TRANSFORMING THE URBAN VILLAGE
IN GUANGZHOU INTO AN URBAN PARK
A CREATIVE PROJECT
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1. Project Background and Introduction

As a unique phenomenon that is part of China’s urbanism and fast economic development, what are known as “urban villages” appear in the urban core areas and outskirts of China’s major cities, such as Guangzhou, Beijing and Shenzhen.

Urban villages are formed primarily as a result of the rapid expansion of the city. During the city’s expansion, much of the farmland is turned into urban land by the local government, and as a result, many of the rural, farming villages that remain become surrounded by the new urban development. A lack of implementing and developing corresponding policies or actions for land acquisition is responsible for the development of these urban villages. Additionally, providing appropriate compensation for individual properties and moving people out of urban villages causes more obstacles for speeding up the redevelopment of these urban villages.

When large amounts of city construction take place, nearby original farming lands and villages become more and more valuable, which results in the villagers being
forced to increase their living density and add more residential structures within a limited area. Without the guidance of city planning, the urban village often appears as a mess of overcrowded multi-story buildings, which makes a sharp contrast between the urban village and its surroundings.

Guangzhou is the capital of Guangdong Province in southern China with a population of 6 million, and roughly 11.85 million of them in an urban area (Figure 1-1/1-2). It is the main manufacturing hub of the Pearl River Delta, one of mainland China's leading commercial and manufacturing regions. When this city is developing rapidly, some noticeable problems related to cityscape and city living environment have also occurred. (Figure 1-3) Currently, Guangzhou is facing two big problems: a lack of green space and a lack of policy on what to do with its urban villages. (Wikipedia, 2011)
FIGURE 1-3 Noticeable Problems Related to Guangzhou’s Urbanization and City Expansion
As Guangzhou’s new constructions have taken place, a shortage of the city’s green space has become a major concern for residents. Almost all the city lands are occupied by different kinds of concrete structures and infrastructures, with very few green spaces left for citizens and even fewer vacant sites in the urban core available to be developed into civic green spaces.

Meanwhile, the government is seeking new methods to reclaim and renovate the urban villages in Guangzhou. The current government’s developing policies for such urban villages are more inclined to economic benefits, but, as the enhanced awareness of the need to improve the city's living environment, more policies are in need of more professional input from fields such as city planning, landscape architecture and architecture.

Usually, addressing current villagers’ dwelling issues is a necessary precondition for the government to get these lands back. More often than not, after the government compensates land owners of the urban villages and moves them out of the urban villages, it will demolish all those existing structures on site and build new structures for new purposes such as new residential development. But, as a result, the site’s historic or natural features will be totally lost in this way. On the other hand, the new construction increases the building density in the urban core where it has been overbuilt.
Considering that urban village sites may be the only potential areas for developing green space in such a dense urban environment, transforming these urban villages into urban parks could be an experimental way to solve these two problems together.

Though the Chinese government has normally dealt with these urban villages by tearing them down for new residential development, these villages could fulfill a much greater need by being developed into green space. In fact, there have been such developments in Nanjing and Beijing, which have already achieved success. However, this idea is still experimental in Guangzhou.
2. Statement of Problem

This project will discuss current design methods for transforming urban villages in China and specifically in Guangzhou. Secondly, it will evaluate existing city’s planning and development strategies for designing urban parks in an urban village’s revitalization project. Moreover, this research will demonstrate the necessity for turning the urban villages into urban parks by analyzing the urban village’s current situation in Guangzhou. Therefore, based on the analysis of the above findings, this research will explore a suitable method and design for reclaiming the urban village in Guangzhou by designing an urban park.

2.1 The Subproblems

2.11 What are the current design methods of urban villages in the revitalization project in China and specifically in Guangzhou?
2.12 What are the related city planning and development strategies for transforming urban villages within Guangzhou into urban parks?

2.13 Why is it necessary for transforming urban villages within Guangzhou into urban parks based on the analysis of urban village’s current situation in Guangzhou?

2.14 How can an active urban park in Guangzhou's urban core be designed in the revitalization project of urban village?

2.2 The Hypotheses

“Urban village” within the urban core of Guangzhou can be reclaimed and transformed into an active public park.

2.3 Delimitation

This research will not address the resettlement of those residents in the urban village, for which the government usually should provide compensation based on existing policy.

2.4 Assumptions
A basic assumption is that this reclamation project meets the planning and architecture code of China and it has no funding or timing restriction for design and construction. For this particular creative project, it is assumed that the owners have sold their lands to the government and accepted moving to a new area. So the government owns the land use rights and plans it for public green spaces. It is also assumed that, as the public policies or development strategy change for reclaiming these urban villages within Guangzhou, this research can provide guidance for revising these policies.

2.5 Significance

For a long time, how to utilize the lands of the “Urban Village” in the urban core of Guangzhou has been a compelling issue. The most common way for redeveloping such lands is wiping out the whole site and rebuilding it for new residential apartments. At the same time, Guangzhou government is seeking ways to enhance the public greening to improve the city's eco-system and citizens’ living quality. According to an existing assessment of Guangzhou’s greening system, it requires 15 square meters of public greening per person for citizens’ better and healthier living, but for now, it only reaches the level of 13 square meters per person. (China Landscape Construction, 2009) Especially, in most urban core areas of Guangzhou, no vacant lands have been left for green space. Considering those urban villages may be the only potential sites left in this dense city for creating green open spaces,
providing design recommendations on how to transform these lands into the urban parks could be important but also experimental, because there is lack of precedents to refer to in Guangzhou city.

Usually, when China’s government deals with these “urban villages” issues, they tend to tear down all the existing structures and eliminate all the current vegetation. Apparently, this method may not be a wise way to achieve sustainable design for the following reasons. First, the large-scale demolition and reconstruction could cause problems, such as noise or traffic jams, to the surrounding communities and traffic system in the busy urban core area. Second, it excludes the opportunities for reusing the existing structures and recycling the materials on site to reduce construction cost and negative environmental impact. Moreover, the demolition usually eliminates all the existing natural features and damages the vegetation on site. So therefore, seeking a new way to revitalize these areas by landscape design could be a compelling issue.

From the cultural and historic aspect of the city, designing an “urban village” theme park rather than building new commercial or residential developments may preserve more citizens’ memories of their city. As we all know, every site has its own story and characters. When some certain historic features of a site remain, citizens will find it easier to associate their previous impression and feeling of this particular site with the new design, even though the site may be totally transformed
into other uses. Maintaining part of the heritage may allow them to more easily become involved in these new public spaces and evoke their positive emotional response to this city. And the remaining historic and cultural structures on site can also become the attraction or focus, if they are properly selected, preserved and incorporated into a new design. On the other hand, an “Urban village” theme park can be a memorial site for the public in memory of this particular period of city's development history during China’s fast urbanism.
3. Rehabilitation of Urban Village in China

3.1 The Comparisons of the Concept of “Urban Village” in China and in Western Countries

The terms of “urban village” are defined totally differently in western countries and in China.

According to “the Dictionary of Human Geography”, “Urban Village” refers to “a residential district, usually in either the inner city or the zone in transition of the zonal model, containing people with a common cultural background and forming a community.” This specification tends to explain the concept of “urban villages” in western countries.

