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South China University of Technology

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基于城市针灸的广州上下九

历史街区再生设计

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Regeneration of Shangxiajiu Historic District in Guangzhou Based on Urban Acupuncture

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摘 要

随着中国城市化进程快速推进，存量时代的到来使老城区成为更新发展的主要对象。其中的历史街区不仅是老城区的重要组成部分，还积淀了丰富历史文化和民俗风情，亟需得到关注和再生。反思过去不成熟的、简单粗暴的更新改造，广州也多次探索历史街区更新模式并提出“微改造”。由于有限的更新建设资金，以及城市体检的时代新要求，相关微更新理论与实践方式也需再深入研究。

在此背景下，本文引入“城市针灸”理论。基于对西方和中国城市针灸的理论发展与实践探索的研究，整理城市的发展依托、功能区域、廊道以及活力点与中医学的元气、脏腑、经络以及穴位的联系，归纳城市针灸八大原则等核心内容，总结出其规划方法分为五个步骤：“把脉断症”“注入元气”“调和脏腑”“疏通经络”和“激活穴位”。对比其他微更新方式，城市针灸还有精准小规模，作用大影响的更新优势。再以规划方法为逻辑去分析巴塞罗那老城及周边再生和超级街区再生两个不同时期与类型案例，掌握系统且详细的针灸再生策略，其中选取与激活穴位是城市针灸的关键，包括特色街区、公园广场、街区、建筑和非物质因素的穴位。然后对中国街区城市针灸案例进行分析与总结，构建包含物质与非物质内容的完整实践框架，最后针对广州的旧城更新发展趋势，进行城市针灸在广州的适用性分析。

本文还将“城市针灸”实践框架应用到广州典型历史街区——上下九历史街区中。首先把脉断症，对历史沿革、改造回溯、建筑街巷、广场节点、建筑功能、历史要素、邻里民意等方面进行剖析，总结出元气疲乏、脏腑失调、经络阻滞、穴位不通等四大困境。然后通过四大再生策略将困境逐一破解：承接上位规划、利用发展优势以及抓住发展机遇来“注入元气”；构建空间结构、整合功能布局与控制整体风貌来“调和脏腑”；梳理路网骨架、组织漫游路径与扩大传播路径来“疏通经络”；打造特色街区、提升公园广场、美化街道、活化建筑与利用非物质因素来“激活穴位”。最后描绘出上下九历史街区的再生蓝图，并补充相关实施机制，实现“岭南文化展示窗口、文旅商深度融合发展示范区”的目标愿景。

关键词：城市针灸；历史街区；城市更新；广州上下九

ABSTRACT

With the rapid advancement of China's urbanization process, the arrival of the stock era has made the old town areas the main target for renewal and development. Among them, the historic districts not only constitute a significant part of the old town areas but also embody a rich historical and cultural heritage and folk customs, deserving attention and revitalization. Reflecting on the past immature and crude approaches to renovation, Guangzhou has explored historic district renewal models and proposed the concept of "micro-renovation". Due to limited construction funds and the contemporary requirements of urban health, further in-depth research is necessary for the theories and practices of micro-renovation.

Against this backdrop, the article introduces "urban acupuncture". Drawing upon research into the theoretical development and practical exploration of urban acupuncture in Western and Chinese, it establishes connections between foundation for development, functional regions, corridors, and vitality points, and the concepts of vitality, viscera, meridians, and acupoints in Traditional Chinese Medicine. Then the eight core principles of urban acupuncture are summarized and the planning methodology is organized into five steps: "diagnosing", "injecting vitality", "harmonizing viscera", "dredging meridians", and "stimulating acupoints". Compared to other micro-renovation approaches, urban acupuncture offers the advantages of precise and impactful transformations in small scales. The article further analyzes two different cases of urban regeneration in Barcelona, regeneration of the old town and surroundings and regeneration of Superblock, using the planning methodology as a logical framework. By grasping systematic and detailed acupuncture regeneration strategies, including selecting and stimulating acupoints related to distinctive districts, parks and plazas, streets, buildings, and intangible factors, the study provides insights. Then the urban acupuncture cases in China are analyzed and summarized, leading to the proposal of a comprehensive practical framework that encompasses both material and intangible elements. And subsequently, the applicability analysis of urban acupuncture in the context of old town renewal and development in Guangzhou is conducted.

Furthermore, the practical framework of "urban acupuncture" is applied to a typical historic district in Guangzhou, which is called Shangxiajiu Historical District. Above all, the site is diagnosed by analyzing aspects such as historical evolution, renovation retrospection, roads and streets, plazas and nodes, buildings and its functions, historical elements, and neighborhood public opinion. Four major dilemmas are identified: depleted vitality,

imbalanced viscera, obstructed meridians, and inactive acupoints. These dilemmas are systematically addressed through four regeneration strategies: aligning with higher-level planning, utilizing development advantages, seizing opportunities to inject vitality; establishing spatial structures, integrating functional layouts, and controlling overall style to harmonize viscera; optimizing road networks, organizing roaming pathways, and expanding publicity to dredge meridians; and creating distinctive districts, enhancing parks and plazas, embellishing streets, revitalizing buildings, and utilizing intangible factors to stimulate acupoints. Finally, a blueprint for the regeneration of the Shangxiajiu Historical District is depicted, supplemented with relevant implementation mechanisms to achieve the envisioned goal of becoming a "showcase for Lingnan culture and a model area for the integrated development of cultural tourism and commerce".

Keywords: Urban Acupuncture; Historic District; Regeneration; Guangzhou Shangxiajiu

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Chapter 1 Introduction

1.1 Research Background

1.1.1 The Importance and Challenges of old town Areas in the Stock Era

As urbanization rapidly progresses in China, numerous cities have experienced rapid expansion and hasty morphological growth in a short period. Now, many areas have transitioned from an era of expansive development to the era of stock, where new construction land is increasingly limited. As a result, the historically significant old town areas have become crucial targets for revitalization and development.

In the course of previous development processes, old town areas have encountered unprecedented challenges due to a range of issues related to aging and obsolescence. On one hand, these areas often suffer from a chaotic architectural appearance, outdated street facilities, and weak infrastructure, making it increasingly difficult to meet the growing demands of the population. On the other hand, with the migration of local residents to new urban areas, the original social networks are disrupted, leading to a weakened sense of belonging and identity among the remaining inhabitants.

In this context, seeking the regeneration of old town areas on both material and intangible levels holds significant practical significance.

1.1.2 The Urgent Need for Attention and Regeneration of Historic Districts

Historic districts, as the heart of old town, possess a privileged geographical position and abound with rich material and intangible cultural heritage. They serve as vital carriers of urban traditional culture, local customs, and architectural art, representing the dynamic heritage that bears witness to the evolution of cities and contemporary life. However, due to factors such as uneven regional development and inadequate infrastructure, the regeneration of historic districts faces numerous pressing issues that require resolution: the intricate spatial functional structures are challenging to grasp, and mishandling them can lead to the deterioration of the districts; the outdated material conditions pose certain difficulties in adapting to new models of economic and lifestyle development; the influx of migrant workers and the loss of permanent residents have resulted in a lack of vitality among the residents.

The regeneration of historic districts is essentially the revitalization of the city itself. Given

the existing realities and challenges, the transformation and renovation of historic districts have become a top priority that demands significant attention.

1.1.3 The Unreasonable Nature of Previous Regeneration Approaches

Looking back at the recent history of urban renewal in China, the long-standing immature and heavy-handed "demolish and rebuild" approach has disregarded social conflicts, ecological environments, and historic characteristics, hindering sustainable development of the city. Urban renewal has taught us profound lessons: ① The excessive pursuit of economic growth of government and the dominance of real estate developers in the market have led to a greater focus on material environments and economic returns. As a result, many historically significant and valuable historic districts have been completely demolished. ② The weak awareness of social and cultural preservation in the past has neglected the importance of culture and cultural heritage in the revitalization of historic districts. This has resulted in the frequent demolition of genuine cultural relics, the reconstruction of fake antiquities, and the homogenization of districts, raising concerns about the chaotic methods of renewal and transformation.

Clearly, the previous approaches to urban renewal are inadequate to adapt to the significant changes in urban development and do not align with the values and demands of the new era. There is an urgent need for new and innovative methods of urban renewal.

1.1.4 Urban Check-up: An Important Aspect of Urban Health Management

With the continuous ascent of urbanization in China, the issue of "urban ailments" derived from it is increasingly pronounced. Just as the human body undergoes an annual health examination to proactively identify and address problems, cities, as rapidly operating organisms, also require a check-up. In 2021, the Ministry of Housing and Urban-Rural Development of China issued "Notice on Carrying out Urban Physical Examination in 2021". It defines "urban check-up" as a fundamental undertaking that comprehensively evaluates the status of urban development and construction, formulates targeted strategies, optimizes urban development objectives, addresses deficiencies in urban construction, and resolves "urban ailments". It serves as a crucial lever for implementing urban renewal actions, coordinating urban planning and construction management, and promoting the high-quality development of urban habitats. The conduct of urban check-ups is an essential prerequisite and innovative

approach for screening and precise governance of "urban ailments". It has risen to the level of a national strategy and gradually established the implementation mechanism of "annual check-ups and five-year assessments".

1.2 Explanation of Relevant Concepts

1.2.1 Urban Acupuncture

"Acupuncture", which originated and developed in China over 2,500 years ago, is a collective term for needle therapy and moxibustion. The term "Acupuncture" is derived from two Latin words: "acus", meaning needle, and "puncture," meaning to penetrate. In Traditional Chinese Medicine (TCM), the vital life force of the human body is referred to as "Qi", which flows in a balanced and smooth manner through the meridians that connect the major organs, thereby maintaining health. One of the key elements of acupuncture is the selection of specific acupuncture points. Acupuncture involves inserting specially designed needles into these specific points of the patient's body, aiming to unblock the obstructed meridians and achieve the therapeutic purpose of treating diseases.

"Urban Acupuncture" is an urban environmentalism theory that combines urban design with traditional Chinese medical theory of acupuncture^[1]. It is a micro-updating approach that connects natural systems with urban social consciousness. It conceptualizes the city as a human body, a multidimensional and sensitive organism^[2]. Spanish architect Manuel de Solà-Morales was the first to propose the concept of urban acupuncture as a strategy for low-budget periods, emphasizing social and local methods^[3]. The term was introduced by Jaime Lerner, the former mayor of Curitiba, Brazil, who viewed the city as a patient in need of intervention and stimulation to recover. These interventions work in a wave-like manner, actively influencing the sensory and physical aspects of the city^[4]. The process of urban acupuncture involves analyzing various aspects of the city, such as social, economic, and cultural factors, and stimulating the "acupuncture points" of the city through subtle and low-cost techniques. By restoring energy to the surface of the city, positive impacts are generated and spread throughout different parts and even the entire city^[5].

In this context, "urban acupuncture" expands its initial meaning based on principles of Traditional Chinese Medicine. It goes beyond targeting only "acupoints" and incorporates the concepts of "vitality", "viscera", and "meridians" to achieve comprehensive regeneration of the urban organism^[6]. "Vitality" refers to the development support to promote the formation

of city, "viscera" refers to spatial order and functional areas of the city, "meridians" refer to linear corridors and intangible channels of communication, and "acupoints" encompass public spaces and important buildings as key focal points.

1.2.2 Historic District

The concept of a historic district was first introduced in the "Athens Charter", defining it as an area within a relatively limited scope that concentrates a significant number of historical buildings. At that time, the definition was rather narrow. Tim Heath, Taner Oc, and Steve Tiesdell, on the other hand, propose that a historic district is an area where a large concentration of historical buildings is found within a relatively limited region^[7]. Ruan Yisan defines it as a contiguous group of buildings that have survived throughout the urban history, preserving the historic information of the development of the city and serving as a backdrop for various activities of the residents^[8].

In general, the characteristics of historic districts include: ① the integrity of historic appearance, ② the authenticity of historic remains, ③ a certain quantity, scale, and proportion of historic remnants, and ④ the authenticity of daily life, with a relatively complete social organizational structure^[9].

In this context, the term "historic district" refers to the traditional urban space and its surrounding environment that have survived during the process of urban development, and can fairly represent the traditional features and local characteristics of certain historic periods. A historic district itself constitutes a complete system, and although there may be variations among its spatial elements, the interconnectedness of its individual components unifies them into a whole. Local changes can catalytically impact the overall regeneration of the district through a series of reactions.

1.2.3 Regeneration

The concept of "regeneration" initially referred to the process of an organ part in an organism regrowing in the same form and function after injury, and later extended to the field of architecture and defined by the United States Advisory Council on Historic Preservation as "Regeneration signifies the restoration of assets to a usable state ... enabling effective contemporary utilization"^[10].

In this article, the term "regeneration" in the context of historic districts aligns with the meaning of "renaissance" in British urban policy. It upholds the principles of sustainable development, with a focus on rebuilding civic society and revitalizing community development while seeking equality of status and opportunity. As John Prescott stated in the preface in 2001 "Our Towns and Cities: The Future – Delivering an Urban Renaissance"^[11], "Our basic principle is 'people first'. Our policies, plans and governmental structures are based on engagement and collaboration with local people. This is the key to resolving social tensions and ensuring sustainable economic growth". He further emphasized, "This is a long-term commitment to tackling the economic, social, and environmental challenges holistically," and "it focuses on communities, encouraging collective action at the local, regional, and national levels to explore the future development path of communities. We hope that cities and towns can become sources of economic vitality, radiating their energy from the core, benefiting not only urban residents but also the surrounding regions, achieving overall social sustainability."

1.3 Research Object and Significance

1.3.1 Research Object

(1) Urban acupuncture

The concept of "urban acupuncture" mentioned in the article is a revitalization model proposed by Manuel de Solà-Morales, the founder of the Barcelona Urban Laboratory, in the 1980s. It combines urban design with traditional acupuncture theory and was first applied in the Barcelona Urban Reboot Program. Subsequently, "urban acupuncture" has been referenced and developed by numerous urban pioneers, and the second revitalization of Barcelona also embraced this concept. In addition to studying existing urban acupuncture-related content, this article expands and summarizes the organic composition hierarchy of "vitality", "viscera", "meridian", and "acupoints", integrating systematic strategic experiences based on case studies in Barcelona.

(2) Shangxiajiu Historic District in Guangzhou

The subject of this design practice, rooted in urban acupuncture, is the Shangxiajiu Historic District in Guangzhou. This area preserves the charm of Guangzhou Xiguan district with its old and famous shops, Lingnan-style arcade buildings, and delightful street spaces. It serves

as a concentrated embodiment of traditional street life in Guangzhou. Historically, there hasn't been a precise delineation of the Shangxiajiu district. In this study, the core focus is the acupoints within the Shangxiajiu Plaza, which radiates to encompass the surrounding historic preservation areas, Hualin Jade Street, and Liwan Plaza.

1.3.2 Significance of the Research

(1) Theoretical Significance

① A new understanding of the organic composition of cities is established. Currently, research on the correlation between Traditional Chinese Medicine and the preservation of historic districts mainly focuses on the "acupoints" level, lacking a comprehensive exploration of cities as organic entities. This article, by reviewing relevant theories of urban acupuncture from both domestic and international perspectives, preliminarily proposes a four-tiered organic composition of cities. It summarizes the patterns of influence and practice, thereby deepening the theoretical foundation of urban acupuncture.

② A practical framework for urban acupuncture is developed by in-depth exploration of case studies. Existing studies on the theory of "urban acupuncture" often remain limited to macro-level urban planning, predominantly involving concept clarification and summarizing experiences, lacking operational methods that can guide practical projects. Building upon a comprehensive understanding of "urban acupuncture", this article systematically analyzes and synthesizes specific acupuncture methods from multiple case studies, aiming to compensate for the deficiencies in previous research.

(2) Practical Significance

① Strategies which are easily to carry out for the regeneration of historic districts are explored. The cautious, gradual response strategy of "urban acupuncture" aligns more effectively with the complex and diverse demands of historic districts compared to large-scale, single-faceted strategies. It is also more feasible to implement and promote, helping to address issues such as inadequate heritage preservation, limited government funding, and insufficient social investment. In an era of limited resource allocation, it provides historic districts with a rapid regeneration opportunity.

② Targeted strategies and designs are developed for the regeneration of historic districts

based on urban acupuncture. Current research on urban acupuncture strategies often focuses on the formulation of strategy while lacking comprehensive design and spatial expression. This article selects Shangxiajiu Historic District in Guangzhou as the design site. By establishing a practical framework for urban acupuncture in the regeneration of historic districts, it formulates targeted acupuncture strategies in four aspects based on the analysis of the current state of the district, providing valuable references and insights for future regeneration projects of historic districts.

1.4 Research Status

1.4.1 Evolution of Renewal Ideologies

(1) Evolution of Renewal Ideologies in the West

The study of urban renewal in the West can be broadly divided into four stages (Table 1-1).

First stage (Post-World War II to 1960s): In response to the devastation caused by the war, urban renewal was predominantly carried out by government organizations in a top-down manner. The focus was on clearing slums and improving the image of cities. The modernist ideology led by Le Corbusier (*Vers Une Architecture*, 1923) played a significant role, with its emphasis on grid patterns, rigorous functional zoning, and geometric compositions that exemplified the doctrine of form follows function. Eliel Saarinen (*The City, Its Growth, Its Decay, Its Future*, 1943) viewed the city as an organic entity composed of multiple "cells" that constantly grow and change. He proposed the theory of organic dispersal, which became an influential concept in guiding urban planning.

Second stage (1960s to 1970s): This period witnessed a growing emphasis on vulnerable groups and social equity. The focus of renewal shifted from material improvements to economic revitalization and environmental enhancement. Jane Jacobs (*The Death and Life of Great American Cities*, 1961) criticized the dogma of modernist planning, highlighting the complexity of cities and the adverse impact of rationalism, which resulted in the creation of isolated urban spaces and the decline of American neighborhoods. Paul Davidoff (*A Choice Theory of Planning*, 1962) advocated for planning from a pluralistic perspective, promoting public participation, and further expounded on the need for planning to address the concerns of marginalized communities (*Advocacy and Pluralism in Planning*, 1965).

Third stage (1980s to 1990s): Urban renewal shifted from government-led reconstruction to market-driven approaches and collaborative efforts. Due to the global economic downturn, the United Kingdom reduced government intervention and embraced free market competition. Real estate companies began to dominate urban renewal, and the transformation of old cities into urbanized areas gained momentum. In Europe, the "Cultural City Plan" was launched, leading to the transformation of many cities from industrial centers to cultural and tourism destinations. In the United States, urban renewal shifted its focus to commercial revitalization in old town centers, but the issue of gentrification resulting from urban renewal became increasingly prominent. France adopted policies and regulations to secure funding for renewal, improved the vitality of old cities through the provision of supporting facilities and the promotion of public space development, aiming to stimulate economic recovery.

Fourth Stage (1990s to present): This stage is commonly referred to as the era of comprehensive urban renewal and community revitalization. The concept of sustainable development gradually became a guiding principle in urban construction, with a growing emphasis on a people-centric approach. Urban renewal entered a new phase, emphasizing comprehensiveness and integrative approaches. While facing profit-driven renewal under a capital-oriented system, inclusive concepts such as regional renewal emerged, promoting a more encompassing perspective.

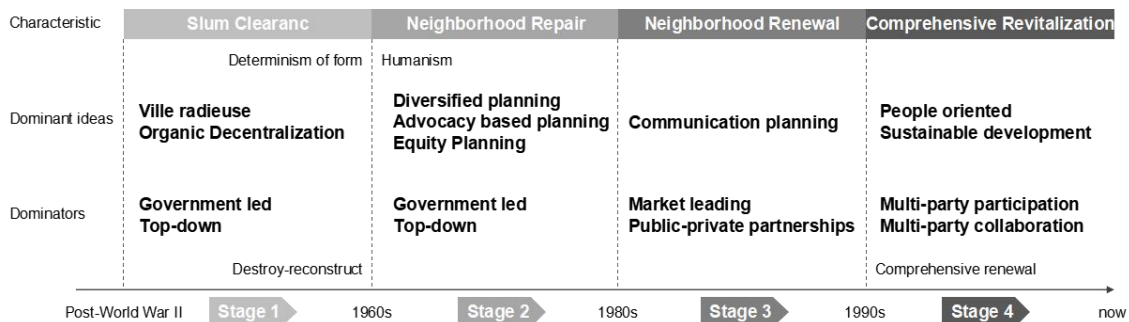


Table 1-1 Evolution of Western Renewal Ideologies
(Source: Compiled by the author based on relevant materials)

Prominent Western viewpoints on urban renewal can be summarized as four points: Firstly, the resurgence of humanism in socio-economic life has exerted a significant influence on urban renewal. The focus has shifted from large-scale eradication of slums to comprehensive improvement of community environments, with greater attention given to human needs. Secondly, there is a growing recognition of the socio-economic significance of urban renewal. Planning and design have transitioned from purely material environmental transformations to comprehensive renewal plans that integrate social and economic development with

environmental improvement, emphasizing the continuity of the planning process. Thirdly, the approach to urban renewal has evolved from large-scale demolition and reconstruction to cautious, incremental models, characterized by small-scale, phased interventions primarily driven by community organizations. Fourthly, the concept of sustainable development has become a societal consensus, gradually accepted by all stakeholders involved in the renewal process. Future urban renewal efforts are expected to place greater emphasis on the sustainability of communities.

(2) Evolution of Renewal Ideologies in China

Exploration of urban renewal in China started later than in Western countries, but due to rapid urbanization in China, it can be divided into four stages of development based on national policies and actual construction practices (Table 1-2)^[12].

First Stage (1949 to 1978): The focus was on improving basic environmental hygiene and living conditions in cities. Due to limited resources, urban renewal during this stage primarily aimed at environmental improvements. The renowned "Liang-Chen Plan" proposed by Mr. Liang Sicheng and Mr. Chen Zhanxiang in the "Location of the administrative center of the Central People's Government" addressed the contradiction between urban development and historic preservation at a broader regional level, setting a new direction for comprehensive urban renewal.

