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Regeneration of Zhuangyuanfang
in Guangzhou Historic District
Based on Careful Urban Renewal

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Abstract

China's urban development has started to shift from rough growth to refined renewal of old cities, and exploring the renewal mode of old cities has become an important topic of urban development nowadays. The renewal of old cities is of great significance to the development of cities, as they are important carriers of the collective memory of cities, and their renewal has important economic, social, and cultural significance. Guangzhou has also experienced many explorations of old city models, from "three old renovation" to "micro-renovation", and has been exploring the problem of the old city's inventory of buildings, namely the contradiction between the decay of the old city's physical environment and the current demand. And the old city of Guangzhou is also facing the problem of transformation of the historical district.

In this context, this paper studies the old city renewal model of "Careful Urban Renewal" in Germany after the same major demolition and construction, and explores a "cautious" model applicable to the old city renewal of Guangzhou. First, this article analyzes and summarizes the development process of Careful Urban Renewal, analyzes the concept of Careful Urban Renewal from the period of demolition and construction to the new period of Careful Urban Renewal after the reunification of Germany, and compares it with the model of micro-renewal in terms of policy, funding source, organizational structure, public participation, and operation process, and analyzes the dilemma of domestic micro-renewal in terms of renewal mechanism, organizational structure, and public participation, as well as the implications of Careful Renewal in terms of renewal mechanisms. Secondly, the article analyzes the Kreuzberg and Spandauer Vorstadt areas that applied the concept of Careful Urban Renewal during the IBA period and after the reunification, and summarizes the spatial strategies from planning concepts to urban design through three levels: neighborhoods, buildings, and urban spatial catalysts. Further, the article analyzes the problems of Guangzhou's old city regeneration through the summary of Guangzhou's old city

development and two typical regeneration cases, analyzes the direction of Careful Urban Renewal for Guangzhou's old city regeneration, and formulates the strategy of Guangzhou's old city regeneration.

Finally, a typical historical district of Zhuangyuanfang in Guangzhou's old city is analyzed to verify the applicability of Guangzhou's old renewal strategy. Through the analysis of the current situation of the historic district of Zhuangyuanfang, it is concluded that there are problems such as the lack of public space, old infrastructure, and the lack of compatibility between the architectural style and the historic district in terms of physical space; there is a loss of historical characteristics in the human environment and the lack of positive interaction between the industry and the district. Based on the current problems, a "cautious" regeneration path is formulated for the historic district of Zhuangyuanfang: Clarify the role of funding policy, funding, and NGO organizational structure in each phase of renewal; cautious regeneration of public space; guidance for the regeneration of the existing of buildings; cultural catalysts in the neighborhood space; and lead public participation in the whole stage.

Keywords: Careful Urban Renewal; Historic District; Regeneration; Zhuangyuanfang

摘要

中国旧城的城市开始从粗放式增长转向精细化的旧城更新，探索旧城的更新模式成为了当下城市发展的重要议题。旧城的更新对于城市的发展具有重大的意义，旧城是城市集体记忆的重要空间载体，其更新具有重要的经济、社会和文化意义。广州也经历了多次的旧城模式的探索，从“三旧改造”到“微改造”，一直在探索旧城存量建筑的难题即老城物质环境衰败与现在需求的矛盾。并且广州老城也面临着历史街区的转型问题。

在此背景下，本文对德国同样经历过大拆大建之后走上的以“谨慎城市更新”的旧城更新模式进行研究，探索一条适用于广州老城更新的“谨慎”模式。首先，剖析总结谨慎城市更新的发展过程，分析从大拆大建的更新模式到 IBA 时期的谨慎城市更新的提出，再到两德统一之后新时期的谨慎更新的理念更新，并且与国内历史街区微更新的模式在政策、资金来源、组织构架、公众参与、操作流程进行对比，分析国内微更新的在更新机制、组织架构、公众参与等方面困境以及谨慎更新的在更新机制上的借鉴意义。其次，分析 IBA 时期和统一之后运用谨慎城市更新理念的科洛茨贝格和施潘道郊区，通过街区、建筑、城市空间触媒三个层次总结从规划理念到城市设计的空间策略。再次，通过对广州的旧城发展以及两个典型更新案例的总结分析广州旧城更新的问题，分析谨慎城市更新对广州旧城更新的借鉴方向，制定广州旧城更新的策略。

最后，对广州旧城区中典型的状元坊历史街区进行分析，验证广州旧更新策略的适用性。通过对状元坊历史街区进行现状分析，总结其物质空间上存在公共空间缺失、基础设施老旧、建筑风貌与历史街区不契合等问题；人文环境存在历史特色流失，业态缺乏与街区的良性互动。基于现状的问题制定出状元坊历史街区“谨慎”的再生路径：明确资政策、资金、NGO 组织架构在每个更新阶段的作用；谨慎地提升公共空间；存量建筑的引导提升；街区空间的文化触媒；引导公众的全阶段参与。

关键词：谨慎城市更新；历史街区；再生；状元坊

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Chapter 1 Introduction

1.1 Research Background

1.1.1 The Challenge of Renewing the Existing Buildings in Guangzhou's Old City

With 40 years of reform and opening up, China's urbanization level has been increasing, and the development mode of the city has stepped from large-scale development and construction to the renewing of the existing buildings. Guangzhou's urban renewal has been exploring the renewal methods of urban existing buildings from the transformation of old villages in 2000, to the "three old" reforming in 2009, and then to the urban micro-renovation in 2015. Guangzhou's old city still has problems with the direction of renewal, namely, the contradiction between the aging, deterioration and abandonment of old city buildings and the modern and diversified needs; the limited space of the old city and the needs of the residents' diverse space, etc.

1.1.2 Transformation Issues in Historic Districts

There are more historical districts in the old city of Guangzhou, which take on an important economic role in the original development pattern of the old city. However, the current development pattern of Guangzhou's new cities has to some degree impacted on the original traditional economic patterns of retail, commerce, and trade in the old city. Many historical districts in Guangzhou's old city are facing the problem of transformation. For example, Beijing Road, Shangxiajiu, Yongqingfang and other neighborhoods in Guangzhou, which have developed well in recent years, face the same problem of how to transform before the renewal and revitalization. There are also a large number of neighborhoods in Guangzhou's old city that have not been successfully transformed, trapped under the dual paradigm of history and modernity. For example, Zhuangyuanfang, Gaodi Street, Wuxianguan, etc., all face the same

problem of renewal revitalization and transformation of historical districts and are in urgent need of finding a suitable path.

1.2 Explanation of Related Concepts

1.2.1 Careful Urban Renewal

Careful Urban Renewal was first proposed as a new concept by Hardt-Waltherr Hämer in the 1980s to find new ways to update the city of Berlin with a view to being able to integrate complex legislative procedures in terms of content and form. Careful Urban Renewal is an imprecise translation of the German “Behutsame Stadterneuerung”, and a similar translation is Careful Urban Renewal, which expresses the type of meaning that intervenes in the process of urban renewal with careful, subtle, and soft means^[1].

The concept of “Careful Urban Renewal” mainly focuses on 12 principles, which were adopted by the Berlin House of Representatives in 1983 as guidelines for the city renewal. After the reunification of Berlin, Careful Urban Renewal was confronted with different urban problems, not only the need to renovate the city, but also with more complex social and financial problems. Therefore, based on the general measures of Careful Urban Renewal, the 12 principles were adapted to the actual situation to conform the development of the city.

Therefore, the concept of “Careful Urban Renewal” is to solve urban problems in old urban areas that cannot meet the functional needs of modern cities with a comprehensive and integrated vision and action, and to continuously improve the economic, natural, social, and environmental conditions of the area, so that it can be revived in all aspects and move on a sustainable development path^[2].

1.2.2 Historic District

The concept of "historic district" in this paper refers to "an area where a considerable number of historic buildings are concentrated within a relatively limited area^[3]". Ruan

Yisan (1999) defines a historic district as the only remaining area in a historic city with real life content and a certain scale, from which a more complete historical and traditional pattern and appearance can be seen^[4].

Generally speaking, the historic district has the following three characteristics: ① preserving a certain scale and number of historical buildings or structures, preserving a certain historical style; ② relatively complete spatial layout and road pattern, natural and humanistic environment and harmonious coexistence; ③ preserving relatively complete characteristic buildings, and the buildings coexist in synergy with landscapes and facilities^[5].

Therefore, the city's neighborhoods that are known for their strong historical and cultural atmosphere, which create a unique sense of place and identity, constitute an important part of the city's charm and vitality, and are not limited to the city's historic and cultural preservation neighborhoods.

1.2.3 Regeneration

The concept of "regeneration", originally referring to the phenomenon in which an organism's organs are partially lost due to trauma and the remaining parts are regenerated into a structure with the same form and function as the original, was later introduced into the field of architecture and defined by the American Advisory Council on Historic Preservation as "regeneration means restoring an asset to a usablemakes possible an efficient contemporary use"^[6].

In this article, the term "regeneration" of historical buildings is consistent with the meaning of "revitalization" in Taiwan, which mainly refers to the positive environmental, economic and technological impacts of the methods and results of reuse in the context of conservation, i.e., the purposeful and planned renovation, comprehensive use and redevelopment of buildings during their life cycle in accordance with social needs and the original social environment and historical and human characteristics. It is the purposeful and planned renovation, comprehensive use, and redevelopment of a

building during its life cycle according to social needs, considering the original social environment and historical and humanistic characteristics. It is based on function optimization, building renovation or function replacement, through the appropriate renovation, transformation, expansion, reconstruction, and other methods to continue its unique historical, architectural, and cultural values, while revitalizing and creating new economic, social, and cultural values, so as to achieve the survival of historical buildings.

1.3 Objects and Significance of Research

1.3.1 Objects of Research

(1) Careful Urban Renewal Concept

The " Careful Urban Renewal" studied in this paper is a concept from both the old and new periods in Germany, the old period is mainly about the renewal concept and strategy to solve the old district of Kreuzberg, which was just proposed in the period of IBA (1984-1987), and the new period refers to the " Careful Urban Renewal" after the reunification of the two Germanies, which needs to deal with the more multidimensional and integrated problems of the city, and the main study area is Spandauer Vorstadt.

(2) Guangzhou Zhuangyuanfang Historic District

The object of this research test is mainly the historical district of Zhuangyuanfang in Guangzhou. Guangzhou has a long urban history, and it has announced the scope of the famous historical and cultural city, with 26 historical and cultural districts. The subject of this study, Zhuangyuanfang, is one of the important historical locations in the Renmin South Road historical and cultural district.

1.3.2 Significance of the Research

(1) Theoretical Significance

The renovation of old cities has entered a new period, where large-scale knock-down reconstruction and renovation has become a thing of the past, and China has begun

to explore small-scale and refined models of old city renewal. China's old city regeneration is increasingly focused on the concept of people-oriented and sustainable development, as well as the model of public participation in the regeneration process. This paper studies the significance of Careful Urban Renewal to China's micro-renewal, and proposes the principles, objectives, mechanisms and renewal strategies of Guangzhou's historic districts based on the perspective of Careful Urban Renewal by exploring its planning concepts and urban spatial strategies, which expands the diverse perspectives of old city renewal and has important implications for the planning practice of Careful Urban Renewal and the renewal strategies of historic districts.

(2) Practical Significance

Based on the study of Careful Urban Renewal theory and the construction of renewal strategies for the old city of Guangzhou, this paper experiments with specific renewal strategies for the typical historical district of Guangzhou, Zhuangyuanfang. Starting from the concept of Careful Urban Renewal, based on the spatial problems, historical and humanistic problems, and residents' needs of the historic district of Zhuangyuanfang, a small-scale gradual renewal approach is formulated in a soft and careful way to solve the problems of decaying physical space, aging architecture, loss of humanistic characteristics, and industrial decline in the district. It aims to provide new ideas for the renewal of Guangzhou's historic district and new possibilities for the renewal of Zhuangyuanfang.

1.4 Research Summary

1.4.1 The Development of Western Urban Renewal Theory

After World War II, European and American countries began to think and reflect on the activities of modernist mass construction, which brought about problems such as monotony of urban space, low quality of living, and increased social class conflicts. Before the introduction of Careful Urban Renewal in Germany, the main theoretical developments can be divided into the following stages:

Stage 1: A phase of massive urban construction and rethinking (Post-World War II to 1960s)

In the post-World War II period, as countries during war were still in need of reconstruction and renewal, various governments set up large-scale urban reconstruction and renewal. The resultant urban problems were the demolition of many historical buildings and the erection of a thousand uniform buildings, which seriously damaged the urban pattern and brought about the decay of decentralized areas and "suburbanization". This massive urban construction has led to many scholars' reflections and criticisms. Lewis-Murford (*The City in History*, 1961) argued that cities should follow the natural and organic development process from the perspective of history and culture, opposing large-scale urban construction and emphasizing that cities should be built in accordance with the "human scale" and "human needs"^[7]. Jane-Jacobs (*The Death and Life of Great American Cities*, 1961) criticized the stifling of urban diversity under modernist urban planning, which brought about many social problems^[8]. Christopher Alexander (*A City is Not a Tree*, 1965) discussed the problems of culture, social structure, and separation of urban functions brought about by the uniform planning of cities from the perspective of cultural values^[9]. This phase is mainly a reflection on large-scale urban transformation plans, and many scholars pointed out from different perspectives that large-scale urban transformation and simple physical planning are unable to solve the complex social problems in the city, and they advocated the program of progressive planning and small-scale transformation.

Stage 2: The Exploratory Phase of Urban Renewal Theory (1960-1980)

Rossi (*The Architecture of the City*, 1966) emphasized the role of urban history and collective urban memory on urban space as well as urban culture from the perspective of typology, introduced the concept of archetype and urban ground plan, and stressed the importance of urban historical elements, neighborhood texture, and road network pattern to the city^[10]. E.F Schumacher (*Small Is Beautiful*, 1973) pointed out the limitations of large-scale urban construction in terms of economic inefficiency,

environmental pollution, and resource depletion, and argued that urban development should take into account human needs^[11]. C. Alexander (*The Oregon Experiment*, 1975) proposed a progressive, zoned, small-scale spatial development model. Colin Rowe (*Collage City*, 1978) proposed the "concept of the "collage city" in response to the destruction of the continuity and integrity of urban development by urban planning in the future, and the weaving of existing urban history through a collage approach^[12].

Stage 3: Theoretical Development and Practice of Urban Renewal (After 1980)

With the change of planning concept, the renewal of old cities has entered into a new urban planning mode of parallel conservation and development. Western countries began to transform their theories, and large-scale renovation and renewal faded out of the vision of Western cities and entered the stage of "old city revival" and community planning. The concept of Careful Urban Renewal was developed under this theoretical background.

1.4.2 A Review of Careful Urban Renewal Research in China

(1) Current Theoretical Research on Careful Urban Renewal in China

In recent years, the German approach to Careful Urban Renewal has been increasingly studied in China. As early as 2004, Li Zhenyu (*City·House·City-A Comparison of the Development of Housing in Berlin and Shanghai (1949-2002)* ,2004) gave a detailed account of the development of Berlin's urban housing after 1949 and provided some insight into the renewal of old residential areas under Careful Urban Renewal operations^[13]; then Li Zhenyu followed up with "Housing in Berlin-From IBA to New Century " (2007), which provides a lot of research materials and pictures under the guidance of Careful Urban Renewal^[14]. Yi Xin's translation of Berlin Urban Design: A Brief History of a European City, 2016 (Harald Bodenschatz ed) provides a detailed account of the process of urban renewal in Berlin^[15].

In the master's thesis (Table 1-1) , there are two main research points: Wang Fang (2004) , Yang Tao (2008) , Sun Le (2008) , Dong Yijia (2008) are summarizing

research on the system, model, cases, and spatial operation strategies of Careful Urban Renewal in Berlin^{[16][17][18][19]}; Xu Yunqian (2017) and Bai Ru (2021) are mainly analyzing the careful renewal update and exploring the possibility of its application to rural and public space renewal in China^{[20][21]}.

Table 1-1 A theoretical study of Careful Urban Renewal in Chinese master theses

MASTER'S THESIS			
YEAR	AUTHOR	LITERATURE NAME	MAIN CONTENT
2004	Wang Fang	<i>" Careful Urban Renewal" Berlin International Architecture Exhibition (IBA, 1984-87) Study of residential renewal in old districts</i>	Analysis of Careful Urban Renewal in the IBA period urban transformation methods and the summary of the method of building monolithic transformation
2008	Yang Tao	<i>A Comparative Study of Urban Renewal Mechanisms in Old Residential Areas in Berlin and Shanghai</i>	To summarize the mechanism of urban renewal in the IBA period and after the reunification of Berlin and to compare it with the residential renewal model in Shanghai
2008	Sun Le	<i>A Study on the Strategy of Urban Catalysts in Revitalizing Historic Urban Quarters</i>	An analysis of Careful Urban Renewal in the historic district of Spandauer under the role of functional catalysts
2008	Dong Jiayi	<i>Functional Reinstallation As The Strategy Of Public Space Expansion In Inner City</i>	Analysis of the strategy of Careful Urban Renewal in terms of the functional replacement of public space in the inner city of Berlin in terms of the renewal of urban functions
2017	Xu Yunqiang	<i>The Research of Rural Features Renovation Planning Based on</i>	Certain renewal guidance for villages from the perspective of Careful Urban Renewal

		<i>Careful Renewal Principle</i>	
2021	Bai Ru	<i>Study On Strategies of Outdoor Public Space Renewal in Old Industrial Residential Areas From the Perspective Of prudent Urban Renewal -- A Case Study Of Harbin</i>	Proposing renewal strategies for public spaces in old industrial areas from the perspective of Careful Urban Renewal

The study of journal literature reveals that from the early introduction of the more detailed concept of Careful Urban Renewal to the more detailed study of the cases and the system of Careful Urban Renewal in Berlin in recent years (Table 1-2). The main research sections are divided into the following parts: Qin Luofeng (2004), Yan Ming (2012), Tan Xiaohong (2022) and others have studied and analyzed the system of Careful Urban Renewal^{[22][23][24]}; Jiang Wei (2012), Chen Xiaoyi (2014), Liang Zhichao (2018) and others have analyzed and studied the renewal of courtyard space, the main operational spatial object of Careful Urban Renewal^{[25][26][27]}; Yang Bo (2015), Cui Min (2015), Shan Ruiqi (2017), Wang Shan (2020) and others have analyzed the practical neighborhoods of Careful Urban Renewal in Kreuzberg, Spandauer Vorstadt, etc.^{[28][29][30][31]}.

Table 1-2 A theoretical study of Careful Urban Renewal in Chinese journals

JOURNAL			
YEAR	AUTHOR	LITERATURE NAME	MAIN CONTENT
2004	Qin Luofeng , Wei Wei, Huang Jun	<i>Hämer and "Careful Renewal"</i>	Introduces the background, process, and results of Haemer's "Careful Urban Renewal" program, and points out the significance of the twelve basic principles of "careful renewal" for urban renewal in China.
2009	Dong Yijia	<i>Function replacement leading to urban renewal—Three models of Berlin courtyard renovation</i>	Using the courtyard renovation in the inner city of Berlin as a starting point, summarized 3 renovation models with commercial, cultural, and new office themes through case studies
2009	Dong Nannan	<i>Renewal of the Declining Cities in Germany</i>	Introduction of some policy implications of policies under Careful Urban Renewal for economically decaying areas in Germany
2012	Jiang Wei	<i>A Comparison of Urban Renewal of Mixed-Use Residential/Commercial/Industrial Historic Blocks in Germany and China—Case Studies of Hackesche Höfe in Berlin and Tianzifang in Shanghai</i>	It discusses how to realize the harmonious regeneration of residential, cultural, and commercial functions with the theme of culture in the regeneration of mixed industrial and residential historic districts in urban centers. Analyzes how it protects the urban fabric and historical heritage while enhancing the vitality of the site

2012	Yan Ming	<i>On the Theory and Practice of Careful Renewal of Urban Reconstruction—Taking Berlin as an Example</i>	Analyze the formation of the concept of "careful renewal" and its practical implications, focusing on the interaction of multiple factors related to urban development concepts and political and economic patterns in the process of changing from large-scale demolition and construction to careful renewal.
2014	Chen Xiaoyi	<i>The Neighbour-urban Transformation of Courtyards: The Contradictions and Strategies of the Renovation in Berlin Inner City</i>	Analyzes the application of Careful Urban Renewal strategy in the Spandauer block, and analyzes the urbanization research of its courtyard from the four perspectives of space, function, use and management.
2015	Yang Bo	<i>Careful Urban Renewal Strategy and Its Implement Protection: Case Study of Spandauer Vorstadt</i>	Takes the case of Spandauer Vorstadt as an example, analyzes the concept and principle of Careful Urban Renewal; the policies related to funding, public participation, laws, and regulations are also studied.
2015	Cui Min	<i>"Careful Urban Renewal" in Berlin</i>	Through the interpretation of "Careful Urban Renewal" cases in Berlin in different periods, explore the inspiration for the future renewal of old residential areas in Chongqing.

2017	Shan Ruiqi	<i>Research on Potential Use of Public Space in the Community Micro-Regeneration Perspective: A Case Study of Berlin Urban Gardening Implement</i>	The German model of Careful Urban Renewal has shifted to a more cautious and slower phase of public, private and community multi-partnership renewal in the new period of development. The perspective of renewal is also more subtle, and the community is increasingly involved.
2018	Liang Zhichao	<i>Development of Art Space and the Mechanism of Government Guidance in Berlin: A Case Study of 'Spandauer Vorstadt' in Mitte</i>	Under the perspective of Careful Urban Renewal, the regeneration of the historical and cultural district is realized through the orderly guidance of the courtyard space of the Spandauer Vorstadt neighborhood.
2019	Bai Ru	<i>The Strategy of Renewal and Modification of Old Industrial Settlements from the perspective of Careful Urban Renewal</i>	The concept, connotation, and practical progress of Careful Urban Renewal theory at home and abroad are introduced, and the application of Careful Urban Renewal theory to the renewal of old industrial settlements is analyzed.
2020	Wang Shan	<i>The Renewal Methods of Berlin Kreuzberg</i>	Analyze the renewal model of neighborhoods as the basic unit under the perspective of careful renewal and critical reconstitution. Two representative neighborhood cases are selected to analyze their functional types, spatial layouts, renewal processes and participation mechanisms.

2022	Tan Xiaohong, Uwe Altrock, Yi Xin	<i>Institutional Arrangement and Practical Strategies of Urban Regeneration in Germany from 1960 to 2019</i>	Sorting out and analyzing the development of Careful Urban Renewal policies in Germany from 1960-2019; analyzing in detail the application of careful renewal strategies in specific projects through Spandauer Vorstadt case.
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The main researches on Careful Urban Renewal in China are still focused on the formulation and development of the concept of Careful Urban Renewal, as well as the related legal policy system. There are also some in-depth studies on the corresponding urban renewal cases in neighborhoods. What is relatively lacking is the research on the translation of the concept of Careful Urban Renewal and its application possibilities.

(2) Careful Urban Renewal Concept in China

Careful Urban Renewal in China has been experimented in Yangzhou since 2006. Within the framework of the Sino-German Government Project on Sustainable Ecological Urban Planning and Management (2002), the Yangzhou government invited the German company GTZ (later renamed GIZ) to designate a sustainable regeneration path for Yangzhou and to start an experimental site at the Wenhua Lane site. Giulia C. Romano (*Changing Urban Renewal Policies in China, 2020*) conducted a field study on the translation of the careful urban policy and its concept in Yangzhou, China. He analyzed in detail the policy implications of the Careful Urban Renewal experiment in Yangzhou, and analyzed its pros and cons as well as the reasons for its success and failure. The three urgent problems of Yangzhou's old city renovation¹:

- 1: how to solve the property rights problem (the solution of privatizing houses is proposed, as well as the need to solve the problem of compounding the property rights in the old city);
- 2: establishing a fiscal policy to solve the funding problem and control the growth of rents, with the aim of preserving the social structure;
- 3: introducing public participation.

Its Careful Urban Renewal concept in Yangzhou has still achieved some success in its experiments, and has influenced the policy formulation of urban renewal in Yangzhou, and explored the problems and possibilities of its policy and theory localization.

1.4.3 Research History of Historic District Renewal in China

(1) China's Urban Renewal History

In this decade, China's urban renewal has entered a new stage, which is changing from the rough extensiveness and expansion to the stock renewal and refinement. Community micro-renewal with the participation of diverse subjects is becoming the mainstream way of urban renewal. The urban develop process can be divided into six stages^[32]:

- The First Stage : The Period of Planned Economy (1949-1965), when the construction and planning of the urban environment was centered on industrial development;
- The Second Stage: The Period of Cultural Revolution (1966-1976), when urban construction under the struggle for rectification was difficult and tortuous;
- The Third Stage: The Period of Economic Transformation (1978-late 1980s), the existing urban planning was restored and the reform of the urban transformation body was carried out;
- The Fourth Stage: The Period of Economic Transformation (1990-2000), when urban renewal was led by property management and development;
- The Fifth Stage: The Period of Rapid Economic Development (2000-2010), when urban renewal and construction showed diversified development and rapid progress;
- The Latest Stage: 2010-Now: Urban micro-renewal, which returns to "human needs" in the current quality era.
-

(2) Urban Renewal Turns to Micro-Renewal

Wu Liangyong's theory of organic urban renewal is the origin of micro-renewal. In the 1980s, Wu Liangyong studied and compared the urban planning and renewal theories of the West and China, combined with the actual situation of Beijing proposed the theory of organic urban renewal. Organic renewal theory points out that the establishment of a new order must be built on the original development laws of the city, in order to achieve a fit and integration of the old and new replacement^[33].

The theory of micro-renewal is developed on the theory of organic renewal, and its conceptual approach is based on the protection of the old city fabric and style, emphasizing the participation of residents, changing the previous top-down urban renewal model. In the 2012 Urban Development and Planning Conference, the concept of "rebuilding microcirculation" was proposed, which is intended to oppose the previous urban development model of large-scale demolition and construction by means of small-scale renewal^[34]. In 2016, the journal Time Architecture also launched the theme of "urban micro-renewal", in which many scholars discussed the theory and practice of urban micro-renewal in China from different perspectives (Time Architecture, 2016). As a result, micro-renewal theory has become the mainstream of urban renewal in China, and scholars have mainly focused on the four aspects: renewal model, old neighborhood renewal, urban public space renewal and traditional historical location renewal

(3) The History of Preservation and Renewal of Historic Districts in China

• Phase I: Introduction of the concept of historic district preservation (1982-1996)

The concept of historic and cultural district conservation was only introduced in 1982, 50 years after the conservation of historic buildings. The concept of "historical and cultural cities" was introduced at this stage, which means that the object of historical conservation in China has been extended from single buildings to historical lots, and from the protection of purely material space to non-material cultural elements. At this

stage, many famous historical and cultural cities were announced, meaning that a dual protection system was established with the protection of historical and cultural cities as the main protection content combined with the protection system of cultural relics.

• **Phase II: Legislative Protection and Practical Exploration Phase (1996-2005)**

This phase explored the ways and methods of preservation of historical and cultural districts through legislation, and numerous kinds of preservation policies were introduced in this period, such as *Law of the People's Republic of China on the Protection of Cultural Relics* (2000), *the Measures for the Management of Urban Purple Line* (2004) and *the Code for the Conservation of Historical and Cultural Cities* (2005). The main preservation and renewal methods are still static conservation and restoration.

• **Phase III: Transformation and Enhancement Phase (2005-now)**

This is a phase in which the concept and approach to historic preservation has begun to shift and upgrade (Figure 1-1). It has begun to shift from the previous static preservation to a dynamic preservation renewal in many ways, in different forms and at different levels. And with cross-border interventions, diversified modes of preservation are becoming more and more common. In this stage, "holistic conservation theory", "microcirculation theory", "micro-renewal", "organic renewal" and "interactive overall development of old and new neighborhoods" have all had an important impact on the renewal theory of historic districts. However, although progress has been made, the overall conservation of historic districts is still centered on the spatial structure of the districts, and the real cultural lineage of the districts still needs extensive public attention and public participation.

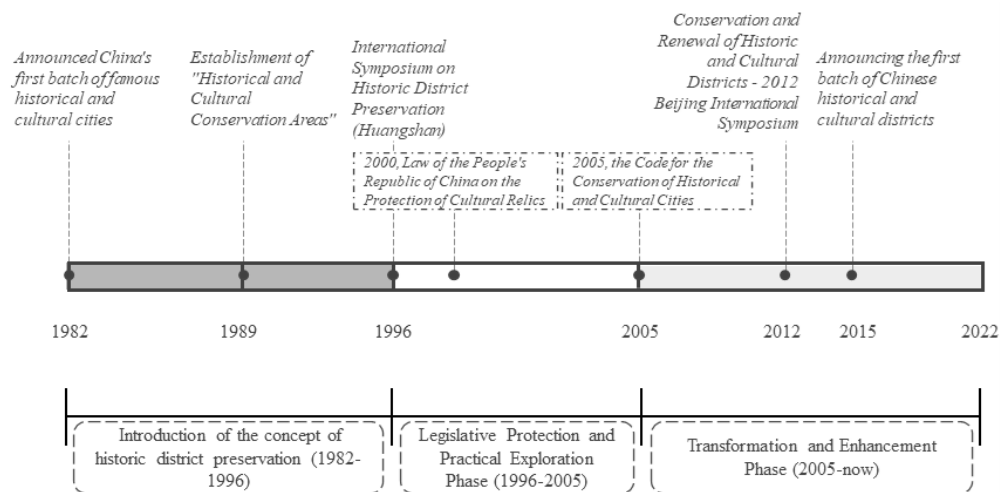


Figure 1-1 The history of preservation and renewal of historic districts in China

(Source: By author)

(4) Current theoretical research on micro-renewal of historic districts

After three stages of development, the conservation of historic districts has entered the mode of progressive, small-scale micro-renewal, and the research on micro-renewal of historic districts has started to grow in spurts, with the main research focusing on the construction of micro-renewal conservation system of historic districts, the public participation model and specific renewal strategies.

• Exploring the micro-renewal conservation system for historic districts

In the article *"Progressive Conservation and Renewal of Historic Districts (2012)"*, Zhang Ying introduces the working method of "progressive conservation and renewal" of historic districts and constructs a planning and conservation system with "four major transformations": functional revitalization, new neighborhood places, multiple development modes, and process guidance. In the article *"Research on The Protection Planning of Historic Districts in the Micro-Renovation Mode of Environment(2015)"*, Shi Shujie explores the model of environmental micro-renewal of historic district lots, proposes a conservation system for material culture and intangible culture. The article proposes to formulate the objectives of three-dimensional protection, diverse revitalization, and creation of historical environment, and promoted the principles of small-scale, gradual, and cultural heritage renewal

- **Exploration of public participation models in historic districts**

Guan Bin (2014) explored the self-organized regeneration model of historical districts and proposed strategies such as introducing NGO roles, professional role transformation, community identity, and community shared governance^[35]. Feng Feifei (2016) points out that the course of micro-renewal practice requires close cooperation among governmental parts, professional designers, and the public^[36].

- **Exploration of micro-renewal strategies in historic districts**

Gong Weixia (2015) takes Huizhou's historical and cultural district as an example and proposes a progressive renewal strategy for the historical district in three aspects: human-land relationship, public space, and improvement of streets and alleys^[37]. Zhang Yuanhao (2018) analyzed the relationship between neighborhood space and vitality at three levels: macro, meso, and micro, and proposed corresponding strategies, taking the street space within the traditional residential neighborhood of Guangzhou's old city as the object^[38]. Taking the Datong historic district as an example, Du Ying (2021) proposed specific micro-renewal strategies in terms of texture and style, building repair, infrastructure, courtyard layout, and protection and improvement^[39].

(5) The Practice of Micro-Renewal in Historic Districts

Beijing launched the Dazhalan Conservation Plan in 2011, and under the guidance of policy and government, the model of renewal is mainly a government-led, market-operated micro-renewal model. The project adopted nodal development and, with the participation of residents, jointly completed the spatial environmental enhancement of the neighborhood as well as the greening improvement of the neighborhood. Shanghai's Yuyuan Road Historic District began micro-renewal in 2014 and had undergone three stages of progressive renewal: architectural style, street art installations, and neighborhood businesses. By enhancing the community environment, introducing a combination of art and culture and landscape, and joint renovation by designers and residents, the vitality of the neighborhood was enhanced with a diversified main renewal approach. Guangzhou Yongqingfang (2016), as the first old

city renovation project in Guangzhou, adopted the BOT (Build-Operate-Transfer) model of renewal - government-led, enterprise undertaking, and resident participation - to explore a new model of micro-renewal of the historic district. Nantou Ancient City in Shenzhen took the opportunity of Shenzhen Biennale in 2017 to explore the micro-renewal model of government, market, residents, and art in the historical area, setting up catalytic nodes at each important node to improve the spatial environment.

1.5 Research Methodology and Structure of Research

1.5.1 Research Methodology

(1) Literature Review Method

The literature is read to understand the overview of the research area and to form the basis of the research. The scope of the literature analysis includes journal literature and related writings, China and international institutional policies, and planning documents of typical cases. The literature analysis will also be applied to historical analysis and partial institutional analysis to clarify the historical background and logic of institutional formation, and to summarize the existing reviews and recommendations on institutional practices.

(2) Cases Study Method

A detailed analysis of two important cases of Careful Urban Renewal in Berlin, Germany, summarizes the spatial approach of its Careful Urban Renewal model; analyzes the characteristics of its cases, and summarizes the reference points for urban regeneration in China.

(3) Field Research Method

According to the needs of the thesis, field research was conducted on the current situation in Guangzhou and the plots that needed to be verified, considering the discussion in the relevant literature.

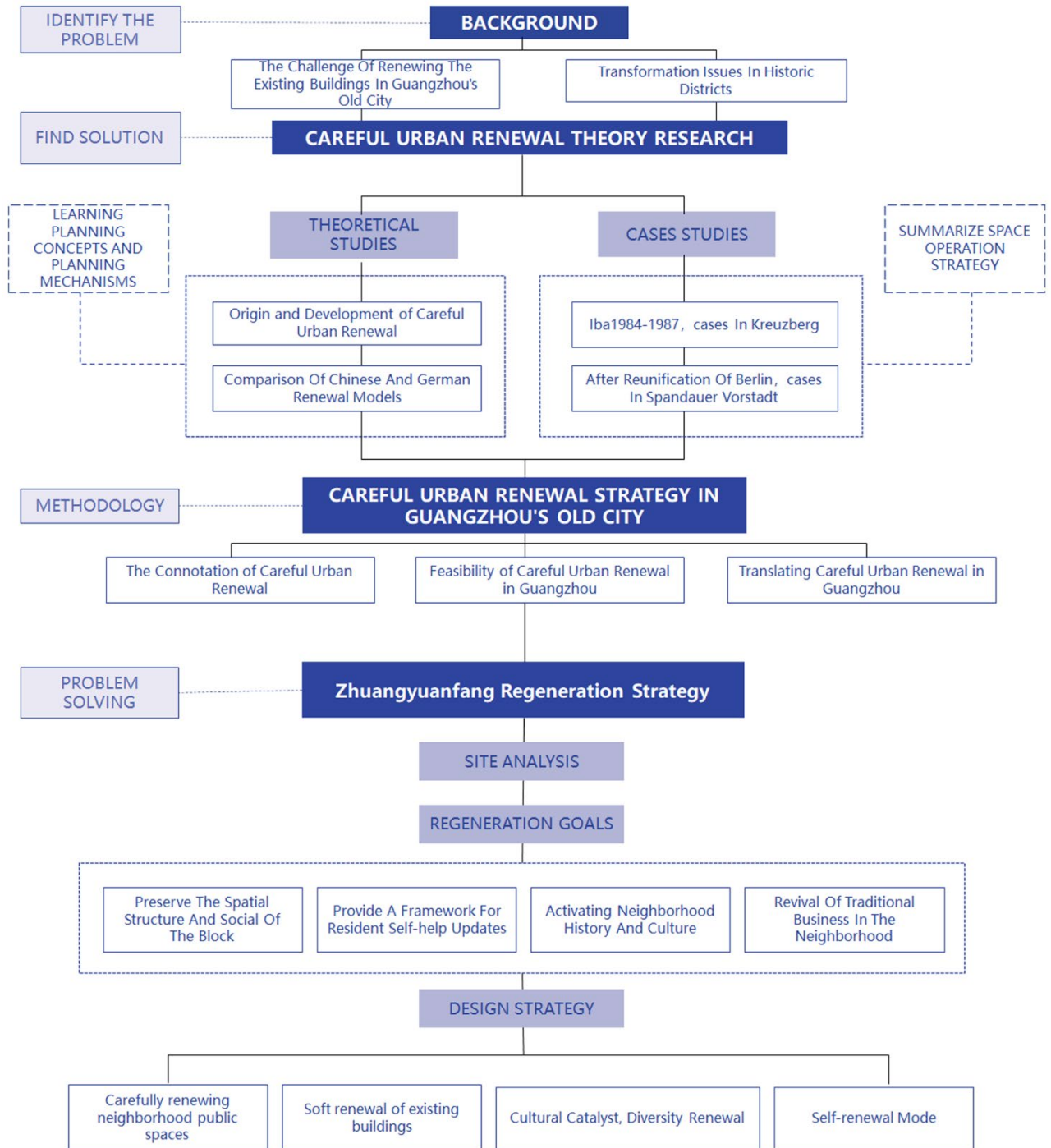
(4) Comparative Research Methods

By comparing the German model of Careful Urban Renewal with the Chinese micro-renewal model, the paper summarizes the similarities and core differences, and compare their systems to investigate the key factors leading to the differences in results and the possibility of learning from them.

(5) Experimental Verification Method

The Careful Urban Renewal concept is validated through the Zhuangyuanfang site in Guangzhou, and its significance for China is demonstrated, and a corresponding regeneration design model is proposed to provide new ideas for micro-regeneration.

1.5.2 Research Structure



Chapter 2 Traceability and Analysis of “Careful Urban Renewal”

The development of the theory of Careful Urban Renewal was a turning point in Berlin's urban design. Before the 1980s, Berlin implemented the "Clear-cutting rehabilitation" (Kahlschlagsanierung) and "luxury fashion modernization" (Luxusmodernisierung) approach to urban renewal. After the IBA's International Architecture Exhibition (1984-1987), Berlin's urban regeneration gradually embarked on a path of diversified and stable investment and careful and detailed renovation combined with a well-developed regeneration mechanism and social policy support, and eventually its successful regeneration approach was extended and improved in Germany.

2.1 The Origin and Development of Careful Urban Renewal

2.1.1 Theoretical Background of Careful Urban Renewal

(1) Postmodernism in Europe and America and German theoretical Background

After World War II, modernism became an international style that became popular around the world, and its single planning concept had a certain impact on the construction and history of the city. As the voice of the new generation of young architects increased, they began to question the functionalism of the Athens Charter. The younger generation, represented prominently by TEAM 10, criticized the older generation's ideas as being out of touch with reality, destroying traces of history, and the CIAM organization as being too bureaucratic. So, they took over the CIAM banner and looked to the present and history of the city to find answers to urban problems, to the streets, spaces, and people of the city, to discover the relationship between the city and people. Thus, the idea of postmodernism became prevalent, and more and more people began to criticize the ideas of modernism to find a new answer. Post-modernism is a reflection and thought on modernism. Modernism's simple understanding of urban

elements and its simple treatment ignored many urban problems. The city is a complex system that does not simply consider function, recreation, transportation, and housing, as the Athens Charter did. Postmodernism is a movement of urban pluralism, an important dialogue between the historical problems of the city and the modern development of the city.

The first postmodernist ideas emerged in the United States. Subsequently, in Europe, the re-emergence of the urban landscape movement pushed to produce neo-regionalism and critical regionalism; in 1966, Rossi's *The Architecture of the City* promoted the establishment of the typological system, which became an important representative of neo-rationalism and laid the theoretical foundation for urban transformation in Europe; the Krier brothers (R. Krier. *urban space*, 1975; L. Krier, *Architecture and Urban Design 1967-1992*) analyzed the typology of urban space and explored the significance of traditional cultural values and the morphology of the historical city for urban design; and O.M. Ungers (*The Dialectic City*, 1997) as an important contribution to postmodernism in Germany. In 1968, *Arch+* magazine was founded to strengthen theoretical exchanges between Europe and the United States, and with the help of this magazine, O.M. Ungers focused on Rossi's "Urban Architecture"^[40].

In 1977, O.M. Ungers went to Cornell University for an exchange program and co-authored *The City in the City: Berlin. A Green Archipelago* with the like-minded Koolhaas. This is an important work in the interpretation of the urban fabric. Urban decay is at the same time an opportunity for urban development. Recognizing and preserving the important parts of the city, by connecting these green islands of the city, will bring the city's structure together^[41]. While at Cornell, O.M. Ungers facilitated discussions of clericalism, traditional urbanism, and historicism on both sides of the Atlantic. At the same time, numerous books on the discussion of the damage caused by modernist planning to the urban fabric and history resonated with German planners and designers. Examples include *Complexity and contradiction in Architecture*(1966);

The Image of the City(1960); *The Life and Death of Great American Cities*(1961); *Collage City*(1978); and etc..

(2) Urban Movement and Public Awareness

During the same period, Many Movements were also produced in Berlin, giving some direction to the future development of the city. In 1968, young architects and students from the Berlin University of Technology launched "Campaign 507". (Kleihues, who proposed "critical reconstruction", also participated.). They presented an exhibition on "Diagnosis of Building in West Berlin," which noted that the government was renewing planned cities rather than creative conservation. The theories of urban renewal in Europe and the United States in the 1960s and 1970s influenced the young architects and students of the time. According to architectural historian Gert Kahler, "Campaign 507" was undoubtedly the starting point for the architectural trends that would define Berlin's urban landscape for the next 30 years^[40].

The year 1975 marked the right track for the renewal of the old city and the preservation of historic buildings in Europe, and the public's awareness of the protection of architectural heritage began to increase. The International Design Center (Internationales Design Zentrum) organized the exhibition "Designing the Historic Street" in 1975, along with a competition for the design of Berlin's downtown streets. In the early 1980s, Berliners became dissatisfied with the government's urban development and young people began to demonstrate. The student-led "Occupy" and "Tenants' Movement" erupted, creating a bottom-up critique of the internationalist style, demolition, and construction development model.

(3) The Development of Careful Urban Renewal Theory

Germany had held two architectural exhibitions, the Weissenhof 1927 and the Hansaviertel 1957. The first two exhibitions explored and practiced modernist architecture throughout its birth and culmination. Just in time for the 750th anniversary of Berlin's founding (1987), this international architecture exhibition was an experiment to address the problems of the old city and its housing left behind after the war.

Therefore, the theme of the exhibition was "The Inner City as a Place to Live" in order to compensate for the lack of housing construction in the city after the war and to build a pleasant, high-quality living space.

At the international exhibition, there were two different themes, one on the construction of new cities, led by Kleihues, who presented the theory of "Critical Reconstruction" to guide the construction of new cities. The other was the "Careful Urban Renewal" under the leadership of Hämer, which aimed at restoring the living and architectural space of the old city by careful means, preserving the urban fabric of the old city, renewing the urban function and structure, transforming the building blocks, and improving the public facilities.

After the success of Careful Urban Renewal in 1980, it successfully reversed the values of urban renewal and urban construction at that time, and West Berlin re-recognized the great value of the existing low-cost housing and abandoned the practice of large-scale demolition and construction. The 12 principles of Careful Urban Renewal proposed in 1983 were incorporated into the German urban renewal legislation, and its approach to old city renewal had a significant impact on institutional development.

After the fall of the Berlin Wall (1989), the Careful Urban Renewal strategy of the former West Berlin was also introduced in a wider area of the city, and the renewal strategy and policies were adjusted and supplemented accordingly to the problems and characteristics of the city at that time. The additional changes to the Construction Code meant that more favorable guarantees were provided for urban renewal in Berlin.

After 1999 was another phase of Berlin's urban development, with the influx of immigrants and refugees, social issues became the main problem of urban development and urban space was no longer so effectively addressed. Therefore, the German government began to seek a more integrated approach to urban renewal and social governance strategies, and the social stability and sustainable and healthy development of neighborhoods became the goal of the new phase of Careful Urban

Renewal^[42].

2.1.2 IBA 1984-1987, Hämer proposed Careful Urban Renewal

(1) H.W. Hämer's Pilot Project

Professor H.W. Hämer was born in 1922 in Hagen, Germany. After graduating from HBK University, he founded his own architectural office in 1959 and designed theaters and secondary schools in the city of Inge. In 1980, Hämer completed the "Block 118" in Klausener Platz, Charlottenburg, which is a typical model of careful renewal. In the renovation, the preservation of the urban form was the main goal, and the building blocks were modernized according to their characteristics, maintaining the original structure and composition of the community. 450 apartments were saved from demolition at a total cost of 64% of the demolition of the new building, while the original residents continue to live in the renovated old houses^[43]. His principle of "careful renewal" was successfully implemented in Kreuzberg. After IBA-Alt, he became Managing Director of STERN and continued the practice of Careful Urban Renewal in several locations in Berlin.

(2) IBA (1984-1987), "Careful Urban Renewal" in the Kreuzberg Area

In 1979, the Berlin Conference adopted a plan for the establishment of the IBA (Internationale Bauausstellung), and the government commissioned the "Bauausstellung Berlin GmbH" to plan and implement the project. In July 1984, after five years of preparation, the "IBA " was officially opened with the motto "The Inner City as a Place to Live" (Die Innenstadt als Platz zum leben). There are six main areas in the exhibition, which are guided by two main ideas of urban renewal: the first is the "critical reconstruction" proposed by Kleihues for the urban renewal of the post-war dilapidated areas, which focuses on the restoration and reconstruction of the urban fabric of the old city; the second is the idea of " Careful Urban Renewal" (Behutsame Stadtemeuerung) proposed by Hämer, which focuses on the renewal of neighborhoods and residential buildings in the old city, mainly in the Kreuzberg area

(Figure 2-1) .

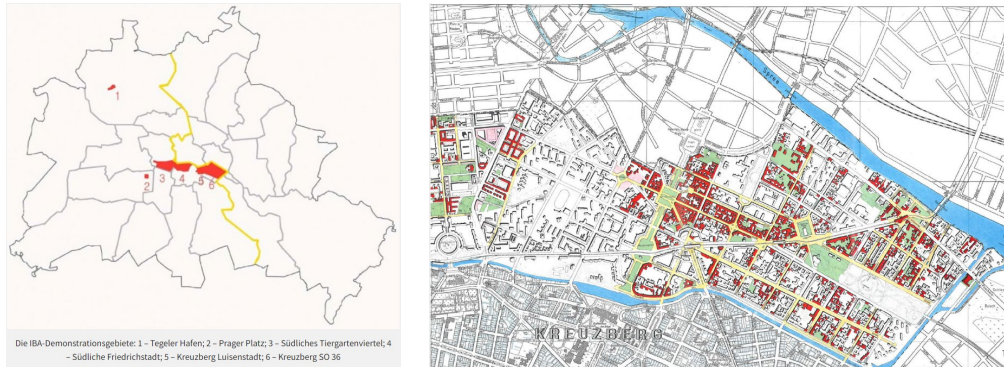


Figure 2-1 IBA period main demonstration area(left) and Kreuzberg renewal area (Right)

(Source:<http://f-iba.de/uebersichtskarten-der-demonstrationsgebiete/#more-367>, ; *Internationale*

Bauausstellung 1987-Projektübersicht, Berlin 1991)

In the face of the government's massive demolition of the city of Berlin, many residents, students, and intellectuals protested, and the Kreuzberg region is a typical example of this. At the time, Kreuzberg was an area of structural and social crisis: houses were in a permanent state of disrepair due to expected demolitions, and mainly poor people, foreigners and school dropouts lived there. The squatter movements in 1980/81 showed that many people were willing to fight for the preservation of their homes. The distrust of IBA as a Senate prestige program (criticized IBA as an "international bluffing operation", "IBA-liquid") was initially great. By involving those affected, including in the development of the "12 principles of Careful Urban Renewal", Hämer gained the support of key residents.

Careful Urban Renewal is a new exploration of urban renewal in Berlin, Germany, which is a critique of the current model of large-scale demolition or construction. Its renewal strategy mainly emphasizes^[17]:

- 1. The renewal of physical space, mainly by cautiously treating the historical buildings and the fabric structure of the neighborhood, avoiding the impact of violent transformation mode on the social structure of the neighborhood, and taking gradual transformation as the goal.

