying	Broken	3-5	East west-North south	Residential+ Education	0.8-1.4	Dot
K	Taiping Shiguan	Broken	3-5	North south	Residential	0.8-1.4	X
L	Chongfushan Lane	Broken+ Curve	4-7	North south	Residential	1.2-1.5	Dot
M	Chongfushan Street	Broken+ Curve	4-6	East west	Residential	1.2-1.5	Dot
N	Siya Lane	Straight	3	East west	Residential	0.2	X
O	Gaojia Lane	Straight	4	North south	Residential	0.2	Dot

P	Langjia Lane	Broken	3-4	North south	Residential	0.2-0.3	X
Q	Liangjia Lane	Straight	3-4	North south	Residential	0.5-0.6	X
R	Shenzhou Lane	Broken	4-5	East west-North south	Residential	0.3-1	X
S	Jiangjia Lane	Straight	3-4	North south	Residential	0.2-0.3	X
T	Huangjia Lane	Straight	4	North south	Residential	0.3	X
U	Sanyi Village	Broken	4-6	East west-North south	Residential	1-2	X
V	Madao Gate	Broken	3-6	North south	Residential	0.3-0.4	X

As can be seen from Table 3-5, the main internal roadways are relatively complex with the majority form of broken lines. Moreover, most of the roads are one-way lanes, which are mostly distributed in the south. The buildings along the roads are mostly high-rise modern buildings, a direct result of a generally low D/H and relatively crowded street space. Plant distribution shows two trends: one without plant space because the buildings are adherent to the street; one has dominated the landscape with big trees left behind as dots.

### (3) Main Paths

[Table 3-6] The status analysis of the main paths

No.	Name	Form	Width (m)	Direction	Function of surrounding area	D/H	Plant layout form
a	West Moat	Broken+Curve	2-3	East west	Residential	0.5-1	Dot
b	East Moat	Broken+Curve	2-3	East west	Residential	0.5-1	Dot
c	Sha Lake South Lane	Broken	2-4	East west	Residential	0.6-1.2	Dot
d	Gongan Lane	Broken	3	North south	Residential	0.5-1	X
e	Quanjia Lane	Curve	2-3	East west	Residential	0.5-1	X
f	Caojia Tang	Curve	4	North south	Residential	0.5-1	X
g	Gusha Lane	Broken	2-3	North south	Residential	0.5-1	X

Table 3-6 shows that the main paths of the multi-planar shape, which is freer, have a rudimentary form of broken and curved lines. Although the streets are monitored by the width, street spaces present a cordial and pleasant effect since the residential buildings with the height of 1-3 stories are along the streets. In addition, flowers planted by some residents that enrich the street spaces. However, due to the poor infrastructure and the lack of standardization for the overall environment, the landscape is deficient in guidance.

### 3.1.8 Public open space

There are mainly five public spaces in the district. The overall condition is not satisfied. There is only one public space with exercise facilities in the residential area, which is far from satisfying the need for leisure activity of residents. These public open space mainly function as a passageway without much free place or seating area.



[Figure 3-21] Analysis of public open space

[Table 3-7]The status of the public space in the district

No.	Location	Landform	Furniture	Contents
1	Tanhualin main street (near the gate of Hubei Univ. of Chinese Medicine)	x	bench	A newly open space constructed this year. Offers free area where local residents can dance at night,
2	Tanhualin main street (near the central intersection)	Rong Garden(caf e) Feature stone	x	Simply as the mainly passage to the cafe and to the Huayuan hill behind. Low space utilization.
3	Tanhualin main street (near Tanhualin no.56)	residential building	parterre, seatwall surrounded planting	Small scale with limited seating area along the street High utilization
4	Sanyi village	x	exercise facilities	It is inside the residential area as the only exercise place for residents in the north of this district.
5	near Shiyong memory house	Feature Stone	bench	Low utilization: average 5people/hour visit the open space according to the survey Sanitary condition is not good; half of the space is used for garbage collection

### 3.1.9 Related projects

#### (1) Planning Measures for Protection and Utilization of Tanhualin district

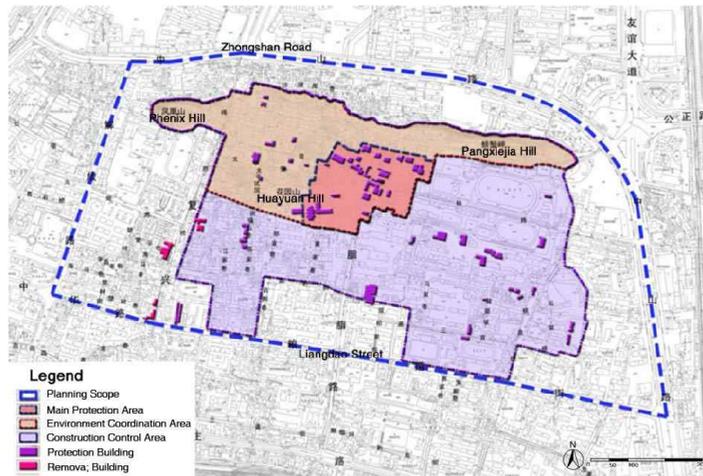
##### (a) Overview

Protection and Utilization of Tanhualin historic and cultural district were put forward by Wuhan Land Use and Urban Spatial Planning Research Center in 2004. It suggested the protection and utilization system of the main elements, for instance, hill, streets, historic buildings and cultural, etc. Moreover, it determined the content of protection and scope. At the same time, it put forward the protection and remediation model for land use, buildings, lanes, and solving strategies for traffic.

##### (b) Strategy

###### Protection Regionalism:

This historical and cultural district is divided into main protection area, environment coordination area, and construction control area. The scope of planning for the Tanhualin district only focuses on main protection area and environment coordination area, with a total area of approximately 104.1 hectares.



[Figure 3-22] The area distribution of Tanhualin district

Resource: Wuchang Achieves

■ Main protection area

This area is recommended for strict protection. This area must be protected and planned in accordance with the control requirements, which implies not allowing arbitrary removal or new construction. For buildings it is forbidden to add floors, change street scale or cause destruction of the hills and the natural terrain. Regarding preparation of the vegetation and green area which have landscape value, the objective is to inherit the historical architectural style, coordinating with the surrounding neighborhoods and overall style.

■ Environment coordination area

This area is possible for property construction, but the buildings and streets pattern should be consistent with the original form. Also, the new buildings should be in harmony with the old buildings; it is possible to control the overall style through renovation, retrofitting the

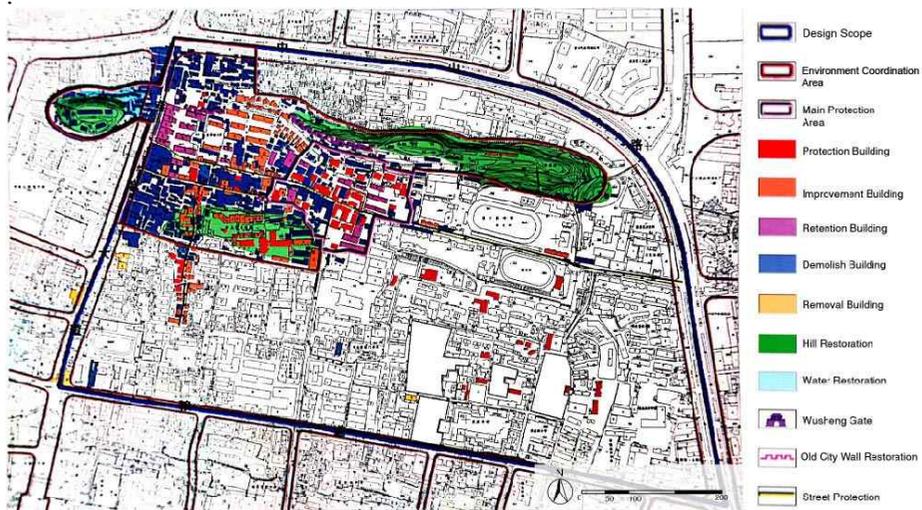
height, mass color and form, avoiding the discord between architectural style and district's style.

■ Construction control area

Most buildings in the area were built in recent years and they have completely lost the original style. Since this area has some distance from the center of Tanhualin district, this area is classified as construction control area. New construction can be put forward according to the surrounding environment.

(c) Protection Mode:

According to the overall planning, comprehensive assessment of the status of construction quality and architectural style, architectural protection and utilization patterns of Tanhualin historic and cultural district can be divided into five categories: protection building, improvement building, retention building, demolish building, removal building.



[Figure 3-23] Protection and utilization planning of Tanhualin district

Resource: Wuchang Achieves

- Protection buildings

Refer to the heritage and buildings with historic value that is registered by nation, municipal, and district.

- Improvement buildings

Refer to the buildings with poor condition and cannot be suitable for the current needs. However, they are in harmony with the overall buildings style of the district. These buildings are able to coordinate with the district pattern through renovation. Thus, the renovation should be based on repairs and maintenance, by the approach of facade decoration and functional integration.

- Retention buildings

Buildings that have some adverse effects on the district style, but are generally built in recent years with a good condition. These buildings are difficult to demolish recently due to the limit of financial problems. Thus, the buildings

should be retained for now, but for long-term consideration, these buildings may be demolished.

- Demolish buildings

Refer to the buildings with poor condition, which can devastate the district style or affect the normal operation of the district. In general, these buildings are multi-story or high-rise buildings, also raise problems of traffic obstruction.

- Removal buildings

Refer to the buildings with certain historic value. However, due to the loss of style in this area, and according to the demand of city development, these buildings are recommended to be removed.

#### (d) process

In 2011, the third phase commenced with the reconstruction of eastern part of Tanhualin Main Street.

In 2005, the project started with the protection and restoration of eight historic buildings including Renji Hospital, Canossian Charity Chapel, Sun Maosen Garden, Sun Shouqian Former Residence, Tanhualin No.32 Houses, Tanhualin No.34 Hoses, Tanhualin No.81 Houses and Prelate Dwellings. It has reconstructed the western part of Tanhualin Main Street and restored the Huayuan Hill and changed it into a green garden which was previously a bare hill. To be specific, housing demolition and relocation of 142 household (area of 10824m<sup>2</sup>), the rescue of the preservation and restoration of eight historic buildings (area of 5727m<sup>2</sup>), Huayuan Hill Restoration and construction of green

garden (area 5276 m<sup>2</sup>), comprehensive reconstruction of western part of Tanhualin main street were processed with an estimated investment of 55.83 million yuan at the first phase.

In 2006, the second phase of Tanhualin Protection and Utilization focused on the western part of Tanhualin Main Street. Not only were exposed pipelines transformed into the buried pipelines, but also the facade and streetscape were enhanced. Furthermore, facade renovation of Yanzhi Road was also put forward during this phase. The main target is the implementation wires and pipelines into underground, such as electricity supply, street lighting, telecommunications, etc. Meanwhile, remediation of different types of houses took place (86 houses with an area of 65,000m<sup>2</sup>). The investment budget of the second phase is 33.96 million yuan.

In 2008, the protection and restoration of three historical buildings (Shiyang former Residence. Third Political Department of the National Government, Party School of Electronics Industry Bureau) was processed.

## (2) Landgold Tanhualin Plaza

The project is on the north-east corner of Tanhualin district. It plans to build a 16-story office building, 3-6 story commercial podium, a 28-story office building, 2-3 story commercial podium, two 2-3 story commercial, with a total construction area of about 123,540 square meters, planning a total area of 24,977 square meters. The project will

combine cultural, office, leisure and entertainment as one of the city landmark. It is expected to open in 2016.