In western countries such as United States, the definition is best expressed by the Wikipedia encyclopedia as: (Urban village From Wikipedia, 2011)
An “urban village” is an urban planning and urban design concept. It refers to an urban form typically characterized by:

A  Medium density development

B  Mixed use zoning

C  The provision of good public transit

D  An emphasis on urban design - particularly pedestrianization and public space

Therefore, this concept in western countries usually talks about a well-planned new urban development, while in China it relates to an urban community developed over time and with no specific planning in fact. Thus, the concept of “urban village” in China (literally "village within a city") is often linked to the area that originates from the farming community and self-develops without any planning guidance in metropolitan area. During China’s urbanization, the landowners of these villages built up multi-story housing in great density to rent their housing to the new comers of the city at a lower price. The living conditions of these urban villages are very poor and they are often considered as the squalor, overcrowding areas with a lot of social problems because of hardness of floating population control and management (Figure 3-1).
Figure 3-1 Comparison of Concepts of “Urban Village” in China and Western Countries
3.11 The Differences of Origins

Inspired by the physical morphology of the traditional villages, the concept of “urban village” in western countries is trying to provide better functioning community and encourage more residents’ interaction. This term is often associated with Gans,H.J.’s 1962 publication of “The Urban Villagers: Group and Class in the Life of Italian-American”. The author found an Italian community brought together to defend the migrants’ culture and ensure the provision of services, for instance, grocery, only oriented to their own market. Jane Jacobs, who was a famous critique of the urban renewal policies of the 1950s in the United States, had a great influence on it. In her opinion, some of the city’s illness such as the presence of freeway and urban sprawl could be cured by an alternative development pattern of urban village (Gans,1962). The other inducement for “urban village” in western counties is the decline of noxious industry and the emergence of the service economy since World War II, which allows the mixing of employment and residential activities within one area.

In China, the cause for “urban villages” is primarily the fast urbanization. In order to avoid large migrations from countries to cities, China has been carrying out the policy of “urban-rural dual economic structure”, which means the land management
and development policy is different in countryside and urban areas. So during the fast urbanization process, many originate farmland and villages in the city have been left over because of the complicated development policy specific for areas considered as villages.

Since late 20th century, large amounts of farmlands have been taken over by the city. And those law-protected residential lots that remained become surrounded by new urban development. As the value of city’s land enhances, these remaining villages sprawl vertically and increase their density at a much higher rate than the new city development. Villagers keep adding up floors to their own house to provide more living and rentable space. Because of the messy self-development, these urban villages become the low-cost choice of settlement for the city's new immigrant.

### 3.12 The Differences of Landscape Performance

The totally different concepts of “urban village” in western countries and China necessarily lead to different landscape architecture performances.

The goal of “urban village” in western countries is to design one kind of urban development pattern which is a self-contained with less vehicle reliance and more
community interaction. Multi-functional uses are presented in this particular type of
district, including citizen’s working, recreation and living. Because of mixed use,
long distance of travelling within this area is reduced and a pedestrian-friendly and
active community is generated. And in most of time, this kind of development
pattern has good community facilities, public space, good pedestrianization, and
mixed-use commercial and residential buildings. All the design scale tends to be
pedestrian-orientated. Such development pattern can be found in many western
cities, for example, west end of Vancouver in Canada, Brooklyn’s “brownstones” in
U.S, and inner Melbourne in Australia.

Comparably, the term of “urban village” in China is a self-engendered and unique
phenomenon accompanying the fast urban expansion in the last several decades. It
is not an intended development or design led by planners. As a result, the urban
village often appears as a mess of overcrowded multi-story buildings ranging from
three to five floors with very narrow alleys going through. (See Figure
3-2/Figure3-3)Buildings are extruded into mini skyscrapers. Cantilevered floors are
added onto the towers to maximize the floor area. Few green or open spaces and
any other public facilities can be found in these villages. In addition, they are often
enclosed by skyscrapers and considered as the “Chinese slum” need to be got rid of
because of its big comparison to urban context.
Figure 3-2 Landscape Performance of Typical Urban Village in

Figure 3-3 Bird View of Shi-pai Urban Village in Guangzhou
3.2 The Rehabilitation Practice in Western Countries

Due to the different meanings of “urban village” in western countries, no related literary or practice of urban village redevelopment can be found to be reference for China’s situation. Yet, most major cities of developed countries have been through some similar urban renewal practice in inner city.

The urban renewal practice can be traced back to 19th century when London, New York city, Paris and other major cities of the developed world were affected by the industrial revolution. The fast urbanization induced by the industrial revolution involved large-scale relocation of residents, business and many demolitions and constructions for the purpose of city-initiated development (Urban Renewal from Wikipedia, 2011).

In North America, Central Park, New York can be considered as one famous example of early urban renewal project. Between 1821 and 1855, the population of New York City increased 3 times. As the city expanded, few existing open spaces were left for the residents. In 1853 the New York legislature designated a 700-acre (280 ha) area for the creation of the park to improve the chaotic living environment of Manhattan as well as the health of residents. Today, Central Park still functions as one important green open space for this dense city (Urban Renewal from Wikipedia, 2011).
During the period of World War II and the early 1970s, “Urban renewal” referred primarily to public efforts to revitalize aging areas of moderate to high density urban areas in western countries. As the some parts of a city decaying and slums appearing, many western counties started slum clearance and building new affordable housing in major cities, for instance, New York, Chicago and Manchester. In U.S, part of the reasons for such activities was a plan called “War on Poverty” declared by President Lyndon B. Johnson. However, the end result for such movement was very ineffective and people found out these slums might appear again several years later in the other places. And then the renewal focus had been turned to the conserving and revitalizing threatened but not yet deteriorated neighborhoods.

After 1970s, an emphasis was gradually placed on the public involvement and participation. Significant changes occurred after 1976 when U.S Congress established the Historic Preservation Fund to States and to the National Trust for Historic Preservation to carry out historic preservation activities. Residents of old neighborhood not only ask for improvement of living environment but also conservation of their own community culture or characteristics. Besides, currently, a mix of renovation, selective demolition, commercial development, and tax incentives is most often applied to urban rehabilitation projects. Contemporary urban rehabilitation projects are inclined to human-orientated, historical and
cultural inheritance, and environment protection (Urban Renewal from Wikipedia, 2011).

3.3 The Rehabilitation of Urban Village in China

Some of the organized China’s urban renewal practices began after the foundation of the People’s Republic of China in 1949. And these early practices were all led by the Chinese government because that “planned economy” was the dominant economy policy, which means that government highly control the economy market. Due to the limited financial budget of the government at that time, those renewal projects were often urban revitalization projects in small scale or in phases. And they focused mainly on renewing those residential housings in dangerous condition and improving some poor public facilities.

After 1990s, China’s economy started to boom because of the implementation of “market economy”. When the private real estate developers got involved in the urban land development, the economy benefit becomes the first consideration in civic construction in most cases including the urban renewal projects. In order to complete the design and construction as soon as possible, quite a lot of urban renewal projects lack scrupulous analysis before construction. The most common mode for redeveloping the lands of urban villages is the cooperation of real estate developers and local government. Usually, government reclaims the lands from the
urban village by compensating the urban villagers, and then transfers them to the private real estate developers through bidding, which tend to wipe out all the existing housings and reconstruct a new residential district for commercial apartment units. (See Figure 3-4) And sometimes, some of the new constructed apartments will be compensation for previous villagers while the rest of them will be selling to the market. Because the private real estate developer is leading these renewal projects, their redevelopment often ignores the consideration from the city’s development future strategy, the environmental, historical and cultural protection, and the citizen’s need.

3.4 Case study of Rehabilitation of Urban Village in China
Some negative effects coming with the existence of urban villages in metropolitans have gradually drawn public's attention, such as the social security, cumbers of city planning, low efficiency of land uses, overcrowded and poor living environment. As some of the urban village's land value is increasing during the rapid urban construction period, how to redevelop the urban villages becomes a popular discussion in China now. And in quite a lot of major cities in China, urban planners and landscape architects or architects have commenced their creative practices.

3.41 Case Study of Rehabilitation of Dafen Village in Shenzhen

Shenzhen is sub-provincial city within Guangdong province, which is situated in the southern part of China. Before 1979, it was a remote fishing town with a population of 30,000, but today it is an important metropolitan with a population of over 9 millions. The rapid growth of the city occupies the formerly rural or farm lands. And none of the cities has as many urban villages as Shenzhen in China, which has 173 natural villages within the urban area. Dafen village is one of them which is located in Longgang District of Shenzhen(See Figure 3-5).
Dafen village is famous for its oil painting replica workshops, which are selling billions of oil painting to Asia each year. For a long time, its culture is also considered as the mixture of pop art and commercial value. The site map of Dafen village seems to be an array of rectilinear grid block system, in which each building occupies one block. This building and block combination allows maximum commercial value for four sides of one building. Most of the painting workshops display their art works on the ground floor, open to the street (See Figure 3-6). Not like those extremely narrow alleys in other urban villages, the alleys within Dafen village range from 2 to 6 meters. So the pedestrians can gain a rich visual experience
of art displaying while strolling along these alleys. But the high density architecture cluster is making a big contrast to its urban context.