Second Stage (1978 to 1990): The emphasis was on resolving housing shortages and inadequate infrastructure. China began to introduce laws and regulations related to urban planning, and the trend of comprehensive renewal and transformation demonstrated rationality, appropriateness, and gradual progression. Wu Liangyong proposed the "organic renewal theory", which marked a fundamental shift from "mass demolition and reconstruction" to "organic renewal"^[13]. Wu Mingwei put forward a comprehensive and systematic academic ideology on urban renewal that integrated a systemic perspective, cultural viewpoint, and economic viewpoint^[14].

Third Stage (1990 to 2012): Exploration and innovation in urban renewal practices driven by market mechanisms. Economic reforms enabled formal channels for the participation of multiple capital sources in the revitalization of old cities, leading to an upsurge in residential development and the renovation of old neighborhoods. In the journal "Urban Planning", its first edition highlighted the key viewpoints on urban renewal, particularly focusing on the

subject of "old town renewal, a topic worthy of attention and research"^[15]. Yang Jianqiang and Wu Mingwei elucidated sustainable urban development from the perspectives of urban design, urban renewal, and urban planning in their work "Modern Urban Renewal"^[16].

Fourth Stage (2012 to present): A new phase of urban renewal based on people-oriented and high-quality development was embarked. To address the various potential crises in terms of the environment, society, and economy arising from rapid and large-scale urban redevelopment, greater emphasis has been placed on the holistic development of cities, people-oriented approaches, improvement of living environments, and enhancement of urban vitality. In recent years, the Urban Planning Society of China has conducted extensive academic research and exchanges on topics such as "Urban Renewal in the Context of New Urbanization", "Urban Renewal and Urban Governance", "Community Development and Urban Renewal", "Urban Renewal for Multiple and Shared Benefits", "Complex and Diverse Urban Renewal", "Urban Renewal and Quality Enhancement" and "Urban Renewal for Better Living"^[12].

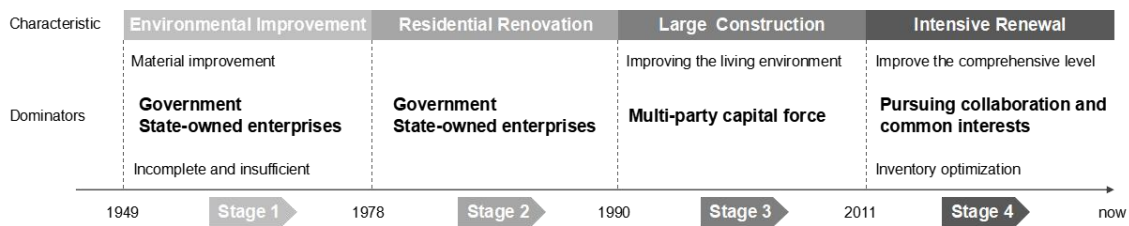


Table 1-2 Evolution of Renewal Ideologies in China
(Source: Compiled by the author based on relevant materials)

Overall, the institutional framework for urban renewal in China has gradually improved, with an increasing variety of renewal types and a shift in the dominant force from the government to multiple stakeholders. The focus of renewal has shifted from mere material environmental improvements to the overall enhancement of urban levels.

1.4.2 Research on Historic District Renewal

(1) Evolution of Historic District Renewal in the West

The evolution of historic district renewal in Western countries can be divided into three stages, marked by a series of resolutions and charters (Table 1-3).

The exploration of historic district renewal in Western countries began with the passage of the 1883 British "Monuments Protection Act". Subsequently, countries such as the United States,

Italy, France, and Spain proposed the preservation of buildings with historic value in urban areas. In 1931, Charleston, South Carolina, in the United States, established the first historic district, which challenged the previous concept of museum-style preservation of historic heritage. A new approach to heritage conservation emerged, one that encompassed urban life and gained increasing attention and promotion in the United States^[17].

After the end of World War II, Western countries faced economic downturns, leading to the decline of city centers. Many Western countries then turned their attention to and initiated a series of large-scale urban renewal movements. Influenced by the idea of "Functional City", numerous historic and cultural cities, including Paris, London, and Munich, embarked on extensive demolition and reconstruction activities. However, the outcomes were characterized by rigid functional divisions in cities, chaotic urban transportation, loss of urban character, and exacerbation of social conflicts. The value of historic districts was not properly evaluated during this period; they were considered dilapidated clusters of buildings that marred the cityscape and were thus subject to demolition and reconstruction.

After the 1960s, following large-scale demolition and clearance of slums through urban reconstruction activities, people began to reflect on the irreversible damages caused by the previous simplistic and extensive urban renewal approaches. During this stage, the focus of urban renewal in Western cities shifted from mere material improvements to strategies that also encompassed social and comprehensive benefits. Urban planning for renewal transitioned from a singular and narrow focus on large-scale demolition and reconstruction to a broad and content-rich approach of incremental and small-scale renewal.

Time	Relevant Documents	Main Content
1931	Athens Charter	The practice of overall reconstruction and stylistic restoration was abandoned, and the surrounding area was included in the scope of protection.
1964	Venice Charter	Extend the scope of protection from buildings to urban and rural environments; put forward the principles of integrity and authenticity.
1976	Nairobi Protocol	Emphasizing the integrity of historical areas and the surrounding environment, enriching the connotation of protection, and putting forward specific protection measures from multiple perspectives such as technology, economy, and legislation, so that they can be harmoniously integrated into contemporary life.
1979	Burra Charter	It has strong operability, and has carried out detailed regulations on protection, restoration, reconstruction and other measures.
1987	Washington Charter	Emphasize that the protection of historical urban areas should adapt to modern life and encourage public participation.
1994	The Nara Document on Authenticity	Advocate the protection of heritage diversity and cultural diversity, emphasize authenticity as the basic principle of heritage protection, and diversify its connotation.
2011	Valletta principle	Intervention criteria for historic towns and urban areas have been formulated in terms of value, quality, and quantity.

Table 1-3 Key Documents on historic District Protection in Western Countries
(Source: Compiled by the author based on relevant materials)

As attitudes and values underwent transformation, there has been a widespread international focus on the preservation and reuse of historic districts, leading to some consensus among countries regarding the revitalization of historic districts.

(2) Evolution of Historic District Renewal in China

The evolution of historic district renewal in China can also be divided into three stages.

From 1986 to 2002, China examined and introduced relevant documents and regulations on the protection of historic urban areas from Western countries. Based on the practices of historic district preservation, the basic principles and methods of historic district protection were established. Wang Jinghui conducted in-depth research on the institutional regulations of Japan and Germany, proposing policies and methods for prioritizing historic districts as cultural heritage conservation areas^[18]. Through the exploration of Tunxi Ancient Street, Zhu Zixuan emphasized the integral and proactive nature of preservation and provided specific requirements regarding building height and architectural style based on regional characteristics and values^[19]. Ruan Yisan delved into the characteristics and types of historic and cultural cities^[20], discussing the current state of historic and cultural city preservation and the practical issues in old town reconstruction^[21]. Additionally, Ruan summarized the development and progress of historic and cultural heritage protection both globally and domestically.

From 1998 to 2012, the existing static preservation methods were insufficient to meet new development requirements, resulting in the decline of historic district protection. historic district protection shifted towards organic renewal, as proposed by Wu Liangyong. Shan Jixiang explored the protective model of "sequential and organic renewal"^[22]. Zhang Song reviewed the legislative construction process of the preservation of historic and cultural cities in China and the practical conservation of historical buildings. He pointed out the complexity and uniqueness of heritage conservation in China and discussed the phenomenon of "gentrification" that occurs during the historic preservation process, suggesting corresponding measures^[23]. Lv Zhou emphasized the artistic and historic value of heritage and the significance of preserving cultural diversity^[24]. Lu Di discussed the transformation of architectural heritage values in the 1960s and addressed the "historic" and "artistic" demands of architectural heritage regeneration, revealing the crisis of excessive "commercialization" faced by contemporary architectural heritage regeneration^[25].

Since 2016, China's urbanization model has gradually shifted from extensive to intensive. The theories of tactical urbanism, urban catalysts, and urban acupuncture, which emphasize "small-scale, incremental" urban renewal, have gained increasing attention from experts and scholars. The approaches to the preservation and renewal of historic and cultural districts have also gradually shifted towards "micro-transformation" and "micro-updates". Lv Zhou reviewed the development and evolution of China's cultural heritage conservation ideas and principles, emphasizing the need for public and community participation in cultural heritage conservation^[26]. The team led by Feng Jiang conducted a bottom-up micro-transformation practice in Guangzhou's Pantang Wuyue^[27]. Wang Zhaoyu et al. used semantic analysis of review data to obtain post-occupancy evaluations of historic districts^[28]. Chen Zhongguang et al. quantitatively analyzed the street space of historic urban areas or historic districts using spatial syntax^[29].

Currently, the protection and renewal of historic districts in China are still in a period of transition. The depth of preservation has evolved from mere imitation of material forms to the inheritance of historic and cultural values, and the focus of protection has shifted from point and linear protection to regional and comprehensive protection.

1.5 Research Methods and Framework

1.5.1 Research Methods

(1) Literature Integration Method

By extensive reading and analysis of relevant articles, works, and historic materials related to urban acupuncture, historic district regeneration, and Shangxiajiu in Guangzhou, the author summarize the core ideas of urban acupuncture, organize literature materials related to historic districts, and conduct comprehensive analysis based on ample preliminary data on Shangxiajiu Historic District in Guangzhou.

(2) Case Study Method

The author collect prominent design cases of urban acupuncture in Barcelona, analyze their historic background, identify the driving forces behind their development, establish the correlation between urban organization and human physiological structure, and summarize design methods, which provides a practical foundation for introducing urban acupuncture in

historic district regeneration, ensuring the relevance and feasibility of the research.

(3) Comparative Analysis Method

The concepts of urban renewal and historic district regeneration in the West and China are compared. Despite different stages of development, the background of regeneration is similar. The author conduct a comparative analysis between the renewal in Barcelona, Spain, based on urban acupuncture, and the historic district regeneration in Guangzhou to explore the applicability of using urban acupuncture in regeneration of historic districts in Guangzhou.

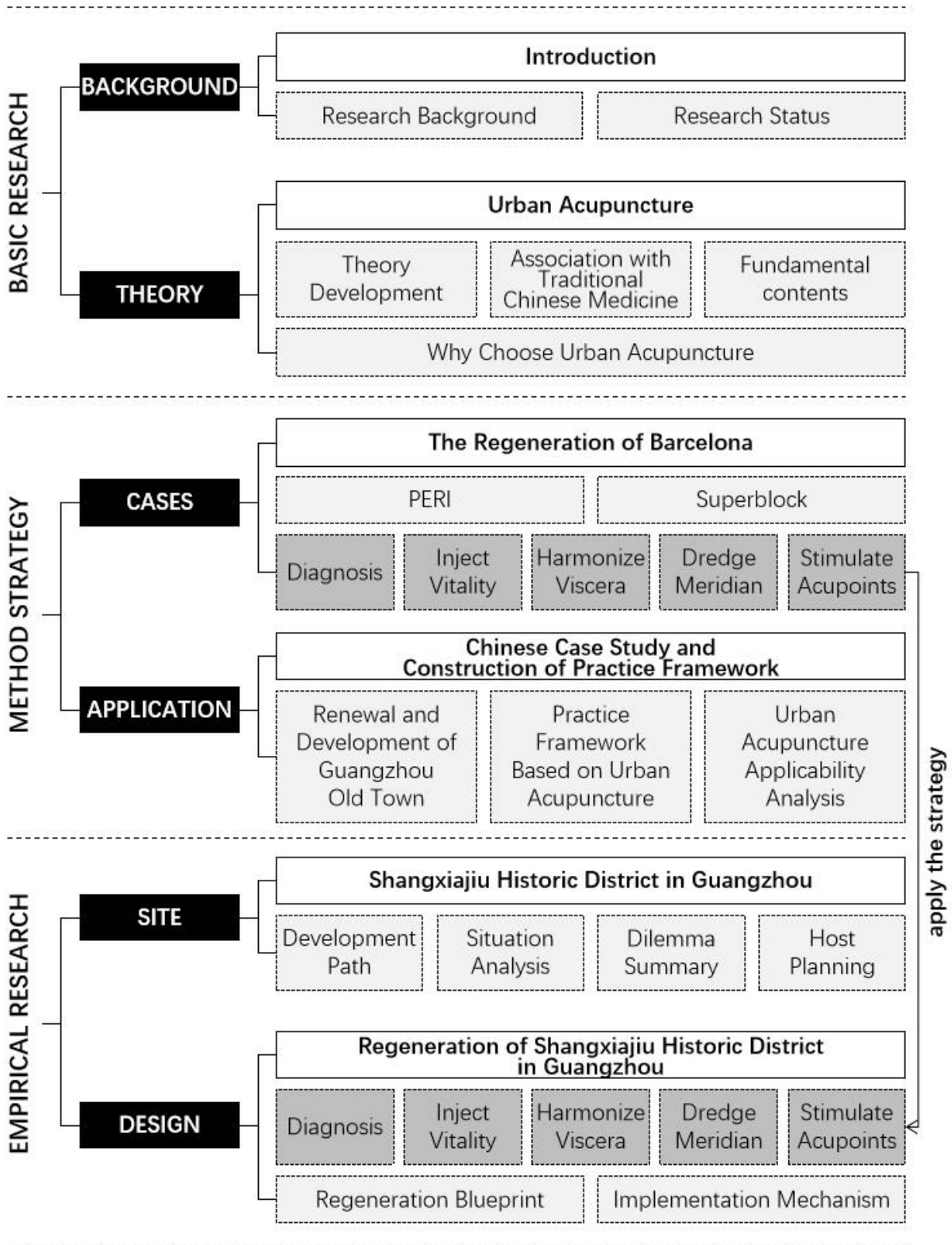
(4) Field Research Method

The author conduct field investigations and site visits to Shangxiajiu Historic District in Guangzhou, gathering rich firsthand data for in-depth research, study the overall layout, architectural forms, landscape features, and resident conditions on-site, record important information, employ methods such as questionnaires and interviews with residents to understand their perspectives on current situation of the district, identify the main contradictions in the district, and supplement any deficiencies in the literature.

(5) Empirical Research Method

The practical framework is applied for historic district street regeneration based on urban acupuncture to actual case studies, selecting Shangxiajiu Historic District as the empirical subject and designing regeneration plans to verify the practicality of this method in practice. And new ideas and models are provided for the regeneration of historic districts in China.

1.5.2 Research framework



Chapter 2 Research and Analysis of Urban Acupuncture

2.1 Theoretical Development and Practical Exploration

2.1.1 Research on Urban Acupuncture in the West

(1) Preliminary Research

The concept of urban acupuncture first emerged in the West, introduced by three significant pioneers for theoretical research on the subject.

Manuel de Solà-Morales, the founder of the Barcelona Urban Planning Laboratory, advocated for the incorporation of punctual public spaces within cities. By gradually modifying the external attributes of these punctual spaces and their surrounding elements, a holistic activation effect would be generated, fostering urban development and facilitating sustainable innovation^[30]. In 1982, addressing the decline in city center of Barcelona, de Solà-Morales initiated the "urban acupuncture" plan. Employing an approach that focused on punctual interventions, he successfully created over 400 small-scale open spaces in a short period. This endeavor enhanced the spatial environment and elevated the image of city, ultimately becoming renowned as the "Barcelona model".

Jaime Lerner, the former mayor of Curitiba, Brazil, coined the term "urban acupuncture". The notion behind it involves revitalizing a diseased or decaying area through a simple touch at a key point, much like an intervention in medical practice that triggers positive chain reactions, aiding healing and enhancing the overall system. Lerner proposed that urban acupuncture can manifest in both material and intangible forms, characterized by speed, economy, efficacy, and subtlety^[31]. From 1979 to 1992, he spearheaded a series of urban acupuncture projects in Curitiba, including an efficient and cost-effective rapid transit system, a botanical garden transformed from a former landfill, a riverside park integrating flood prevention and landscape greening, and the "Green Exchange Project," which employed incentive-based methods to encourage broad public engagement in environmental initiatives. These endeavors encouraged citizen participation while emphasizing the coordinated and unified development of economic, culture, and environment in the city.

Marco Casagrande, an architect and social theorist from Finland, as well as a professor in Taiwan Province, described urban acupuncture as the cross-disciplinary manipulation of the

collective sensory intelligence of a city. He regarded cities as multidimensional, sensitive energy organisms, and the aim of urban acupuncture was to connect with this essence^[32]. Differing from previous scholars, Casagrande emphasized the construction of installations by architects, community residents, or urban dwellers that could influence the entire community or the surrounding urban environment. He proposed the concept of the "third-generation city," referring to post-industrial or ecologically sustainable urban development. In 2003, Casagrande was invited to activate the historic Treasure Hill settlement in Taiwan. His acupuncture action was simple: clearing rubbish, cultivating abandoned land for gardens, rebuilding roads to establish external connections, and utilizing "ruins" such as discarded furniture as integral elements of the landscape. With a minimal investment of time and resources, the once-declining urban space was transformed into a source of urban vitality in less than a year.

(2) Subsequent Research

In terms of theoretical development, Tortosa et al. established a punctual network to identify the most crucial points for the development of urban quality of life using neural network algorithms. The neural network algorithm, based on self-organizing networks, can create attractive low-dimensional performance with high-dimensional input data. The neural network model utilizes GNG3D to construct high-quality polygon models, involving two distinct steps: self-organizing algorithm and reconstruction steps to build an improved network^[33]. Hoogduyn synthesized the perspectives of the three theoretical pioneers and focused on four case studies in the Netherlands and Sweden to explain the descriptions provided by these theorists. Furthermore, they proposed the most important principles of urban acupuncture, such as creating focal points, identifying sensitive points, and taking swift action^[34]. Malvina suggested that urban acupuncture could be combined with temporal interventions, reshaping social and urban realities through redefining urban actions. Different dimensions of sustainability - time, open spaces, citizen and government participation, as well as new technologies - play significant roles in the emergence of participatory urbanism. Social stimulation is also a major objective of urban acupuncture strategies, as economic downturns and environmental issues can often be addressed by reviving social engagement, reactivating and repurposing established urban environments and spaces^[35]. Petrova et al. argued that analyzing data from social media, which covers a broad range of interactions, can minimize resources while increasing citizen engagement and aid targeted urban planning decisions^[36].

Aurelija and Vileniske claimed that urban acupuncture is more effective in densely populated urban fabric characterized by historic urban environments. They identified several goals of urban acupuncture in historic urban settings, such as revitalizing the vitality of social and urban landscapes, promoting heritage, improving open spaces, and fostering biodiversity. They also identified four acupuncture interventions in urban areas: non-physical interventions, localized impact interventions, extensive impact interventions, and systemic interventions^[37]. Andrade confirmed whether a planning relationship with a city could be considered a case of urban acupuncture by analyzing its connection to the city and identified Barcelona/ES as a potential example^[38]. Salman and Hussein emphasized different types of urban acupuncture, including Eco-Acupuncture, Digital Urban Acupuncture, Blue Urban Acupuncture, Urban Dark Acupuncture, and Bio Urban Acupuncture. They further proposed definitions and levels of urban revitalization in the field of architecture^[39]. Nassar developed a filtering framework for selecting suitable sensitive points for urban acupuncture, using Riyadh, Saudi Arabia, as a case study, discussing how to achieve maximum results with minimal effort in critical locations, and summarizing small-scale spatial methods and progressively concentrated urban renewal strategies (Figure 2-1)^[40].

In terms of practical exploration, Kanishk discussed the development of Kampoeng, Indonesia, where specific, targeted, and swiftly implemented urban acupuncture strategies were employed in four urban functions: transportation, recycling, affordable housing, and urban and natural spaces^[41]. SPIRN explored the mechanisms of finding acupuncture points and implementing strategies in time and space. By stimulating the tracking of radiation effects, establishing relationships and interactions, networks with different energy levels that stimulate the urban structure were constructed, primarily focusing on the economic aspect, as the planning area lies between production and consumption^[42]. De Lange M and De Waal M developed a practical framework for urban acupuncture, encompassing selected areas, identification of regional strengths and weaknesses (acupoints), determination of intervention levels, and final plan reconstruction, which was applied in the Rusafa historic district of Baghdad, Iraq^[43]. Hinkawi and Saadi proposed a theoretical and practical framework for reviving city centers through acupuncture. They conducted analyses of historic evolution, infrastructure systems, green systems, and land-use systems, identified hotspots and weaknesses in the city, determined intervention levels and sustainable intervention measures, and ultimately reconstructed the network of city. The framework was tested and applied in a part of the Rusafa historic center in Baghdad (Figure 2-1)^[44].

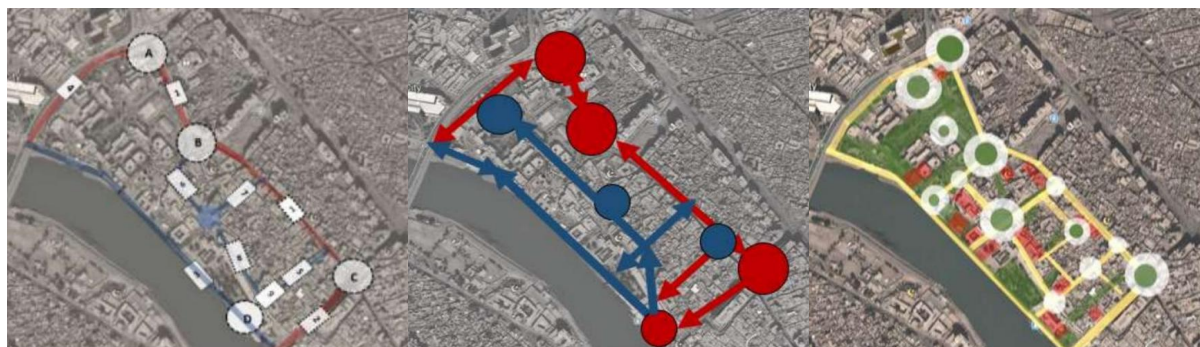


Figure 2-1 Urban Acupuncture in Rusafa
(Source: Hinkawi and Saadi, 2020)

Western research has elucidated the theory of urban acupuncture in specific ways, including defining the concept, typical case studies, selection of acupuncture points, types of acupuncture practices, and the characteristics and process of intervention.