[Figure 3-24] Master plan of Landgold project

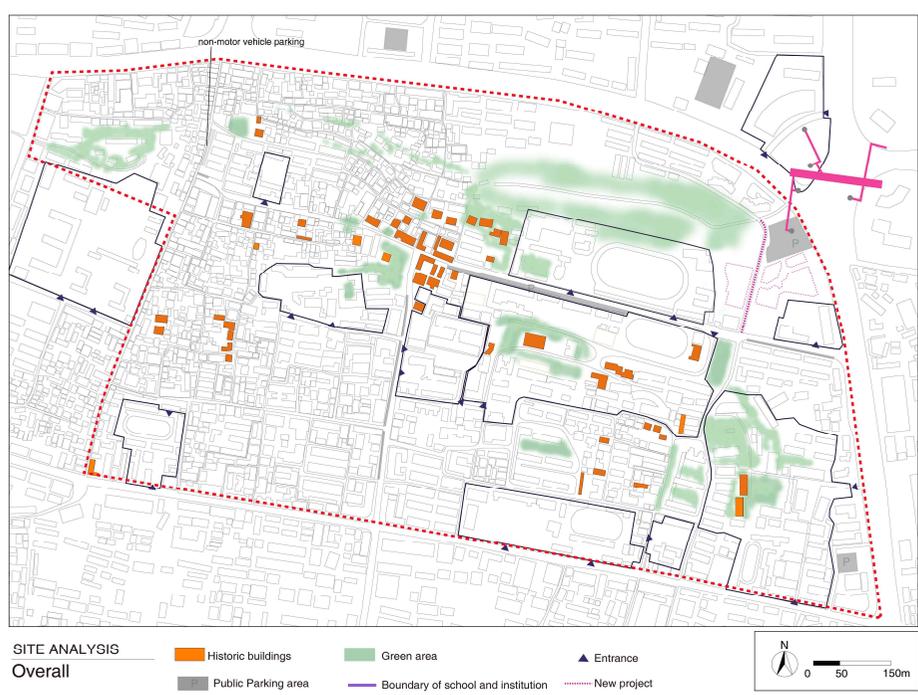


[Figure 3-25] Bird view of Landgold project

Resource: <http://www.landgold.com.cn>

### 3.1.10 Overall analysis

School, hospital, public agency set their boundaries for restricting entry. Even though there is insufficient public parking area, one lane of the streets is available for parking; historic houses are mainly found in the center of Tanhualin district. The site has a considerable low green coverage rate, especially an insufficient amount of public green space.



[Figure 3-26] Overall analysis

## 3.2 Use Pattern Analysis

### 3.2.1 Interview

[Table 3-8] Outline of the interview

	Contents
Date	October 3 <sup>rd</sup>
Interview time (average)	Residents: 40mins/ per interviewee; visitors: 20mins/per interviewee
Interviewee	5 residents; 5 visitors; one officer from neighborhood committee
Method	Interview
Image	

Five interviewees are the residents who lived in Tanhualin district for more than 50 years. Through the interview, it can offer a comprehensive understanding of the living status of the residents in Tanhualin district as well as their views on renewal projects put forward by local government.

The contents of the interview are summarized as follows:

[Table 3-9] Contents of the interview: residents

Question	Answers
Accessibility	■ 5-6minutes to the nearest bus station on foot

	<ul style="list-style-type: none"> <li>▪ 10-15minutes walk to the subway station</li> </ul>
Condition of the residence	<ul style="list-style-type: none"> <li>▪ Most of the residents are old Wuhan residents who lived for many years</li> <li>▪ Poor; Most of the residents retired or laid-off workers who don't work any more and live with the subsistence allowances from the government.</li> <li>▪ Some of the second generation run small business nearby</li> </ul>
Living environment	<ul style="list-style-type: none"> <li>▪ Becoming better but not satisfied</li> <li>▪ Residential houses were built 70 years ago.</li> <li>▪ One household(3-5people) lives in less than 30m<sup>2</sup></li> <li>·Insufficient infrastructure</li> <li>·Illegal structures are common</li> <li>·Harmony neighborhood</li> </ul>
Comments on the regeneration project done by government	<ul style="list-style-type: none"> <li>▪ Brings a lot of visitors</li> <li>▪ The project only reconstructed the main street, and repaired part of the historic buildings.</li> <li>▪ The environment of neighborhoods besides Tanhualin Main Street has not improved.</li> <li>▪ Reconstruction of the main street cannot reflect the characteristics of the district.</li> </ul>
Safety	Very safe as before
Condition of shops on the Tanhualin main street	<ul style="list-style-type: none"> <li>▪ 50% of shops are deficit; the shops changes very often.</li> <li>▪ Most of the visitors are students who only have a look but not buy anything.</li> </ul>
Other problems of the district.	<ul style="list-style-type: none"> <li>▪ Some historic buildings are occupied by private.</li> <li>▪ The hills are covered by illegal houses.</li> </ul>
Suggestions for the planning of district	<p>Make the hills and water visible(顯山露水).</p> <p>Emphasize the historical part.</p>

The focus of the second interviews are visitors. The contents of the interview are summarized as follows:

[Table 3-10] Contents of the interview: visitors

Question	Answers
ways to know Tanhualin district	From friends, internet, advertisement on the subway
Time preference of	▪ Daytime is better since the view is better, and it is

visit	possible to go to the shopping or tourist place nearby, such as Hubu Lane Food Street, riverside park after visiting Tanhualin district. <ul style="list-style-type: none"> <li>▪ Too dark in the evening along the street, and shops closed early.</li> </ul>
the most interesting part in Tanhualin	Old houses and some historical resources
suggestion	<ul style="list-style-type: none"> <li>▪ Not enough public space for break: better to add some free space for short break.</li> <li>▪ Characteristic is not outstanding: better to restore the historical relics</li> </ul>

As a result, residents and visitors offered different opinions about Tanhualin district.

Depending on the interview, most of the residents live with the subsistence allowances from the government but are satisfied with the harmonious neighborhood. The fast developing city did not change aspects of traditional life such as the neighborhood gathering outside for socialising. The regeneration project put forward by the government only reconstructed the main street. The rest area, however, has not been improved. Even though the visitors are increasing, most of the visitors are students who cannot really benefit the economic increase of the district. On their view, the historical and cultural characteristic cannot be reflected from the government project.

Visitors prefer to visit Tanhualin district in the daytime since the view is better and their intent to visit the surrounding tourist places. The identity of Tanhualin district is obscure since visitors cannot fully experience the cultural characteristic. Moreover, public open spaces are insufficient in this district.

Another interviewee is an officer from Tanhualin neighborhood committee. The contents of the interview are summarized as follows:

[Table 3-11] Contents of the interview: officer

Question	Answers
area within jurisdiction	
population	Permanent population: 6,500people ; 2,497 household (2014.09)
condition of residents	Most of the residents are old citizen with poor condition. Lots of young generation already moved from the neighborhood and migrant workers came because of the low monthly rental.
vehicle&parking condition	<p>Few people own private cars; Scooter is a popular transportation in the neighborhood.</p> <p>Only on the weekend or holiday, there is a problems of insufficient parking place because many visitors come here.</p>

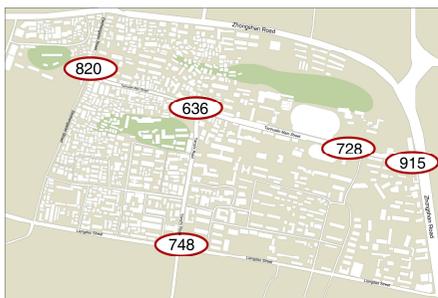
### 3.2.2 Observation survey

#### (1) Pedestrian traffic volume

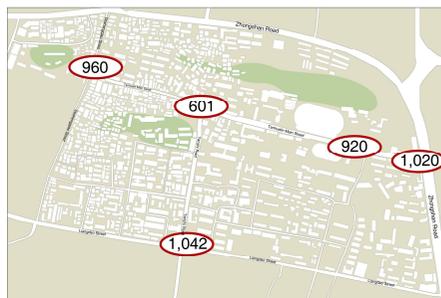
[Table3-12] Outline of pedestrian traffic volume survey

	Contents
Date	October 1 <sup>st</sup> , 2 <sup>nd</sup> (holiday)/ October 8 <sup>th</sup> (weekday)
Time	7am-8am, 12am-1pm, 3pm-4pm, 7pm-8pm
People	5
Method	observe and record the pedestrian volume
Location	<p>5 intersection</p> 

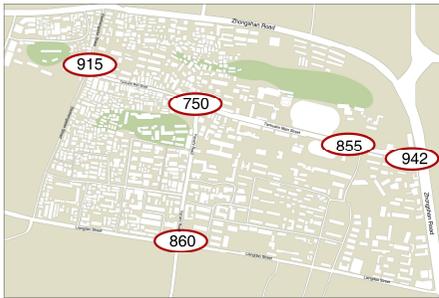
#### (1) Weekday



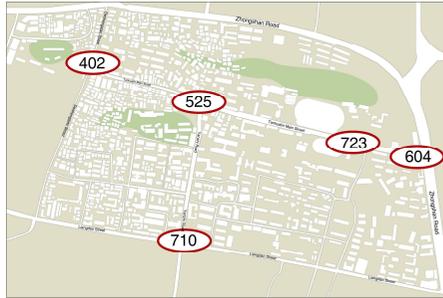
Morning Volume 7:00am to 8:00am



Lunch Time Volume 12:00am to 1:00pm

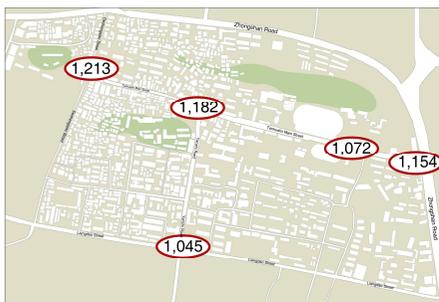


Afternoon Volume 3:00pm to 4:00pm

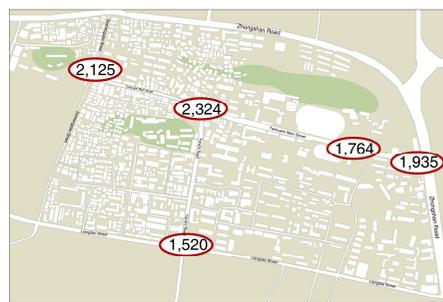


Evening Volume 7:00pm to 8:00pm

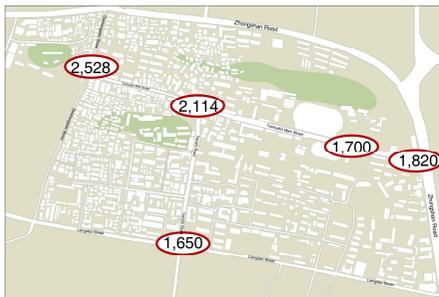
(2) Weekend



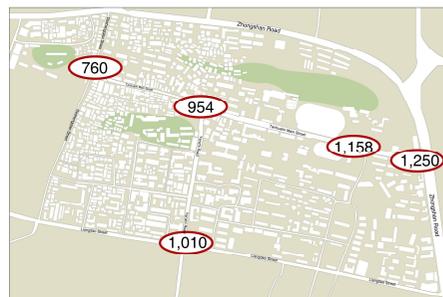
Morning Volume 7:00am to 8:00am



Lunch Time Volume 12:00am to 1:00pm



Afternoon Volume 3:00pm to 4:00pm



Evening Volume 7:00pm to 8:00pm

[Figure 3-27] Analysis of pedestrian traffic volume

On one hand, the pedestrian volume remains steady during the entire week. On the other hand, it shows a large distinction based on the time during the weekend. The most crowded time is 3:00pm-4pm.

Intersections on the outer streets are much busier than the inner intersections on weekdays. On weekend, however, the central intersection becomes the busiest point. Most of the visitors are students and old residents.

(2) Short stay volume

[Table 3-13] Outline of short stay volume survey

		Contents
Date		October 4 <sup>th</sup> (holiday)/ October 8 <sup>th</sup> (weekday)
Time		8am-8pm
People		4
Method		observe and record the number and time of short staying at the main open space
Location	East node	
	West node	

(a) Daytime(7:00am-6:00pm)



(b) Evening(6:00pm-9:00pm)



[Figure 3-28] Analysis of short stay volume

The open space on the west of Tanhualin Main street is much popular than the east one. On one hand, people would like to stay longer of about 20minutes on weekday. On the other hand, on weekend, people prefer to have a short stay for 5-10mins.