The rehabilitation proposal for one part of the Dafen village was done by the URBANUS urban design firm, which has taken part in several rehabilitation projects of urban villages in Shenzhen and been seeking creative ways to revitalize the urban villages rather than simply remove them.

In URBANUS’s proposal, they transform the Dafen village into one of Shenzhen’s art museums to reflect its original cultural character and provide a sharing public

Figure 3- 6 Street-front Painting Workshop of Dafen Village
facility for the surrounding community. Their design strategy is to create a hybridized mixture of different uses, such as the museum, oil painting galleries and workshops, commercial spaces and rental studios within the same architecture, which is also in memory of the previous hybrid lifestyle of Dafen village. They also create several pathways leading people from the surrounding to access this central public space, encouraging maximum people’s interaction.

In response to the complex and chaotic surrounding, the architecture is designed as a multi-directional massing to unify its disorder surrounding interfaces. And the building can be accessed from all the directions.

The ground floor contains oil painting market, multi-functional rooms, cafés and other commercial facilities. From the ground entry plaza, people can access the second floor exhibition hall through a ramp (Figure 3-7). Various sizes of boxes hang from the roof, serving as the skylight for exhibition space. Painters of the village can decorate these interior boxes by their own painting. The sloped roof and these hanging boxes are a metaphor of an upside down urban village. By utilizing the roof floor, a public garden surrounded by outdoor café is designed. Through three connecting rampways between this roof garden and surrounding streets, general
public also can share this community facility.

Figure 3-7 Design Scheme of Dafen Museum
Designers also integrate different sizes of boxes into the building’s façade. Some of the boxes are windows, while the rest of them are large-scale canvasses (See Figure 3-8). These painting canvasses provide chances for the Dafen painters to display their work to the public. As these paintings on the façade are changing, they create a dynamic image for the Dafen village (URBANUS, 2006).

Figure 3-8 Modeling of Dafen Museum

3.42 Case Study of Revitalization of Lin-he Village in Guangzhou

The rehabilitation proposal for Lin-he village in Guangzhou was done by SCUT Architectural & Design Institute. The design was proposed under the guidance of Guangzhou Institute of City Planning & Survey and it was a renewal project invested
by private real estate developer. So there are more design limits and financial considerations than general design proposal for government projects.

Lin-he village has a history of 450 years, with which many Guangzhou citizens are very familiar. The site of the urban village is located in the Tian-he district of Guangzhou, where every piece of land has been occupied by dense civic buildings (See Figure 3-9).

![Figure 3-9 Lin-he Urban Village before Demolition](image)

The surrounding roads of the site are respectively Lin-he Dong Road, Gui Hua Road, Lin-he Zhong Road, and Zi-jin Er Road, which all carry busy traffic volume. The site
area is approximately 6,480 square meters. The current site is surrounded by all high rise commercial buildings and expensive commercial apartments, so most of the buildings on site are in shadow (See Figure 3-10). And there is a natural pond of 6,000 square meters in the central part of the site serving as a cultural icon for this urban village, along which those guard stones have a history of several hundred years (See Figure 3-11/ Figure 3-12). And all of its historical structures, for instance temple, have been turned into clinic and kindergarten.

Figure 3- 10 Site Plan of Lin-he Urban Village
FIGURE 3-11  Existing Pond in Lin-he Village

FIGURE 3-12  Existing Pond in Lin-he Village
Because of its great commercial land value in this city, the private developers ask for maximum commercial apartment and office areas within a reasonable building density, at the same time they need to provide 137,000 square meters’ apartment for the previous villagers for compensation. Because of these strict design tasks, the previous proposal for this project eliminated all the existing structures and natural features including the natural pond to make space for more mid-rise apartment buildings.

In SCUT's proposal (See Figure 3-13/14) , they retain preserve the central pond by designing high rise apartment and office buildings from 100 to 150 meters high to achieve the required building area and number. In this way, more ground spaces can also be turned into greening and open spaces.

Figure 3- 13 Bird’s Eye View of SCUT Design Scheme
Figure 3-14 Master Plan of New Lin-he Community
This preserved pond is integrated into the new landscape design, which becomes the important part of the central landscape axis of this mixed use community. At the same time, it serves as a visual icon for the main entry.

Four three-story community centers are laid out among the high rise apartment and office buildings, and they are also open to the surrounding community. In order to provide convenient access, second floor pedestrian bridges are designed to connect the apartment buildings and these public facilities.

Though this project is a typical reconstruction design like other urban village renewal projects in China, at least the architects and landscape architects try their best to balance the commercial benefit and the conservation of cultural features for Linhe urban village.

**3.43 Case Study of Revitalization of Fun-xin Village in Shenzhen**

Among all the implemented rehabilitation projects of urban villages, almost all the projects are done based on the complete or 90 percent of demolition of existing structures even when those existing structures are in good condition. There are still some innovated design proposals for alternative ways to revitalize the urban villages. The proposal done by URBANUS Architecture and Design for Fuxin village in Shenzhen is one of them.
Fun-xin village is a comparably small village surrounded by urban park and other new developed residential apartment buildings in Shenzhen (See Figure 3-14). It is composed of 5 to 10 storied residential buildings in an extremely high density.

URBANUS’s design is to connect most of the existing buildings with proportioned pedestrian route, making it as an untied architecture complex rather than the existing individual building, so that they can create an active mixed use district (See Figure 3-15). These routes include different programs(See Figure 3-16/ Figure
3-17), such as entertainment line, garden line, commercial line, art line and kid line, which traverse throughout each block at different levels, connecting each public space within each individual building. And these routes are like the subway lines, and they are also vertically connected with each other at certain spots.

Figure 3-16 Rehabilitation Plan of Fu-xin Village
Figure 3-17 Proposed Visitor Route of Fu-xin Village

Figure 3-18 Proposed Visitor Route System
Each pedestrian route includes three parts (See Figure 3-18): the public space intervention in the existing buildings, the program within the existing buildings, and the new constructed connections between the buildings. By designing these clear pedestrian routes, designers will create an organized movement through these messy architecture complexes and provide clear sense of direction for the visitors and residents.

In addition, the designers also designate one building in each pedestrian route to be one node for that line to create a richer experience for visitors. Three new “mixing buildings” are laid out among these villages where pedestrians can transfer between routes.

Figure 3-19 Design Scheme of Fu-xin Rehabilitation Project
In this site plan (See Figure 3-19), only two existing buildings are removed for the public plazas, while the rest of them are transformed into a diverse mixed use community (URBANUS, 2006).

![Figure 3- 20 Modeling of Fu-xin Rehabilitation Project](image)

**3.44 Conclusion of Three Case Studies**

In the three case studies above, though the proposals have not been implemented, architects and landscape architects have been seeking alternative ways for rehabilitation of urban villages.
Since urban village is the inevitable outcome of China’s fast urbanization and its presence is certainly part of the city history, designers realize that the simply demolition and reconstruction will absolutely erase all the potentials for keeping some of its utilizable features.

To some extents, reclamation based on the existing historic and cultural features rather than new construction is more realistic, because it is a more sustainable approach that will benefit the environment and financial investment. On the other hand, if all the urban villages are destructed, there may be people who will mourn for the disappearance of the once vivid urban spaces and interesting blending dwelling style in this particular period of China’s history as they did for the ex-slums of Jiu-Long Town in Hong Kong, China.
4 The Current Situation of Urban Village in Guangzhou

Guangzhou, is the capital city of Guangdong Province located along the south coastline of China. Being an excellent port on the Pearl River navigable to the South China Sea, and with fast accessibility to Hong Kong and Macau, Guangzhou serves as the political, economic, scientific, educational and cultural center in Guangdong area.