- 2. Maintenance of social structure, mainly treating the crowd structure of the neighborhood with caution, respecting the various groups of people in the neighborhood, and avoiding the replacement of the demographic structure of the neighborhood by the violent renewal mode.
- 3. The protection of planning policies, mainly through the improvement of the planning system and policies, expanding the participation of residents, promoting the transformation through a coordinated, multi-participation approach, and the government funded the renovation.

(3) Principles of Careful Urban Renewal

The core idea of Careful Urban Renewal is that urban transformation should be people-oriented, and the residents are the main subjects of transformation, and the physical environment should be improved around their actual needs. The word " careful" (sometimes also used as " soft") is particularly meaningful, seemingly "careful", but in fact implies greater wisdom and boldness^[23]. Residents are important individuals in the preservation of social structure, and social structure is a complex relationship. The push-to-rebuild approach will result in a clear-cut outcome, and the original diversity and history of the neighborhood will be destroyed. Only by carefully preserving the living conditions of residents and involving them in the entire design and construction process can the government achieve true people-centered urban renewal. These are the 12 principles of renewal based on the participation of residents (Table 2-1)^[44].

Instead of setting a specific goal, the 12 principles of renewal take an integrated view to fully consider the city, buildings, public space, infrastructure, resident participation, management, funding, and policies, guiding planning and managers to the actual problems that should be solved by adopting a cautious mindset.

Table 2-1 12 principles of Careful Urban Renewal in the IBA period

(Source: <https://www.stadtentwicklung.berlin.de/>)

1	The renewal must be planned and implemented (to preserve the substance) with the current residents and business owners.
2	Planners should reach an agreement with the residents and business owners on the objectives of the renewal measures, and produce technical and social plans hand in hand.
3	The unique character of Kreuzberg must be preserved, while trust and optimism must be restored in the at-risk city districts. Damage to buildings, which threatens their structural integrity, must be rectified immediately.
4	Cautious changes to ground plans must also make new forms of living possible.
5	Apartments and houses are to be refurbished step by step and supplemented gradually.
6	The building situation must be improved by a few demolitions, greening inner blocks, and a façade design.
7	Public institutions as well as roads, squares, and green spaces must be renewed as required and supplemented.
8	The participatory rights and material rights of those affected by social planning must be coordinated.
9	Decisions on urban renewal must be made public and discussed locally where possible. The local representation must be enhanced.
10	Urban renewal that generates trust calls for reliable financial commitments. Funds must be available rapidly and invested appropriately.
11	New forms of organization must be developed. Trustee-based redevelopment bodies (services) and construction measures must be separated.
12	Urban renewal by this concept must be guaranteed to continue beyond the end of the IBA.

2.1.3 Careful Urban Renewal after German Reunification (1990)

(1) The Direction of Urban Renewal after 1990

After the reunification of East and West Berlin, the issue of urban development shifted. When the Berlin Wall came down in 1989, the main task of this period was to build up the Berlin capital, and a total of 22 regions were classified as renovation areas (Figure 2-2). The former East Germany was not maintained for a long time, so the focus of regeneration after reunification was on the East Germany. The strategy and experience of "Careful Urban Renewal" in the former West Berlin was summarized and promoted in Germany, and the new era of "Careful Urban Renewal" emphasizes that urban renewal is not only a process of physical transformation, but also a process of social governance. During this period, society has become more and more concerned with the concept of people-oriented and sustainable development, and more emphasis has been placed on governing urban issues from a multidimensional and integrated perspective, including social, economic, physical space, ecology, and environment. Urban renewal is a unified whole of material transformation and social governance,

with intangible cultural preservation, neighborhood structure maintenance and physical environment enhancement being equally important. This period placed more emphasis on the plurality of public participation, on the plurality of forms, subjects, and funds.



Figure 2-2 22 transformation zones in Berlin after 1990

(Source: Senate Department for Urban Development)

The social problems of this period are different from those of the IBA period, in addition to the problems of the physical space of the neighborhood, they are faced with the problems of social structure, industry, different social problems, international situation, etc. The strategy and legal regulations of Careful Urban Renewal were adjusted in this period, presenting mainly such characteristics:

- 1. The main renewal is the old residential areas of the city districts with low historical value
- 2. The focus of renewal in urban neighborhoods is on infrastructure and social service facilities
- 3. The new period of careful renewal has increased social concern, and the way and degree of public participation has increased
- 4. The source of funding for renewal has shifted from government-based to private investment-based, with public funds driving private capital

(2) The Update of the Content of Careful Urban Renewal

Based on the current problems of urban development in the new era of Berlin, the original 12 renewal principles were adapted to make them more compatible with the requirements of district renewal (Table 2-2). The development was based on the following principles: avoiding the displacement of low-income groups out of neighborhoods; avoiding issues such as racial segregation that exacerbate social problems in neighborhoods; and avoiding the inability of residents to adapt to the new era.

Table 2-2 12 principles of Careful Urban Renewal after 1990

(Source: <https://www.stadtentwicklung.berlin.de/>)

1	Goals of Urban Renewal	A more comprehensive and integrated approach should be taken at the beginning of the urban renewal phase, and the regeneration of East Berlin needs to focus on addressing urban renewal strategies.
2		The purpose of renewal is to preserve the existing buildings and urban fabric, while the new and renovated areas are a careful succession and continuation of the original parts.
3		Urban regeneration is based on the needs of those groups and individuals associated with the regeneration process, and urban regeneration policies, as well as mechanisms, need to be socially recognized and accepted.
4		Existing industrial structures that secure and provide employment in the area of transformation should be retained or restored
5		The transformation should be completed within approximately fifteen years, and the task of transformation can only be substantially completed if the necessary mechanisms and limited standards are in place.
6	Assurance of Goal Achievement	The achievement of the renovation goals must rely on the law: urban planning regulations, building codes, housing supervision, and all appropriate regulatory and policy instruments to ensure the smooth implementation of the renovation.
7		The renovation and improvement of public spaces and places must be met by land purchase plans and earlier urban planning laws.
8	Funding Approach	Public needs, public services, and necessary infrastructure in urban renewal areas should be prioritized in the budgetary plans of the State of Berlin.
9		The renovation of older housing will only be possible if owners are active and private investment is further strengthened.
10		Although the renewal of buildings and housing is partially financed by public funds in the medium term, the costs of necessary renovations and repairs from rental income have to be provided by the owners and are not financed by public funds.
11	Public Participation Assurance	In urban regeneration areas, residents' representatives should be established, and the process of social planning and public opinion must be based on the needs of residents and users.
12		To meet the preparation and execution of urban regeneration in Berlin, the commissioners of urban regeneration projects, as defined by the Construction Code, are necessary. For the commissioners of urban regeneration projects, ensuring the availability of public spaces and places is a decisive task for the transformation of an area.

The main updates are as follows:

- 1. Adopt a more integrated and comprehensive approach to renewal.
- 2. Changing the original renewal mechanism from a publicly funded renewal model to one that encourages private investment and participation by property owners
- 3. Emphasize the construction of infrastructure

2.2 Compare the Two Renewal Modes

This paper composes and summarizes the models of Careful Urban Renewal and micro-renewal of Chinese historic districts, and analyzes and compares the characteristics of their policy systems, funding sources, organizational structures, public participation, and operational processes.

2.2.1 Careful Urban Renewal Model

(1) Policy System Construction

Hämer's " Careful Urban Renewal " approach to the regeneration of old cities during the IBA period was adopted by the Berlin City Council in 1983. In order to ensure the confidence of the residents in the regeneration projects, the authorities included the regeneration of the Kreuzberg district in the Berlin Land Use Master Plan and the detailed planning of the areas that were not regenerated, and the preservation of the old districts of the IBA was included in the *Berlin Building Conservation Act* (Erhaltungsschutzverordnung) in 1997. After the reunification of Germany, the revised 12 principles were also applied to the regeneration of East Berlin in 1993.

The Housing Modernization Act (Wohnungsmodernisierungsgesetz), enacted in 1976, provided legal support to encourage the use of private funds in urban renewal. In 1984, the Federal Republic of Germany amended the *Urban Development Promotion Act* (Stadtebauförderungsgesetz) to simplify the urban renewal process and strengthen the participation of multiple interest groups. To facilitate housing renewal, the Urban Development Promotion Act and the Housing Modernization Act were integrated and incorporated into the *Building Code* (Baugesetzbuch) in 1987. And the gentrification of settlements was controlled through the *Modernization Agreement* (Modernisierungsvereinbarung, 1987).

After 2000, Berlin's urban regeneration was confronted with new issues, urban regeneration paths and social governance through the lens of social interventions^[24]. 1998 saw urban development funding become an important part of the *Building Code*

(Baugesetzbuch), marking the combination of urban regeneration strategies and urban funding, providing a strong policy basis for Careful Urban Renewal in the new era. In 2004 the *Building Code* (Baugesetzbuch) was supplemented by specific regulations concerning urban renewal (Stadtumbau) and social cities. The Integrated Urban Development Concept (ISEK: Integrierte städtebauliche Entwicklungskonzepte) was formally incorporated into the legal texts as a new communicative and collaborative planning tool and became the main tool for community regeneration planning and decision-making^[24].

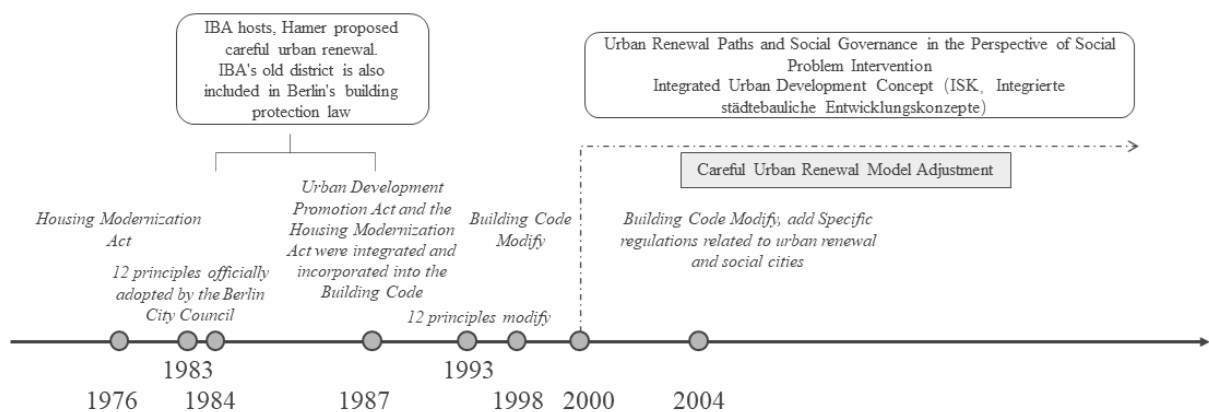


Figure 2-3 Germany's Careful Urban Renewal-related policy update process

(Source: by author)

(2) Funding Model

From the "Careful Urban Renewal" of the district in the 1980s to the new round of urban renewal in the 1990s, the funding model of "Careful Urban Renewal" has shifted from "government-based urban renewal" with public funds to "socialized urban renewal" based on private investment (Figure 2-4). During the IBA period, government public funds provided most of the funding for urban renewal. However, in the new period after the reunification, the government began to look for more funding models due to the large size of the renewal area and the pressure on government funding. For example, since 1998, the share of private funding in the Prenzlauer Berg has risen to 70%^[17].

Since 2008, a "community cooperative fund" has been established as a fundraising

tool, mainly from the government and companies and the real estate market, mainly for small-scale regeneration projects^[45]. The fund is mainly used for small-scale regeneration projects, and its public funding of 1 euro can lead to 8 euros of social investment, which increases the incentive for social capital investment.

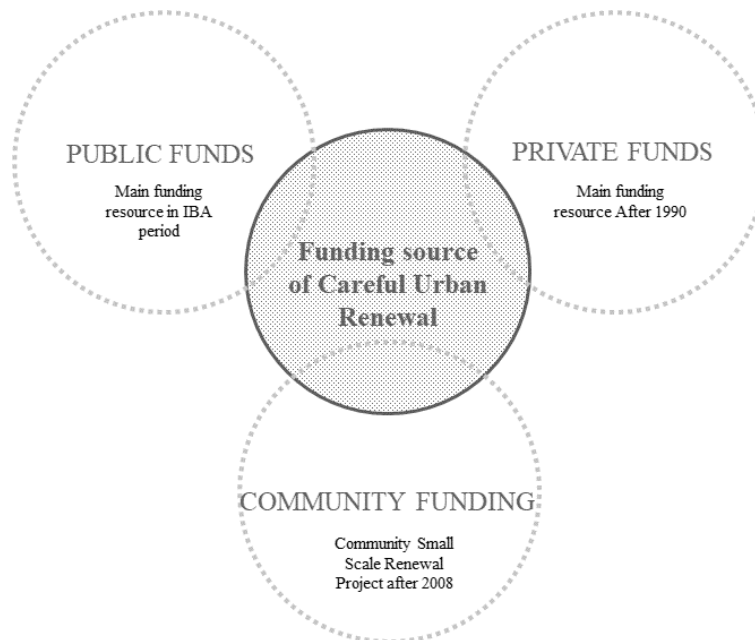


Figure 2-4 Funding model of “Careful Urban Renewal”

(Source: By author)

(3) Organizational Structure

The entire organizational structure is shown in the figure 2-5. Specify basic principles and regulations at the federal level, and coordinate state policies to specify basic updated principles. Study the implementation of specific renewal scopes and plans at the level of the Berlin municipality. Further implement specific renewal goals at the regional level and manage the use of specific funds.

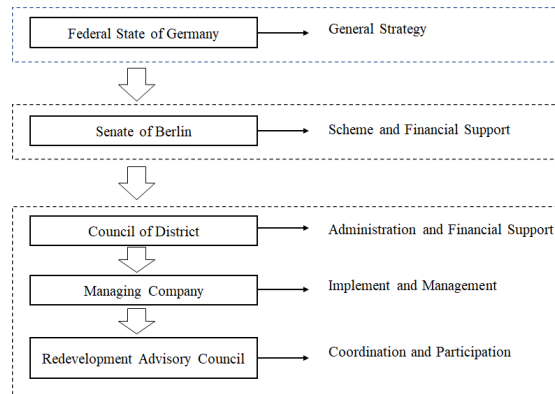


Figure 2-5 Organizational framework of Careful Urban Renewal

(Source: Yang Tao, A Comparative Study of Urban Renewal Mechanisms in Old Residential Areas in Berlin and Shanghai, 2008)

" Careful Urban Renewal" is an inverted "umbrella" structure that embodies pluralistic participation, simplifies the vertical organizational hierarchy, decentralizes power to the grassroots, and flattens the organizational structure (Figure 2-6)^[17]. This organizational model is different from the traditional regeneration organizational structure in that it expands the regeneration power of the grassroots, simplifies the responsibilities of higher-level government agencies, and devolves power to the public. This organizational structure is diversified, flexible and public, and allows residents to be closer to the renewal process.

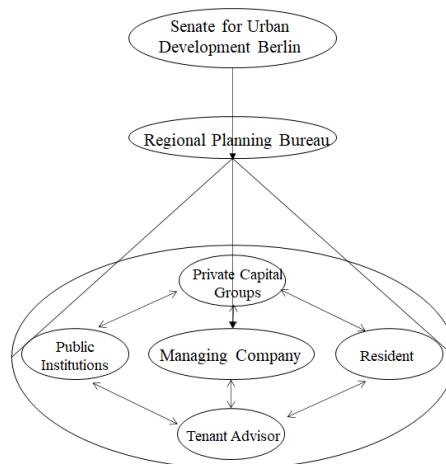


Figure 2-6 Organizational structure of Careful Urban Renewal

(Source: Yang Tao, A Comparative Study of Urban Renewal Mechanisms in Old Residential Areas in Berlin and Shanghai, 2008)

The Berlin Managing Company plays a "leading role" in the entire regeneration project, and is responsible for the implementation and execution of the regeneration project, arranging the funding and regeneration budget, and participating in the coordination between the government and the residents. The development company is independent from the government, private investment and third parties, and becomes a non-interested fourth party in the entire renewal process. In 1979, the "Berlin Building Exhibition GmbH" (Bauausstellung Berlin GmbH, later call IBA) was founded on behalf of the Berlin government. Since 1985, the renewal of the old district was transferred to the private company "Careful Urban Renewal GmbH" (Gesellschaft der Behutsamen Stadterneuerung mbH, later call IBA GmbH). In 1986 IBA GmbH changed its name to S.T.E.R.N. and continues to work on the renewal of old districts in Berlin to today.

(4) Public Participation

A very important aspect of Careful Urban Renewal is public participation, which changes the role of urban renewal from a single protagonist to a pluralist and allows residents to participate in the urban renewal process to a greater extent. An important decision-making framework for public participation in Careful Urban Renewal is the Redevelopment Advisory Council, which is headed by the managing company. It is composed of representatives of various interests, and the views are presented at the meetings to the managing company, which coordinates the various groups. A very important committee for public participation is the "Residents' Association", which is a group of elected representatives of property owners, tenants, businessmen and employees, ensuring 51% residents^[46]. It provides the government with the main input from the residents and ensures that the community has its rights. The government has also established a government-funded "Community Management Fund" for projects in the renovation area for minor renovations and maintenance of the community, and has ensured that the funding process is open and fair.

(5) Operation Process

The main operation process of Careful Urban Renewal is divided into three parts: planning goals formulation, planning preparation, and planning implementation (Figure 2-7). The managing company plays a top-down role in the process, as described in the organizational structure above, and is responsible for aligning the goals and implementing the plan^[17]. It is characterized by the fact that the process is organized by a non-interested organization, which ensures that the residents can take part in the process and the government can reduce the pressure to ensure a greater involvement of the residents in the renewal process.

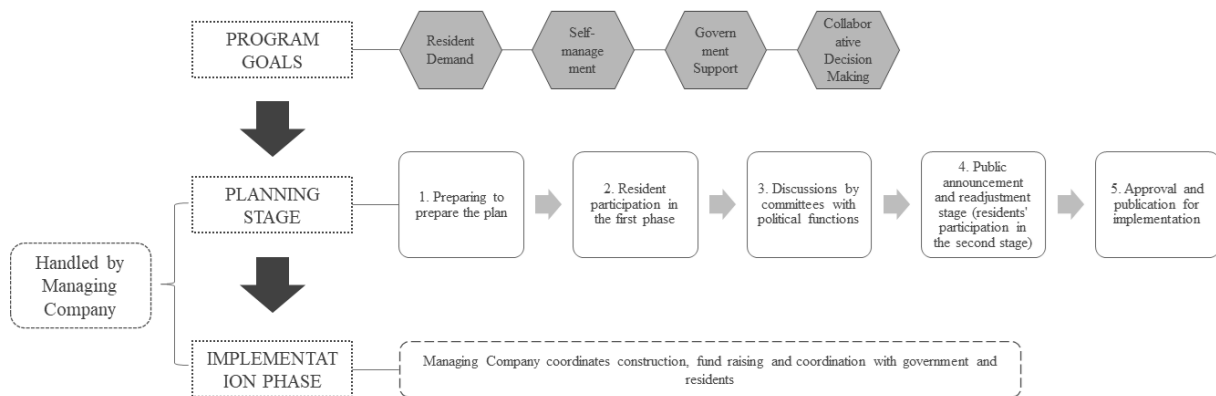


Figure 2-7 The operational process of Careful Urban Renewal

(Source: By author)

2.2.2 Micro-Renewal Model for China's Historic Districts

(1) Background of Micro-Renewal Theory

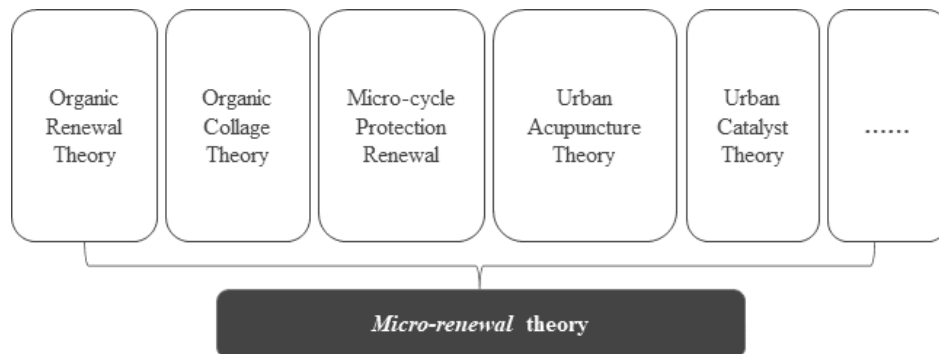


Figure 2-8 Micro-renewal theory schematic diagram of theoretical basis source

(Source: By author)

These five renewal theories are the basis for the development of micro-renewal (Figure 2-8). Although they have different statements and slightly different regeneration concepts, they share a common core regeneration concept: the critique of the large-scale demolition and construction model, and the choice of a small-scale, progressive regeneration model. China's "micro-renewal" model has inherited and developed these theories.

Many theoretical attempts have been made in the micro-renewal model of China's old cities, and cities such as Shenzhen, Shanghai and Guangzhou have introduced policies to adapt to their own urban renewal models, and are at the forefront of the renewal of old cities. Therefore, some models of micro-renewal in Chinese historic districts can be summarized.

(2) Policy System Construction

The construction of the system of historic districts is currently more comprehensive on the construction of the conservation policy. After three stages of construction of the conservation system, from the introduction of the concepts of historical and cultural cities and historical and cultural districts in 1982 to the gradual improvement of conservation policies and regulations, the conservation of historical and cultural

districts has slowly shifted from static conservation to dynamic renewal. The system for the renewal of historic districts has not been completed, and it is still mainly a local renewal strategy developed by cities such as Beijing, Shanghai, Shenzhen, and Guangzhou according to the problems of their own old cities (Figure 2-9). A multi-level conservation and renewal strategy has not been developed from the national level.

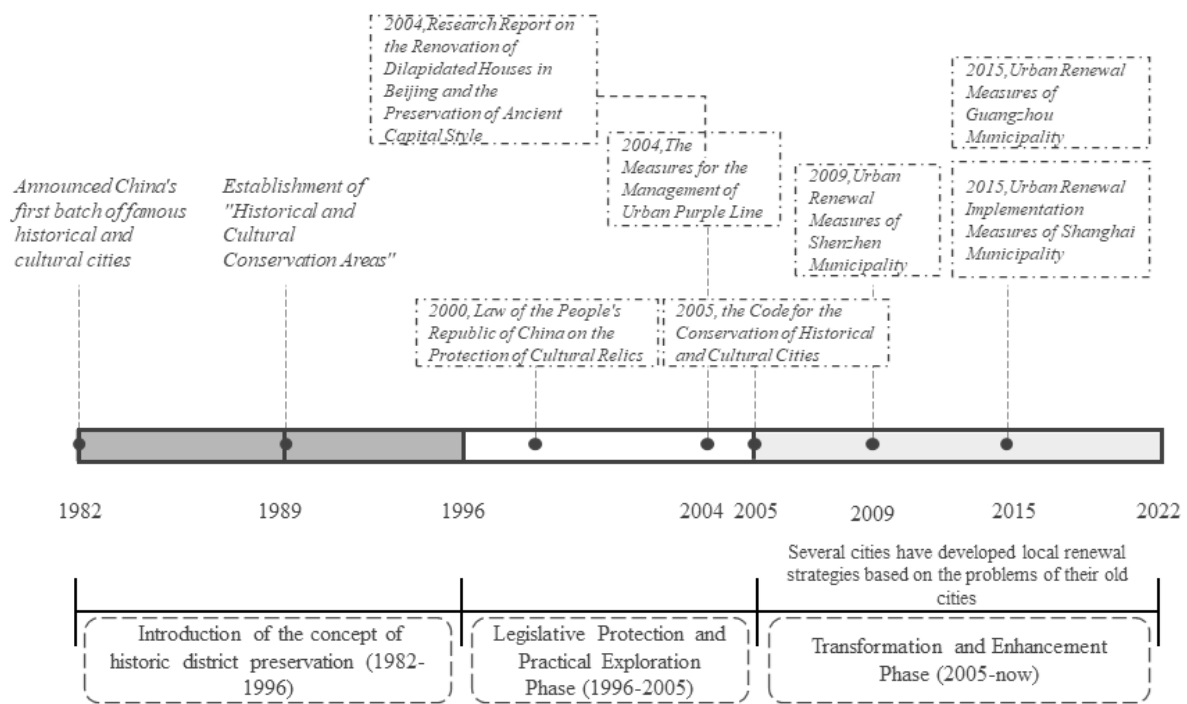


Figure 2-9 Micro-renewal policy development in China's historic districts

(Source: By author)

(3) Funding Sources

There are three main ways to source funds for micro-renewal renovation of historic districts: one is the main government's financial funds, such as Guangzhou's Pantang Wuyue; one is the government's way through company joint venture, such as Shanghai's Xintiandi renovation; and another is the social capital-led BOT model, such as Guangzhou's Zhuangyuanfang. And with the gradual development and follow-up of micro-renewal, the sources of funding are becoming more diversified and diverse. For example, government subsidies and developer investment, joint NGO (Non-Governmental Organizations), NPO and other organizations using new platforms such as microfinance and community funds.

(4) Organizational Structure

The domestic organizational structure has a vertical hierarchical "umbrella" structure, with a central organizational model at each level (Figure 2-10). The main organizational structure is that each central organization is responsible for coordinating the operation of the same organization, while other departments play a supporting or supervisory role. The disadvantage of this organizational structure is the lack of flexibility and diversity, and the low level of public participation and power.

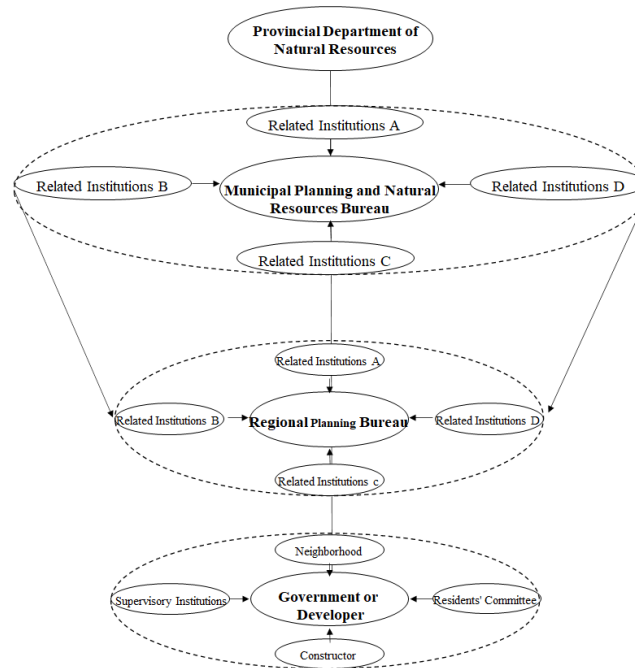


Figure 2-10 Organizational framework for micro-renewal of historic districts

(Source: Yang Tao, A Comparative Study of Urban Renewal Mechanisms in Old Residential Areas in Berlin and Shanghai)

(5) Public Participation

The main group of public participation in micro-renewal of historic districts is still the neighborhood committee composed of resident representatives. With the diversification of historic district renewal in recent years, the degree of public participation has gradually increased and the importance of public participation has been gradually recognized in more and more projects. For example, the third-party public participation of NGOs in Guangzhou's Yongqingfang has driven the way of

renewal, speaking for residents, and participating in collaborative organizing efforts. And with the emphasis on community-based regeneration, community planners also play a major role in public participation in micro-renewal, contributing to the integrated development of the physical environment and facilities, community members, community organization and management mechanisms, and the cultivation of a common sense of community.

The main models of public participation in China are the single-line progressive model, representative feedback model, property intervention model, and external agency service model^[47]. The overall participation model is still relatively single, lacking effective and direct communication and a mature platform.

(6) Operation Process

The overall operation process is still a top-down process, mainly by the higher government through policy and planning guidance, to coordinate the renewal process of the historic district, and by the developer capital investment, to promote the development of the renewed industry, to maintain the later operation (Figure 2-11). The residents have a weak voice in the process of historic districts.

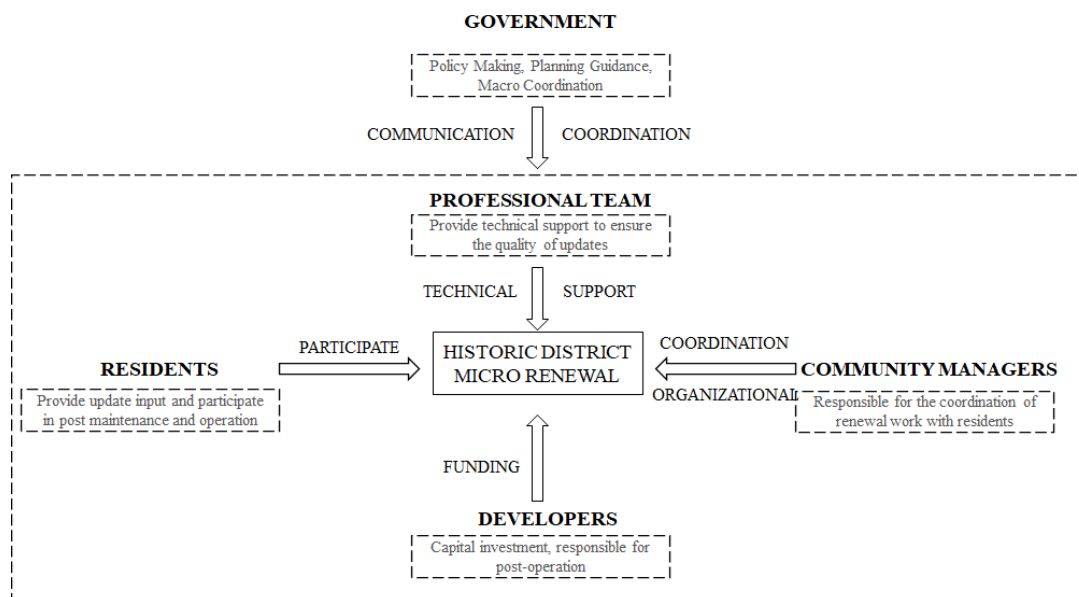


Figure 2-11 Operation process of micro-renewal in historic districts

(Source: By author)

2.2.3 Comparison of Theoretical Background

The concept of Careful Urban Renewal and micro-renewal is to pursue gradual, small, and slow regeneration, which is relatively soft compared with large-scale demolition and construction. From the theoretical nodes, we can see that the proposal of Careful Urban Renewal was made after the era of large-scale demolition and construction in foreign countries, in order to respect the long-established historical and humanistic texture of the city, to consider the interests of all parties, and to make the social and economic resources more effective after a thorough understanding of the city's own ecological environment. The background of micro-renewal is also a change in the era of big demolition and construction in China, in order to adapt to the new development model and deal with the demand of renewal of the stock. Therefore, its theoretical background is similar, and its spiritual connotation is also similar. However, there are some similarities and differences between Careful Urban Renewal and micro-renewal due to national conditions, development practices, and society. Next, we will compare them in terms of policy system construction, funding source, organizational structure, public participation, and operation process.

2.2.4 Comparison of the Two Models

(1) Comparison of Policy System

Table 2-3 Comparison of Chinese and German renewal policy systems

(Source: By author)

Renewal Framework		Germany Careful Urban Renewal	China Historic District Micro Renewal
Policy System Construction	Measures	1. Inclusion of the renewal of the Kreuzberg district in the Berlin Land Use Master Plan	1.Three Stages of Historic District Preservation
		2.Specify detailed plans for updated areas	2.From static protection to dynamic renewal

		3.IBA's renewal of old districts written into Berlin's building conservation law	3.Various localities started to develop urban renewal policies
		4.12 Principles of Careful Urban Renewal	
	Policy	<p><i>Urban Development Promotion Act</i>, 1984 (Stadtebauförderungsgesetz); <i>Housing Modernization Act</i>, 1976 (Wohnungsmodernisierungsgesetz); <i>Building Code</i>, 1987, 1990, 1998 (Baugesetzbuch); <i>Modernization agreement</i>, 2004 (Modernisierungsvereinbarung)</p>	<p><i>Law of the People's Republic of China on the Protection of Cultural Relics</i>, 2002; <i>The Conservation Plan of Historic Cities</i>, 2005; <i>Urban Renewal Measures of Shenzhen Municipality</i>, 2009; <i>Urban Renewal Implementation Measures of Shanghai Municipality</i>, 2015; <i>Urban Renewal Measures of Guangzhou Municipality</i>, 2015</p>
		The relevant laws are constantly adjusted to demonstrate their flexibility; the legal system of urban renewal at the national level ensures its stability.	Static update to dynamic update of historic district renewal protection, although local designation of a systematic approach to urban renewal, but has not formed a complete legal system at the national level
	Similarity	<ul style="list-style-type: none"> • Policy will be adjusted according to the problem and is flexible 	

	Differences	<ul style="list-style-type: none"> • Germany has developed urban renewal laws and systems at the national level • China country has not formed a systematic renewal of the legal system
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• Similarity of Renewal Policies

The similarity of renewal policies is that whether it is German urban renewal laws or Chinese laws on micro-renewal of historic districts, it can be found that with the development of the times and with the different problems, different legal policies will follow to adapt to the needs of urban renewal. The urban regeneration ones will be revised according to the problems and challenges encountered at each stage, responding to different institutional needs and development trends, and reflecting adaptability.

• Differences in Renewal Policies

The stability of the German urban renewal system stems from the fact that Germany has established an urban renewal law and system at the national level, and the allocation of public funds for urban renewal at the state level within the framework agreed upon by the federal government and the state governments²⁴. Urban renewal goals and plans are set at the city and town level according to actual needs. In contrast, the current micro-renewal practices and policies in China are in the initial stage, and no national-level urban renewal law and system has been formed.

(2) Comparison of Funding Sources

Table 2-4 Comparison of Chinese and German renewal funding sources

(Source: By author)

Renewal Framework		Germany Careful Urban Renewal	China Historic District Micro Renewal
Funding Model	——	1. Government funding of public service facilities dominated during the IBA period, while public funding	1. Government funding
			2. Developer investment

		decreased and private investment increased after the reunification of Berlin	
		2. Government investment and partial private funding for old housing renovation; urban heritage preservation grants; corporate investment	3. Private funding
			NGOs, NPOs and other organizations use new platforms such as microfinance and community funds
		Government dominated in the early stages, shifting to government-led private investment in the later stages. Overall Diversification	Multi-channel, Diversification
	Similarity	<ul style="list-style-type: none"> Diversification of funding sources 	
	Differences	<ul style="list-style-type: none"> Different private capital investment Different use of funds 	

• Similarity of Funding Source Diversification

The funding model of Careful Urban Renewal and the funding model of China's historic districts show the diversification of funding sources, instead of presenting a single model of government funding or social capital, and in general the diversification of capital tends to be conducive to the renewal process. Moreover, the diversification of funding is a unique characteristic of this small, incremental regeneration model, which is small, multi-point, and multi-cycle, which means that the funding is also multi-channel.

• Different Private Funding Inputs

In the two periods of Careful Urban Renewal, it is obvious that the proportion of private funding has changed significantly, in addition to the transformation of social issues and

Berlin's financial problems, there are other important reasons, such as its companies, the system of privatization of housing, housing rental-based model, government policy support and guidance, are conducive to the input and protection of private funding in the renewal of old cities. In contrast, the funding source for the renewal of historical districts in China is still mainly in the form of government or joint venture between government and developers, while private funding or other funding methods still account for a relatively small part.

• Different Uses of Funds

In the process of Careful Urban Renewal, government funding for public services is still mainly government investment, and private funding is advocated for the renovation of private housing. For example, under the support of urban heritage conservation funds, many areas of historical buildings have been well utilized and renovated, about 1 euro can drive 5.4-5.8 euros of private investment, public funds investment in the early stage of investment in infrastructure is good to drive the operation of private capital. The mode of operation of the funds is still relatively clear. In addition, there is a community cooperative fund, which is discussed by the community for the renewal of public space, and the mode of operation of its funds is more diversified. In contrast, domestic funds are not used in a diversified way, and the main mode of operation tends to be the use of large areas, not the micro-use mode in micro-renewal.

(3) Comparison of Organizational Structures

Table 2-5 Comparison of the organizational structure of Chinese and German renewal

(Source: By author)

Renewal Framework		Germany Careful Urban Renewal	China Historic District Micro Renewal
Organizational Structure	Federal/nation level	Federal Regional Planning, Architecture and Urban Development	Ministry of Natural Resources

	Municipal level	Senate for Urban Development Berlin	Provincial Department of Natural Resources
			Municipal Planning and Natural Resources Bureau
	Regional level	Regional Planning Bureau	Regional Planning Bureau
	Civil society organizations	Gesellschaft der Behutsamen Stadterneuerng mbH（IBA GmbH）	Developers
		Tenant Advisor	
		Urban Independent Organization S036	Residents' Committee
		Renewal Commission KottbusserTor	NGO
		Residents' Association	
	Similarity	• The renewal mechanism has similar values	
	Differences	• The organizational framework of " Careful Urban Renewal" emphasize more on socially driven renewal • The China organizational framework presents an efficient organizational model	

• The Renewal Mechanism Has Similar Values

The overall context of Berlin's Careful Urban Renewal proposal was to solve the problem of residents and the retention of the historical community, so the overall organizational structure was innovative in the context of the large-scale demolition and construction at that time. Therefore, their overall starting point is the interests of the residents as the value orientation of the regeneration mechanism. Similarly, in China's historic districts, with the improvement of the preservation system, the renewal mechanism is slowly moving towards a sustainable development model, and the overall organizational framework can be found to be shifting from the previous government-led model to a renewal model that listens to the voices of the residents. The renewal of historic districts is no longer about the commercialization of the entire

population, but more humanity, preserving more of the original residents and preserving more of the historical memory.

• Differences in Organizational Structure

"The organizational framework of " Careful Urban Renewal" is generally characterized by a decentralized, flattened, and diversified inverted umbrella structure, with the top emphasizing the implementation of planning and policies, and the bottom reflecting democracy and public participation, reflecting the overall trend from top to bottom of weakening governmental actions and increasing spontaneous social actions. The overall trend is toward weaker government action and stronger social initiative^[17].

The domestic organizational framework can be found in the form of a centralized, vertically hierarchical "umbrella" structure, while the organizational structure for transformation is an administrative task model rather than a consultation system focused on social participation. This model has a high efficiency of rehabilitation, effectively integrates the resources of the society, and can achieve good results in a short period of time. However, at the same time, this is also a problem that he possesses. Micro-renewal is not a short-term effect work, which also leads to an overall weak social participation, a single channel for residents' participation, and sometimes it is difficult to truly express the residents' voices. It lacks the flexibility and diversity of the organizational system.

(4) Comparison of Public Participation

Table 2-6 A Comparison of public participation in The Sino-German renewal model

(Source: By author)

Renewal Framework		Germany Careful Urban Renewal	China Historic District Micro Renewal
Public participation	A decision-making framework	Redevelopment advisory council	Residents' Committee

	The cornerstone of public participation	Residents' Association	—
	Organizer of public participation	Managing Company	Government
	Other	Active members of the public or representatives of public interest groups	Community Planner
		Related Experts	
		Resident Representative Office	
		Tenant Advisor	
		Media and Public platform	
		Community Events	
		Education Network	
	Planning Tools	Integrated Urban Development Concept (ISK , Integrierte städtebauliche Entwicklungskonzepte)	—
	Similarity	<ul style="list-style-type: none"> • Focus on the interests of residents 	
	Differences	<ul style="list-style-type: none"> • Differences in legal guarantees for public participation • Differentiation of channels for public participation • Differences between active public participation and management 	

• Similarity of Residents' Participation in the Decision-Making Process

Public participation in both Careful Urban Renewal and micro-renewal is involved in the decision-making process during the renewal process, and is no longer the same as the previous model of completely government-led or developer-led renewal. Planning and design are becoming more and more humane and concerned with the interests of residents.

• Differences in Legal Guarantees for Public Participation

Careful Urban Renewal has a complete system of guarantees for public participation. The upper level of the legal system guarantees the basic rights of public participation, while the lower level of the regulations clarifies the details of residents' participation with the goal of urban renewal. For example, public participation in the 12 renewal principles and the Building Code provides for public participation in decision making in renewal planning, making public participation in "Careful Urban Renewal" guaranteed by law and strengthening public awareness and acceptance of urban renewal, and safeguarding the rights and interests of more groups.

The current regulations of micro-renewal in China's historic districts focus on the realization of the technical route, i.e., the legalization of the procedures related to the transformation of physical space. Neither the higher-level urban and rural planning law nor the municipal-level policy regulations set out in detail the process of public participation and social coordination. The importance of public participation and social coordination has not yet been reflected.

• Differences in the Channels of Public Participation

The channels of public participation in Careful Urban Renewal have formed a system that is diverse, efficient, and direct. Residents can participate directly in the regeneration planning process in multiple ways and through multiple channels. For example, there are committees and commissions that coordinate through development companies, and there are frequent community events and reports on the progress of regeneration. Residents are involved in the planning and design of the renewal process from the very beginning. Even as the times have changed, community participation has diversified, through educational networks, neighborhood advisory committees, etc. In contrast, public participation in China is still in its infancy, and the way of public participation is still more in the stage of monitoring and symbolic participation. The main focus is on three aspects of micro-renewal:

- 1: interviews with residents in the pre-programming stage.

- 2: information publicizing, publicity, and education of the renewal process.
- 3: the symposium to discuss the program.

The lack of channels for residents to participate in micro-renewal, of enthusiasm of residents to participate, and communication and of coordination platforms have led to the above-mentioned public participation staying at the surface level.

The main participation models are single-line progressive model, representative feedback model, property intervention model and external agency service model^[47]. Although community planners are slowly intervening in the micro-renewal model, the overall channels for resident participation in micro-renewal of domestic historic districts are still too limited, and residents are not able to make their voices heard well.

• **Differences Between Active Public Participation and Management**

The introduction of Careful Urban Renewal also means that Berlin's model of renewal is a social one, which started with the "Occupy" movement of residents and students. Therefore, the public participation in Berlin is still very active. The management of public participation is also organized and expressed through channels, and the degree of public participation has been considered in the overall organizational framework, forming an important part of the Careful Urban Renewal framework.

The micro-renewal of domestic historic districts has led to low public participation due to the ambiguity of the policy on historic buildings, the government-led inertia in recent years, and the weakness of the awareness of rights. Moreover, the government is more interested in soliciting opinions and providing some supervision channels for residents' participation, and the management aspect of public participation is too simplified.

(5) Comparison of Operational Processes

Table 2-7 Comparison of Chinese and German renewal operation process

(Source: By author)

Renewal Framework		Germany Careful Urban Renewal		China Historic District Micro Renewal
Operation Process	Planning	Goal	Consider residents' interests	Government Policy Planning
		Necessary factors	Democratic participation, technical support	
		Target groups and individuals	Relevant residents or affected groups	
	Implementation	Planning Preparation	The development company is responsible for organizing and the residents are involved throughout the process	Government-led
			Planning Reversibility	Call for proposals
		Implementation	Urban development companies are responsible for implementation	Professional design team provides solution support
				Construction unit implementation
			Old house renovation is divided into developer responsible and autonomous renewal	Developers are responsible for post-operation
	Similarity	<ul style="list-style-type: none"> Relying on marketization in the implementation process 		

	Differences	<ul style="list-style-type: none"> • Differentiation of non-stakeholder institutions in the operational process
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• Relying on marketization in the implementation process

In both Germany and China, the implementation process is subject to a bidding process to determine the construction unit and the relevant supervisory unit is hired to supervise the whole process.

• Differentiation of non-stakeholder institutions in the operational process

There is a very important role in Careful Urban Renewal - the managing company. It is the organizer of the whole process and the commissioner of the regeneration project. It is not only responsible for the process of the project from planning to implementation, but also undertakes the organization and coordination of public participation, which is the basis of the whole process. As a non-stakeholder organization, the development company can provide a better platform for coordination, allowing the government to provide guidance rather than a leading role, and giving the public a platform to voice their participation.

The domestic renewal process is still government-led, and the developer, as the actual project developer, serves the government as the main target. Moreover, as a stakeholder, it is not able to coordinate the interests of all parties well and cannot ensure the objectivity of the renewal process. Although in recent years, public participation has been taken as an important force in the landing of micro-renewal of historical districts in China, the public participation in the whole process is still low. There is a lack of involvement of non-stakeholder organizations to better coordinate the interests of all parties.

2.3 Why Learn from Careful Urban Renewal?

2.3.1 Similarity of urban renewal contexts and issues

After World War II, Berlin went through a large-scale demolition and construction in the 1960s to improve the image of the city center. After the 1980s, with the development

of the post-modern era, West Berlin began to turn to the thinking of urban culture and the permanent form of the city and the criticism of the culturally barren city. And with the reunification of the two German states in the 90's, human-centered thinking and sustainable thinking began to gain attention, and urban renewal became more and more concerned with a multi-dimensional and integrated approach to urban governance in social, economic, and physical environment, and careful urban renewal stepped into a new period. In China, the 80s and 90s also experienced the market-driven urban model of large-scale demolition and construction, which caused irreparable damage to urban history and spatial form. With the change of concept in the 21st century, urban renewal has slowly stepped into the era of humanistic-oriented, inventory renewal and refined renewal. The background of its renewal is similar, Germany went through these stages earlier than China, and through the two periods of renewal, careful urban renewal has formed a more comprehensive urban renewal strategy and system.

The problems of old city regeneration are similar. For example, during the IBA period, Berlin's Kreuzberg was faced with the renewal of its urban fabric and how to preserve the structure of the neighborhood; after the reunification of Germany, the Spandauer Vorstadt neighborhood was faced with the problems of unused neighborhoods, the lack of history and culture, and the transformation of its industrial structure. These problems are similar to the current problems of old city renewal in China.

2.3.2 What issues of Micro-renewal can be improved?

(1) Problems of Micro-renewal Models in Chinese Historic Districts

After the comparison of the two regeneration models in the previous section, it can be found that there are still areas that need further improvement in China's micro-renewal model. For example, the policy mechanism of micro-renewal has not yet formed a nationwide and guaranteed form to ensure the effective implementation of renewal in each local area; in the process of implementation, it is still mainly led by the

government and lacks a more efficient platform to communicate with residents, developers, professional groups and other interest groups; in the way of public participation, it still remains symbolic participation and lacks more diversified and guaranteed channels; and the funding for renewal also lacks diversification. There is also a lack of diversified funding.

(2) Lessons Learned in Renewal Transformation

The development of micro-renewal in China has made progress in various aspects since 2010, but the renewal system and methods still need to be improved. By learning from Germany's 40 years of perfect renewal system, it is important for the improvement of China's micro-renewal method.

Although Germany is different from China in terms of system, economy, and historical background, its experience and lessons learned in the renewal process can help China's old city renewal to take many detours, such as renewal policy, resources, operation process, resident participation, and spatial strategy.

2.3.3 Learn from Careful Urban Renewal

(1) Learning from the Policy System

Germany's Careful Urban Renewal system is constantly adjusting and changing with different renewal issues at different times, and its renewal concept is supported by a complete set of policy system. Effective system adjustments are made according to the system needs and development trends in different periods. This is to reflect the flexibility of the system. The German government establishes urban renewal laws at the national level and has a complete and rigorous set of laws and regulations and planning processes through a three-level planning system at the national-state-regional level. There are certain regulations and relatively comprehensive legal safeguards for policy, historical preservation, public participation, management, and construction. The stability of the renewal system is ensured by constructing a stable and systematic policy and system. China is still dominated by a municipal stage

renewal system and lacks a more secure national policy basis.

The renewal of old cities is a lasting task, yet many of the current renewal models still focus too much on short-term benefits. Berlin's Spandauer Vorstadt has been renewed for more than 20 years and is still undergoing continuous improvement. Therefore, it is important to focus on the continuity of the renewal process and to have some evaluation management of the concrete implementation of the plan. A disconnect between planning and implementation should be avoided. It is possible to learn from the stable and coherent project management mechanism in Germany, to achieve an integrated management system of pre-project research, project implementation management and post-project evaluation.