2.1.2 Research on Urban Acupuncture in China

There is limited research on urban acupuncture in China, with a total of 178 relevant literature articles found in the CNKI Chinese database, dating back to 2002. These articles primarily focus on the exposition of basic concepts, theoretical research, and applications in urban transformation design, but they are singular in type and lack practicality.

In terms of theoretical development, Wu Zhongping compared urban acupuncture to a surgical procedure and proposed its features of "subtle intervention", "significant effect", and "progressive treatment". He discussed the prospects and challenges of applying urban acupuncture to the renovation of old cities in China^[45]. Tang Yiming et al. analyzed the housing transformation in Shanghai's traditional alley neighborhoods and proposed using television programs as a form of acupuncture. They also exemplified urban acupuncture through the case of small parks in Shanghai's alleys, emphasizing both hardware and software aspects^[2]. Wu Jingxuan supplemented the principles of "people-oriented" and "organic renewal" in the application of urban acupuncture and preliminarily constructed a strategic framework for historic block regeneration guided by urban acupuncture^[46]. Xiao Wei combined the methods of Traditional Chinese Acupuncture and existing urban design techniques to separate the organizational structure of historic district into three subsystems: functional zones, corridors, and vibrant focal points, exploring their formation mechanisms and interrelationships (Figure 2-3)^[47]. Liu Jiang explored soundscaping strategies in urban acupuncture, enhancing place-making through harmonizing with local characteristics,

imbuing cultural significance, and utilizing specific times and spaces to create a widespread positive impact^[48]. Gong Shuzhang discussed how social innovation and empowerment from the bottom-up can foster shared experiences and values among citizens, initiating micro-updates in urban contexts^[49]. Shu Tingting and Lin Han emphasized the consideration and utilization of the physiological, ecological, and cultural characteristics of green plants to create diverse, species-rich, accessible, and inviting green public spaces within cities, making continuous contributions to the overall activation and healthy development of cities^[50]. Bai Xueyan and Tong Ming categorized three strategies for urban micro-updates from the perspectives of nodes and networks, addressing the challenges faced by architects and urban designers in the increasingly dynamic and chaotic built environment^[51]. Jia Yongda utilized the analytic hierarchy process to construct an evaluation system for assessing the impact of street vitality in historic and cultural neighborhoods, providing a relatively scientific and objective basis for selecting streets with acupuncture potential^[52].

In terms of practical exploration, Zhou Haiyang identified the discernment and judgment of treatment points in ancient cities, proposing targeted renovation measures for three types of spatial nodes: historic remnants, cultural relics, and open spaces, which aims to provide new ideas and methods for the transformation of general historic urban spaces and applied the practical experience of "urban acupuncture" to the spatial renovation of Yaozhou Ancient City^[53]. Wu Yingying and Wang Zhu focused on the transformation and renewal research of slums, utilized small-scale progressive acupuncture to catalyze the "regeneration" of slum physical spaces, mitigated conflicts arising from traditional large-scale demolition and reconstruction, and established a path for slum regeneration through diagnosis, treatment, and stress relief^[54]. Wen Chao et al. combined theories of "urban acupuncture" and "urban patching" to address common deficiencies in urban village renewal, forming a progressive and cost-effective "acupuncture-like" treatment scheme that provides new insights for solving the challenges of urban village renewal^[55]. Jiang Yan and Yang Siliang refined the practical framework for the protection and utilization of historic urban areas using the steps of analyzing the base, identifying characteristics, diagnosing problems, and administering treatment" (Figure 2-2)^[56]. Xu Tiantian proposed an approach that focuses on villages and villagers, incorporates village characteristics, local materials, and construction techniques to implant small-scale public functions into different villages and rural areas, thereby stimulates a transformation in rural perspectives and self-healing^[57].



Figure 2-2 Diagnosing the Base and Administering Treatment
(Source: Jiang Yan and Yang Siliang, 2019)

By summarizing the relevant Chinese literature, it is evident that there has been a certain degree of deepening in the theoretical development of urban acupuncture, particularly in terms of integrating it with theories from Traditional Chinese Medicine. However, research often diverges or focuses on specific aspects, lacking a comprehensive understanding of key aspects of urban acupuncture, such as identifying key points on a larger scale, ensuring ease of implementation, and achieving rapid, effective, and sustainable results^[2]. In terms of practical exploration, empirical studies have been conducted in various types of regions, incorporating practical context in China and forming valuable frameworks. However, there is still a lack of systematic summaries with universally applicable operational methods, and implementation of real projects remains limited.

2.2 The Essence of Urban Acupuncture

2.2.1 Urban Acupuncture in Traditional Chinese Medicine

Acupuncture plays an important role in Traditional Chinese Medicine (TCM), and is even listed as one of the four new quintessence of China abroad. The Huangdi Neijing is the earliest and complete TCM classic work in the existing TCM literature. It has formed a complete meridian system and discussed the methods of acupuncture and moxibustion in detail. Acupuncture is derived from traditional Chinese culture. Under the influence of TCM culture, it has formed a unique view of nature, disease and prevention, emphasizing the unity of nature and man, believing that there is a unified connection between the human body and the natural and social environment, as well as the human body in the environment. According to traditional Chinese acupuncture, meridians are the bridge and hub connecting the viscera and the body of the human body, as well as the channel for the movement of qi and blood.

Adjusting the rise and decline of qi and blood through acupuncture and moxibustion acupoint treatment can make the human body in a balanced and coordinated state.

However, in the Ming and Qing Dynasties, Chinese traditional culture began to receive the impact of western culture, and as a part of traditional culture, TCM was also doomed. However, TCM acupuncture and moxibustion has good therapeutic effects and no drug side effects, which continues to be sought after by all over the world, making TCM still maintain its development in difficult difficulties, and even gradually become the "name card" of Chinese culture to the world.

Because the concept of TCM acupuncture and moxibustion have certain commonality, it is even integrated into urban regeneration, namely urban acupuncture. Urban acupuncture also emphasizes the organic nature of the city and seeks to mobilize the original self-healing ability of the city. If the city is compared to the human body, it can be divided into four levels: "vitality", "viscera", "meridians" and "acupoints", according to the concept of traditional Chinese medicine.

"Vitality" is the fundamental force that drives the human body. In the realm of Traditional Chinese Medicine, the harmonious circulation of "Qi" is crucial for the healthy functioning of the human body. Cities, being highly complex and heterogeneous organisms, also experience birth, aging, illness, and death. It is challenging for a city to restore itself to an optimal state of vitality once it deteriorates. When a city encounters functional issues, medical interventions become necessary. For a city, "vitality" represents its foundation for development, encompassing a series of policy implementations, development opportunities, and social movements. Injecting vitality into decaying spaces revitalizes them, enabling vibrant operations.

"Viscera" refers to the internal organs in the human body. The morphology, functional connections, and pathological changes of these organs have been extensively studied^[58]. By extracting and translating the basic principles of Traditional Chinese Medicine, we can establish a correlation between functional regions and the human organs. Drawing from the methods and theories of Traditional Chinese Medicine, we can apply them to the study of functional regions. "Functional regions" are dynamic units responsible for the economic operation and generation of vitality within districts. They perform specific dominant functions and sustain their own dynamic circulation. Spatially, they manifest as multiple concentrated

and well-defined areas, closely corresponding to the concept of "viscera" in Traditional Chinese Medicine (Figure 2-3).

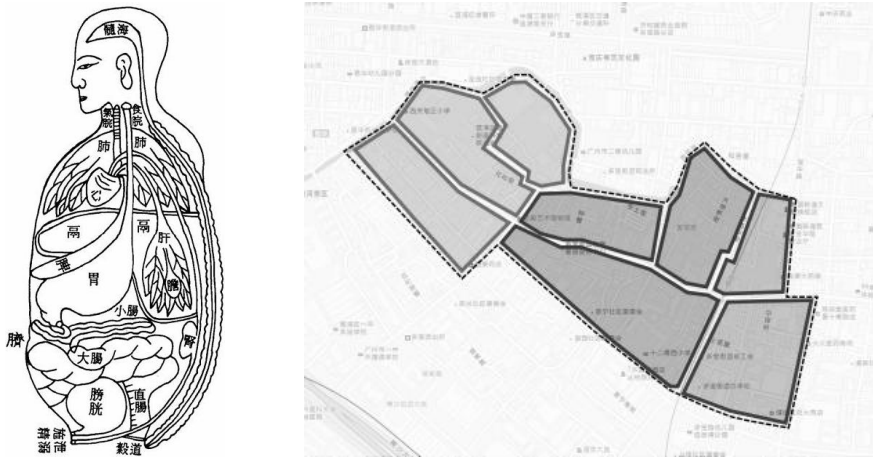


Figure 2-3 Diagram of Human Organs (Left) and Illustration of Functional Regions (Right)
(Source: The Gathering of Acupuncture Wisdom; Illustrated by the author)

"Meridians" form the network that connects various functional systems within the human body, facilitating the flow of energy and information between the internal and external. Similarly, cities possess "corridor" systems that sustain their survival and development, transmitting material information and energy flow. These corridors intersect and intertwine, resembling the intricate network of meridians in the human body. Introducing the concept of meridians into urban regeneration helps analyze its spatial structure and establish an interconnected and hierarchical corridor system. The intertwining corridors serve as the basic framework of spatial structure and a network system for energy circulation, ensuring the efficient transmission of energy and organic collaboration between "functional regions" (Figure 2-4).

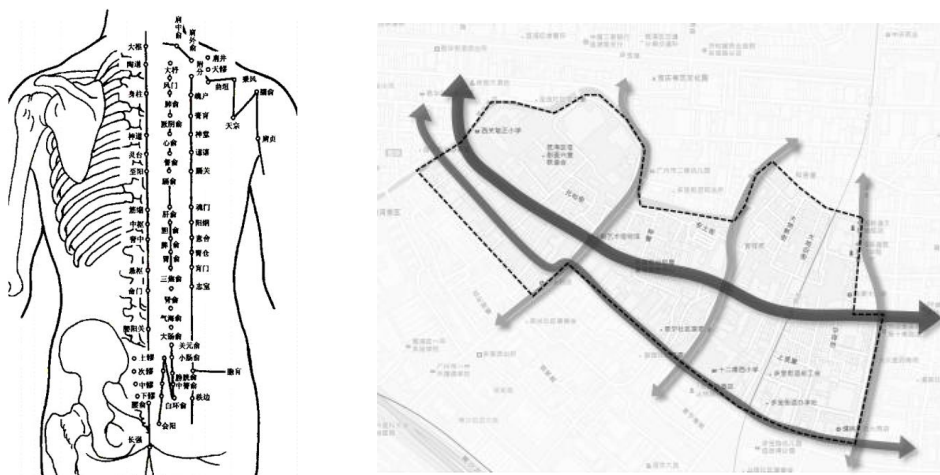


Figure 2-4 Diagram of Human Meridians (left) and Illustration of Corridors (right)
(Source: <http://www.360doc.com/content>; Illustrated by the author)

"Acupoints" refer to the sensitive nerve points along the meridians, where the circulation of Qi and blood is crucial and vital interactions between the body and the external environment occur. In urban context, "vitality points" represent spatial hubs, significant landmarks, and pivotal locations for the convergence of people and public activities. They include public buildings, landmarks, cultural heritage sites, and more. Only highly iconic and significant nodes fall within the realm of vitality points (Figure 2-5).

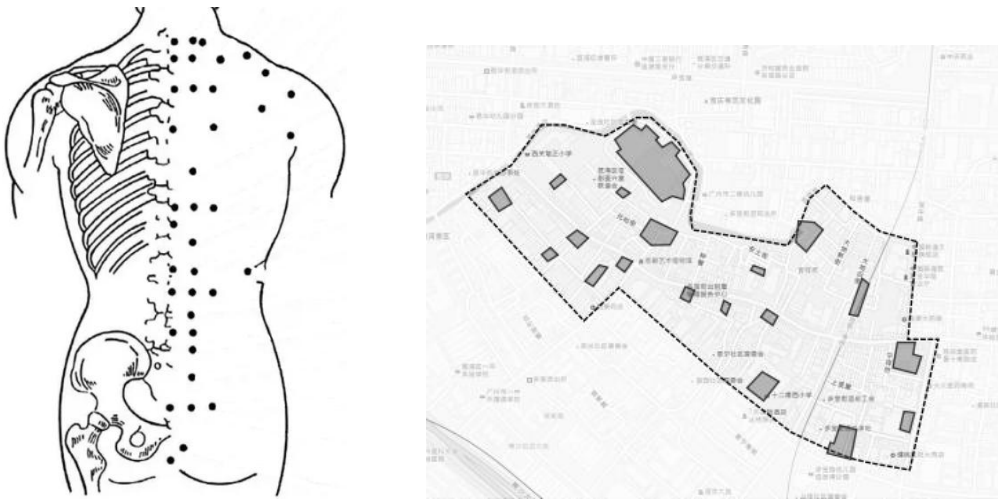


Figure 2-5 Diagram of Human Acupoints (left) and Illustration of Vitality Points (right)
(Source: <http://www.360doc.com/content>; Illustrated by the author)

2.2.2 Principles

The existing research on urban acupuncture does not provide a set of consistent principles. This section integrate and elucidate eight major principles based on Western and Chinese studies (Figure 2-6).

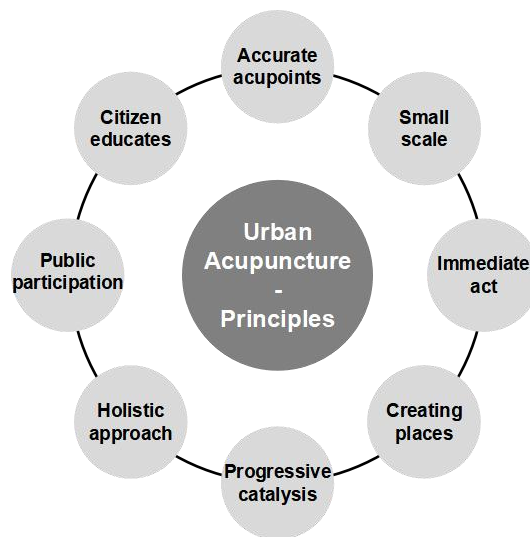


Figure 2-6 Eight Principles of Urban Acupuncture
(Source: Illustrated by the author)

(1) Accurate Acupoints

Similar to Traditional Chinese Acupuncture, identifying precise acupoints on the human body is the first and most crucial step in treatment. These points are often associated with low energy or blocked energy flow. The principle serves as the foundation of urban acupuncture theory, first proposed by De Solà-Morales in "A matter of things"^[30]. Lerner also emphasizes precision and swiftness as the essence of urban acupuncture in his work, "Urban Acupuncture"^[31]. Precisely identifying the key "acupoints" in cities is the primary task in the practical application of urban acupuncture, and it is crucial for the subsequent catalytic effects. Casagrande offers a slightly different interpretation, likening acupoints to compost: fertile soil in the farm, but emitting a strong odor that deters people. Manipulating these hidden energy flows requires careful attention, similar to the use of silver needles in acupuncture. This is what "urban acupuncture" is all about^[59].

When facing the decline of vitality in historic districts, it is essential to accurately locate the critical "acupoints" and implement targeted interventions to trigger a series of chain reactions for site regeneration.

(2) Small Scale

In the context of financial constraints and large-scale urban regeneration, local finances are becoming increasingly limited, necessitating the urgency to seek alternative solutions. The principle of "small-scale interventions" in urban acupuncture plays an important role in alleviating local fiscal pressures. Defining "small" is challenging because scale is relative. De Solà-Morales emphasizes that size and scale are not the same thing; sometimes a large-scale plan may be an insignificant project at the local level. However, small interventions can sometimes have a profound impact on the entire city^[30]. Project size is not limited, and scale can refer to financial investment.

Relatively smaller-scale intervention measures facilitate swift implementation and adjustments, avoiding the lag inherent in traditional urban planning methods that struggle to keep up with societal development, resolve urban spatial conflicts, and respond to residents' living needs. They also circumvent the cumbersome approval processes required for large-scale developments and the risks associated with being shelved due to various uncertain factors.

(3) Immediate Act

Conventional planning may require time for design and implementation, but urban acupuncture calls for immediate act. Lerner believes that we do not have unlimited time for planning and implementation, so there must be a "spark" that ignites the planning process^[60]. Urban acupuncture requires immediate action, but it does not imply rapid completion. In practice, due to different government administrative levels, interventions are not always immediately executed. Urban acupuncture is about generating a process. This contemporary form of urban planning moves away from permanence, opening doors to flexibility and adaptability.

(4) Creating Places

Urban acupuncture is about reevaluating the significance of a place, and the understanding of meaning of a place has emerged in contemporary planning strategies. Projects involving urban acupuncture create meaningful places. As De Solà-Morales points out, places that did not exist before, which may be due to a lack of energy or energy flows experiencing blockages. For him, urban acupuncture is about observing rich places, particularly the potential richness. Thus, it is akin to merely solving problems. Creating a place exists in the importance of clarification and enrichment. De Solà-Morales also suggests using anything that stimulates the senses to enhance the psychological meaning of a place^[30]. When the government wanted to demolish the Treasure Hill in Taiwan Province, Casagrande recognized its potential richness and described it as compost that could transform into fertile soil, thereby creating a beautiful place and revitalizing the area.

(5) Progressive Catalysis

Urban acupuncture emphasizes the importance of the process rather than predefining the final construction outcome, as compared to traditional urban planning methods. Urban acupuncture should be seen as a continuous process, gradually implemented through constant feedback and readjustments. Frampton believes that urban acupuncture should have the ability to expand its influence. On the one hand, there is a direct effect, and on the other hand, there is indirect impact through contact, reflection, influence, and stimulation of the surrounding areas^[61]. In some ways, "urban acupuncture" and "urban catalyst" are two sides of the same coin. Frampton emphasizes the catalytic nature of urban acupuncture as a series of participatory processes. The purpose of urban acupuncture goes beyond improving acupoints

themselves; it aims to stimulate comprehensive effects on material and intangible aspects over a larger scale. Successful acupuncture interventions will receive more attention and eventually establish a pattern incorporated into official planning processes, promoting the implementation of more acupuncture projects in urban areas.

(6) Holistic Approach

This principle emphasizes the need for a holistic approach. As Parsons mentioned, understanding an intervention in isolation will not lead to successful outcomes; all interventions must be integrated, including economic, environmental, infrastructure, historic, and political factors. De Solà-Morales believes that urban acupuncture, more than small-scale interventions, focuses on its strategic, systematic, and interdependent nature. For acupuncturists, the skin is not merely a superficial covering but the primary structure of the organism, expressing its essence most clearly. Acupuncture, pressing, and injecting the skin promote the diffusion of energy within the organism. The epidermis of the urban organism allows us to change the metabolism within the urban organism, encompassing socioeconomic, cultural symbolism, infrastructure, historic politics, and more^[30].

Unlike Western Medicine, acupuncture views the organism as a whole and emphasizes its interaction with the external environment. From an urban planning perspective, urban acupuncture measures can be considered tactical tools only when coordinated with the overall urban strategy, with effects that surpass the sum of their parts. Otherwise, these intervention measures will only be temporary public events.

(7) Public Participation

The principle of public participation is one of the important principles in urban acupuncture and challenges the traditional emphasis on hierarchical decision-making processes in conventional urban planning. It is often overlooked by planners and urban management departments. People have recognized the need to integrate local understanding and knowledge to increase the potential for meaningful interventions and avoid unnecessary measures. Public participation guides planners towards a new vision of development because planners do not have all the correct answers to every problem^[62]. As Lerner suggests, we cannot possess all the answers so strongly. It is important to start and have contributions of people; they can teach you if you are not on the right path^[60]. Participation can lead to different perspectives and new solutions.

Although experts and scholars increasingly emphasize the importance of public participation, there is no consensus on specific methods of public engagement. In this regard, we can refer to ladder of citizen participation theory from Arnstein^[63], who categorizes participation into eight levels based on the degree of involvement. These eight levels can be further summarized into three major tiers. Manipulation and therapy represent non-participation, where the public passively accepts decisions made by urban management departments. Information, consultation, and placation represent tokenistic participation, involving a certain degree of communication and interaction between urban management departments and the public. Delegated power and citizen control represent citizen power, which corresponds to deep public participation models.

(8) Citizen Educates

Understanding how society perceives the built environment is vital in urban acupuncture. Knowledge and understanding of urban interventions accelerate the possibility of success^[64]. As Parsons explains, we need to read this city as we read society; only then can we generate the right interventions. The principles of educational work have two aspects: understanding viewpoints from society and redirecting knowledge to society^[34]. People must be educated, not just learning from them. They need to understand the essence of their society and the environment built around them, impart knowledge to them, and focus on children to achieve sustainability^[40].

2.2.3 Advantages and Challenges

(1) Advantages

Urban acupuncture offers cost savings. Unlike large-scale revitalization projects of the past, urban acupuncture aims to achieve maximum impact through smaller interventions. Given the current economic conditions in most regions, the low-cost, high-yield strategy is well-suited to the needs of our time.

