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***A Research on the Transformation of Urban Form
And Dynamics of Xiguan Area, Guangzhou***

Abstract

This paper mainly uses the method of Urban Morphology to study the transformation process of urban form of Xiguan historical district in Guangzhou, P.R.China. The paper tries to analyze the transformation process through studying the background of politics, economy, society, culture and natural condition of Xiguan area. It further discusses the structural feature and transformation rule, as well as analyzes the hidden dynamics.

Considering time as the main factor, the paper mainly focuses on two aspects—form elements and dynamics, trying to study the relation between each other. The paper aims at concluding the overall transformation feature and rule of Xiguan area and bringing up some perspectives on the protection and continuity of traditional urban fabric and culture in the process of urban renewal.

The body of this paper is organized through tracing the transformation of urban form in different periods of time. First, to study the foundation of form transformation through demonstrating the construction background of Xiguan area before Qing Dynasty; Second, to discuss separately the form feature of Qing Dynasty, the period of the Republic of China and the period after the foundation of New China. The form feature is mainly analyzed in several aspects as the street feature, property plot, building type, land use and street space; Finally, to summarize the transformation

rule on the basis of overall analysis of transformation feature of Xiguan area, and then to conclude the main dynamics of form transformation, as well as to discuss the practical significance for the protection of Xiguan historical district and urban renewal.

Key Words: Guangzhou Xiguan; Urban Form; Transformation; Dynamics

1. Introduction

1.1 Location and Range of Research

Xiguan refers to the area in Liwan District ranging from Xicun in the north and the Pearl River in the south, to Renmin Road in the east and Xiaobei River in the west, which also generally meant the area outside the west city gate of Guangzhou in Ming and Qing Dynasties. Xiguan was divided into Upper Xiguan and Lower Xiguan areas, the former being on the higher terrain whereas the latter on the lower terrain.

The research mainly discusses about the region enclosed by Zhongshan 8th Road, Zhongshan 7th Road, Renmin Elevated Road, Yanjiang West Road, 623 Road and Huangsha Avenue. (Figure 1) Shamian area is not included in this paper because of its colonial background, which has totally different street feature, property plot, building type and land use from the traditional urban fabric.

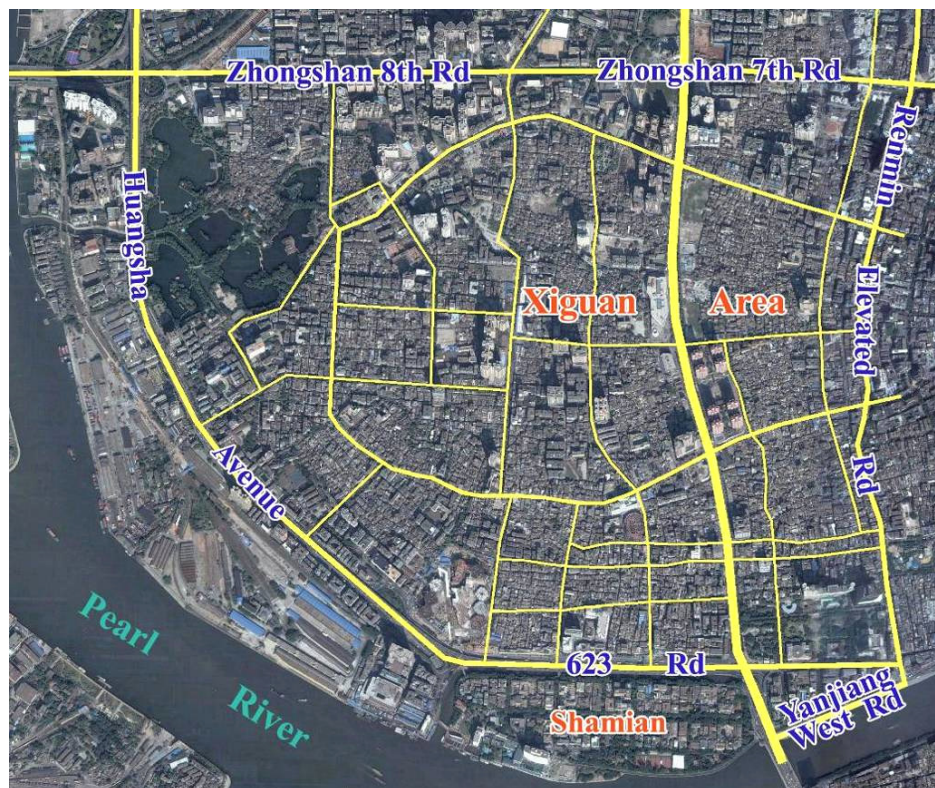


Figure 1 Range of study area

1.2 Geographic Strength

Xiguan area has a superior location with massive fertile plain—Xiguan Plain. It's located in the center of Guangzhou waterway, the dense rivers have become a great strength for the development along the Pearl River. (Figure 2) Xiguan area developed from the swamp plain into land after Song Dynasty (1000 years ago). Xiguan River and Daguan River were ditched in Ming Dynasty. Many docks and ferries were located here since ancient times.