(2) Learning from Organizational Structure and Public participation

One of the most important aspects of Careful Urban Renewal in Germany is public participation. They have gradually decentralized their planning authority and created a platform for public participation, so that more people can be involved in the project. For example, the introduction of a non-interested organization, the management company, has been playing a top-down role in Careful Urban Renewal projects, coordinating the progress of the project, providing a communication channel between residents and the government, and organizing various public participation activities. Although the development company is responsible for the overall project progress, the public is involved in the planning and design from the preliminary research, and the design is modified according to the public's opinions.

The platform for public participation should also have specific guarantees from the policy system. The German planning system considers the right of citizens to participate in the overall planning process. And various channels of public participation are set up for the public. For example, managing companies, residents' associations, and advisory boards for renovation projects.

(3) Learning from Renewal strategy

The most important orientation of Careful Urban Renewal in terms of renewal strategy

is the concept of resident demand-oriented renewal. Residents are the basic unit that retains the social structure, and retaining residents is what brings the momentum of renewal to the community. Therefore, careful renewal attaches great importance to the living environment and conditions.

Not only should the environment of living be carefully renewed, but also the residents should be retained while renewing, so that the community is not given a new blood because of renewal. The preservation of collective memory is the greatest respect for the neighborhood's cultural context.

Careful Urban Renewal also positively explores the historical and cultural elements in the community as a catalyst to refresh the neighborhood's business. Let the life of the neighborhood come from the history and let the history and culture revive in the community. For example, the Spandau neighborhood uses art and culture as the urban catalyst.

(4) Learning from Space renewal strategy

Careful Urban Renewal also has numerous spatial strategies to learn from. It takes measures to protect the historical fabric of the neighborhood; to provide more green open space for the neighborhood; to adopt a critical reconstruction approach for new buildings; to adopt a sustainable renewal approach for residential buildings; to guide self-help renewal and provide more flexible renewal possibilities; and to adopt a spatial catalyst approach to activate the public space of the neighborhood. This is analyzed in detail in the next chapter.

2.4 Summary of This Chapter

This chapter provides an overview of the development of Careful Urban Renewal, the renewal mechanism of Careful Urban Renewal and the renewal mechanism of micro-renewal of historical districts in China, and compares the theories, policies, funding sources, organizational structures, public participation, and operational processes of the two renewal models, analyzing and comparing their similarities and differences in order to learn from the Careful Urban Renewal policy, public participation, renewal strategies, and spatial strategies. The purpose is to learn from the Careful Urban Renewal approach in terms of renewal policy, public participation, renewal strategy, and spatial strategy.

Chapter 3 Cases Study of Careful Urban Renewal

Facing the problem of urban reconstruction after World War II, Germany proposed the theme of "inner city as a living place" at the IBA in 1984, and put forward the concept of "Careful Urban Renewal" for the renewal of old cities, exploring the ways to revive old cities in Europe after World War II. After the reunification, the renewal of the old city of East Berlin also became an urgent issue. Since 1993, the old city of Berlin has been successfully revived as a modern and dynamic city under the concept of " Careful Urban Renewal ". In this chapter, author analyze the problems of two important periods of Careful Urban Renewal, the Kreuzberg in the IBA period and the Spandauer Vorstadt after the reunification, and summarize their spatial strategies for urban design and renewal.

3.1 Careful Renewal of the Background in The Kreuzberg and Spandauer Vorstadt

3.1.1 Historical Background

(1) Kreuzberg (IBA Period)

The history of Kreuzberg is a history of social contradictions, a microcosm of recent German urban development, which has undergone several historical urban changes and developed under the weight of great social conflicts. It is here that the changes and uncertainties of urban life reach their peak^[48].

James Hebrecht followed the original idea of Peter's plan in 1862 and determined the subsequent urban development pattern of Kreuzberg. After the Industrial Revolution, many workers came to this cheap area and the famous "rent camps" were formed during this period. However, after World War II, with the division of the Berlin Wall and the concept of urban development, the district was confronted with two main phases.

- **The first phase:** the Berlin Wall in 1949 cut Kreuzberg off from the original urban fabric and transformed it from a central area to a peripheral one.
- **The second phase:** the demolition and extravagant renovation of Kreuzberg in the 1960s and 1970s was the main problem of urban development.

With the highway planning of the 50s and 60s, the push-to-rebuild development model was promoted, and developers and private investors bought up a lot of houses and let them deteriorate (Figure 3-1)^[49]. As a result, many residents moved out of the city, and funding problems led to vacant homes, with the unemployed, homeless, elderly, and immigrants moving into temporary vacant housing.

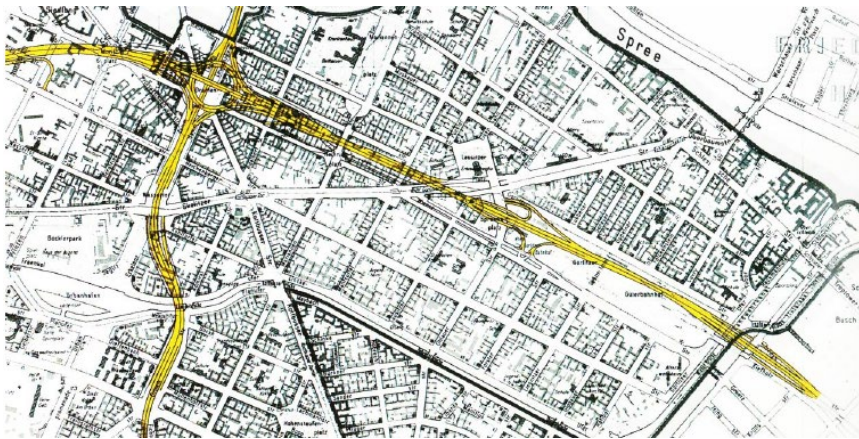


Figure 3-1 Road planning through the Kreuzberg area

(Source: P. Kleihues, H. W. Hämer, Berlin Modern Architecture, Gernot & Nalbach, Berlin, 1989)

During these almost 15 years of major demolition planning, over 7,000 apartments were demolished in the Kreuzberg area and 15,000 residents and hundreds of businesses were forced to move out. At this time, Kreuzberg was facing a structural and social crisis, and in 1979 Hämer was assigned as planning director for the renovation of the old buildings at the International Architecture Exhibition (IBA) in Berlin. IBA-Altbau (Old Buildings) wanted to "save the broken city" in the eastern half of Kreuzberg. Although the redevelopment plans had been stopped, the movement and resistance of the residents from 1980-1981 expressed their distrust of the Berlin government. It was only through the success of Hämer's pilot plot and the proposed 12 renewal principles proposed in 1983 that it regained the support of key residents^[50].

(2) Spandauer Vorstadt (After Reunification)

Spandauer Vorstadt is located in the heart of Berlin, in the Mitte district, next to Alexander Platz, known as the "Spandauer Vorstadt" because it was a suburb of Berlin in the Middle Ages. The Spandauer Vorstadt area was a suburban farm and vegetable garden in the 17th century. The street structure is mainly spontaneous and therefore the plots are irregularly divided. The road skeleton of the neighborhood has not changed much in more than 300 years. The coexistence of residential structures of different periods with a dense network of commercial buildings is a characteristic feature of the area^[51]. In the 18th century, the earliest residences were 2-3 stories, which gradually became high-rise apartments and commercial buildings with the development and construction of later businesses.

The development of the area began with the acceptance of Jews in the 17th century. The Jewish community gradually expanded and developed into a full-fledged neighborhood with schools, churches, and hospitals, which played a large role in the improvement of Spandauer Vorstadt. By the 20th century, Spandauer Vorstadt had become an established crafts and recreation district, providing many places for recreational activities. At the same time, the area became a hotbed of crime due to its poverty and mixed culture.

After World War II, the main plan for East Berlin was to build a new capital center, and in the 1980s, the proposal to demolish historic buildings and rebuild new neighborhoods was met with resistance from many residents. To celebrate the 750th anniversary of Berlin's founding, the famous Suffragettestrasse was renovated, but many neighborhoods remained unimplemented on the plan, so the Spandauer Vorstadt was preserved^[40]. It was only after the reunification of East and West Berlin that the area was listed as a National Historic District in 1990 and officially became one of the redevelopment areas in 1993 (Figure 3-2). The revitalization of the old city began on the principle of " Careful Urban Renewal ".

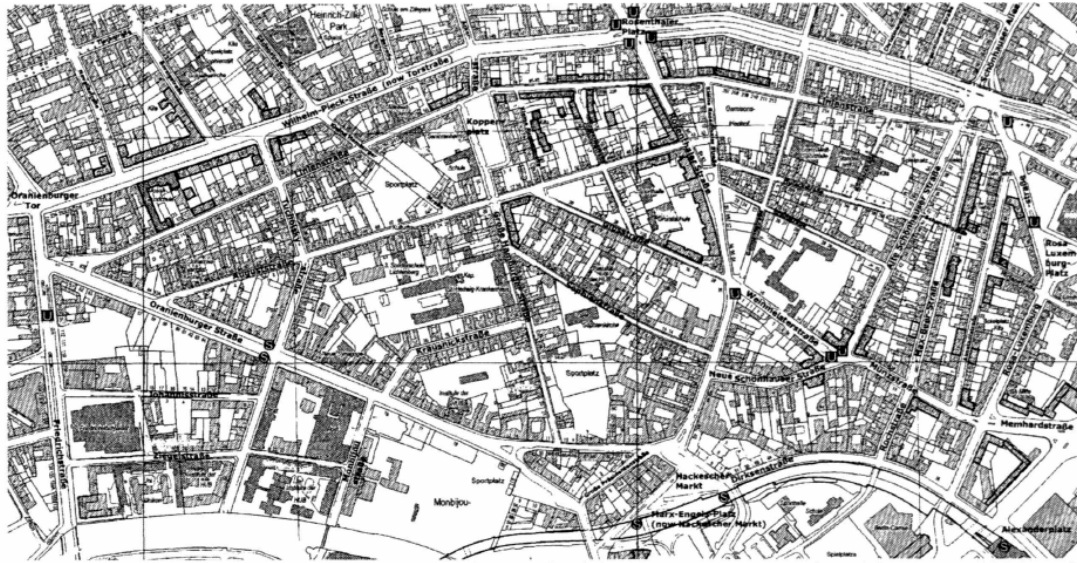


Figure 3-2 Spandauer Vorstadt in 1990

(Source: Florian Urban, The Invention of the Historic City - Building the Past in East Berlin 1970-199[D], Massachusetts Institute of Technology, 2006)

3.1.2 Major Issues

(1) Kreuzberg (IBA Period)

Kreuzberg has experienced various urban problems during these 20 years and epitomizes the problems of old cities in German cities and Europe. On the International Architecture Exhibition in Berlin 750, the problems of the area were put on the agenda and a new urban plan was prepared to solve the problems of development and housing in the area. The main issues of this period are:

- **Issue 1:** Decay of the neighborhood structure in the Kreuzberg district in the early 20th century
- **Issue 2:** The decay and deterioration of the neighborhood after World War II.
- **Issue 3:** The construction of the Berlin Wall in 1961 destroyed the original social, economic, and urban structural ties of the Kreuzberg district and the neighborhood was marginalized.
- **Issue 4:** The impact of the major demolitions and traffic planning across the neighborhood in the 1960s and 1970s on the construction of the neighborhood

(2) Spandauer Vorstadt (After Reunification)

Most of the buildings in Spandauer Vorstadt were built in the late 19th and early 20th centuries, some of them broke down during World War II, and because the East Berlin government did not pay much attention to the reconstruction of buildings, the neighborhood decayed and many buildings were left vacant. After German reunification, the Spandauer Vorstadt of this period faced the following main issues:

- **Issues1:** The neighborhood decayed and housing became heavily vacant due to a prolonged lack of maintenance during the Cold War
- **Issues2:** 25% of the stores and 20% of the housing stock were unused
- **Issues3:** Decay of the history and culture

3.1.3 The Principles of Careful Urban Renewal

Summarizing the 12 renewal principles for the two periods, it can be summarized that the renewal for the two periods was mainly based on the following basic principles:

(1) Preserving the social and urban structure of neighborhoods

The purpose of Careful Urban Renewal is also to preserve the neighborhood's population as much as possible, without losing its low-income population to relocation due to renewal and destroying its demographic and social structure composition. And to address the social problems of the area by means of Careful Urban Renewal: population loss, adaptation of families to renewal, job opportunities, racial segregation, etc. And to preserve and develop the existing urban fabric structure as the memory of the city.

(2) Assurance and operability of public participation

Public participation is an important part of Careful Urban Renewal. The basis of renewal is the needs of the residents, and diverse renewal plans are developed according to the needs of the residents. Therefore, guaranteeing residents' voices and having operable ways are important principles of Careful Urban Renewal.

(3) Progressiveness of renewal

Careful means a fuller study of the city's problems, which necessarily takes a longer renewal cycle. It is no longer a simple and fixed process for urban renewal, but a careful renewal within a certain cycle through the guarantee of renewal mechanism.

(4) Guarantee of renewal policy

Whether it is funding, or public participation, or the operation of the operational mechanism, all must be established after a guaranteed policy system. Therefore, the establishment of a complete set of renewal policies, so that Careful Urban Renewal can be based on evidence, can ensure the orderly revival of old cities.

3.1.4 Main Renewal Strategies**(1) Kreuzberg**

The West Berlin government has a long-term, progressive regeneration plan for Kreuzberg (Figure 3-3) and has included the regeneration plan for the area in the government's development program^[16]:

- **First**, to improve and upgrade the dilapidated residential buildings;
- **Second**, to guarantee the development of the neighborhood's businesses and provide employment and education opportunities for residents;
- **Third**, to improve the neighborhood's infrastructure, transportation, health care, education, etc.
- **Finally**, to make Kreuzberg a model district for the renewal of West Berlin.

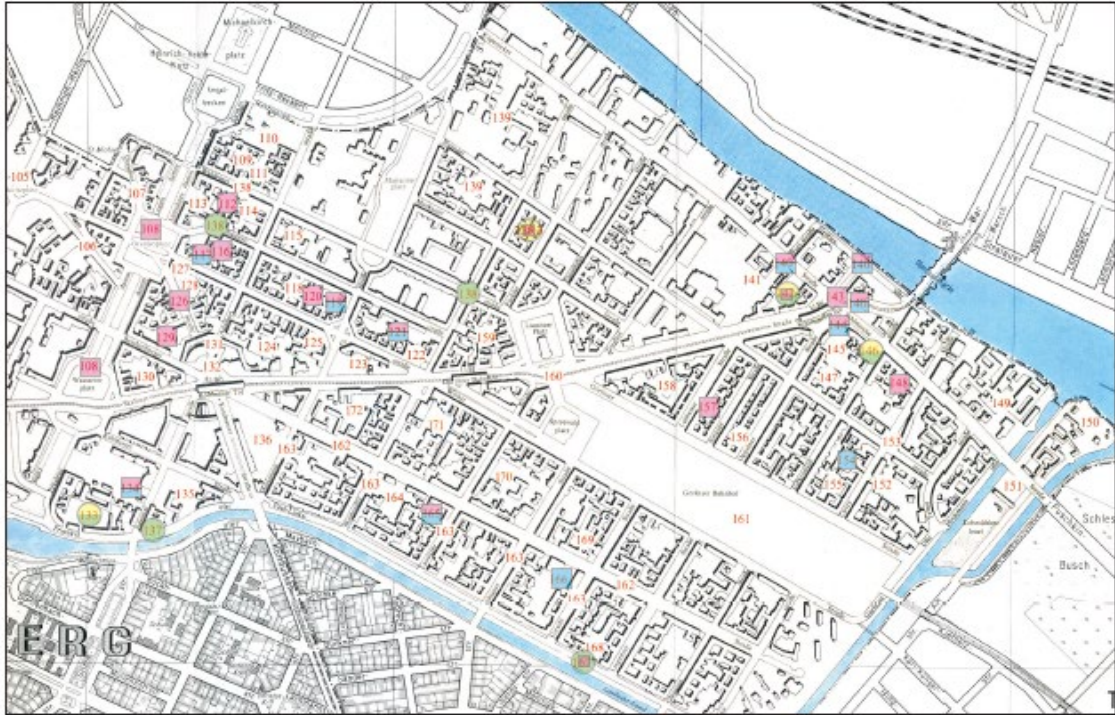


Figure 3-3 Careful Urban Renewal areas in Kreuzberg

(Source: Internationale Bauausstellung. Internationale Bauausstellung Berlin: Projektübersicht. Berlin:

IBA GmbH, 1987)

(2) Spandauer Vorstadt

Spandauer Vorstadt's Careful Urban Renewal can be divided into three phases: pre-study, study planning and implementation. It is not very different from the IBA period of careful renewal, which goes through several rounds of "research and evaluation - planning - implementation" and ensures public participation in each stage [28]. The Spandauer Vorstadt has been progressively renewed in two main periods since 1993.

The first period: 1993-2008: renewal of the residential facilities and the neighborhood environment (Figure 3-4)

The second period: After 2008, the environmental upgrading plan of the neighborhood was basically completed, and the next phase of the development was clearly defined as a new position of tourism and leisure, art, and culture, and mixed commercial and residential. It also established the development plan of transforming several urban courtyards, such as Hackesche Hofe, into spatial catalysts, introduced

art and culture as the development characteristics of the neighborhood, and formulated the corresponding spatial activation strategy of public participation.

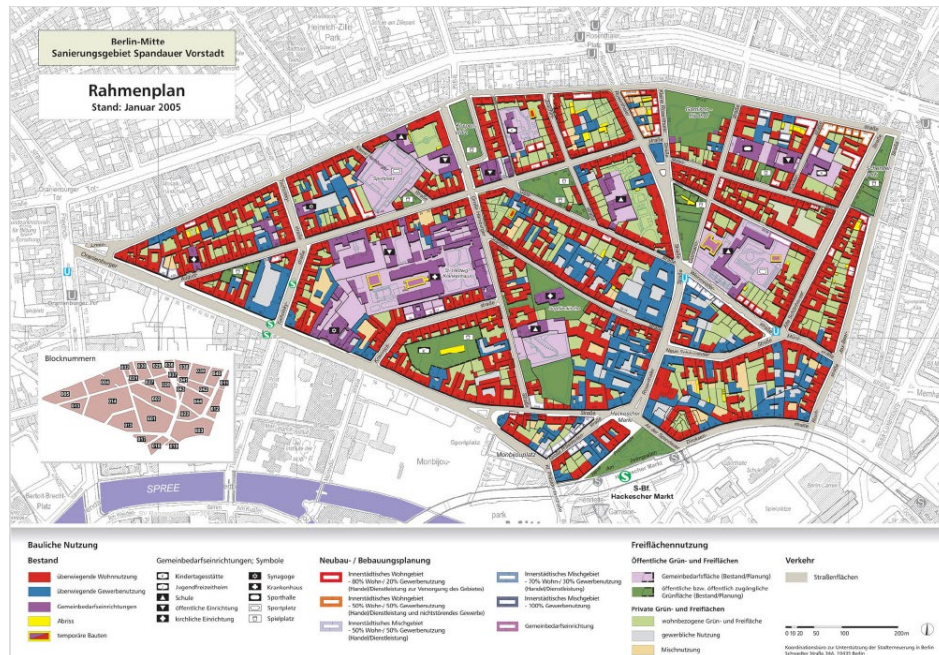


Figure 3-4 Careful renewal of Spandauer Vorstadt in Berlin after reunification

(Source: Senate Department for Urban Development)

3.2 Careful Renewal of Living Environment

3.2.1 Neighborhood-Based Renewal Model

The Kreuzberg area is a classic square grid layout of the old city, divided into relatively independent neighborhoods with outer buildings of about 5-7 stories, usually with street-level commercial on the ground floor and residential on the upper floors. Kreuzberg's regeneration approach is also based on the division of smaller blocks and the use of blocks as regeneration units, forming a multi-scale, multi-point regeneration model (Figure 3-5). The preservation plan can be more refined according to the specific spatial and social characteristics, thus achieving the purpose of careful renewal. Using the neighborhood as the basic unit, the work is carried out in terms of preserving the spatial structure of the old city of Berlin, improving the quality of the architecture, increasing the number of houses and types of public facilities, renewing the street

space, basic design, and inner courtyard space of the neighborhood.

These small-scale spaces are the main units that make up the social space. In these blocks there are both public and private spaces, which carry the most dominant activity spaces. In these neighborhoods, various scales of unit spaces are formed due to different needs. These unit spaces are pleasantly scaled, intimate and safe. Through the combination of different street blocks, they form neighborhoods that create a cultural and social spatial atmosphere unique to the area.

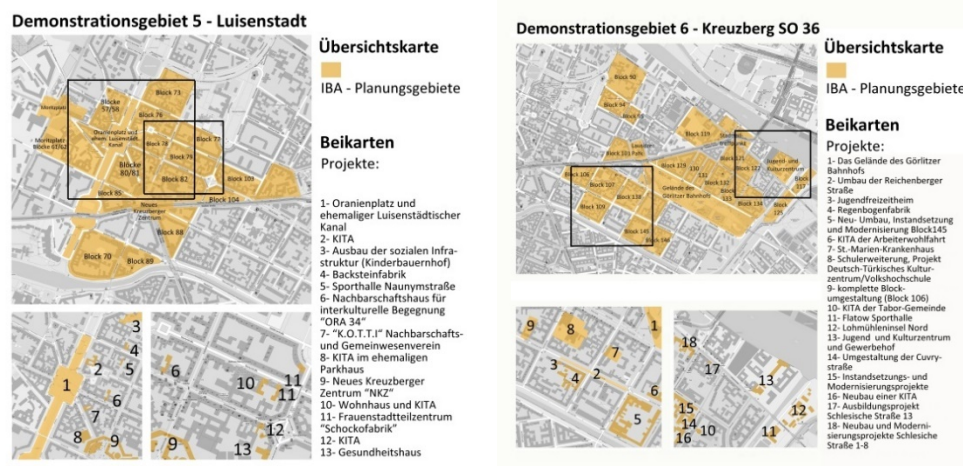


Figure 3-5 Renewal unit zoning in the Kreuzberg neighborhood

(Source: <http://f-iba.de/uebersichtskarten-der-demonstrationsgebiete/#more-367>)

The scale of this renewal can be seen in the subtle division from renewal areas to renewal blocks to renewal units. Different regeneration schemes are developed according to different regeneration blocks, creating a rich diversity of neighborhoods. The division of the regeneration blocks also facilitates public participation and enables the formation of smaller groups of residents, which is conducive to a better voice of the residents.

The pattern of regeneration after the reunification of Berlin is similar, and although the streets of Spandauer Vorstadt show irregular characteristics, the city's regeneration unit is also a block-based regeneration model (Figure 3-6). The needs of each block were analyzed in order to develop public facilities, infrastructure design, and the implantation of public space.

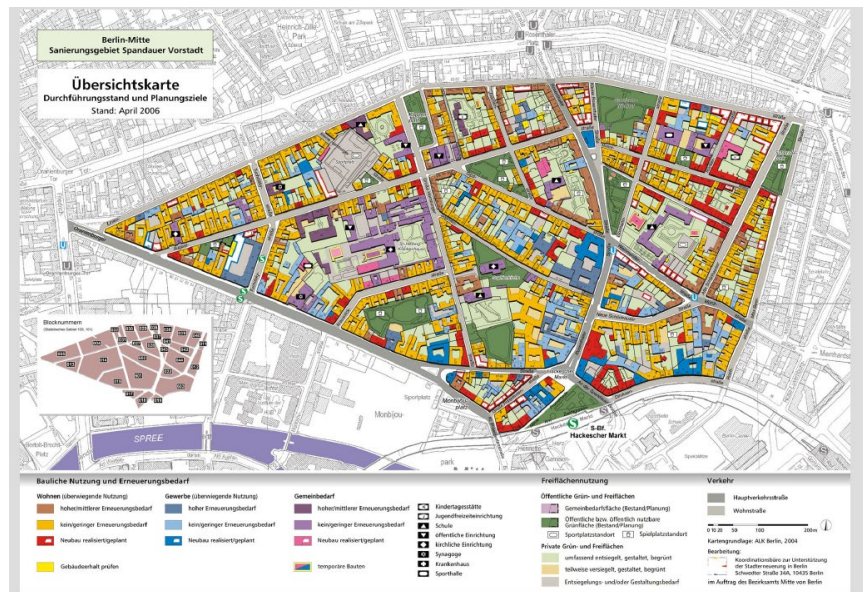


Figure 3-6 Renewal unit zoning in the Spandauer Vorstadt neighborhood

(Source: <https://www.stadtentwicklung.berlin.de/>)

3.2.2 Carefully Preserved Neighborhood Fabric

For the historical fabric, the concept of careful renewal is to preserve the historical memory and fabric, to repair the historical fabric as much as possible, and to destroy the historical memory to the least extent.

When large-scale demolition and construction was prevalent, the destruction of the urban fabric brings about the loss of collective memory and the loss of social neighborhoods. Preserving the historical fabric of the neighborhood is also a cautious way to preserve the social fabric as much as possible. In the urban design approach of Careful Urban Renewal, there are two main approaches to restoration:

(1) Additions to the Fabric -Kreuzberg -BLOCK 121

In 1980, during a competition for the proposed renovation of the neighborhood, architect Alvaro Siza argued that the basic form should be preserved. He set specific objectives (Figure 3-8): firstly, to preserve the basic form of the neighborhood; secondly, to demolish the temporary buildings at the corners and to build new ones in harmony with the neighborhood's fabric. In 1983, a 7-story corner house was built, which together with the surrounding buildings formed the complete block form. A total of 46

residential units and 5 ground floor commercial units were provided, improving the living environment in the courtyard again.

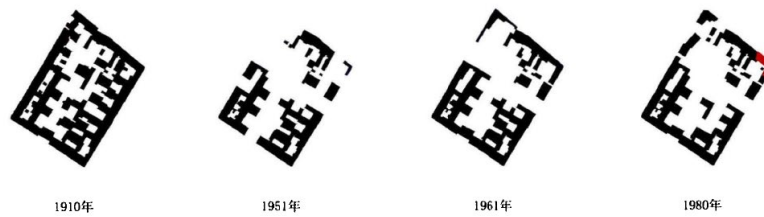


Figure 3-7 Kreuzberg-BLOCK 121's fabric patch

(Source: <http://cargocollective.com/johanrustadtorklep/bonjour-tristesse-study>)

(2) Restoration of the Whole Block—Spandauer Vorstadt

Spandauer Vorstadt had adopted the principle of holistic preservation and restoration. The historical structure was basically well preserved, but the main problems are the aging of infrastructure and buildings, and the lack of public space. With the basic preservation of the neighborhood's fabric, the old buildings were renovated in the form of facades without major renovations. Newly constructed buildings conform to the neighborhood fabric and were retrofitted to preserve the fabric of the neighborhood (Figure 3-7). In addition, the design of the old houses and building foundations were modified to reduce pollution and improve the environment and public spaces.

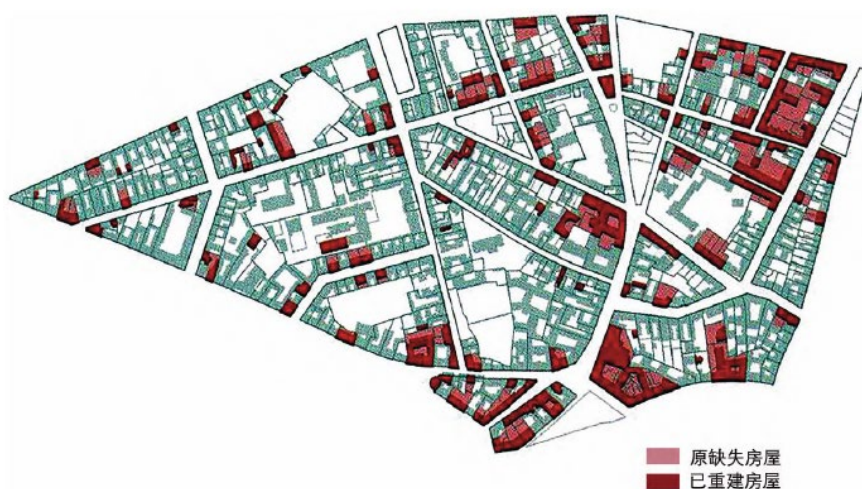


Figure 3-8 Infill renewal in Spandauer Vorstadt

(Source: Tan Xiaohong, Uwe Altröck, Yi Xin. Institutional Arrangement and Practical Strategies of Urban Regeneration in Germany from 1960 to 2019. 2022.)

3.2.3 Emphasis on Public Services and Infrastructure

(1) Kreuzberg

A summary analysis of the public facilities of urban renewal in the Kreuzberg area during the IBA period (Figure 3-9) revealed the following characteristics of public facilities:

- **Diversity of functions:** The addition of public infrastructure contained a variety of functions such as commerce, education, culture, sports, retirement, health care, green areas, squares, etc. These functions met the needs of different levels, improve the quality of material life, and build a sound public facility service.
- **Comprehensiveness of functions:** The functions were added considering different age groups and different people. These public facilities included daycare and kindergarten facilities for children; cultural, fitness and recreational facilities for adults; and cultural centers and nursing homes for the elderly. There were also schools for the blind and Turkish cultural centers for special groups.
- **Accessibility of functions:** All were set within walking distance. The radius of public facilities after the renewal was 150-500 m, so that the community could be reached within 5 minutes.



Figure 3-9 Distribution of public facilities renewal in Kreuzberg area

(Source:Wang Shan, Wang Zhijun. Research on the Renewal Method of Public Infrastructure in the Old Town —— A Case of Kreuzberg in Berlin, 2020)

3.2.4 Renewal of Green Open Space

(1) Green Open Space Within The Neighborhood - Kreuzberg-Block 121

The 121 block of Kreuzberg-Block was designed with a hierarchy of internal courtyards (Figure 3-10), with open public spaces in the center and semi-open spaces in transition with the residences, and semi-private spaces between the residences. The installation of green open space as a block unit could provide a certain flexibility of open space for the block, can enrich the spatial level of the block, and improve the diversity of the neighborhood and urban open space.



Figure 3-10 Open space within the neighborhood in Kreuzberg-BLOCK 121

(Source: Wang Shan, Wang Zhijun. The Renewal Methods of Berlin Kreuzberg, 2020)

(2) Open pocket park - Spandauer Vorstadt - a park in a ruined open space

Spandauer Vorstadt was originally a medieval farm and vegetable garden, but as the industrial age grew and more people came in, the farmland and green spaces were turned into houses. It became especially important to consider these green open spaces in this redevelopment area as there were also no green open spaces and recreational spaces nearby. These green spaces were mainly rebuilt on the ruins and open spaces left after the war (Figure 3-11). In principle, no new buildings will be built to capture the open space of the city and to provide an open space for residents to interact with each other. And in these green open spaces, more people were considered, such as children, elderly people, immigrants, etc., to give space diversity. The design of these green open spaces was done with the participation of the residents, who proposed different themes and were responsible for the maintenance afterwards.

In this way, the government's finances were reduced and public participation is increased.



Figure 3-11 Pocket parks in Spandauer Vorstadt

(Source: Li Fan, Cautious Urban Redevelopment in Berlin, 2008)

3.2.5 Highly Mixed Functions

(1) Highly Mixed Within The Block Units——Kreuzberg-BLOCK 133

The Kreuzberg area was best known for its mixed culture. The social structure of the area was complex, with poor people, elderly people, and many Turkish immigrants. The neighborhood also had industrial plots left over from the industrial era. In order to preserve the original mixed culture and to provide the convenience and vitality of the neighborhoods, many neighborhoods had adopted a mixed functional model. In addition to the main residential function of the neighborhoods, other functions such as work, entertainment, leisure, culture, and education were provided. The functions of the neighborhoods were highly mixed in plan and section (Figure 3-12).

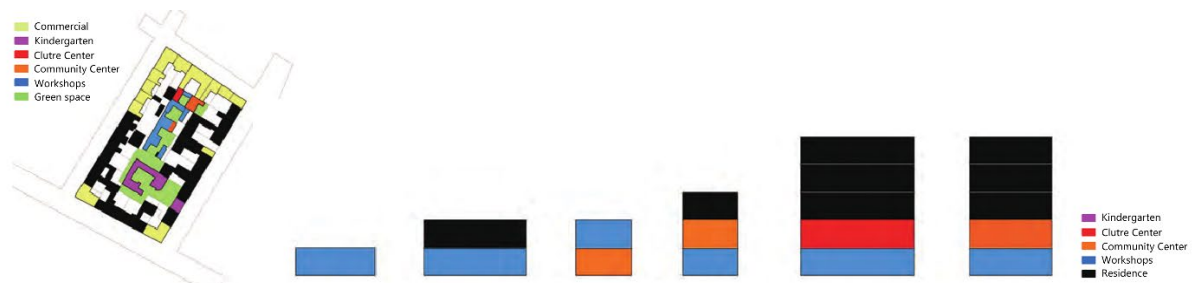


Figure 3-12 Kreuzberg-BLOCK 133 functional mixed blocks

(Source: Wang Shan, Wang Zhijun. The Renewal Methods of Berlin Kreuzberg, 2020)

(2) Commercial And Residential Mix Of Courtyards——Spandauer Vorstadt——Hackesche Hofe

Hackesche Hofe was a mixed commercial and residential model from the time it was built. After the renovation, the cultural function of the theater was restored and strengthened. In addition, the original purely residential function was also changed to ground floor stores, thus extending the commercial function from one courtyard to the entire base and forming a pedestrian consumption area that runs through the entire neighborhood (Figure 3-13). Thus, it is possible to use the unique spatial layout of the courtyard interior to form flexible and diverse small-scale businesses, which become an extension of the street commercial space and attract a large number of people.



Figure 3-13 Functions in Hackesche Hofe ground floor

(Source: JIANG Wei, A Comparison of Urban Renewal of Mixed-Use

Residential/Commercial/Industrial Historic Blocks in Germany and China——Case Studies of
Hackesche Höfe in Berlin and Tianzifang in Shanghai)

3.2.6 Uniformity and Richness of The Neighborhood Interface

(1) Uniformity of the Neighborhood Interface——Kreuzberg-BLOCK 121

The unity of the BLOCK 121 interface was not only controlled by the structure of the neighborhood, but also by the uniform control of the height of the renovated and expanded buildings (Figure 3-14). Only by ensuring that the spatial scale of the new buildings can form a certain uniform order with the historical texture of the neighborhood can the harmony of the overall neighborhood appearance be ensured.

Therefore, in the model of Careful Urban Renewal, except for the renovation of old buildings, new buildings in old neighborhoods generally did not exceed 22 meters. This principle also appeared in another Berlin concept guiding the construction of new cities (Critical Reconstruction). The aim was both to allow for a critical combination of history and modernity.



Figure 3-14 Control of the Kreuzberg-BLOCK 121 interface

(Source: <http://cargocollective.com/johanrustadtorklep/bonjour-tristesse-study>)

(2) Richness of The Neighborhood Interface

The richness of the neighborhood interface is also a feature of Berlin's urban renewal. The requirement for new buildings in the critical reconstruction that guided the construction of the new city was the control of volume, and there was no strict requirement for the form of materials and facades. Even architects from various places were invited to build their works in Berlin, thus creating a very rich landscape of neighborhood interfaces. The new buildings do not strictly imitate the historical appearance, but respect it with modern technology and the abstraction of historical types to express the present.



Figure 3-15 The richness of the Kreuzberg neighborhood interface

(Source: <http://f-iba.de/block-70-eckhaus-torhaeuser-brandwandbebauung/#more-847>)



Figure 3-16 The richness of the Spandauer Vorstadt neighborhood interface

(Source: <https://www.stadtentwicklung.berlin.de/>)

3.3 Cautious Renewal of Architecture

3.3.1 Social Renewal of Housing

(1) Restoration -Spandauer Vorstadt- Hackesche Hofe

Restoration is the most adopted means of regeneration in Careful Urban Renewal. In order to preserve the structure of the neighborhood, the restoration approach is a minimal intervention in the neighborhood. In the restoration of old buildings, the main focus is on improving the façade appearance of the building, following the original space, and only replacing the function of the building. The main task is to improve the living conditions of the buildings, and most of the old buildings have been modernized and upgraded with living facilities. Most of the old buildings have been modernized and

upgraded, for example, the kitchens and bathrooms, the heating, and the internal structure.

The Hackesche Hofe in Spandauer Vorstadt, for example, is a typical example of modernization; the Hackesche Hofe was first laid out in 1905, the structure was well preserved during the war, and although it was listed on the historic preservation list in 1977, the collective decay and lack of maintenance of the neighborhood lost its luster. In 1994, the building was maintained and renovated by architects Stefan Weiss and Matthias Faust, in consultation with the residents and merchants. The main operation was the restoration of the damaged façade and the maintenance of the roof, resulting in a complex with a richer and more harmonious transformation of the façade (Figure 3-17). The flow and spatial levels of the complex were also sorted out. Without changing the spatial structure, the neighborhood was revitalized by replacing the functions.



Figure 3-17 Comparison of before and after restoration in Hackesche Hofe

(Source: Bezirksamt Mitte von Berlin Department of town planning)

(2) New Construction -Kreuzberg- 190 Koepenichker Street - Senior Care Center

The senior care center at 190 Koepenichker Street was built as an addition to a vacant lot next to the original residence, with the old and new buildings connected by a glass hall. The senior care center is a five-story building with 65 senior residences. The architect Otto Steidle had considered the physical and psychological needs of the elderly in his design, taking into account the use of the elderly population in the subtle design and reflecting his careful and caring philosophy. The main objective of IBA was to reactivate the historic urban fabric and to adapt the old building to the times. The

elderly care center was well integrated into the fabric of the neighborhood through a new 5-story building and provides a good dialogue between the old and the new by using a semi-indoor public communication space to connect the new building with the old one.

In addition, the urban design scheme for this neighborhood boldly adopted an open layout that connected the inner spaces of the neighborhood with the outer spaces of the street, abandoning the conservative circle-table model of the neighborhood.

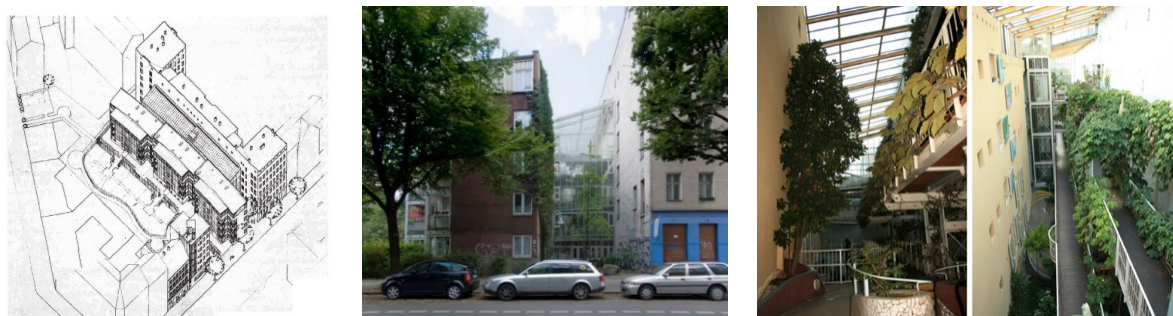


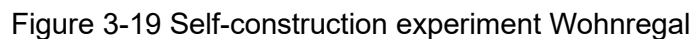
Figure 3-18 Kreuzberg- 190 Koepenichker Street - Senior Care Center

(Source: <http://f-iba.de/seniorenwohnhaus-koepenicker-str/#more-526>)

3.3.2 Self-help Renovation

(1) Building under self-build cooperation—Wohnregal

Residents formed a self-build cooperative in 1984, the first housing construction cooperative for a joint new building project since 1945. The original idea was that the residents did not want to move to the suburbs of the city and should stay in their own neighborhoods and provide their part of the diversity of urban and social life. The building was developed on vacant land as an alternative to suburban living. Architect Kjell Nylund designed 12 apartments framed by prefabricated concrete parts and timber stacks, with steel scaffolding suspended from the building for landscaping and for possible apartment extensions (Figure 3-19). The future residents will not only be involved in the planning, but will also decide the floor plan of the house themselves.



(2) Self-help Renewal Manual

[illegible][illegible]

(Source: 54 Variants - Die Kosten)

3.3.3 Sustainable Renewal Approach

(1) Encouragement of Vertical Greening

The Berlin government's funding program for self-help renewal not only encouraged residents to build themselves, but also to develop and implement ecological measures within the city. For example, vertical green structures were incorporated into self-build. This was not only a renewal of homes, but also a friendly experiment with public space. Thus, it also improved the community well-being of the residents and the living environment of the neighborhood.



Figure 3-21 Rooftop and vertical green in a self-help

(Source: Internationale Bauausstellung. Internationale Bauausstellung

Berlin: Projektübersicht. Berlin: IBA GmbH, 1987)

(2) Sustainable Renewal of Abandoned Buildings—Kindertagesstätte

Dresdener Straße

For sustainable regeneration, reuse of abandoned buildings is the greatest way to maximize resources. The multi-story parking garage had been left vacant, and IBA's old city renewal provided an opportunity to update and reuse the building. Instead of costly demolition and reconstruction, IBA-Altbau (Old Buildings) considered reusing the parking garage in accordance with its Careful Urban Renewal principles. The parking lot was transformed into a daycare center with a capacity of 136 children (Figure 3-22). And an ecological renovation approach was incorporated with a new garden on the roof and a new greenhouse on the roof to create a climate buffer with the solar system.



Figure 3-22 Parking lot changed to day care center (Kindertagesstätte Dresdener Straße)

(Source:<http://f-iba.de/kindertagesstaette-dresdener-str/#more-2526>)

(3) Ecological Transformation Of Neighborhoods—Kreuzberg-BLOCK 103

Block 103 was an integrated system for building a small supply network within the neighborhood (Figure 3-23). It aimed to use energy wisely, save drinking water, reuse lightly polluted water, improve microclimate through planting, use ecologically sound building materials and recycle waste. Using architectural design methods, traffic noise was reduced.



Figure 3-23 Ecological transformation in Kreuzberg-BLOCK 103

(Source:https://www.stadtentwicklung.berlin.de/bauen/oekologisches_bauen/de/modellvorhaben/)

3.4 Urban Catalysts

3.4.1 A catalyst for Function Replacement in Urban Space

(1) Function replacement of public service facilities-Kreuzberg -Block 79- Naunynstraße 69

The construction of "Naunynstraße 69" took nearly 100 years to complete, starting in 1864 and ending in 1933. In the 1960s and 1970s, the factory was in a difficult situation

and the premises were converted to other uses or left unused, but in 1985, the IBA took the opportunity to renovate the factory. The first floor was transformed into a kindergarten and a factory for the disabled, and the former residential part of the factory was transformed into an art studio (Figure 3-24). The kindergarten is in the side and rear wings, with the rear wing having good light. The original factory chimney was also retained to form a characteristic façade. The replacement of functions had succeeded in saving this dying historic building and providing the neighborhood with needed public services and open spaces, thus preserving the neighborhood and improving the quality of life. This type of function replacement through old buildings is occurring in various neighborhoods and is a true catalyst for the city through these methods.



Figure 3-24 Factory changed into kindergarten in Naunynstraße 69

(Source: S.E.T.N . Step by Step: Careful Urban Renewal in Kreuzberg.Berlin: Internationale BausausstellungBerlin, 1987)

(2) Function substitution of courtyard space-Spandauer Vorstadt- Hackesche Hofe

The spatial pattern of Hackesche Hofe was originally formed in 1905. In its early days it was a mixed commercial, entertainment, office, and residential complex with distinctive commercial and residential courtyards, but it was left vacant after World War II as the neighborhood declined. Hackesche Hofe was a gathering place for garment and accessory factories in the 1820s, as well as home workshops and large workshops. Unlike other courtyards, however, Hackesche Hofe was an important venue for cultural

events in its early years. Families, associations, etc. would often hold art-related events. This culture has been preserved even after the renovation. The renovated Hackesche Hofe is compatible with commercial, cultural, catering, office and residential functions and is characterized by its diverse courtyard space activities.

Hackesche Hofe gives the eight courtyards different themes and will connect the eight courtyards to form an extension of the commercial theme with the three surrounding streets. The public was involved in every stage of the Hackesche Hofe's renovation, from 1992 to 1995, in the research, discussion, preparation, planning, and public presentation of the renovation (Figure 3-25). The renovation was carried out with the utmost care in order to minimize the impact on the residents and businesses living in the area. The principle of Careful Urban Renewal, which has been advocated since the IBA, was fully reflected.



Figure 3-25 Hackesche Hofe before and after functional replacement

(Source: Dong Jiayi. Functional Reinstallation As The Strategy Of Public Space Expansion In Inner City, 2008.)

3.4.2 Art-based Urban Cultural Catalyst

(1) Spandauer Vorstadt's Artistic and Cultural Catalyst

Spandauer Vorstadt was the largest Jewish community in Berlin, and although many Jews emigrated after World War II, it still retains a part of its Jewish culture. The Jewish culture has had a beneficial impact on the cultural development of the neighborhood. Although the area was close to the Berlin Wall, the middle class left during the Cold

War. However, the multicultural atmosphere of the neighborhood and the consumption of the lower classes attracted many young artists to the area.

After the fall of the Berlin Wall, more and more young artists gathered in the area and formed a self-managed organization and art institution, the "KW" art organization. The local population also accepted the artists' community and provided them with studios or galleries. With the beginning of the urban renewal of the area in 1993, the government began to systematically guide the development of the art industry to promote the revitalization of the neighborhood. After more than 10 years of practice and orderly government guidance and policies, Spandauer Vorstadt has become an international venue for art exchange.

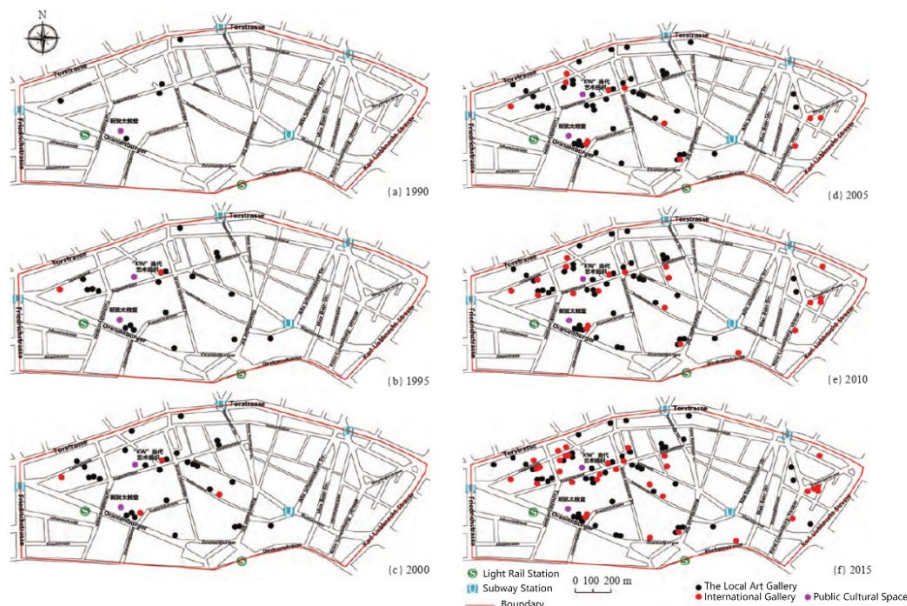


Figure 3-26 Evolution of the Spandauer Vorstadt Art Space 1990-2015

(Source: Liang Zhichao, Huang Xu, Xue Desheng. Development of Art Space and the Mechanism of Government Guidance in Berlin: A Case Study of 'Spandauer Vorstadt' in Mitte)

With the government's intervention, Spandauer Vorstadt has evolved from a budding artists' venue to a mature art space, and the Berlin city government has ensured the long-term stability of the land type and land-related policies to avoid the "gentrification" and over-commercialization of art spaces. The renewal of the many courtyards of Spandauer Vorstadt is accompanied by the implantation of art and culture, using

culture as a catalyst for the city and truly activating the vitality of the neighborhood.

3.5 Renewal Results of Careful Urban Renewal

3.5.1 Results of the renewal of Kreuzberg

In 1987, 7,000 apartments were renewed, and DM 900 million in subsidies were provided in coordination with residents or self-help, avoiding the displacement of 15,000 residents, and publicly benefiting 56,000 residents by 1990. And more than 3,000 units cost 35-60% less than new construction^[52]. Fifteen percent of these renovations were done by the residents themselves with the help of government funds. Summing up the experience of major demolition and construction, a completed legal system of public participation in the renewal of old cities has been formed. Improving neighborhood functions and renovating outdated buildings. Sorting out urban space and transportation; renovating infrastructure; preserving the old city fabric and improving living conditions.