Being one of the first several cities benefited from China’s Reforming and Opening Up policy, Guangzhou’s urban construction has been developing at a fast rate since 1978. Urbanization area increased from 136 square hectometers in 1980 to 286.6 square hectometers.

According to an investigation in 2005, there are 139 urban villages in Guangzhou. The areas of these 139 urban villages account for 20.9% of Guangzhou’s total area. And they can be divided into two categories: Firstly, they are urban villages within
the prosperous urban area without any existing farmlands; the others are urban villages located in the suburban areas and the outskirt of Guangzhou city. (Annual Report on Guangzhou’s Urban Construction, 2010)

Commonly, the layout forms of these urban villages are cluster, ribbon, circularity and scatter. The urban villages of ribbon forms are often laid out along the river or some important roadways, while the ones of circularity form and scatter form are laid out along some hilly topography or natural ponds. Most of the urban villages exist in clusters and groups.

4.1 Two Types of the Existing Urban Villages

4.11 In the Downtown Guangzhou Surrounded by Urban Development

A survey of Guangzhou’s urban village shows that, there are almost 110 urban villages that are situated within 15 kilometer of downtown Guangzhou. And there are 13 urban villages that are just located in the downtown area. These 13 urban villages ′s villagers have already changed their main income source from farming to commercial and residential rent. Located in the more prosperous areas, these urban villages infrastructures are connected with the municipal drainage system and other municipal supply system such as water, gas and electricity, but they are constructed by the urban villagers themselves without any city planning guidance, so the roadway system are usually not well connected with the urban road network. More
than often, they are more unsafe areas within the city because of the difficulties of floating population control (C.Y Jim, 2006).

4.12 In the Suburban Area

The urban sprawling promotes the construction of suburban areas of Guangzhou, making those villages around the metropolitan more involved in the city’s land management. Until now, there have been 28 original villages and 20 towns newly included in the Guangzhou city district, with an area of 101 square kilometers. But the landscape of these new suburban areas is still inharmonious to their urban context. They may still contain some farmlands and old types of residential housings with small plots for poultry or livestock cultivation. And in most of these areas, public facilities have not been completely set up yet, including the municipal drainage system, sanitary system, roadway system and greening system.

4.2 The Numbers and Distribution of Urban Villages in Guangzhou

Guangzhou consists of 10 districts (See Figure 4-1), including Yuexiu district, Tianhe district, Liwan district, Haizhu district, Baiyun district, Huangpu district, Fangcun district, Luogang district, Panyu district and Nansha district. Among these districts,
According to a GIS study executed by Doctor Jun-fu Li (Li, 2003) who is a researcher in this field, the numbers and distribution of urban villages in Guangzhou are shown as below: (Chart 4-1/4-2)
Chart 4-1:

<table>
<thead>
<tr>
<th>City</th>
<th>Guangzhou</th>
</tr>
</thead>
<tbody>
<tr>
<td>The number of urban villages</td>
<td>139</td>
</tr>
<tr>
<td>The area of urban villages</td>
<td>12.57</td>
</tr>
<tr>
<td>The percentage of total urban area (%)</td>
<td>4.7</td>
</tr>
<tr>
<td>Percentage of urban housing land (%)</td>
<td>15</td>
</tr>
<tr>
<td>The population (million)</td>
<td>1.2</td>
</tr>
</tbody>
</table>

Chart 4-2

<table>
<thead>
<tr>
<th>Numbers of Urban Village</th>
<th>Baiyun district</th>
<th>Tianhe district</th>
<th>Haizhu district</th>
<th>Fangcun district</th>
<th>Huangpu district</th>
<th>Liwan district</th>
<th>Sum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>55</td>
<td>28</td>
<td>20</td>
<td>17</td>
<td>16</td>
<td>3</td>
<td>139</td>
</tr>
</tbody>
</table>

In Tianhe and Baiyun districts, there are 83 urban villages which accounts for 60% of the sum in Guangzhou, because they are two of the most important developed areas for Guangzhou in 1980s. Fast construction in 1980s accelerated the forming of those urban villages, leaving these unsolved urban problems for now. Although
these urban villages are currently so-called “villages”, they have absolutely no features of farming community.

4.3 Characters of the Urban Villages in Guangzhou

As the leftover spots in the contemporary urban space, the urban villages in Guangzhou also own their distinct characters compared to other new development.

4.31 From the Aspect of Overall City’s Planning and Landscape

From the aspect of Overall City’s Planning and landscape, the urban villages have their characters as below:

1, Urban villages are scattered throughout all administrative districts of Guangzhou. Though they are not evenly laid out in Guangzhou city, they can be found in every district of Guangzhou.

2, The density of urban villages is usually extremely high. In order to have more rental space, the original buildings were extruded into mini skyscrapers. There are seldom open and green space in these areas, almost everywhere is occupied by housings. The most common situation is the “handshake” street profile, a tiny distance of about 50 centimeters between two facing balconies. People living in such
rental apartments have difficulties to protect their own privacy and are always bothered by the crowd and crowd surrounding.

3, Urban villages are often isolated from the new urban development. Without the city planning, their pathways, streets, lanes and even main entries are improperly connected or unconnected with the city roadway system.

4, From the bird’s view of city, urban texture of urban village is unique in its region, because its extremely high density and low architectural height make a big contrast to its surrounding high rise buildings with a larger building interval.

5, Large numbers of the housing in urban villages are in dangerous condition, because they are built by the urban villagers themselves in order to maximize the living areas. So most of those structures are without professional design and have unsafe structures and building materials.

6, Usually in these urban villages, people have already ignored historical structures or landmark of the previous village. And there are no conservation and maintenance of these valuable spots and structures.

**4.32 From the Citizen’s Impression towards Urban Village**
From the aspect of the citizen’s Impression towards Urban Village, the urban villages are often considered as what is described below:

1, The density of the buildings gives people the impression of being rooted everywhere. It blocks out the sunlight, and renders everything vaguer and more intimate. Even during the daytime, walking through some streets or lanes inside most urban villages make people feel like in the evening.

2, Bad lighting and chaotic layout of streets cause people difficulties to navigate. Any turn could lead to a dead end, to a trash heap, someone’s living room. Besides, there are often no signage of street or lane names that can assist the sense of direction.

3, The disorder of housings and streets with the poor sanitation, of course, leads to the chaotic environment and landscape. A disproportionate number of shops such as mobile phones, internet cafes, copy and fax shops, telecom shops are usually along those tiny pathways. More often than not, there are streams of dark, contaminated water on the tiny pathways and trash hanging from the electric wire.

4, The living population in urban villages are usually poor migrant workers. The urban villages are probably the only places in the downtown Guangzhou with low rent. The difficulties of floating population management and chaotic space lead to many criminal malfeasance.
5. The Rehabilitation of Urban Village in Guangzhou

In the past, urban villages in Guangzhou had been considered as the isolated areas in the overall city planning because of their private property ownership. As the city continually develops, their isolation does not get any improvement. In the recent decade, their existences started to interrupt the overall planning and development of Guangzhou city, which become one big concern of Guangzhou’s overall planning and development. So Guangzhou government has begun a lot of efforts to eliminate such obstacles in the overall city’s development.

On the other hand, seeking good ways to redevelop the urban villages also requires better understanding of the overall development strategy of the Guangzhou city, since they are inseparable parts of the Guangzhou city.

5.1 The Planning and Development Strategy of Guangzhou City
The Guangzhou Urban Planning Bureau launched the strategic development plan program to formulate the long term development strategy. On the first stage of research, consultation was made among 5 leading universities and planning institutes around the country. Urban ecological environment was one of the three key themes of research required by the municipal government. The second stage of the research was an integration of the consultation documents by the bureau and finalizing a governmental document as Comprehensive Strategic Development Plan. The plan put forward the strategic objective that by establishing a natural ecosystem well balanced with the urban construction system, and forming an urban and rural ecological safety pattern, a favorable circulation of urban and rural ecology will be achieved to promote the co-existence of the city and the nature, facilitate the city’s sustainable development, ultimately lay solid foundation to turn Guangzhou into a beautiful eco-city most suitable for business, inhabitation and living. The plan emphasized mountain, city, farmland and sea as four physical features of the city and put forward the framework of a regional Annular Eco-Corridor and the other Eco-Corridors are developed to create a hierarchy of ecological structural system. (Annual Report on Guangzhou’s Urban Construction, 2010)

5.2 The Redevelopment Strategy of Guangzhou’s Urban Villages

From 2001, Guangzhou government started a project to reclaim all the urban villages in order to eliminate the invisible boundary between these urban villages
and their urban context. The Guangzhou government plans to reclaim all these urban villages in three phases (Figure 5-1).