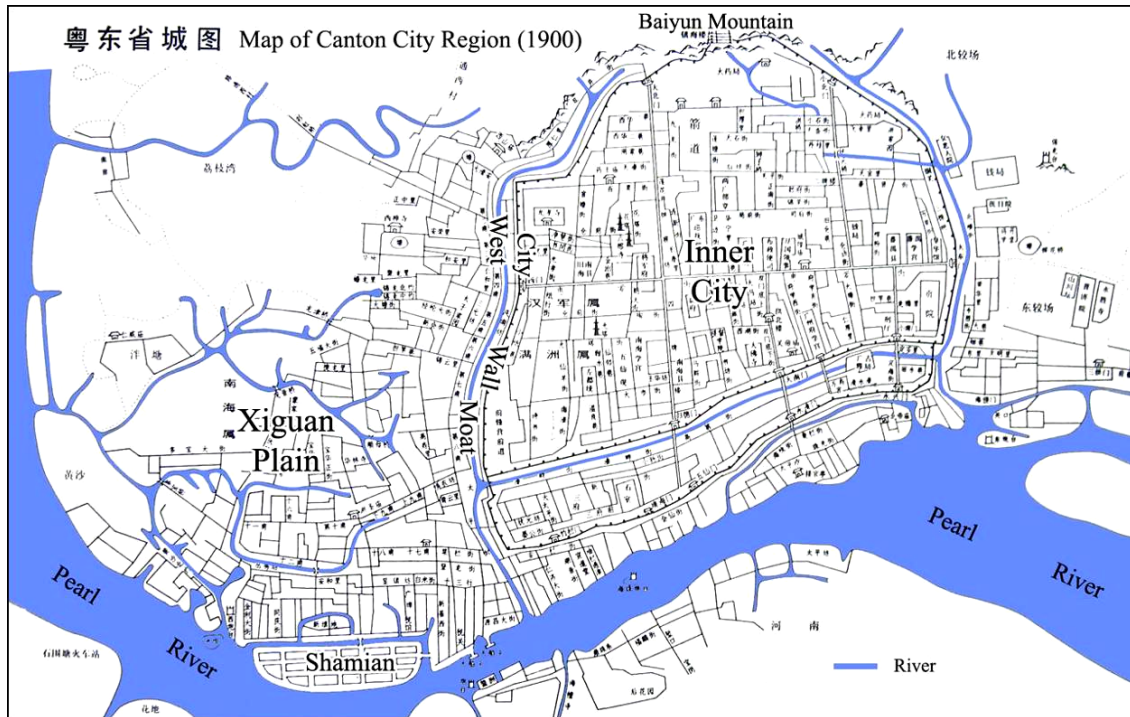


Figure 2 Location and geographic feature of Xiguan area in 1900

Because of the eastward development of Guangzhou, and some objective limits such as the restricted height of the Baiyun Airport, Xiguan area has become one of the historical districts with least changes and most preservation of traditional culture and relics.

1.3 Urban Development Feature before Qing Dynasty

According to the map of Guangzhou City Region Transformation, Xiguan area was outside the city wall before Qing Dynasty. It was not part of Guangzhou city until the demolition of city wall and the construction of roads in late Qing Dynasty.

In Ming Dynasty, eighteen commercial streets (Shi Ba Pu) were built along the Daguan River and the West River, which created the original commercial-centered urban form. There were 3-4 major roads in the east-west direction and some in the north-south direction.

2. Urban Form Transformation of Xiguan Area in Qing Dynasty (1644~1911)

2.1 Background

In Ming and Qing Dynasty, Guangzhou old downtown couldn't meet the requirement for economic and social development. The boundary of Baiyun Mountain to the north and the Pearl River to the south made Xiguan area an ideal location for textile factories and human settlement. In 1757, the government closed Min, Zhe and Jiang Customs, leaving Yue Customs in Guangzhou the only one in the country for foreign trade. Shisan Hang was established in 1686 and was in charge of the foreign trade affairs.

2.2 Feature of Urban Construction

In the late Qing Dynasty, most of Xiguan area has become the commercial and trading center because of its geographic advantage and adjacent to the commercial and colonial area. The economic development promoted the construction of residential districts, following an integrated type of urban form with mixed land use of both residential and commercial functions.

Meanwhile, foreign settlement accumulated in Shisan Hang area, all these houses were facing the Pearl River, with wharfs at the end of the streets. The establishment of the Yue Customs and the Shisan Hang foreign trade district stimulated the development of ancient foreign trade of Guangzhou.

2.3 Original Feature of Urban Form Framework

2.3.1 The Division of Urban Form Regions

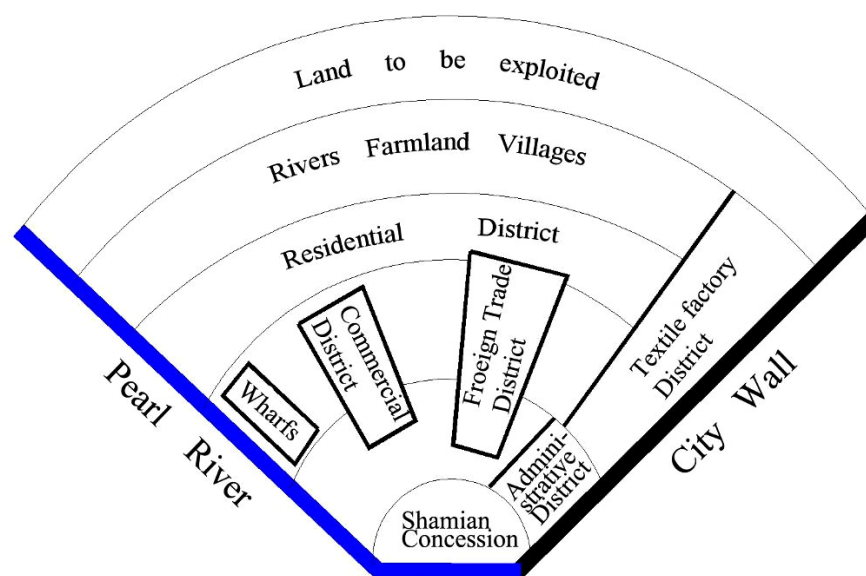


Figure 3 The division of urban form regions in late Qing Dynasty

In this period, Xiguan area can be divided into four districts according to different functions: textile factory district in the northeast; high-quality residential district in the northwest; commercial district along rivers in the middle and the Shisan Hang foreign trade district along the Pearl River in the southeast. (Figure 3)