[Table 3-14] Statics of short stay volume

Day/Sitting time		<5mins	5-10mins	10-20 mins	> 20mins	
Weekday	daytime	West node	6	12	19	15
		East node	1	2	8	9
	evening	West node	3	6	15	8
		East node	1	4	8	11
Weekend	daytime	West node	36	51	22	4
		East node	9	32	10	2
	evening	West node	7	15	17	8
		East node	2	9	8	3

### 3.2.3 Spatial Analysis

Observation and analysis of several zones in order to better understand the basic condition and characteristics of different zone in the district.

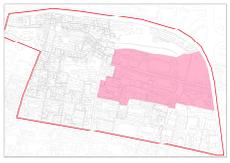
[Table 3-15] Outline of spatial analysis

	Contents
Date	January 20 <sup>th</sup> , August 10 <sup>th</sup> , October 7 <sup>th</sup>
Time	afternoon
Method	Observe, record, and take pictures

(1) Analysis of Zone 1

This zone is on the east of Tanhualin main district, with a subway station on the northeast corner. The area has several enclosed spaces. For example, schools and private residential areas block the view with many fences. There is not much public open space in this area meaning that only the pocket park on the intersection attracts a lot of people and offers a place to gather. One lane of the Tanhualin Main Street serves for parking and an outdoor parking lot which can accommodate 30 cars located on the street.

[Table 3-16] Analysis of Zone 1

Zone 1		
Image		
Location	East of Tanhualin district	
Facilities	Parking, bench, street lights, electric pole	
Landscape	Pocket park x1, street tree	
Service	x	

## (2) Analysis of Zone 2

East part of Tanhualin Main Street and its surrounding area is the most well-known place in the district. It is where most of the historic buildings can be found as well as many art shops, galleries and cafes which have settled into this area. However, since the streets in this area are also used by vehicles, pedestrians walking among vehicles happen frequently which not only raises a safety problem but pollutes the atmosphere. Moreover, the private church and welfare center occupy the Huayuan Hill in this area.

[Table 3-17] Analysis of Zone 2

Zone 2		
Image		
Location	West of Tanhualin Main Street and surrounding area	
Facilities	Bench, street lights, electric pole	
Landscape	Open space x2	
Service	church, cafe, post office, art center, handicrafts shop, souvenir shop, book store	

### (3) Analysis of Zone 3

This zone is a traditional market place where people sell food, daily living goods and other paraphernalia. The history of its function as a commercial center can be traced back to 223AD. Nowadays, this market place attracts lots of local residents. The area mostly consists of single and double story houses built for both commercial and residential use. However, these houses which were constructed before 1950 are in a state of lack of maintenance. Facilities of the houses barely match the basic standard. Another problem is that the Deshengqiao Street is limited with a spatial scale of only 4-5meters wide. It is disorganized in that people walk in this area. For example, peddlers take a place on the street, and even vehicles travel through this narrow street.

[Table 3-18] Analysis of Zone 3

Zone 3		
Image		
Location	Deshengqiao Street and surrounding area	
characters	traditional market culture	
Facilities	Street lights, electric pole	
Landscape	open space x1	
Service	Market, grocery, salon, convenience store, bakery	

#### (4) Analysis of Zone 4

This is an old residential area with a harmonious neighborhood. Since the buildings are in close proximity to each other, there is little public space for residents, causing residents to communicate and gather on the street. The original area of one household is around 25m<sup>2</sup>, which can hardly meet the needs of a living area so many residents built extra structures on the basis of the original building. Thus, illegitimate structure is a common phenomenon in this area.

[Table 3-19] Analysis of Zone 4

Zone 4		
Image		
Location	North-west of Tanhualin district	
characters	old residential culture	
Facilities	Street lights, electric pole, CCTV	
Landscape	playground x1	
Service	Salon, convenience store	

(5) Analysis of Zone 5

This residential area is relatively recent compared to the previous residential area, with better infrastructure. The street keeps the traditional pattern with small spatial scale which is difficult for vehicles to pass through. Also, due to the spatial limitation on the street, it is rare to see trees in this area. Aside from some private neighborhoods, the remaining areas suffer a lack of green area.

[Form 3-20] Analysis of Zone 5

Zone 5		
Image		
Location	South-west of Tanhualin district	
characters	traditional street culture	
Facilities	Street lights, electric pole, CCTV	
Landscape	x	
Service	x	

(6) Analysis of Zone 6

Eastern part of the Pangxiajia Hill was once for military use and then neglected for many years. Since it suffers from lack of management, the plants on the hill grow naturally. The west part of the hill is occupied by illegal houses, and electric wires criss-cross between the houses at a very low level. Hill is difficult to access, having only some quite precipitous stairs. Moreover, the path is very confusing and narrow; especially some parts are less than 1 meter wide.

[Table3-21] Analysis of Zone 6

Name	Pangxiejia hill	
Location	North-east of Tanhualin district	
Area6		
Image	 west of the hill	 east of the hill
Landscape	 <p>-West part: mainly distribute around buildings main plants: <i>Styphnolobium japonicum</i> (L.) Scho, <i>Koelreuteria paniculata</i> laxmi, <i>Cinnamomum camphora</i> (L) presl -Eastern part: mainly distribute on north and south sides main plants on the north: <i>Broussonetia papyrifera</i> (L.) L'Her. ex Vent main plants on the south: <i>Celits sinensis</i> Pers., <i>Ulmus pumila</i> L.</p>	

(7) Analysis of Zone 7

This area contains a hill which has poor accessibility and is seriously occupied by illegal houses. The hill has various kinds of plants but lacking of management. There is a flat area on the top of the hill.

[Table 3-22] Analysis of Zone 7

Name	Phoenix hill	
Location	west of Tanhualin district	
Area4		
Image		
Landscape	 <p>Plants: <i>Platanus acerifolia</i> Willd., <i>Ligustrum lucidum</i> Ait., <i>Toona sinensis</i> (Juss.) M. Roem., <i>Magnolia grandiflora</i> L, <i>Cinnamomum camphora</i> (L.) Presl., <i>Broussonetia papyrifera</i> Vent, <i>Camellia japonica</i>, <i>Osmanthus fragrans</i> var. <i>aurantiacus</i></p>	
Facilities	x	
Service	x	

### 3.3 Implication

#### 3.3.1 Condition and problems

According to the analysis, the conditions and problems of Tanhualin district are as follows:

[Table 3-23] Condition and problems

Type	Site condition and problems	planning method
Location and environment	<p>There is a waterlogging problem when torrential rainfall occurs in this area especially on Zhongshan Road(north or Tanhualin district)</p> <p>Located in the city center with good accessibility</p> <p>Pangxiejia hill, Phoenix hill is inside the district.</p>	<p>Create landscape connection within the district</p> <p>Propose the possibility to restore the waterway</p>
Infra-structure	<p>Transportation</p> <p>Subway line no.2 Pangxiejia station is located on the northeastern corner of the district.</p> <p>Most of the streets in the district are under 4 meters that are not appropriate for both traffic and pedestrian use.</p>	<p>Change the district mainly for pedestrian use; separate the traffic road and pedestrian, create a safety walking environment.</p>
	<p>Park/public open space</p> <p>Insufficient public open space; From the interview, visitors reflected that there is not sufficient seating area in the district.</p> <p>Per citizen green area(9.92 m<sup>2</sup>/citizen) is lower than the standard(11 m<sup>2</sup>/citizen) and here is no public park within 500meters.</p> <p>Tourist parks locate on the south of the district about 2km.</p>	<p>Create more public open space and green area with various functions</p>
	<p>Educational/culture</p> <p>There are universities, elementary, middle and high school.</p> <p>No library or stages in the district.</p> <p>Traditional market area is on the west part of the district.</p>	<p>Improve the utilization of the space</p> <p>Considering educational program and cultural facilities in the planning</p>
Historic and	The district has abundant historic and	Considering the historic

Cultural resource	<p>cultural background.</p> <p>Historic elements such as old city moat, gate, city wall are disappeared.</p> <p>Living culture derived from local residents.</p> <p>Through the interview, local residents through most of the historic and cultural historic elements are disappeared and many visitors were disappointed by visiting the district since few historic buildings are not sufficient to reflect the characteristics of the district.</p>	<p>and cultural features including living culture when planning.</p> <p>Creating a cultural experience route</p>
Land and building condition	<p>Most of the single and double story houses were built before 1950 and facing a problems of decrepit and safety</p>	<p>Endow the old houses with new values</p>

## **Chapter 4: Site Planning and Design**

### 4.1 Design Concept and Direction

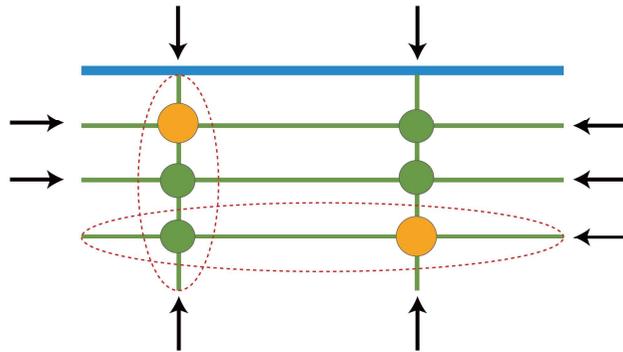
#### 4.1.1 Design Concept

##### (1) People's Tanhualin

Tanhualin district still yet achieves a higher potential at present. It is an old residential area as well as a very potential commercial and tourist destination, with more than 100 million visitors annually, and carried a wonderful mix of culture, historic background and education. The higher potential as of the landscape might be measured in terms of realizing more dramatic experience of being in the history, culture and nature. This may sound obvious, but much of the present experience is inwardly focused, confused and disconnected from place to place. Re-connect people to the theatrical and social pleasures of the streets, hills, waterway and city center. From the landscape that can move and draw people to come again and again.

##### (2) Two Bands, Three Corridors, Six Node(两带 , 三廊 , 六点)

In the concept landscape planning: first, integrate large green hills into planning; Second, increase green area, public open space and path; Third, combine landscape and architecture in order to form an 'old city' with hill and water.



[Figure 4-1] Planning Concept

In the concept, there are two landscape bands from north to south and three landscape corridors(green line), waterway(blue line) from west to east, converging and forming four landscape node(green node) inside the district and two entrance node(orange node) on the main intersection. Also, forming two cultural commercial street(red dots).



[Figure 4-2] Concept of axis

#### 4.1.2 Design Direction

##### (1) Character and clarity

This is a very challenging question as recognized in the previous case studies. Here, issues of ‘character’ and ‘clarity’ were identified as

obstacles to the creation of a more vibrant setting for social life. Improving connectivity, linkage, image, identity and proximity to the history was astutely identified as some of the urgent corrections that would first be necessary to truly create a destination and an authentic 'historical and cultural district.' Therefore, proposed more public open spaces and green areas that have various functions which include culture, society and education. The plan seeks to preserve and highlight the special characteristics of different areas through maintaining and specializing the spatial functions. It is aiming to satisfy the demands of all kinds of users by offering a place for communication, gathering and have a short rest rather than just alleviating the situation of insufficient green space.

## (2) Culturescapes

Great civic spaces are both physically and materially distinct. They present a strong image, creating a memorable place. The planting, surfacing, furnishing, lighting and detailing are the elements that people come into contact with and remember as part of the setting. Unique, sensory environments contribute to create a place that is magnetic, unique and timeless.

Culturescape of Tanhualin district should be such an ensemble of dramatic places, coherently organized and inter-connected, with their experience adding up to more than the sum of the parts. As an urban scale, the main organizing principle is to treat cultural axis as a longer social path that connects historic buildings and other cultural elements.

This path would be actualized through generous sidewalk treatment, tree-planting, street lighting, social furnishing, art and signage. Moreover Tanhualin district is famous for its ‘Hill-Water Pattern’(山水格局) and the formation of natural patterns has a special historical background. Although the pattern has disappeared, it still holds an influence on the ecological system. The plan suggests revealing the hidden nature. Furthermore, the plan will preserve the humanistic environment by considering the non-physical aspects including social and cultural customs as well as art, especially the daily life of local residents is also one important part of the humanistic environment.