![Guangzhou's District Map](image)

**Figure 5-1 Guangzhou’s Planning Concept**

The first phase is to use 5 billion CNY to reclaim seven selected urban villages from 2001, such as San-yuan-li village and Shi-pai village. By rehabilitating these seven
urban villages in different ways, Guangzhou government is looking for practical experience for future redevelopment projects.

The second phase is to complete all the rehabilitation project of urban villages that are situated in downtown Guangzhou with average per-capita cultivated land less than 66 square meters. And this phase is estimated to be finished in 2 to 3 years.

By 2010, Guangzhou will finish all rehabilitation projects of 139 urban villages in the third phase.

5.21 The Current Applied Ways of Redeveloping Urban Village in Guangzhou

Different from general financing mode in which market orients the urban villages’ redevelopment or reconstruction, the most general principle Guangzhou government applied is “who will benefit, who should invest”. Financing is dominated by the village collective and villagers, municipal and district governments subsidy some respectively. Real estate developers are not allowed to finance. Specifically, construction capital is composed of four parts: investment of collectively owned economy, villagers’ investment, preferential loan from bank and district government subsidy. Municipal government supports with preferential policies and investment for public infrastructure.
Considering that reclaiming the property from the urban villagers for redevelopment may make them lose their main income--rent, Guangzhou government also handles the compensation fee differently. Municipal government establishes an organization named Asset and Found Consultation and Management Center, whose function is to provide advice on asset management and the use of compensation fees. In detail, a stock company which is transformed from the village’s collectively owned company first analyzes its employment demand and the business line, then provides technology and knowledge training to villagers accordingly, and allocates the bonus of the company and employment opportunity according to the training achievement. Through this mechanism, the government set an incentive that helps villagers to study employment skills and induce them to take an occupation.

5.22 Current Rehabilitation Methods

Currently, Guangzhou’s rehabilitation project of urban village generally destructs the whole site and redevelops it for new purposes. From the chart below, we can see the redevelopment methods and targets for the first 7 selected urban villages (Chart 5-1) in the recent 10 years (Cai, 2006).
<table>
<thead>
<tr>
<th>Selected Village</th>
<th>Urban Village</th>
<th>Rehabilitation method</th>
<th>Redevelopment Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Li-jiao Village</td>
<td>Demolition of the whole site; New construction</td>
<td>A mixed-use district of residence, business, office and entertainment</td>
<td></td>
</tr>
<tr>
<td>Tang-xi Village</td>
<td>Demolition of the whole site; New construction</td>
<td>A mixed-use district of residence, municipal service and office and public facility</td>
<td></td>
</tr>
<tr>
<td>Shi-pai Village</td>
<td>Retain two high rise apartment buildings in other areas for villagers’ compensation Demolition of the whole site; New construction</td>
<td>No decision currently</td>
<td></td>
</tr>
<tr>
<td>Cha-long Village</td>
<td>Demolition of the whole site</td>
<td>No decision currently</td>
<td></td>
</tr>
<tr>
<td>Village</td>
<td>Demolition</td>
<td>Reclamation Method</td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------------</td>
<td>-------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Cha-jiao Village</td>
<td>Demolition of the whole site; New construction</td>
<td>A mixed-use district of residence and commerce</td>
<td></td>
</tr>
<tr>
<td>Bi-gang Village</td>
<td>Demolition of the whole site; New construction</td>
<td>New residence development</td>
<td></td>
</tr>
<tr>
<td>San-yuan-li Village</td>
<td>Demolition of the whole site; New construction</td>
<td>A mixed-use district of tourism and commerce</td>
<td></td>
</tr>
</tbody>
</table>

Although the redevelopment targets and purposes differ, the reclamation methods are the same—total destruction and complete rebuilding.

### 5.3 Problems Caused by Current Rehabilitation Methods

Compared to other cities, Guangzhou’s redevelopment of urban villages is more government dominated. Government first obtains the legal right of developing land.
by paying the collective owners enough compensation, then frames a compulsive specific plan to set targets such as infrastructure, greenbelt, development intensity, and transfer the right to developers through bidding. One advantage of this way is the efficient control on infrastructure and development intensity.

However, government’s incentive is still limited in leading the whole redevelopment target, because of the policy of ‘who will benefit, who should invest’. In reality, Guangzhou government cannot afford the fund to launch the whole rehabilitation project, so the investment of collectively owned economy and villagers’ investment are the main sources and have a great influence in leading the project’s outcome. In order to guarantee the investors’ benefit, most rehabilitation projects have to consider more financial profits. That is why in the first 7 selected rehabilitation projects of urban villages, they are all redeveloped as valuable commercial districts to maximize their future income.

The other problem caused by this rehabilitation mode is that, it is difficult to consider a rehabilitation project completely from the overall city planning’s perspective and from a long term sustainable development’s aspect, because the government’s incentive is not dominant and it has to take care of the will of other investors.

5.4 Guangzhou’s City Density and Need for Green Open Space
Guangzhou is a high-density city. The chart below shows a census in 2008:(Chart 5-2)( Guangzhou Statistical Yearbook, 2008 )

Chart 5-2:

<table>
<thead>
<tr>
<th>Name</th>
<th>Population (2008 est.)</th>
<th>Area (km²)</th>
<th>Density (/km²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Guangzhou</td>
<td>3,969,000</td>
<td>326</td>
<td>12,175</td>
</tr>
<tr>
<td>Yue-xiu District</td>
<td>1,163,000</td>
<td>33</td>
<td>35,242</td>
</tr>
<tr>
<td>Li-wan District</td>
<td>734,000</td>
<td>62</td>
<td>11,839</td>
</tr>
<tr>
<td>Hai-zhu District</td>
<td>923,000</td>
<td>90</td>
<td>10,256</td>
</tr>
<tr>
<td>Tian-he district</td>
<td>1,149,000</td>
<td>141</td>
<td>8,149</td>
</tr>
</tbody>
</table>

In such dense urban environment, green open spaces are still in great need. In recent years of Guangzhou’s summer time, in most central districts of Guangzhou, the outdoor temperature often reaches higher than 33 Celsius degrees, which is more than 91.4 Fahrenheit degrees. The cause for this severe change is the greenhouse effect and lack of greening in the urban built environment. Take Tian-he district as an example, for now, there is only one urban park called “Tian-he Park” serving as an open green space in this area for 1,149,000 people.
In 2006, C.Y Jim and Wendy Y explored more about the use of pattern and behavior of urban green spaces in Guangzhou city by using questionnaire. The questionnaire gleaned data from face-to-face interviews of 340 respondents in the 18–70 age groups living in 34 residential street blocks selected by clustered sampling. Some results are presented as follows: First, Guangzhou residents actively used urban green spaces, accompanied mainly by family members. Secondly, parks were the first venues for families in Guangzhou. Furthermore, visitation is mainly induced by accessibility, followed by high green coverage and quality of the ambience. Finally, small and low-quality sites near homes are not popular and the surrounding residents’ privacy must be considered. Such summaries for Guangzhou’s urban park do not only show the existing situation but also suggest the idea for an increase of green design in this compact city (C.Y.Jim, 2006).

In order to improve the living environment and achieve the target of “Guangzhou Garden City”, according to the Bureau of Urban Utilities and Landscaping, since 2003, Guangzhou has undertaken a series of forestation and grass planting projects on the streets, on the roofs, by the water, etc. About 160 parks among the total of 191, including almost all new ones, have opened to the public for free (Annual Report on Guangzhou’s Urban Construction, 2010).