2.3.2 Street System Formation

The road network in Qing Dynasty shows different characteristics because of the unbalanced development and spontaneous expansion. (Figure 4) In the high-quality residential district (Figure 5), roads are much wider and more regular with a gridiron road network structure; In the textile factory district, the situation is more complex with a lot of narrow and disconnected roads; In the riverfront district, most roads are densely distributed parallel or perpendicular to the Pearl River. (Figure 6) By comparison, the present road network in Xiguan area has remained the form framework in Qing Dynasty, proving that the road network is the most stable unit in urban form framework and the base for the research of urban form transformation.



Figure 4 The relationship between picture and base of Xiguan in Qing Dynasty



Figure 5 Street feature of high-quality residential district in Qing Dynasty



Figure 6 Street features of textile factory and Shisan Hang foreign trade districts in Qing Dynasty

2.3.3 The Transformation of the Pearl River Riverbank

The area to the south of Shisan Hang was reclaimed from the Pearl River for the construction of foreign settlement and wharfs. Nowadays, the narrowest width of the Pearl River is only 180 meters in this area. Many densely-distributed streets which are perpendicular to the Pearl River could be identified in the historical maps in Qing Dynasty, such as the major road between Shisan Hang and the Pearl River in 1777. (Figure 7) This kind of transformation of the riverfront space is the evidence of the recession of the Pearl River in Qing Dynasty. This changed the relationship between water system and urban development.

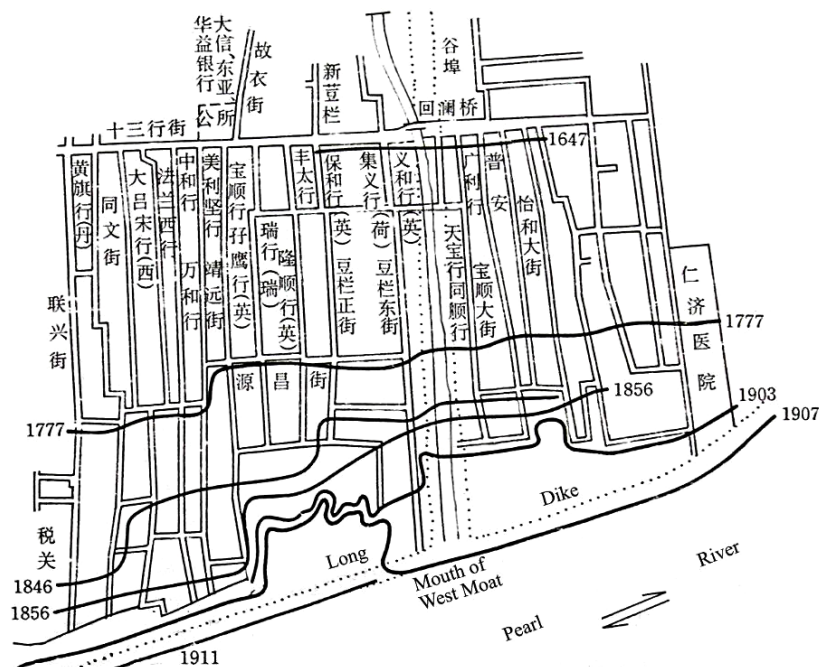


Figure 7 Riverbank transformations of Shisan Hang and west moat mouth area

2.4 Urban Form Feature in Typical Regions

(Case Study of the Commercial-Residential District in Xiguan Area)

2.4.1 Street Feature

The street system of Xiguan area maintains the traditional pattern of most Chinese feudal cities. The structure is an overlay of big planned blocks and small spontaneous streets. The major roads are far and scattered, the distance of a shorter side of a block is between 250~500m while about 500m of the longer side. More roads spread in the east-west direction to meet the requirement of drainage to southeast. The width is 4~5m of the major roads and less than 4m of the secondary roads. The drainage ditches below the center of the major roads are covered with long granite.

2.4.2 Property Plot

In the feudalistic society, the characteristic of urban economy is to carry on the production and the operative activity with the family as its unit. Therefore, the property plot of the individual shops has the same size with the original residential area. With the development of roadside economic activity, most plots of roadside shops could only develop to the depth direction under the dual pressure of limited roadside land and soaring price. These land plots assume the long and narrow shape, with narrow side along the street. Each unit arranges crowded, presenting the characteristic of “small, dense and plenty”. (Figure 8)



Figure 8 Urban form of commercial-residential district along Yaohua Street

The land price not only affects the length of the plot, but also has certain influence on its depth and the ratio. Take the plot along the Wenchang North Road as an example, the width of the shops on both sides of the road is only 2~3m, the depth is narrow, the width versus depth ratio is 1:1~1:2 (Figure 9); the internal Yaohua avenue area is a completely remained, high-quality Xiguan Mansion neighborhood. The plane pattern is similar to the traditional “bamboo tube house”, the width is 4~5m, the depth is very large, many are 15~30m, the width versus depth ratio is 1:4~1:6 (Figure 10), the housing floor area of Xiguan Mansion is usually 120~180m². The layout of the plots is mainly the two-row “back to back” pattern with one narrow side facing the street. This kind of combination enables a high efficiency of land use while satisfying the need for ventilation and natural lighting, it’s the most economical and reasonable type.