Urban acupuncture has a catalytic effect on society. Like a droplet on the water surface, urban acupuncture creates ripples of reactions, and it can even generate unexpected positive effects. However, the social impact is difficult to measure and predict. Poorly implemented interventions can yield opposite results and lead to stagnation^[65].

Public participation garners more acceptance and support. In urban renewal activities, placing human needs at the forefront and considering genuine experiences of people are crucial criteria for assessing urban development. When this is achieved, the chances of successful interventions increase.

Urban acupuncture promotes diversity in design strategies. Coordinating the various contradictions in society, economy, culture, and ecology requires exploring different interventions tailored to specific circumstances to enable the multifaceted revitalization of cities.

(2) Challenges

Urban acupuncture demands close attention to the process. It is not a ready-made solution but requires step-by-step precise interventions, considering potential complications, much like how an acupuncturist treats a patient.

Urban acupuncture necessitates long-term coordination. When adopting a bottom-up approach, many citizens are often unfamiliar with government procedures, and decision-making can take a considerable amount of time to implement. When adopting a top-down approach, participatory planning lacks clearly defined roles in the planning process, and power transfers result in ongoing discussions with stakeholders, leading to multiple design modifications.

Urban acupuncture requires social cohesion. It seeks to translate stakeholders' opinions into intervention measures, but without social cohesion, the desired effects may backfire.

Urban acupuncture involves communication challenges and risks. It is difficult to accurately discern the correct voices within a group, and superiors find it challenging to respond to each individual. Mediators are necessary to facilitate communication between them. Additionally, participants' expectations are not always aligned with the actual decisions made at higher levels. As Bjornson points out, if people are asked for input but their suggestions are not ultimately implemented, disappointment and negative consequences may arise.

2.2.4 Principles of Action

Drawing on research from both the West and China, the principle of urban acupuncture can be divided into three steps: the implementation of an urban acupuncture plan begins with intervention at specific points, followed by coordination and linkage with the surrounding

areas, and ultimately achieves sustainable development through continuous guidance.

(1) Subtle Intervention, Activating Potential

The emphasis on "small-scale" in urban acupuncture is still approached from a macro perspective of the city. The term "small" is not an absolute measure of scale but rather a relative concept within the urban system. It refers to the intervention measures that are relatively small in relation to the significant therapeutic effects generated by urban acupuncture. Urban acupuncture starts at the micro scale, such as neighborhoods and communities, focusing on the impact of small-scale physical interventions on public behavior and psychological changes, including interventions such as small convenience stores, pocket parks, urban furniture, and art installations. The notion of "needles" in urban acupuncture gradually extends beyond physical forms to include intangible aspects such as smells, sounds, development policies, landmark events, and distinctive activities. These improvements stimulate the vitality and potential of the city, playing an irreplaceable positive role. (Figure 2-7)

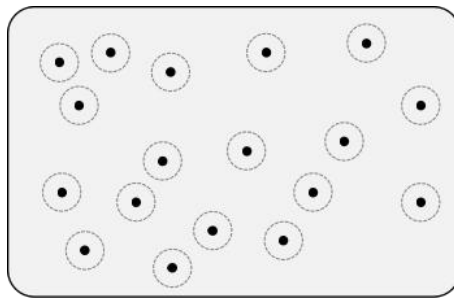


Figure 2-7 Subtle Intervention, Activating Potential
(Source: Illustrated by the author)

(2) Multi-Point Coordination, Regional Regeneration

According to research of Daugélaitė, urban acupuncture interventions can be individual or systemic. On one hand, urban acupuncture tests the local effects of each project, while on the other hand, it establishes a network of points to exert positive effects^[37]. Enia and Martella also mention two main strategies of urban acupuncture: isolation and coordination. Sometimes urban acupuncture strategies only act at specific nodes, and sometimes these projects are part of a series of intervention measures. Coordination is crucial for implementing this strategy, as it amplifies the effects of individual projects. When these projects work together as a whole, they create even greater positive impacts^[66]. (Figure 2-8)

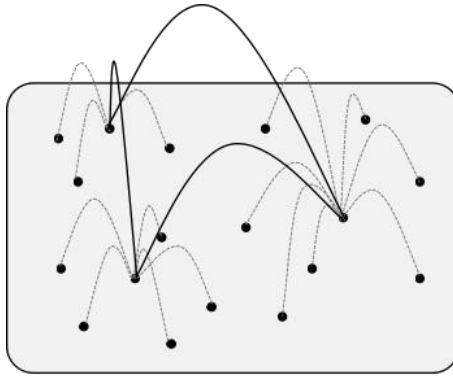


Figure 2-8 Multi-Point Coordination, Regional Regeneration
(Source: Illustrated by the author)

(3) Continuous Guidance, Sustainable Development

One important goal of "urban acupuncture"-oriented regeneration is to stimulate and guide a series of subsequent development and construction activities through the exemplary role of the projects themselves. In typical urban development activities, once a project is put into operation, the planning process is considered complete. However, many projects often neglect the impact on the surrounding environment due to a blind pursuit of novelty and grandeur, even during the planning process. Urban acupuncture places great emphasis on the control and guidance of project stages, continuously monitoring and documenting the impacts and effects of the project on the surrounding environment, and using data feedback to revise the project's planning proposals. It views individual projects not as final products but as ongoing endeavors. (Figure 2-9)

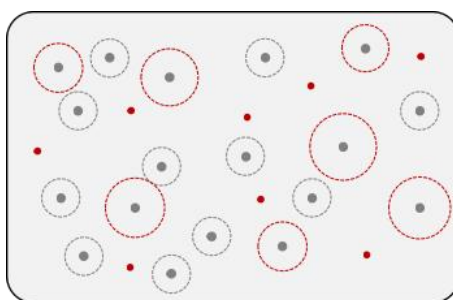


Figure 2-9 Continuous Guidance, Sustainable Development
(Source: Illustrated by the author)

2.2.5 Planning Methods

The impact of urban acupuncture is achieved through a process that starts from small to large, from point to area. However, planning methods often require a consideration from the whole

to the details, which is more conducive to regional coordination and reasonable execution. In response to different application objects, previous studies have distilled various implementation frameworks. Based on Traditional Chinese Medicine principles, this article summarizes them into five steps:

The first step is "diagnosing", which involves identifying the core problems of the site through an analysis of the current situation (Figure 2-10). The principle of diagnosing and treating symptoms is fundamental in Traditional Chinese Medicine. To determine the health of a place, an overall understanding of its historic elements, spatial structure, transportation systems, land use and functions, basic service facilities, public green spaces, and local public opinions is essential at the beginning of formulating a treatment plan. Identifying hotspots and weaknesses helps pinpoint the underlying issues.



Figure 2-10 Diagnosis
(Source: Illustrated by the author)

The second step is "injecting vitality", which responds to inherent advantages, development opportunities, and image requirements of the site (Figure 2-11). According to the theories of Traditional Chinese Medicine, the healthy operation of a city, as an organism, relies on the orderly circulation of "Qi" (vital energy). By invigorating the local development, vitality is enhanced. This step may involve policy guidance, industry establishment, cultural revival, or spontaneous refurbishment by residents. It is the basic prerequisite for conducting urban acupuncture.

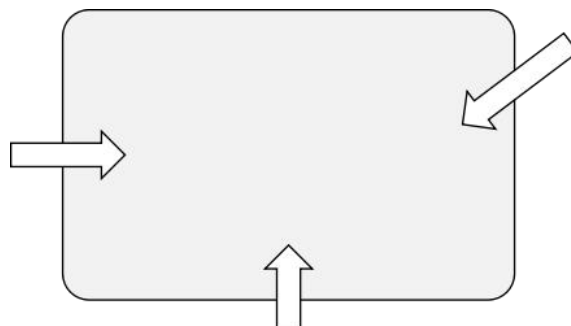


Figure 2-11 Inject Vitality
(Source: Illustrated by the author)

The third step is "**harmonizing viscera**", which involves integrating the spatial development order and functional formats of the site (Figure 2-12). Viscera, as specific functional entities, radiate and expand within a space. They are local components of the overall spatial system, providing stable structures for economic activities, community life, social relationships, and production activities. Identifying and delineating these spatial units helps facilitate collaborative balance and diverse coexistence.

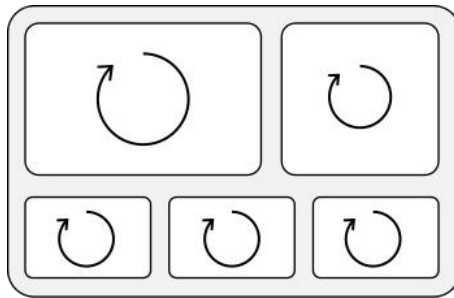


Figure 2-12 Harmonize Viscera
(Source: Illustrated by the author)

The fourth step is "**dredging meridians**", which involves organizing linear corridors and intangible carriers of information dissemination within the site (Figure 2-13). Meridians serve as channels for the circulation of "Qi," carrying flows of people, vehicles, goods, funds, and information. They are essential linear structures in the physical space and maintain the continuity of consciousness in the intangible realm. By clearing the meridians and identifying blockages, it becomes easier to identify problematic acupoints.

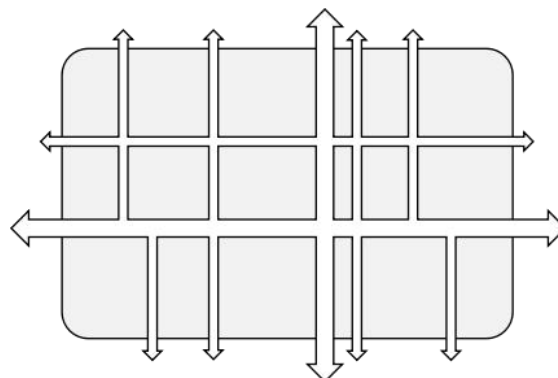


Figure 2-13 Dredge Meridian
(Source: Illustrated by the author)

The final and most crucial step is "**stimulating acupoints**", which involves activating key

public spaces, important buildings, and other critical points (Figure 2-14). The selection of acupoints is of utmost importance and should align with the principles of urban acupuncture. It requires a scientific approach and evaluation criteria to determine the suitable acupoints. Then, specific goals and effective strategies need to be developed for each sensitive point, transforming them into achievable intervention measures. Subsequently, ongoing attention and adjustments are necessary.

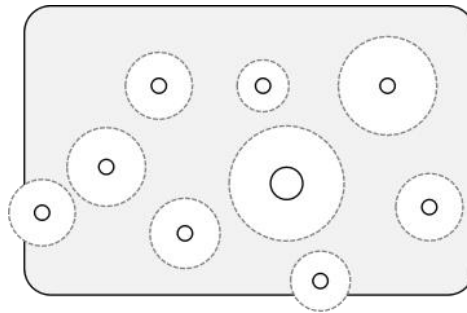


Figure 2-14 Stimulate Acupoints
(Source: Illustrated by the author)

2.3 Why Choose Urban Acupuncture?

2.3.1 Comparing with Other Micro-renewal Approaches

In the context of reflecting upon the global urban development and urban renewal issues, various theories of urban renewal have emerged in addition to "urban acupuncture" in the field of micro-renewal (Table 2-1).

MICRO RENEWAL METHOD	CHARACTERISTIC
Urban Acupuncture	Treating the city as an organism, emphasizing that small local interventions can bring about positive comprehensive responses.
Urban Catalyst	Focus on how to positively stimulate and guide subsequent development.
Organic Collage	Respect the old and the new, the modern and the traditional, and reconnect the severed history.
Organic Renewal	Through small-scale renewal and transformation, each area can be developed relatively completely.
Tactical Urbanism	Improve urban quality through short-term, low-cost, small-scale, and flexible interventions.

Table 2-1 Micro-renewal Approaches
(Source: Illustrated by the author)

"Urban catalyst" was initially proposed by American architects Attoe and Logan. Urban catalyst refers to various urban activities that can bring positive effects to subsequent urban

development and construction. It is not only a completed project in the conventional sense but also an important factor that can continuously stimulate and guide subsequent urban construction, aiming to achieve progressive structural renewal of the city^[67]. The initial role of urban catalyst is to act on adjacent urban elements, changing the external conditions or internal attributes of existing elements and driving their subsequent development^[68]. The characteristic of catalyst theory lies in the small-scale changes in the city triggering adjustments in the surrounding environment and resonating within a certain range, promoting the continuous and coordinated development of larger areas over time.

The concept of "organic collage" was proposed by Colin Rowe, who believed that the city is a product of historic forces, and any individual understanding or influence on the city is fragmented and partial. The overall city is formed by piecing together these fragments. Through this method of urban design and planning, fragmented histories can be reconnected, and the future can be rationalized based on respect for the past. The concept of collage city suggests that the city is a museum, where each historic period leaves a memory in urban history. Therefore, urban development should be a continuous and uninterrupted process, an organic process. The theory proposes that there will always be conflicts between the new and the old, the modern and the traditional, the local and the global, the private and the public in the city. Urban planning and construction should explore points of connection and methods in the context, piecing together seemingly incompatible elements within the urban structure^[69].

The theory of "organic renewal" originated from Wu Liangyong. He advocated that urban renewal should be based on the preservation of the traditional texture of the city. Through small-scale renewal and transformation, each area can develop relatively complete. By combining numerous relatively complete areas, the overall environment can be improved and regional revitalization can be achieved. Organic renewal refers to adopting an appropriate scale and suitable dimensions, improving the planning and design quality by properly handling the relationship between the present and the future, and achieving relative completeness in the development of each area. By doing so, the overall environment of the old town of Beijing can be improved through the combination of numerous relatively complete areas, thus achieving the goal of organic renewal^[70].

"Tactical urbanism" was proposed by Lydon and Garcia, and defined as an organized, citizen-involved approach to short-term, low-cost, multi-scale interventions in the city that lead to long-term improvement^[71]. It is a movement in which individuals, society, and

government intervene in the city pattern and space through interventions that are time, material, and energy-efficient, promoting urban quality and driving urban development. The advantage of tactical urbanism lies in the perfect coordination between the short and long term. During the implementation of the project, people can have on-site experiences that written plans cannot provide. City officials can quickly evaluate and adjust the plan based on data and user feedback, providing stronger support for the permanent implementation of the project.

Compared to the aforementioned micro-renewal approaches, although they have different emphases, "urban acupuncture" encompasses the gradual catalytic advantage of "urban catalyst", the harmonious combination aspect of "organic collage", the small-scale intervention advantage of "organic renewal", and the low-cost and short-to-long-term coordination advantage of "tactical urbanism". Additionally, "urban acupuncture" has its own irreplaceable advanced advantages, such as considering the overall city, accurately identifying transformation points, initiating transformation quickly, employing diverse transformation methods, and engaging public participation. Therefore, it is particularly suitable for urban area renewal in certain scenarios.

2.3.2 Current Issues in Urban Renewal

(1) High Demand for Renewal

By 2050, the global population is expected to increase from 6.82 billion to 9.15 billion, with over 70% projected to reside in urban areas. While population growth varies across regions, urbanization rates are consistently rising. In Europe, an increase in immigration is expected, leading to the decline of certain cities. Shrinking cities result in vacant housing, and various parts of urban structures require revitalization due to population shifts^[34]. In China, rapid construction over the past forty years, coupled with limited economic and technological conditions at the time, has left a significant amount of old urban spaces in need of renewal and regeneration.

(2) Financial Pressure

Large-scale urban development projects in European countries aim to revitalize urban areas, and investments have been made by various levels of government. However, the investments do not always yield the expected results. For instance, in the Netherlands, 40 communities

were labeled as functionally disadvantaged areas in 2007, and the government allocated a special budget to improve these selected communities. While some communities experienced improvements, with investments exceeding 1 billion euros, research results did not show an improvement in livability^[72].

The issue is also particularly evident in China. For example, the transformation of old residential neighborhoods faces significant funding gaps due to low resident willingness to contribute, limited social capital, and financial pressure on the government. Unlike slum redevelopment projects, which involve demolition and reconstruction, the transformation of old neighborhoods does not involve land acquisition and resale, leaving a lack of financial resources.

(3) Difficulty in Balancing Interests

On one hand, some cities are influenced by a single economic value perspective, where the main focus of renewal is on spatial transformation and land benefits. The emphasis is often placed on revitalizing existing land and redistributing short-term economic benefits, while neglecting the enhancement of urban quality, functionality, and content. Profitable projects tend to be fully developed, while areas in need of infrastructure development and urgent renewal are neglected, leading to significant shortcomings in the real estate development of old cities.

On the other hand, urban renewal requires the coordination of multiple interests, including government, property rights holders, renovation parties, and operators. Poor coordination often results in project delays or repeated transformations.

(4) Weak Preservation Concept

Objects with legal status such as "heritage conservation units" and "historic cultural districts" have been well preserved based on national laws and regulations. However, there are still many outstanding buildings and locations that do not meet the selection criteria. In the process of urban renewal, due to insufficient recognition of their importance, as well as economic interests and misguided cultural heritage preservation concepts, phenomenon of destruction such as "large-scale demolition and construction", "demolish old, build new", and "demolish real, build fake" have emerged, causing significant damage to urban cultural heritage conservation.

2.3.3 Learning from Urban Acupuncture

Considering that urban acupuncture possesses the primary advantages of other micro-updating methods and has its unique strengths, it is essential to learn from the advantages of urban acupuncture in response to the current issues in urban renewal.

(1) Embrace the Concept of Precise Targeting and Small-scale Interventions

To better address the large demand for urban renewal with limited attention, learning from urban acupuncture is crucial. Instead of relying on inappropriate large-scale demolition and reconstruction methods, the focus should be on the overall consideration of the city system, identifying areas in urgent need of transformation that can yield significant feedback. Controlling the scale of transformation in each region and triggering a chain reaction through small-scale interventions can lead to significant impacts, allowing for the renewal and transformation of more areas with limited resources.

(2) Learn Cost Control through Low-cost and Prudent Implementation

To respond to the heavy financial pressures and resource consumption in urban renewal, learning from urban acupuncture is necessary. With limited resource budgets, precise identification of transformation points and effective cost control are vital. By establishing rational plans for personnel, time, implementation, and financing, aiming to achieve significant results with minimal costs, the issues of government funding shortages and insufficient social investment can be alleviated.

(3) Embrace Diverse and Creative Approaches to Renewal

To address the issue of monotonous and standardized approaches in urban renewal, learning from urban acupuncture is crucial. The means of urban acupuncture can be tangible or intangible. It can involve the construction of physical elements such as buildings, plazas, parks, or the transformation of neighborhoods and the development of specific areas. It can also encompass a series of intangible factors related to urban development, such as signature events, urban design trends, urban development policies, etc. Different renewal approaches should be tailored to the specific circumstances of different cities or regions, ensuring landscape diversity and a rich variety of activities.

(4) Adopt Implementation Methods with Public Participation and Consideration of

Multiple Interests

To address the challenges of balancing multiple interests and the weak preservation concept, learning from urban acupuncture is essential. Public participation should be valued throughout the entire process of renewal, including aspects such as the selection of transformation targets, methods, elements, costs, and timing. Involving the public through online and offline means facilitates communication between urban management authorities and the public, actively solicits public opinions, and adjusts strategies accordingly. Additionally, informing the public of the outcomes at each stage of renewal, providing timely feedback, and deepening public education can contribute to subsequent phases of renewal.

2.4 Summary of this Chapter

This chapter focuses on urban acupuncture as the research subject, starting with the theoretical development and practical exploration in both West and China. It acknowledges the need for further information and enriching experiences through additional practical cases. The core aspects of urban acupuncture are then summarized, including its connection to Traditional Chinese Medicine, the eight principles, advantages and challenges, underlying principles, and planning methods. The planning methods are divided into five parts based on Traditional Chinese Medicine: diagnosing, injecting vitality, harmonizing viscera, dredging meridians, and stimulating acupoints. Furthermore, a comparison with other micro-updating methods is conducted to analyze the current issues in urban renewal, leading to the proposition of learning from regenerative strategies and mechanisms of urban acupuncture.

Chapter 3 Case Study: The Regeneration of Barcelona

3.1 Rationale for Case Selection

To penetrate deeper into the practice of urban acupuncture, this article first starts from its origin, Barcelona, Spain, and focuses on two periods of urban regeneration in Barcelona. The first is the Special Plans of Interior Renovations (PERI) in the Ciutat Vella and surrounding areas, implemented under the General Metropolis Plan (GMP) in 1976. The second is the "Superblock" plan, initially implemented in the Eixample district in 2014.

3.1.1 Originating as the Birthplace of Urban Acupuncture

Barcelona, located in the northeast of Spain, is a typical Mediterranean city and serves as the largest comprehensive port and a significant hub for trade, industry, and finance in Spain. Due to expansion demands, the Cerdà plan, which pursued the concept of equality, was approved by the Barcelona government in 1860. The expansion area was designed and constructed as repetitive grid-shaped blocks with numerous grid-like road intersections. However, as industrialization progressed and quality of life declined, this urban form posed challenges for further expansion.

In 1976, against this backdrop, the government initiated urban regeneration plans. Concurrently, Spanish architect Manuel de Solà-Morales applied the principles of "acupuncture" from Traditional Chinese Medicine to urban development, introducing the theory of "urban acupuncture" and implementing corresponding transformations and reuse of public spaces in the city center of Barcelona. Thus, urban acupuncture originated in Barcelona and became a globally influential "Barcelona" model for urban renewal. In the 21st century, Barcelona continued the grid layout of the Cerdà plan, pioneering the revitalization of public spaces in urban neighborhoods and introducing the innovative concept of "Superblock", embodying the idea of small-scale interventions with broad impacts.