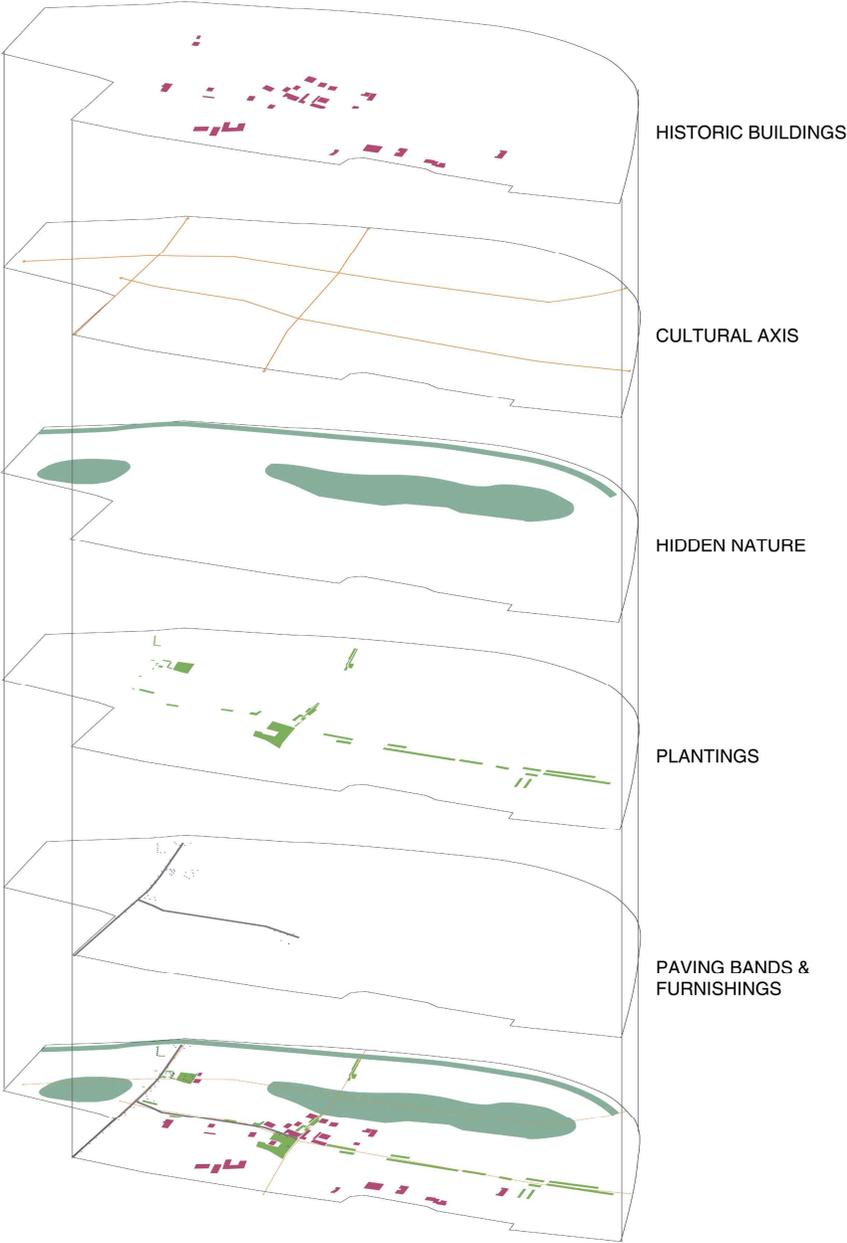
### (3) Vitalization through various events

Operating various events and programs can motivate people to visit and gather in Tanhualin district. The events will be operated both during the week and on the weekend, from which the living standards of local residents will be improved at the same time.

### (4) A new tourist site for Wuhan

The historical and cultural is not a single part of the city. It certainly influences the surrounding area. So it is beneficial to improve connectivity to the various historical and cultural area as well as Yellow Crane Tower Park and Riverside Park, should also help to relate the Tanhualin district to a larger network of social spaces and major attractions in the city.

### 4.1.3 Planning Process



[Figure 4-3] Planning process

## 4.2 Space program

### 4.2.1 User prediction

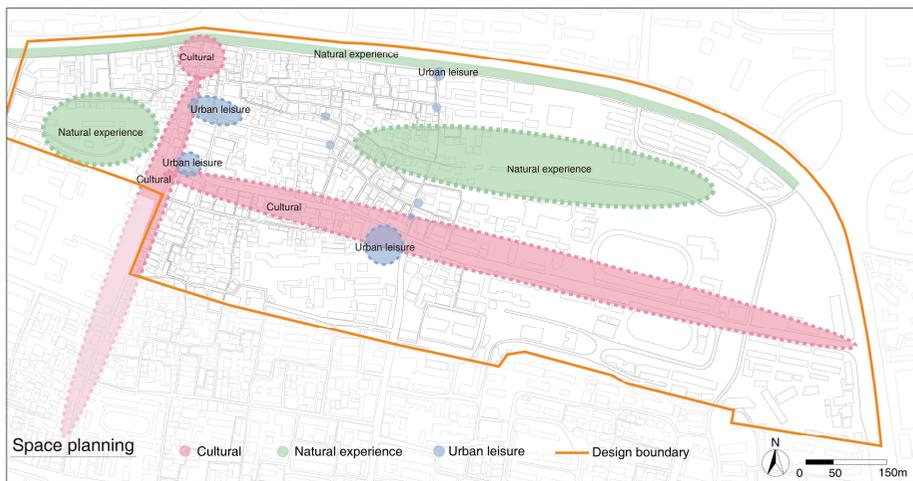
The prediction of users consist of groups and individuals: for example office worker, local resident, and self-employed.

[Table 4-1] Types of users

Types of users		visiting period	usage pattern prediction	necessary space
Individual	local resident	year-round	break/walk/outdoor exercise	resting area/walkway/playground
	office worker	year-round (especially after office hour)	have a walk after office hour/break	resting area/walkway
	self-employed	year-round	commercial activity/break	resting area/commercial area
	junior	year-round (especially on weekend and holiday)	leisure activity/break	resting area/open space for leisure activity
	tourist	year-round (especially on weekend and holiday)	cultural experience/natural experience/break sightseeing/	historical-cultural exhibition area/event area/resting area/ walkway
	family	year-round (especially on weekend and holiday)	leisure activity/historical-cultural experience/natural experience	open space for leisure activity/natural area/event area/playground
Group	students	year-round	educational experience/cultural experience	gathering area/open space for leisure activity
	artists	year-round (especially on weekend and holiday)	Inspiration/art activity/break	exhibition area/art cultural area/walkway
	society	weekend, holiday	group gathering, cultural experience/natural experience/ photograph	gathering area/open space for leisure activity

## 4.2.2 Space arrangement

This space planning is based on the historic and dailiness, past and present, static and dynamic that can be classified as three main spaces: cultural space, natural experience space and urban leisure space. It is aiming to specialize the spatial features and creates areas with different themes.



[Figure 4-4]Space arrangement

### a) Cultural space

Cultural space is the most essential space of the district. An entrance plaza with a symbolic gate can guide people into the district. The traditional market street is improved from the existing market area by remodeling the facade of old stores and separating traffic and pedestrians. Art cultural street, which is the western part of the Tanhualin main street already has some galleries, cafes, handcraft shops,

and will become one part of the whole project.

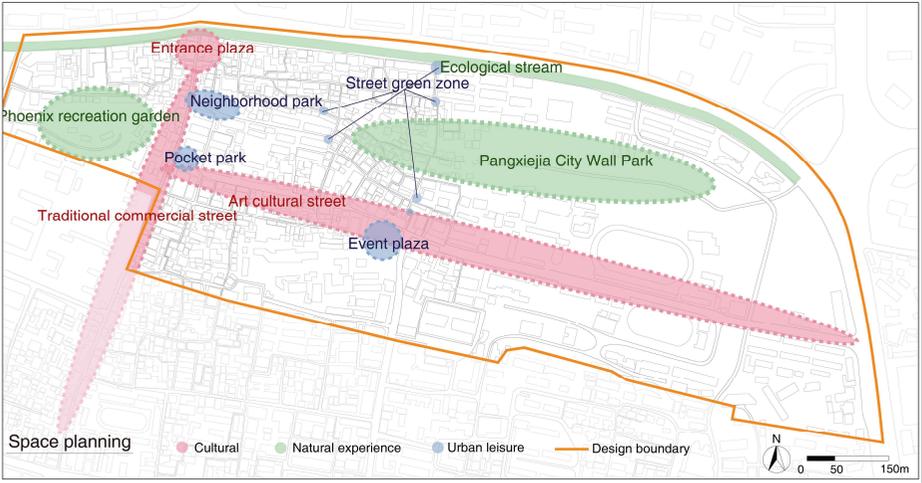
#### b) Natural experience space

Even though the natural experience space can also trace back to its historical background, it has more participation as a vivid space. The ecological stream that flows through the district provides a fresh area for citizens, as well as functioning for relieving the problem of waterlogging. It recalls the memory of the city moat and illustrates a new interpretation of the lands. The two hills are planned to be restored but endowed with different functions: city wall park is mainly for the walking experience whether on the city wall or inside the forest. Phoenix recreational garden is mainly for walking through various flower plants.

#### c) Urban leisure space

From another point of view, Tanhualin district serves a place where local residents live. It is important to realize the balance of historicity and daintiness. Urban leisure space that includes a function of green space and urban open space, is also available for citizens in daily-life. Pocket park is on the intersection with simple functions: short break and communication. The neighborhood park and event plaza are upgraded from the existing open space. Neighborhood park mainly serves as a place for exercise and leisure activities. The event plaza is

surrounded by historic buildings on the art cultural street. It plays a role for various events and gathering.



[Figure 4-5]Space arrangement

[Table 4-2] Historical-cultural space:  
reason for selection, program and design method

Classification	Reason for selection	Programs	Design method
Entrance plaza	<ul style="list-style-type: none"> <li>■ It is the only exit of the north of old Wuchang city in the history.</li> <li>■ Subway line5 Deshengqiao Station will be built in 6years, which makes it becomes a potential entrance in the future.</li> </ul>	history exhibition	<ul style="list-style-type: none"> <li>■ transform the neighborhood on the entrance to a symbolic plaza.</li> </ul>
Traditional market street	<ul style="list-style-type: none"> <li>■ Deshengqiao street was the main street connect outside city to inside city in the history. It was a commercial area from the past.</li> <li>■ It serves as a traditional market street nowadays that attract lots of local residents.</li> <li>■ The houses along the street were mainly built before 1950s in a very poor state 1-2 floors. They are necessary to be remodeled.</li> <li>■ This 4-5 meters wide street is both used for traffic and pedestrian. The scale is too narrow for the traffic which raises a safety problem.</li> </ul>	commercial activity/ open market	<ul style="list-style-type: none"> <li>■ remodeling the existing stores especially facade.</li> <li>■ separate traffic and pedestrian by making the market street as pedestrian only.</li> </ul>
Art-cultural street	<ul style="list-style-type: none"> <li>■ Many galleries and art shops are on the street.</li> </ul>	art exhibition/ art education and artwork selling	<ul style="list-style-type: none"> <li>■ Utilize the existing art cultural street, operate art exhibition and event.</li> </ul>

[Table4-3] Natural experience space:  
reason for selection, program and design method

Classification	Reason for selection	Program	Design method
Ecological stream	<ul style="list-style-type: none"> <li>■ There was a city moat in the history</li> <li>■ The serious waterlogging problems in summer in Tanhualin district.</li> <li>■ Zhongshan Road(north) is the lowest area</li> </ul>	walking/ leisure	introduce the stream by decreasing two traffic lanes and one bicycle line of Zhongshan Road(north); function as green area and wetland
Pangxiejia city wall park	<ul style="list-style-type: none"> <li>■ It was the city hill in the history and some part of the city wall still left.</li> <li>■ The hill has bad accessibility and insufficient with management</li> </ul>	walking/ break/ activity/ educational experience	create pathway and utilize the natural resources for improvement of the experience
Phoenix recreational garden	<ul style="list-style-type: none"> <li>■ Illegal buildings that occupied the hills cause safety problems</li> <li>■ According to the interview, the local citizens hope to recover the hill</li> <li>■ Satisfied the necessity of green space of all kinds of users.</li> </ul>	walking/ break/ leisure activity/ educational experience	remove the illegal houses on the hill; create new programs by utilizing the hill.