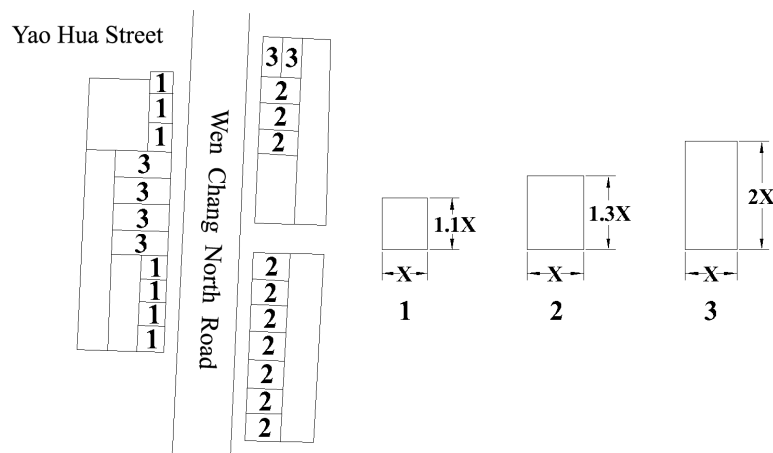


Figure 9 Width versus depth ratio of commercial plots along Wenchang North Road

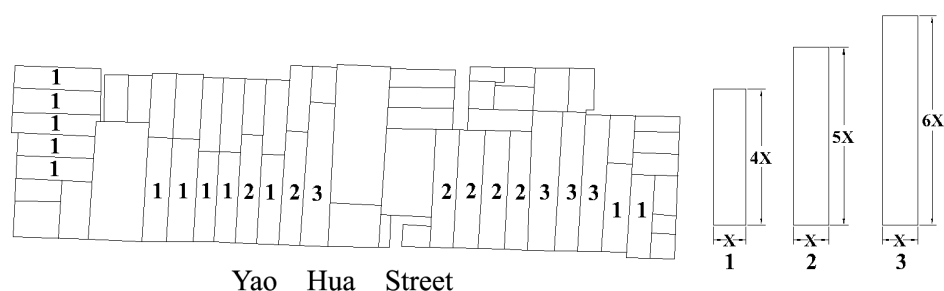


Figure 10 Width versus depth ratio of Xiguan Mansion along Yaohua Street

2.4.3 Building Type

Xiguan Mansion is a representative type of architecture which was developed in this period. It used to be residences for merchants and officials. The plane layout is a series of rooms of the porch, entrance hall, middle hall, main hall, the first chamber room, the second hall and the second chamber room. These are connected by

corridors, gardens, and yards. Its interior decoration adopts exquisite wood carvings, screens and typical Manzhou windows. On both sides of the mansion, there are corridors which are called “Qingyun Corridor”. Besides, the facade absorbs both the Chinese and Western decorating style. (Figure 11)

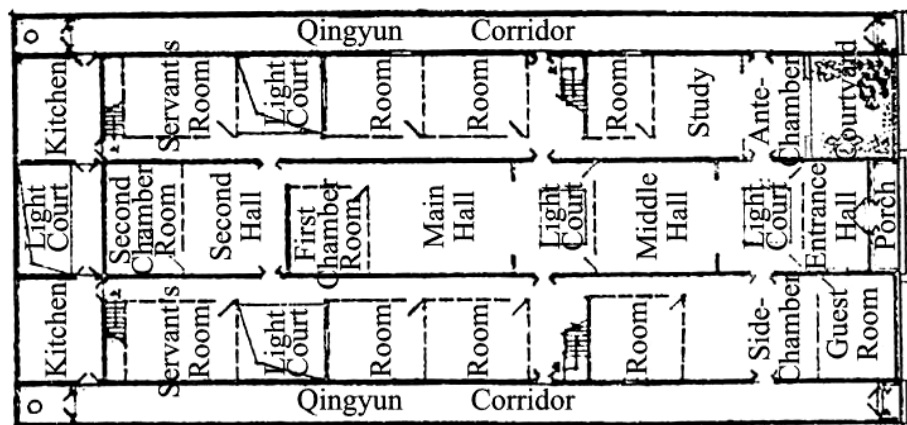


Figure 11 Plan of Xiguan Mansion

2.4.4 Land Use

The land use of the Xiguan area is the same with the traditional old downtown. Different kinds of workshops agglomerated primarily with a belt-shaped linear layout, both sides of the shops arrange crowded along the major street, indicating a parallel growth tendency. The residences are constructed compactly, the commercial land and the residential land are highly integrated. The limited land resource and expensive land price both intensify the development process, leading to the formation of a dense commercial-residential community with narrow space between houses.