Currently, Guangzhou has reached a green ratio of 44.4%. Compared to Singapore as a “Garden City” with a green ratio of 50%, this number is comparably high. But in reality, such high green ratio does not benefit the citizens in Guangzhou’s
metropolitan area, because those old developed districts in central Guangzhou such as Yue-xiu, Li-wan, Hai-zhu, Tian-e have a high building density and not enough open spaces left for turning into green spaces. Moreover, most of new developed green spaces are developed around the suburban areas or new developed districts.

5.5 The Need of a Disaster-proof Sheltering Space in Guangzhou’s Urban Core

As the planning of Guangzhou, so far, has paid little attention to the long-term preventive mechanisms for urban disasters. Though Guangzhou is not an earthquake-prone city in history, in such a dense city, it is still having serve problems of flooding during the typhoon period, or probable fire sprawl because of the high density of buildings.

Currently, Guangzhou’s disaster-proof solution only focuses on individual building’s fire-proof design and utilizing basement of each building as disaster shelter. But the safety of cities can be attained not only by safety of individual buildings but also by safety of spaces formed by surrounding buildings.

To make the over-crowded and over-sprawled city safe from those possible disasters, disaster-proof open space should be considered from a city-planning’s
According to a research, a safety zone or disaster shelter in a city must have an area of more than 0.5 square kilometers (50 hectares) to ensure the safety of the people in the shelter. In normal times, these open spaces can serve as public plaza or urban park for the citizens.

5.6 Alternative Proposal of Transforming the Urban Village into an Urban Park

In fact, some researchers and city planners have realized and suggested the opportunities for utilizing the urban villages in the compact urban built environment to enhance the green ratio and provide more public open space to the citizens.

In 2004, Zhao-xian Xi published “Utilizing the Natural Advantages of Urban Village for Improving City’s Ecosystem”, which mainly discusses the current developing strategies and public policies for reclaiming urban villages from the aspect of city environment improvement. In this research, Zhao-xian Xi summarized the mainstream of the current developing strategies for reclaiming urban village as below: First, some of the local governments apply the method of reclaiming the urban village as part of the city’s public buildings such as gymnasium or theatre;
Secondly, most of the policies are inclined to develop the lands of urban village as new residential districts to address some of the villagers’ dwelling problems while selling part of them to public; moreover, some of the local governments transfer of the property to the real estate developer and usually the lands are finally turned into new commercial and residential uses based on market demand. In this analysis of existing public policies, the lack of consideration for city environment improvement is exposed. The author advocated that the natural advantages of the urban villages within a city should be well utilized and incorporated into the whole city ecosystem and natural environment. Because the existing urban villages are usually the only areas within the city's urban core that are more rural or natural with some remaining natural features such as fish ponds or farmlands, these remaining features can be maintained and the reclaimed urban village can be turned into a green patch to improve the overall city’s built environment. Zhao-xian Xi also furthers his discussion by researching the feasibility of the changes of current redevelopment policies based on the existing social and economic situation in China. He suggested that the mode for redeveloping those urban villages as the role of a resort within urban core or an urban park can be practically applied (Zhao, 2004).

In 2008, Zheng-ju and Wen-xue’s article “Problems of Reclaiming Urban Village and Corresponding Design Strategies” also analyzed the trend for redeveloping urban village and suggested that the changes in corresponding public policies should be made. Firstly, they explained all the related problems of current urban village’s
revitalization project, such as the high density caused by the new development on the site of urban village. Based on such situation, the authors discuss some new modes for redeveloping the urban villages. Among these redeveloping modes, the one most related to urban planning issue is to keep the balance of city's land use by redeveloping existing urban villages according to the requirement of the entire city's development plan not only based on the market strategy. They promoted the ideas that the changes of public policies must evaluate and optimize those lands’ value within one city, and then utilize such opportunities to improve the overall city environment. For example, turning the urban village into green space can not only relieve the stress of overcrowded urban space but also raise the land’s value around it by the improved landscape and public recreational facilities (Zheng, 2008).

On the other hand, transforming the urban village into urban park also match the long term development strategy of Guangzhou city, which is considering every possibility to make the city greener. Without a doubt, in most central areas of Guangzhou where every piece of land has been occupied by buildings, as the only leftover areas, urban villages could be a suitable spot to improve the current dense environment.

In other cities in China, there were one or two successful precedents of turning the urban village into an urban park. For instance, in Chongqing city where its local
government is planning to rehabilitate 61 urban villages within 3 years, the urban village of “Shi-zi Mountain” has been successfully transformed into a sports and leisure park of 93,072 square meters. And it will be free open to the public. The Chongqing government intends to increase the surrounding land and real estate value as well as providing a green open space to this compact city. And in fact, the surrounding land value did increase more than 400 million which could possibly balance the estimate a cost of 350 million CNY for this big rehabilitation project.

In Beijing, “De-sheng Park” was also constructed on the land of a previous overbuilt urban village which is surrounded by Beijing’s important circular expressway—North 2 Circular expressway. After a demolition of 30,000 square meters of dilapidated and unsafe structures, a lot of native plants were planted to form a 50,000 square meters of green space, greatly improved the surrounding built environment.

5.7 The Comparison of Transforming the Urban Village into an Urban Park and the Current Rehabilitation Methods

Compared to general redevelopment seeking for maximum and instant commercial value return, transforming the urban village into an urban park is pursuing
long-term benefits from an overall city’s angle, especially in a compact city such as Guangzhou.

1. It can enhance the green ratio of the city;  
2. More green space can help reduce environmental pollution;  
3. It can serve as disaster-proof sheltering space in case of need;  
4. It can lower the density of the compact urban environment;  
5. The urban villagers’ living problems can be addressed by relocation to other parts of the city which could balance the city land use, creating a diverse living environment;  
6. A new urban park or public green space can improve the living environment of its surrounding community;  
7. It is easier to protect and preserve some existing historical architecture and landscape in the redevelopment;  
8. It can increase the land value for a larger district and for a longer time;  
9. It can provide more options of recreational or leisure venues for citizens;  
10. It can be a memorial site for reminding citizens of the urban village during the city's development history and attracting tourism.
6 Design Exploration
—by Using the Shi-pai Village as an Example

This phase consists of the development of an urban park design concept for Shi-pai village, which is the largest urban village in Guangzhou. By taking this urban village as an example, this creative project is exploring alternative design opportunities and ways for transforming urban villages into green open space to achieve Guangzhou’s development goal as a greener city. Project tasks include researching the Shi-pai village, developing a design concept of an urban park based on the research.

6.1 The Study of Shi-pai Village

Shi-pai village is a typical urban village with a 720-year history in Guangzhou. Guangzhou government selected Shi-pai village as one of the first 7 villages to be the demonstration rehabilitation projects. And the government has already arranged
two high rise apartment buildings in the most valuable district of Guangzhou for villagers’ resettlement. Because the resettlement problems have been addressed, this case study provides more chances for a redevelopment proposal (Figure 6-1).

6.11 The Site Description of Shi-pai Village

During 1910s-1920s, Shi-pai village had cultivated land of 3,199,680 square meters and a total area of 14,000,000 square meters. Today, it shrinks to less than 1,000,000 square meters and no longer has any cultivation features.
It is located in Tian-he district, where it is the most prosperous and dense area of central Guangzhou (Figure 6-2). The area of the village ranges from Shi-pai Road E. to Shi-pai Road West; from Tian-he Road in the north to Huang-pu Avenue in the south. The village is surrounded by tall buildings and busy commercial streets. There are many shopping and entertaining centers as well as several institutions of higher education such as Ji-nan University, South China University of Technology nearby (Figure 6-3).

Figure 6-2 Site Map of Shi-pai Village
Figure 6-3 Digital modeling of Shi-pai Village
6.12 The History and Cultural Background of Shi-pai Village

Early history of Shi-pai Village can be traced back to Song Dynasty of China. In 1273, ancestor Dong and his family migrated to where the village locates today. Later on, it was developed into a small hamlet called "Tong Village". With the population growth, Dong’s descendants moved to higher land. Then, descendants of surname Chi who had originally lived on that high land for nearly 100 years moved to the north-eastern side. Gradually, two places of Tung and Chi merged into one and finally during the Ming Dynasty (1465-1487), the name of the hamlet was changed as "Miao Bian kang" (Shipai Village from Wikipedia, 2011).