[Table 4-4] Urban leisure space

reason: for selection, program and design method

Classification	Reason for selection	Program	Design method
Pocket park	<ul style="list-style-type: none"> <li>■ Locates on the intersection of two cultural street.</li> <li>■ The sanitary problem in this area need to be solved.</li> </ul>	break/ eating/ communication	utilize the space on the intersection, create a resting area.
Neighborhood park	<ul style="list-style-type: none"> <li>■ According to information from the neighborhood committee, the main residents in Tanhualin area are old generation, but there is hardly to find any place for leisure activities.</li> <li>■ The present condition or this area is not pleasant, and half of the area is used for recycling.</li> <li>■ low utility of the area now</li> </ul>	break/ exercise/ communication/ leisure activity	half for activity and half for green area; dynamic playground for free activity
Event plaza	<ul style="list-style-type: none"> <li>■ It is on the busiest intersection in the center of Tanhualin district with large visitors flow rate.</li> <li>■ The present condition of the place is not good. Only part of the land is covered by some plants and separated from the street. There is no seating area inside the area.</li> <li>■ Along the 1.2km Tanhualin main street, there are only two open space totally accommodate with 30people/hour, far away to satisfied the need for short stay.</li> <li>■ There is no open public area that can use for temporary or regular events in the district.</li> </ul>	event/ communication/ break/ exhibition	make the space as a free area. utilize the change of topography in order to make terrace seating area.
Street green zone	<ul style="list-style-type: none"> <li>■ Most of the streets are with limited spatial scale</li> <li>■ Create green connection in different spaces</li> </ul>	walking	Increase more green coverage along the street

### 4.2.3 Space narrative

The overall space narrative is an experience of rational and perceptual change through movement inside urban space. As a historical and cultural district, a slow flowing stream, dilapidated memorial archway, slab cobbled street, old houses, is the place where the narrative starts. While strolling through the sightseeing-experience route, one will have a diverse cultural experience from the urban daintiness space. Walking along the stream, it recalls the memory of the old city moat. At the corner of the stream, the entrance appears. The memorial archway on the entrance recounts the glorious past inside the ancient city. Passing through it, there is an information center with an exhibition room which shows the historical and cultural background of Tanhualin district. Along the slab cobbled street, coming by a scene of the traditional market where one can taste some traditional snacks and witness how the traditional market operates. There is also some small resting area where one can have a break. Then turning to the Tanhualin main street, comes the art cultural street with various handcraft shops and galleries. The end of the street is where most of the historic buildings gathered that was transformed for exhibition use. There is also a display of various cultures and modern history. Also, an event plaza on the corner is where one can participate in various seasonal cultural events. After a short break, walking on the stone stairs to the city wall park on the hill by passing the old residential area so that one can view the whole district from the top of the hill and walk along the city wall. Enjoying the forest and going down to the stream.

## 4.3 Site planning

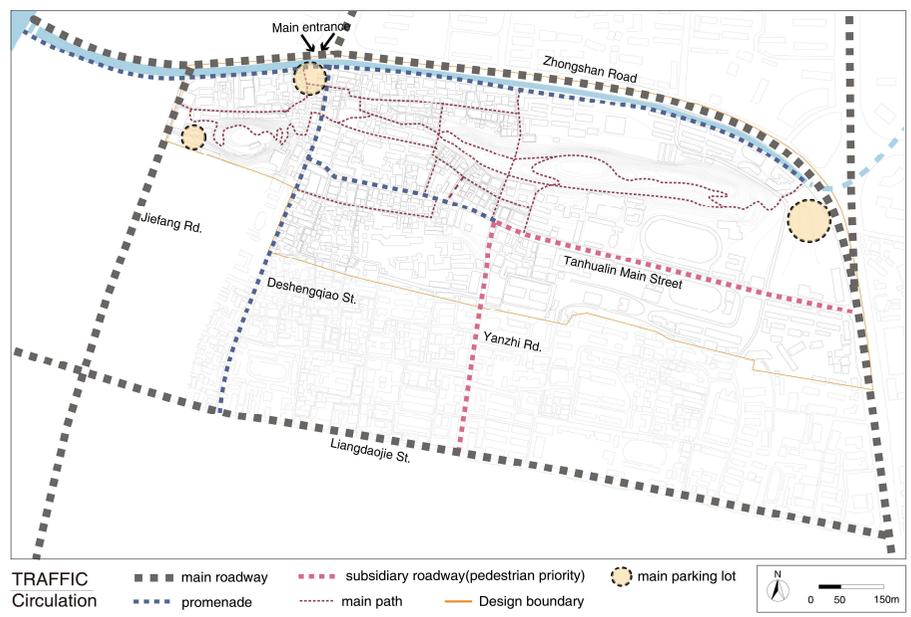
### (1) Building planning



[Figure 4-6] Building planning

According to the analysis of building level and interview, the building plan is mainly for the protection of historic buildings, remodeling of old houses on the traditional market street, demolishing of illegal houses on the hills and old houses with less value on the northwest entrance.

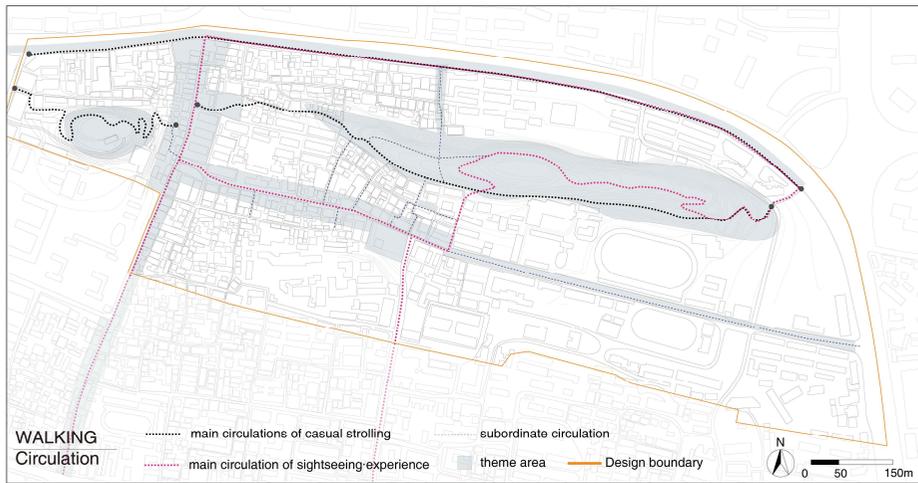
## (2) Traffic circulation



[Figure 4-7] Traffic planning

Deshengqiao Street is a 4-5 meters street with large pedestrian volume but now for mixed used and suffers serious traffic jams for most of the day based on the analysis of traffic volume. The plan suggests changing Deshengqiao into a pedestrianized zone, and the cars are suggested to make a detour to the nearest road without affecting the traffic. Moreover, non-vehicle is the main transportation means in Tanhualin district according to the interview. Thus, setting a parking lot at the main entrance and utilizing the existing public parking lots for the increasing visitors in order to create a pleasant walking environment within the district.

### (3) Circulation in the district



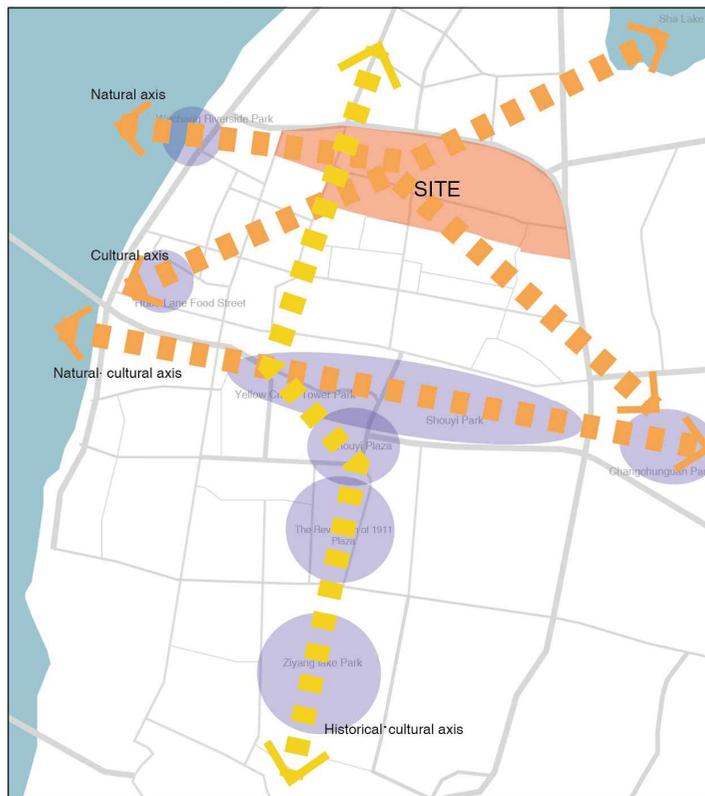
[Figure 4-8] Walking circulation

These are the two circulation routes suggest for casual strolling and sightseeing-experience. The casual strolling routes are following the natural landscape, whether walking along the stream or walking on the lower layer of the two hills. The sightseeing-experience route connects the cultural landscape and historic buildings. Even though there are some parts of the routes that are repeated, the sightseeing-experience route will provide a better understanding and experience of Tanhualin's history and culture.

#### (4) Regional network

The historical and cultural aspects are not an isolated part of the city, rather they have a certain influence on surrounding area, connecting the Tanhualin district to other historical and cultural districts, forming a network.

[Table4-5] Regional network

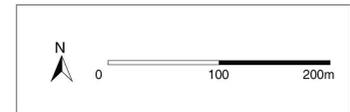


Historical and cultural Network	<p>Historical-cultural axis: Tanhualin district - Yellow Crane Tower - Shouyi Plaza - The Revolution of 1911 Plaza - Ziyang Lake Park.</p> <p>Natural-cultural axis: Yellow Crane Tower Park - Shouyi Park- Chang chunguan Park</p> <p>Natural axis: Yangtze River-Tanhualin district-Sha Lake</p> <p>Cultural axis: Hubu Lane Food Street-Tanhualin district-Changchunguan Park</p>
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**MASTER PLAN**

- |                             |                       |                             |                      |
|-----------------------------|-----------------------|-----------------------------|----------------------|
| 1 ecological stream         | 4 neighborhood park   | 7 event plaza               | 10 street green zone |
| 2 entrance plaza            | 5 pocket park         | 8 city wall park            | ■ historic buildings |
| 3 traditional market street | 6 art-cultural street | 9 phoenix recreation garden | ■ traditional stores |

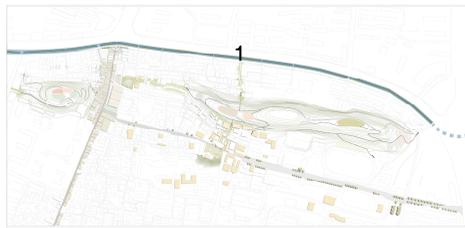


[Figure 4-9] Master plan

## 4.4 Detail design

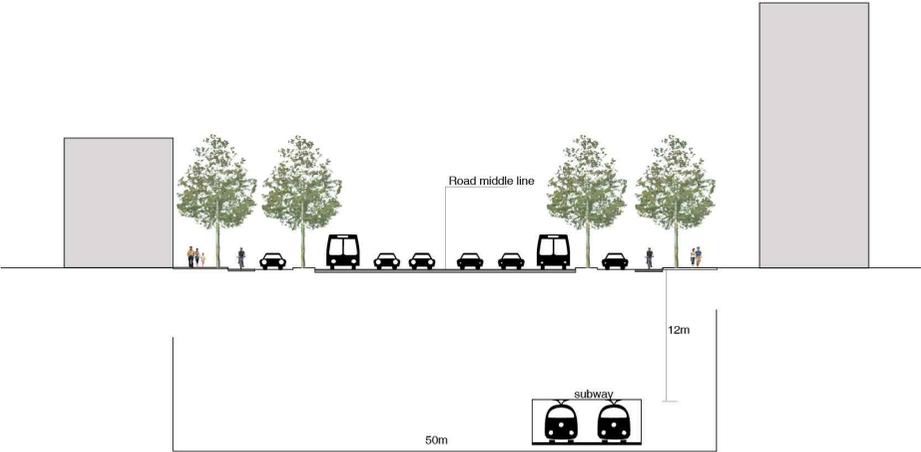
### (1) Suggestion of ecological stream

After studying the history of development in the area, it was found that there was a waterway connected the Yangtze River to Sha Lake, which is now occupied by the road and buildings. Moreover, it is the lowest land in the entire region. These can be deduced as one of the main causes of waterlogging during the summer. The plan suggests reintroducing the old city moat- new ecological stream to alleviate the waterlogging problem of Zhongshan Road.