2.4.5 Street Space

The streets and lanes in the residential area in Xiguan which were developed in Qing Dynasty are narrow, generally the avenues are 4~5m in width and the lanes are 4m in width, some even are only 2m. The traditional residences on both sides of the lanes have mainly 2~3 floors, the space is cramped. Along with the transportation development, the pedestrian lanes are no longer appropriate for urban development for the demand of traffic and serious fire risk. The commercial function in internal lanes also gradually declined, shifting to the exterior main streets. From the construction situation of the roads in the periods of the Republic of China and the following new China, those wider roads (such as the 6.2m Baohua avenue, 5m Yaohua avenue) and the high-quality traditional residences on both sides have been

retained completely. (Figure 12) On the other hand, the relatively narrow lanes have been greatly changed for road construction and urban renewal, the traditional urban fabric and form is much easier to change in these areas.



Figure 12 Pictures of street space in high-quality residential district

2.5 Dynamics

1) The push of textile industry and commercial trade development

There are two types of proprietors of the residences, one of which are the industrialists and businessmen who manage the textile industry. They usually buy the land on the west of their factories and start to build houses when they become rich. Another kind is the compradors of foreign business companies. They work in the region of Shisan Hang along the Pearl River and build houses for settlement.

2) The influence of western urban planning and architectural style

Guangzhou took the lead to face the environment which new and old architecture coexisted, Chinese and Western culture blended. The traditional architectural style was affected by the Western culture, such as the Western facade of Xiguan Mansion; The layout of Shisan Hang residences also present obvious Western style, reflecting the Western thought of “the function principle”; The adjoining Shamian Concession is constructed with neat road network and the greenbelt according to the European traditional planning. The advanced planning mode and Western architectural style exert great influence on the construction of Xiguan area, especially the design of the dike road along the Pearl River. (Figure 13)

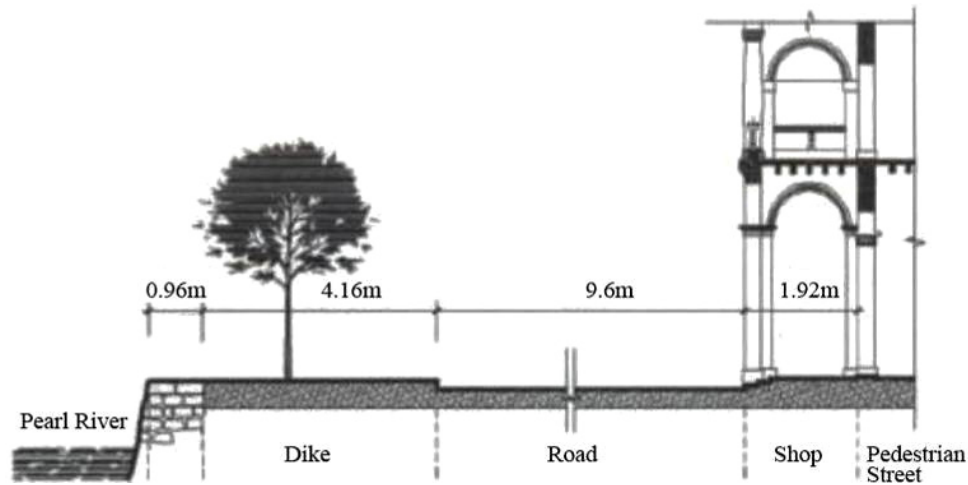


Figure 13 Section design of dike road along the Pearl River
by Zhang zhidong in Qing Dynasty

3) The influence of natural and geographic conditions

Xiguan area used to have plenty of farmland before Qing Dynasty with dense rivers. The formation of the streets and lanes is more or less related to the rivers and dikes, therefore the streets and lanes are developed parallel to the river, showing the feature of curve and various directions, resulting in the anomalous fragmental neighborhood.

As a result of the prosperous shipping of the Pearl River, the development of Xiguan area maintains a corresponding direction with the Pearl River. Therefore, roads in the east-west direction have a higher density and more convenient connections. In contrast, in the north-south direction, roads are relatively less, many of which are perpendicular to the Pearl River. On the one hand, this kind of arrangement can enhance the convenience of the Pearl River shipping; on the other hand, it improves the urban climate.

3. The Transformation of Urban Form in Xiguan Area in the Period of the Republic of China (1912~1949)

3.1 Background

At the beginning of the Republic of China, Guangzhou demolished the city wall around the west gate, and then Xiguan became a part of Guangzhou city officially. In 1918, Guangzhou established the Municipal Administration, in charge of pulling down the city wall for road construction, the road system in historical urban area obtained great improvement. After the foundation of the Municipal Administration, the political

situation is stable. The government carried on the metropolis reconstruction campaign and organized comprehensive arcade construction.

3.2 Feature of Urban Construction

The Guangzhou old city wall was demolished in this period. The bricks of the city wall were then used for road construction and drainage system. Before the transformation, the streets and alleys are curving and narrow without drainage facility, so that Xiguan area suffered from serious flooding when it met heavy precipitation. In order to adapt to commercial and industrial development, roads were broadened or constructed and surface structure was improved in Xiguan area.

Arcade construction was accompanied with city wall demolishment and road construction, the purpose is to control the set-backs from property lines for the smooth of the pedestrian system. The general procedure is: broaden roads- pull down old houses- pave pedestrian streets- build arcades; or broaden roads- pull down old houses- build arcades -pave pedestrian streets.

In the aspect of housing construction, traditional residential form remains while large scale of Western style of modern residential communities were introduced, appearing the characteristic of multi culture and collage.