After a century of development, people of different surnames (Tung, Chi, Pan, Chen) from different places around "Miao Bian Kang" maintained close tie with each other, and made a small hamlet into a big village. As it continues growing, it turned into what we call Shi-pai village nowadays (Figure 6-4).
Figure 6- 4 The Comparison of Urban Texture of Shi-pai Village in 1980 and 2010
6.13 The Current Situation of Shi-pai Village

By 1996, all the private ownerships of the land in Shi-pai village have been transferred to the collectively owned company of Shi-pai village, which allocate the common bonus of this village to the villagers. And around 1990s, after all the cultivated land’s ownership has been transferred, villagers started to earn their extra income from leasing their housings. By this way, they can earn about 60 to 70 thousands Yuan per year plus the bonus from collectively owned company of Shi-pai village.

Because there are a lot of leasing properties in this village, the market competition makes the landlord try to maintain a low rent. And their leasing properties become the first choice for those migrant workers who want to rent cheaper rooms in the central Guangzhou. So the landlord does not care about what kind of the leasing apartments they provide, since most of the migrant workers do not care about the poor living conditions of Shi-pai village, and they just want to live closer to their working places with an affordable rent. At the same time, in order to increase their income, the landlord started to add up living areas to their housings, proving more leasing space. Continuing maximizing the building areas worsen the living environment. And that is why the village’s circumstance goes into a vicious cycle (Chart 6-1).
According to census in 2000, Shi-pai village has native villagers of 9,181 people and 3,139 native households with the migrant tenants of 42 thousands (Hu,2002). During the 1994 to 2000, the migrant tenants increased 4 times (Figure 6-5). The most recent survey in 2008 showed that, 30% of the villagers are permanent residents while 70% are temporary residents. Most of these temporary residents are migrant workers with an income less than 1,000 CNY per month, which is comparably low in China (Shipai, Gov, 2010).

There is a popular saying that if you do not get anything missed or stolen in Shi-pai village, it means that you have never really lived in this place. And since 1999, there have been 6 murder cases that happened within Shi-pai village. It has been considered as an unsafe area in Guangzhou, and the current villagers are the underprivileged groups in the society.
Figure 6-5 Four Developing Phases of Shi-pai Village
6.14 The Landscape of Current Shi-pai Village

6.141 Crowed Environment

In a survey of 2002, there were 3,384 leasing buildings within 700,000 square meters of Shi-pai village. The number of leasing apartments was 11,492. Living density is extremely high. Every piece of land is occupied by multi-story dwelling houses and it is supported by 170 narrow alleys between these buildings are often less than 1.5 meter (5 feet), through which automobiles cannot go. So residents have to rely on pedestrian routes inside the village, and use public transportation outside the village. Because of the narrow lanes, fire hazards are everywhere and there's little chance for fire trucks to get close. Apparently, in such dense environment, no public greening is possible inside the village (Figure 6-6).

Figure 6-6 Crowed living Condition of Shi-pai Village
6.142 Bad lighting and Poor Circulation

The outskirts of this urban village are more urbanized than the central part where the architecture cluster is denser and messier. Many buildings stand right beside each other with only a gap less than 0.3 meter (1 foot). Even on daytime, it is too dark to walk along these lanes. Many lanes inside are dead ended and the whole circulation pattern is out of order and very confusing. No name labeling and street lighting exists which makes it difficult for visitors to find the addresses when they get into this huge “maze”. This area is considered as semi-isolated from the city traffic network (Figure 6-7).

Figure 6-7 Bad Lighting of Shi-pai Village’s lane

6.143 Bad Sanitation and Chaotic Building Facade
Buildings in Shi-pai village are erected without planning guidance and professional architectural design. Many building facades show the concrete or brick structure without exterior veneer. Electricity wires are overhead everywhere and trash are hanging from the wires.

Because people from all walks of life live here, a variety of services are available along the lanes inside the village such as restaurants of different kinds, barbers’ shops, sauna, make-up, clinics. So along these tiny lanes, there are all types of shop fronts and building appearances with various types of billboards.

Along those tiny lanes inside the village, trash heap and streams of dark, contaminated water are everywhere, making the chaotic streets more unattractive. Especially in summer time, the stinky smell even disturbs the surrounding neighborhood (Figure 6-8).

Figure 6-8 Hanging Electricity Wires of Shi-pai Village’s lane
Though Shi-pai village has a long history, a lot of its historical structures show lack of restoration and many have disappeared during urbanization (Figure 6-9). The record of Shi-pai village historic structure shows the current situation below: (Chart 6-2)

**Chart 6-2**

<table>
<thead>
<tr>
<th>Type of Historic Structures</th>
<th>Original Number</th>
<th>Current Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clan Temple</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Temple</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>Shrine</td>
<td>2994</td>
<td>1877</td>
</tr>
</tbody>
</table>

There are other cultural relics like stone sculptures and tablets. The representations in stone sculptures are all carved animals (turtle, lion, hound, horse), which have a history of 500 years to 700 years and are regarded by villagers as treasures that can bring peace and tranquility to the village. It is alleged that the name “Shi-pai” was derived from these stone sculptures. But currently, they are almost ignored by the residents and no actions taken to protect and maintain them.
6.2 Goals and Objective

The purpose of the design for this project is to identify the design opportunities to transform Shi-pai village into an urban park, while respecting and reflecting the site’s historic and cultural features. The following objectives are established to guide the development of the design concept:

1. Recreation and Education

Figure 6-9 Unprotected Historical Structures in Shi-pai Village
a. Provide suitable recreational and resting facilities in this urban park to meet the potential users’ need;

b. Provide educational meaning of sustainability to the general public through the design;

c. Utilize design to indicate the transformation of urban village in memory of this unique part of city’s development history;

2. Sustainability & Green Design

a. Increase greening on site to improve the dense surrounding;

b. Design this urban park using sustainable design principles, including green materials and design methods;

c. Reclaim part of the derelict structures on site and creatively incorporate them into new design to reduce demolition and reconstruction;

d. Retain the existing natural features on site;

3. Cultural and Historic Identity

a. Preserve and reflect the historic and cultural features of the site;

b. Use new design elements to demonstrate the site historic characteristics.
6.3 Master Plan Development

6.3.1 Inventory and Site Analysis of Shi-pai Village

Site inventory and analysis are summarized in Figure 6-10 through Figure 6-16.

- General Characteristics

Almost every piece of the land on site has been occupied by individual buildings, except in the central part and the western side of site. Lanes in between individual buildings are very often less than 1.5 meter wide with dead ends. There is an existing pond along the Shi-pai West Road (Figure 6-10).

Figure 6-10 Bird View of Shi-pai Village
• Broken Urban Context

Compared to the surrounding urban context, the Shi-pai village seems unharmonic because of its broken urban texture. Individual buildings and lanes are in an unusual small scale (Figure 6-11).
Figure 6-11 Analysis of Urban Context and Texture
Figure 6-12 Analysis of Land Use
• Land Use

Land use on the area surrounding the project site is mainly residential. Commercial uses primarily lays out along the main streets. There is a university campus in the eastern side of the site (Figure 6-12).

• Circulation and Access

The civic roadway and street system is broken when it approaches the site, because the circulation network within Shi-pai village is chaotic. As a result, the site becomes a huge block without pedestrian friendliness (Figure 6-13).

• Historical Features

Though a lot of historical structures on site have not been restored and disappeared, there are still a lot of valuable historical structures that need maintenance and conservation (Figure 6-14).
Figure 6-13 Analysis of Discontinue Surrounding Roadway System
Figure 6-14 Analysis of Historical Structure on Site
• Natural Features

The existing big trees in the central and western part of the site can be considered for retention. There is an artificial pond along the Shi-pai West Road with some simple recreational structures, providing a small plot of green field for existing villagers (Figure 6-15).