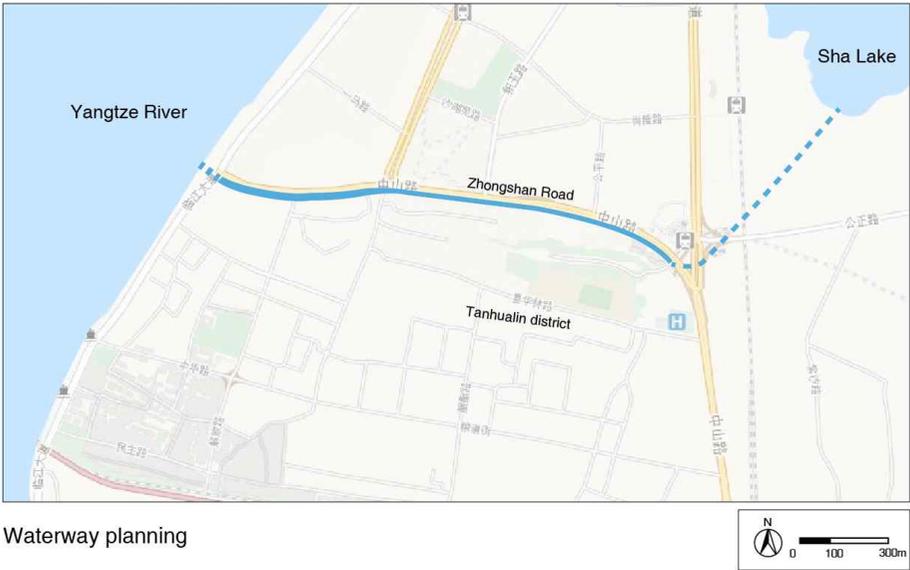


[Figure 4-10] Key map of area

Zhongshan Road is a 8-lane traffic road with total 50meters wide at present.



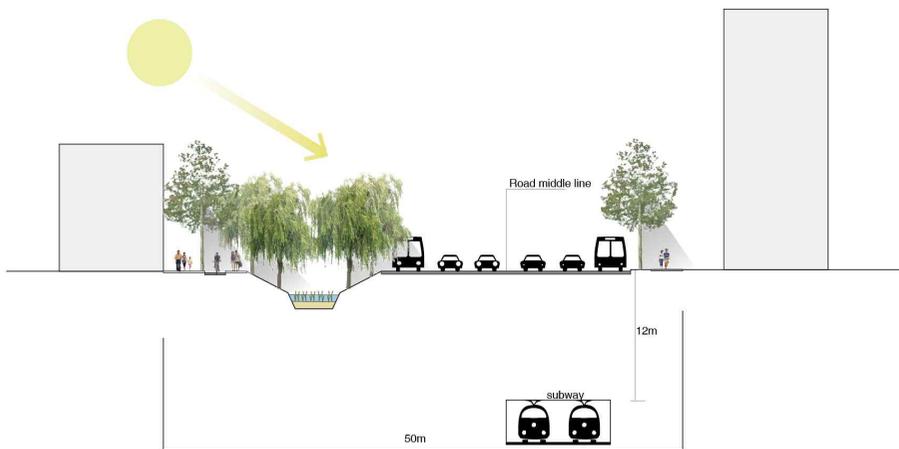
[Figure 4-11] Section of present condition



Waterway planning

[Figure 4-12] Waterway planning

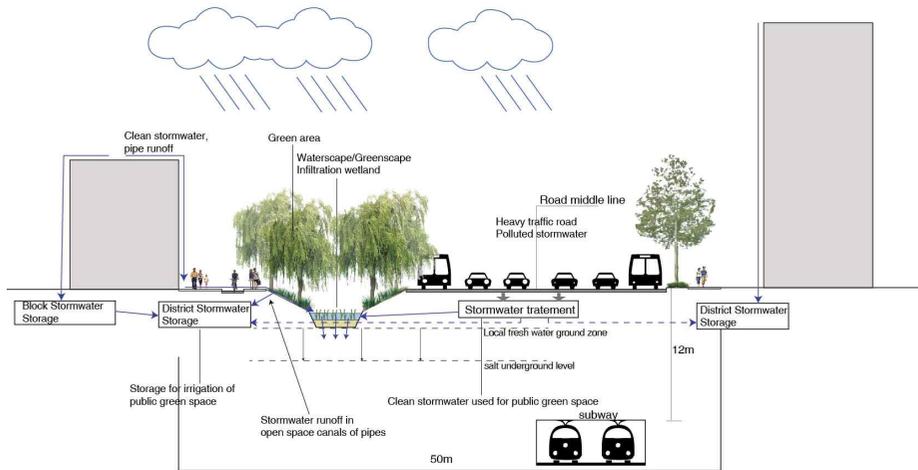
The new ecological stream will be planned by decreasing two traffic lanes and one bicycle lane. The stream is 13 meters wide including wetland and green area. During the rainy season, the rain water will flow into the stream and be absorbed naturally. Thus, the level of the stream will raise.



[Figure 4-13] Waterway section: usual condition



[Figure 4-14] Waterway section: duration of rainfall



[Figure 4-15] Water collection system

From the design, the soil will absorb the rainwater and part of the water will be stored based on this water collection system.

## (2) Entrance plaza

Entrance plaza is essential to the Tanhualin district. It is the first place of arrival, the first impression, the gateway to the historical and cultural district. Therefore, it is more than a place of arrival- it is a destination unto itself, and has the capacity to provide support to cultural programs and other forms of social function. Proposed removed old buildings with less value and overall reorganization of traffic movement, outdoor spaces and parking, is most welcome, as this is a space where pedestrians and bicycles should be permitted.

Both citizens and visitors will feel transformed as they enter this spacial place. The design features three main moves in addition to anticipated circulation and space identity improvements mentioned above: the plaza, the gate, and the promenade. Combing these design moves help to reinvigorate entrance plaza as a place for people- a place to move through, a place to interact and gather.

### (a) Welcoming entrance

The first is to create a distinctively paved plaza connected to the waterway. This open plaza is designed as a transitional point from vehicle to non-vehicle as well a place for gathering. Robustly paved with saw-cut sandstone block in the style of half circle carried with the meaning of gathering, and edged with plants and urban furniture. Especially in the center of the plaza, paved in Epiphyllum pattern

which indicates the hidden meaning of Tanhualin(曇華林) with marble mosaic. The old houses without any value in the western part will be demolished and transferred into the parking lot which can accommodate 200 cars for alleviation of parking problem raising by increasing visitors. This new plaza anticipates a wide range of new uses and events- a flexible front-door place that is both pragmatic with civic, access, transition and service including an exhibition hall and an information center.

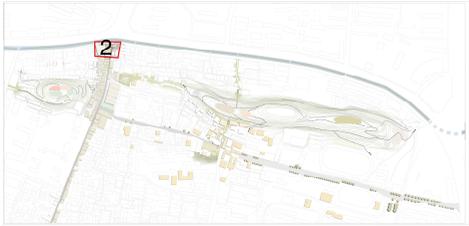
(b) A place of identity

The second move is the restoration of the old city gate since it is the original feature of the entrance, The old city wall was severely damaged because of the war-the Northern Expedition, and was demolished right after the war owing to the expansion of the city. The original city gate was demolished at the same time. As an expression of identity, the city gate that is suggested to be reconstructed at the original location in the center of the plaza also functioned as a spiritual symbol of booming again by utilizing the brick from demolished buildings.

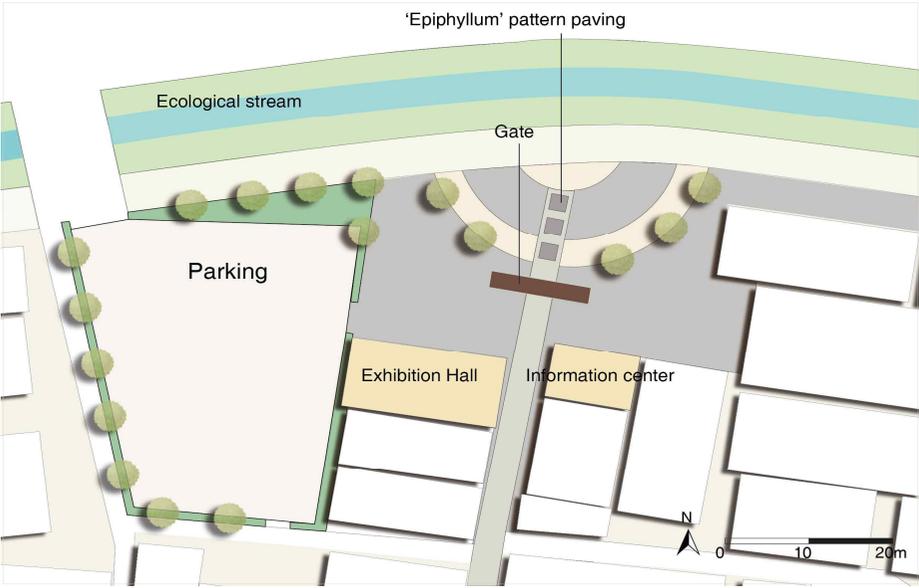
(c) Linking to the ecological stream

The third move is to draw the promenade south and across the plaza to the ecological stream- a traditional revamped pedestrian with plants, seating, lighting and decoration. This is the main access corridor, point

of arrival and movement.



[Figure 4-16] Key map of Area2



[Figure 4-17] Plan of entrance plaza



[Figure 4-18 ]Old Wusheng Gate



[Figure 4-19] Current condition of the entrance



[Figure 4-20] Redesign of the entrance plaza

### (3) Traditional market street

Deshengqiao street is the primary pedestrian promenade running the length of the west of the Tanhualin district connecting to other tourist places. This promenade has multiple demands not only it provides a generous realm for strolling, but it also accommodates commercial activities which can also trace from the history and spill-over spaces for events, non-vehicular parking service and access. For example, the one on the north of the indoor market becomes a part of a neighborhood park serves as an open plaza where people can do daily exercise during the weekday, and transform its function as an open market on the weekend. Another one on the south of the indoor market functions as a resting and eating area for all users. Moreover, the varied requirements for lighting, signage, furniture, trash receptacles, planters and other elements. Satisfied with these various demands, taking an organizational approach to the design of traditional market street.

#### (a) Remodels the buildings but continues the function

Most of the commercial facilities that were built before 1950s are under a condition of decrepit and lack of repair now. Therefore, it is necessary to be remodeled for functional as well as aesthetic reasons. On one hand, the remodeling of this traditional market street references to the original form of Jiangxia house style especially the facade. On the other hand, the function that first floor for commercial, second

floor for residential use will be retained.

(b) Distinct spaces by paving

■ Create three material bands

Firstly, establish a material linear bar, typical of all historical and cultural district known as quartzite, which not only is a popular paving in the modern history but also has high water absorbing capacity and water permeability.