3.3 Urban Form Feature in Typical Regions (Case Study of the Arcade Streets)

3.3.1 Street Feature

Before Haizhu Bridge was constructed in 1933, the spatial structure of Guangzhou was extending in east-west direction, which explains why the circular arcade constructed in this period was also spreading horizontally. Besides, this way of layout is beneficial for the daylight and ventilation. The purpose of the arcade construction is to facilitate the transportation by separating the pedestrian and vehicles. It is considered as an efficient way to release the traffic pressure.

3.3.2 Property Plot

The property of arcades belongs to private individuals, but it functions as streets for public use. This kind of feature of both private property and public facility is very obscure and unique. There are 3 kinds of layout of plot arrangement in the depth zone of arcades. (Figure 14)

- 1) Single row with both sides facing the street

Both sides of the plot are facing the street, with its width arranged along the street. This kind of layout is good for daylight and ventilation, but has deficiency in efficient land use.

2) Double rows with both sides arranged back to back

Only one side of the plot is facing the street, with its width arranged along the street. This kind of layout is not only good for daylight and ventilation but also makes the best of land use. Therefore, it's the most economical, reasonable and general layout.

3) Three rows arranged back to back

The major drawback is the middle plot has no side facing the street, so it has limited daylight and ventilation, the living quality is relatively bad, but with the highest efficiency.



Figure 14 Layout of plot arrangement of arcades in the depth zone of Enning Road

3.3.3 Building Style

The arcade, namely "Qilou" is a typical type of architecture in Guangzhou which became popular in the early 1930s. The arcade was developed from the traditional Cantonese residential buildings, namely the "Bamboo Tube House (Zhutong Wu)". Therefore, the Qilou buildings are usually narrow and long, with the outside walls richly decorated. The side facing the street generally follows a three-part model: the lowest part is the pillars supporting the arcade; the middle part is comprised of the main building and the highest part is usually made up of the end sprout of eaves gutter. It represents a blend of Chinese and Western architectural styles. (Figure 15)

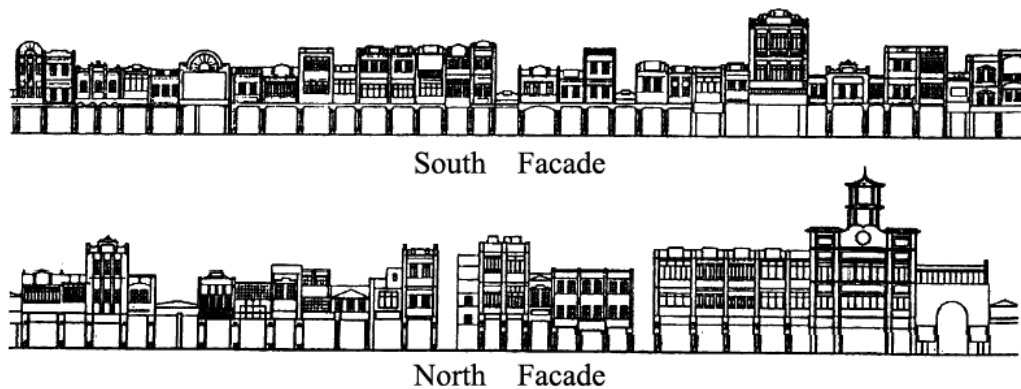


Figure 15 Facades of arcade commercial pedestrian streets in Shang Xia Jiu

3.3.4 Land Use

Most arcades in Guangzhou are used for both commercial and residential purposes. It usually has three or four stories, with a protruding structure, or arcade, stretching above from the second storey over the sidewalk. These arcades are linked together by the side of the street, forming a shaded corridor, which keeps the shops along the sidewalk and the pedestrians safe from the scorching sun and rain. (Figure 16) Some arcades last for as long as several hundreds of meters.

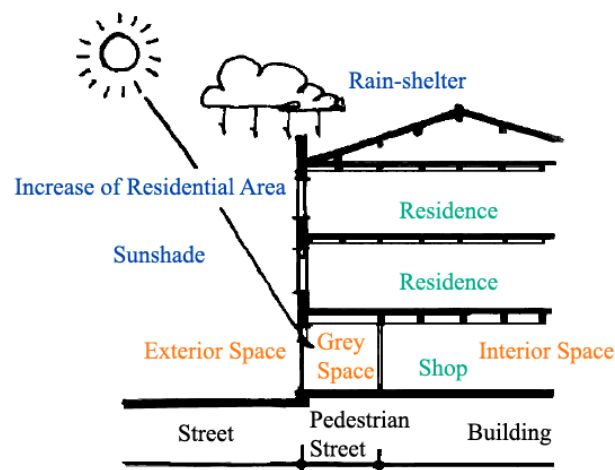


Figure 16 Section and functions of traditional arcade streets

3.3.5 Street Space

The average storey height of the arcade is 4~5m. The width is usually 3~5m, while as wide as 6m. It has a big depth, like 10~20m, some even can reach 30~50m. Take the street space of Enning Road Arcade as an example (Figure 17), the boundary line of the road is 18m, so the width of the road is 12m after excluding the distance of pedestrian streets on both sides. Most arcade buildings along the road have 2~3 stories. The street width versus building height ratio (D/H) is between 0.7~1.2, which can create a pleasant and moderate street space. (Figure 18)