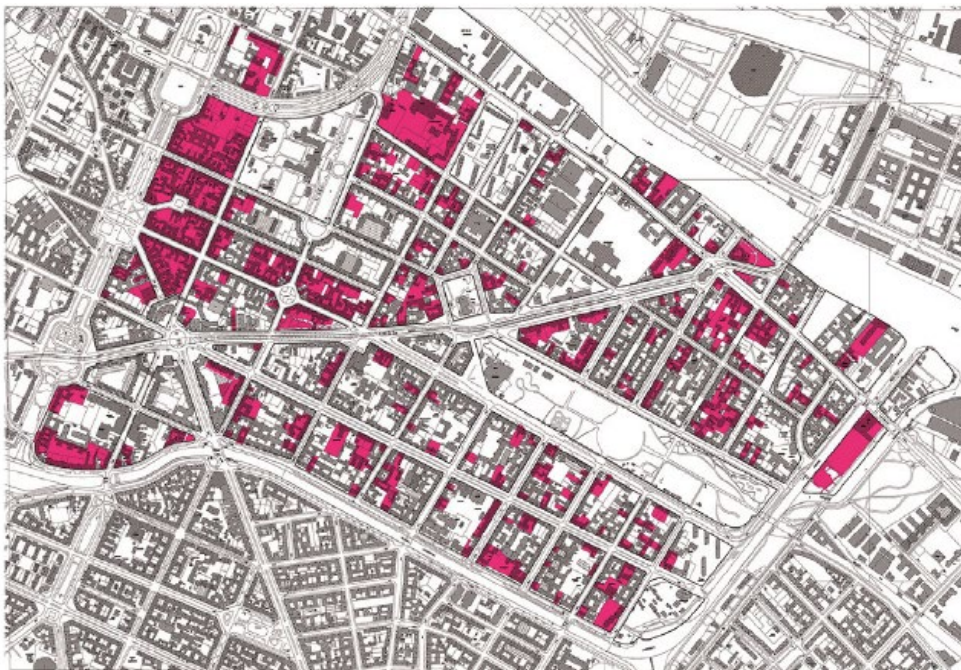


Figure 3-27 Kreuzberg main renewal area

(Source: Internationale Bauausstellung. Internationale Bauausstellung Berlin: Projektübersicht. Berlin:

IBA GmbH, 1987)

3.5.2 Results of the renewal of Spandauer Vorstadt

The Spandauer Vorstadt is not only effective in preserving cultural values, but also in social, cultural, and economic development. After 10 years of the Berlin Promotion Program, the project manager of the Senate Urban Development Department summarized the positive results of the program as ^[51]:

1. Cultural values have been preserved. Historic districts are memories of the past. Valuable historic buildings from different periods represent cultural diversity. By restoring historic buildings, cultural heritage is linked to modern culture. Thus, urban heritage preservation is not only a contribution to the past, but also a contribution to enriching the culture of today and tomorrow.
2. Supporting regional economy and local craftsmanship. From 1991 to 2001, there were 424 buildings with 175 million in funding. Together with 135 million Euros of private funds, a total of 369.7 million Euros was invested. If the multiplier of building construction to economic development is calculated at 1:6, the economic GDP is 2.2 billion euros. Promotion of private ownership structures.
3. Subsidies were always combined with the owner's own contribution. Due to the high cost of rehabilitation, owners can only rehabilitate high quality homes with the support of public funds. Owners were supported as they are advised to rehabilitate.
4. The aging process of the buildings stops and the historic district is revitalized. Historic buildings are prevented from deteriorating with government funding and owner support.
5. The population grows significantly, with a 10% increase in the population of Spandauer Vorstadt compared to the rest of Berlin.

3.6 Summary of Spatial Strategies for Careful Urban Renewal

3.6.1 Neighborhood System Renewal from the Surface to the Point

Spatial strategies for neighborhood space renewal are summarized from cases studies of two typical periods:






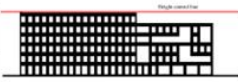
Aims	Physical Characteristics	Relevancy for design proposal	
Neighborhood-Based Renewal Model			1. Renewal of neighborhoods can be divided into smaller renewal blocks
1. More detailed plan	1. Block Unit		2. Develop more detailed programs for different regions
2. Specific analysis for specific issues	2. Whole & Part		3. Contribute to the formation of renewal groups
3. Contribute to resident participation			
Carefully Preserved Neighborhood Fabric			1. The renewal process does not affect the structure of the neighborhood
1. Preserving the social fabric	1. Preservation of neighborhood structure		2. Intervening in neighborhood renewal in slight ways
2. Preserve the spatial structure	2. Patching and restoration of street fabric		
Emphasis on Public Services and Infrastructure			1. Guarantee the improvement of the neighborhood public service system
1. To guarantee the public life needs of neighborhood residents	1. Systematic coverage of neighborhood public facilities		2. Diverse public service facilities in the neighborhood
	2. Diversification of neighborhood public facilities		
Renewal of Green Open Space			1. Provide multi-level public activity space in the neighborhood
1. Provide a place for open communication in the neighborhood	1. Multi-level open space		2. Activate the potential of abandoned space in the neighborhood
2. Diversified public space	2. Ruins to pocket park		3. Residents participate in the design and construction of public space
3. Resident participation in the revitalization of public space			
Highly Mixed Functions			1. Maintain the mixed function of the neighborhood
1. Mixed culture	1. Multi-level functional mix		2. Exploration of mixed commercial and residential model
2. Convenience of life and variety of life	2. The pattern of living on the upper floor of the ground floor store		
Uniformity and Richness of The Neighborhood Interface			1. Guide the unification of the neighborhood interface
1. Ensure the unity of neighborhood scale	1. Uniformity of neighborhood interface		2. Enrich the façade of the neighborhood
2. Responding to modernity and history	2. Neighborhood interface richness		

Figure 3-28 Summary of neighborhood renewal spatial strategies for Careful Urban Renewal

(Source: By Author)

The renewal of the neighborhood system should be considered from the overall system, cautiously treating each system within the neighborhood: neighborhood fabric, neighborhood activity space, greening system, functional system, public service system, etc., to discover the problems of each system from the system level, and then propose corresponding renewal measures for each system. From the surface to the point, the most representative and influential typical problems of each subsystem in

the neighborhood are identified and used as the starting point for the renewal of the neighborhood system.

3.6.2 Preservation, Revitalization and Autonomous Renewal of Existing Buildings

The spatial renewal strategies of neighborhood buildings are summarized from the analysis of typical cases in two typical periods:

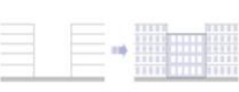


Aims	Physical Characteristics	Relevancy for design proposal	
Social Renewal of Housing			1. Classify the neighborhood buildings to guide the renewal
1. Housing modernization	1. Restoration		2. Renewal methods to retain neighborhood residents
2. Preserve neighborhood residents	2. New Construction		3. Respect for structure in new buildings
Self-help Renovation			1. Make a self-help renewal manual for residents
1. Encourage residents to self-help renewal	1. Architectural framework for self-help renewal		2. Provide the possibility of self-help update
2. Provide neighborhood employment opportunities	2. Self-help renewal for residents		
Sustainable Renewal Approach			1. Eco-neighborhood
1. Sustainable development	1. Building greening		2. Sustainable strategy
2. Ecological architecture	2. Reuse of abandoned buildings		
3. Encourage residents to participate	3. Eco-neighborhood		

Figure 3-29 Summary of architectural renewal strategies for Careful Urban Renewal

(Source: By Author)

Careful Urban Renewal mainly focuses on the restoration and revitalization of existing buildings. In both Kreuzberg and Spandauer Vorstadt, most of the buildings are renovated to improve their facades and living conditions, in order to adapt to the neighborhood's appearance and housing requirements, and to increase the stability of the neighborhood's population. For some of the most important historical buildings, functional replacement will be carried out to revitalize the buildings. A self-help renovation manual will be developed for the residents, as well as policy and financial incentives to encourage self-help.

3.6.3 Taking Culture as A Catalyst for Urban Space

The main reason for the success of Spandauer Vorstadt is the introduction of an urban renewal model that uses art and culture as a catalyst, combining art and culture with

neighborhood development, introducing art and culture into the courtyard of the neighborhood, and replacing the buildings with functions, thus achieving the revitalization of art and the neighborhood together. In addition, through government policies and guidelines, the long-term and stable development of culture in the neighborhood is ensured.

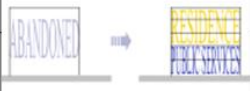

Aims	Physical Characteristics	Relevancy for design proposal	
Function Replacement in Urban Space			1. Replace reconstruction with functional replacement
1. Revitalization of abandoned buildings	1. Revitalize the building with functional replacement		2. Introduce vitality function
2. Replacement of vitality function			
Art-based Urban Cultural Catalyst			1. Using history and culture as a catalyst
1. Guiding and activating neighborhood history and culture	1. Creation of historical and cultural space		2. History and culture guide the industrial development of the neighborhood
2. Synergistic development of culture and neighborhoods			
3. Culture as the spiritual catalyst of the neighborhood			

Figure 3-30 Summary of urban catalytic strategies for Careful Urban Renewal

(Source: By Author)

3.7 Summary of This Chapter

This chapter builds on the analysis of Careful Urban Renewal theory in the previous chapter and analyzes the process of research from theory to spatial strategy in this chapter. By summarizing the cases of two key renewal areas (Kreuzberg, Spandauer Vorstadt) in two different periods of Careful Urban Renewal, this chapter analyzes the problems of the two areas and summarizes the cases of renewal in the two areas as careful renewal of neighborhood environment, careful renewal of the inventory of buildings, and a catalytic The spatial strategy of the overall urban design is an integrated approach that fully considers all aspects of residents, society, neighborhood environment, architecture, ecology, and urban facilities to provide guidance for neighborhood regeneration in a cautious and integrated manner.

Chapter 4 Old City Renewal Strategies in Guangzhou from the Perspective of Careful Urban Renewal

The article analyzes the specific approaches of careful urban renewal from planning theory to spatial strategy in the previous article. This chapter interprets the connotation and conceptual framework of the theory of Careful Urban Renewal, and analyzes the renewal problems of Guangzhou's old city from two recent renewal cases in Guangzhou, and proposes the renewal strategy of Guangzhou's old city from the perspective of Careful Urban Renewal.

4.1 Theoretical Connotation and Conceptual Framework of Careful Urban Renewal

4.1.1 Theoretical Connotation of Careful Urban Renewal

Careful Urban Renewal is a comprehensive perspective to explore the people-oriented and sustainable urban renewal process. Its renewal goal is rooted in regional humanities, rooted in the reflection on the big demolition and construction outside, and pursues a multi-flexible and careful gradual urban space repair. In the process of regeneration, the interests of residents are the basic orientation of the regeneration value, residents are the main body of the regeneration process, and the improvement of the physical environment is also based on the needs of residents.

"Careful" is the main expression of a cautious and gentle attitude to intervene in the upgrading of physical space and regeneration of social relations, and a flexible approach to the multiple demands of local regeneration under the premise of respecting objective conditions. It weighs the interests of all parties, builds a communication platform for multiple interests, and achieves the best regeneration effect with cautious and subtle actions in a way that residents negotiate together. Its regeneration mechanism is an open, diversified, gradual and cautious comprehensive

social governance process.

Careful urban renewal is a planning practice that introduces social governance, carries out diverse, small-scale regeneration practices that are integrated into the neighborhood fabric while respecting the historic spatial structure of the neighborhood, and uses appropriate transformation methods to build a neighborhood environment and humanistic and spiritual atmosphere that meets the needs of residents. In the process of regeneration, the relationship between space and people, space and activity behavior, space and history and culture are explored from a comprehensive perspective, and the possibility of self-organization of residents is explored, which has multiple social values of neighborhood restoration, cultural revival, social integration, and economic regeneration.

4.1.2 Conceptual Framework of Careful Urban Renewal

In other words, German Careful Urban Renewal is not an urban planning theory that can be directly transferred and applied. It is necessary to analyze the inner structure and connotation of its theory in depth in order to transform it into an urban renewal model that can be adapted to different contexts. The framework of the concept can be based on value orientation, guiding principles, implementation paths, and core objectives, which can clearly build a conceptual model of careful renewal (Figure 4-1). Its essence is to respect local attributes, and its operating principles are flexibility, pluralism, gradualness, resident participation, cultural context, and policy protection; its strategy is to ensure the regeneration of space and human relationships with the support of policies, starting from space, function, and culture.

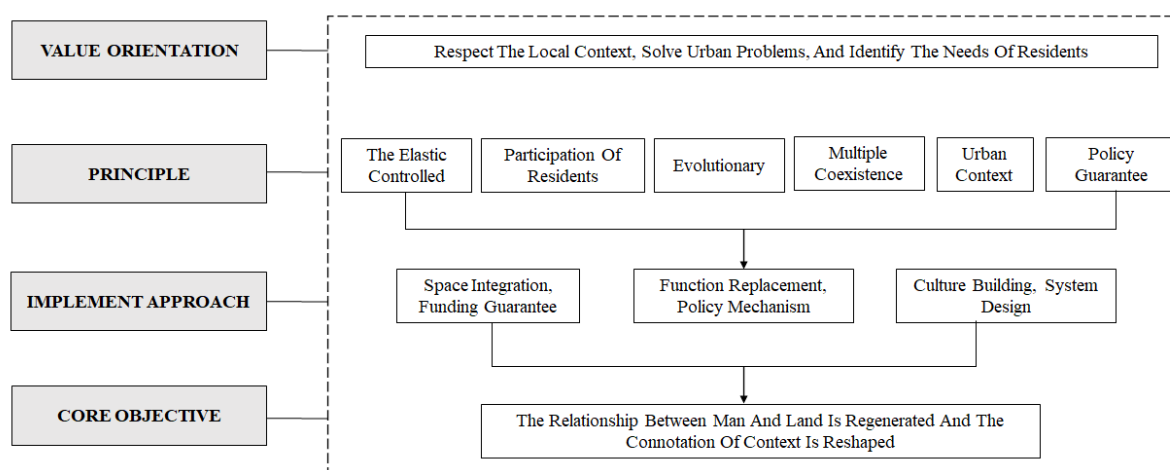


Figure 4-1 A conceptual model of Guangzhou historic and cultural block renewal from the perspective of Careful Urban Renewal

(Source: By Author)

Careful Urban Renewal contains very significant social values of equity, openness and sharing^[21]. The model of Careful Urban Renewal advocates the renewal of neighborhood space and social structure through community self-organization, multiple public participation channels, and careful intervention. Based on the concept of Careful Urban Renewal, neighborhood regeneration should not only plan for the rational needs of resource allocation, but also reflect and embody the genius loci. Therefore, the process of careful renewal is not only the improvement of the physical environment, but also the social governance process based on the residents' demand for autonomous renewal.

4.2 Feasibility Analysis

Guangzhou has experienced a period of large-scale demolition and construction during the development of the city, and has now shifted to the renewal mode of the inventory era. Guangzhou has proposed a lot of approaches in the face of the renewal of old cities. From "three old renovation" to "micro-renovation", it is proposing a more reasonable model for the renewal of old cities. Germany has gone through the process of redevelopment to preservation and renewal earlier than us, and the concept of

Careful Urban Renewal proposed by Berlin after World War II is still being updated and developed to meet the development of the times. The core concept is to explore an appropriate regeneration plan for the historical urban areas in a progressive and diversified way.

At the same time, Careful Urban Renewal is a renewal concept that cannot be directly applied when faced with a different urban development context, political concept, and context of the times than that of Berlin. Its application requires the adoption of new urban renewal methods, new policies and new regulations, and the development of new administrative arrangements to organize the planning and implementation of renewal projects. It also requires reforming urban renewal policies and practices. Therefore, in constructing an urban renewal framework, it is important to determine the nature of the transferred objects and to adopt appropriate theoretical concepts and spatial renewal strategies.

4.2.1 Development of Old City Renewal in Guangzhou

Guangzhou's old city renewal has gone through four main stages: the free-market exploration period, the government-led period, the "three old" transformation project and urban renewal systematic construction period^[53]. The attitude of urban renewal in the old city has changed from protection-oriented to reasonable development and revitalization, the content of renewal has changed from overall physical environment renewal to the construction of humanistic connotation, and the objects of renewal have changed from the old city to the specification of old neighborhoods, communities, and factories^[54].

4.2.1.1 The History of Old City Renewal in Guangzhou

(1) Free-Market Exploration Period (1980s-1990s)

This phase of renewal began during the reform and opening-up period and ended in 1999 when the government banned private developers from directly participating in projects to renovate old cities. After the reform and opening up, the transformation of

the market economy promoted the process of urbanization, while the government also participated in improving the quality of the city with the power of the market. However, due to the profit-seeking market, the incremental development mode has led to serious destruction of the old city fabric. The high-rise buildings in the old city have brought great pressure to the public facilities of the old city and caused "constructive damage" to the historical character of the old city.

(2) The Government-Led Period (Early 21st century)

During this period, the government identified the problems of free market-led urban renewal. In 1998, the Guangzhou Municipal Government published the "Regulations on the Protection of Historic Cities of Guangzhou", which was officially implemented the following year. In 1999, the "Historic City Management Committee" was established to guide the protection of historic buildings, historic and cultural districts, and historic sites in the old city. Guangzhou began a comprehensive environmental improvement process, led by the government, to address the issues of infrastructure, old buildings in the community, and landscape enhancement along the Pearl River. Guangzhou's renewal at that time was dedicated to the revitalization of the old city, with efforts to improve residential buildings and enhance the landscape, while vigorously promoting the development of service industries.

(3) Guangzhou "Three Old" Renovation Period (2010s-2015)

Between 2009 and 2012, Guangzhou proposed and improved the policy of "three old (old village, old factory, old town) renovation", and continuously increased the investment and construction efforts, which set off a wave of renovation fever. This was the exploration stage of Guangzhou government, which made an overall survey of the scope and total amount of old city renewal in Guangzhou. At the same time, a large number of renewal planning documents were also issued, and a regular renewal mechanism was formulated for the three types of old reform sites. However, there are still some problems with the renewal model in this period, such as the problem of "incremental renewal" and the lack of long-term spatial development thinking.

(4) Urban Renewal Systematic Construction Period (2015-Now)

In 2015, Guangzhou established the "Urban Renewal Bureau" to take over the work of "Three Old Renovation". In 2016, the "Urban Renewal Measures of Guangzhou Municipality" were published, marking the transformation of Guangzhou's land renewal to comprehensive urban space renewal, and the way of working from "large-scale demolition and construction" and renewal of independent property units to a combination of comprehensive transformation and micro-renovation, and the first practice of "micro-renovation" was carried out in the Yongqingfang project on Enning Road in Liwan District. As the focus of urban renewal in Guangzhou is again on historical and cultural locations, the goal of renewal is no longer static preservation, but more dynamic and spiritual humanistic needs are added. It also focuses more on public participation, exploring the relationship between residents and the old city, safeguarding the fundamental interests of the residents, and exploring a more diversified and sustainable development path for renewal.

4.2.1.2 Examples of Urban Renewal in Guangzhou

After Guangzhou urban renewal has stepped into comprehensive urban space renewal, there are two classic cases of renewal, representing two renewal models (Table 4-1). One is the social capital-led BOT renewal model, and the other is the government capital-led model. Both models have public participation, and are models of old city renewal in China in recent years. Next, we analyze the two renewal models, analyze their existing renewal problems, and explore the inspiration for the renewal of Guangzhou's old city under the perspective of careful renewal.

Table 4-1 A comparison of micro-renewal in Guangzhou's historic districts under different funding leads (Source: By author)

BOT model dominated by social Funding		The renewal mode dominated by government Funding
Name of Project	Guangzhou Enning Road Yongqingfang First Stage Micro Renewal	Guangzhou Pantang Wuyue Micro Renwal
Time of Project Renewal	1. In 2003, the government proposed a comprehensive transformation.	1. The demolition was proposed for the first time in 2007, and Pantang is facing full demolition. Parts of the building have been demolished.
	2. From 2007 to 2010, due to the controversy and questioning of the reconstruction plan and demolition, the reconstruction plan was stalled.	2. Pantang was preserved in 2013 without being demolished.
	3. Enning Road became a ruin and stagnated during 11-15 years ^[55] .	3. Micro renewal was implemented in September 2016.
	4. In April 2015, micro renewal began.	
Policy Background	1. All the micro-renovation practices after the publication of Measures of Guangzhou Municipality on Urban Renewal.	
	2.Both have gone through the process of demolition - preservation - renovation, and residents have been troubled by the filthy environment brought about by the demolition for nearly 10 years.	
	3.The relevant historic district preservation planning is lagging.	
Renewal Model	BOT model. The government and the developer jointly develop (Vanke) and choose Vanke as the property management.	Rely on public funding. Project led by government. Community planners begin participatory design renovations in second stage.
Source of Funding	Developer Funding	Government Financial Fu nd

Public Participation	1. Weak public participation in the push-to development model early.	1. Public participation is achieved by holding events under the guidance of community planners.
	2. Multiple participation in the middle term, the formation of self-organization.	2. Relevant media followed the renewal progress.
	3. The later self-organization was demised and lacked channels for public participation.	3. Build a platform for the Co-Funder Committee to solve problems in the process of micro-renovation.
Space Renewal	1. Improve public space and add urban furniture.	
	2. To repair and upgrade as the main transformation method, based on retaining the traditional muscle space of the street, the building is basically repaired and renewed in the same way as the old one.	
Function and Industry	1. Commercial-led development, with restaurants and retail dominating.	1. Residential-oriented neighborhoods, with most residents remaining.
	2. Only a small number of residents remain.	2. Introduce some commercial support.
Problem of Renewal	1. The lack of public participation.	1. Lack of supervision and feedback mechanism in the implementation process.
	2. Lack of government control of BOT model, which leads to the damage of residents' interests.	2. Lack of guarantee for the platform of public participation.
	3. Lack of policy guarantee for autonomous renewal, which is reduced to empty talk.	3. Inadequate renewal of public facilities.
	4. The inadequacy of public facilities renewal.	

4.2.2 The Dilemma of the Renewal of the Old Town of Guangzhou

Guangzhou's old city regeneration has moved from the stage of large-scale demolition

and construction to the era of "comprehensive renovation and micro-renovation" of stock regeneration. Through the case study of micro-renovation of two historic districts in Guangzhou in the previous section, we can find that there are still some difficulties in the renewal of Guangzhou's old city.

(1) Inadequacy of Public Participation Mechanism

Public participation is an issue to be solved and improved. From the earliest market-led development mode to the recent period of systematic urban renewal construction, the degree of public participation in Guangzhou's old city renewal has also changed from the earliest lack of voice to the gradual inclusion in the renewal system. The mechanism of public participation is still slowly being improved, but the overall public participation is still at the level of "symbolic" participation and more at the level of supervision. The public participation system, policies and organizational structure are not comprehensive enough, and the channels of public participation are not diversified enough, so that the public voice and the needs of the real renewal subjects are not well listened to.

(2) Unsmooth Update of Policies and Mechanisms

After years of exploration, Guangzhou has formed the "1+3+N" urban renewal planning system^[56]. The "1" refers to the "Urban Renewal Measures of Guangzhou Municipality", "3" is the supporting documents for the "Three Old Transformations", and "N" are other detailed specification documents. The leading force of urban renewal has shifted to the government, but from the 3 special projects to the specific parcel transformation plans, most of the plans are not well implemented due to the lack of specific guidelines due to the government's imperfect role. And there is a lack of national systematic policy guarantee. In terms of strategies for historic preservation buildings, the renewal method is still a one-size-fits-all approach, lacking more precise renewal and protection measures, which often makes it difficult to get better regeneration of historic buildings.

(3) Weak Public Awareness of the Preservation of the Old City

After a period of large-scale demolition and construction, the public had benefited the

dividends of demolition and construction, so when faced with the renewal of the old city, the public will lack the overall awareness of the renewal of the old city. Guangzhou's old city regeneration has just entered a new development mode, and the public should be guided to change from project-driven to value-driven, and should recognize the long-term development significance of historical buildings and neighborhoods to the city development, and the government should also recognize that the public is the main body of urban heritage protection.

(4) The Problem of the Inventory of the Old City and the Increment of Demand

There is an important contradiction between the renewal of the old city inventory and the incremental demand of the residents. How to balance the preservation of the old city with the needs of the residents for public services, daily life and diversified urban life is an urgent issue to be solved. The old city implies a certain environmental capacity and a certain historical legacy. The modern living needs of the residents require certain development requirements for the renewal of the old city. For example, the firefighting problem in narrow historical districts, the elevator demand in old communities, the demand for public services in historical districts, the conflict between residents and tourists in cultural tourism areas, etc.

4.2.3 The Feasibility of Careful Urban Renewal

Careful Urban Renewal was proposed as an approach to urban renewal based on its special urban historical context. It is a policy concept and has corresponding urban design and renewal methods, policies, and regulations. Guangzhou, with its own historical background and current problems, cannot simply transfer Careful Urban Renewal and assimilate it into a policy or technique or technology. Rather, it should analyze the current problems of its city, adopt a new urban design approach, and develop new administrative arrangements to organize the planning and implementation of regeneration projects based on its core concepts. It also needs to

reform the policies and practices of urban renewal^[1]. Therefore, in constructing a research framework, it is important to determine the nature of the transfer object and to adopt an appropriate theoretical concept.

(1) The Same Values of Urban Renewal

The values of Careful Urban Renewal and the current values of micro-renewal in China are both the same. They are both reflections on the renewal of old cities after experiencing the pattern of large-scale demolition and construction. The values of urban renewal are all about respecting the urban structure, street layout, and historical architecture of the old city, and they are all about reviving the old city so that it can be better integrated in the modern development.

(2) Progressive Urban Renewal

The model of Careful Urban Renewal is also a progressive approach. Each project should be given sufficient time for development and construction, and in sufficient time to ensure caution. When faced with short-term benefits, it is more about pushing off and redeveloping. This can ensure the short-term benefits of interest. But the renewal of old cities has always been not a short-term open project, but a complex process of solving social problems, historical problems, urban problems, etc. Therefore, caution means gradual progress, which coincides with the model of micro-renewal.

(3) Complementary Public Participation

The development of a careful model of urban renewal relies heavily on a model of effective public participation. In the 1970s and 1980s in Berlin, residents were already aware of the problems that large-scale redevelopment posed to urban development, and many resistance activities were held, which was also the period when public participation began. The German government has improved and supplemented the public participation system over a longer period of time and has developed a comprehensive system of community participation in governance. Through ISEK, an effective planning tool for public participation, community residents are given the right to participate and make decisions in renewal planning, seeking to maximize the

activation of community dynamics and making renewal planning more responsive to the practical needs of local community residents. The renewal process is realistic and operable.

Although the public participation model in Guangzhou is gradually being optimized, it is more often limited to symbolic participation. Although the NGO model was introduced in Guangzhou Yongqingfang, there were no effective channels for public participation after the NGO was disbanded at a later stage. Therefore, it is worthwhile to learn from the German public participation system.

(4) The Concept of Sustainable Renewal

From the IBA period to the new period after the reunification of Germany, facing the problems of different periods, Careful Urban Renewal has pursued a more integrated approach to explore the ways of sustainable renewal in social, ecological, environmental, historical, business and physical aspects. Careful Urban Renewal introduces the concept of sustainable renewal when dealing with the development of neighborhoods, and the renewal of neighborhoods is not limited to the current renewal model, but also expects to build a sustainable renewal approach. For example, in the Kreuzberg area during the IBA period, Block 103 was built as an ecologically sustainable neighborhood, recycling rainwater, greening space, improving microclimate, etc. This sustainable regeneration concept is still worth learning from.

(5) Learning from Urban Renewal Systems

After two periods of development, the German model of Careful Renewal has a certain stability and adaptability of its renewal system and policies, which can ensure that the policy basis of relevant work covers all aspects of urban renewal such as historical heritage protection, public education, and management constraints, planning and management construction, public organization, and power. It has certain significance for Guangzhou's institutional renewal construction.

(6) Learning From Spatial Renewal Strategies

The whole of Berlin was a testing ground for renewal during the renewal wave of the

1970s, and many projects have landed in recent decades. For example, the regeneration approach of residential neighborhoods, the regeneration strategy of stock buildings, the urban catalyst of functional replacement, etc. summarized in Chapter 3. While studying the spatial renewal strategies of Germany's urban renewal, it is important to carefully choose the spatial strategies suitable for the area according to the current situation of its renewal sites and the needs of its residents. However, its overall spatial strategy is still based on its careful regeneration goal, which is to preserve the spatial and social structure of the neighborhood while considering the ecological, social, and cultural aspects of the neighborhood in a comprehensive manner and embarking on a sustainable development path.

4.3 The Path of Old City Regeneration in Guangzhou under the Careful Urban Renewal Theory

Careful Urban Renewal is a planning concept that focuses on avoiding the vicious cycle of large-scale demolition and construction through protective renewal and transformation, and intends to provide an integrated approach to renewal in ecological, economic, social, and housing aspects, and to transform the main role of urban transformation from single to multiple. Therefore, through the summary study and translation of its concept and regeneration approach, the overall regeneration strategy from planning objectives to regeneration methods will be formulated, considering the actual situation of Guangzhou's old city (Figure 4-2).

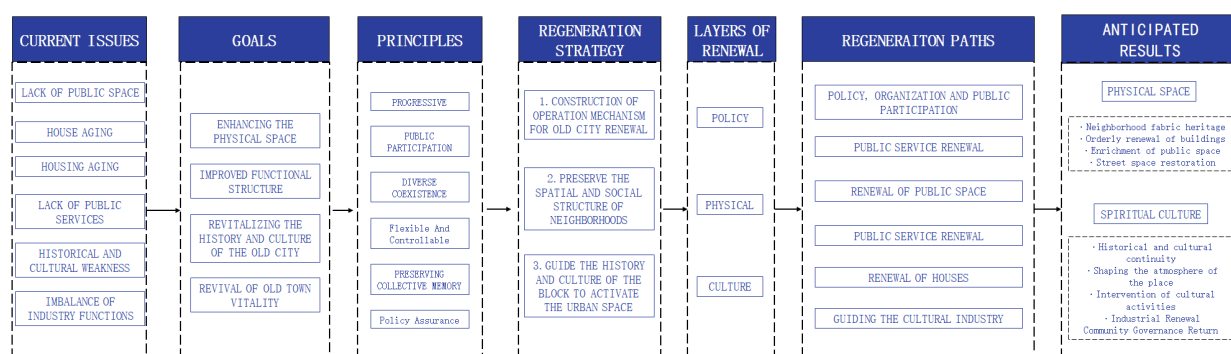


Figure 4-2 Guangzhou old town regeneration strategy (Source: By Author)

4.3.1 Guangzhou Old City Renewal Objectives and Principles

4.3.1.1 Old City Renewal Goals

The revitalization of the old city should have two qualities: one is to have good spatial places; the other is the revitalization and utilization of humanistic atmosphere. The basic renewal objectives should be:

- Improvement of the physical space of the neighborhood;
- Improvement of the functional structure;
- Revitalization of the history and culture of the old city;
- Revival of the vitality of the old city.

4.3.1.2 Old City Renewal Principles

Guangzhou's old city renewal principles can be learned from the two renewal principles of Careful Urban Renewal. The purpose of its formulation is not to achieve specific kinds of results and requirements, not for specific and short-term problems, but to consider its long-term development and impact on the city. It should clarify the basic idea of renovation, the basic principles of guaranteeing long-term urban development and residents' participation, and the renovation process should then develop specific renovation plans and schemes according to specific neighborhood problems. Therefore, the following renewal principles are formulated for the renewal of Guangzhou's old city:

- Progressive renewal
- Public participation
- Multiple coexistence
- Flexible and controllable
- Preservation of collective memory
- Policy guarantee

4.3.2 Construction of Operational Mechanism for the Renewal of Old Cities

Old city regeneration has always been a complex urban issue involving multiple interests, making it difficult to promote the regeneration work effectively. Therefore, it is necessary to construct a guaranteed and well-founded operation mechanism to ensure the promotion of renewal. Therefore, we can learn from Germany's Careful Urban Renewal mechanism to build a renewal platform with NGOs as the main organizers, provide multiple channels and effective platforms for public participation, and operate effectively under multiple policy guarantees.

(1) Multiple Policy Guarantee Mechanisms

By establishing a scientific management mechanism for the whole process, to ensure the protection of urban renewal in the process of progressive renewal and to avoid the interruption of the project due to the tenure (Figure 4-3). Build a project management mechanism with a more stable, coherent, and systematic approach for prior study in the pre-project stage, process management in the project implementation, and evaluation of the implementation effect in the post-project stage. Through effective management and planning of public funds, the problem of insufficient sources of funds can be solved. A community cooperative fund can be established to give communities more rights to manage funds; and through the investment of public funds to attract social funds to ensure the effective operation of funds, and through the development of effective funding subsidy policies to support residents' self-help renewal model; establish a rent mechanism to deal with gentrification. Establish an effective legal system and mechanism for public participation to ensure that public participation is truly dominant in planning and design.

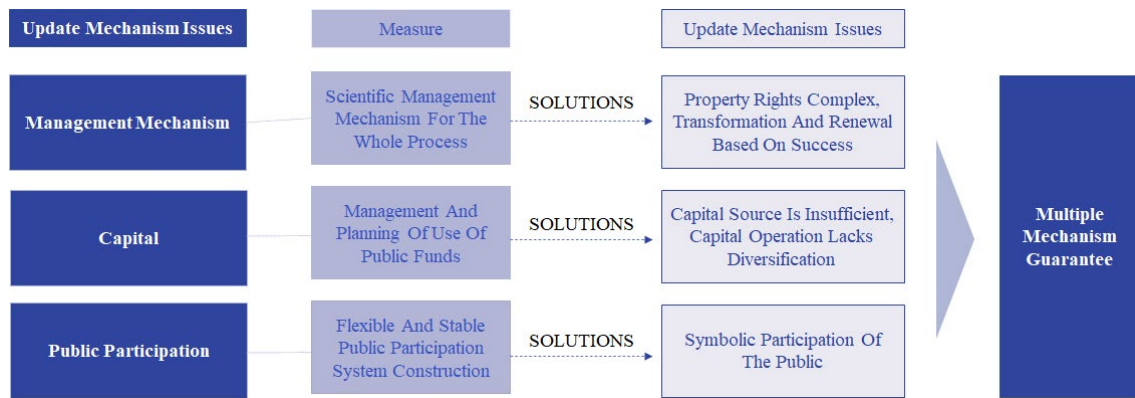


Figure 4-3 Old town renewal policy guarantee mechanism

(Source: By Author)

(2) Construction of The Organizational Structure of the Old City Renewal

NGO can be introduced to coordinate the interests of the three parties and build a more efficient platform, which can play an important role of communication and coordination between the community, the government, and the market, and ensure that the whole regeneration is run under the self-organization of the community (Figure 4-4). The role of the German Managing Company (like S.T.E.R.N) can be used as a reference, responsible for the implementation of the regeneration plan, financial budgeting, public participation, and coordination, and taking on the important function of the top and bottom. Let the government decentralize and residents form community self-organization to build an efficient organizational structure.

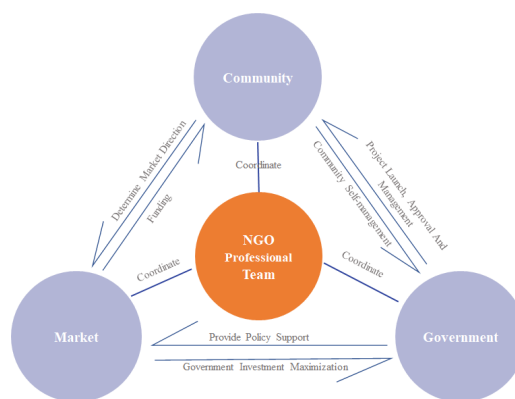


Figure 4-4 Organizational structure of old city renewal

(Source: By Author)

(3) Construction of Public Participation Platform

The government should build a multi-participation platform (Figure 4-5) mainly by NGO

to ensure that multiple interests can have a voice and other relevant interest groups can participate, such as: community planners, experts, media, neighborhood residents, etc. And organize multi-channel participation methods, such as co-creation committees, media platforms, educational networks, community events, etc.

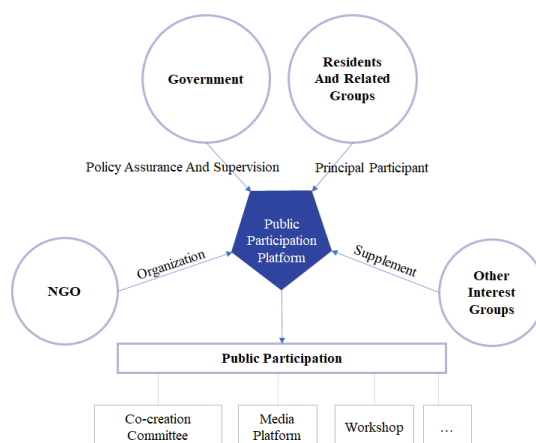


Figure 4-5 Public participation platform for old city renewal

(Source: By Author)

4.3.3 Carefully Preserve Spatial and Social Structure of the Neighborhood

(1) Neighborhood Physical Space Renewal Based on Residents' Needs

The core interest group for Careful Urban Renewal is the residents, so it is important to do the prerequisite research and communication to ensure that the neighborhood is renewed with the needs of the residents in mind. While ensuring the structure of the historic district, the infrastructure of the community is upgraded to create more activity spaces for the residents.

(2) Diversity Conservation Of Stock Buildings

There are many types of buildings in the historic district, and a more adequate census of the buildings is conducted to classify them according to their value, function, date of construction, harmony of appearance, height and other aspects. Different renewal methods are developed for historic preservation buildings, buildings with historical value, existing dilapidated buildings, and dilapidated buildings, to ensure the protection of the diversity of existing buildings.

(3) The Guidance Of Residents' Spontaneous Renewal

The regeneration power of residents is an important part of urban renewal. To ensure the maximum renewal of buildings with limited funds, effective renewal guidelines and policies need to be proposed. In the process of urban renewal, residents' voices should be heard and given some decision-making power, and a renewal framework should be developed in which they can effectively participate.

(4) The Creation of Ecological Neighborhoods

The construction of eco-neighborhoods can bring long-term benefits to residents, and it is possible to consider how to create eco-neighborhoods during the renewal phase, such as modernizing and upgrading buildings, creating microclimates, encouraging greenery, etc.

4.3.4 Guiding Neighborhood History and Culture to Activate Urban Space

(1) Exploring the Potential of the Neighborhood's History and Culture

There exists a certain potential of history and culture in the neighborhoods of the old city, and the most important part of the development process of the city is the formation of its collective memory, corresponding to the spatial form and cultural lineage of the city. Historical resources are the unique features that distinguish neighborhoods from others and are the features that should now be focused on in neighborhood renewal.

(2) Guiding the Combination of Neighborhood Industry and History and Culture

The business and development of the neighborhood can be effectively combined with the history and culture, so that the intangible culture can be passed on through new carriers, and the business of the neighborhood can be developed more permanently through the history and culture.

(3) Urban Renewal Driven by Functional Replacement

By replacing the functions of the existing buildings, new space carriers are given to the history and culture, and the cultural heritage can also be activated while preserving the

buildings. Through the selection of effective catalytic points, the urban catalyst from point to point can be achieved, allowing the neighborhood to achieve the effective succession of history and culture in a progressive process.

4.4 Summary of This Chapter

This chapter summarizes the connotation and conceptual framework of the Careful Urban Renewal concept based on the research on Careful Urban Renewal theories and spatial strategies in the previous two chapters. It also analyzes the feasibility of translating and localizing the Careful Urban Renewal concept in Guangzhou. By analyzing the development and current problems of urban regeneration in Guangzhou, a regeneration path based on the Careful Urban Renewal concept is proposed for the old city of Guangzhou. A strategy for regeneration of Guangzhou's old city is constructed based on the regeneration objectives and principles, building the operational mechanism of old city regeneration, and guiding the historical culture of the neighborhood to catalyze activation of the neighborhood from the basic spatial regeneration strategy of preserving the spatial and social structure of the neighborhood.

Chapter 5 Site Analysis

A typical section of Guangzhou's old city, the Zhuangyuanfang neighborhood, was selected as an experimental site for the regeneration of the old city based on the concept of Careful Urban Renewal, to analyze its current problems and residents' needs, and to explore a path for the regeneration of the historic district through "careful renewal".

5.1 Why Choose Zhuangyuanfang

(1) Similarity of Problems Faced by Neighborhoods

The main problems faced by Zhuangyuanfang in the development of Guangzhou city are the problems of its neighborhood's living environment and its lost industries. These problems are similar to those faced in the urban renewal of Germany in the 1970s. The main problems of the two areas analyzed in the article are also their residential needs and industrial revitalization. Therefore, by analyzing and summarizing their solutions to urban problems, the article provides some ideas for the renewal of the historic district of Zhuangyuanfang.

(2) Typical and Unique in the Old City of Guangzhou

Zhuangyuanfang is somewhat typical of the renewal problems of Guangzhou's old city. First of all, the problem of the historical district is typical, the contradiction between the historical district and the modern residential demand, the contradiction between the inventory of buildings and the incremental demand. Secondly, after the bottom-up spontaneous renewal of the historic district, the style of the district has been affected due to the lack of certain unified guidance; finally, the industry of the historical district has not been well planned and guided, and there is no positive interaction between the business mode of the district and the current situation of the historical district.

The special features of the neighborhood of Zhuangyuanfang: the neighborhood has a history of more than 700 years of characteristic commercial streets, rich Lingnan

history and culture as well as traditional Lingnan material resources, cavalry buildings, historical buildings, traditional streets, etc.; the development of Zhuangyuanfang can be summarized as prosperous because of business and declining because of business, and the development of the neighborhood needs to be solved urgently; although the neighborhood has undergone a certain degree of disorderly and spontaneous renewal, the neighborhood texture is still Although the neighborhood has undergone a certain degree of spontaneous renewal, the texture of the neighborhood is still relatively well preserved, with many Lingnan historical memories preserved.

(3) Neighborhoods Urgently Need to Choose a Renewed Direction

After the closure of many stores in 2007, how to renew the neighborhood was on the agenda, and the renewal direction of the neighborhood is still a problem until today. How to upgrade the traditional commercial function and how to optimize the living environment inside the neighborhood have been the urgent solutions. Through the study of Careful Urban Renewal theory, we are looking for a path for the revitalization and renewal of Zhuangyuanfang.

5.2 Overview of Zhuangyuanfang Neighborhood

The historical district of Zhuangyuanfang, the object of this study, is located at the edge of Yuexiu old city of Guangzhou, near Liwan district and close to the modern urban axis of the old city (Figure 5-1). Zhuangyuanfang is located in the center of Guangzhou's historic and cultural city, and is an important study area of the South Renmin Road Historic District (Figure 5-2.) The main study area of Zhuangyuanfang is distributed in the area east of Renmin South Road, south of Daxin Road, west of Tiancheng Road, and north of Yide Road (Figure 5-3). The planning and design area is about 11.9 hectares, the existing buildings are about 918, the population is about 9,000, the construction area is about 360,000 square meters, and the building density is about 78%.

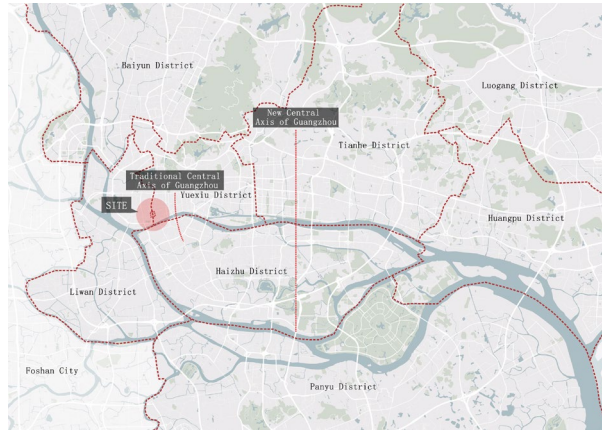


Figure 5-1 The location of the Zhuangyuanfang neighborhood in Guangzhou

(Source: By Author)

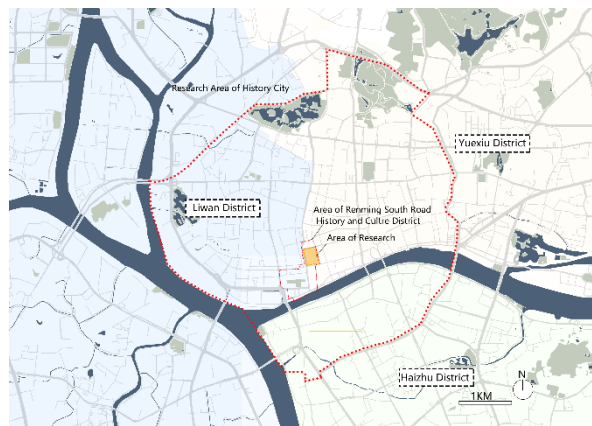


Figure 5-2 The location of the Zhuangyuanfang in the historic city of Guangzhou

(Source: By Author)



Figure 5-3 The scope of the study of the historic district of Zhuangyuanfang

(Source: By Author)

5.2.1 Historical Development of Guangzhou Old Town

The old city of Guangzhou has a history of over 2,000 years, and has been in the process of outward development since the establishment of the Nan County in Qin (214 BC). In the early Han Dynasty (202 B.C. - 220 A.D.), the urban area of Guangzhou was expanded ten times to about 1.5 km²; during the Song Dynasty (960-1279), the city walls were expanded more than ten times to 5 km²; in the Ming Dynasty (1368-1644), the city walls were expanded to the Yuexiu Mountain in the north and the Pearl River in the south, covering an area of nearly 10 km²; in the Qing Dynasty (1636-1912), the East and West Wings were added to the south of the Ming Guangzhou City, and the city reached the northern bank of the Pearl River, which was the last expansion of the ancient Guangzhou city walls (Figure 5-4) [57]. In May 1918, the government of the Republic of China launched the urban renewal campaign, which was the first planned large-scale municipal construction project since the opening of Guangzhou. It lasted for three years, demolishing the city walls to build the city's main road, filling in the river to make land, building Changdi docks and roads, and regulating the construction of rides along the streets[58]. A new urban axis connecting Yuexiu Mountain and the Pearl River was formed from the Zhongshan Monument in the north to the Haizhu Bridge in the south, improving the traditional urban pattern of Guangzhou. By now, the traditional urban spatial scale of Guangzhou was basically set in the Republican period.

During the Republican period, along with the dismantling of the city walls and a major road-building campaign, the city construction went modern. With the establishment of the central axis of Guangzhou New Town, the focus of Guangzhou's urban development began to shift. With the development of old city renewal, Guangzhou's old city banned large demolition and construction and shifted to the old city micro-renovation mode. How to renew the old city has become an important consideration for the development of Guangzhou.