• Cultural Features

Studying the cultural background of the site, the site can be divided into four main areas distributed into four clan families. The western part of the existing properties belongs to clan Pan, and the northern and eastern part of the properties belongs to clan Chi. Clan Xian occupies the northeast corner while the clan Dong’s properties are located mainly in the south (Figure 6-16).
Figure 6-15 Analysis of Historical and Natural Features on Site
Figure 6-16 Analysis of Clan Property
6.32  Design Opportunities & Consideration

Design opportunities are graphically described in Figure 6-17 through Figure 6-18. In summary, these opportunities are as follows: (Figure 6-17/6-18)

1. Urban context
   • Create connection and harmony with the surrounding environment

2. Site program
   • Provide rest and recreational facilities for the potential users
   • Consider suitable greening design
   • Design convenient and suitable accessibility to the park
   • Design clear traffic and pedestrian circulation
   • Provide enough parking space
   • Offer multifunctional spaces by utilizing the existing structures

3. Sustainability
   • Provide sustainability demonstration throughout the design
   • Reduce demolition

4. Cultural and Historic Feature
• Preserve historic and cultural design elements
• Incorporate historic and cultural feature into design

5. Interpretation of Cultural Features

• Indicate the clan stories in design scheme
CREATE A GREEN OPEN SPACE IN A DENSE URBAN ENVIRONMENT

RESTRUCTURE THE VEHICULAR AND PEDESTRIAN CIRCULATION NETWORK

RETAIN THE IMPORTANT HISTORICAL STRUCTURES AND NATURAL FEATURES

CONNECT ALL THE RETAINED HISTORICAL AND NATURAL NODES BY THE PROPOSED VISITING ROUTE AND LANDSCAPE AXES

SITE ANALYSIS & OPPORTUNITIES

Figure 6-17 Site Analysis and Design Opportunities 1
Figure 6-18 Site Analysis and Design Opportunities 2
6.4 Master Plan Concept

The concept for the urban park master plan (See Figure 6-19 through Figure 6-33) was based on incorporating the retained historical and natural features into design scheme and designing the urban park by the footprint of existing buildings.

1. Application of footprints of existing structures as design element

In this design concept, the footprints of existing structures are applied in design pattern of paving, planting and structuring. By keeping all the footprint of removal structures and retaining some existing structures, the design is telling the unique history of Shi-pai village, which is a memorial of this unique phenomenon in Guangzhou’s urbanization history.

2. Maintenance of all important historical and natural features

All the existing historical structures are retained and proposed as the important landscape nodes in the design. Two east-west horizontal landscape axis and one north-south axis string those important landscape nodes together, while other proposed pedestrian pathways traverse along those preserved historical gateways or ancestral halls. These roadway and pathway networks do not only make up a
systematic visiting routing system but also reconstruct the city's circulation system by connecting those broken roadways and streets together.

All the proposed landscape nodes are highlighted by circular planting design and unique paving pattern. The existing recreational center and stage are retained and redesigned as the most important landscape node on site. By using the same design element of circle, water feature surrounds the recreational center and stage, forming a recreational plaza in the central part of the site. Existing trees along the stage are also kept in the plaza. The existing pond on the western side of the site is remained and reshaped in this new design, which accents the west entry access on the Shi-pai West Road.

3. Design cascading garden by reclaiming the existing structures

And all the proposed streets and pathways form somehow a grid system, dividing the site into 20 small blocks. In each of these small blocks, some of the existing buildings which are not near the proposed pathways and landscape nodes are retained and reclaimed. By filling the special gaps in between individual buildings and adding connection between buildings horizontally and vertically, these individual buildings are transformed into larger architectural space, which can provide more flexible uses, such as retailing, dinning, art gallery or entertainment.
Green roof and green wall system are applied in these reclaimed architectural complexes.

Some earth-covered structures and land forms in the shape of the footprint of existing structures gradually rise from the pathways and landscape nodes to different roof levels of reclaimed structures. In this way, it forms cascading vertical gardens in each individual block. Visitors can access the green roofs of the reclaimed architectural complex by those earth-covered structures and land forms and enjoy a good view of those proposed landscape nodes on site.

4. Indication of the clan history in design

Based on the analysis of four clans’ property division, in this design, different colors of paving and planting materials are proposed to indicate the original boundaries. In this way, it also enriches the landscape design effects.
Figure 6-19 Master Plan of Shi-pai Village Urban Park
Figure 6-20 Design Analysis of Master Plan
Figure 6-21 Spacial Analysis of Design Concept Part 1
Figure 6-22 Spacial Analysis of Design Concept Part 2

Forming Enclosed Space as Landscape Node
Connecting Landscape Node

Preserve Historical Structures
Utilized Retained Structures as Visual Focus in each Landscape Node

Utilizing Vegetation as Landscape Nodes’ Interface
Figure 6-23 Reclamation Method of Existing Structure

- Renovate the existing buildings and improve the lighting and natural ventilation by adding curtain walls.
- Infill spatial gap between individual buildings.
- Apply green roof.
- Apply green wall.
- Transform the individual buildings into a big architectural space.
Figure 6-24 Bird’S Eye View of Shi-pai Urban Village Park 01
Figure 6-25 Bird'S Eye View of Shi-pai Urban Village Park 02
Figure 6-26 Aerial Perspective of Shi-pai Urban Village Park
Showing Volumetric Character of Site
Figure 6-27  A-A Section (Referred to Figure 6-19 Site Plan)
Figure 6-28  B-B Section (Referred to Figure 6-19 Site Plan)
Figure 6-29 Perspective of Proposed Central landscape Node of Shi-pai Urban Village
Figure 6-30 Perspective of Proposed Treatment of Shi-pai Urban Village 01
Figure 6-31 Perspective of Proposed Treatment of Shi-pai Urban Village 02
Figure 6-32 Perspective of Proposed Treatment of Shi-pai Urban Village

03
Figure 6-33 Perspective of Proposed Treatment of Shi-pai Urban Village 04
7. Conclusions

This study examined opportunities for transforming the urban village into an urban park in Guangzhou. It was completed in five phases.

1. Research
The first phase of this study explored the different concepts and landscape performances of “urban village” in China and western countries. And some creative rehabilitation methods for urban villages were explored by taking three different case studies.

2. Developing a Program
The second phase was introducing the current situation of urban village in Guangzhou. Studying on the type, number, character of the urban village, it demonstrates the necessities for reclaiming the urban villages.

3. A Concept
The third phase examined the current rehabilitation method for urban village in Guangzhou. Based on the research of Guangzhou’s city development strategy and negative effects brought by the current rehabilitation methods, it states an alternative rehabilitation method—transforming the urban village into an urban park, to maximize the green ratio of city and improve the city’s living environment.

4. Design Implementation

The fourth phase is taking the Shi-pai village in Guangzhou as a case study to explore the design method for transforming the urban village into an urban park. A layered design strategy is developed for Shi-pai village, with the final result being a master plan for a new urban park. Four strategies have been applied in this case.

5. The Master Plan

The first one is the application of footprints of existing structures as design element, which allows the history to leave its trace on the site and tells the story. But the footprint of the existing structures is not simply incorporated into design by maintaining and reclaiming the existing structures but also shaping the paving and planting pattern.

The second strategy is trying all the valuable historical and natural features on site. Those retained historical structures and vegetation or pond are proposed as the highlighted landscape nodes along the designed visiting route. The new designed
pathway system goes through all these proposed landscape nodes and reconstructs the city roadway system, which brings convenience for the surrounding community.

The third strategy is to create the cascading garden by utilizing the reclaimed structures. Those fragmentary living spaces are united and transformed into a big architectural space, which is more flexible for multi-function. By using green roof and green wall design, these reclaimed buildings with the proposed landforms form a cascading green platform for pedestrians.

The final strategy is telling the clan stories by indicating the clan property division in the design. Different colors of paving and planting materials in four different parts of the site are used as metaphors for the clan history.

This project provides an uncommon solution to the rehabilitation project of urban village in Guangzhou. By transforming the urban village into an urban park, this creative project provides an alternative design method for sustainability, which will benefit the citizens more from a long-term view.
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