Figure 17 Arcade street network and residential form along Enning Road

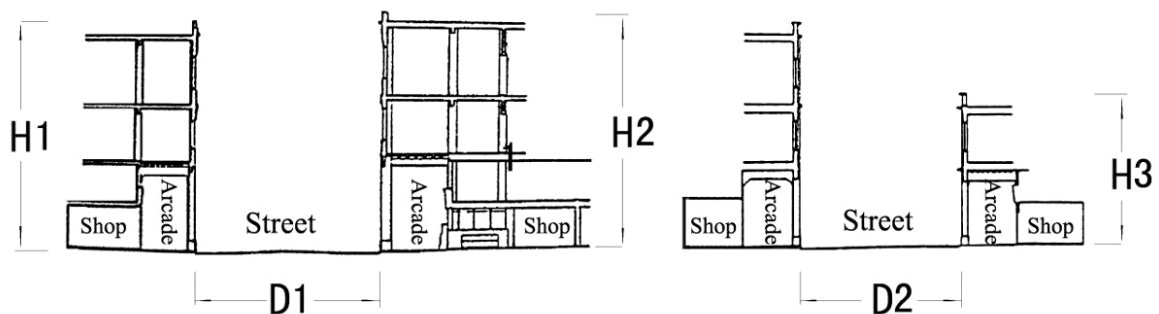


Figure 18 Sections of arcade streets along Enning Road

3.4 Dynamics

1) Compulsory municipal reform strategy

The first professional institute of urban planning was established in Guangzhou in 1928. At that time, the old city center is a complex region with mixed land use. The

planning aims at turning Xiguan area a pure commercial and residential district by moving industrial function out. These measures greatly changed the tradition of bottom-up and spontaneous development.

2) Accumulation effect of commercial streets

The relationship of the width of arcade and the intensity of commercial development is somehow a direct ratio. The most developed streets are always accompanied with wider arcade streets. The accumulated effect of the arcades is one of the major reasons for the prosperous economic development.

3) Factors of nature and environment

The hot and humid weather in Guangzhou is an objective factor for the emergence of arcade buildings. According to some designs, the arcades are usually built more than 5m of height, it can meet the requirement of interior daylight. The space can create a kind of micro-climate in an ecological way, which can bring the effect of lowering the temperature through convection in the courtyard.

4. Urban Form Transformation of Xiguan Area since the Foundation of P.R.China (1949~Present)

4.1 Feature of Urban Construction

4.1.1 Real Estate Projects in Urban Renewal Process

In 1980s, a large amount of immigrants settled down in Xiguan area, far beyond the bearing capacity of the traditional buildings. The buildings and space form was damaged, and the equipped facilities are insufficient. Since the end of 1980s, the urban renewal is combined with large scale of real estate projects.

The planning was guided by the thought of high density, high intensity and high-rises in this period. Based on that, several high-rises residential buildings and commercial facilities were constructed in the historical region of Xiguan area during this period. The direct consequence is the lost of traditional urban fabric and space form.

4.1.2 The Influences of New Types of Transportation on Urban Form

The location of Xiguan area is very convenient for internal and external transportation. The inner ring road built in 1999 makes Xiguan area a convenient west gate for Guangzhou waterway.

The construction of elevated roads destroyed the integrity of the traditional image of the old town. In 1987, Renmin Elevated Road and 623 Elevated Road were constructed in order to solve the congestion problem of Guangzhou. The road is 7890m in length, the first longest elevated road in China, leading to the complete damage of the arcade buildings on both sides. (Figure 19)



Figure 19 Comparison of urban form before and after the construction of 623 Road

In recent years, new types of transportation have greatly influenced the direction of urban form transformation. The rail rapid transit brings new opportunity and motive force to the old town. The major influences are the stimulation of land exploitation along the traffic route and the change of population distribution. The metro network enhances the accessibility of Xiguan area, following large scale of real estate projects along the metro lines, the property of land use changes from the traditional residences to scattered high-rises for both commercial and residential functions. Two aspects could be considered for the influences of metro. On one hand, it releases the traffic pressure to some extent and brings vitality for economic revival as well; On the other hand, it accelerates the transformation speed of urban fabric and form, such as the reintegration of plots and change of land property along the route of metro, etc.

4.2 Dynamics

1) The restriction of political strategies

Urban form transformation in each stage can more or less indicate the influence of the predominant political power, especially in the aspect of housing construction. Before 1949, the property for most land in Guangzhou belongs to individuals. After the land reform, the property of land was transferred to the country.

2) The attraction of transportation development

The accessibility of transportation can influence the spatial distribution of land price and the location feature for different functions. The construction of new types of transportation is not only about the demolition of old buildings and the construction of new ones, it's actually an adjustment process of urban land use, economic and social elements. The general rule is that old industrial factories and warehouses are gradually replaced by commercial and residential projects for more interests. This kind of transformation accelerates the process of reconstructing industrial structure and space form. In the meantime, urban form is developing vertically which enriches the urban skyline.

3) The push of urban renewal

In the process of urbanization, Xiguan area is confronted with serious problems as overpopulation, traffic congestion, deteriorating living conditions and increasing investment cost. The initial problem for the sustainable development is the renewal of dangerous old buildings. However, because of the advantages of location and cultural environment, land exploitation is always implemented in the direction of high density and high FSI, aiming at increasing the intensity in one unit of land. Developers are more inclined to exploit those plots with less buildings and higher land value.