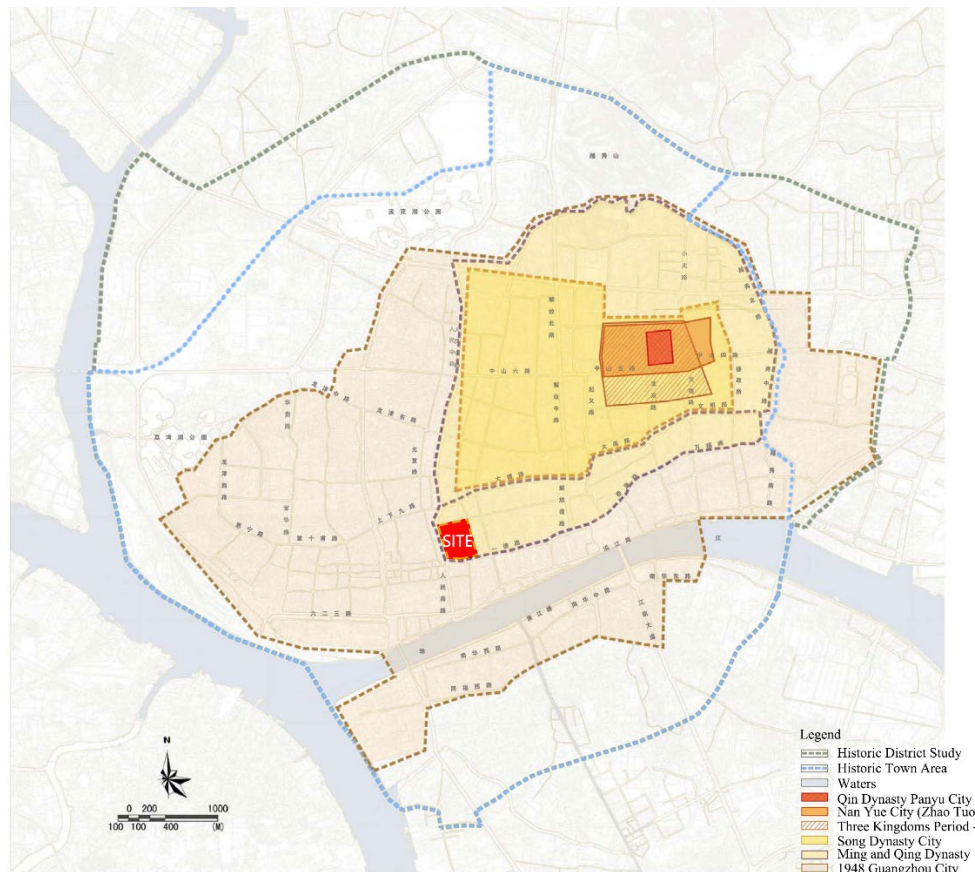


Figure 5-4 The evolution of Guangzhou's old city boundaries over time

(Source: The Protection Plan of the Historical and Cultural Landmark of Guangzhou)

5.2.2 Analysis of the Evolution of the Zhuangyuanfang Neighborhood

Zhuangyuanfang was originally named Taitongfang, and its current name is related to two scholars, Zhang Zhensun of the Song Dynasty, and Lun Wenxu of the Ming Dynasty. The earliest name came from the fact that Zhang Zhensun recovered the city of Guangzhou at the end of the Southern Song Dynasty (1277) and repelled the Yuan army several times, but in the end, he was outnumbered and surrendered to save the people of the city, after which the people of Guangzhou named the place where he lived as Taitongfang. The second time it became famous was when a store opened in the Ming Dynasty because of the fierce winds, the signboard could not be hung, and then Lun Wenxu (1467-1513) came to turn all the bad luck. Later, Lun Wenxu succeeded in winning the scholarship, and thus Zhuangyuanfang became famous again.

With a history of more than 700 years, the commercial street of Guangzhou Zuoyuanfang became world famous for its handicrafts during the Kangxi period, especially its Guangzhou Embroidery handicrafts. With the development of the city and trade, Zhuangyuanfang has been lost due to the lack of infrastructure, poor environmental quality, imbalance of business, loss of neighborhoods and other similar old city problems in Guangzhou, and has declined from the former "Crowd Street" to the "Silent Street".

5.2.3.1 Commercial and Neighborhood Evolution Analysis

During the Ming Dynasty, the original Zhuangyuanfang was only a temporary marketplace outside the southern city wall. In 1563, the outer wall was added to prevent flooding, so the Zhuangyuanfang was enclosed within the city wall, forming a commercial district with fixed buildings, and the basic pattern was set at this time (Figure 5-5). And in the following development process, some commercial and spatial had some changed.

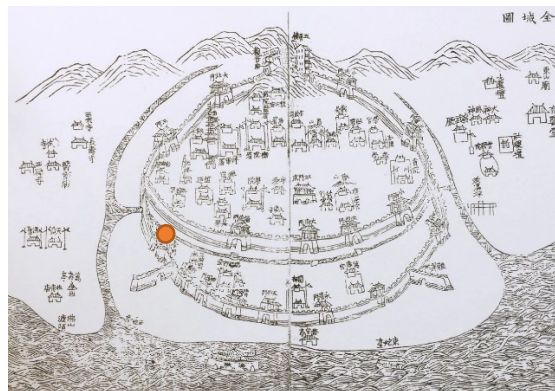


Figure 5-5 Map of Guangzhou in the 43rd year of Ming Dynasty (1564)

(Source: Sun Yat-sen Library of Guangdong Province)

(1) Ming and Qing Dynasties

The commercial policy of the Ming and Qing governments made the Guangzhou port trade prosperous, and Zhuangyuanfang became an important commercial street to communicate with the trade between the internal and external walls^[59] (Figure 5-6). During the Kangxi period of the Qing Dynasty, the handicraft workshops in the commercial area of Zhuangyuanfang were extremely prosperous, mainly dealing with



(Source: Archives Bureau of Guangdong Province)

Figure 5-7 Qing Dynasty street level distribution map

(2) The Republican Period (1912-1949)

transportation route in Guangzhou. The commercial properties of Zhuangyuanfang diminished and became a subsidiary commercial district, but the embroidery and gold and silver jewelry industries remained very prosperous^[58]. Zhuangyuanfang is still the main street of this shopping district, but a large number of businesses have penetrated into Taiping South Road. Zhuangyuanfang shopping district was mainly pedestrian-oriented in this period, and the space has formed a complete pedestrian system (Figure 5-8) .



Figure 5-8 Street level distribution map in the Republican period (1912-1949)

(Source: By Author)

(3) The Early Period of China to the Early Period of Reform and Opening Up (1949-1978)

Soon after the founding of New China, the "First Five-Year Plan", which was mainly based on socialist public ownership and planned economy, was implemented in 1953. During this period, the development of commerce in the country was strictly controlled by the government, and most of the businesses in Zhuangyuanfang were socialized and transformed, and the opera costumes and embroidery shops were collectivized. With the centralized distribution of goods and the reduction of stores, Zhuangyuanfang evolved from a commercial street to a living street (Figure 5-9), the overall structure

of the streets has not changed significantly, mainly the relative widening of Yan Gong Street.



Figure 5-9 Street level distribution map at the early stage of China (1949-1978)

(Source: By Author)

(4) Reform Opening to the Period of Rapid Development (1978-2007)

1978 was the year when the government made a major move to Reform and Open Up, and China began to transform from a planned economic system to a socialist market economy. Guangzhou, as the frontier of Reform and Opening Up, was given numerous preferential policies by the state to promote economic development. With the environment of rapid economic development, policy support and good spatial location during this period, Zhuangyuanfang once again became a nationally known commercial character street in line with the trend of young people. The main commodities in its block are trendy clothes, stationery, electronic toys, and other fashionable and cheap goods. And its good location near the Pearl River Pier, low rent, and small-scale business model have attracted a large number of merchants to move in and revive the second development climax of Zhuangyuanfang. During this period, the spatial form of the neighborhood of Zhuangyuanfang did not change significantly

compared with the previous period, and several roads were added to the group because of the reconstruction of the building (Figure 5-10) .



Figure 5-10 Street level distribution map at the Reform and Opening Up period (1978-2007)

(Source: By Author)

(5) Current Status

The year 2007 was a turning point in the decay of the Zhuangyuanfang neighborhood. In this year, the neighborhood of Zhuangyuanfang was included in the scope of protection of the historical and cultural city, and the government started to shift from the mode of larger scale demolition and construction to the mode of protection and micro-renewal^[59]. And the Internet began to develop rapidly, online e-commerce began to gradually replace the traditional commercial market, the advantages of the traditional business model of Zhuangyuanfang began to gradually weaken, so the neighborhood of Zhuangyuanfang began to decline. The popularity of Zhuangyuanfang neighborhood began to decline, merchants began to turn to online mode, offline stores became warehouse storage or display in kind, and the neighborhood gradually shifted from commodity retail to wholesale storage. With the reconstruction of some buildings in the

south of the neighborhood, some group roads were added, forming some group roads that are not very harmonious with the original neighborhood structure, and Yan Gong Street can be directly connected with the streets in the north, increasing the accessibility within the neighborhood (Figure 5-11) .



Figure 5-11 Current street level distribution map

(Source: By Author)

(6) Summary of Zhuangyuanfang Neighborhood and Commercial Development

The development of the neighborhood and commerce of Zhuangyuanfang can be summarized as follows: with the forced demolition of the city walls and the construction of the surrounding main roads, the main streets of Zhuangyuanfang have not undergone significant changes. In the southern part of the site, as the buildings were renewed and replaced, the scale of the streets and alleys became wider and increased the connectivity of the neighborhood. But the industry has changed with the times and social economy, experiencing two boom periods of development to the decline of the industry in modern times due to the impact of e-commerce, and the traditional

commercial shopping streets have gradually changed into storage and wholesale oriented industries (Figure 5-12).

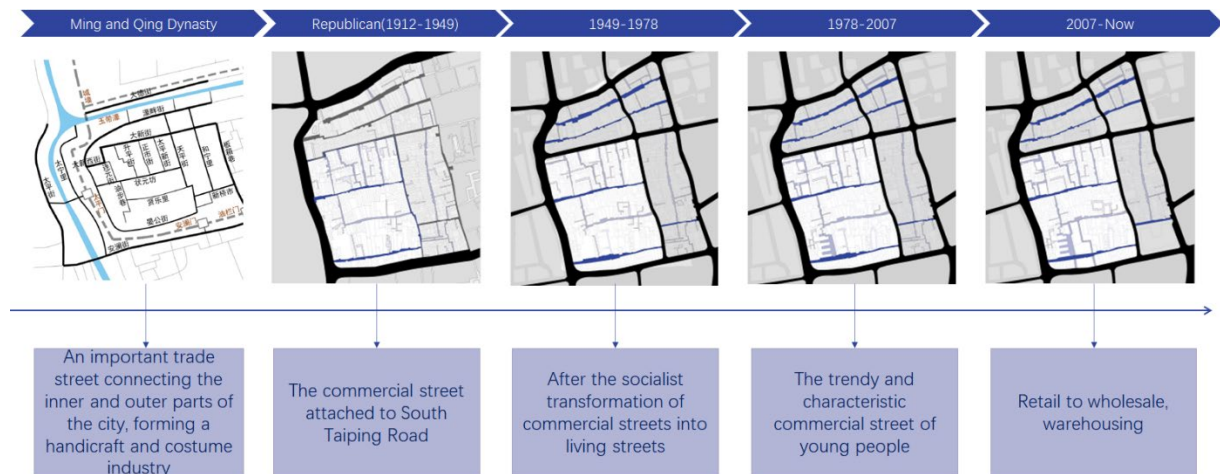


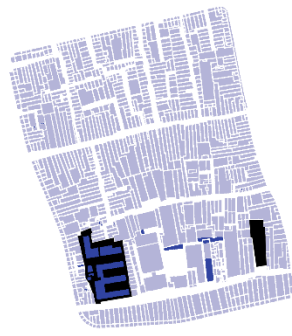
Figure 5-12 Map of changes in fabric and industrial development of Zhuangyuanfang Street

(Source: By Author)

5.2.3.2 Analysis of the Evolution of the Architectural Fabric of the Neighborhood

The article selects the years with detailed information of the neighborhood (1959, 1974, 1989, 2004, 2022) and analyzes the evolution of the architectural form of the Zhuangyuanfang neighborhood from 1959 to 2022, and it can be found that the architectural fabrics of the original Zhuangyuanfang are slowly destroying in part over time. The main reason is that after the demolition of the buildings, the new modern buildings do not have a better continuation with the original architectural fabrics, resulting in the architectural fabric presenting a broken state in the new areas in the south (Figure 5-13). The northern part of the city is less developed due to demolition, and the fabric of the neighborhood is well preserved. The new buildings also reduce the overall building density and provide some open space.

Morphological Evolution 1959-1974



Morphological Evolution 1974-1989



Morphological Evolution 1989-2004



Morphological Evolution 2004-2022



Figure 5-13 The evolution of the architectural fabrics of the Zhuangyuanfang neighborhood
from 1959 to 2022

(Source: By Author)

5.3 Upper Planning Analysis

5.3.1 Guangzhou Old Town Conservation Plan

In the Protection Plan for Historic and Cultural Cities (2018) issued by the Guangzhou government, the Zhuangyuanfang site is included in the protection area of the cultural district, which belongs to the protection area of the Renmin South Road Historic and Cultural District (Figure 5-14). The protection framework of the historic and cultural city is mainly "one city, two zones and multiple districts". The establishment of the historic and cultural city is to protect the historical culture and improve the environment, and pay attention to the overall protection of the historic and cultural city. The cultural

connotation is used to revitalize the inner-city economy and continue the social and humanistic lineage.

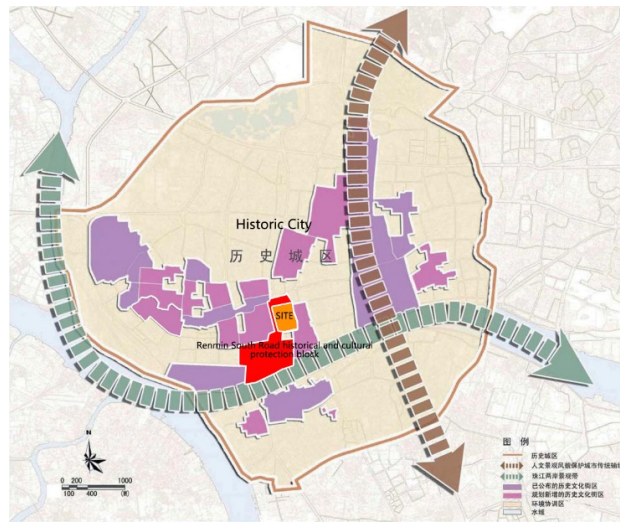


Figure 5-14 Development axis of Guangzhou historical and cultural city protection plan

(Source: The Protection Plan of the Historical and Cultural Landmark of Guangzhou)

5.3.2 South Renmin Road Historical and Cultural District Preservation

In recent years, the South Renmin Road Historical and Cultural District has become a key area for the renewal of the old city. In the "Protection Plan for the South Renmin Road Historical and Cultural District" introduced in 2018, the protection plan for the historical district and traditional buildings is proposed, and the protection area of the whole district is 40.39 hectares, emphasizing that while revitalizing and protecting, the protection and development should be harmoniously integrated (Figure 5-15). Revitalization and protection of the cavalry streets of South Renmin Road. In addition, specific conservation requirements are put forward for the South Renmin Road historical and cultural district in the following aspects.

(1) Scope of Conservation

The protection scope is mainly two kinds, the core protection scope and the construction control zone. The western part of the Zhuangyuanfang neighborhood belongs to the core protection scope, and the rest is located in the construction control zone. New buildings are strictly controlled in the core protection area, and the

necessary new and expanded buildings are controlled at less than 12 meters; new and expanded buildings are controlled at less than 18 meters within the construction control zone.

(2) Historical and Cultural Value

The historical and cultural values within the neighborhood are divided into tangible cultural protection and intangible cultural protection. The material culture is mainly historical buildings, traditional style buildings, old trees, traditional streets and alleys, etc.; the intangible culture protection is mainly to preserve the characteristic commerce, handicraft industry, old brands mainly in the opera costume industry, and the Lingnan celebrity culture centered on the Zhuangyuanfang.

(3) Classified Conservation Measures for Buildings

The four types of buildings are subject to different remediation measures, and the main measures adopted are "repair, improvement, remediation and renewal". The conservation plan provides different remediation and protection plans for different buildings, so as to improve and preserve the overall landscape of the historic district.

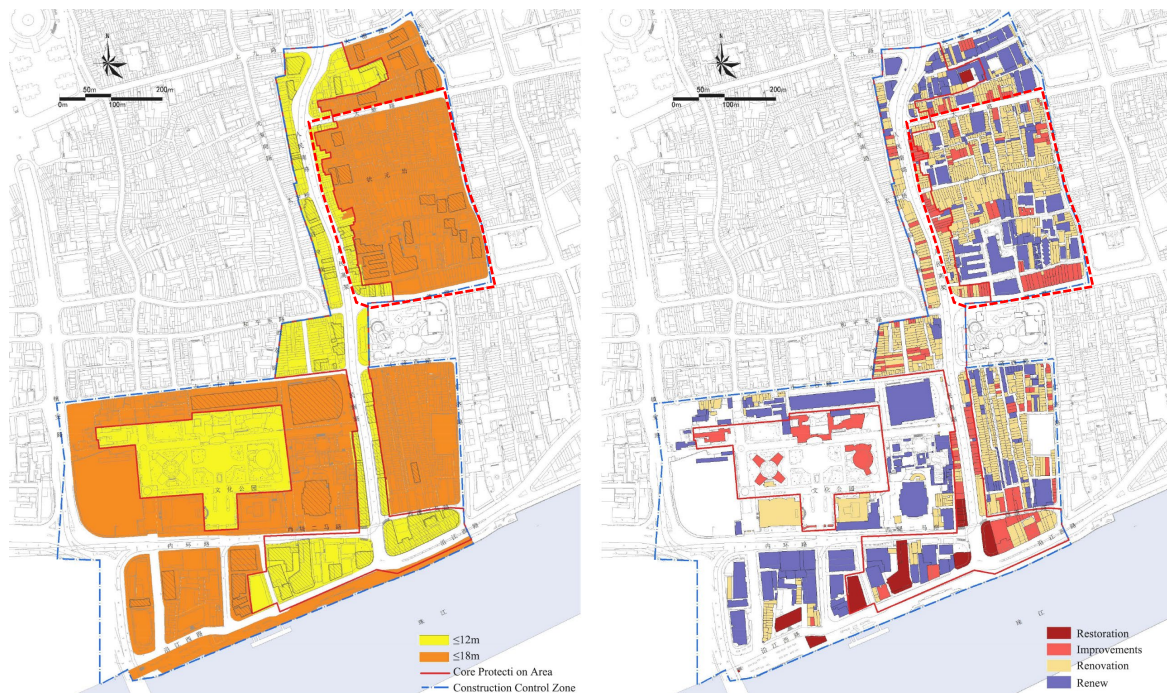


Figure 5-15 The Protection Plan of South Renmin Road Historical and Cultural District, 2018

(Source: Guangzhou Municipal Planning And Natural Resources Bureau)

5.4 Analysis of the Current Situation of the Zhuangyuanfang

5.4.1 The Current Status of the Neighborhood Space in Zhuangyuanfang

(1) The Status of the Neighborhood Texture

From the historical fabric evolution of the Zhuangyuanfang neighborhood in subsection 5.2, it can be concluded that the texture of Zhuangyuanfang presents a collage with the development of the times, and the overall neighborhood presents a multi-period and multi-type collage. The overall fabric of the neighborhood is well preserved, with the northern part of the plot basically preserving the street scale of the current old city, while the southern part of the plot has some gap spaces that do not match the historical streets and alleys due to the building reconstruction (Figure 5-16) [60].

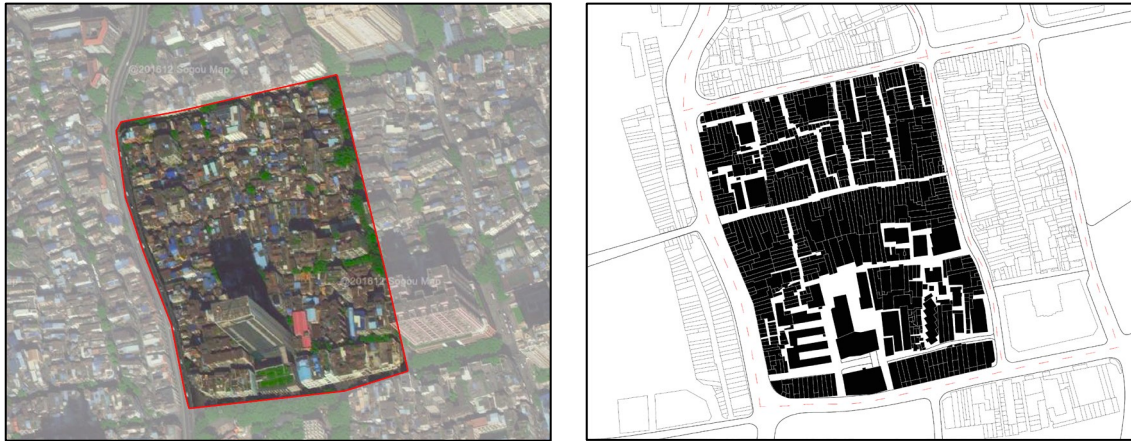


Figure 5-16 Zhuangyuanfang neighborhood fabric map

(Source: By Author)

(2) The Spatial Dimension of the Street

The streets of Zhuangyuanfang can be divided into four road layers, the main street, the secondary street, the alley, and the new group road (Figure 5-17). The main street and secondary street are the main traffic roads inside Zhuangyuanfang, carrying the function of connecting the external city arteries, and the overall scale is also relatively wide, with the widest at 8.9 meters and the narrowest at only 1 meter. The alley and the new group road are important streets connecting the interior of the site and further organizing the internal traffic of the street. The alleys are mainly existing alleyways

from the old city and are narrower in general, with widths generally in the range of 1.5-4 meters. The alleys are mostly end-of-road, suitable for walking only. The new group road is a road formed after the building was reconstructed in the original plot in order to meet the traffic demand of the plot, without obvious boundary lines, and obviously not systematic with the previous three road systems.

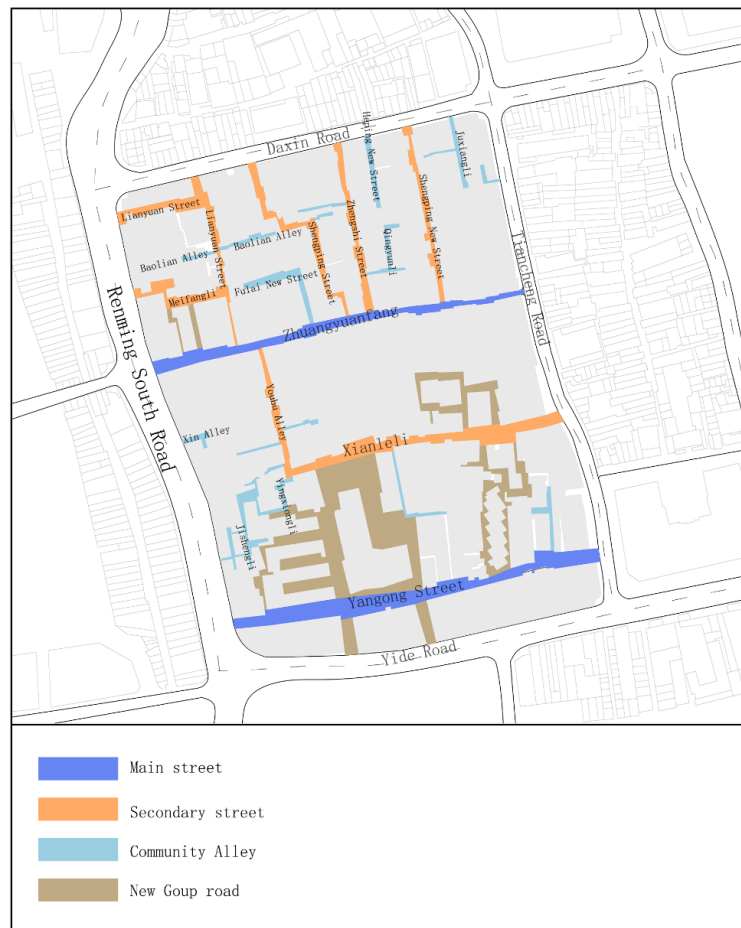


Figure 5-17 Current neighborhood main roads

(Source: By Author)

The width of the main streets in the neighborhood is basically between 1-7 meters, and the interior of the neighborhood is mainly composed of 2-3 story row houses, with the D/H ratio around 0.2-1 (Figure 5-18). The overall spatial feeling of the streets is still relatively comfortable, continuing the traditional neighborhood scale of the old city. The pavement material of the streets has been renewed several times, and only the main street of Zhuangyuanfang, Yaobu Lane and Shengping Street are left, and most of the

street pavement has been replaced by modern concrete, block brick and boulder slab, which is not enough to coordinate with the style of the historical district.

Roadv	Zhuangyuanfang	Youbu Alley	Xiangleli	Zhengshi Street	Shengping Street	Lianyuan Street	Yangong Street	Meifangli	Shengping New Street
Photo									
Figure-ground									
Road Width(m)	2.4-8.9	3-5	2.5-6.8	2.1-5.7	1-5.5	1.4-8.0	2.8-7.1	1.0-7.4	1.4-5.8
Width/Height	0.34-1.27	0.42-0.71	0.35-0.97	0.3-0.81	0.14-0.78	0.28-1.14	0.2-0.5	0.14-1.05	0.2-0.82
Pavement									
Pavement Style	Tradition	Tradition	Modernization	Modernization	Tradition	Modernization	Modernization	Modernization	Modernization

Figure 5-18 Analysis of the current status of the main street space in the neighborhood

(Source: By Author)

(3) The Current Status of Green Landscape in the Neighborhood

The analysis of the landscape elements inside Zhuangyuanfang reveals that the main existing landscape is mainly composed of the entrance gate, ancient wells, large trees, and potted plants on the street (Figure 5-19). The landscape elements are relatively single and do not form a feature that responds to the culture of the neighborhood. The internal greenery of the neighborhood is mainly formed by local flower beds and self-placed potted plants.



Figure 5-19 Street greening status distribution map

(Source: By Author)

(4) Status of Public Open Space and Activities in the Neighborhood

There are only six open space nodes inside the Zhuangyuanfang neighborhood as shown in the figure below (Figure 5-20), and the main open nodes are formed by the expansion of the street after the replacement of the buildings. There are only two spaces inside the neighborhood where people can stay and rest. There is a lack of open space in the neighborhood, and it is impossible to provide sufficient open space and space to stay.



Figure 5-20 Neighborhood open space status

(Source: By Author)

The main crowd activity on the main street of Zuoyuanfang is also related to the industry. As the industry on the main street of Zuoyuanfang has changed from the previous, handicraft, and retail to a garment wholesale and storage-based industry, the main street is mainly filled with people transporting goods and people borrowing to cross the block during the daily commuting peak period, basically there is no business or space to stay (Figure 5-21). Plus, the occupation of the original narrow streets by unloading, stacking, and transporting goods vehicles, leading to more and more negative neighborhoods, and seriously affecting the living experience of residents. There is no fixed storage point for shared bikes, and there is a large number of chaotic parking of shared bikes inside the block, causing a serious space squeeze on the originally narrow street. The main activities of people within the sub-street neighborhood also occur on the street. Since there is no space for sitting, it is the residents who spontaneously move out their chairs. Children also lack places where they can move around, and play occurs on the street with the flow of people.



Figure 5-21 Main activity behavior on the street

(Source: By Author)

(5) Distribution of Public Facilities in the Neighborhood

Through the research and analysis of the public facilities inside the neighborhood of Zhuangyuanfang (Figure 5-22), it can be concluded that the garbage points inside the neighborhood are distributed more evenly and can meet the use of the neighborhood, but their forms are too simple and the placement of some garbage cans will affect the passage and experience of the street. However, the fire hydrants in the neighborhood are mainly distributed in the main streets, and there is a lack of arrangement for the interior of the streets. The number of public restrooms is low and they are far from the main street, which does not meet the needs of the main applicable population. There are administrative and educational facilities, medical and health facilities, and elderly service facilities, but there is a lack of sports facilities for the main community groups and cultural activities related to the history and culture of the neighborhood.



Figure 5-22 Neighborhood infrastructure distribution and its garbage bins status

(Source: By Author)

(6) Neighborhood Traffic

The overall traffic is relatively convenient. The parking lot around the block can basically cover the block within 200m, which can meet the requirements of motor vehicle parking in the block (Figure 5-23). The neighborhood is mainly pedestrian-

oriented, and non-motorized vehicles and bicycles are allowed. The overall traffic of the neighborhood is convenient, surrounded by major roads and many bus stops, and the Yide Road subway station can be reached within 150m walking distance (Figure 5-24).



Figure 5-23 Parking around the block

(Source: By Author)

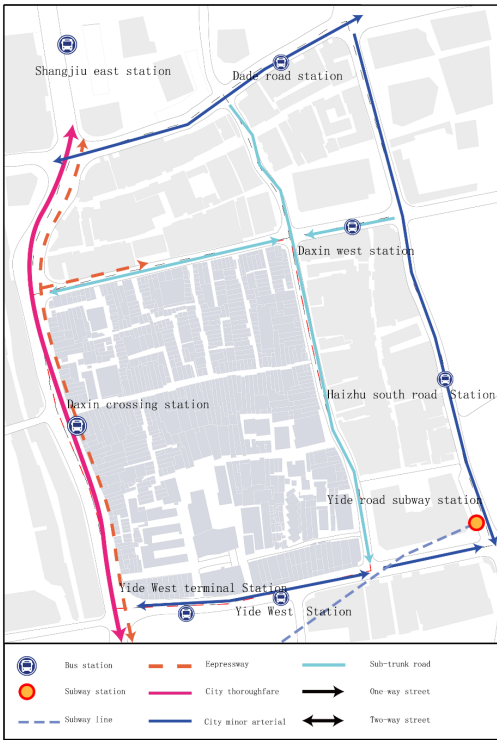


Figure 5-24 Analysis surrounding traffic routes around the neighborhood

(Source: By Author)

5.4.2 The Current Status of the Buildings in the Neighborhood

(1) Current Condition of Buildings and Age of Buildings

The overall architectural condition of the neighborhood is relatively well preserved, with only 20 abandoned and dilapidated buildings. Their abandonment is due to structural deterioration and long-lasting façade disrepair. These 20 buildings are mainly concentrated in the northern part of the site. The buildings have been renewed mainly through five periods of replacement, and the distribution of the existing buildings shows a patchy pattern (Figure 5-25). There are about 918 existing buildings in the neighborhood, including 74 buildings from the Qing Dynasty, 362 buildings from the Republic of China, 245 buildings from the early founding period, 205 buildings from the reform and opening-up period, and 32 buildings from the post-1990 period (Figure 5-26). The main existing buildings in the plot are still mainly the buildings of the Republic of China and the early period of China.

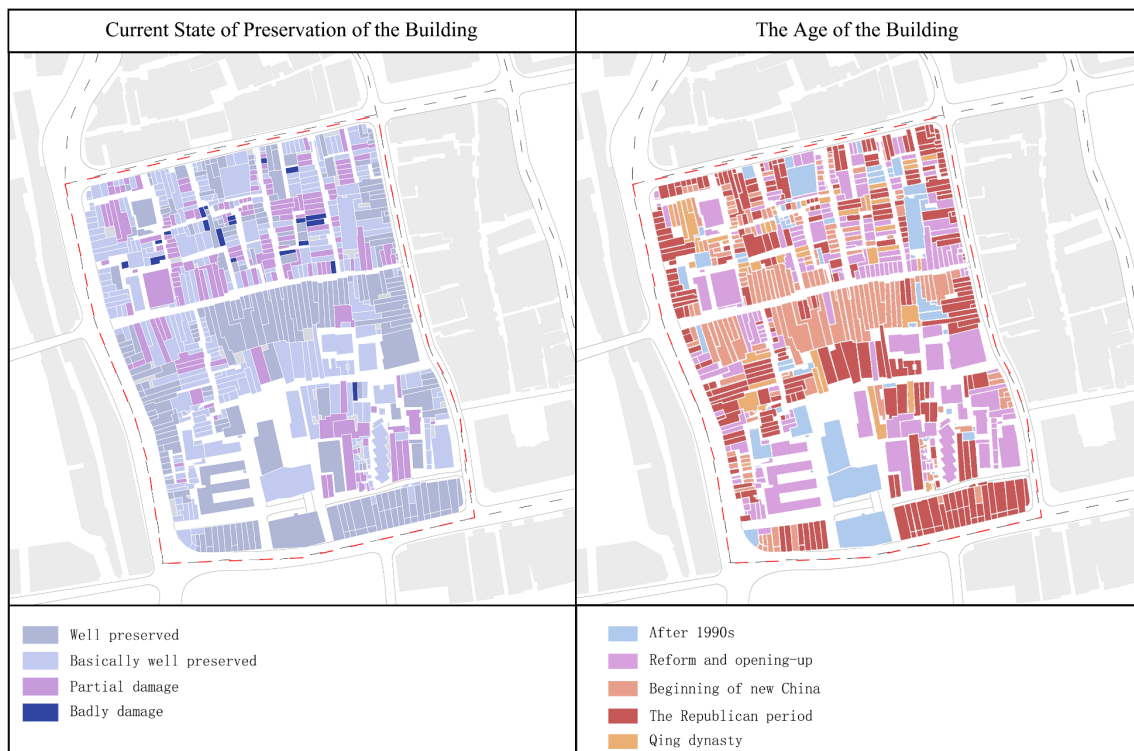


Figure 5-25 Current status of architectural preservation and architectural age of the Zhuangyuanfang neighborhood

(Source: By Author)

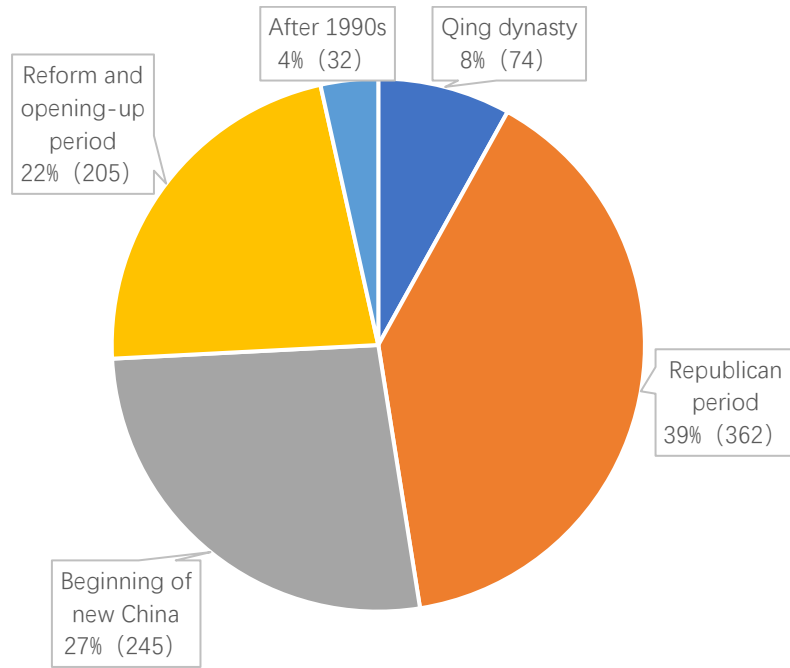


Figure 5-26 Statistical table of building age

(Source: By Author)

(2) Architecture Type and Architecture Style

The building types within the site can be divided into seven main categories (Table 5-1): commercial arcade and common ground floor shop, row house, townhouses, multifamily housing, single-family houses, communal building, and single public building (Figure 5-27)^[61]. The main building types are commercial arcade, common ground floor shop, and row house^[62]. This is the most diverse group of buildings within the site. Tracing back to the architectural prototypes, the most dominant types are the joint-row bamboo houses of the Qing Dynasty (Figure 5-28) and the Arcade House of the Republic of China (Figure 5-29).

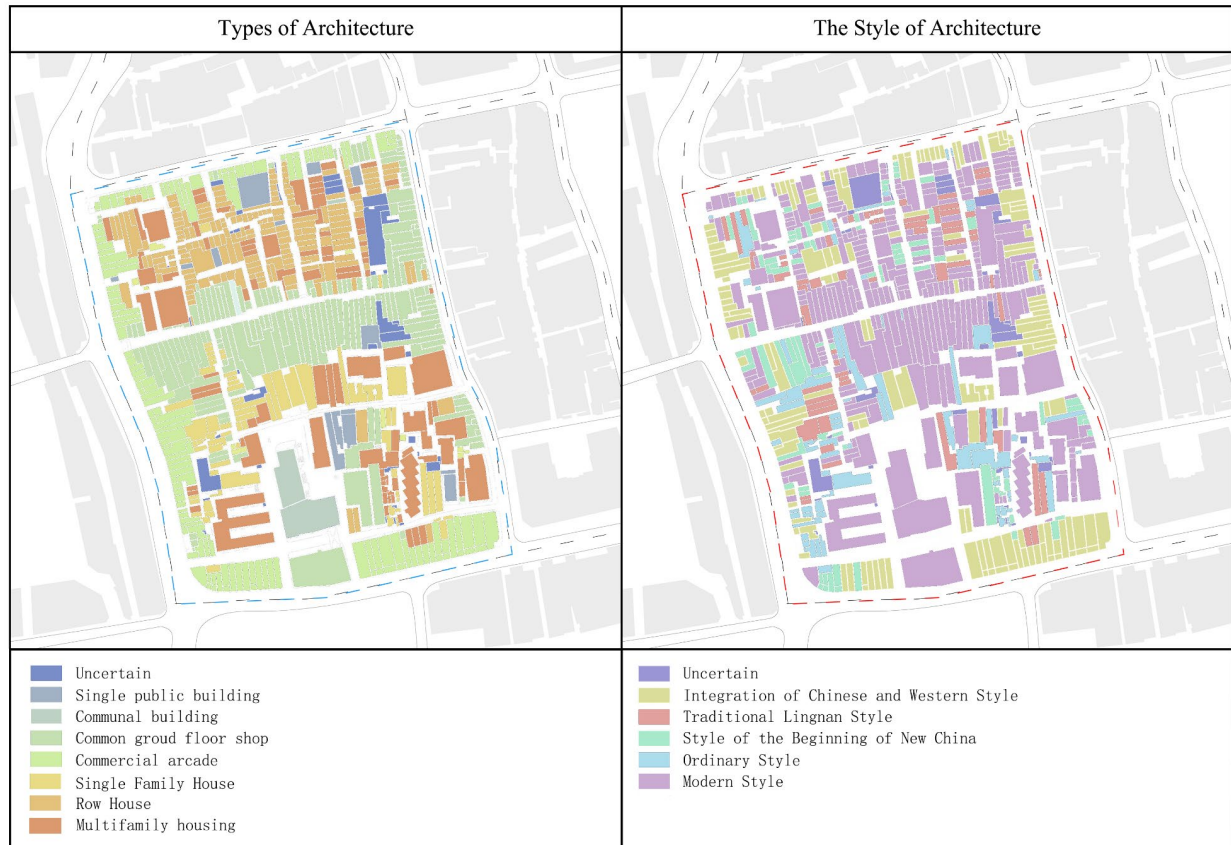


Figure 5-27 Current status map of building types and architectural styles in the Zhuangyuanfang neighborhood

(Source: By Author)

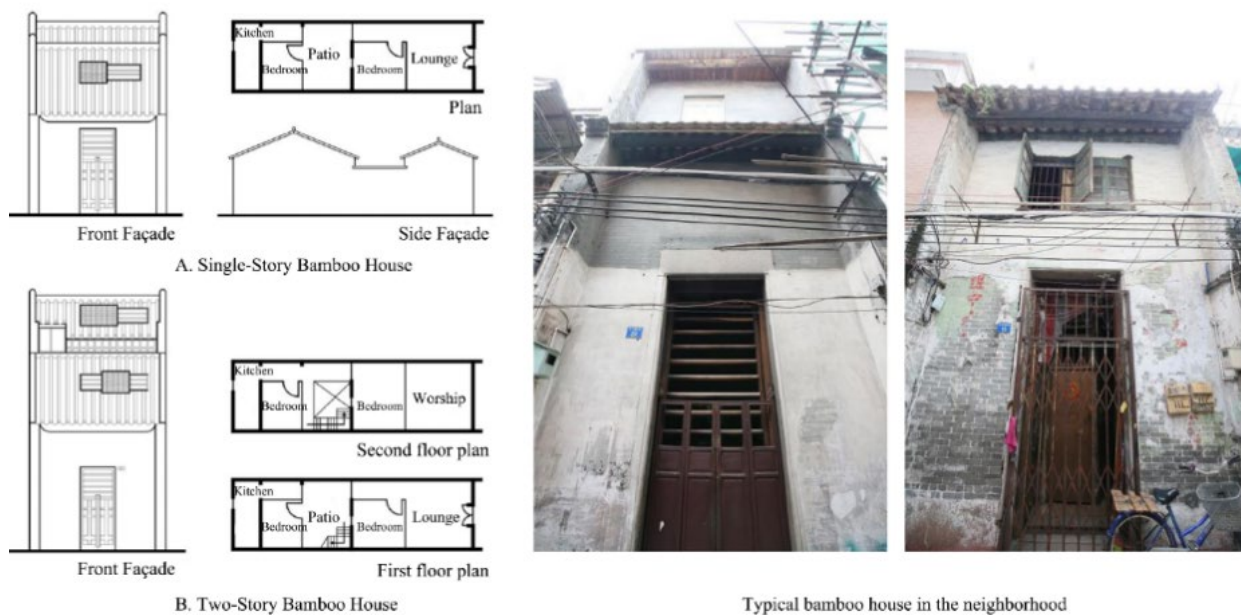
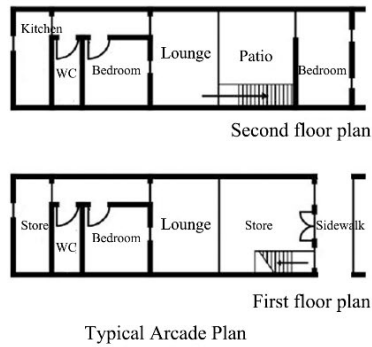


Figure 5-28 The prototype of the joint-row bamboo house in the Qing Dynasty

(Source: Luqi, Guangdong Folk Houses, 2008)





Typical arcade buildings in the neighborhood


Figure 5-29 Prototype of arcade house in the republican period

(Source: Luqi, Guangdong Folk Houses, 2008)

Table 5-1 Architectural types and characteristics of the Zhuangyuanfang neighborhood

(Source: By Author)

Type of Buildings	Typical Picture	Characteristic
Commercial Arcade		<ul style="list-style-type: none"> • Mainly located on Yide Road, South Renmin Road and Daxin Road main road • The buildings are mainly from the Republic of China period • The ground floor stores and the residential above model provide a good shopping experience
Common Ground Floor Shop		<ul style="list-style-type: none"> • Mainly on Tiancheng Road and Zhuangyuanfang Main Street • Unsuitable for forming an arcade block due to the low road grade • The pattern of living on top of the lower stores

<p>Row House</p>		<ul style="list-style-type: none"> • The most dominant type of building inhabited by residents within a neighborhood • Mostly built in groups during the same period, with similar façade characteristics
<p>Multifamily Housing</p>		<ul style="list-style-type: none"> • Multi-family type of housing type rebuilt on the original plot • Usually 4-6 stories • Mostly built in the early years of China
<p>Single Family House</p>		<ul style="list-style-type: none"> • Single-family detached houses • Living conditions are relatively quiet
<p>Communal Building</p>		<ul style="list-style-type: none"> • The main public service group building in the neighborhood is the Datong Commercial Building, which provides mainly commercial services.
<p>Single Public Building</p>		<ul style="list-style-type: none"> • Mainly refers to the building unit inside the building that provides this public service

The main styles of buildings within the site can be divided into five categories ((Figure 5-27, Figure 5-30), Ordinary Style (private erection, façade broken building style), the

beginning of new China style (the simplest use requirements, no traditional architectural features), Modern Style (façade after painting, decoration and other redecoration), Traditional Lingnan Style (maintain the traditional façade components and façade style), Integration of Chinese and Western Style (often appear with Western decorative elements, parapets, façade style).



Figure 5-30 Typical picture of the main architectural styles of the Zhuangyuanfang neighborhood

(Source: By Author)

5.4.3 The Current Status of the Industries in the Neighborhood

From the functional layout of Zhuangyuanfang (Figure 5-31), the pattern of its distribution can be summarized, with commercial activities along the main road and mainly residential inside. The main existing industries in Zhuangyuanfang are mainly wholesale and retail. Among the major industries are garments, hardware, paper products, printing equipment, packaging, etc. The function of the main street of Zhuangyuanfang has shifted from the previously glorious handicraft and retail industries to storage and garment wholesale-based industries. Due to the influence of e-commerce, most stores have transformed to online stores, with online sales as the main focus and offline as warehouse storage and display^[63]. Neighborhoods are also increasingly residential buildings are rented out for storage use after renovation, leading to the long-term development of neighborhood businesses in a vicious manner. Street space is occupied by massive pulling and unloading vehicles, goods stacking,

street use inefficiency. And storage also brings serious fire problems. There are only a few clothing stores and grocery stores left in the neighborhood to meet daily needs, and the basic businesses can no longer attract visitors (Figure 5-32).



Figure 5-31 The main function distribution in the Zhuangyuanfang neighborhood

(Source: By Author)



Figure 5-32 Neighborhood commercial status photos

(Source: By Author)

5.4.4 Historical and Cultural Status of the Neighborhood

(1) Intangible Culture Heritage

Zhuangyuanfang is famous for the historical story of "Scholar" and has been developed for its handicraft and garment industries, but the historical culture of the neighborhood has not been well developed and revitalized. Except for the existing statues of famous people at the entrance of the main street of Zhuangyuanfang, the historical and cultural atmosphere of the neighborhood is weak, and there is a lack of promotion of historical culture in the neighborhood.



Figure 5-33 Zhang Zhensun's portrait and the statue at the street entrance of Zhuangyuanfang

(Source: Portrait from Internet; Picture By Author)

Since the Kangxi period of the Qing Dynasty, the street has been filled with various handicraft workshops, such as costume processing and embroidery, and is famous for its exquisite techniques both at home and abroad ^[64]. The traditional handicrafts such as costumes, Guangzhou Enamel, Guangzhou embroidery, jade carving and ivory carving are cultural arts with characteristics of Lingnan culture and intangible cultural heritage (Figure 5-34) .

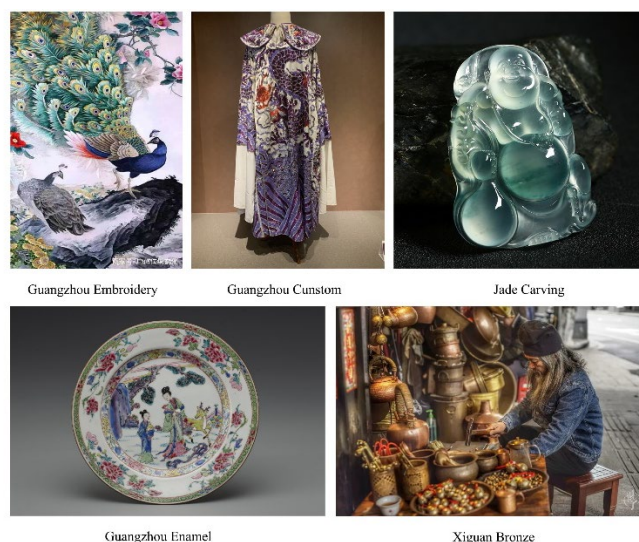


Figure 5-34 Traditional craft culture in zuoyuanfang neighborhood

(Source: Internet)

As can be seen from the table 5-2, the vitality of intangible cultural heritage within the neighborhood is low, with fewer stores present. There are some industries that once served as the main industrial support of Zhuangyuanfang, for example, Guangzhou embroidery and opera costumes during the Qing Dynasty. However, nowadays, the intrusion of garment wholesale and storage and retail has deprived these intangible cultural industries of the ground for development (Figure 5-35).

Table 5-2 Current status of intangible cultural heritage in the Zhuangyuanfang neighborhood

(Source: Architectural Design & Research Institute. The Conservation and Renewal Planning and Urban Design of Zhuangyuanfang Block in Yuexiu District, Guangzhou [Z].2016.)

Intangible Cultural Heritage List			
NAME	LEVEL	PRESERVATION ON THE STREET	RELEVANCE TO OTHER INDUSTRIES IN THE STREET
Canton Furniture Making Techniques	National Level	No Existing	Weak Correlation
Guangzhou Enemal	National Level	Few Existing	Weak Correlation
Guangzhou Jade Carving	National Level	No Existing	Weak Correlation
Canton Ivory Carving	National Level	Very Few Existing	Weak Correlation
Guangzhou Embroidery	National Level	No Existing	Strong Correlation
Lion Dance	National Level	Few Existing	Weak Correlation
Cantonese Storytelling	Provincial Level	No Existing	Weak Correlation
Guangzhou Costume	Provincial Level	Few Existing	Medium Correlation
Collecting Zhilin Traditional Chinese Medicine Culture	Provincial Level	Few Existing	Medium Correlation
Xiguan Bronze	Provincial Level	No Existing	Medium Correlation
Color Binding (Guangzhou Lion Head Making Technique)	Provincial Level	Few Existing	Weak Correlation
Making Technique Of Sandalwood Fan In Guangzhou	City Level	No Existing	Weak Correlation



Figure 5-35 The existing costume factory in the neighborhood

(Source: By Author)

(2) Tangible Cultural Heritage

The area around Zhuangyuanfang is a neighborhood with strong history and culture, close to the Shangxiajiu Historical and Cultural District, Guangfu South Historical and Cultural District, Haizhu South-Changdi Historical and Cultural District, Shameen Historical and Cultural District, as well as close to the central axis of the old city and Beijing Road (Figure 5-36). A good interactive development can be formed through the nearby historic districts. Some of the surrounding neighborhoods have been renovated and upgraded and are already well developed, such as Shangxiajiu, Beijing Road and Sha Mian, etc. The surrounding historical and cultural resources can be used to create a historical and cultural district with Lingnan characteristics.