3.1.2 Strategies Encompassing Different Scales

Both regeneration of the old town and surroundings and Superblock focus on regenerating individual urban spaces or blocks as units, covering a total area of 1,100 hectares in the main city area. In terms of scale, both regeneration begin with an analysis of the city at the macro level, considering industrial and commercial activities, infrastructure, and public

transportation, to optimize and restructure the urban fabric. Then, at the middle level, they establish basic models and design principles for regeneration, emphasizing urban equality, implementing pilot projects at the local level, and gradually expanding their application. Finally, at the micro level, detailed designs tailored to specific buildings or public spaces are implemented, promoting a diverse range of typologies, flexible strategies, and site-specific considerations, aiming to achieve the joint innovation of historic districts, modern spaces, and shared green concepts. The regeneration strategies of Barcelona encompass multiple scales, positively influencing the revitalization of historic districts in other cities and providing important lessons.

3.1.3 Universality of Regeneration Strategies

First, rich history of Barcelona and its position as a major European city in terms of population, economy, and activities have led it through various stages of urban development, including expansion, extensive renewal, and comprehensive regeneration. Its diverse urban forms, combining historic districts, modern expansion areas, and suburban development, resemble the development processes of many other cities. Second, the construction in Barcelona can be seen as a laboratory for urban projects and planning strategies. Its forward-thinking and innovative planning designs go beyond rigid urban backgrounds and aim to create attractive, pleasant, efficient, stress-relieving, and liberating spaces. These urban spaces have been successfully implemented and proven effective in addressing urban challenges, making them applicable to both old and new cities in the contemporary era. Third, Barcelona's human-centered design philosophy is timeless, emphasizing equitable resource distribution, public spaces, and neighborhood life, aligning with today's societal demands for cities.

3.2 Background of the Renovation Projects - "Diagnosis"

Diagnosis, that is, to find the core problem of the base through the current situation analysis. Disease debate and treatment is the basic principle of Traditional Chinese Medicine treatment. To judge whether a place is healthy, it is necessary to find out the symptoms of urban development at the beginning of the treatment plan.

3.2.1 Regeneration of the Old Town and Surroundings in Barcelona

In the early 1970s, as Barcelona's industrial sector began to decline, issues such as increasing

unemployment, environmental pollution, and urban decay in the city center became prominent. However, with the end of dictatorial rule and the advent of democracy, architecture and urban planning of the city entered a new era. Against this backdrop, the new government initiated urban renewal plans and formulated the General Metropolis Plan (GMP) in 1976. Concurrently, Special Plans of Interior Renovations (PERI) were developed to address the deterioration of the old town, focusing on improving its quality, charm, revitalizing its vibrancy, and retaining the younger population. Concrete strategies were proposed.

Government of Barcelona adopted the suggestions of the chief planner, Oriol Bohigas, to regenerate the city in a "fragmented" manner. Starting from small-scale spaces, they employed the "urban acupuncture" approach, targeting specific areas and strategically implementing over 400 public open spaces, including small parks, plazas, streets, and community centers. By constructing 90% of the planned facilities and improving the spatial quality of the communities, new residents were attracted, rejuvenating the neighborhoods and gradually creating a virtuous cycle of urban regeneration. As a result, both the overall spatial quality of the city and quality of life of the residents were enhanced.

3.2.2 Regeneration of Superblock in Barcelona

With the arrival of the 21st century, there has been an increasing demand for pedestrian-friendly urban spaces. In 2014, Barcelona faced severe air pollution and significant noise pollution caused by urban transportation. To enhance livability, vibrancy, and competitiveness, and to improve living environment of residents, Barcelona introduced the concept of transforming streets from being solely for commuting to becoming spaces for living. The City Council published the "Urban Mobility Plan of Barcelona 2013-2018" and creatively proposed the concept of "Superblock". This involved a large-scale reconfiguration of the transportation patterns, particularly in the Eixample district, which serves as the city center of Barcelona, with the aim of minimizing car presence in the city center.

The term "Superblock" was previously used to describe massive urban blocks without any lanes, but in Barcelona, it signifies an upgrade from the original Cerdà grid plan of "small blocks and dense road networks" to "large blocks and sparse road networks". This transformation allows residents to freely stroll, play, exercise, shop, and socialize within the designated area without the threat of cars. Furthermore, it addresses new urban issues such as

air pollution, excessive noise, road safety hazards, and lack of neighborhood vitality.

3.3 Regeneration Strategy 1 - "Inject Vitality"

Inject vitality, that is, to respond to advantages, development opportunities, and image requirements of the site. This step can be policy guidance, industrial settlement, cultural revival or spontaneous repair from residents, which is also the basic way to ensure the implementation of urban acupuncture.

3.3.1 Leveraging Development Advantages

The regeneration plans for the old town and its surroundings, as well as the Superblock in Barcelona, fully leverage development advantages of the city. In the case of the old town and its surroundings, there already exists a relatively complete urban infrastructure and construction, with a distinctive historic street block texture and cultural heritage. It carries the profound urban stories of history and culture, and has accumulated a certain population for living and working. The complex network of streets holds great potential for pedestrianization, and its complexity and diversity give rise to various public spaces^[73]. As for the Superblock, the original Cerdà grid layout provides unique advantages for implementing this plan. The abundance of uniform-sized street blocks allows for the widespread application of the Superblock model. The pre-existing hexagonal intersections ensure smooth vehicular flow and provide sufficient public space for transforming them into active plazas. The existing material foundation carries both advantages and disadvantages, and both plans skillfully leverage their advantages while mitigating their shortcomings and addressing urban issues, thereby infusing vitality into the city.(Figure 3-1)

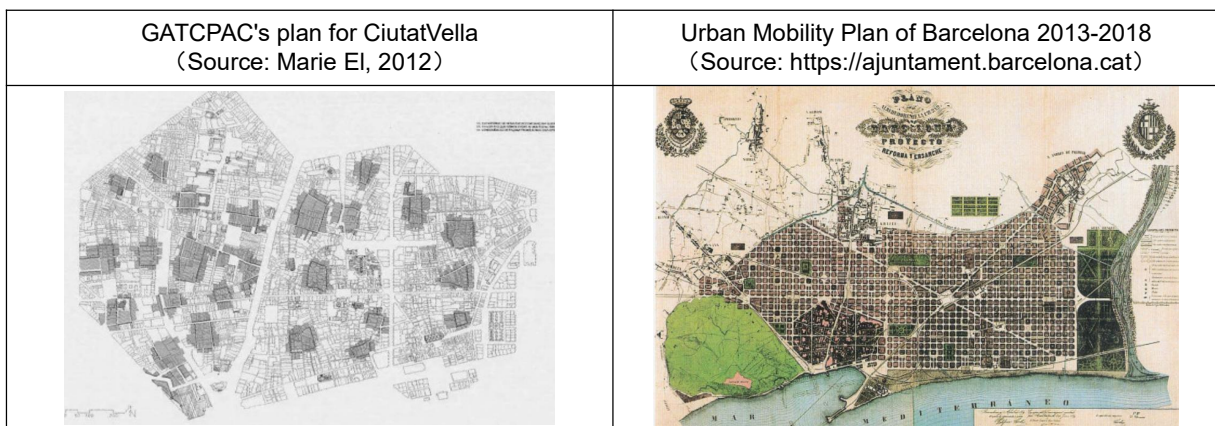


Figure 3-1 Development Advantages of the Sites
(Source: Compiled by the author based on information)

3.3.2 Seizing Development Opportunities

The regeneration plans for the old town and its surroundings, as well as the Superblock in Barcelona, were proposed in response to specific opportunities. For the old town and its surroundings, the plans seized the opportunity of the renewed focus on revitalizing old town areas following changes in political power. During this time, urban renewal efforts in Europe and America shifted their attention to the old town, advocating for small-scale incremental approaches. Barcelona formulated the GMP and PERI, achieving rapid and extensive regeneration of the old town and its surrounding areas through the effective use of limited resources and appropriate regeneration strategies. As for the Superblock, the United Nations established 17 Sustainable Development Goals in 2015, encompassing social equality, climate action, and land ecology, among other objectives. In response to urban environmental challenges, City Council of Barcelona released the Urban Mobility Plan of Barcelona to address the dominance of automobile traffic. This presented an opportunity for the city to reorganize itself following the Cerdà plan. In the process of global development, urban progress occurs in stages, and multiple regeneration efforts of Barcelona have capitalized on significant historic opportunities, fostering innovation and implementation in urban planning, resulting in a revitalized city. (Figure 3-2)

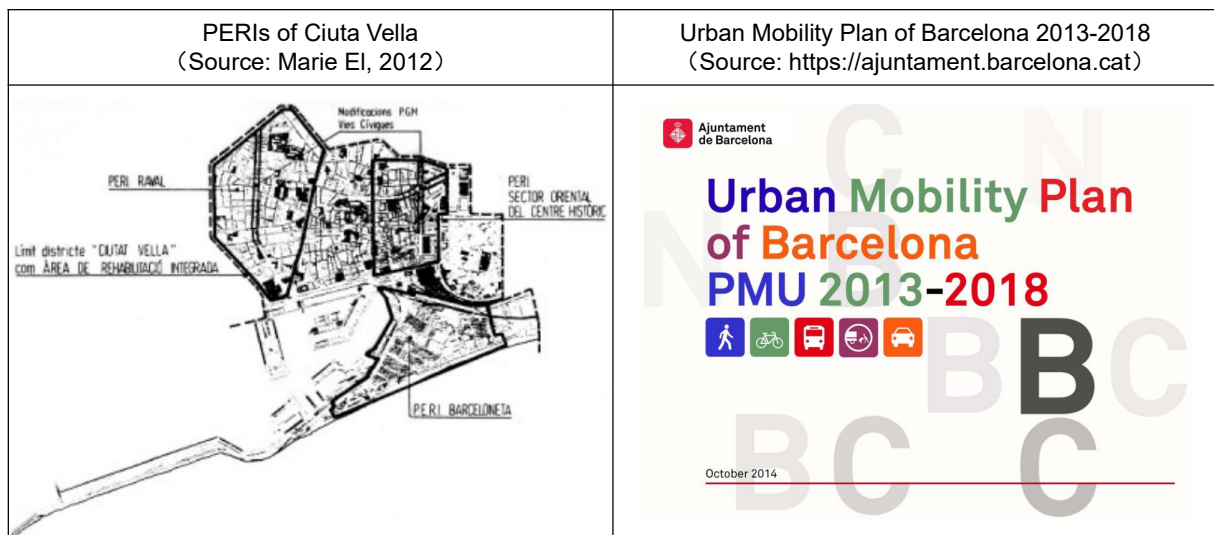


Figure 3-2 Two Plans in Barcelona
(Source: Compiled by the author based on information)

3.4 Regeneration Strategy 2 - "Harmonize Viscera"

Harmonize viscera, that is, to integrate the base space development order and its functions. The viscera is the spatial settlement formed by the radiation expansion of specific functions,

which is the local organization of the overall spatial system. The spatial unit needs to be identified and divided, which helps to help realize the cooperative balance and multiple symbiosis.

3.4.1 Constructing Spatial Structure

The regeneration of the old town and its surroundings, as well as the Superblock, largely maintains the original urban structure. Through the renovation of pedestrian streets, plazas, and key buildings, the relationships between major focal points are strengthened, and the hierarchical diversity of the urban structure is achieved, thereby harmonizing the various regions of the city, akin to harmonize the viscera.

(1) Regeneration of the old town and Surroundings

In Ciutat Vella, the creation of plazas and green areas is particularly unique due to the intricate network structure that results in disorganized green spaces and public plazas between streets, many of which are pedestrian-oriented (Figure 3-3).



Figure 3-3 Structure of Public Spaces in Ciutat Vella in 2000
(Source: Marie El, 2012)

As pedestrian streets are enhanced, the complexity and diversity of the old town lead to an increase in multifunctional public spaces, especially in cultural and commercial domains^[74]. In the process of transformation and revitalization, new public places are established on previously liberated land, totaling 110,000 square meters, which are converted into public

spaces (64,355 square meters), facilities (16,322 square meters), and housing (25,371 square meters). Among them, 25,000 square meters of public space are newly built, with approximately 40 new plazas constructed and 29 other plazas renovated, restoring sufficient open space in the area for the development of necessary civic activities. These significant open spaces are connected by optimized pedestrian axes, forming a continuous and free network of public spaces within the old town.

(2) Regeneration of Superblock

In the Eixample district, the overall urban structure of the Cerdà plan is retained, and 21 new green streets, totaling 33 kilometers in length, and 21 new plazas are created, reinforcing the original grid structure but transforming small block grids into larger ones (Figure 3-4). A total of 3.9 hectares of new public space will be gained, including 33.4 hectares of new pedestrian areas and 6.6 hectares of urban green spaces. The green streets are those where traffic calming measures have been implemented, providing relaxation spaces and more vegetation, making walking easier, more comfortable, and safer. New urban plazas emerge at the intersections of these green streets, forming green hubs within 200 meters of each home of resident. The green streets also connect urban parks, and the plazas at the intersections within a 250-meter radius are reinforced with numerous recreational facilities and other public spaces.

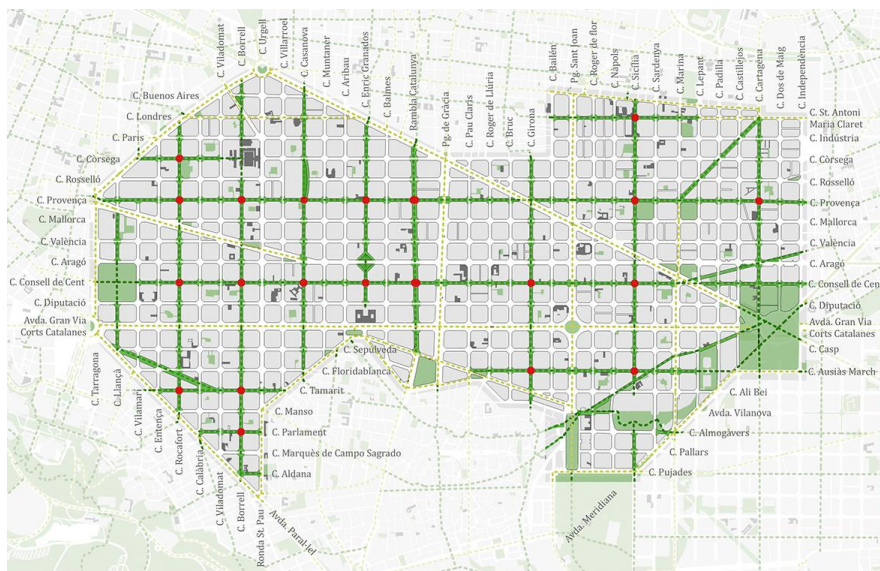


Figure 3-4 Structure of Public Spaces in Superblock
(Source: <https://ajuntament.barcelona.cat>)

3.4.2 Intervention in Functional Formations

The regeneration of the old town and its surroundings, as well as the Superblock, does not

involve drastic adjustments or forceful interventions. Instead, it respects the natural development patterns of the city, including existing functional formations and land ownership. The approach focuses on guiding and intervening in urban activities on a small scale, optimizing the functional areas of the city, akin to harmonize the viscera.

(1) Regeneration of the Old Town and Surroundings

To ensure the integrity and continuity of public space usage, Joan Antoni Solans, as the planning director of the PGM (Figure 3-5), proactively purchased designated land for parks, gardens, schools, and other public facilities, organizing land use based on the concepts of space reserved for public or community use and areas dedicated to private use^[75]. Intervening in existing passive land use, whether built structures or vacant lots, when necessary, proves to be an efficient approach. With the reclaimed land, there are more possibilities for comprehensive planning, and appropriate designs can optimize the overall structure of public spaces.



Figure 3-5 Approval of the General Metropolitan Plan (PGM) 1976
(Source: Marie El, 2012)

(2) Regeneration of Superblock

Barcelona has divided the city into 503 Superblocks (Figure 3-6) as part of its urban transportation plan. Rather than interfering with the overall functional zoning of the city or defining distinct functional boundaries within the blocks, the plan provides new living spaces and urban public facilities, which create possibilities for social functions and activities to emerge spontaneously in the ground floors of buildings and on streets and plazas, including parks, leisure areas, commercial spaces, exhibitions, and more. The new pedestrian spaces

connect all public commercial facilities within a 10-minute walking distance, strengthening and constructing adjacent commercial structures. Within a 200-meter distance, they become reference routes for the majority of schools.



Figure 3-6 Proposed 503 Superblocks in Barcelona
(Source: <https://ajuntament.barcelona.cat>)

3.5 Revitalization Strategy 3 - "Dredge Meridians"

Dredge the meridians, that is, comb the base linear corridor and intangible transmission carrier. Meridian is the channel of "Qi" operation, bearing the flow of people, traffic flow, logistics, capital flow and information flow. It is an important ribbon structure in the material space and the continuity of consciousness in the intangible level. By dredging the meridians to find the blockage point, it is easier to find the sick acupoints.

3.5.1 Refining the Road Network

The regeneration of the old town and its surroundings, as well as the Superblock, focuses on both vehicular and pedestrian traffic as the cornerstone. On one hand, by refining the vehicular traffic to meet internal needs and external connectivity, and on the other hand, by optimizing pedestrian traffic to revive the vibrancy of the streets, to realize the dredging of urban meridians.

(1) Regeneration of the Old Town and Surroundings

The enumeration of intersections and plazas provides a reference for defining new urban spaces that require efficient transportation. It is necessary to adjust the different characteristics of each area based on specific road network systems while seeking a cohesive road network that connects them. Road connections between different areas of the city occur at four levels: the major network or primary network, the secondary network formed by main streets or avenues, the internal network, and the urban pedestrian spaces^[74].

In the case of Ciutat Vella, as an old town, its road network consists of the internal network and urban pedestrian spaces (Figure 3-7). The internal network is composed of streets that form the urban fabric, each with its own texture and characteristics. At this level, the network is quite complete within the developed areas, but further work is needed at the edges. Urban pedestrian spaces include elements integrated into pedestrian priority areas and representative features that enrich pedestrian activities in various traditional areas of the city. This intervention clearly needs to be implemented in stages.

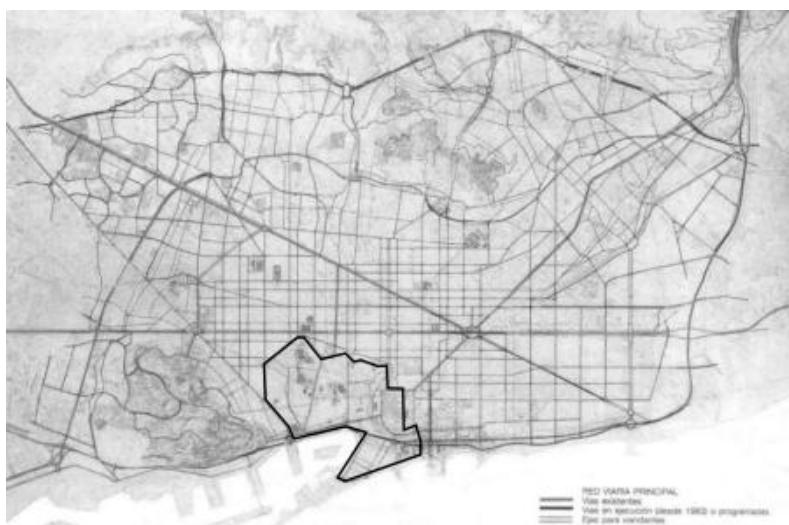


Figure 3-7 Street Plan of Barcelona in 1985
(Source: Busquets, 2005)

(2) Regeneration of Superblock

The focus of Superblock is on reconfiguring urban transportation, primarily through implementation in five aspects: pedestrian travel, cycling, public transport, private vehicles, and urban goods delivery. Contrary to traditional car-centric street patterns, Superblock aim to shift towards a pedestrian-oriented road network, reversing the ratio of pedestrian areas to vehicular areas from 27%:73% to 77%:23% and increasing accessibility from 89% to 99%^[76].

The goal is to establish a green street network that spans the entire city, prioritizing walking as a safe and human-centered means of connecting green spaces and facilities.

Regarding vehicular traffic, the study explores more efficient traffic patterns under the Superblock model, emphasizing traffic safety, controlling noise and pollution emissions from motorized vehicles, promoting higher vehicle occupancy rates, managing parking facilities according to the actual situation, encouraging motorcycles as an alternative to private cars, and managing motorcycle operations and parking conditions (Figure 3-8). In terms of pedestrian movement, the Superblock model aims to create a comprehensive pedestrian network system within the city, expanding the range of pedestrian travel and enhancing safety, accessibility, comfort, and connectivity for pedestrians (Figure 3-9).



Figure 3-8 Vehicular Traffic Network

(Source: Pla d' Espai Públic i Mobilitat del Districte de Sant Martí, Barcelona)

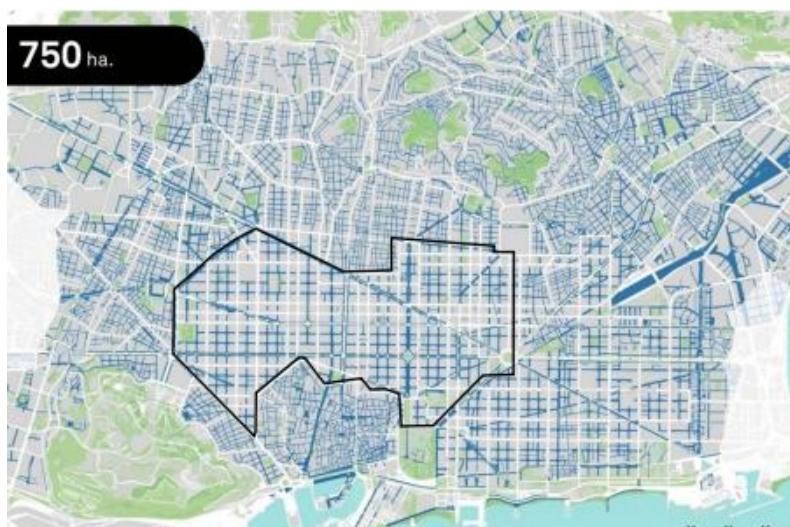


Figure 3-9 Pedestrian Traffic Network

(Source: Urban Mobility Plan of Barcelona 2013-2018)

3.5.2 Connecting Landscape Corridors

The revitalization of the old town and its surroundings focuses on rejuvenating historic landscape axes and incorporating point-like public spaces. On the other hand, the regeneration of Superblock transforms the existing structurally-oriented traffic routes into linear landscape corridors with ecological functions. Both approaches contribute to the well-being of the urban network.