■ Make distinct spaces

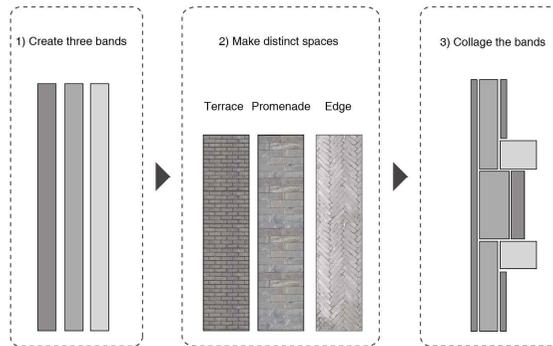
Secondly, establish three linear bands running the street:

- The 'promenade' is the central corridor, open for both crowd strolling and non-vehicle access. The promenade is made is made from the finest finished quartzite.
- The 'terraces' are the spaces adjacent to the building frontages and support small outdoor markets and spillover functions of the interiors. The terraces are made from relatively small scale quartzite.
- The 'edge' means public space with generous plantings, furnishing and overlooks. The edge is made from discrete quartzite with open joints.

■ Collage the bands

Thirdly, three bands are broken and collage to avoid the monotony as well as to reflect the creation of various segments. For example, to the space connected to the neighborhood park, moving east the space to

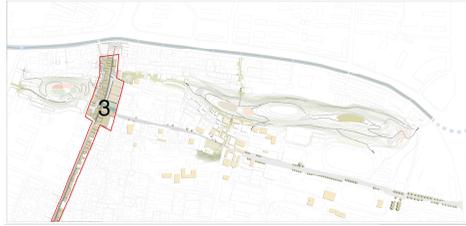
give more area to the open plaza; to the space in front of the indoor market, further east the space jogs to accommodate non-vehicle parking and accessing area.



[Figure4-21] Design process of paving bands

### (c) Variation along the street

In the next step, the segmentation of traditional market street into a sequence of spaces is further enhanced through planting, furnishing and other elements, all arranged to reflect the characters of this street and even district. For example, since plants are limited to the wide of the street, Chinese traditional plants- bamboo is proposed to be planted in this area in order to create a cultural atmosphere. Moreover, the famous filial piety ‘Bamboo Shoots Came Up Miraculously for the Cry (孟宗哭竹)’ is originated from this area which helps the design more meaningful. Multi-functional lighting are proposed that would run along the promenade. The multi-functional lighting support lighting, signage and sound that can be improved to be multiple from the current street light.



[Figure4-22] Key map of Area3



[Figure 4-23] Plan of traditional market street



[Figure 4-24] Deshengqiao Street in modern history



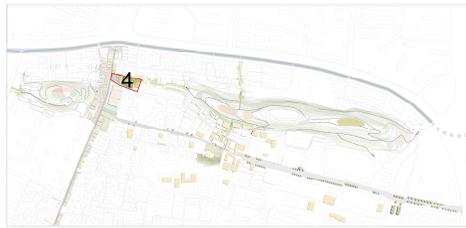
[Figure 4-25] Current condition of Deshengqiao Street



[Figure 4-26] Redesign of Deshengqiao Street

#### (4) Neighborhood park

The neighborhood park is to be enhanced from the existing open space. The design is intended to change the condition of low utilization as well as offer a place for leisure activity. The western part is on the traditional market street and occupied by temporary construction. In the design, the temporary construction on the west part will be removed and the area will transfer to an open plaza. The green coverage is proposed to be increased in the eastern part. Also, an exercise playground is suggested to be added due to the insufficient activity area in the district. Moreover, the west and east parts are divided by a residential building, thus, the path will serve as a linkage that can naturally induce the connection of these two parts.



[Figure 4-27] Key map of Area4



[Figure 4-28] Current condition of neighborhood park



[Figure 4-29] Plan of neighborhood park



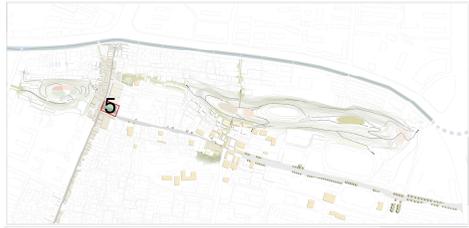
[Figure 4-30] Western part: current condition and after planning



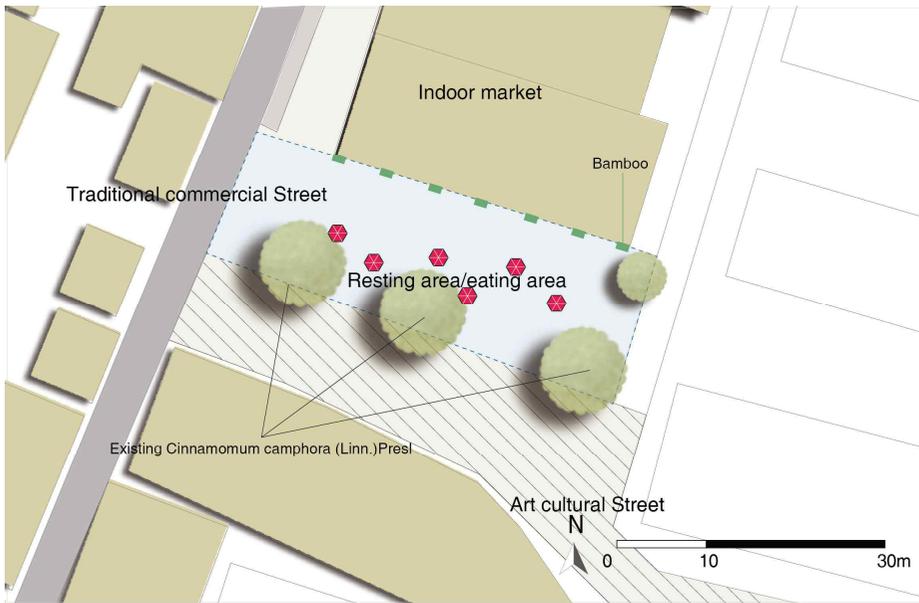
[Figure 4-31] Eastern part: current condition and after planning

#### (5) Pocket park

This area is located at the meeting point of the traditional market street and the art cultural street with a large pedestrian volume, but now is mostly a vacant place used for temporary parking on the weekend. The plan suggests changing this area into a resting area where people can have a short break or have some food, due to its proximity to the indoor market. It is planned to keep the existing trees and then add bamboo plants along the facade of the indoor market in order to create a semi-private space.



[Figure 4-32] Key map of area5



[Figure 4-33] Plan of pocket park



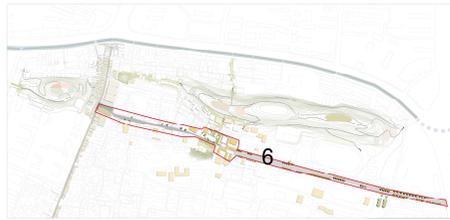
[Figure 4-34] Current condition of area5



[Figure 4-35] Neighborhood park: after planning

(6) Art cultural Street

Art cultural street is under a relatively better condition than other areas especially the western part of the street is full of galleries and handcraft shop that attract lots of visitors. But both sides of the eastern street are blocked by fences of schools and private residential area. Therefore, the plan of this street mainly focus on the planting design by choosing the street trees that can grow better in order to guide people from outside into the district.



[Figure 4-36] Key map of area 6



[Figure 4-37] Plants information of art cultural street



[Figure 4-38] Planting plan of art cultural street

## (7) Event plaza

The open space on the central intersection of Tanhualin district is simply served as passage to the cafe inside and the hill behind. However, according to the site analysis, the Hubei Institute of Art is located nearby. Moreover, there are over 100 artists living in Tanhualin district and over 40 art institutions situated on Tanhualin Main Street. Furthermore, this area is on the middle of Tanhualin Main Street and is the busiest intersection on the weekend based on the analysis of usage behavior. Therefore, the utilization of this area can be increased through transferring it into an event plaza with programs rather than keeping it for only passage use.

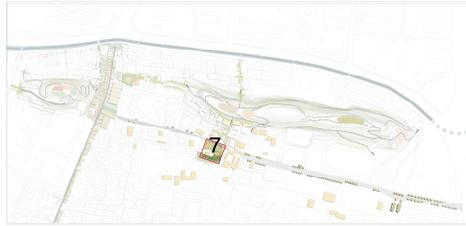
### (a) An open exhibition area

For the demand of increasing artists in Tanhualin district, the area facing the street will be utilized as an exhibition area. Hedges and plants that separate the open space and street will be moved, plants with unorganized layout are proposed to be moved and the land to be covered with a lawn so that this area can totally open to the public.

### (b) A pleasant corner

For this busy corner, proposed a pleasant green area covered with several plants especially the old hackberry will be kept and the area

around it will become a seating area.



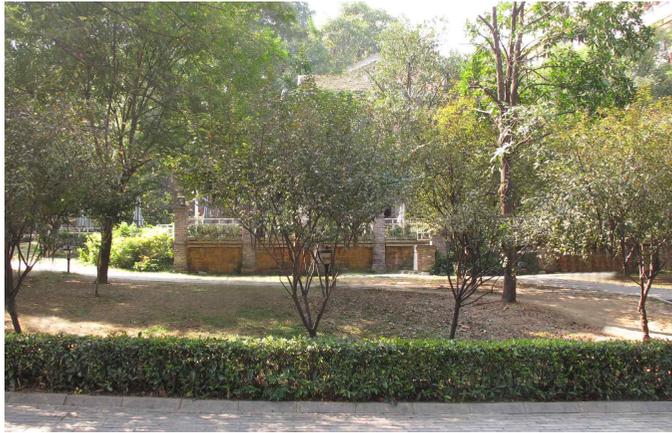
[Figure 4-39] Key map of area7



[Figure 4-40] Current plan of area7



[Figure 4-41] Plan of event plaza



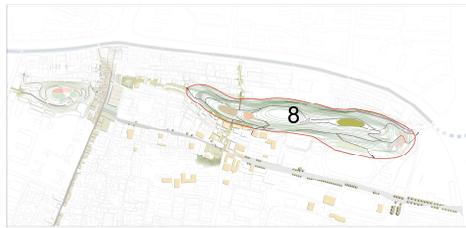
[Figure 4-42] Current condition of area 7



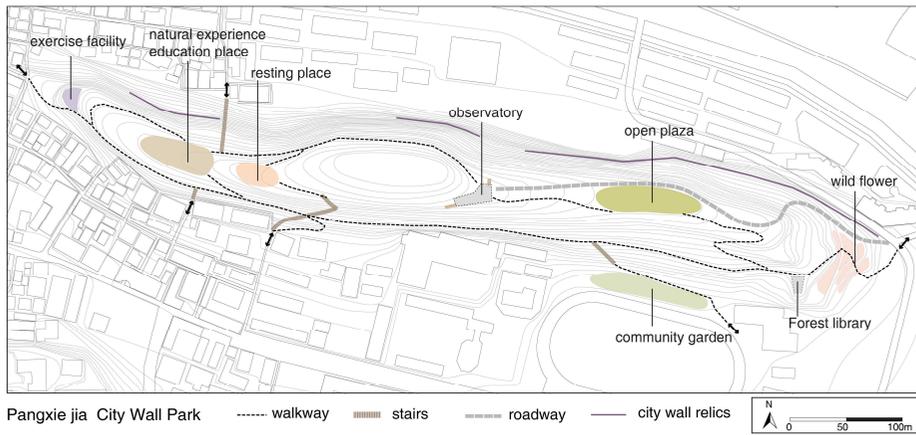
[Figure 4-43] Outside exhibition area: after planning

### (8) Pangxiejia City Wall Park

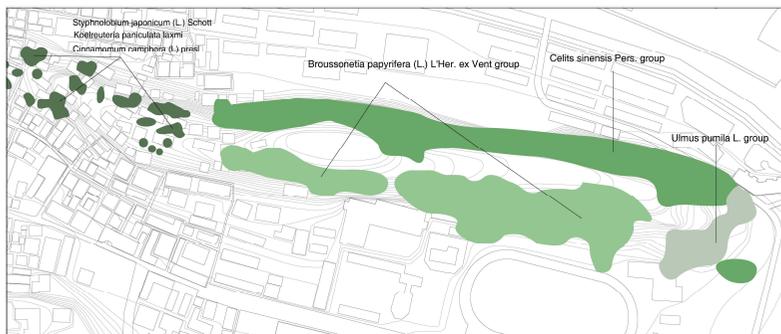
The planning of the city wall park purposes to return the green area back to the citizens. In terms of returning the feeling of the natural forest, the plan aims to keep the existing *Celtis sinensis* Pers. and *Broussonetia papyrifera* (L.) L'Her. ex Vent group which are valuable species within the natural forest. Further to that, it is planned to create a *Celtis sinensis* Pers. Area of shrubbery on the west part of the hill. Moreover, since the existing paths are quite precipitous and confusing, the plan proposes new walkway that connects all functional area in the park. The park will offer different programs that suitable for different age groups.