In addition to historical and intangible culture, a large amount of tangible cultural heritage also exists within the Zhuangyuanfang neighborhood, which is mainly distributed along the main city roads of Daxin Road, South Renmin Road and Yide Road. There are five historical buildings, 76 buildings with historical value, three main arcade streets, and five streets with traditional appearance inside the district (Figure 5-35). The main material aspects of the historical and cultural heritage are the streets and buildings.

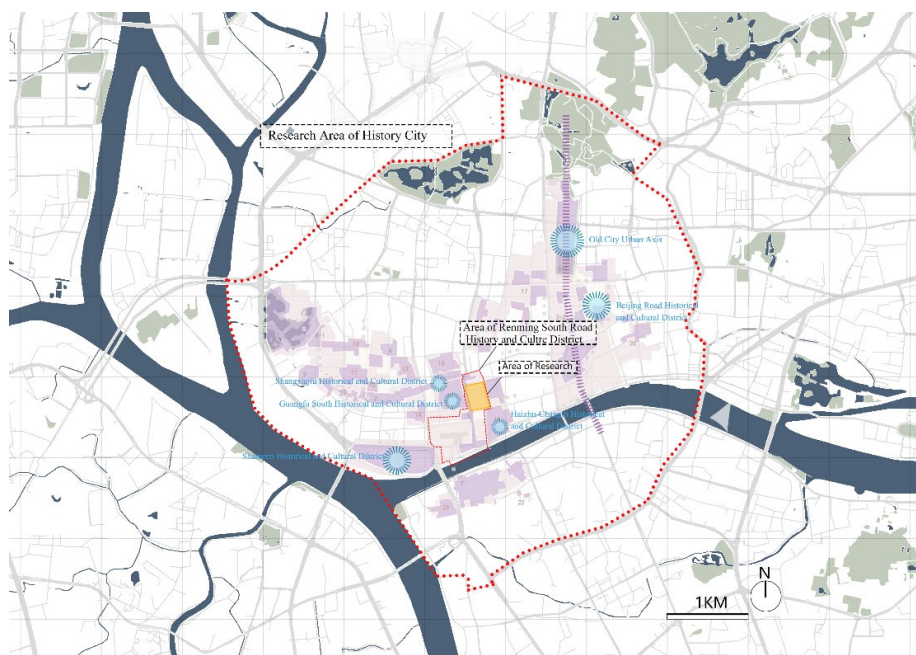


Figure 5-36 Distribution of historical and cultural resources around Zhuangyuanfang
(Source: By Author)

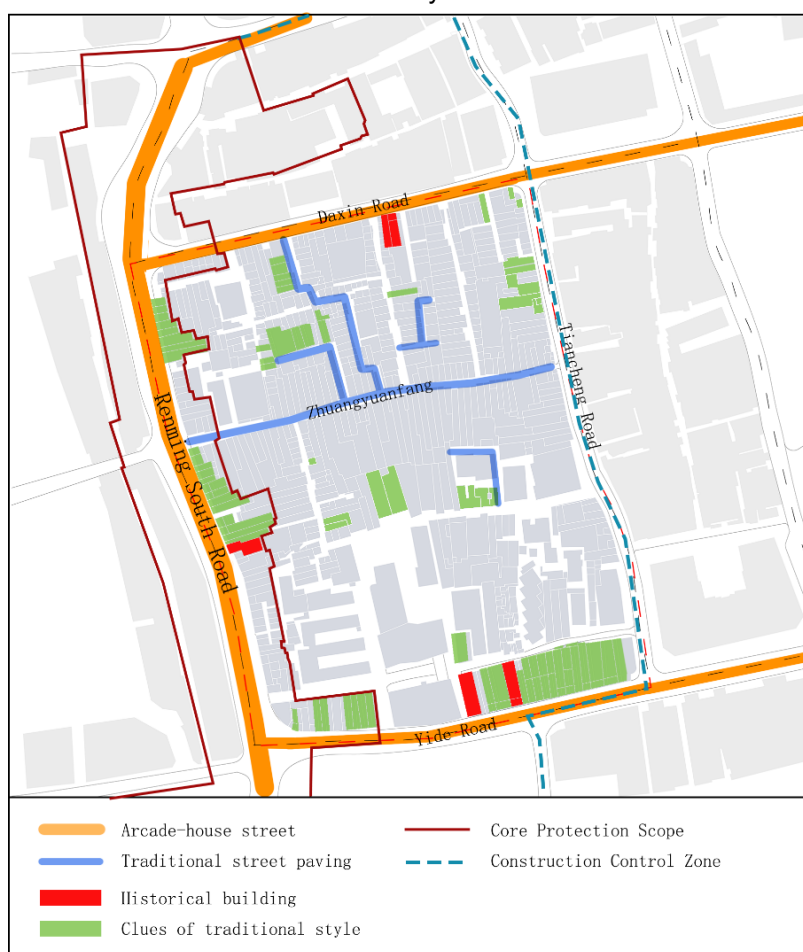


Figure 5-37 Distribution of conservation objects within the neighborhood
(Source: By Author)

5.4.5 Neighborhood Public Opinions

Based on the actual research interviews, online research (online platform for relevant information), and the information of the "The Conservation and Renewal Planning and Urban Design of Zhuangyuanfang Block in Yuexiu District, Guangzhou, 2016"^[65], opinions of some residents, merchants, citizens, and experts on the renewal are summarized (Figure 5-38). The opinions of these four groups are divided into five aspects: neighborhood history and culture, neighborhood physical space, neighborhood architecture, industrial development, and policies.

POLICY	<ul style="list-style-type: none"> -Hope that the government will give financial support -Policy support for moving back or moving to nearby -Hope the government will actively intervene in the renovation process 	<ul style="list-style-type: none"> -Hope the government has policies and funds to support commercial upgrading -Control of rent after renovation 	<ul style="list-style-type: none"> -Hope the government can revive Zhuangyuanfang early -Have some policy to support block renewal 	<ul style="list-style-type: none"> -Improve social autonomy -Develop a feasible way of public participation -Define property rights information
INDUSTRY	<ul style="list-style-type: none"> -Retain the residential function, not pure commercialization and tourism -Want to change the business mode of storage and wholesale -Introduce cultural industry to support the development of the neighborhood 	<ul style="list-style-type: none"> -Maintain its strong business atmosphere -The stores can be renovated and managed in a unified manner -The possibility of self-improvement for tenants -Worry about the increase of rent due to renovation 	<ul style="list-style-type: none"> -From a prosperous alley to an express warehouse -The trendy street for young people in the 80s and 90s -Began to decline after e-commerce in 2007 	<ul style="list-style-type: none"> -Renewal of business through private financial cooperation -Pulling development in combination with surrounding attractions -Increase the income of craftsmen -Multiple models, independent, developers, government
BLOCK BUILDING	<ul style="list-style-type: none"> -The house area is too small -The house is old and the interior facilities are deteriorating -The house needs revitalization -House structure, walls need to be updated 	<ul style="list-style-type: none"> -Keeping the characteristics of Lingnan architecture 	<ul style="list-style-type: none"> -Traditional houses are disappearing -The impact of new construction on the style of the neighborhood 	<ul style="list-style-type: none"> -The old city is not forced to preserve all of it, but needs to be controlled by the market -There should be a complete mapping of the building status -Guide residents who have the autonomy to renew to upgrade first
BLOCK PHYSICAL SPACE	<ul style="list-style-type: none"> -The change of residence leads to chaos and noise in the block, and there is a potential safety hazard -Inadequate public services in the community -Poor street hygiene environment -Streetscape needs to be upgraded -Lack of places for public activities 	<ul style="list-style-type: none"> -Want to improve the environment to attract customers -Hope to be able to self-renew the business environment -Improve road traffic -Improper entertainment and dining facilities around the area -Trolleys affect pedestrian safety 	<ul style="list-style-type: none"> -Lack of public toilet facilities -Lack of public network support -problem with the configuration of the trash can -Poor sanitary conditions -Lack of public space 	<ul style="list-style-type: none"> -Material form in line with social and economic realities -Lack of material financial support -Renewal of the neighborhood fabric through specific strategies -Subdivide the plot to ensure small scale
DISTRICT HISTORY AND CULTURE	<ul style="list-style-type: none"> -Introduction of costume culture, combined with photography to form a new industry -Neighborhood relationship is relatively good 	<ul style="list-style-type: none"> -Preserve buildings with distinctive features -Enhance street constructions with historical characteristics -Preserve its Lingnan character, not uniformity 	<ul style="list-style-type: none"> -Preservation and renewal of the traditional lanes with a living culture atmosphere in Zhuangyuanfang -Zhuangyuanfang has a strong memory of the times -Desire for an platform to understand the history and culture of Zhuangyuanfang -The characteristic pattern of Arcade Street -The decline of the intangible culture of theater costumes -Humanistic atmosphere begins to decline 	<ul style="list-style-type: none"> -Excavating history and re-presenting -Lack of a platform for cultural display -Historical and cultural values are undervalued -To maintain the cultural heritage -Lack of spiritual and cultural support
	RESIDENT	COMMERCIAL TENANT	CITIZEN	EXPERT

Figure 5-38 Summary of public opinions research on Zhuangyuanfang

(Source: Some sources from SCUT Architectural Design & Research Institute; Author Field Interviews; Web Platform)

(1) Resident

Residents are more concerned about the improvement of their neighborhood environment which is closely related to their lives, and about the problem of aging residential buildings. They also hope that the government will introduce appropriate policies, such as funding, to help them improve their neighborhoods. The residents who are left behind are relatively weak economically, and those who have economic power have moved to other areas. Moreover, the change of industries in the neighborhood and the change of housing to warehouses have a certain impact on the living environment of the residents.

(2) Commercial Tenant

The more important concerns of merchants about the neighborhood are the physical space environment of the neighborhood and the development of the industry. Because the improvement of its street environment will certainly bring more people. Merchants are also concerned about the pressure on tenants caused by excessive rent increases after its renovation, and hope that the government will introduce policies to help industries improve and that it will provide certain opportunities for self-improvement.

(3) Citizen

From the summary of research from various channels, it can be found that the public is most concerned about the Zhuangyuanfang neighborhood or its history and culture. As a prosperous commercial street in the past, Zhuangyuanfang has carried a lot of memories of old Guangzhou people. But now as a storage street, the decline of its history and culture is still a great pity to most of the citizens. The decline of the commercial street also brings a series of problems of decay of the neighborhood space. And there exists a long history and rich traditional culture (Canton embroidery, opera costumes, celebrity culture, trade, etc.) in Zhuangyuanfang, which lacks a platform to understand and display.

(4) Expert

Experts mainly consider that the physical space and historical and cultural values of Zhuangyuanfang are greatly undervalued, and its decline is also due to the lack of material and spiritual cultural support. Therefore, it is necessary to cautiously map the current situation, improve social governance under the concept of inheriting the cultural heritage, and find a path of self-renewal for the future of the neighborhood.

5.5 Conclusions of the Site Analysis

5.5.1 Physical Space Issues

(1) The Lack of Public Space and the Single Form of Greening

The main activity spaces of the streets are on the streets, which are originally narrow in scale and have a small number of open nodes. In addition, most of the functional businesses in the neighborhood are wholesale and retail, and many goods and carts are piled up in the original narrow streets and alleys, which further compresses the public space for residents. In addition, lots of shared bicycles are parked indiscriminately, causing the streets to be even narrower than before. The residents' activities are limited by the existing conditions of the neighborhood, and they can only do some activities on the street or move out their seats and chat at the entrance. There is no place for children to play, and the basic playground is on the street, and the mixed traffic of goods on the street is also a safety hazard for children.

The streets have a single greenery, only a few trees exist, and most of the green streets are made up of potted plants from residents' own initiative. There is a lack of uniform arrangement as well as guidance for the greening of the neighborhood. However, the existing streets are narrow, and how to combine the scale of the existing streets and some open or wall spaces for unified greening is a key consideration.

(2) Aging Infrastructure and Inadequate Public Service

The street infrastructure is old, inadequate, and does not fit the atmosphere of the historic district. The supply of restrooms does not meet the needs of the neighborhood;

the garbage cans do not fit the atmosphere of the historic district, and there are problems such as encroachment on the street and the smell permeating the street; fire hydrants do not meet the needs of the neighborhood; the street pavement is aging and does not fit with the traditional streets; also, there are no fitness and cultural facilities to support the needs of the neighborhood.

(3) Aging of Buildings and Lack of Historical District Atmosphere

Most of the buildings inside the neighborhood are composed of row houses, arcade buildings and ordinary stores before and after the Republic of China, and the quality of the existing buildings is generally poor due to age and disrepair, coupled with the construction of security grilles, air conditioners, etc. with the maintenance of historical style, the interface of the neighborhood presents a serious destruction of architectural style. The buildings in the neighborhood present a collage development, the historical buildings and buildings with historical value gradually lose their historical identity in the aging neighborhood, and the atmosphere of the historical neighborhood is seriously lacking.

5.5.2 Human Environment Issues

(1) Loss of Humanistic Features

With a development history of more than 700 years in Zhuangyuanfang, there exist cultural resources of Lingnan history and celebrities with important value, and the interior of the neighborhood is in urgent need of development and utilization. Since the Ming and Qing dynasties, the neighborhood of Zhuangyuanfang has been an important commercial street, from the famous embroidery street and famous handicraft products in Lingnan, to the interior of Zhuangyuanfang, which has almost lost the commercial culture of the city and has been reduced to a street of warehousing and wholesale. The neighborhood is adjacent to Guangzhou's famous Shangxiajiu and Beijing Road, but is no longer visited, and the existing historical and cultural atmosphere of the neighborhood is no longer known. The historical and cultural heritage of the

neighborhood needs development and revitalization.

(2) Lack of Positive Interaction between Industry and Neighborhood

Zhuangyuanfang can be said to have prospered and declined due to business. The industries within its neighborhood have brought negative impact on the life of the residents in the neighborhood, and the demand for wholesale and warehousing industries has severely squeezed the little public space in the street, and a large-scale change of residence to warehouse has seriously damaged the popularity and social structure of the neighborhood. Therefore, the consideration and transformation of the industries in the neighborhood is an important crux to solve the development of Zhuangyuanfang.

5.6 Summary of This Chapter

Based on the regeneration path of Guangzhou's old city constructed in the previous chapter, this chapter selects the historic district of Zhuangyuanfang for demonstration. It mainly focuses on the evolutionary history of the Zhuangyuanfang Historic District, the current status of the upper planning, the space of the district, the current status of the buildings, the industry, the historical and humanistic background, and the public demand, to sort out the main problems in both the physical space and the humanistic environment and lay a good foundation for the development of the specific regeneration strategy of the district in the next chapter.

Chapter 6 Regeneration Strategy

After the previous analysis of the theory, the construction of the renewal strategy and the problem of the current situation of the site, this chapter verifies the applicability of its renewal strategy by applying the theoretical strategy and spatial method summarized in the previous section to the problem of specific blocks for the careful regeneration of the historical district of Zhuangyuanfang.

6.1 Renewal Goals

(1) Preserve and Renew the Spatial and Social Structure of Neighborhood

One of the most important goals of Careful Urban Renewal in the process of regeneration is to preserve the social structure of its neighborhoods and to retain its neighborhood residents to a greater extent. The process of major demolition and construction is not only destructive to the spatial structure of the neighborhood, but also has a serious impact on the neighborhood and social structure. In *the Architecture of the City*, Rossi states that "the collective memory of the people who live in the city is composed of the memory of the spaces and entities in the city. This memory, in turn, influences the shaping of the future image of the city". When the spatial structure of a neighborhood is destroyed, along with it is lost the structure of society and the place of collective memory of the people of the neighborhood. Therefore, preserving the spatial and social structure of the neighborhood in its entirety allows the historical culture of the neighborhood to be continued in its modern renewal.

(2) Provide Residents With a Framework for Self-help Renewal

Careful Urban Renewal is reflected not only in the policy system and spatial strategy, but also in the opinions of residents and the degree of participation. Residents are the main users of the historic district and should be the main force in the renewal of the district. In the process of regeneration, it is important not only to involve residents to a greater extent in the decision-making process of regeneration, but also to provide

residents with the possibility of self-help regeneration. The residents should be allowed to participate in the renewal of the neighborhood, its architecture and culture, so that they can regain their sense of belonging and participation in the neighborhood.

(3) Activating Neighborhood History and Culture

The most important resource of the historic district is its historical and cultural resources. In the process of development, the historical culture of Zhuangyuanfang has gradually faded and is slowly losing its proper value as a historic district. Therefore, in the process of renewal, it is necessary to trace its historical and cultural connotation, so that the residents' life, community culture and business can revitalize the historical culture again and achieve the real revival of the historical district.

(4) Revival of Traditional Business in the Neighborhood

Due to the lagging development of the traditional industries in the neighborhood, the traditional commercial space no longer attracts enough people and is replaced by a wholesale warehouse. Zhuangyuanfang should explore the unique cultural and historical features of the neighborhood, such as traditional handicrafts, embroidery, Guangzhou Enamel, and other intangible cultural heritage, and develop a special and personalized program for the revival of the neighborhood. By using history and culture as a catalyst and the characteristic historical streets as a spatial carrier, a special commercial district of Zhuangyuanfang will be created. And by combining with the surrounding tourist attractions in Shangxiajiu, it forms a synergistic development between the neighborhoods.

6.2 Regeneration Strategy for the Historic District of Zhuangyuanfang

Based on the core idea of Careful Urban Renewal concept, the residents are treated as the main subjects and transformed around their real-life needs. The most important goal and principle of Careful Renewal is to preserve the social and spatial structure of the neighborhood and to renew it in an integrated way. Therefore, in analyzing its current situation and problems, how to develop a cautious regeneration strategy for the neighborhood based on the current problems and residents' needs areas is a priority. Three main resident needs can be found in its neighborhood: first, how to meet the needs of residents' activities in the limited street space; second, how to regenerate the architectural and landscape of the neighborhood ; third, how to promote and transform industries.

6.2.1 Progressive, Small-Scale Overall Regeneration Model

A progressive, small-scale overall regeneration strategy is proposed to address the three main issues (Figure 6-1) . The progressive approach is to gradually solve the problems of the neighborhood without pursuing short-term benefits. In the gradual process, we discuss with residents and adjust the regeneration plan and problems in time. Small-scale is the minimum intervention that does not destroy the spatial and social structure of the neighborhood and leads to the participation of residents with small-scale points to increase their sense of community and cultural participation. Progressive solutions are proposed to address the main needs of the neighborhood. The first stage is to create a neighborhood life circle to solve the public activity needs of residents, the second stage proposes a diversified preservation and renewal solution for the architectural appearance of the neighborhood, and the last stage uses the history and culture of the neighborhood as a catalyst to upgrade the neighborhood industries and community culture. And in this progressive process, the framework and methods of self-help renewal are planned for the residents, allowing them to participate to a greater extent in each stage of neighborhood renewal.

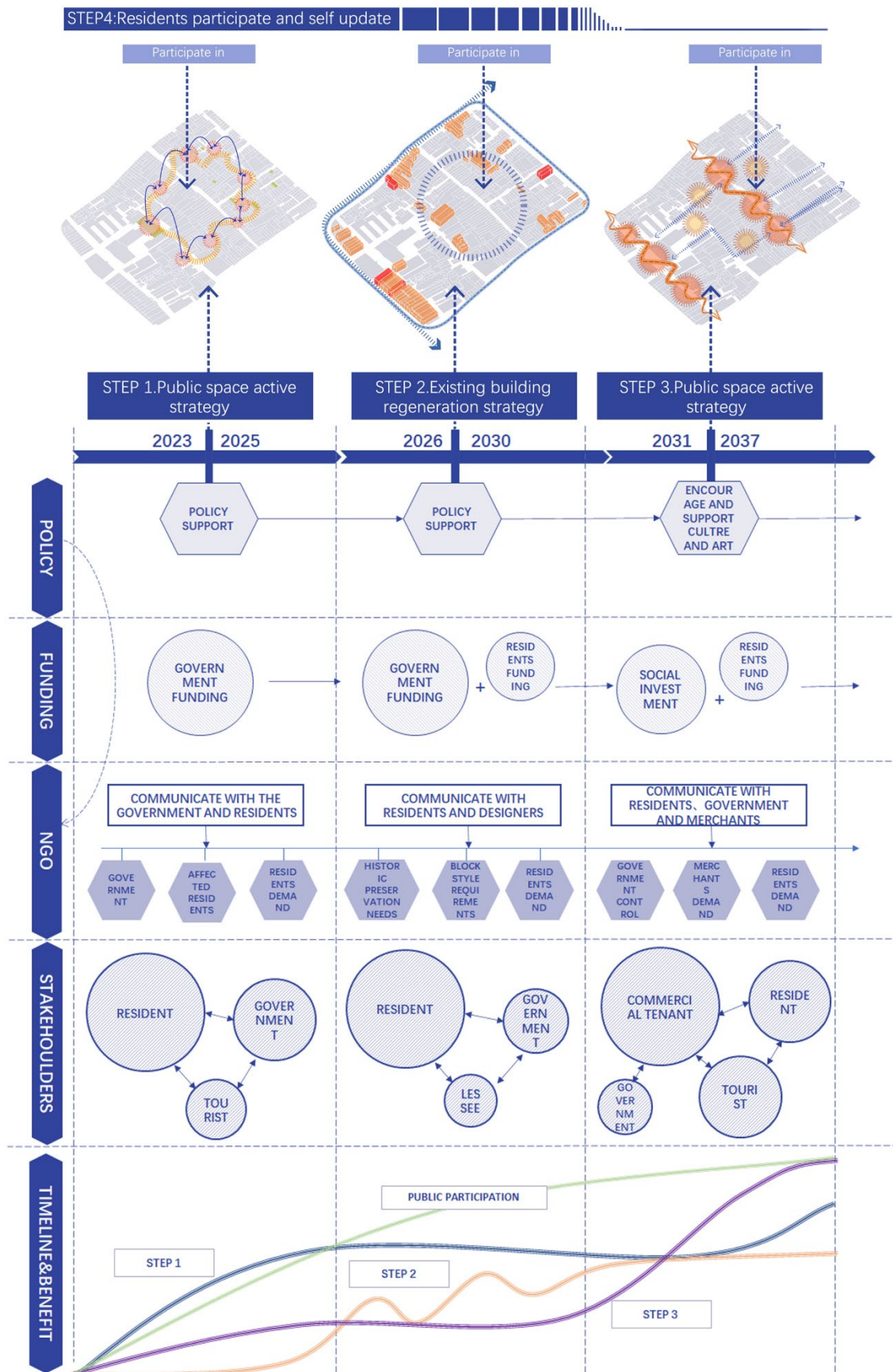


Figure 6-1 Neighborhood regeneration strategy plan

(Source: By Author)

6.2.2 Overall Regeneration Masterplan and Axonometric Drawing

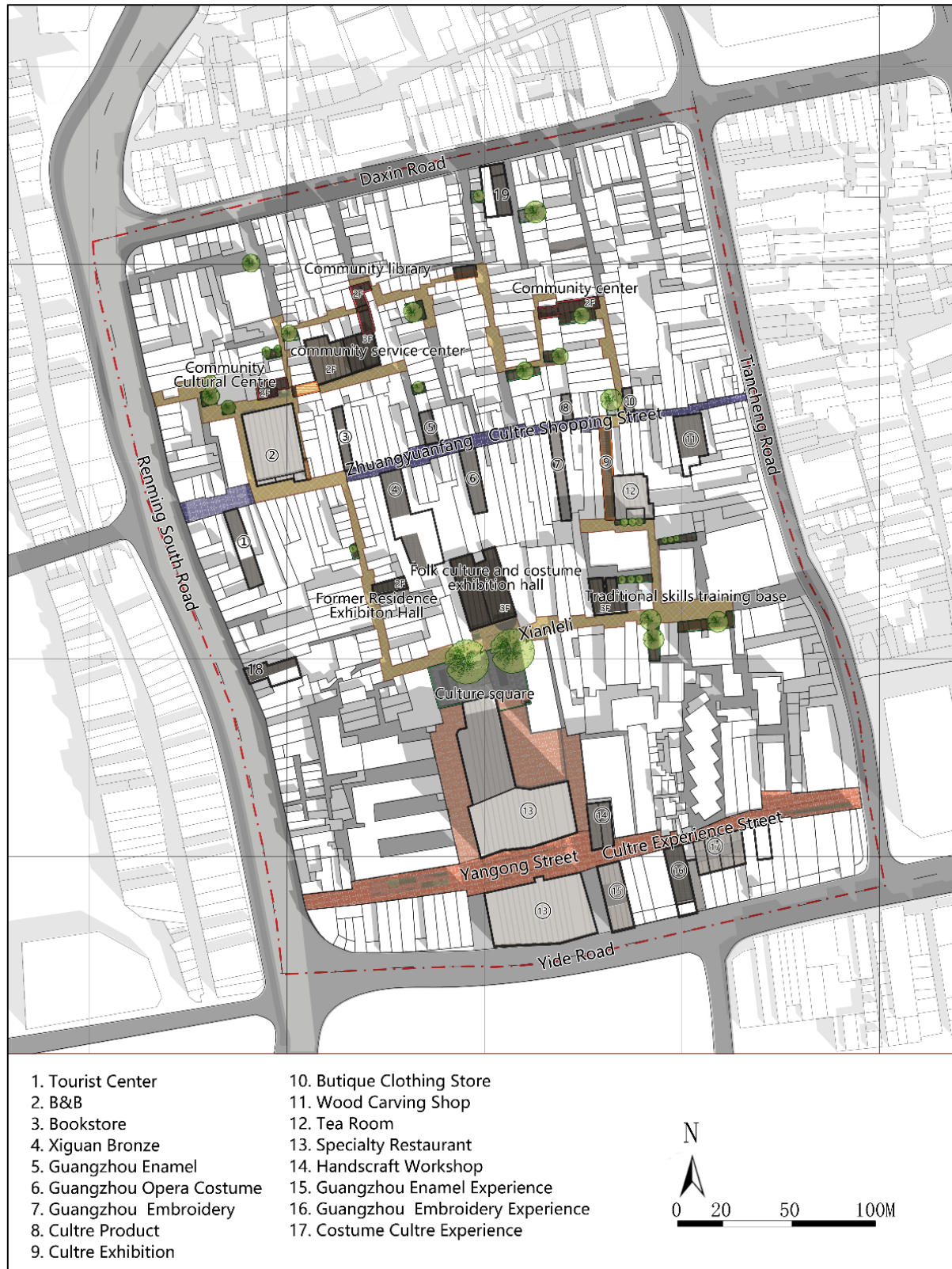


Figure 6-2 Neighborhood regeneration master plan

(Source: By Author)

6.3 Construct a cautious renewal mechanism

Careful urban renewal is a complete approach to urban renewal from planning concept to spatial strategy. Therefore, certain formulation in the renewal mechanism is needed to ensure that the spatial strategy can be guaranteed to be implemented. The four steps of the spatial strategy are guided in some way from renewal policies, funding, NGO's, and public participation.

6.3.1 Guarantee of renewal policy

This section formulates corresponding policy guarantees for the four steps of Zhuangyuanfang neighborhood renewal, ensuring policy support for project management and funding sources in the stage of public space renewal; guaranteeing renewal funds, preventing gentrification and guiding renewal in the stage of inventory building renewal; guaranteeing government guidance for culture and support for merchants in the stage of cultural construction; and guaranteeing the rights and interests of residents' subjects; and in the stage of cultural construction, guaranteeing the rights and interests of the residents and the construction of the platform for their participation (Figure 6-4).

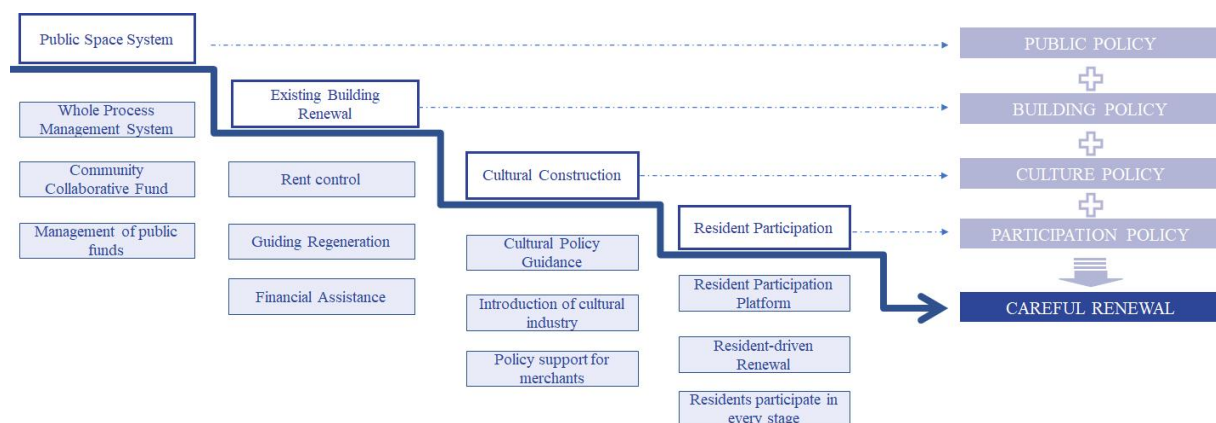


Figure 6-4 The renewal policy guides and supports the four renewal steps

(Source: By Author)

6.3.2 Diversification of renewal funds

The most important stability of urban renewal is the source of funds. In the process of renewal, the stability of funds should be ensured not only through policies and government support, but also through the introduction of diverse and multiple funds for each phase to ensure the stability of the renewal phase (Figure 6-5).

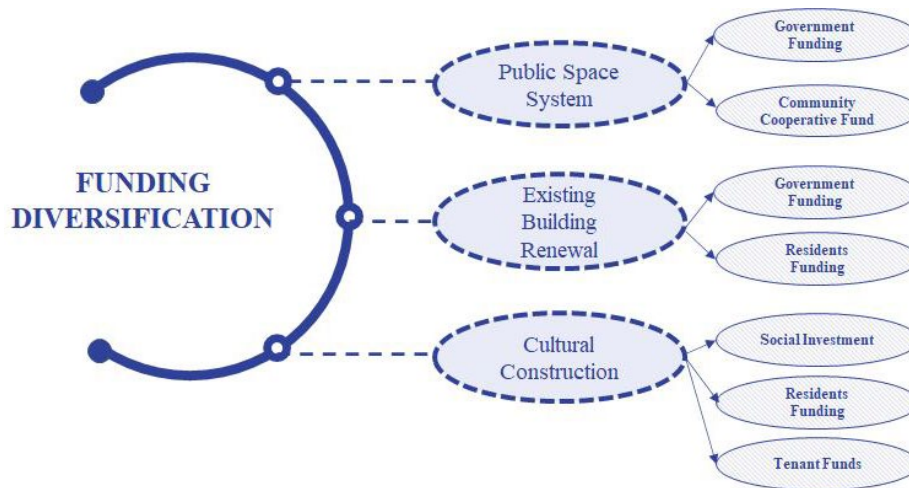


Figure 6-5 Diversified funding for each phase

(Source: By Author)

6.3.3 The guiding and coordinating role of NGOs

NGOs are introduced to control the process of regeneration, and are responsible for communicating and coordinating the interests of the government, residents, and developers to ensure that the regeneration is carried out more efficiently and that the voices of residents are better realized in the process of regeneration (Figure 6-6). For example, in the three stages of regeneration, NGOs can coordinate the relationship between social regeneration and residents' self-help regeneration, and guide residents to better participate in the three stages.

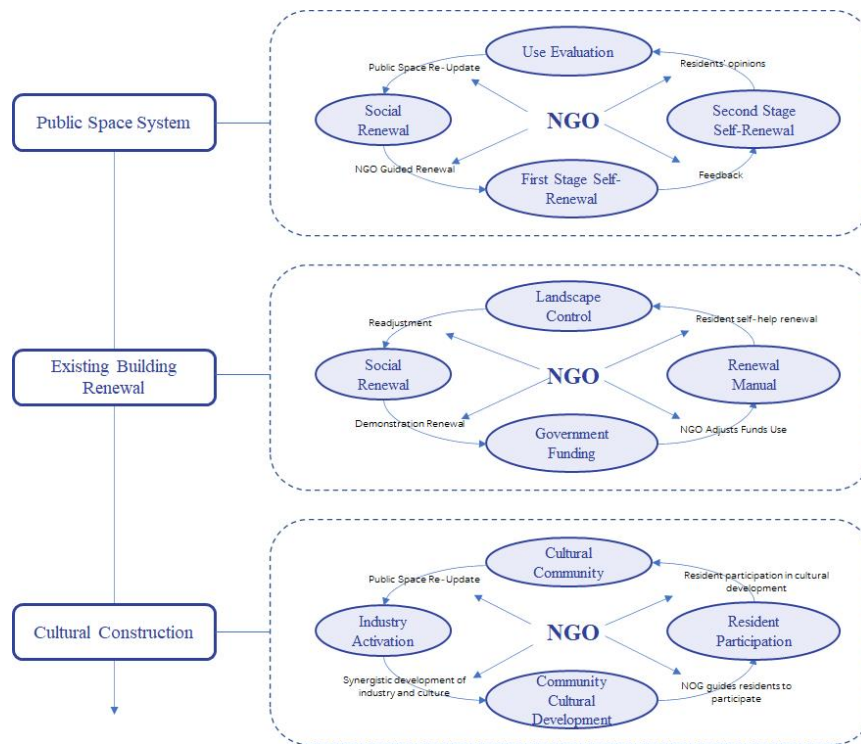


Figure 6-6 The role of NGOs at each stage

(Source: By Author)

6.3.4 Lead the whole process of residents' participation

Through policies, funds, and NGOs, to ensure better participation of residents in the three regeneration stages; through residents' self-governance to better achieve neighborhood regeneration. In addition, the spatial strategy is to develop corresponding regeneration methods for the residents and to clarify the ways of their participation in the neighborhood regeneration. This will ensure the participation of residents, maintain the social structure of the neighborhood, and preserve the urban culture.

6.4 Carefully Regenerate Neighborhood Public Spaces

After the research of the current situation and the interview of the residents, the most prominent problem of the current situation of the Zhuangyuanfang neighborhood is the lack of public space for living. Zhuangyuanfang is a historical neighborhood with a history of more than 700 years, whose main function is mainly residential, and there is

a traditional commercial street in the middle. Due to the scale of the historical street and the modern high-speed development, the current status of the street and space cannot meet the daily use of residents. Therefore, the current situation of open space and dilapidated buildings in the neighborhood is sorted out, and a community public space living circle is created to connect the original north-south oriented secondary streets in the neighborhood (Figure 6-7), so as to increase the intersection of residents' life and the accessibility of the neighborhood. It also implants various public functions, public services and cultural facilities around the public life circle, and introduces new lifestyles to activate the neighborhood while preserving the original texture of the streets (Figure 6-8) .

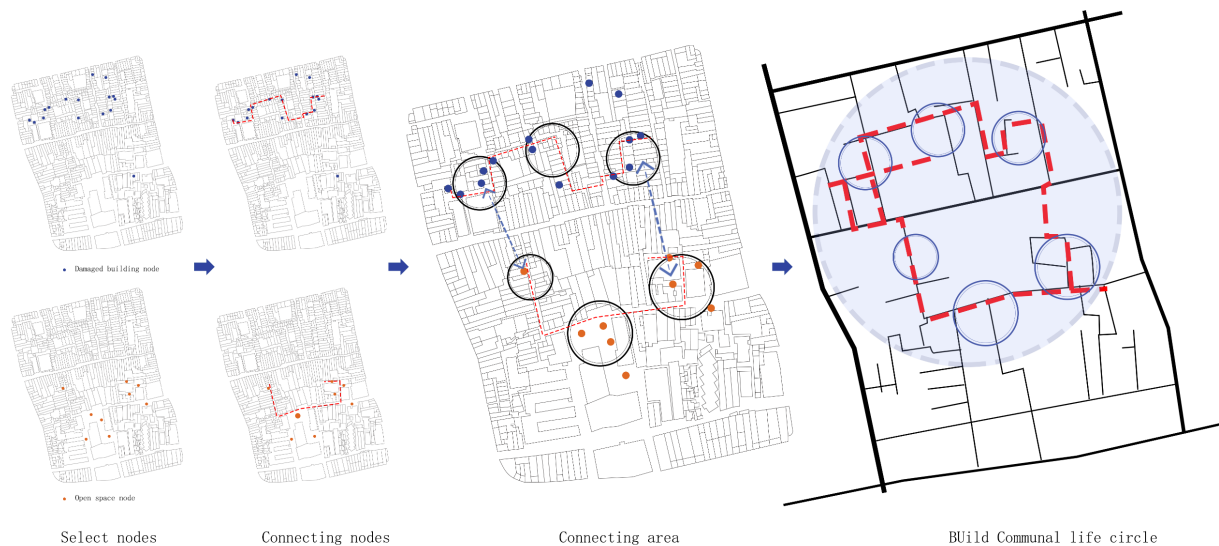


Figure 6-7 Neighborhood life circle generation process

(Source: By Author)

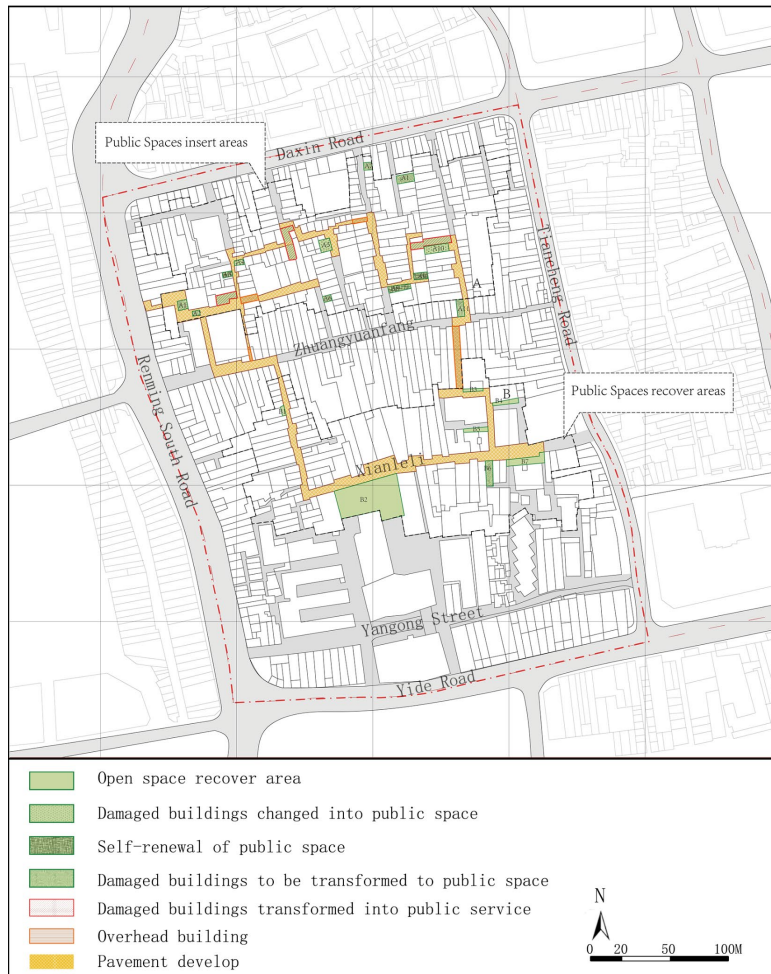


Figure 6-8 Neighborhood public life circle public space planning chart

(Source: By Author)

6.4.1 Cautiously Revitalize Public Space

(1) Anatomy of Spatial Potential

There are 20 existing dilapidated and abandoned buildings within the neighborhood, which are given the opportunity to revitalize with the public space with the neighborhood. However, the value of the historical information left in the dilapidated buildings varies due to their style, type, and age, so careful analysis is needed to score the dilapidated buildings and determine their renovation of the dilapidated buildings.

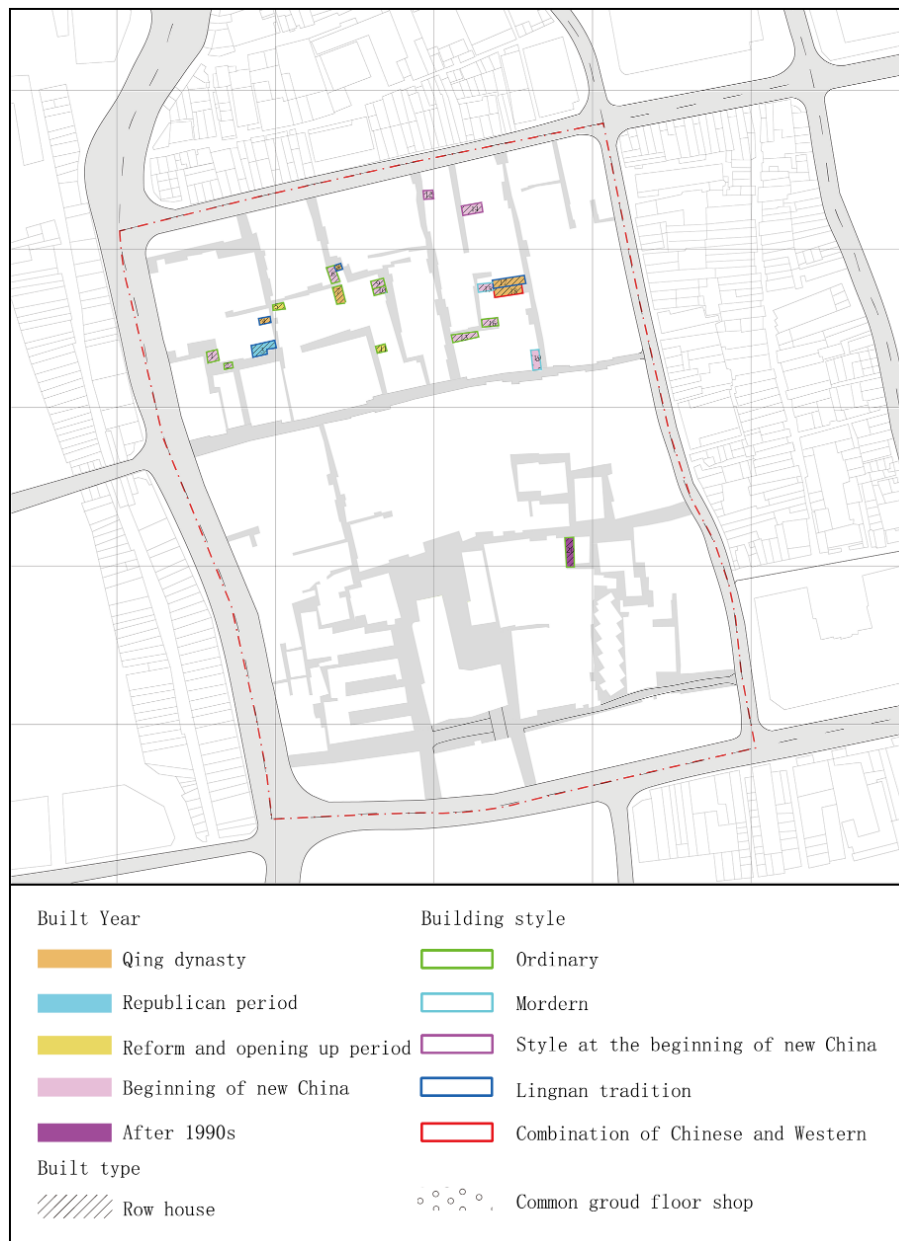


Figure 6-9 Current status map of the age, style, and type of dilapidated buildings of dilapidated

(Source: By Author)

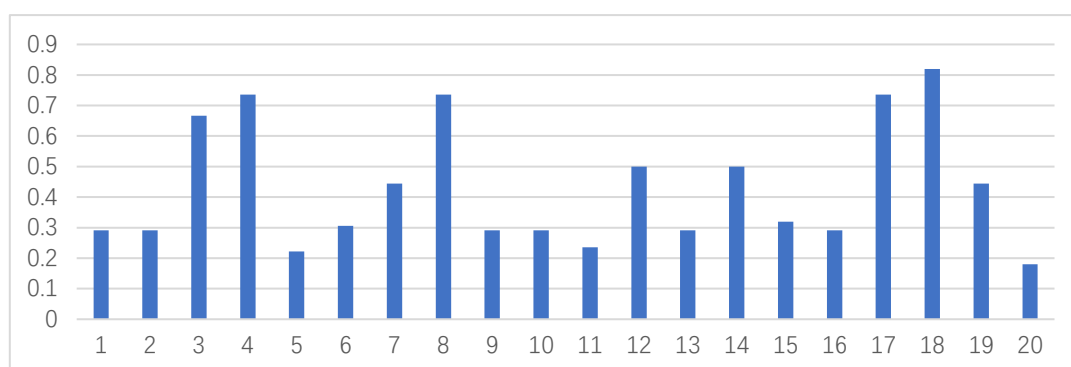
The dilapidated buildings were scored by taking the age of the building, style, type, and degree of dilapidation, and the final renovation method was decided based on the results of the scoring (Figure 6-9). The scoring criteria are divided into four categories: dilapidation: type: age: style (1:3:5:7)

The damage situation is divided into abandoned (1 point), structural damage (3 points), partial damage (5 points), façade damage (7 points), basic structural integrity (9 points);

building type is divided into collection of residential (1 point), row houses (3 points), common stores (5 points), single-family houses (7 points), arcade commercial street (9 points); building age is divided into the 1990s to the present (1 point); reform and opening-up period (3 points); beginning of new China (5 points); the Republic of China period (7 points); late Qing Dynasty (9 points); architectural style is divided into ordinary style (1 point), modern style (3 points), style of the beginning of new China (5 points), traditional Lingnan style (7 points), combination of Chinese and Western style (9 points). After scoring and counting the 20 buildings in disrepair, the following table was obtained (Table 6-1):

Table 6-1 Dilapidated building rating form

(Source: By Author)



The closer the score is to 1 means the higher the value of historical information the dilapidated building has, and the lower the score means the more dilapidated the building is without historical value. Therefore, the dilapidated buildings can be divided into two categories: proposed demolition (below 0.3) and preserved transformation into public service space (above 0.3). As shown in the figure below (Figure 6-10) .

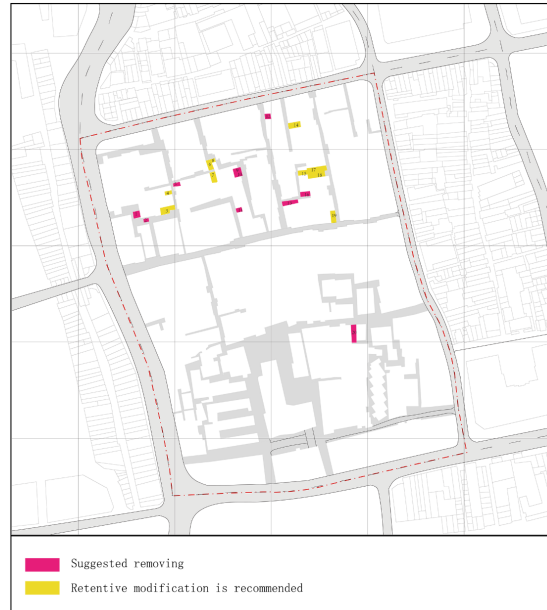


Figure 6-10 Dilapidated building renovation proposal map

(Source: By Author)

(2) Regeneration of Public Space

Public space Insert area (A):

By judging the preservation status, historical value, architectural style, and other values of the buildings in the early stage, the buildings to be demolished are determined. And to develop two renewal modes of the dilapidated buildings (Figure 6-11), one will take the dilapidated buildings to be preserved and transformed into public service buildings open for use by residents; the second will take the dilapidated buildings to be demolished and turned into pocket parks, implanting community cultural activities, fitness, children's interaction, historical and cultural exhibitions, etc. to provide activity space for the neighborhood.