(1) Regeneration of the Old Town and Surroundings

Barcelona strives to define the port and coastline as part of its ancient urban aspirations, claiming its Mediterranean heritage, although the access to the sea has been obstructed. In the PERI plan, Ciutat Vella aims to maximize the green structure within the entire urban organization and intervene rationally in green spaces and open areas.

First and foremost, the reconstruction of urban parks is prioritized since traditional parks in the past were not planned in the most suitable spaces. Integration of small plazas and parks follows, enabling them to function on a small scale within different residential textures. Additionally, restoration of major historic axes and traditional streets, such as Saló de Sant Joan and Rambla, is pursued. The former connects the city and parks, while the latter links the old town (Ciutat Vella) and the expansion district (Eixample) (Figure 3-10).

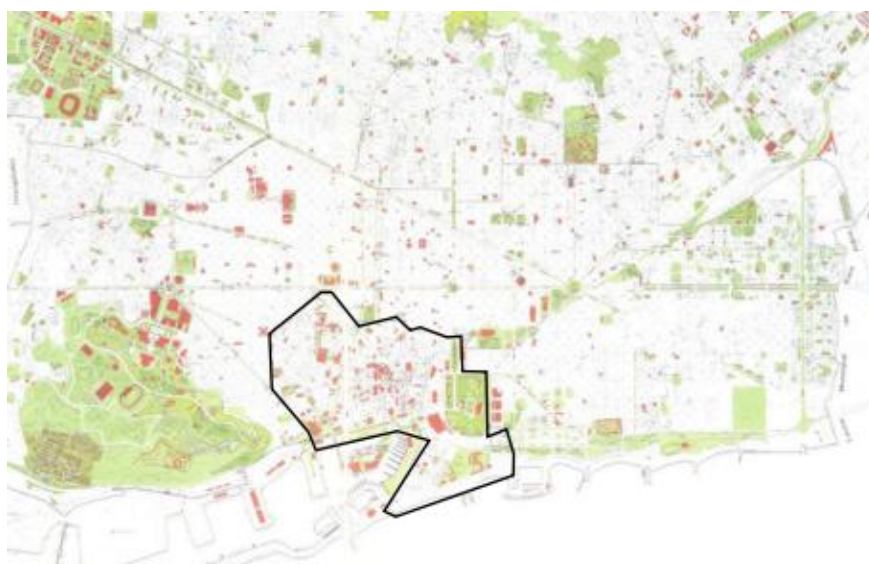


Figure 3-10 Green Spaces in the Old Town and its Surroundings
(Source: Marie El, 2012)

(2) Regeneration of Superblock

The 19th-century model of public spaces must constantly evolve and adapt to address the nine major environmental and social challenges faced by contemporary cities. Particularly, the dense traffic resulting from the robust and highly permeable network of roads for cars and motorcycles in Cerdà plan contributes to the concentrated air pollution in the Eixample district^[77]. The 21st-century Superblock plan aims to liberate and redistribute public space, foreseeing the development of public open spaces and green areas throughout the entire city, including plazas, parks, green corridors, green spaces within and outside the Superblock^[78]. The new green network is seen as a new environmental infrastructure that increases the presence of greenery, improves water management through permeable surfaces and underground facilities, regulates environmental temperature by integrating shading, and even incorporates elements for energy capture. Implemented in a unified and systematic manner, it allows for the improvement of the urban environment quality on a global scale (Figure 3-11).



Figure 3-11 Development of Green Spaces in the Eixample District
(Source: <https://ajuntament.barcelona.cat>)

3.6 Regeneration Strategy 4 - "Stimulate Acupoints"

Stimulate acupoints, that is, the activation of public space, important buildings and other key points. Among them, the selection of acupoints is the most important thing, which should be determined by following the principles of urban acupuncture through scientific steps and evaluation standards. Each sensitive point then needs to be targeted and select effective strategies that translate into easy to achieve interventions, and maintain sustained attention and correction after that.

3.6.1 Acupoint Selection

The regeneration of the old town and its surroundings, as well as the Superblock, involves the identification of multifaceted and multi-level acupoints. These acupoints can take the form of spatial elements, such as areas, lines, and points, or even intangible elements. Generally speaking, the selected acupoints are urban elements that hold significant importance but have been neglected and offer great potential for regeneration.

(1) Regeneration of the Old Town and Surroundings

In Ciutat Vella, the development includes the creation of 2 small parks, 26 small plazas, the renovation of 308 streets and alleys, and the establishment of 6 civic centers. The intervention in the PERI focuses on abandoned or severely crisis-ridden old industries, aiming to bring out their value. To establish priorities within the existing activities, the most central spaces in each urban structure were selected, ensuring representation of each region or area in consecutive projects. Each project takes into account its size and the surrounding urban context, making environmental conditions one of the most interesting features of the Barcelona urban space project of the 1980s (Figure 3-12)^[74]. The selected acupoints include the following five core elements:

- ① Urban parks with interior positioning, encompassing 6-10 hectares in the urban structure, corresponding to the reuse of industrial and service areas.
- ② Small-scale plazas and gardens that can be fully integrated into different residential structures of the city.
- ③ Gardens with facilities, including a range of former private lands, where old buildings are repurposed as community service facilities.
- ④ Urban axes that systematically enhance the intermediate road network and increase the dominance of pedestrian spaces in the main elements of the urban form.
- ⑤ Large-scale parks that correspond to the major interventions aimed at changing the overall green space system in Barcelona.



Figure 3-12 Barcelona Urban Public Space Intervention Site Distribution Map
(Source: Busquets, 2005)

(2) Regeneration of Superblock

Currently, Barcelona has completed the construction of six Superblocks, with plans to complete a total of 11 in the next three years. If the plans are fully implemented, the total number of completed Superblock will reach 503. In the Eixample district, 120 potential locations for implementing Superblock have been identified, which could free up a total of 23 hectares of public space (Figure 3-13).

A typical Superblock consists of 9 adjacent city blocks, forming a 3×3 plaza combination, with an average size of 400m×400m and a population of around 5,000-6,000 residents. Traffic control measures will be implemented within the Superblock, prohibiting public transportation while allowing access for cars of residents, as well as service vehicles such as fire trucks and ambulances. The direction of vehicle movement is generally one-way, with a speed limit of 10 km/h. The pedestrian-oriented model within the Superblock transforms the streets from traditional transportation purposes into diverse and enriching spaces accessible to residents for strolling, playing, socializing, resting, exercising, etc (Figure 3-14).

The selection of Superblock covers the entire Eixample district, with boundaries determined by road traffic and landscape corridor planning. In the implementation process, the Superblock serve as acupoints at the urban and regional scales, initially prioritized in densely populated city center areas with high traffic congestion, pollution, and lack of green spaces. Important acupoints include parks and plazas located at intersections, pedestrian streets crossing the blocks, public buildings adjacent to shared spaces, and other intangible factors.

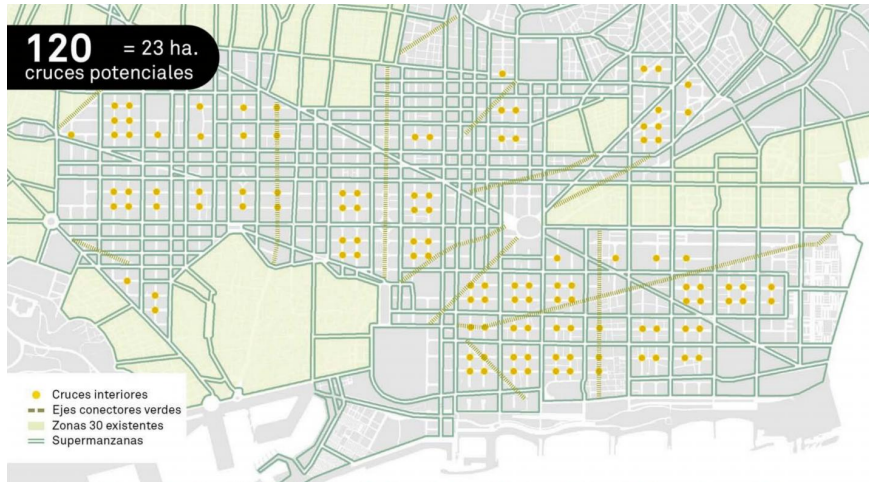


Figure 3-13 Superblock Selection Map
(Source: <https://ajuntament.barcelona.cat>)

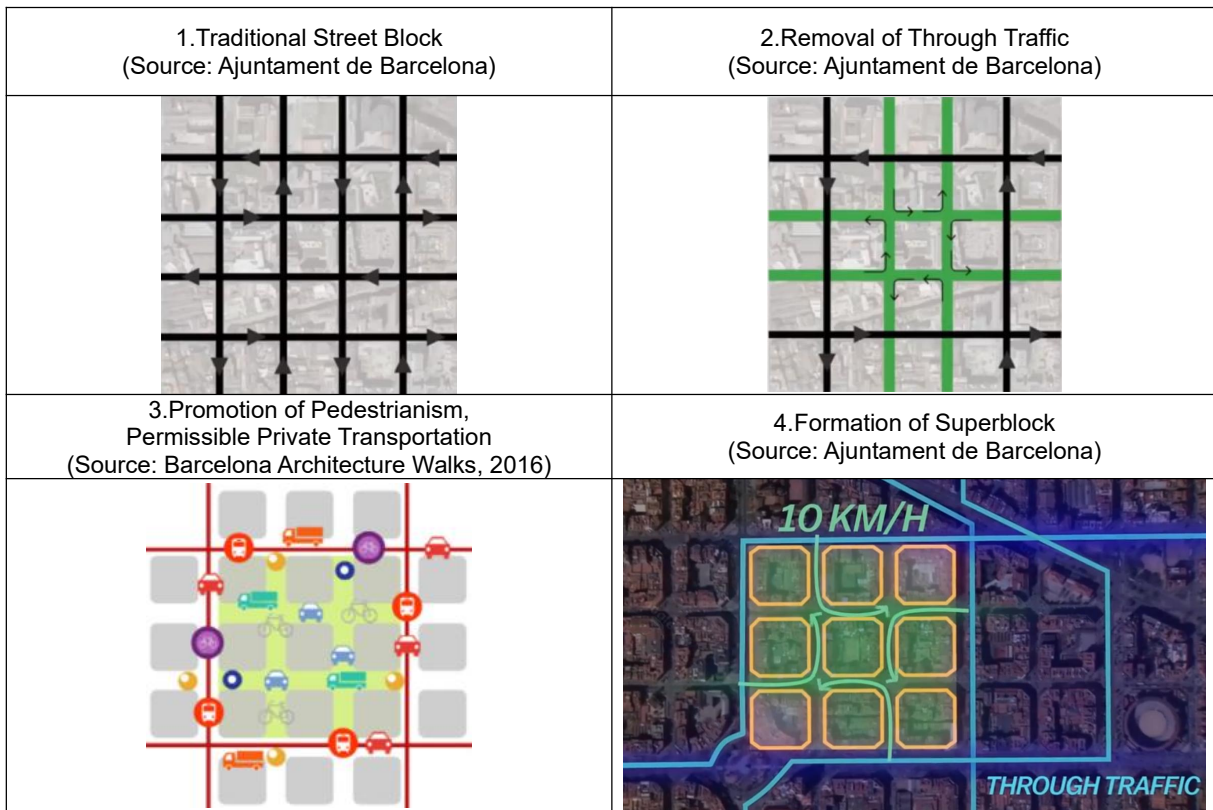


Figure 3-14 Superblock Model
(Source: Compiled by the author based on available information)

3.6.2 Creating Distinctive Blocks

The Superblocks, taking block as the unit, serve as vital acupoints within the city, stimulating which can effectively facilitate urban regeneration. While the old town and its surroundings may lack explicit block acupoints, other acupoints can still be stimulated to achieve urban acupuncture.

(1) Regeneration of the Old Town and Surroundings

In the PERI, there is limited focus on creating distinctive blocks. And Ciutat Vella, with its diverse and intricate pattern, makes it challenging to define clear block units. Instead, the acupoints manifest as linear streets and focal points such as parks, plazas, and buildings. Activating these acupoints can effectively accomplish the overall regeneration of the old town (Figure 3-15).

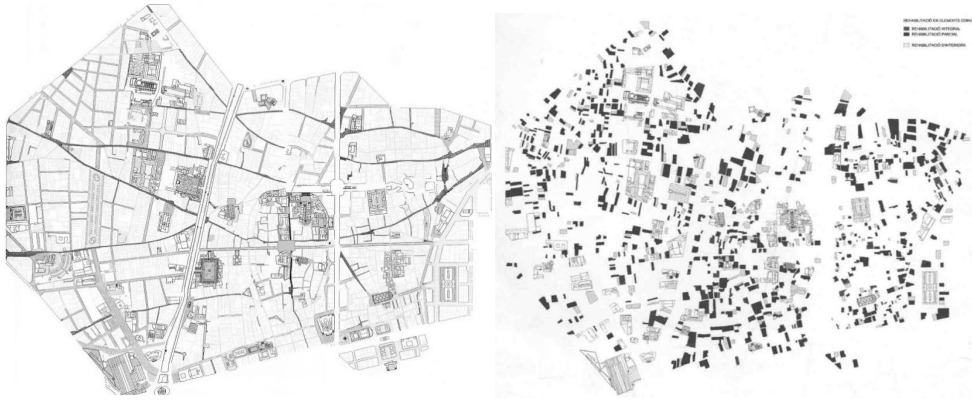


Figure 3-15 Public Spaces and Reconstructed Buildings in Ciutat Vella
(Source: Busquets, 2005)

(2) Regeneration of Superblock

As per the initial plan, the Superblock in the Poblenou area were piloted with a unified clockwise traffic flow, which was later adjusted to allow one-way traffic on Boronat Street with a speed limit of 20 km/h. However, regardless of the adjustments, drivers found it difficult to navigate, and the traffic was in complete disorder and chaos. Even bus drivers struggled to cope with the situation. Without a complete understanding of the operating logic of the traffic system, driving in this area will be very confused and painful.

As a result, the government initiated modifications to the design. The traffic-controlled areas within the Superblock were transformed into various public spaces, equipped with street furniture such as benches, flower beds, ping pong tables, bike racks, and electric vehicle charging stations. Some streets were painted with vibrant colors dedicated to sports and entertainment. Vertical and horizontal road signs were installed within the inner streets to alter traffic directions. The lanes were narrowed by repainting the street surface, reducing parking spaces, and eliminating bus and bike lanes. The four inner streets became shared spaces for pedestrians and cyclists. Additionally, four "rings" were created, forcing vehicles to turn left at each intersection, preventing them from passing through the Superblock (Figure 3-16)^[79].

New street amenities, such as benches, temporary trees, street games, and running tracks, were placed at the intersections to enhance the quality of public space within the inner streets (Figure 3-17).

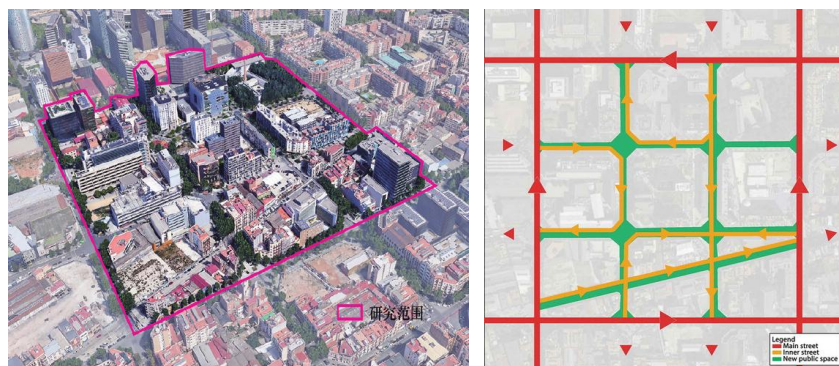


Figure 3-16 Poblenu Industrial Area Pilot Superblock
(Source: Scudellari, 2020)



Figure 3-17 Inner Streets of the Poblenu Industrial Area Superblock
(Source: Scudellari, 2020)

3.6.3 Enhancing Parks and Plazas

The regeneration of parks and plazas within the old town and Superblock is focused on the central urban areas. These spaces, transformed from negative spaces, become new urban green areas and recreational spaces. The park design in Barcelona emphasizes modern approaches tailored to specific challenges, resulting in diverse and rich urban landscapes.

(1) Regeneration of the Old Town and Surroundings

Parc de Joan Miró was once a slaughterhouse in the 1970s but underwent redevelopment into a park after a planning competition in 1981. With a total area of 4.71 hectares, it spans four city blocks within the expansion area. The park is adjacent to the Barcelona Bullring on the east side and near the famous Plaza de España on the south side. On one side of the park, there is a city plaza, while on the other side, there is a community library with a water pool. The park features amenities such as ping pong tables, small sports fields, and a small bar.

These spaces are thoughtfully distributed through different elevations, plants, and water features. The park includes extensive plantings of evergreen and palm trees, defining the boundaries and internal spaces of the park in clusters, corresponding to different paving materials. The plaza paved with hard materials houses the iconic sculpture "Woman and Bird" by Joan Miró, becoming a symbol of the park and the local community (Figure 3-18)^[80].

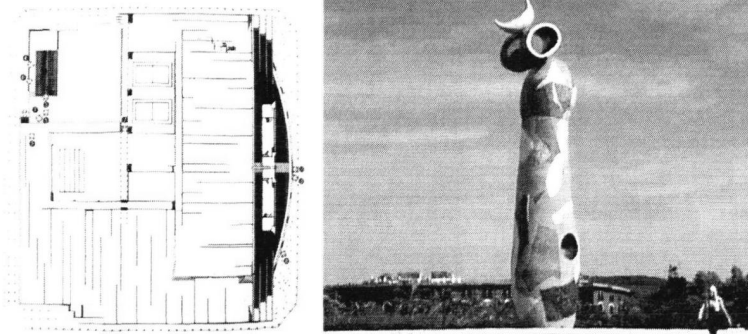


Figure 3-18 Redevelopment Plan and Sculpture of Parc de Joan Miró
(Source: Shinichiro Higuchi , 2002)

Plaça Reial, built in the 1850s, is one of the most charming plazas in Barcelona. The lampposts in the plaza were designed by Antoni Gaudí. The plaza has a rectangular layout surrounded by buildings with arcades on the ground level. Many street vendors selling collectibles like coins and stamps engage in bargaining with tourists, creating a vibrant atmosphere. The city center is home to numerous old neighborhoods, and like this small plaza, many were once parking lots but were transformed into serene corners. The plaza features a simple paved surface adorned with neatly arranged palm trees and a fountain, becoming one of the most popular tranquil spots in the old town. The improvement policies from government for public spaces also include historic districts in the city center. When the plazas in the old town are improved, the surrounding environment is revitalized and gradually thrives (Figure 3-19)^[74].



Figure 3-19 Renovated Plaça Reial
(Source: Joan Busquets, 2005)

(2) Regeneration of Superblock

Sant Antoni serves as a demonstration area within the Superblock plan, showcasing how the Superblock model adapts gradually in a flexible urban environment. The design of the plaza at the intersection embodies three characteristics (Figure 3-20):

First, it is flexible, modular, and adaptive. The new landscapes in urban areas require reversibility, adaptability, and recyclability. Based on this premise, the design team constructed adaptive urban furniture and graphic signage systems (patterns, signs, communication tools, etc.) while studying corresponding layout strategies.

Second, it features graphic patterns and signage. Patterns, signs, and colored pavements in the project are designed as expandable grids, serving as fundamental elements of the site. The grid also provides references for graphic variations and the arrangement of urban furniture. New blocks can be delineated along the grid, redefining the spatial organization of the roads.

Third, it encompasses adaptive urban furniture combinations. Urban furniture is designed in accordance with the pattern grid, allowing for easy assembly and forming flexible structures. The ecological materials used in these installations and their combinations are crucial for integrating and expanding the green space structure within the city.

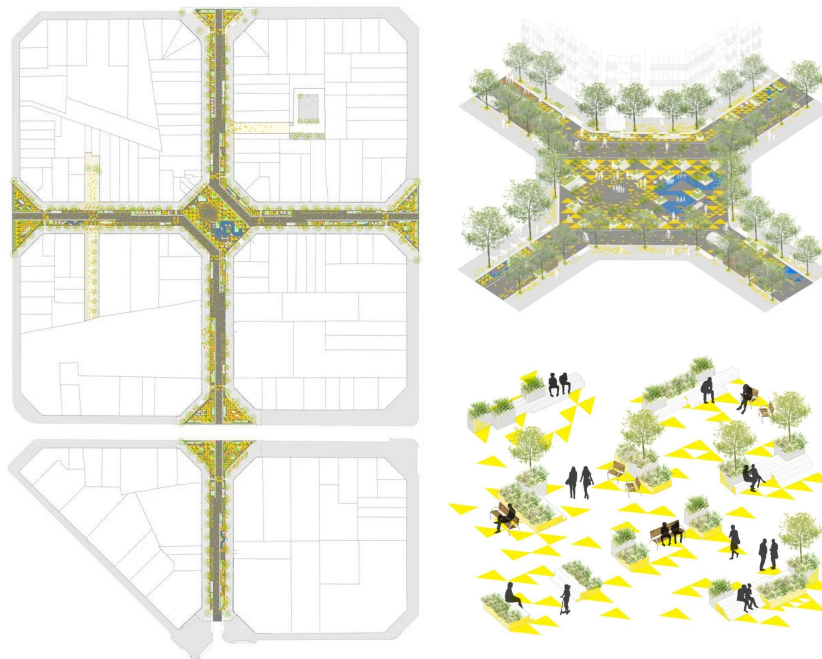


Figure 3-20 Sant Antoni Superblock
(Source: <https://www.gooood.cn>)

3.6.4 Embellishing Streets

The revitalization of the old town and surrounding areas, as well as Superblock, pays great attention to street spaces. Streets are the most vibrant and active areas in the city, and activating them is an important step in urban regeneration. This involves restricting vehicular traffic, reclaiming streets for pedestrians, and creating diverse urban spaces to meet the needs of citizens, thus contributing to urban renewal.