5. The Overall Analysis of Urban Form Transformation in Xiguan Area

5.1 Generalized Feature of Urban Form Framework

5.1.1 Road Network Pattern

The present road network pattern is the combination of ring road with grid system. It retains the road framework which was developed in Qing Dynasty. The circular arcade is well preserved, and the main roads in east-west direction are parallel to the Pearl River while those in south-north direction are perpendicular to the Pearl River. The roads developed on the basis of rivers and dikes are narrow and winding, presenting a free road system pattern.

5.1.2 Land Use

Commercial development and foreign trade are the initial dynamics for urban construction in Xiguan area, so the feature of urban form is closely related to the commercial development, the commercial-residential mode of urban land use is typical even in present situation. Up to now, most streets and lanes in Xiguan area are still presenting a traditional residential pattern with low stories and high density. Because of the limit of urban land, the layout of traditional blocks applies a compact structure, buildings are closely arranged with small width along the streets and big depth.

The residential form in Xiguan area is kind of collage of various types, which is a mixture of massive low-rise traditional residences, multi-storey and high-rise residential communities. Traditional residences occupy most blocks for the long history, large distribution and high density. After the foundation of the P.R.China, a large number of multi-storey residences were built separately along the roads. Since 1990s, along with the development of the transportation, high-rise gated communities were built along the main roads, appearing the feature of scattered distribution, while the number is relatively small.

5.1.3 Architectural Style

The current architecture form in Xiguan area is a combination of Chinese and Western architectural style. In the urban form framework, architectural style is the most flexible element which can develop along with time, such as the traditional Xiguan Mansion, the Bamboo Tube House and the Arcade. Some Western style of commercial architecture was built along the West Dike Road for the influence of Shamian Concession.

5.2 The Transformation Tendency of Urban Form Framework

5.2.1 The change of Road Network

For the need of transportation improvement and urban development, since the foundation of the Republic of China, the government conducted several road constructions on the basis of the original road network formed in Qing Dynasty. The density of the road network has increased in south-north direction, while the disconnected roads in east-west direction has been broadened and connected. The present road network is the pattern of the dual circles and grid system.

5.2.2 Land Use Change in Urban Form Structure

Among many elements in urban form framework, road network is the foundation and the most stable element in form structure, which could be easily maintained or partially transformed in the process of urban development. However, land use will change according to the social background and construction needs. Driven by the force of urban renewal and land interests, the trend of land use change is that increasing number of dangerous traditional residential land is replaced by modern high-rises with both commercial and residential functions. Most real estate projects are initiated from the intersection into interior land, the traditional street space and historical urban fabric are destroyed. Finally, the architectural style is the most flexible element, it shows multiple and abundant characteristics in different social and economic background. In conclusion, urban development is a process which new elements of urban form is keeping replacing former ones.

5.3 Function of Dynamics on Urban Form Transformation

Table 1 Summary of urban form feature and dynamics of Xiguan in different periods

Development Stage	Feature of Urban Form	Dynamics
Before Qing Dynasty	Huai Yuan Yi; Prosperous commercial development	Geographic strength
Qing Dynasty (1644~1911)	Textile factory district	Stimulated by textile business
	High-quality residential district	Exploited by businessmen
	Foreign trade district	Geographic strength; Priority of foreign trade
	Traditional commercial district	Continuity of history
The Republic of China (1912~1937)	Construction of arcade commercial center	Requirement of traffic and economic development
	Western style of architecture	Influence of Shamian
Period of War (1938~1949)	Urban form is partially destroyed	Destroyed by war
Stable Development (1950~1978)	Development of industrial and residential districts	Planned economy; Policy
After Reform and Opening-up Policy (1979~Present)	Construction of scattered high-rises; Transformation of traditional dangerous houses; Urban renewal projects	Market economy; Improvement of living quality; Conservation of historical urban fabric

The feature of urban form transformation in Xiguan area reflects the special requirements of society, politics, economy, culture, natural elements and urban planning in different periods. Among these dynamics, natural strength is the base for development; stable political environment is the foundation; economic development is the driving force; urban social structure is closely related to the transformation; multiple cultures are reflected in various aspects; urban planning plays the role of controlling and conducting the direction of transformation.

6. Conclusion

This paper tries to analyze the dynamics of urban form transformation by using the methodology of urban morphology. The purpose is not only to confirm the history afterward subsequently, more importantly is to discuss the guidance for future planning and urban construction. The form characteristic which inherits from the historical development is the most stable framework in the morphology research. The urban form in a certain area is more stable structured and adaptive if it retains more elements in the process of urban transformation. Compared with the integration process of urban blocks, the re-division process plays a decisive role in urban form transformation. Therefore, researchers should pay more attention to the newly built roads. Those newly built roads have a greater impact on the disorder of urban form, manifesting the irrationality of the original structure; On the contrary, less new roads could be the evidence of a more stable and adaptive urban form which brings a higher efficiency for municipal development.

Another purpose is to explore one model of “ideal urban form”. It’s related to the recognition of livable cities for the public. As for the urban renewal, the criteria lie in the conflict and integration of new architecture with traditional urban form elements in historical districts. It requests us to ponder how to reconstruct new urban framework while protecting traditional urban fabric. A sustainable, reasonable and optimal urban form requires urban planners to introduce more adaptive feature and exclude those with poor stability.

The feature of urban form in different periods of Xiguan area has continuity, while old urban form can be traced in a new form. The process of urban development is a procedure which new urban form elements continue to replace old ones. This kind of change reflects the demand of function and the relationship between form feature and its dynamics. According to this, the outcome of the urban form

researches could guild the practice of urban renewal to a sustainable and superior direction.

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