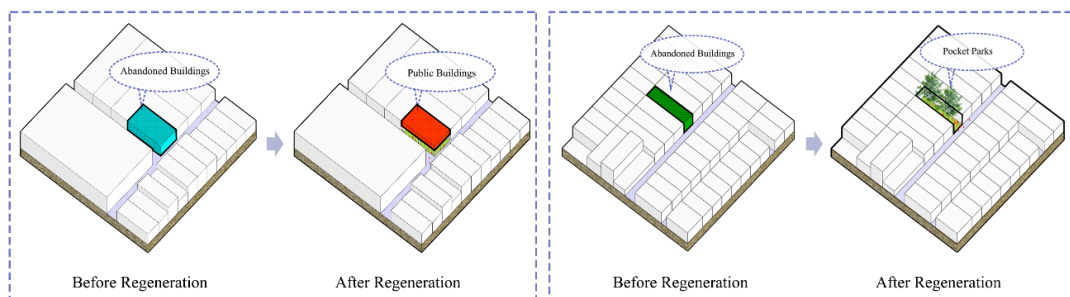


Figure 6-11 Public space plug-in renovation: public buildings and pocket parks

(Source: By Author)

Public Space Recover Area(B):

The area has more streets and open nodes compared to the North Zone because of the large amount of building replacement. However, the existing nodes are not properly designed and still lack space for public activities. Moreover, due to the intervention of the wholesale industry, the streets have become noisy and chaotic. Therefore, the key objective of the area is to revitalize it (Figure 6-12) .

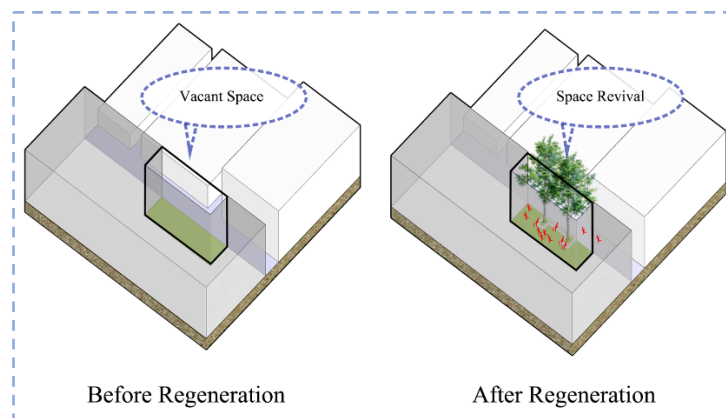


Figure 6-12 Revitalize public open nodes

(Source: By Author)

Therefore, it is clear that the renewal of public space is led by social renewal as follows:

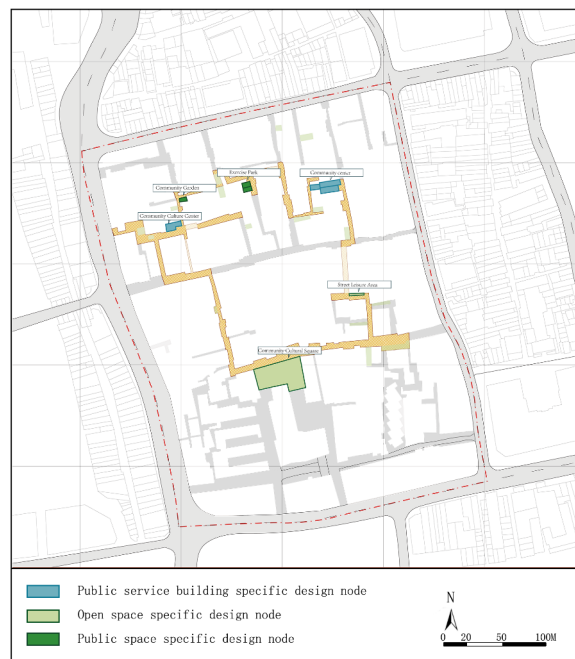


Figure 6-13 Social renewal node planning for public space

(Source: By Author)

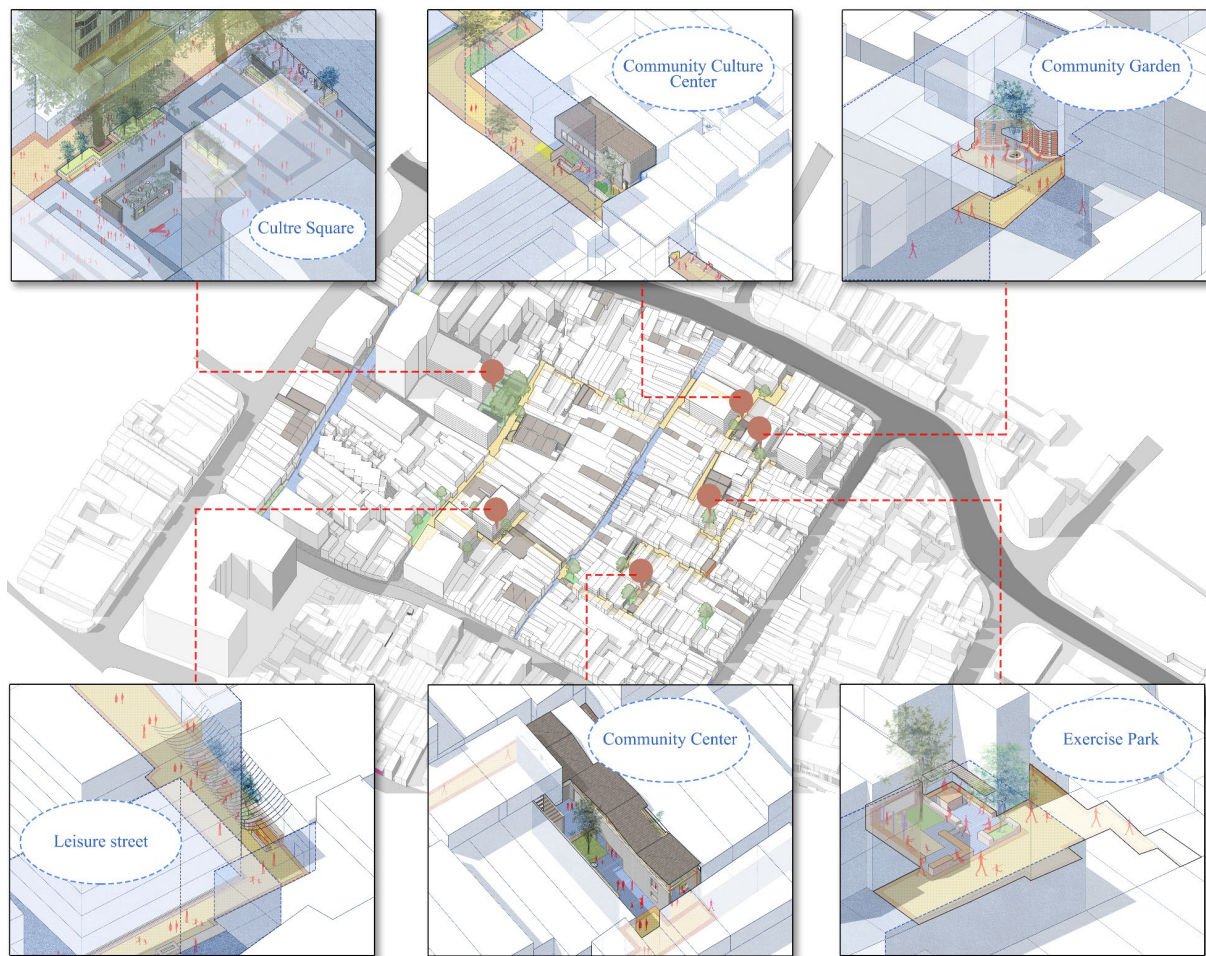


Figure 6-14 Public space detailed design nodes

(Source: By Author)

(3) Keep Respect for the Neighborhood Structure

The existing urban street structure of the neighborhood is still relatively well preserved overall. In the southern part of the site, due to the urban renewal process, some streets and alleys have been widened or even disappeared, but the overall streets and alleys still retain the appearance of the Ming and Qing dynasties. Therefore, when creating a public life circle in the neighborhood, it is necessary to give some protection to the neighborhood structure. It is possible to preserve the texture of the streets and alleys, and to adopt the way of preserving the buildings at the links and transforming them into cross-street buildings to intervene in the renewal of the neighborhood in a humble way (Figure 6-15).

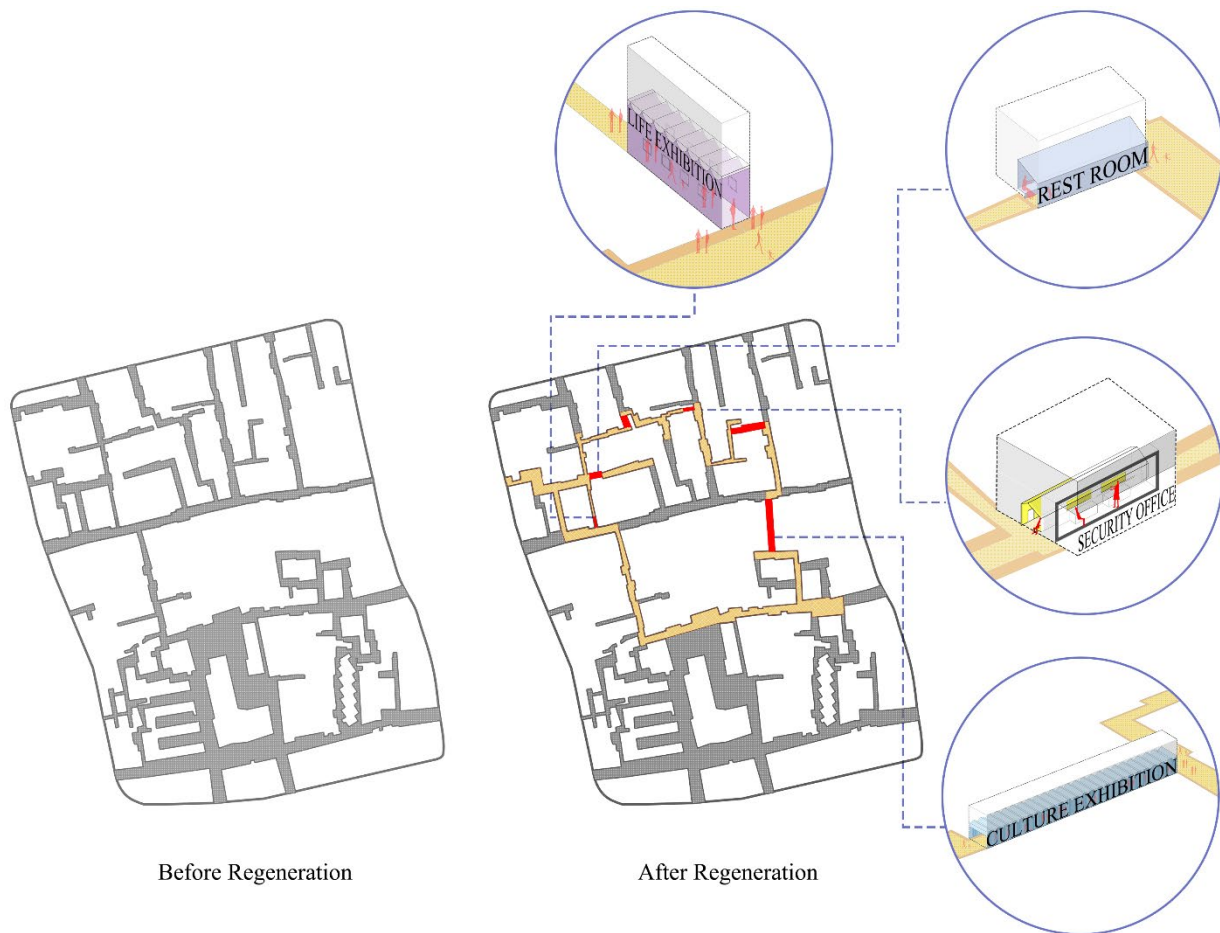


Figure 6-15 Comparison between before and after the transformation of street fabric and the form of the street crossing

(Source: By Author)

6.4.2 Flexible Activation of Street Space

(1) Pavement System Restoration

Only two complete traditional street pavers and three partially preserved traditional street pavers exist in the inner streets of the district, while the rest of the roads are in the form of brick pavers that do not fit well with the historical style of the streets. Therefore, while creating a living circle, the street pavement is upgraded, and the identity of the historic district is strengthened through pavement markings (Figure 6-17) .

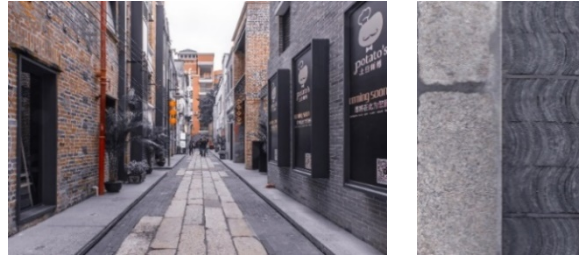


Figure 6-16 Traditional street paving intention picture

(Source: Yongqingfang, <https://www.gooood.cn/>)



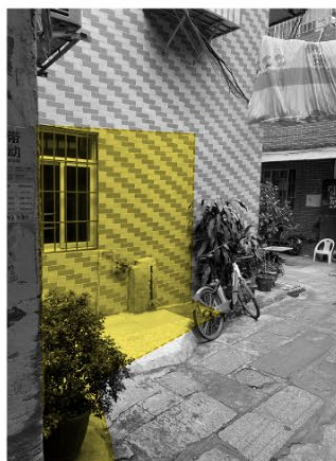
Figure 6-17 Life circle street paving updated

(Source: By Author)

(2) Adding Spaces to Rest in the Street

There are lack of spaces and urban furniture that can reside inside the streets of Zhuangyuanfang. Therefore, urban furniture arrangement can be cautiously introduced in the living circle to enhance the dwell time and communication space of the street. These dwell spaces are mainly the space under the trees, the space in front of the

entry, and the amplifying nodes of the street (Figure 6-18, Figure 6-19).



Add Corner Seat



Additional Seating Under the Tree



Additional Seating in front of the Entry Space

Figure 6-18 Adding dwell space in streets and alleys

(Source: By Author)



Figure 6-19 Main Street dwell space nodes

(Source: By Author)

(3) Reuse of Vacant Walls in Streets

Inside the block, due to the connection of multiple alleyways with the main and secondary streets, the gables are formed facing the street, and most of the walls are open side windows or no windows. Most of the current condition is vacant as well as stacked with miscellaneous objects (Figure 6-20), and the spaces are largely wasted, so its side interface can be used to upgrade and optimize the vacant walls (Figure 6-21).



Figure 6-20 Status of utilization of vacant walls in the neighborhood

(Source: By Author)

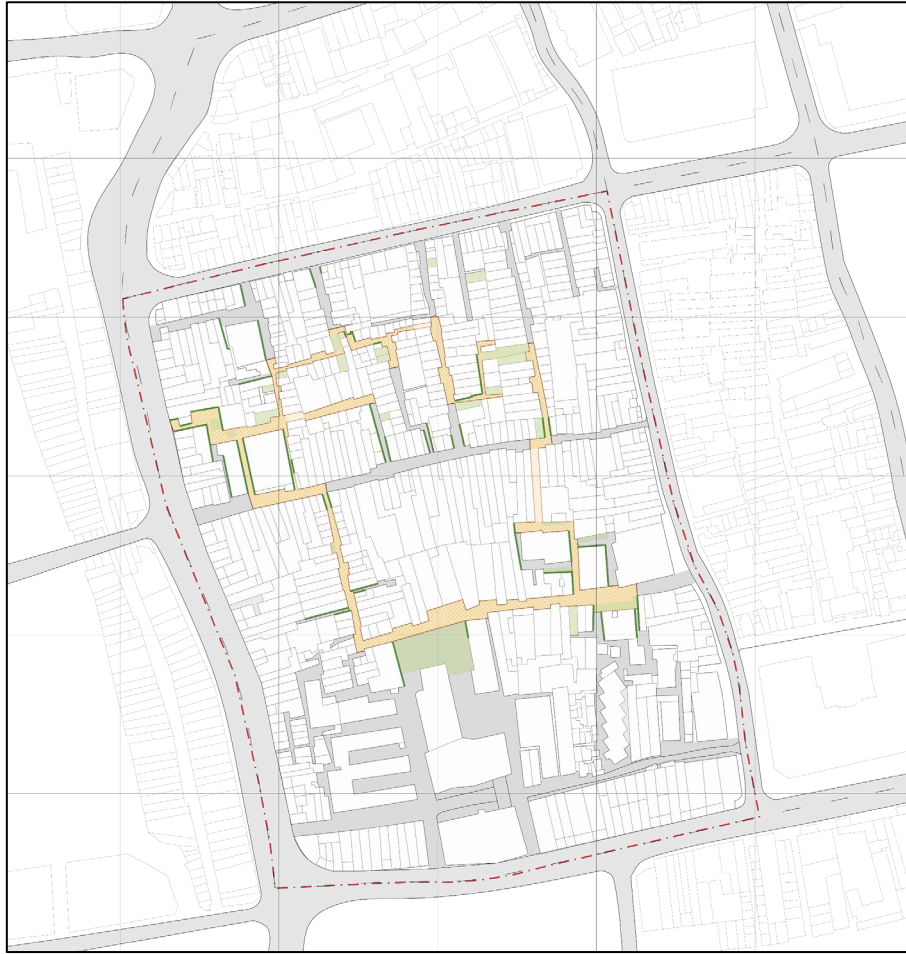


Figure 6-21 Neighborhood vacant wall renewal and utilization scope

(Source: By Author)

There are four main ways to renew the walls of the block (Figure 6-22). The first is the case of a gable with side windows, where only a limited area remains, and therefore creates dwell space in the remaining space. The second is to add vertical greening, which can adapt to the status quo of various walls, allowing greenery to hang on the wall and increasing the richness of the street space. The third kind is to combine the history and culture of the area and add a cultural display gallery to increase the identity of the neighborhood's history and culture. The fourth way is to combine the neighborhood's culture, art, community activities, intangible cultural exhibitions, and other activities to carry out art exhibition activities, which can invite residents to display together and create an exclusive cultural atmosphere in the community.

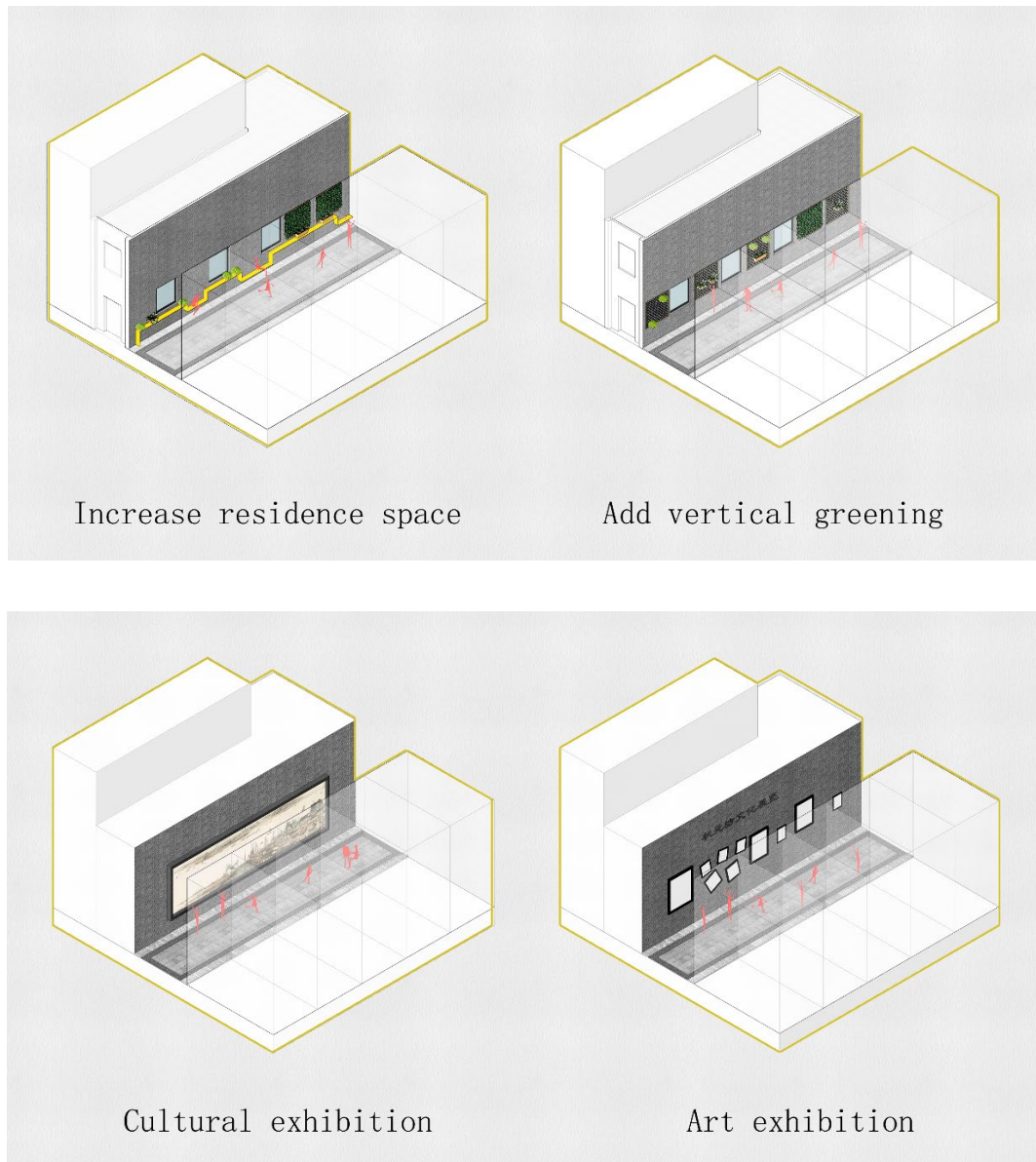


Figure 6-22 Vacant wall utilization approaches

(Source: By Author)

6.4.3 Street Greening Sharing and Patching

The overall street is narrower due to the width of about 1-8m, but the scale is still more friendly to the human space feeling. There are spaces for greening upgrade in the streets, and greening upgrade planning is carried out for some of the more spacious sections of the streets. The greening is mainly arranged in the spacious streets and non-entry interface areas, and the materials are used to demolish the broken building materials, and the flower beds are set up in the areas where pedestrians can stay and

rest to increase the communication and activity space in the streets. And the greening system of the neighborhood is fully complemented by hanging green on the wall, increasing green on the street, hanging green on the street, increasing green on the roof, and penetrating green at the entrance (Figure 6-23) .



Figure 6-23 Street greening network

(Source: By Author)

6.4.4 Create Pedestrian Priority Streets

Create a historical district within the neighborhood with slow walking experience as the

primary focus. Combined with the characteristic commercial street, it creates a characteristic pedestrian street for shopping, leisure, and cultural experience; combined with the community life circle, it provides a slow walking life street for residents' leisure, children's entertainment, elderly fitness, and community cultural experience (Figure 6-24). And the parking points for shared bicycles are added at each block intersection to alleviate the problem of indiscriminate parking within the neighborhood.

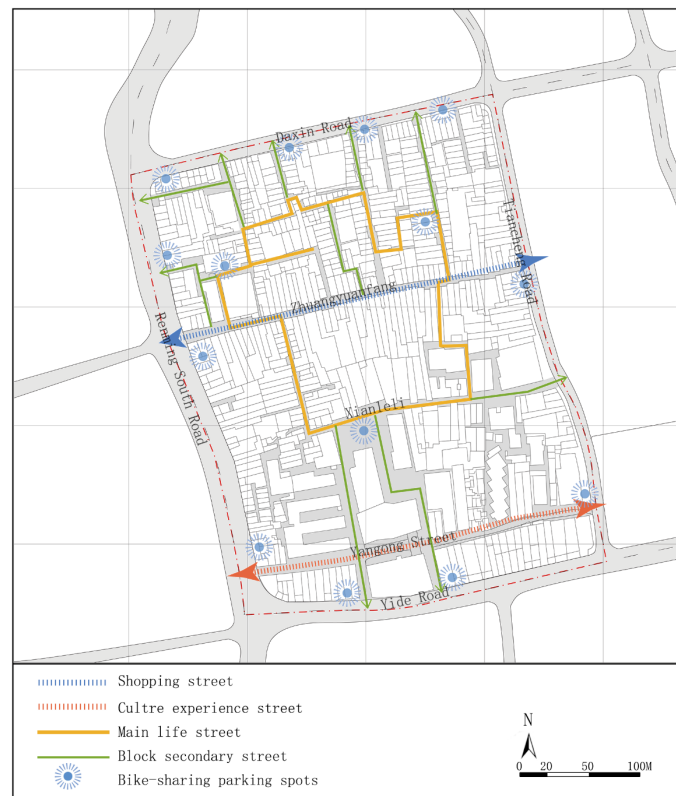


Figure 6-24 Street slow walking system

(Source: By Author)

6.4.5 Cautious Addition of Public Service Facilities

The number of public toilets in the neighborhood was not enough to meet the needs of the people in the neighborhood, so we combined the planning of the community life circle with the establishment of additional toilet service points to better cover the neighborhood (Figure 6-25). In addition, there is a serious shortage of cultural facilities in the neighborhood, so the dilapidated buildings and buildings with historical value are

replaced with public cultural buildings to meet the needs of community culture. The neighborhood is not suitable for traffic due to narrow streets and alleys, so the main consideration for firefighting is electric vehicles. The northern area of the plot lacks firefighting facilities, so firefighting facilities points are added to meet the fire safety of the block.



Figure 6-25 Street public service facilities

(Source: By Author)

The neighborhood is positioned as a historical and cultural district, and the existing to guide signage system is not sufficient, so neighborhood have to design its guide signage according to the community culture and other elements and according to the characteristics of the neighborhood (Figure 6-26). There are four main types of signs: cultural display boards, community information display boards, public service facility signs and road signs.



Figure 6-26 Street signage intention pictures

(Source: Yongqingfang and Pantang Wuyue signs)

The current status of the garbage cans in the neighborhood is basically black barrels, which do not fit the temperament of the historic district. Therefore, it is necessary to update the trash cans in the neighborhood according to the historical and cultural characteristics of the neighborhood and extract historical symbols (Figure 6-27) .

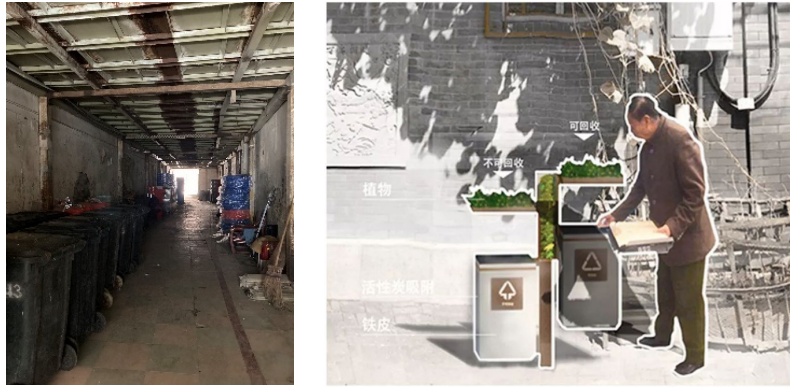


Figure 6-27 Current trash can (left) and intended trash can (right)

(Source: Hutong micro-renewal - Inside Out Project)

6.5 Soft Regeneration of Existing Buildings

6.5.1 Street Interface Update Guide

Facade guidance and control guidelines for the two main rider blocks (South Renmin Road and Yide Road) (Figure 6-28) . Restrict the interface of the riding tower and the 12m new construction control line. Demolition of the parts that have an impact on the urban interface (yellow part). Additions to the part of the rider building interface with insufficient continuity (red part).

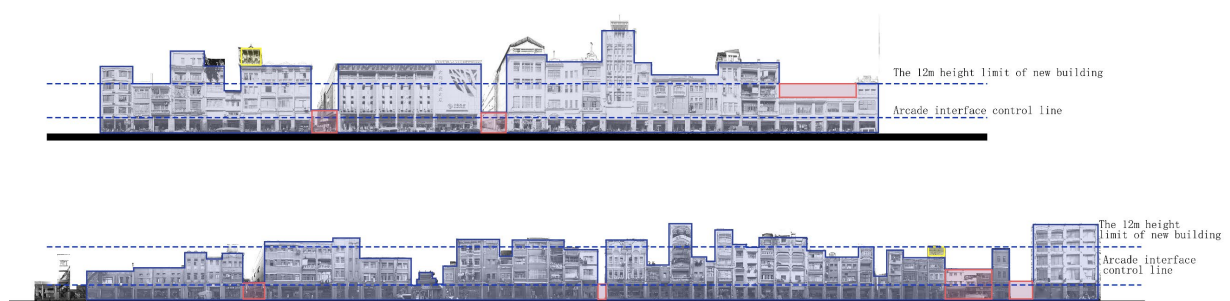


Figure 6-28 Main arcade streets interface control guidelines

(Source: By Author)

The color extraction for historical buildings is mainly white, cyan and red, so it is used as the main color choice for façade renewal, so as to ensure the façade renewal style (Figure 6-29). The choice of materials for the façade is recommended for green brick, red brick and white paint, and the use of new materials is also allowed under the premise that it does not affect the landscape.



Figure 6-29 Neighborhood sister interface color guide

(Source: By Author)

The main historic buildings and buildings of partial historic value in the neighborhood are located on both sides of the street, so the main façade enhancement should be carried out around the two main streets, providing guidelines for the renewal of the other two blocks.

6.5.2 Cautious Renewal of Existing Buildings

Through the general analysis of building protection classification, building quality, building age and architectural style, the four types of building protection measures are obtained. It is divided into reservation and improvement, renovation, façade style improves, and dilapidation and reconstruction. In addition to a small number of buildings that need to be demolished, the whole building is preserved, and the maintenance of the façade is the main way to update the existing buildings.

For social renewal provided by the government or developers, there are four main approaches to renewal (Figure 6-30). The main approach to historic buildings is to restore them. For buildings with partial historical value, the façade is restored and part

of the building is renovated or functionally replaced. For well-preserved buildings, façade renovation is adopted to adapt the aging and deteriorated façade to the neighborhood style. For buildings in disrepair, reconstruction measures are taken, and buildings with public services or public spaces are rebuilt; or broken buildings are demolished and turned into community pocket parks.

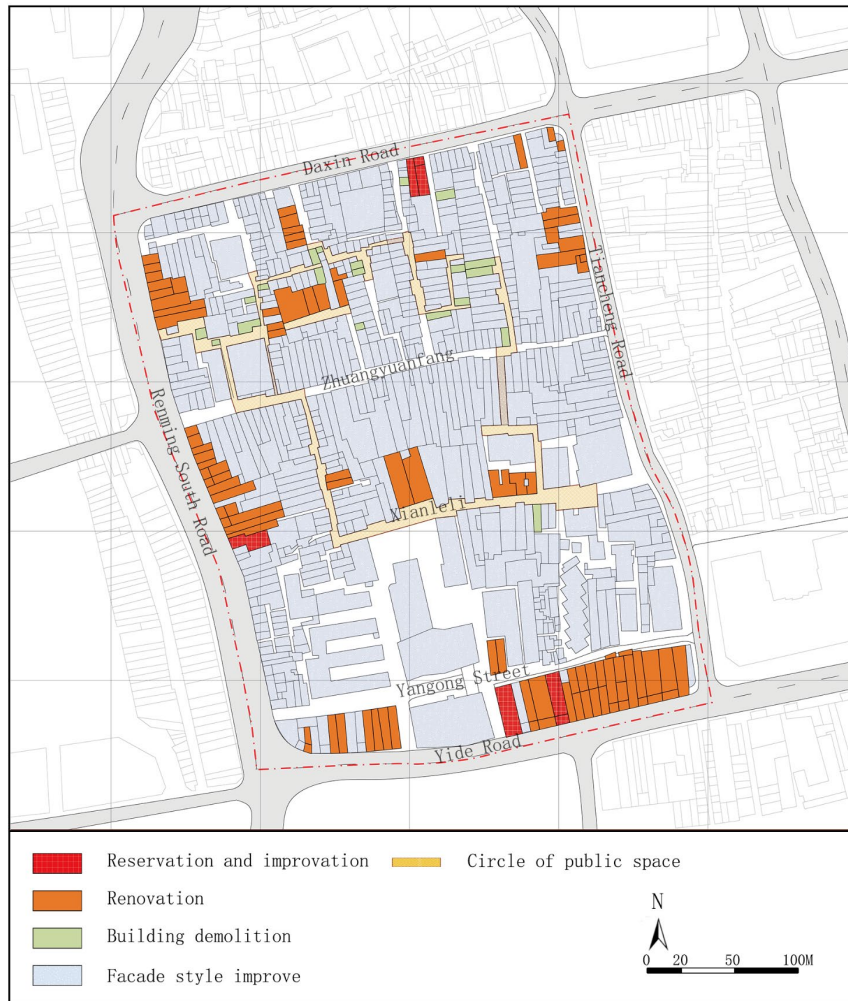


Figure 6-30 Neighborhood buildings renewal classification planning

(Source: By Author)

(1) Reservation and Improve

The buildings in the reservation and improvement category are mainly the existing historical buildings that have been listed in the "People's South Road Historical and Cultural District Preservation Objective"^[66], and there are five buildings (Figure 6-31). They are No. 140 Riding House of Renmin South Road, No. 409 and 409 residential

houses of Daxin Road, the former site of Hong Kong China Kangnian Life Insurance Company and the former site of Anya Pharmaceutical Company. All these historical buildings are mainly arcade buildings. Their basic features are the combination of Chinese and Western styles, and the façade features are basically preserved. The façades of these historic buildings were restored to preserve the historical characteristics of the period. The components affecting the façade are removed (e.g. hidden air conditioning units, anti-theft nets are removed and replaced), and the illegal additions to the top floors are removed. The main measure is to take protective use. These buildings are in the form of upper dwelling and lower store. After the renovation, these historical buildings can be combined with the characteristic cultural heritage or characteristic business of the neighborhood for revitalization, such as Guangzhou opera costume exhibition and sale, Guangzhou embroidery exhibition and sale, ivory carving exhibition and sale, jade carving and silverware exhibition and sale, etc.



Figure 6-31 Location and current status of historic buildings

(Source: By Author)

(2) Renovation

The buildings that need to be renovated are mainly those that match the style, the main types of which are arcade and bamboo houses. For the buildings that match the historical style, renovation measures are mainly taken, such as replacing the façade materials, restoring the patio and removing the unsuitable components. The main buildings that focus on renovation are the buildings of the Republic of China period, and the styles are basically a combination of Chinese and Western styles. There are three main types: arcade houses along the streets, common ground floor stores and a small number of row houses inside the neighborhood (Figure 6-32). It is also possible to place functions and businesses with distinctive cultural characteristics into buildings with historical value as an important neighborhood catalyst to achieve a synergistic revitalization of the neighborhood's history, culture, and architecture.



Figure 6-32 Three typical building types of renovation

(Source: By Author)

Next, typical cases of three typical types were selected to demonstrate the renewal, and three types of arcade houses along the street (Figure 6-33, Figure 6-34), common stores (Figure 6-35, Figure 6-36) and row houses (Figure 6-37, Figure 6-38) were matched with the historical style to guide the control of façade rules and guide the focus of renewal.

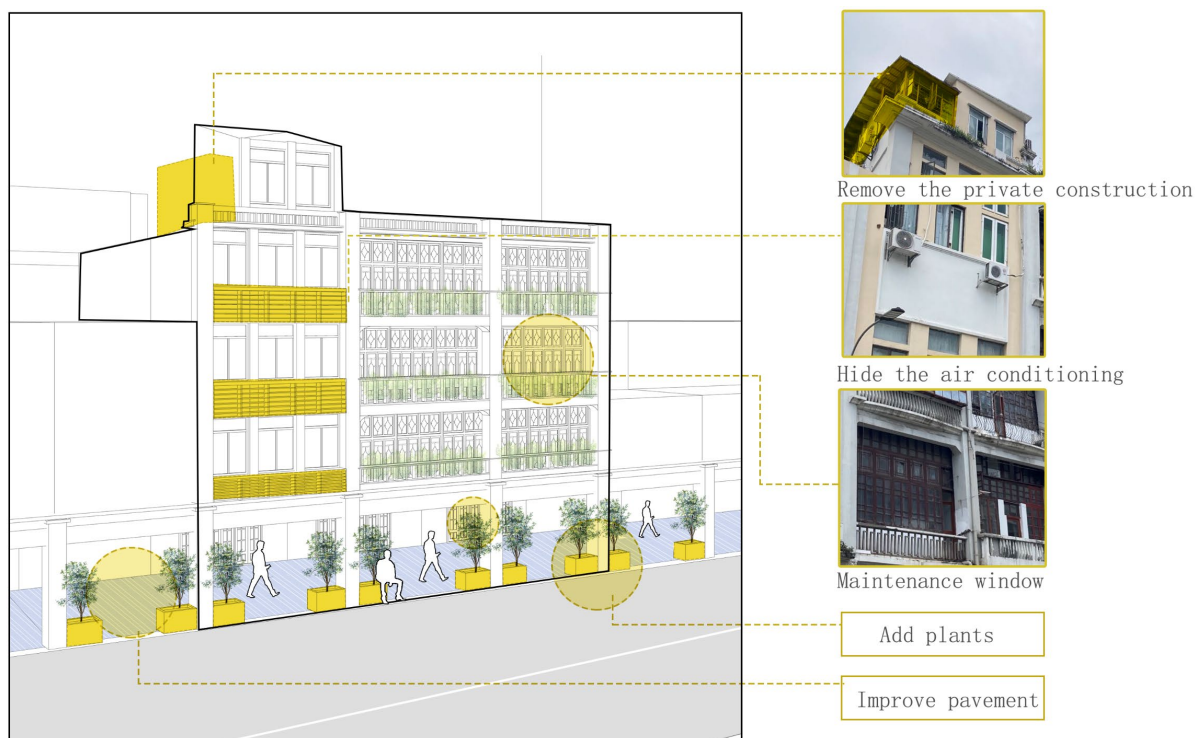


Figure 6-33 Renovation guidance plan of arcade type

(Source: By Author)



Figure 6-34 Before (left) and after (right) arcade renovation

(Source: By Author)

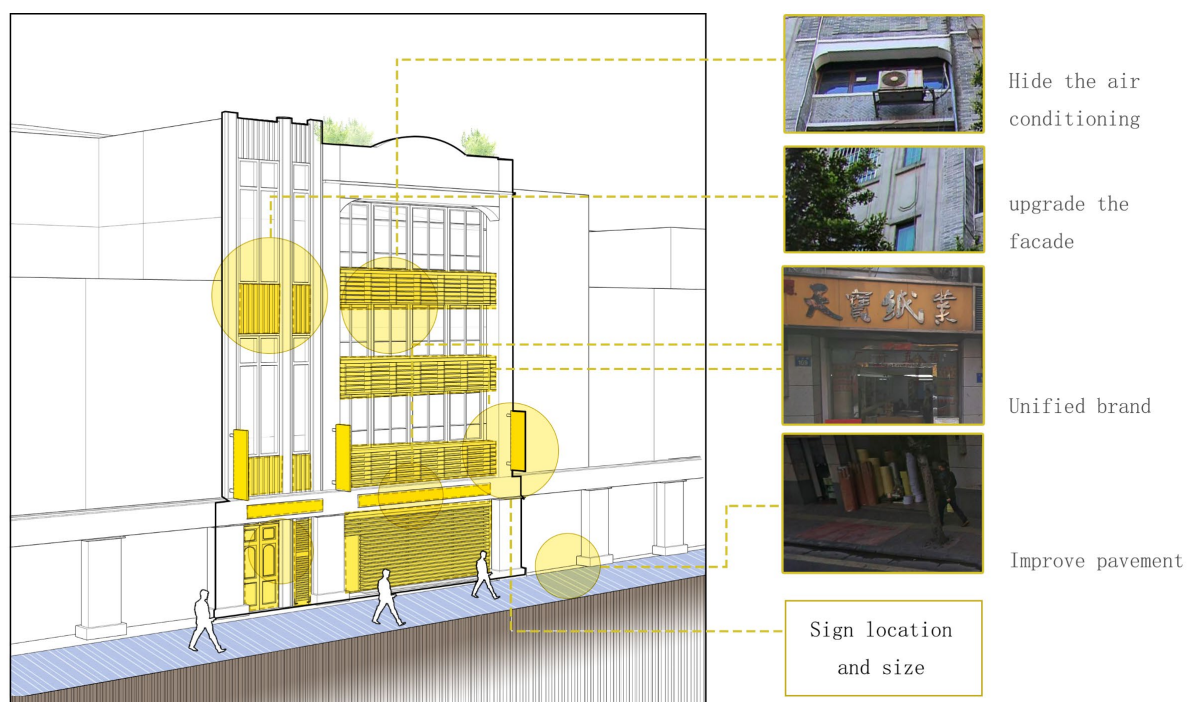


Figure 6-35 Renovation guidance plan of common ground floor shop

(Source: By Author)



Figure 6-36 Before (left) and after (right) common ground floor shop renovation

(Source: By Author)

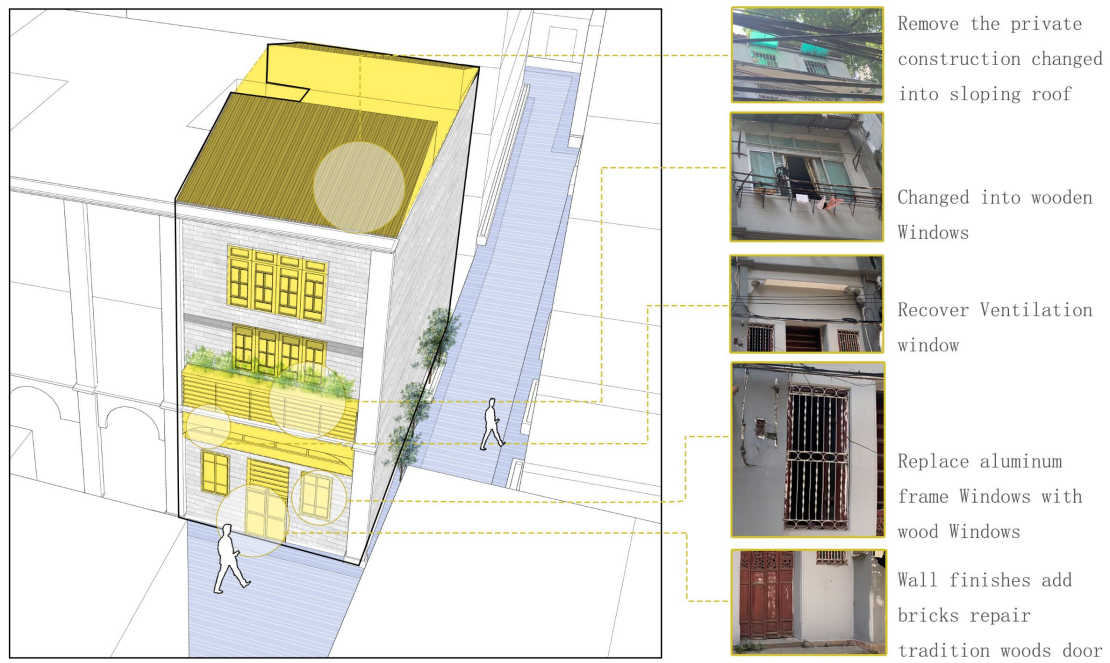


Figure 6-37 Renovation guidance plan of row houses

(Source: By Author)



Figure 6-38 Before (left) and after (right) row houses renovation

(Source: By Author)

(3) Façade Style Improve

The main characteristic of these buildings whose façades need to be upgraded is that their overall structure is well preserved, but the façade has problems such as dilapidation and illegal construction that are detrimental to the appearance of the neighborhood. This is also the most existing type within the neighborhood, which forms the basic texture of the neighborhood. In order to preserve the integrity of the neighborhood and restore the historical appearance of the neighborhood, the facade enhancement measures are taken for these buildings. The façade materials are replaced as a whole for buildings with façade style problems such as façade aging and deterioration, mainly taking grey bricks and wood as the main materials and local red bricks. The problem of electric wires and privately erected structures damaging the façade of the block takes measures such as overall erection of electric wires and removal of unauthorized constructions. Its façade has two types (Figure 6-39), one is the modern style after the founding of the country, the main characteristic is the façade messy, no order, simple mainly. The other is the style left over from the Qing and Republic of China, but it is dilapidated and old and bad due to lack of maintenance. The first one is to restore the building façade with traditional style features (Figure 6-40, Figure 6-41); the second one is to critically re-establish the façade using modern materials to make its façade features match with the traditional style of the neighborhood (Figure 6-42, Figure 6-43).



Figure 6-39 Buildings that are not in harmony with the landscape of the neighborhood

(Source: By Author)

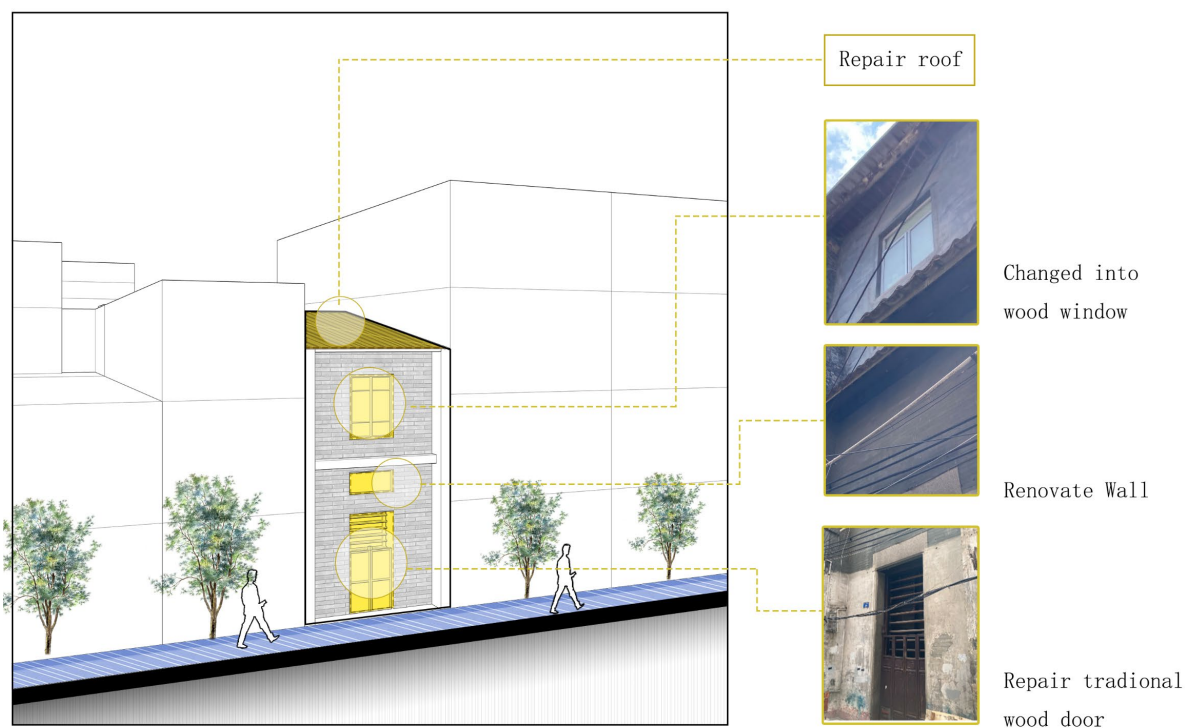


Figure 6-40 Renovation guidance plan of traditional style façade

(Source: By Author)



Figure 6-41 Before (left) and after (right) damaged building façade renovation

(Source: By Author)

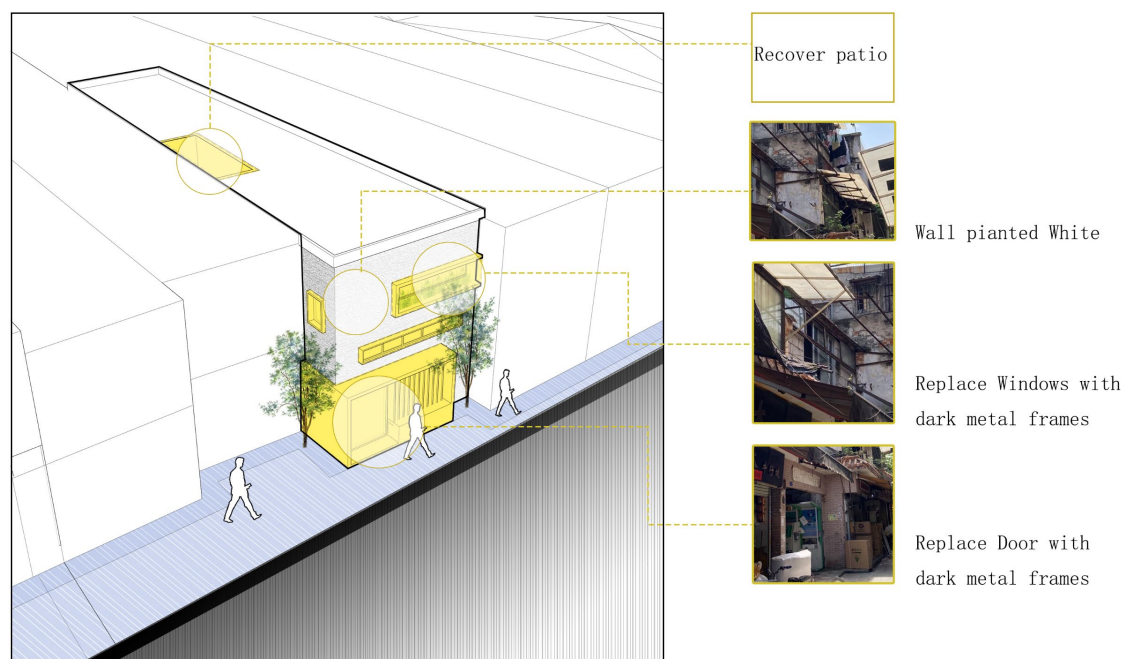


Figure 6-42 Guiding plan for the renewal of the building with a modern approach

(Source: By Author)



Figure 6-43 The façade renewed with a modern approach

(Source: By Author)

(4) Dilapidation and Reconstruction

There are some dilapidated buildings in the neighborhood that have fallen into disuse due to age and disrepair (Figure 6-44). Such buildings are an opportunity for the

revitalization of the public space of the neighborhood to be activated. Such buildings, which do not have historical value and use value, are not subjected to the careful renovation, reconstruction, or demolition to provide open space for the street. Two main approaches to renewal are taken, renovation or reconstruction of buildings for public services open to the community, and demolition for public space to provide outdoor activity space for residents and enhance the quality of life in the neighborhood (details in 6.4.1).