(1) Regeneration of the Old Town and Surroundings

Rambla Street, located in the heart of Ciutat Vella, stretches 1.8 km long. This public space, about 12 meters wide, is dedicated to both residents and visitors. Along both sides of Rambla Street, there are various businesses, theaters, markets, and architectural landmarks. The prominent feature is the commercial establishments that offer food, tourist souvenirs, services, and local markets, creating a bustling atmosphere. The revitalization of this space has four key characteristics (Figure 3-21):

- ① It features diverse sub-structures. Rambla Street is divided into five sections: Canaletes, Estudis, Sant Josep, Caputxins, and Santa Monica. Each section has its own unique characteristics. For example, Canaletes is named after the famous Canaletes Fountain, while Estudis derives its name from the former university college located there.
- ② It exhibits harmonious architectural interfaces. Despite the varying ages of the buildings on both sides of Rambla Street, they maintain a consistent height, proportion, window arrangement, and materials, adhering to strict urban design guidelines.
- ③ It offers experiential landscape facilities. Nearly 300 plane trees are planted along the sides of Rambla Street, accompanied by stone benches and wooden chairs as urban furniture. Iron stands are placed along the pedestrian streets for street vendors. Some businesses also extend their outdoor seating areas, help to create a multi-layered spatial experience.
- ④ It showcases iconic elements with regional characteristics. The Catalonia Plaza Fountain, Canaletes Fountain, Miró Mosaic Tiles, and the Columbus Statue are located at the northern starting point, central plaza, and southern endpoint of Rambla Street, respectively. They serve as key landmarks and nodes within the commercial street, representing the collective memory of the local residents^[81].



Figure 3-21 Rambla Street and Section
(Source: Peng Tianyi, 2021^[81])

(2) Regeneration of Superblock

The 21st-century street model, to be implemented in every green center of Superblock in Barcelona, represents a paradigm shift in the conceptualization of public spaces: it involves transitioning from streets designed for cars to streets designed for people, reversing priorities and usage. These new streets, which form a green center, encourage community engagement, enhance family life and local commerce, and reduce pollution and noise.

The concept of the new streets is based on eight principles (Figure 3-22): ① Pedestrian priority: Pedestrians have absolute priority on all routes, while vehicles are limited to low speeds. ② Seamless integration: The entire street space is dedicated to social activities and people, with no barriers or separations. ③ Abundant greenery: At least 10% of the future street space will be dedicated to greenery. ④ Enhanced environmental infrastructure: Streets will become sustainable, efficient, and self-sufficient environmental infrastructures. ⑤ Accessibility: Streets will be 100% accessible, encouraging all groups to stroll and relax, with elements such as routers, buttons, traffic lights, and sidewalk signs. ⑥ Lighting system: The lighting design will create a new atmosphere, shifting from lighting designed for vehicular traffic to human-centered lighting. ⑦ Social-oriented urban furniture: More benches, fountains, playgrounds, and even tables will be provided to promote street life and activities for local residents. ⑧ Promoting local commerce: By eliminating barriers caused by vehicular traffic, the calm and pedestrian-friendly streets encourage residents to stroll and

shop at local establishments (Figure 3-23).

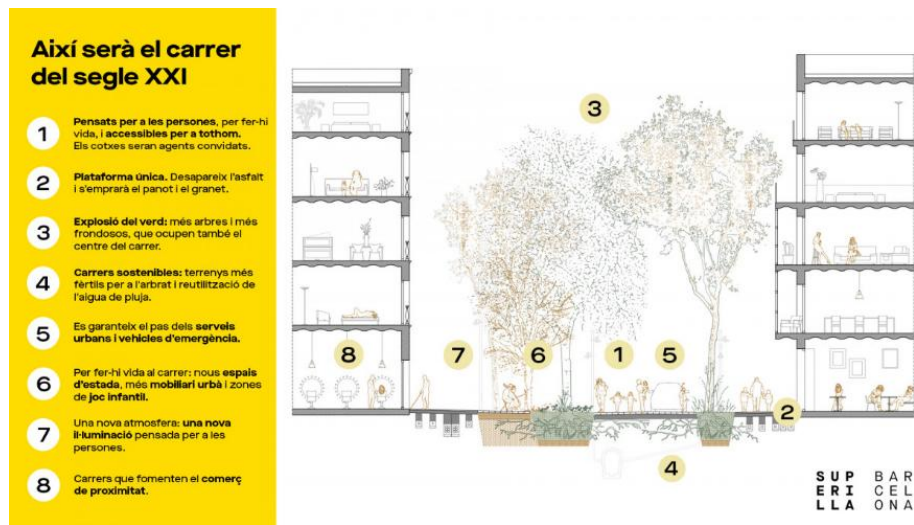


Figure 3-22 New Street Design in Superblock
(Source: Model Nous Eixos Verds)

1. Pedestrian Priority	2. Unobstructed	3. Green Vegetation	4. Infrastructure Development
5. Accessibility	6. Lighting System	7. Urban Furniture	8. Economic Promotion

Figure 3-23 Eight Aspirations of Superblock Districts
(Source: Model Nous Eixos Verds)

3.6.5 Revitalizing Buildings

Revitalizing building acupoints can be done directly or indirectly. In the regeneration of the old town and surrounding areas, there is a greater need for building renovation or reconstruction, while in the regeneration of Superblock, the focus is on indirectly influencing the functions of ground-level buildings.

(1) Regeneration of the Old Town and Surroundings

Barcelona has numerous indoor and outdoor markets, many of which have been revitalized and become key points stimulating regional vitality. One notable example is the Santa Caterina Market, located in the heart of the old town. It was built on the site of a Christian

Cemetery and the Santa Caterina Church, and its historic layers add meaning to the regeneration of the market.

The renovated market meets modern lifestyle needs while respecting history. The three external walls of the old market were preserved, and the roof was raised by 2-3 floors, constructed with steel bars and wooden panels, creating a spacious and bright interior space. The outer layer of the roof features a mosaic pattern made up of 325,000 Spanish tiles, representing a variety of fruits, vegetables, fish, and fresh food items. The colorful tiles cover the entire market in a wave-like pattern. The roof design improves the oppressive atmosphere of the neighborhood and creates a striking contrast between the old and the new. Within the market, there is a corner that preserves a historic excavation site, now serving as a small museum where people can learn about the history of the site (Figure 3-24).

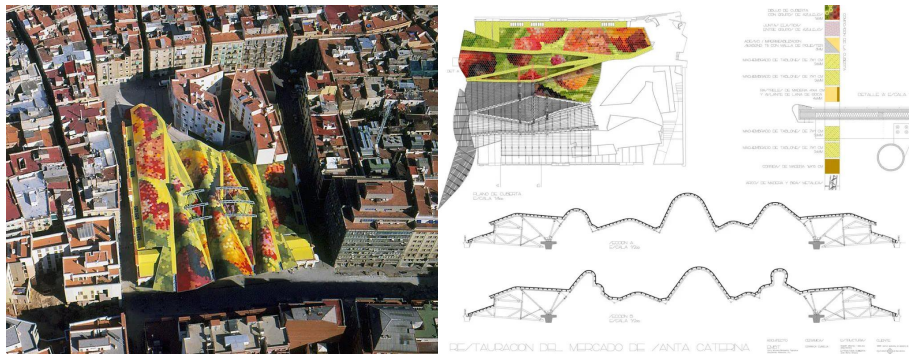


Figure 3-24 Santa Caterina Market and its Design Diagram
(Source: Toni Cumella).

(2) Regeneration of Superblock

Rather than directly intervening in the building acupoints, Superblock aim to foster care and civic responsibility by liberating the streets of family life. Some initiatives, proposed by engaged citizens or emerging spontaneously, aim to expand the scope of play and leisure. It provides new spaces for everyday relationships and expressions, promoting connections between public spaces, underlying commercial areas, and other public realms, thus fostering novel relationships within the urban realm that transcends the boundaries of public and private life (Figure 3-25).



Figure 3-25 Ground Level within the Superblock
(Source: <https://ajuntament.barcelona.cat>).

3.6.6 Utilizing Intangible Factors

Intangible factors can also serve as acupuncture points for urban regeneration, exerting effects on par with material factors. While the regeneration of the old town and its surroundings focuses on the organization of specific human activities, regeneration of Superblock prioritizes the comfort of daily human activities.

(1) Regeneration of the Old Town and Surroundings

On one side of Rambla Street in Santa Monica, artists are invited to assume the role of "living statues" on a daily basis. These statues possess a certain thematic quality, drawing inspiration from famous historic figures, film characters, or mythological legends. These seemingly motionless "statues" might pleasantly surprise you with a greeting as you approach them. One of the distinctive activities along this street is when visitors take photographs with these "living statues".

Rambla Street also hosts vibrant festival performances, bringing temporal diversity to its commercial operation. For instance, during the annual Giant Dolls Festival, numerous gigantic humanoid dolls are displayed along the street, interacting with visitors. These dolls often represent figures from the Middle Ages. During the Flower Festival (Festa deloser), which takes place from October 5th to 11th each year, various flower arrangements are set up on the stalls along Rambla Street. The balconies of the surrounding buildings are adorned with floral banners, creating a vibrant and fragrant atmosphere throughout the entire Rambla Avenue (Figure 3-26). The integration of commercial activities with special festivals reflects the intangible uniqueness of Rambla Street. By respecting the existing historic and cultural customs of the city and employing a combination of planned distinctive activities and diverse

business models, this strategy fully harnesses the added value brought by local culture.



Figure 3-26 Showcases Rambla Street during Festivals
(Source: <https://www.economiadigital.es>)

(2) Regeneration of Superblock

In order to enable the enjoyment of all potential activities in public spaces at any given time, it is essential to ensure optimal global comfort conditions. Several parameters can influence urban comfort, such as air quality, acoustic conditions, and ergonomics. In humid climates like Barcelona, especially during summers, public areas with high relative humidity, temperature, and radiation levels often result in greater thermal discomfort. In winter, discomfort arises from low radiation and high wind speeds. These negative impacts are heightened in highly exposed areas such as streets (Figure 3-27).

Therefore, strategies aimed at enhancing the outdoor comfort of public spaces are implemented in the revitalization of Superblock to mitigate unfavorable climatic conditions. These strategies include: ① increasing the shaded area provided by trees during summer, maximizing the use of shaded areas within rest zones, while ensuring tall tree branches do not obstruct breezes and prevent leaf litter, thus benefiting winter sunlight exposure; ② when necessary, installing seasonal shading elements such as sunshades during specific times or in areas exposed to the summer sun; ③ avoiding the placement of large fixed elements that obstruct airflow, as while excessive wind speed may affect outdoor comfort, it facilitates air movement, thereby alleviating intense summer heat; ④ promoting high solar reflectance in non-permeable road surfaces, especially in open spaces with abundant sunlight and devoid of trees; ⑤ ensuring new roadside trees do not hinder air circulation near surrounding buildings during summer, as they require natural ventilation for cooling, minimizing the presence of tree branches near the outer walls of structures whenever possible.

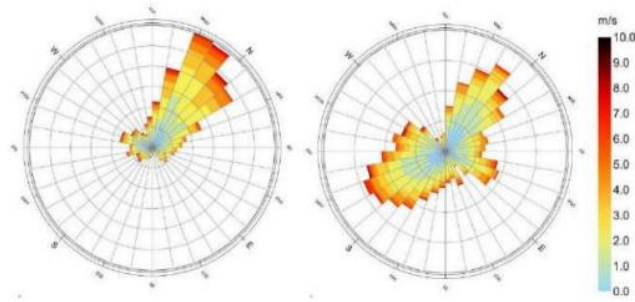


Figure 3-27 Dominant Winds during Winter (the left) and Summer (the right) in Barcelona
(Source: <https://ajuntament.barcelona.cat>)

3.7 Summary of this Chapter

This chapter explores the city of Barcelona, the birthplace of urban acupuncture, as a case study for urban analysis. It focuses on two representative urban regeneration designs: the regeneration of the old town and its surroundings, and the regeneration of Superblock. Following the logical framework of urban acupuncture planning methodology proposed in Chapter 2, each step of the framework— Diagnosis, Harmonize Viscera, Dredge Meridian, and Stimulate Acupoints—is applied to analyze the two regeneration cases in Barcelona. Specific regeneration strategies and corresponding design methods for each step are derived, providing guidance for the design discussed in Chapter 5.

Chapter 4 Chinese Case Study and Framework Construction of Urban Acupuncture Practice

4.1 Chinese Case Study of Urban Acupuncture

Although urban acupuncture is a concept put forward by western countries, it is the essence of Traditional Chinese Medicine. It is conceived from the land of China and will be fed back to local cities. Following the foreign case study in Chapter 3, this section will analyze the regeneration cases of domestic historical blocks from the perspective of urban acupuncture, so as to continue to explore the practical framework and applicability of this concept in China.

4.1.1 Shanghai Wuyi Road Historic District

(1) "Diagnosis"

Wuyi Road, first built in 1925, is an 800-meter-long historic block in the city center of Changning District, Shanghai. It is also one of the 64 protected roads in Shanghai that will never be widened. However, with the development of history, the interface along the street has become disorderly due to continuous transformation, construction and construction, especially the scale invasion of the modern residential area and high-rise office buildings. Moreover, in terms of block space, road traffic and functional formats, they are in a relatively backward state: closed interface, extremely lack of public space, traffic congestion, poor public transportation accessibility; backward formats, many plots have become value depression.

(2) "Inject Vitality"

Wuyi Road belongs to the public concession boundary building road, with particularly obvious historical features, including several periods, different types and shapes of buildings. In 2017, changning district launched the wuyi road urban renewal work, aims to rely on three of the key plot of wuyi road comprehensive upgrade, wuyi road area to flow deep, street and romantic quiet wuyi, make its renewal, with the way of "urban acupuncture" make historical blocks to revitalize, to better meet the demand of modern life.

(3) "Harmonize Viscera"

The Wuyi Road Urban renewal project is divided into five parts, Each part corresponds to a

different industrial development orientation, From east to west, then: The plot of Instrument Group focuses on artificial intelligence industry, Replan the old plant, Build high-tech parks; Feile Plant Plot, Mainly introduce cultural projects, Create a cultural brand; The original dermatology hospital site will be improved, At present, the renovation and renovation projects have been fully started; The 333 plot will focus on building the cultural and creative industry; Plot 320 is a "neighborhood center" that emphasizes social interaction, On the basis of retaining the function improvement of the vegetable market, Additional functional facilities such as convenience centers, community commerce, community culture and public green space will be added. The five sectors are diversified, aiming to create a livable and livable neighborhood with complete commercial and service supporting functions.

(4) "Dredge Meridians"

From the level of urban design, the design guidance of the first floor slow space is connected across the plot, to construct the basic traffic pattern and improve the slow traffic situation in the area. First of all, the slit and gray space between the buildings are used to connect the secondary path with the public channel, break the slow break point, and improve the connection between Wuyi Road and the internal streets and alleys. Then the public vertical traffic is arranged at the enlarged nodes, and the terraces of different heights are connected by the corridor and the stairs into a fluctuating air roaming path. The slow traffic network connects the rich node space, and improves the accessibility and connectivity of the area.

(5) "Stimulate Acupoints"

In terms of material, the spatial resources along the Wuyi Road are scattered and not enriched. Therefore, the path intersection of the slow traffic network is grown and enlarged, and the outdoor square, courtyard and gray space are wrapped in, making it the node space on it. Use the entrance of the lane and the old houses to do "subtraction", reasonably demolish the building, open the wall to open the community and release the public space, at the same time, implant landscape greening, art pieces to do "addition", improve the quality of the block.

In terms of non-material aspects, strengthen the community forms, optimize and upgrade the vegetable market, set up convenient service facilities such as tailor shop and locksmith shop; introduce innovative forms, cultural, catering and innovative forms, and introduce a large number of "first shops", which further attracted a large number of customers from outside the community to experience and consume, stimulate the community vitality and rebuild the

community relations.(Figure 4-1)



Figure 4-1 Functional Zones and Real Scenes of Shanghai Wuyi Road
(Source: <https://mp.weixin.qq.com>)

4.1.2 Nantou Ancient City in Shenzhen

(1) "Diagnosis"

Nantou Ancient City is located at the end of Shennan Avenue, Nanshan District, Shenzhen. With a history of more than 1,700 years, it is the only historical and cultural carrier in Shenzhen city. However, with the disorderly expansion of urbanization, the features of the ancient city gradually disappeared. At present, the base site of the north and south city wall still exists, and only the South Gate is well preserved, and the buildings are in different age styles. After the reform and opening up, the ancient city of Nantou has been reduced to an urban village, isolated by the rapidly developing city, forming an island in the city. Its development is also faced with many difficulties, including not obvious style, space limit, lack of facilities, and low-end business forms are the four major problems to be solved.

(2) "Inject Vitality"

Shenzhen is the first city in China to carry out urban renewal, and it has accumulated rich experience. In March 2019, in order to welcome the 40th anniversary of the establishment of Shenzhen Special Economic Zone, Nanshan District organized 18 units including Nantou Street Office to set up a leading group for the protection and utilization of Nantou Ancient

City, to mobilize the whole district to implement the renewal project of the ancient city. In such an "ancient city" with historical influence and going through the changes of The Times, and a "village" full of fireworks formed in the process of urbanization, the renewal method of "small demolition + remote resettlement" is adopted, integrating into the small and beautiful cultural industry and the cultural life that bring out the best in each other., To bring new creative vitality and quality of humanity to the ancient city.

(3) "Harmonize Viscera"

In terms of the overall design structure, the new pattern of the ancient city of "nine streets, seven scenes, four innovation workshops, two gardens, micro peach land, and neighborhood heart" is put forward, so as to provide clear functional guidance and public space control for the ancient city of Nantou. In terms of functional formats, the cross main street gathers tourism services and commercial and cultural formats, while mixing in the vertical direction; the second lane arranges the life business and life service formats around the public space, mainly with the transformation of the first or two floors. In terms of public space, through the differentiated interface guidance and the fine control of building reconstruction in node areas, and the comprehensive use of overhead, shrinkage and implantation facilities are used to reshape the style perception of Nine Street in modern life.

(4) "Dredge Meridians"

Nantou ancient city takes the streets as the core clue to perceive the context of the ancient city calendar. The north-south main street is the most historic context of the ancient city. The design emphasizes the central axis ritual order of the old city, and takes the cultural relic node as the core to control the material, color, background area and the ancient building style. Dongdong Street concentrates the time-honored brand of the ancient city and the vegetable market along the street, through the architectural style control, design the time-sharing function, focusing on the continuation of the street life memory and highlight the lively fireworks atmosphere of the ancient city. The second lane is themes with its own spatial characteristics. For example, there are many squares in front of historical buildings and pocket parks beside the trees along the Xingming Street, which connect the dotted cultural heritage to create an ancient garden lane that sees the green door and extending the green.

(5) "Stimulate Acupoints"

Select a representative field space to create a fully open scene. On the basis of maintaining the characteristics of the place, it increases the attraction of the local space and shapes a new space bearing more common memory and based on the foundation. Discover the unique value of the historical relics of the city wall and the city trench, implant the characteristic projects in line with the needs of modern people, and create a new cultural integration scene. With creative design as the theme, we will create cultural innovation, office and consumption industrial clusters in the ancient city, and integrate local original architecture into the spirit of modern places. In the extreme density of urban villages, the potential space is identified, the micro public space distributed in patches is arranged, and pocket parks are created to create interesting life scenes. It meets the needs of complex people in urban villages and the characteristics of extreme space, and places low-cost sharing facilities to create a compact, diversified and inclusive integrated habitat. (Figure 4-2)



Figure 4-2 Functional Zones and Real Scenes of Nantou Ancient City
(Source: <https://mp.weixin.qq.com>)

4.1.3 Guangzhou Enning Road, Yongqing Fang

(1) "Diagnosis"

Yongqing Fang, formerly known as Yongqing Street, is located in the middle section of the century-old Enning Road, located in the center of the old city of Guangzhou. Built in 1931, it has a neat continuation of the arcade street, rich and diverse cultural relics and historic sites,

and a well-preserved old city life style. As the city center moved to the new city, Enning Road buildings gradually failed, dilapidated houses, nearly collapsed. Poor building environment and lack of public space lead to the lack of thriving streets and the outflow of young people. Therefore, the transformation of Yongqing Fang is not only an urban renewal, but also needed for people's livelihood.

(2) "Inject Vitality"

Since 2006, after more than ten years of discussion, the reconstruction planning of the region has finally been transformed from "big relocation, big demolition and construction" to "protection, renewal and utilization", and in 2016, the "micro-transformation" renewal mode was proposed. The transformation process adopts the innovative mode of "government leading, enterprises undertaking and residents participating". Protection planning, implementation plan, architectural design, industrial planning simultaneously, to achieve the "four in one" of planning, design, construction and operation.

(3) "Harmonize Viscera"

In terms of the overall layout, Yongqing Fang has retained the original spatial pattern of "one vertical and two horizontal", preserved and repaired the original street and lane texture, presented the original street pattern to the greatest extent, and slightly adjusted the local street and lane space. And restore the banks of a river, the opening of Guangzhou intangible cultural heritage block.