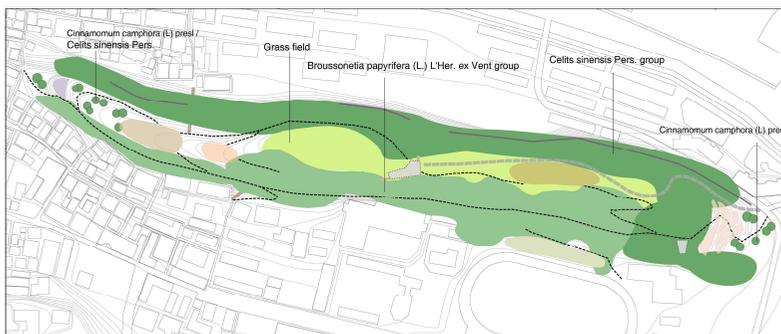
[Figure 4-44] Key map of area8



[Figure 4-45] Plan of Pangxiejia City Wall Park



[Figure 4-46] Planting of Pangxiejia Hill: current condition



[Figure 4-47] Planting of Pangxiejia Hill: after planning



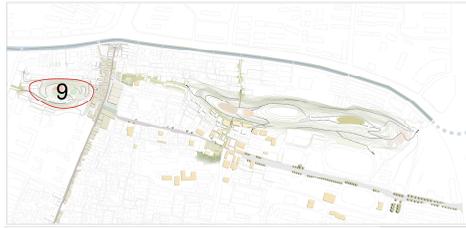
[Figure 4-48] Current condition of area8



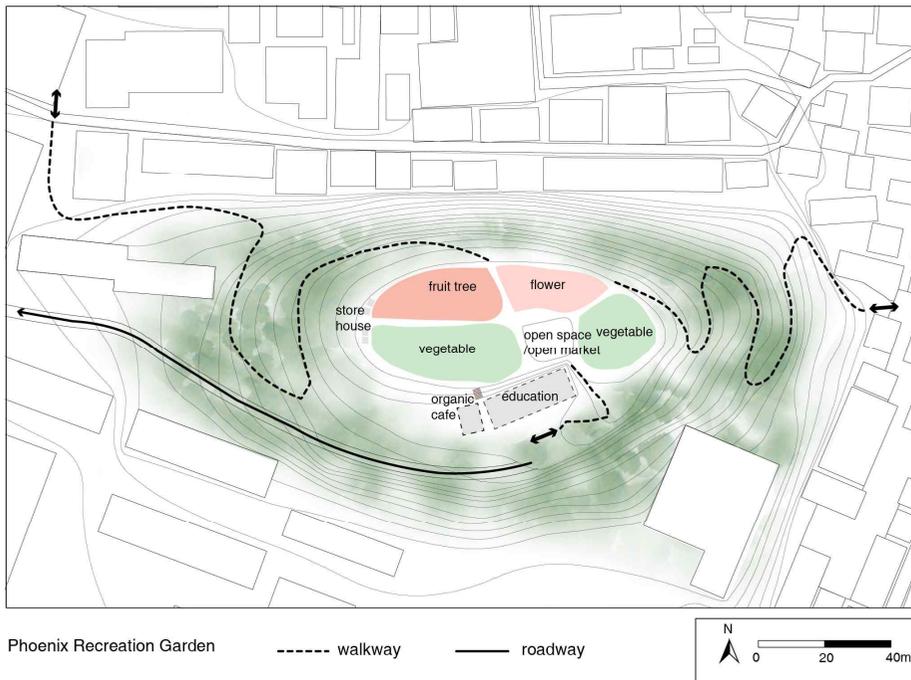
[Figure 4-49] Observatory: after planning

#### (9) Phoenix Recreational Garden

This area contains various kinds of plants that offer a good foundation for a garden, utilizing the existing roadway and create two more paths to connect the area downhill to the top. The educational and garden experience programs are processed in this garden. Furthermore, one building remaining on the hill is transformed from office use to educational use. On the flat area of the hill, there are vegetable areas, fruit tree areas and flower areas where people can get different experiences in the district.



[Figure 4-50] Key map of area9



[Figure 4-51] Plan of Phoenix Recreational Garden

## 4.4 Citizen participation program

Various programs are planned in order to realize the citizen participation and activation of the district

[Table 4-6]Citizen participation program

Program	Location	Schedules	Time	Note
Outside Art exhibition		Once a month	9am-6pm	Art work is chosen by public recruit
Open market		every weekend	9am-6pm	application through neighborhood committee
Forest education experience		Monday/ Wednesday/ Friday	9am-4pm	through self application; also accept student group
Garden education experience		Tuesday/ Thursday	9am-4pm	through self application; also accept student group
Cultural performance		weekend/ holiday	not fixed	organized by neighborhood committee or Wuchang government
Historical Tour	all areas	weekend/ holiday	9am-6pm	Tour guider can show the best visiting route explain the cultural story to the visitors

## **Chapter 5: Discussion**

This research was initiated from the viewpoint of realizing the regeneration of Tanhualin historical and cultural district as well as developing it as a tourist attraction through enhancing the value of the landscape of the district. Taking this viewpoint into account, this study aims to fully understand the historical and cultural value and the limitations of the district aiming for applying it in the landscape planning.

Prior to the planning, this research illustrates the background, value, relevant regulations and laws of the historical and cultural district, and examined the relationship between cultural resources and urban regeneration. Following that, this paper then analyzes the success and failure factors of the historical and cultural district regeneration by researching cases in both China and overseas, for the purpose of deciding the direction for the design and planning of Tanhualin historical and cultural district. Recently, there is a tendency for regeneration of the historical and cultural districts in China. However, most of the projects make the physical improvement and conservation as a priority consideration, lacking the consideration of multifaceted culture for the revelation of the characteristics as well as the preservation of living culture, which takes root and spreads throughout the overall district. In terms of the district regeneration, it is planned to reproduce the cultural heritage from various environmental components

in order to implement the cultural space. Also, it is necessary to grant the diversity of the urban environment and ensure the identity of the urban landscape.

Tanhualin's historical and cultural district not only has a long history, diverse culture, historic buildings, abundant natural resources and landscape elements, it is also a place with many humanistic resources since many local residents live here. Thus, it has a great variety of potential. The original intention of the establishment of the historical and cultural district, however, is not fully reflected since the understanding is mostly limited to the protection of historic buildings.

Therefore, this research studies the origin of the historical and cultural features and its connection to the local residents, deriving the design direction of 'creation of a history and culture axis', 'creation of public open space' and 'activation through various events' from the literature study, site analysis and use pattern. Followed as the historical and cultural axis, and prediction of the users, it formed three main spaces with different characteristics: cultural space, natural experience space and urban leisure space.

Firstly, the cultural space consists of an entrance plaza, traditional market street and art-cultural street. The entrance plaza with a restored city gate plays a role as a symbol of the district, from which has a sprite influence of the entire area. Recovering the traditional facade, quartzite paving, bamboo plants and dynamic space revive the old scene

and can get rid of the negative image of the existing traditional market street.

Secondly, in terms of the natural experience space, decreasing the traffic lanes and creating an ecological stream without prejudice to traffic, in order to restore the old city moat and introduce the wetland into the central city can alleviate the waterlogging problem. Two hills will operate different programs with the theme of forest and garden.

Thirdly, urban leisure spaces, as the landscape node, are the open area on the intersection. This will contain an event plaza for art exhibition and event, a pocket park of seating area for a short stay and a neighborhood park with open plaza to insure the daily activities as well as a green area for communication.

Furthermore, there is a small green area inside the dense neighborhood. As for the participation, various programs are offered to enrich the cultural atmosphere. From this landscape plan, local residents, students and even visitors can fully experience the district.

However, due to the difficulty of obtaining the opportunity of the interview from government officers or influential figures in the local community, this research is limited in grasping the overall condition of complicated factors among the relation of dynamics.

The significance of this study is to offer a reference to the government of Tanhualin district and the vitality of the landscape can make the

surrounding area and even the city activated. This study focuses on the social and cultural aspects of urban regeneration in China rather than on physical and economic aspects, which are distinct from other research. Cultural landscape in the urban city is a physical asset as well as an emblematic part of the district, which is meaningful for the urban regeneration. The process of regeneration for Tanhualin historical and cultural district can be viewed as a cultural process and description of characteristics.

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Wuhan Water Authorities, <http://www.whwater.gov.cn/water/>

## 국문초록

중국의 급속한 경제 발전과 지속적인 도시화 과정의 추진의 결과로 최근, 진보적 문명과 도시의 역사문화지구 사이의 모순이 점점 드러나고 있다. 지역의 정체성을 무시한 채 진행된 과도하고 무조건적인 개발은 도시의 형상의 단조로움을 주도하였고 많은 문제점을 야기하고 있어 이제는 지역의 특색을 가진 역사문화지구를 지정하고 보존하고자 하는 움직임이 일고 있다. 결과적으로, 중국은 역사 문화 지구의 재생사업을 시도하고 있다.

우한(武漢)은 호북성의 정치, 경제, 문화의 중심지이며, 중국 중부에서 가장 큰 도시이다. 또한 1986년 2월에 국무원은 우한을 공식적으로 역사 문화도시로 지정하였다. 담화림(曇華林) 역사문화지구는 근대 우한의 동서양 문화 교류, 대립 및 융합의 역사가 있는 곳으로, 2003년 우한계획부에 의해 우한의 대표적인 역사문화 지구 중 하나로 지정되었다. 정부는 보존계획을 지원하였으며 다양한 역사적, 문화적 특징을 나타내는 중요한 지구로 발전 시켰다. 최근에는 담화림 역사문화지구와 관련된 보존과 재생 프로젝트들이 제시되어지고 있는 상황이다. 하지만 이러한 프로젝트들은 건물의 표면적인 복원과 같은 피상적 부분에 집중하였으며, 지역의 역사적·문화적 특성 및 잠재력을 반영하는 지구 전반적인 계획에 대한 노력은 부족하였다.

도시의 고유한 이미지로서 역사문화지구는 도시의 역사·문화·자연환경의 아름다움을 반영한다. 하지만 역사가 깃든 수변공간은 새로운 건물들로 매워지고, 자연적 언덕은 불법 주택들의 차지가 되었으며 오랫동안 지

역민이 머무르고 생활하며 생성된 경관은 보존의 대상으로 여기지 않고 있다. 결론적으로 그 지역만의 역사·문화적 정체성은 점차 사라지고 있다.

이에 본 연구는 대상지인 담화림의 공간적 특성을 분석하고 역사적 문화적 배경과 환경에 대한 연구를 토대로, 포괄적 계획을 제안함으로써 역사문화의 경관의 가치를 인식하고 현대시대에 맞게 발전시키는 데에 목적이 있다.

본 연구의 재생계획은 지구의 역사적 이미지의 회복을 제안한다. 이러한 계획은 대상지 주변 구역들의 활성화를 유발할 것이며 도시 전반적으로 영향을 미칠 것이다. 나아가 앞으로 도시계획과정에서 경관의 중요성에 대한 인식을 높이고자 하는 데에도 의미가 있다.

▣ 주요어 :담화림지구, 연결성, 도시재생, 역사이미지, 문화

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