Figure 6-44 The current status of dilapidated and abandoned buildings in the neighborhood

(Source: By Author)

6.5.3 Eco-Green Space Renovation

Neighborhoods can improve microclimates by restoring traditional patios and sloped roofs to buildings where they are possible. Many buildings in the neighborhood have filled in their patios to gain more space due to development^[67]. However, the filling has affected the quality of life. Therefore, buildings that restore patios and traditional sloped roofs are given volume ratio transfers, and the addition of sloped roof lofts is allowed to encourage the restoration of traditional spatial forms (Figure 6-45) .

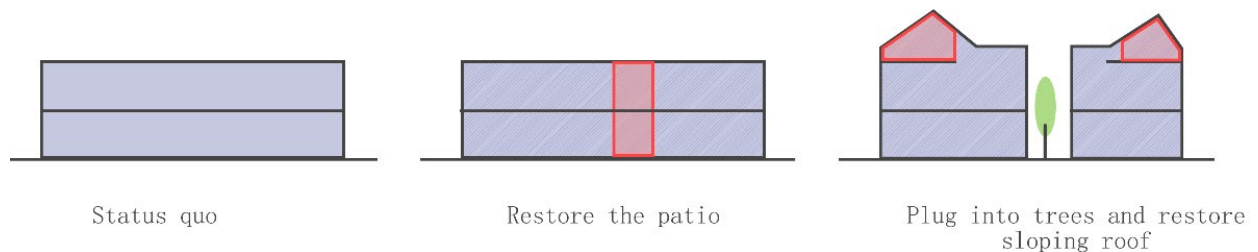


Figure 6-45 Patio and sloped roof restoration guide plan

(Source: By Author)

6.6 Cultural Catalyst, Diversity Renewal

The Zhuangyuanfang neighborhood has a rich cultural heritage, showing the thousand-year merchant capital culture and humanistic atmosphere of ancient Guangzhou. Its name has a long cultural history, and there is a century-old distinctive commercial district inside the neighborhood. It once had a rich intangible cultural heritage, such as Guangzhou Enamel, Guangzhou embroidery, opera costumes and other cultural heritages. And the location of Zhuangyuanfang is favorable with convenient transportation. There are popular tourist attractions around Zhuangyuanfang, but it lacks a tourist service center. Therefore, two strategies for the development of Zhuangyuanfang's history, culture and industry can be developed (Figure 6-46):

- (1) Excavate the history and culture of Zhuangyuanfang, and use the history and culture as a catalyst for community culture and industry
- (2) Create a tourist service center for the surrounding tourist neighborhood

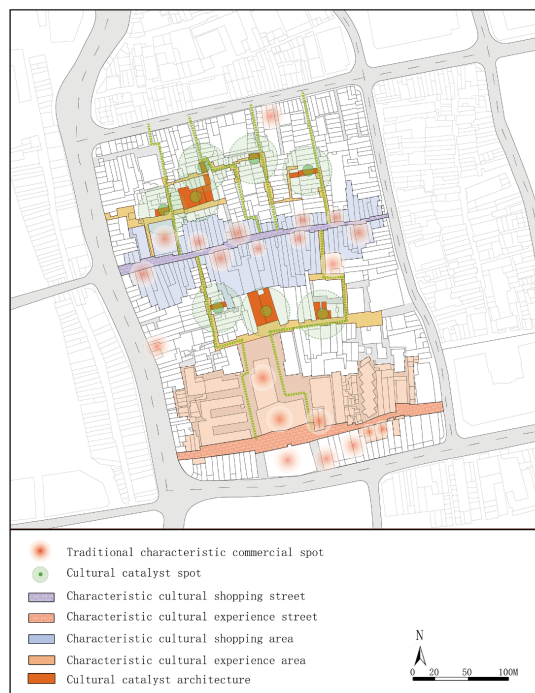


Figure 6-46 Master plan with history and culture as a catalyst

(Source: By Author)

6.6.1 Catalyzing public space and industry with history and culture

(1) Historical and Cultural Catalytic Design of Public Space

Zhuangyuanfang has profound cultural resources, and the origin of its name is related to the two top scholars of the Song and Ming dynasties, but the existing cultural atmosphere of celebrities is weak, and only statues exist at the street entrance of Zhuangyuanfang, and there is a lack of promotion of the history and culture of Zhuangyuanfang. Community life within the neighborhood is lacking, as industries are gradually shifting to wholesale, which has an impact on the public space life of the neighborhood. Therefore, the historical culture and community culture of the neighborhood can be complemented by the selection of historical and cultural touch points within the neighborhood combined with the neighborhood life circle (Figure 6-47, 6-48), so that the historical culture and public space can promote each other.

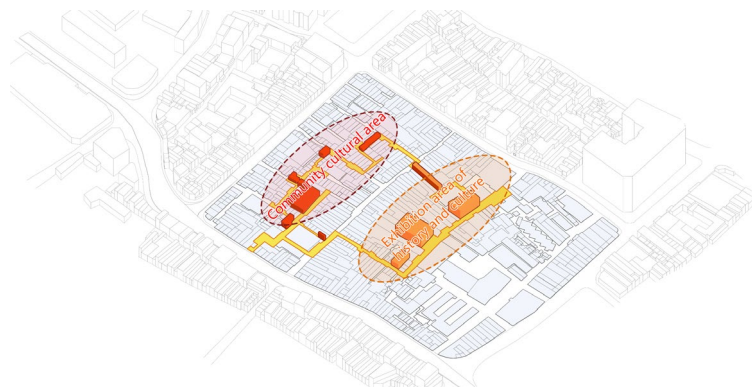


Figure 6-47 Catalyst point selection

(Source: By Author)



Figure 6-48 History, culture and public space promote mutually

(Source: By Author)

(2) Node Design with History and Culture as a Catalyst

The building selected for functional replacement is located around the community cultural square, and the building itself has a certain historical value, its current building façade is in disrepair and its historical value is being lost. The main current use of the building is still mainly storage. Therefore, using the historical culture as the medium, the function of the building is replaced with folk culture and opera costume exhibition (Figure 6-49), combining with the community life circle to create an important cultural node in the community.



Figure 6-49 Folk and costume exhibition

(Source: By Author)

(3) Neighborhood Characteristic Commercial Catalyst Design

Zhuangyuanfang has had a characteristic commercial atmosphere since the Ming and Qing dynasties with its well-developed handicraft industry, but as the development process of the times progressed, the retail industry impacted the commercial neighborhood; afterwards there was a sharp decline in the business of Zhuangyuanfang due to the impact of e-commerce on the retail industry and the impact of the surrounding people's viaduct on the neighborhood. The wholesale industry has brought many negative impacts to the living space of the neighborhood. Noise, neighborhood cleanliness, safety and other problems are frequent, so tenants are getting fewer and fewer, and more and more live in converted warehouses. Such a vicious circle leads to, resulting in the loss of the former vitality of Zhuangyuanfang.

1. Determine the Business Model of History and Culture as the Theme

To restore the vitality of the neighborhood of Zhuangyuanfang, the industry is a very crucial part. To revitalize the neighborhood by making Zhuangyuanfang a commercial district with culture as its main feature. An analysis of the cultural industries and potential intangible cultural heritage of the neighborhood's history can determine the commercial development direction of Zhuangyuanfang (Figure 6-50) : a commercial pedestrian street featuring history and culture.

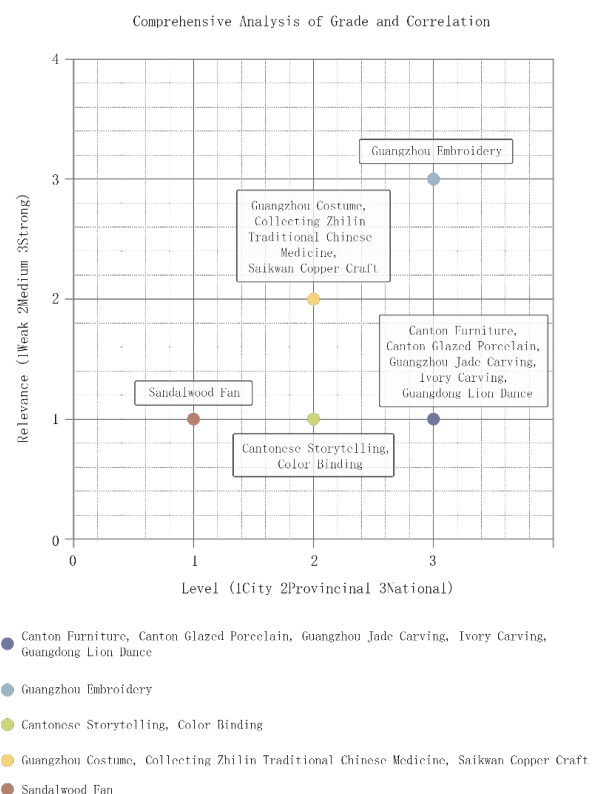


Figure 6-50 Relevance of intangible culture within neighborhoods

(Source: SCUT Architectural Design & Research Institute.2016.)

From the correlation table of intangible culture within the neighborhood, it can be obtained that the main ones with high correlation within the neighborhood are: Guangzhou embroidery, Guangzhou opera costume, Xiguan brozne, Guangzhou Enamel, jade carving and so on. These intangible cultural heritages can be divided into two types of business models (Figure 6-51), one is based on shopping for special cultural products, and the other is based on historical and cultural experiences.



Figure 6-51 Diagram of two commercial development patterns in the neighborhood

(Source: By Author)

2. Determine the development pattern of two neighborhoods

This leads to different development patterns for the two neighborhoods (Figure 6-52). Continuing the traditional shopping mode of the main street of Zhuangyuanfang, a new cultural and leisure experience mode is introduced in Yan Gong Street, and the historical and cultural heritage is fully revitalized and utilized in the neighborhood.



Figure 6-52 Development pattern of two commercial streets

(Source: By Author)

3. Develop a commercial catalyst development plan

The catalytic plan of the business is formulated according to the two business themes, and the business of the main street will be upgraded through the first stage, after which the business of the whole neighborhood will be radiated and upgraded to enhance the business value of the neighborhood (Figure 6-53).

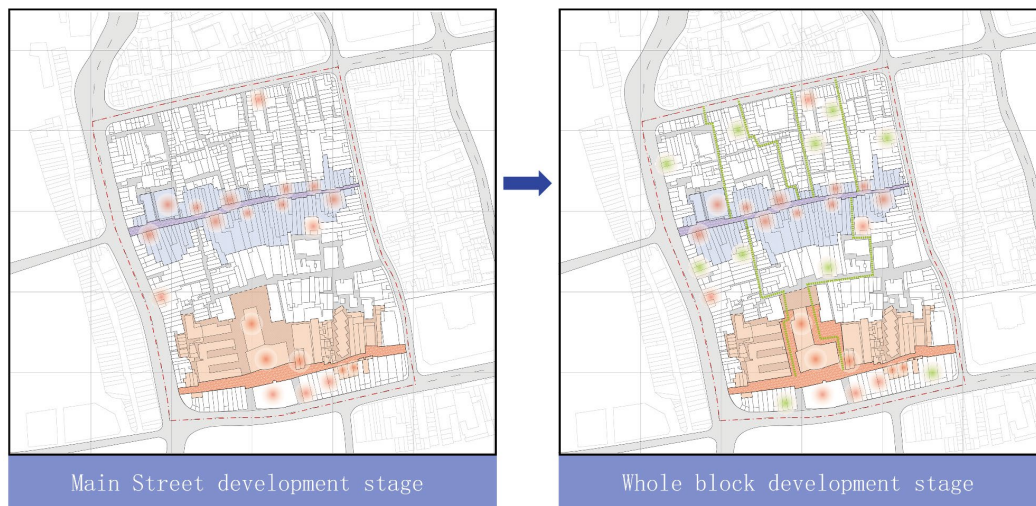


Figure 6-53 Catalyst plan for the commercial district

(Source: By Author)

The renewal of the commercial streets in the main street of Zhuangyuanfang and Yan Gong Street within the neighborhood is mainly to update and upgrade the business

pattern, transfer the wholesale industry out initially, and gradually introduce industries with intangible cultural characteristics to re-energize the neighborhood. The renewal design of the street is mainly to upgrade the existing buildings that do not conform to the style of the neighborhood, replacing them with recommended materials and adopting traditional façade techniques or modern techniques that are compatible with the style of the historical neighborhood, and transforming the neighborhood in diversity and unity. The neighborhood is revitalized with the guidance of history and culture (Figure 6-54) .



Figure 6-54 Renewal of the main commercial street of Zhuangyuanfang

(Source: By Author)

6.6.2 Development of Cultural and Leisure, Historical Tourism Industry

The location of the plot is in the middle of the Xiguan style area and the central axis landscape area (Figure 6-55) . Zhuangyuanfang can provide excellent transition services to the two tourism areas as well as tourism services, such as visitor service center, leisure experience function, style B&B and other functions. And combined with the commercial streets inside the block, it can create a pedestrian-oriented characteristic commercial and tourism block, forming a sound synergistic development with the surrounding historical and cultural districts (Figure 6-56) .

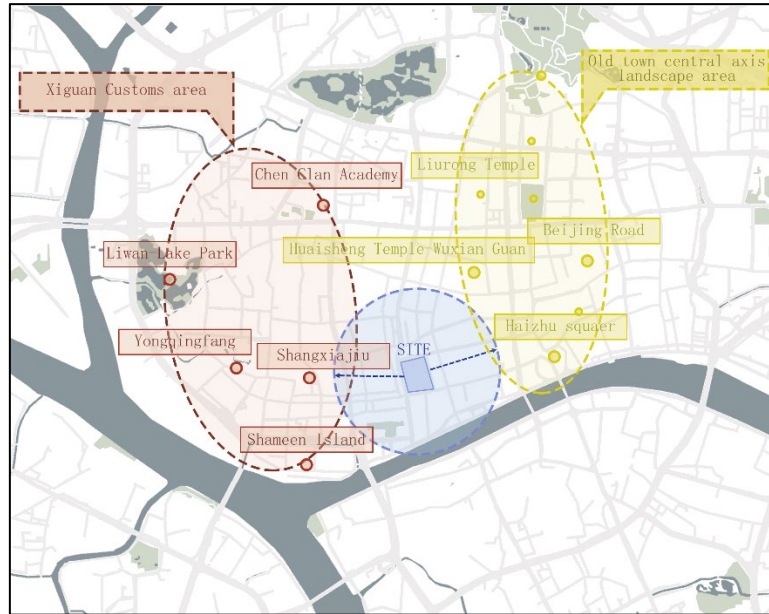


Figure 6-55 Tourist positioning plan of Zhuangyuanfang
(Source: By Author)

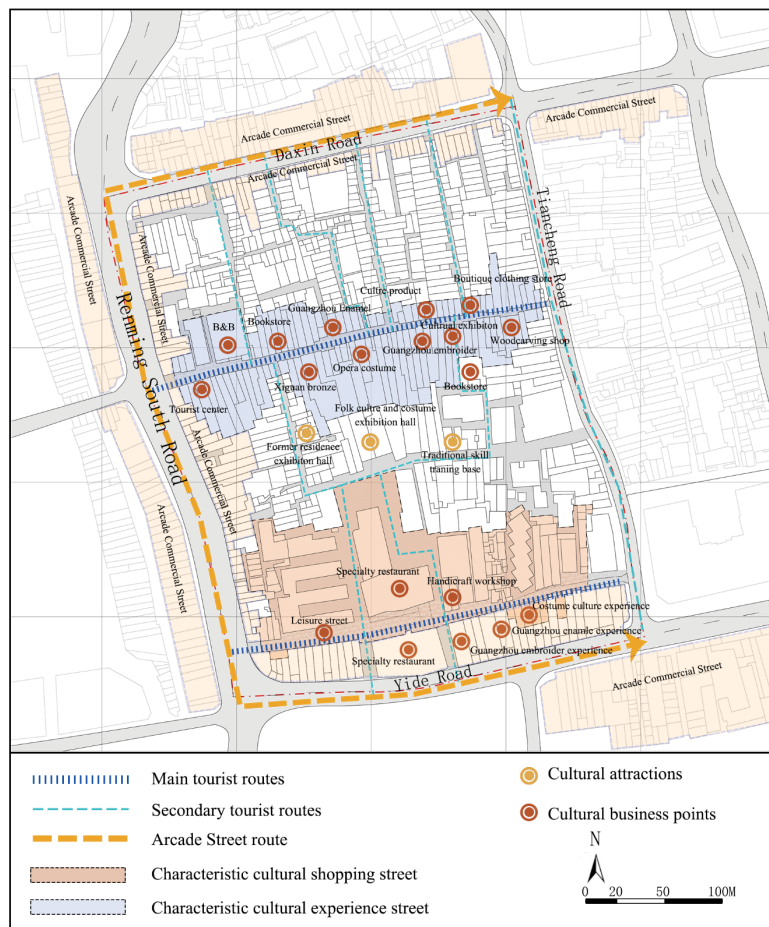


Figure 6-56 Neighborhood tour route planning
(Source: By Author)

6.7 Resident Participation, Self-Help Renewal

6.7.1 Division of Micro Streets

Self-help regeneration of neighborhoods is an important part of community participation in the regeneration of historic districts. By dividing the neighborhood into smaller renewal units, it is easier for the neighborhood to form renewal groups and for residents to discuss their participation in renewal. In the progressive renewal process of the neighborhood, residents can participate in each stage through the renewal groups (Figure 6-57) .

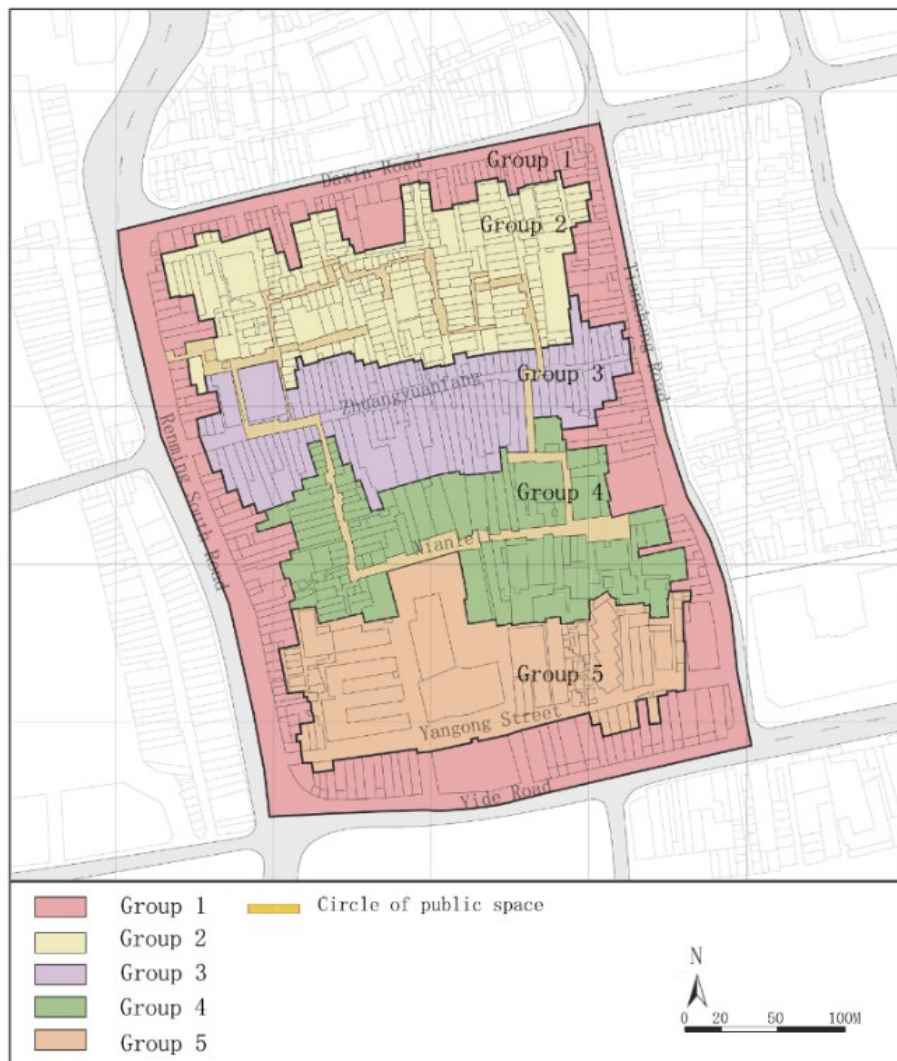


Figure 6-57 Neighborhood renewal group division

(Source: By Author)

6.7.2 Participatory Renewal Design for Neighborhood Life Circles

In the process of creating the public space in the neighborhood, the public should be the main body of the space design, and the public's will and ideas should be fully reflected. Therefore, in the design of public space, it is mainly divided into two parts. The first part is the social update of public space, and this part is mainly provided by the designer to design the main nodes of the living circle and combine the feedback and opinions of residents in the process of design. The second part is to provide a framework for the renewal of public space, and the micro-alley renewal group will discuss the content and methods of renewal, and encourage residents to participate in the construction of public space (Figure 6-57) .

The self-help renewal framework for public spaces is based on providing a progressive renewal model (Figure 6-58) . Three experimental sites of public participation spaces are provided in the first pilot phase to enable residents to participate in the growth process of public space in the first phase. It consists of three designs, movable urban furniture, participatory garden, and self-help vegetable garden. The three designs leave the public space fully white, giving the residents more possibilities to participate and manage the public space autonomously. In the second phase of renewal, there are still 7 nodes that need to be renewed. After the first phase of renewal, a residents' meeting was held to summarize and discuss the problems and results of the first phase, and to set the goals for the next phase of renewal. Based on the actual demand, the public space will be adjusted in time to meet the needs of the residents (Figure 6-59) .

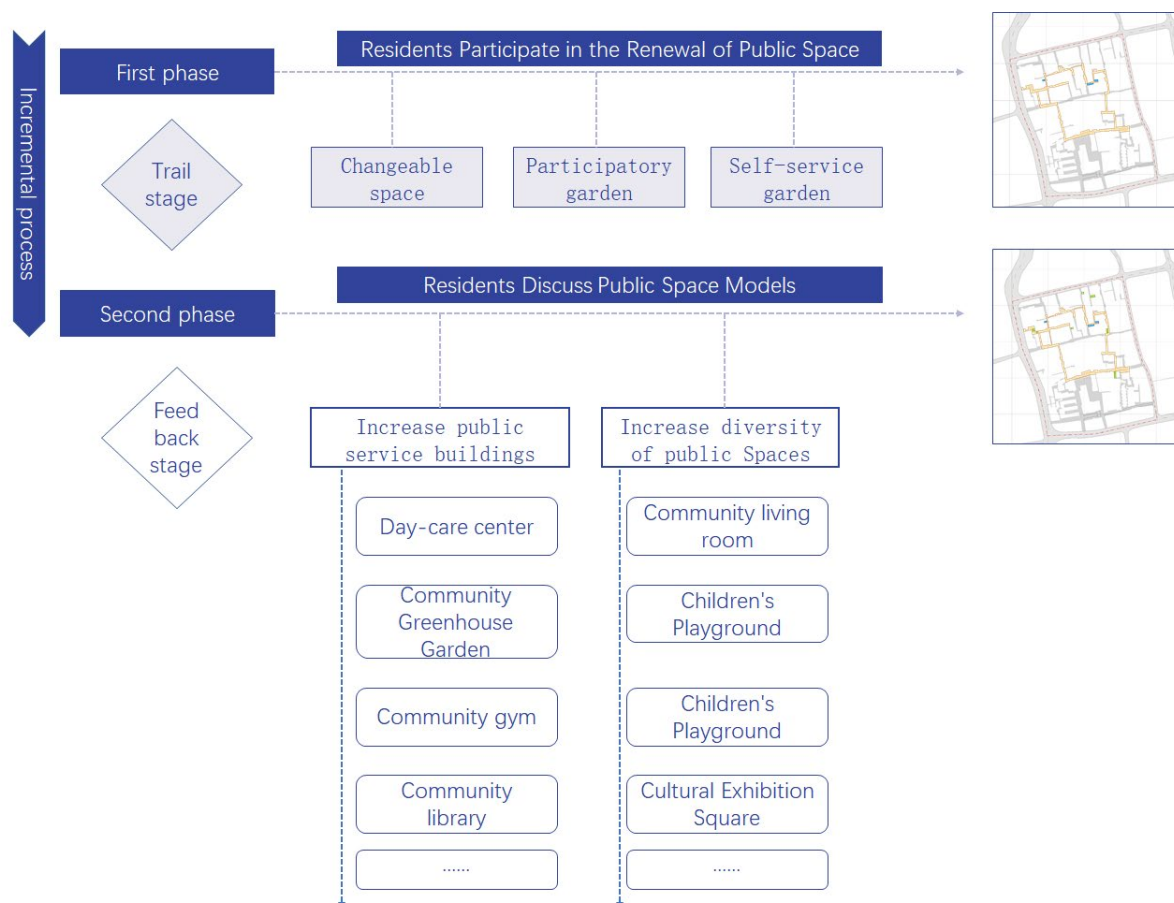


Figure 6-58 A progressive model of resident participation in public space renewal

(Source: By Author)

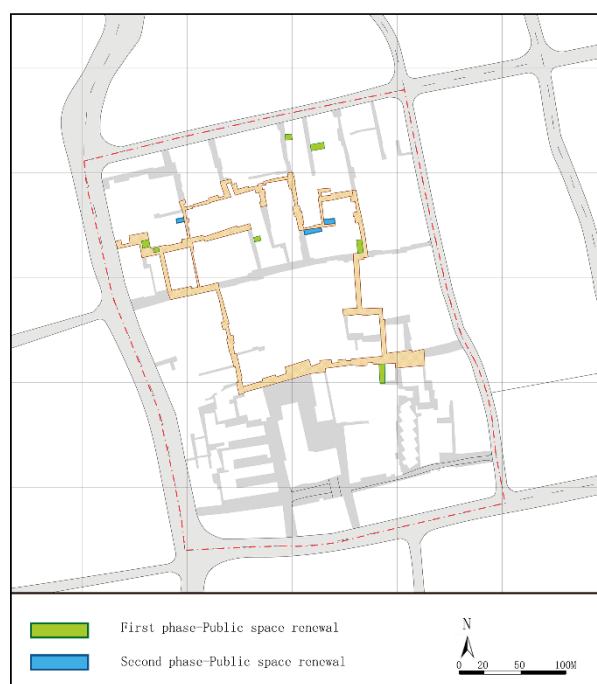


Figure 6-59 Self-help public space renewal phased planning

(Source: By Author)

6.7.2.1 The First Stage of Public Space Resident Participation Model

(1) Movable Urban Furniture

The main production of urban furniture uses materials from dismantled buildings, which are fitted into custom-made frames to form a certain modularity (Figure 6-60). Thus it is possible to take a modular form to organize different urban furniture on their own (Figure 6-61).

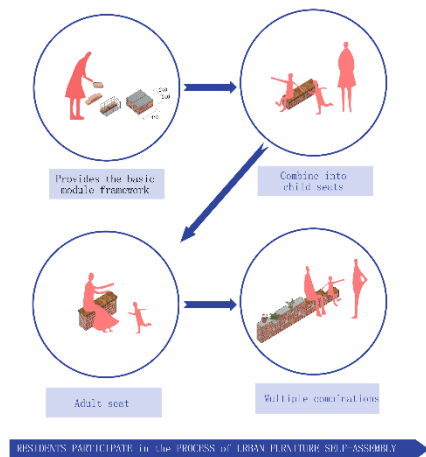


Figure 6-60 The process of moving urban furniture

(Source: By Author)

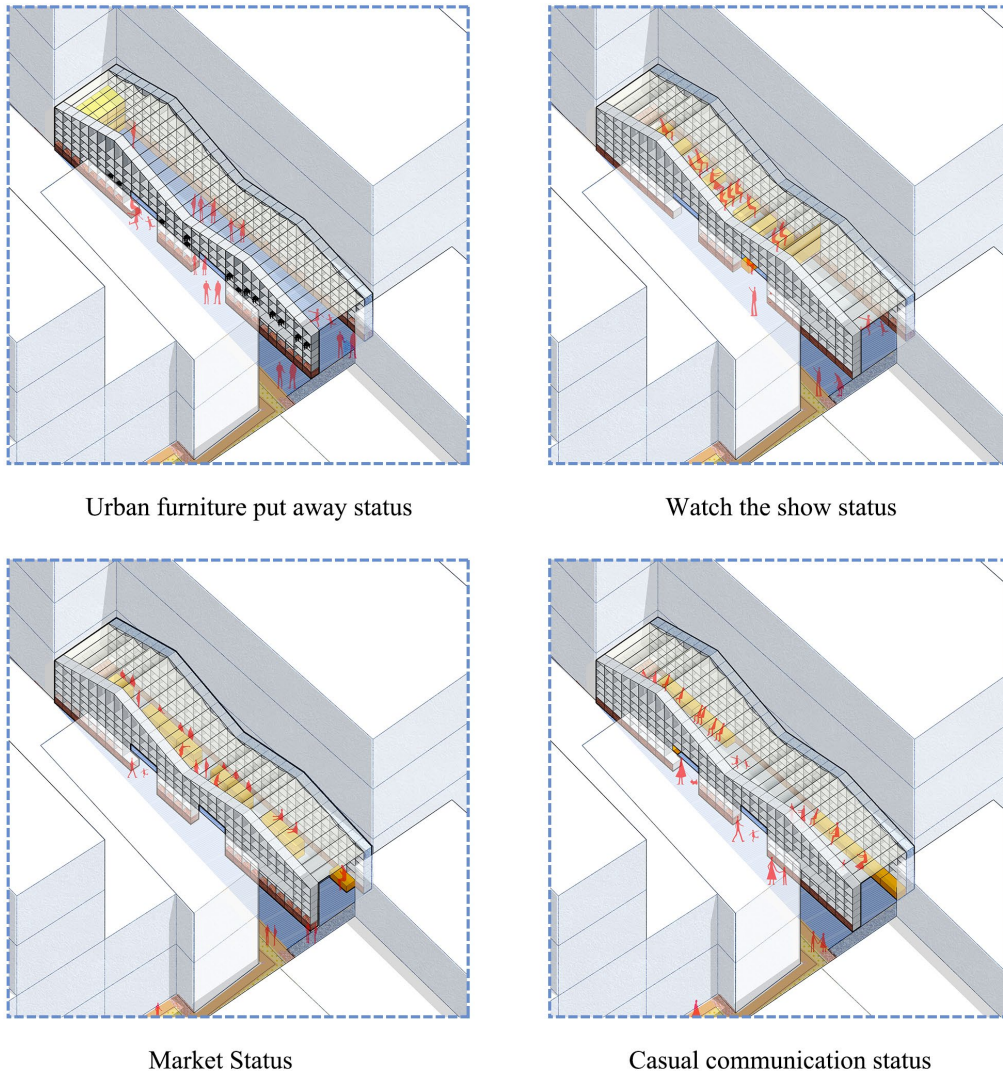


Figure 6-61 Changing patterns of movable urban furniture

(Source: By Author)

(2) Participatory Garden

The self-help greening process for public spaces mainly takes the form of providing an updated garden framework for residents to spontaneously place potted plants or plant (Figure 6-62). Leaving white space for the public space gives residents a framework for park growth.

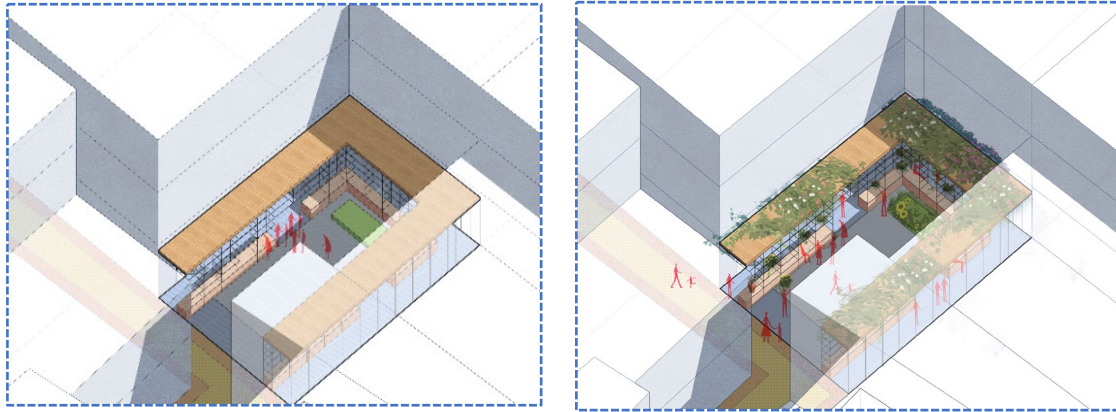


Figure 6-62 Self-help greening model for community gardens

(Source: By Author)

(3) Self-Help Vegetable Garden

The design concept of the community garden is also to provide a place where residents can plant (Figure 6-63), without specifically limiting the specific shape of the park, and allowing long-term participatory renewal of residents to define its status.

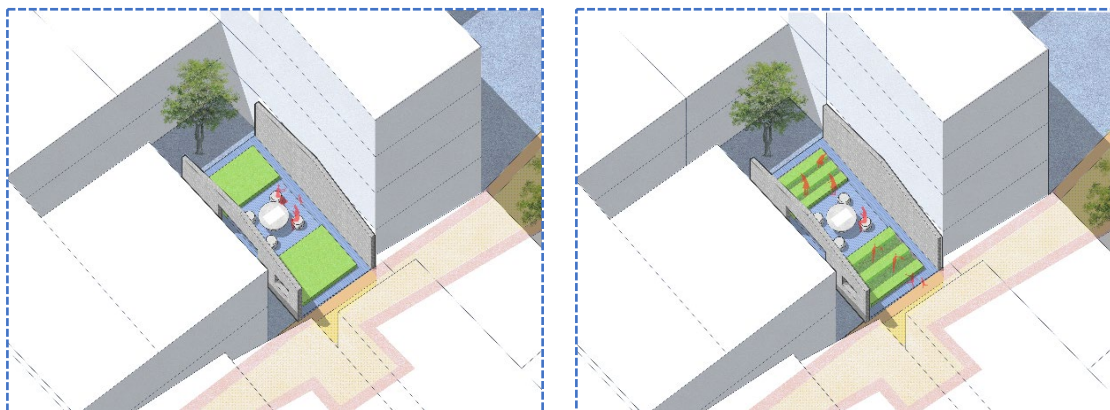


Figure 6-63 Before and after planting of community pocket gardens

(Source: By Author)

6.7.3 Guidelines for Guided Renovation of Existing Buildings







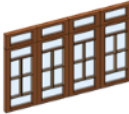








The main stock of buildings in the neighborhood is still well preserved, but most of them are still residential buildings that are not in harmony with the neighborhood's landscape. Most of the residents still prefer to stay in the neighborhood and want to have the possibility to renew themselves. Therefore, guidelines are provided to residents for the self-help renewal of the buildings, and the overall improvement of the architectural appearance (Figure 6-64) .



Figure 6-64 Buildings self-help renewal guidelines

(Source: By Author)

Table 6-2 Self-renewal material recommendation table (Source: By Author)

				
Wall finishing material recommend	Grey brick	Wood	Whitewash	Red brick
				
Window recommend	Wood window	Dark window frame		
				
Door recommend	Wooden door - Double open	Wooden door - Single open	Traditional Type Door	
				
Roof recommend	Grey tile			
Color recommend				

By analyzing the materials in the neighborhood and recommending a material use table that residents can update on their own, the coordination of the neighborhood's construction can be uniformly controlled (Table 6-2).

6.7.4 Spontaneous Construction of Neighborhood Culture

(1) Participate in the Cultural Building Activities of the Community

Encourage residents to organize their own historical and cultural activities to increase the cultural vitality of the community. The neighborhood is now mainly residential, and due to the lack of space for public activities to be generated, there are no famous traditional community cultural activities within the neighborhood, and the famous Canton embroidery of Zhuangyuanfang is gradually declining. After the renovation, there are sufficient venues for cultural activities, and relevant intangible cultural

activities can be introduced to enhance the cohesiveness of the community (Figure 6-65). For example, the lion dance in Guangzhou, the street can hold related cultural and creative activities, and hold the special Guangzhou embroidery activities in the neighborhood.



Figure 6-65 Intentional pictures of related community cultural activities

(Source: Internet)

(2) Residents Discuss and Organize New Community Activities

The main participants and organizers of historical and cultural activities are the residents, so the residents can use the NGO communication platform to discuss and utilize the history and culture of the local neighborhood according to the division of micro-alley groups, and combine the history and culture with the current development. For example, residents can hold exhibitions of embroidery and use the walls of the streets to display their works (Figure 6-66). They can also hold competitions such as neighborhood photography to encourage residents to discover the characteristics and beauty of the neighborhood.



Figure 6-66 Street wall exhibition

(Source: Internet)

(3) Spontaneous Promotion Of Neighborhood Culture

Now that the online world is interconnected, the internet is the best platform to promote neighborhood culture. Residents are encouraged to speak out on the platform to tell neighborhood stories, share neighborhood history, and promote neighborhood culture so that more people can recognize the present and past of the neighborhood. For example, residents self-promote neighborhood events, traditional festivals, stories of famous people in the neighborhood, and the neighborhood's unique businesses to increase their sense of identity and participation in the neighborhood (Figure 6-67) .



Figure 6-67 Residents spontaneously promote neighborhood culture on online platforms

(Source: By Author)

6.8 Summary of This Chapter

Based on the construction of the regeneration path of Guangzhou's old city in the previous paper, this chapter selects the Zhuangyuanfang historical district for the verification of the regeneration strategy. It first clarifies the goals of preserving the spatial and social structure, self-help renewal of residents, revitalization of historical culture, and commercial revival of the Zhuangyuanfang neighborhood. Subsequently, based on the translation of the Careful Urban Renewal concept in the previous section and the analysis of the current situation of the historical district of Zhuangyuanfang, the role of renewal mechanisms such as policies, funds, organizational structures, and NGOs in each stage is clarified, and a gradual, small-scale, and comprehensive renewal strategy is proposed for residents to participate in all three stages.

In the first stage, the public space of the neighborhood is carefully renewed, and the needs of the public space, unused space of the streets, greening and public services of the neighborhood are addressed in a comprehensive way; in the second stage, through the flexible guidance of the stock of buildings, the strategies of guiding and controlling the interface of the neighborhood, protecting and regenerating the classification of the stock of buildings, and ecological transformation are proposed; the third stage is to activate the public space and traditional commercial streets in the neighborhood by guiding the historical culture of the neighborhood. In the three stages, the paper develops a framework for residents to participate in the whole process of neighborhood renewal, introducing the participation of residents in public space in the first stage, developing a self-help approach for residents' building renewal in the second stage, and guiding residents to build community culture in the third stage. In general, based on the concept of Careful Urban Renewal, a strategy is developed to solve the spatial, social, ecological, historical, and cultural, and industry problems of the Zhuangyuanfang neighborhood from a comprehensive perspective.

Conclusion and Prospects

1. Main Research Conclusions

German cities also went through large scales demolition and construction process in the 1970s, just as the 750th anniversary of the city of Berlin, the concept of Careful Urban Renewal was put forward for the renewal of old cities, and the concept and strategy of Careful Urban Renewal were optimized with the development of the city in an adaptive manner. The renewal concept of China's old cities has also stepped into the era of stock renewal. Historic districts are important carriers of the city's cultural lineage, and how to explore the renewal path of historic districts is the focus and difficulty nowadays. This paper analyzes the concept and spatial strategy of Careful Urban Renewal, and compares it with the renewal model of historical districts in China, combining the current renewal dilemma of Guangzhou's old city and specific renewal districts to explore a path of regeneration of historical districts in Guangzhou's old city based on the concept of Careful Urban Renewal. The paper also takes the historical district of Zhuangyuanfang as a test site and proposes specific regeneration strategies through a detailed preliminary study of the current situation, which provides some reference for the renewal of Guangzhou's old city and provides new ideas for the renewal of other historical districts. The main conclusions of this paper are as follows:

(1) Analysis of the Concept of Careful Urban Renewal

By analyzing the theoretical development of Careful Urban Renewal concept and the current situation of the theoretical development in the context of two different periods, the innovation of its theory is to abandon the previous urban development model of large-scale demolition and construction, and to take residents as the main body of renewal, and to protect the rights and interests of residents in the renewal process by proposing 12 principles. It also compares the model of Careful Urban Renewal with the model of micro-renewal in Chinese historical districts, and analyzes the significance of its renewal model for micro-renewal in China.

(2) Summarize the Approaches of Careful Urban Renewal from Planning Concept to Spatial Strategy

This paper summarizes its approach of Careful Urban Renewal theory to spatial strategy of urban design through lots of case studies. Its "careful" concept is also fully reflected in the spatial strategy. The main spatial strategies are divided into three levels: neighborhood level, architectural level, and urban spatial catalytic approach. The neighborhood level is mainly through the careful consideration of each system of the neighborhood, according to different systems to develop different regeneration strategies; for the architecture is mainly to preserve and revitalize the buildings in the neighborhood, the main regeneration method is to repair and revitalize, and through the filling approach to complete the neighborhood texture, and to develop a framework for self-help regeneration of residential buildings; through functional replacement, cultural catalysts and other catalysts to activate the urban space, and the spatial regeneration strategy is rooted in the principles of the city's cultural heritage. The spatial regeneration strategy is rooted in the concept of "careful", preserving the spatial and social structure of the neighborhood to the greatest extent possible, and exploring the neighborhood's history and culture as a catalyst to activate the neighborhood's vitality.

(3) Propose a Strategy for the Renewal of Guangzhou's Old City from the Perspective of Careful Urban Renewal

This paper explains the connotation and concept of Careful Urban Renewal, and clarifies that the connotation of Careful Urban Renewal is to take the interests of residents as the starting point, and to carry out spatial repair in an integrated way. With four objectives and six principles as the basic starting point of the strategy and the guarantee of renewal mechanism as the basis, this paper constructs a careful renewal path of neighborhood physical space and neighborhood history and culture.

(4) Strategies for Regenerating the Historic District of Zhuangyuanfang Based on a Careful Renewal Perspective

This paper analyzes and verifies the typical historic district of Zhuangyuanfang in Guangzhou's old city, and finds that Zhuangyuanfang historic district shares the same dilemma of the historical district's physical space environment and modern needs as well as the decline of its special historical culture and commercial value. This paper develops a progressive, small-scale, and comprehensive regeneration strategy to address the specific problems of the neighborhood, its architecture, historical culture, and businesses, to carefully enhance the physical space and spiritual culture of the neighborhood, and to develop a plan to involve residents in the whole process of regeneration. The main specific regeneration approaches are:

A. Clarify the role of renewal mechanisms in the spatial renewal phase

Clarify the roles of policy, funding, NGO and resident participation in the three stages (public space, stock building, and neighborhood cultural revitalization) to ensure that spatial renewal is orderly under the premise of stable policy.

B. Cautious Strategy on Public Spaces

Create a public life circle to link public space potential points; activate the street space softly; create green ecological streets; optimize the street slow walking system; add public service facilities.

C. Soft Improvement of the Inventory Buildings

Enhancement of the unity and continuity of the neighborhood interface; classification of buildings to guide the restoration; restoration of ecological space.

D. Diverse Urban Revival Based on Historical and Cultural Catalysts

Guiding the activation of historical culture to the public space of the neighborhood; reviving the traditional business with historical culture as a catalyst; guiding the benign interaction between the neighborhood culture and the surrounding historical and cultural districts.

E. Participatory Renewal of the Whole Process for Residents

Provide different stages of resident participatory renewal in the public space renewal

process, resident participatory variable spaces and public spaces built in phases based on public opinion; develop guided repair guidelines for self-help renewal; guide residents to participate in the construction of community culture.

2. Innovation Aspects of This Paper

(1) This paper summarizes the connotation, model, and spatial strategy of the discreet urban renewal concept, provides a direction to learn from the comparison with the domestic micro-renewal model, and makes some translational analysis of the localization of the Careful Urban Renewal concept to explore new possibilities for the renewal of Guangzhou's old city.

(2) This paper formulates a detailed regeneration path for the revival of the Zhuangyuanfang neighborhood based on the concept of Careful Urban Renewal, which provides new ideas for solving the development problems of the Zhuangyuanfang historic district and verifies the possibility of its Careful Urban Renewal concept for the renewal of the old city historic district as well as its applicability.

3. Future Research and Prospects

The research in this paper still has the following limitations and room for improvement:

(1) The interpretation of the concept of Careful Urban Renewal is not comprehensive. The main interpretation of the concept of Careful Urban Renewal in this paper is based on its development in Berlin, the comparison of models and the summary of Berlin and its spatial strategies, and there is a lack of detailed research on the application of the concept of Careful Urban Renewal to other regions, such as other regions in Germany, rural areas, urban industries, and the construction of new urban areas. There is also a lack of detailed analysis of the process of translating the concept of Careful Urban Renewal in China and its specific practice.

(2) Insufficient research on historical neighborhoods. The main research object of this paper is the historical district of Zhuangyuanfang, which has certain uniqueness and has not been compared with the surrounding districts to find more representative

problems. Moreover, the depth of the neighborhood is not enough, for example, the research on the structure of the crowd is not enough, and the research on the interior of the building is not analyzed in detail, which is also the key direction to be investigated for the renewal of the Zhuangyuanfang neighborhood afterwards.

(3) The inadequacy of renewal strategy. The main renewal strategy of this paper is still based on the concept of " Careful Urban Renewal" and proposes a comprehensive and systematic renewal strategy, which is not refined to a more detailed level at many levels, and the analysis of macro planning, policies and funds is still shallow, which is worth further deepening. The synergistic development of the surrounding neighborhoods and Zhuangyuanfang is also under-researched, which is also a direction for follow-up research.

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