(4) "Dredge Meridians"

In order to provide more space for tourists to communicate and interact, the width of the street is studied, and the building concession space on both sides of the roadway is combed, and the street width is widened by 0.5-4.9m. At the same time, tables and chairs are arranged in appropriate positions on the street, so as to open up many leisure and rest Spaces for "punching in". Such transformation enriches the functions of streets and lanes, in addition to traffic functions and adds interaction and communication functions, providing more possibilities of activities. In addition, in the fire traffic, also consider the setting of a small fire truck lane.

(5) "Stimulate Acupoints"

On the basis of continuing the historical space texture and the history and culture of Xiguan, Yongqing Fang selects important renovation points such as buildings, streets, squares and business forms to carry out renovation contents such as street renovation, environmental renovation, building repair, function replacement, infrastructure improvement and so on, so as to achieve the effect of "repairing the old as the old and building the new as the old". It also cleverly extracts the essence of Xiguan culture, designs the theme space of Bruce Lee's entrance garden, large tile wall, giant wooden steps and roof garden, and integrates the traditional culture into the space design, so that tourists can experience the unique connotation of Xiguan culture in the expanded space. (Figure 4-3)



Figure 4-3 Functional Zones and Real Scenes of Enning Road Yongqing Fang
(Source: <https://mp.weixin.qq.com>)

4.1.4 Guangzhou Beijing Road Pedestrian Street

(1) "Diagnosis"

Beijing Road is located at the beginning of Guangzhou. After more than two thousand years of historical vicissitudes, the center of the city has not changed. It has preserved the historical and cultural sites of more than ten dynasties, and has always been a prosperous commercial place. However, with the passage of time, the arcade building on Beijing Road has long been

covered by large-scale areas of commercial advertisements, historical construction, fire acceptance and other problems, gradually leading to cultural loss, architectural disorder, landscape disorder and business imbalance, affecting the overall style of the historical district, which is in urgent need of transformation.

(2) "Inject Vitality"

With the promotion of the first batch of 11 pedestrian street renovation and upgrading pilot in China, Guangzhou's efforts to promote the development of the Guangdong-Hong Kong-Macao Greater Bay Area, and the construction of an international business center and an international consumption center, the compilation of the Master Plan for the Renovation and Upgrading of Beijing Road Pedestrian Street has been officially launched. Its goal is to build a Lingnan Architectural Museum, a global model of cultural, business and tourism integration, an international pioneer of fashion, art aesthetics, Cantonese fashion brands, and a pioneer of national smart commercial blocks.

(3) "Harmonize Viscera"

Functionally from a single to a composite. Clarify the overall business positioning of "international trendy, young trend, cultural characteristics", and "highlight" the characteristics on the basis of the existing business forms, and create the "five forces" characteristic industrial area of "China-fashion vitality, international charm, cultural power, food heat, animation magic". The style changes from fragments to features. The renovation and upgrading of Lingnan architectural style are restored, the facade of the arcade building in the block is refined, the environment of the back street is comprehensively improved, and the block is built into a museum of Lingnan architecture and the style of the Republic of China.

(4) "Dredge Meridians"

Functionally from a single to a composite. Clarify the overall business positioning of "international trendy, young trend, cultural characteristics", and "highlight" the characteristics on the basis of the existing business forms, and create the "five forces" characteristic industrial area of "China-fashion vitality, international charm, cultural power, food heat, animation magic". The style changes from fragments to features. The renovation and upgrading of Lingnan architectural style are restored, the facade of the arcade building in the block is refined, the environment of the back street is comprehensively improved, and the

block is built into a museum of Lingnan architecture and the style of the Republic of China.

(5) "Stimulate Acupoints"

Strengthen the contemporary interpretation and innovation of traditional culture, focus on creating the thousand-year-old ancient road site display, arcade stage play, four seasons flower street and other characteristic space and punching scenes. First, repair the arcade style demonstration belt with the spirit of "craftsman" and the principle of "acupuncture", and repair the building facade and optimized design of the garden landscape. Second, replace the original low-end business forms, introduce dynamic industrial business forms, and promote the integrated development of culture, business and tourism. Third, adhere to the principle of "protection before renewal", retain the valuable Lingnan historical buildings and cultural connotation, and realize the "renewal in protection, protection in renewal". (Figure 4-4)



Figure 4-4 Functional Zones and Real Scenes of Beijing Road Pedestrian Street
(Source: https://m.sohu.com/a/124805875_115401)

4.2 Practical Framework of Urban Acupuncture Adapt to China

4.2.1 The Framework of Practice

After sorting out the case practice of urban acupuncture and moxibustion at home and abroad, it can be seen that under the domestic background, the block regeneration needs to adhere to the principles of cultural inheritance, people-oriented, diversity and complex, innovation and creativity. In terms of concept orientation, From a "single goal" to a "linkage between culture,

business and tourism", Pay more attention to material activation and cultural interpretation, Create a richer cultural and spatial experiential consumption; In terms of technical thinking, From "separate transformation of business form and material" to "space reconstruction oriented by new forms of business and new functional needs", More emphasis on the leading role of function and industry in the revival of traditional blocks; In terms of the implementation approach, From "sporty" to " public-private partnerships, The Acupuncture Effect ", Compared with the previous vigorous and fully rolled-out implementation model, More emphasis on the "precise hole selection" to create highlights, Form a demonstration effect, Promote the spontaneous renewal of surrounding properties; In terms of the working mode, From "the government's intention first" to "the people's demands first", Realize the joint design, co-management and co-governance with the owners, merchants and residents.

Through relevant theoretical research and practical research, we know that the practical framework of urban acupuncture in Chinese district can be divided into five steps from top to bottom: diagnosing, injecting vitality, harmonizing viscera, dredging meridian, and stimulating acupoints. The specific practices encompass both material and intangible aspects (Table 4-2):

Step		Purpose	Practical Content	
			Material Aspect	Intangible Aspect
Step 1	Diagnosis	Starting from the issues, assess the development advantages and disadvantages of the site, and summarize the development topics	Analyze spatial structure Analyze functional distribution Analyze transportation Analyze landscape Analyze architecture Analyze cultural heritage Summarize material pros and cons ...	Analyze historic evolution Analyze business types Analyze cultural advantages Analyze public opinions Summarize intangible pros and cons ...
Step 2	Inject Vitality	Think from a top-level perspective, actively respond to the development advantages, opportunities, and image requirements of the site, and establish a development vision	Utilize material advantages ...	Utilize intangible advantages Seize policy development opportunities Align with regional image requirements Summarize development vision ...
Step 3	Harmonize Viscera	Act on the surface elements to establish spatial development order and functional formats for the site	Construct spatial structure Integrate functional distribution Control overall aesthetics ...	Intervene in functional formats ...

Step 4	Dredge Meridian	Act on the linear elements to enhance the linear corridor system and intangible communication carriers of the site	Improve transportation network Improve vehicular traffic Improve pedestrian traffic Enhance landscape corridors Organize recreational pathways ...	Enhance network communication Enhance public education Increase public participation ...
Step 5	Stimulate Acupoints	Act on the focal elements to activate public spaces, neighborhoods, streets, buildings, and other key nodes	Select material key points Create distinctive neighborhoods Enhance parks Enhance plazas Beautify streets Revitalize buildings Improve furniture amenities Include culinary experiences ...	Plan events Incorporate music Enhance sensory experiences Improve aromas Enhance lighting ...

Table 4-1 Practical Framework of Urban Acupuncture
(Source: Created by the author)

4.2.2 Principles and Criteria for Acupoint Selection

(1) Principles of Acupoints Selection

"Acupoints" refer to specific areas that, after acupuncture intervention, can catalyze positive effects on broader societal, economic, and environmental issues. These acupoints may include distinctive neighborhoods, public squares, streets, buildings, and even intangible factors. The assessment and selection of these acupuncture acupoints require adherence to certain principles.

① Acupoints with insufficient current vitality but possessing acupuncture potential. The vitality of acupoints primarily lies in their capacity to attract people, which can be influenced by factors such as location, accessibility, architectural style, construction era, attractiveness, and green coverage. Thus, an evaluation index system is needed for quantitative assessment.

② Acupoints that are more likely to catalyze positive effects on their surroundings and larger areas. These acupoints can draw the attention and foster cooperative efforts from various parties, including residents, enterprises, and social organizations, thereby propelling improvements and development in the surrounding and even larger regions, encompassing social, economic, and environmental aspects.

③ Acupoints with distinctive historical and cultural significance. Specific considerations must be given to areas like historic districts, appreciating the unique values and meanings associated with acupoints in terms of history, culture, science, art, and emotions.

④ Emphasizing public participation and embodying neighborhood sentiments. The local residents and individuals closely connected to the historical districts possess the deepest understanding of these areas. Through questionnaire surveys and interviews, the acupoints requiring acupuncture intervention and design direction can be effectively identified.

(2) Methods of Acupoint Evaluation

The selection of acupoints in urban acupuncture within historic districts requires a scientific evaluation system. In the process of selecting evaluation indicators, it is necessary to adhere to the principles of comprehensive systematicity, concise scientificness, comparability of indicators, quantifiability of data, and operability of methods. Based on existing theoretical research and technological conditions, multiple perspectives are explored and screened to identify influencing factors.

Jia Yongda conducted a search on the CNKI Chinese database and identified 56 relevant articles related to vitality impact evaluation indicators. Summarizing these indicators, they were combined with the application goals and principles of urban acupuncture theory, as well as the opinions and suggestions of relevant experts and scholars. As a result, 6 primary indicators and 22 secondary indicators were selected, forming the evaluation indicator system for vitality impact in historic districts (Figure 4-5). Then, the analytic hierarchy process was employed to construct a hierarchical structure, and forty professionals were invited to assign values to the constructed judgment matrix (Table 4-2)^[52].

This evaluation system will be used as a reference for acupoint selection in urban acupuncture. Quantitative assessments of vitality points will be conducted based on existing data, resulting in comprehensive scores for each vitality point. Finally, acupoint selection will be completed based on the ranking of these scores.

Standard Layer	Target Layer Weight	Substandard Layer	Criterion Layer Weight	Target Layer Weight
Macro Environment	0.1728	Location	0.3409	0.0589
		Street Density	0.2954	0.0511
		Accessibility	0.3637	0.0628
Road Features	0.1540	Sidewalk Length	0.1676	0.0258
		Sidewalk Width	0.2304	0.0355
		Aspect Ratio (H/D)	0.2150	0.0331
		Aspect Ratio (W/D)	0.2057	0.0317
		Paste Rate	0.1813	0.0279
		Construction Area	0.3593	0.0594
Architectural Features	0.1652	Volume Rate	0.2725	0.0450
		Transparency	0.3682	0.0608
		Functional Mix	0.3398	0.0592
Functional Format	0.1743	Store Density	0.2880	0.0502
		Attraction	0.3722	0.0649
		Year of construction	0.2815	0.0502
History and Culture	0.1783	Architectural Style	0.4237	0.0755
		Build Quality	0.2948	0.0526
		Green Coverage	0.2528	0.0393
Spatial Quality	0.1554	Floor Covering	0.1696	0.0263
		Lighting Facilities	0.1761	0.0274
		Leisure Facilities	0.2578	0.0401
		Sanitary Facilities	0.1437	0.0223

Table 4-2 Indicator Weight
(Source: Jia Yongda, 2021^[52])

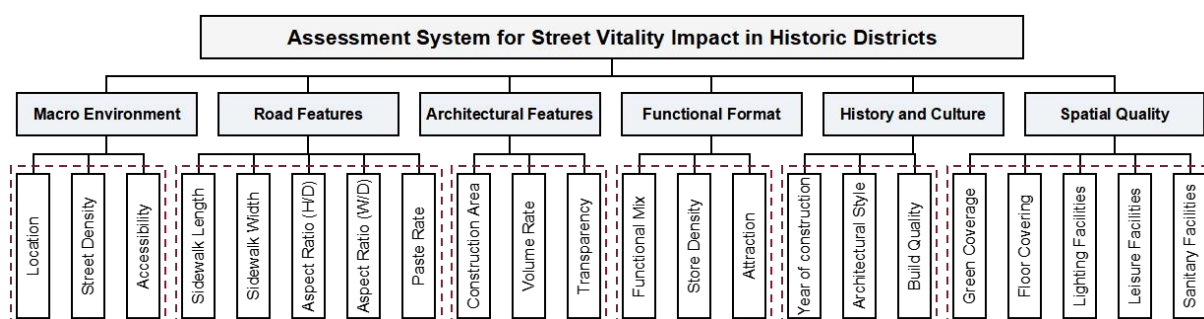


Figure 4-5 Schematic diagram of the evaluation system
(Source: Jia Yongda, 2021^[52])

4.3 Applicability of Urban Acupuncture in Guangzhou Historic District

4.3.1 The Renewal Trend of Guangzhou Historic District

The evolution of urban renewal models in Guangzhou can also be summarized into four stages, corresponding to the stages of renewal mentioned above (Table 4-3):

(1) Joint Development-oriented Old Town Renewal (1980-1999)

Starting from the late 1980s, Guangzhou embarked on large-scale transportation infrastructure construction, leading to extensive demolition of buildings along the routes, which had a significant impact on the urban pattern and historic context of the old town. Moreover, living conditions in the old town deteriorated, public services aged, and the full potential of urban land value remained untapped, posing formidable challenges for development. During this period, the urban renewal model adopted was "joint development," with the improvement of people's livelihoods as the starting point. The government coordinated efforts, with market forces playing a leading role, intending to achieve coordinated development between urban transportation and land development.

The Liwan Plaza, completed in 1996, is representative of this model and falls within the scope of this design. Located in a commercial hub with over a thousand years of history, it was a crucial area showcasing the traditional urban pattern of Xiguan district in Guangzhou. Originally dominated by low-rise block-style buildings, the transformation resulted in a 3-hectare mixed-use complex, disrupting the original dense and orderly spatial structure of old town and causing irreparable damage to the preservation of traditional urban spaces in Xiguan.

(2) Revitalization of Historic Streets with Environmental Improvements as the Main Focus (2000-2008)

In 2004, Guangzhou won the bid to host the 2010 Asian Games, which accelerated a series of environmental improvement projects to enhance the image and appearance of city. One of the key projects was the revitalization of urban water environments, with the Litchi Bay Environmental Improvement Project representing outstanding urban renewal initiative.

Litchi Bay was historically a wetland with intersecting water systems, but some sections were converted into roads. Seizing the opportunity presented by the Asian Games, the government unveiled the covered section of Litchi Bay Road, restoring it as a water channel to improve natural and cultural landscapes. Through ecological measures, water quality was restored. Additionally, the design concept of "New Lingnan Cultural Landscape" reintegrated elements and symbols of Lingnan traditional culture into the landscape, reviving the Lingnan water village ambiance and evoking nostalgic memories of Guangzhou in the past. However, this government-led project incurred substantial costs, overlooked post-operation and commercial aspects, limiting its impact on market activation and economic development.

(3) Transformation of "Three Old" by Tapping into Existing Land Resources as the Main Focus (2009-2014)

In 2009, Guangzhou initiated the transformation of the "Three Old", comprehensively renovating old towns, old factories, and old villages with favorable location values. The objective was to activate existing land resources, promote intensive development, improve living environments, enhance the image of city, and optimize the spatial layout, resulting in comprehensive improvements in the economy, society, and environment.

The comprehensive transformation in Guanggang New Town is a typical project of this period. The site originally consisted of a large steel factory and three villages, presenting a less desirable appearance. Under government coordination and with the involvement of developers, villagers, and factories, a coordinated planning model was created. The comprehensive transformation addressed issues related to urban villages and old factory conversions, enhancing the overall value of the area. Guanggang New Town was transformed into an exemplary high-end residential area built to high standards. Throughout the implementation, consideration was given to the protection and utilization of historic and cultural resources, leveraging the advantages of public participation, and involving developers in construction and operation to reduce the financial burden on the government. However, the approach of large-scale demolition and construction during this period sparked significant controversies.

(4) Micro-Renewal Focusing on Elaborate Improvements (2015-present)

During the urban renewal process, Guangzhou gradually recognized its profound historic heritage and rich historic and cultural resources. As a national historic and cultural city, the focus of renewal shifted to historic districts. Without making significant changes to the existing historical buildings and built environment, the "micro-renewal" approach was carefully designed to address spaces that were not suitable for modern life and social and economic activities. Necessary improvements were made, including preservation, restoration, partial demolition, facility enhancements, functional replacements, environmental improvements, and energy-saving renovations. This micro-renewal model has played a positive demonstrative role in urban renewal nationwide.

Enning Road in Liwan District serves as an important representative of this period. It is located in the heart of the old town in Guangzhou, representing the most intact and longest

arcade street. The original renovation plan proposed a large-scale demolition and reconstruction approach but faced opposition from experts and the public. Eventually, a micro-renewal model emphasizing preservation, utilization, and development gained significant recognition. This model has three key characteristics: a focus on comprehensive renovation to maintain historic continuity, participation of diverse stakeholders to ensure social engagement, and a primary emphasis on restoration and enhancement without demolishing any buildings. The implementation of this model has achieved positive impacts such as environmental improvement, cultural continuity, functional transformation, and revitalization of the old town, setting a benchmark for the regeneration of historic street areas.

Periods	Stages of the Renewal Process	Main Renewal Models	Representative Cases	Main Impacts
1980-1999	Exploration Stage of Free Market	Joint Development-oriented Old Town Renewal	Liwan Plaza	Resulted in issues such as profit-driven commercialization, large-scale demolition, and destruction of the old town fabric.
2000-2008	Government-led Exploration Stage	Revitalization of Historic Streets with Environmental Improvements as the Main Focus	Comprehensive Environmental Improvement of Litchi Bay	Improved living conditions and enhanced the city's image, but required significant financial investment.
2009-2014	"Three Old" Transformation Stage	Transformation of "Three Old" by Tapping into Existing Land Resources as the Main Focus	Guanggang New Town in Liwan District	Activated existing land resources, improved the urban landscape, and balanced multiple interests, although large-scale demolition still persisted.
2015 to the present	"Harmonious Urban System Renewal" Stage	Micro-Renewal Focusing on Elaborate Improvements	Enning Road Yongqing Fang in Liwan District	Preserved historic and cultural heritage, retained memories, and became a benchmark for the regeneration of historic street areas.

Table 4-3 Old Town Renewal Models in Guangzhou
(Source: Illustrated by the author)

Historic districts have become the focal point of urban renewal in Guangzhou. With the accumulation of renewal experience and the establishment of rational values, several trends have gradually emerged.

(1) Advancing the Renewal Approach of "Urban Acupuncture"

Traditional approaches to historic district renewal often involved conventional real estate development methods, which resulted in extensive demolition and reconstruction of existing buildings. As a consequence, the unique charm of precious historic structures was lost during the rebuilding process, leaving a regrettable historic impact. However, current renewal of historic districts have learned from past painful lessons. The focus has shifted towards

scientific planning and design, emphasizing a "micro-renewal and organic renewal" approach.

This approach involves small-scale, cost-controlled, and gradual interventions or localized acupuncture-like insertions, aiming to preserve the authentic historic space layout and cultural heritage while implementing reasonable architectural repairs, functional exchanges, integration of local culture, and infusion of modern elements. This creates historic districts with distinctive Guangzhou characteristics. Simultaneously, by enhancing the functionality of the district, it positively influences the surrounding areas, promoting coordinated development of the urban region and achieving organic renewal.

(2) Achieving "Cultural-Business Symbiosis" in Creating Vibrant Commercial Formats

The composition of business formats in historic districts should adhere to both commercial and cultural principles. Each historic district typically has a number of longstanding establishments that have historic significance. These businesses, if documented historically or with existing inheritors, should be given priority in the restoration of the commercial formats of district. On one hand, these longstanding businesses represent the living cultural heritage of the historic district. On the other hand, they possess significant brand influence that can be commercially viable. Even if some of these establishments may not be economically strong, they should be preserved for the sake of cultural heritage.

Simultaneously, from the perspective of overall district value, commercial considerations are also essential. Following the general principles of commercial real estate operations, a relatively stable balance should be struck among different formats such as dining, shopping, and leisure entertainment, depending on the specific commercial positioning. Additionally, commercial formats should deeply integrate with cultural brands, leveraging cultural advantages and creating new forms of commercial experiences. Therefore, the planning principle of "cultural-business symbiosis" helps historic districts preserve cultural intellectual property while generating commercial vitality.

(3) Emphasizing the Enhancement of Spatial Quality and the Vibrancy of the Atmosphere of District

Historic districts are gathering places for citizens, closely intertwined with lives, and exuding a distinctive urban atmosphere. To attract residents, visitors, and workers to create value, the renewal of historic districts should do a good job of "protection, retention, demolition and

education", focusing on improving the quality of roads, architectural aesthetics, street ambiance, landscape, and urban furnishings. Furthermore, the renewal aims to extend the profound value of historic culture beyond preservation, adding more interest and vitality to the district. This includes intertwining spaces, buildings, urban pattern, intangible elements such as residents, traditional industries, local culture, and contemporary activities to create a more diverse and memory-rich historic environment. For example, considering the incorporation of public spaces for leisure and activities throughout the entire street, creating a multi-functional space with a lively atmosphere that enriches the district. In this way, the atmosphere of district becomes more vibrant and captivating.

(4) Establishing a Multi-stakeholder Mechanism that Balances Economic and Social Values

Both government-led and market-driven approaches to renewal have significant drawbacks, as they often fail to balance "public interest" and "economic value". Thus, an updated system of "government coordination + market operation" is needed. This system involves the government coordinating various stakeholders, assigning roles and responsibilities, and balancing the interests of all parties. It ensures the implementation and operation of projects while achieving public interests driven by value. Additionally, the traditional approach of demolition, reconstruction, and subsequent sales and heavy asset operation is transitioning towards lighter asset operation models such as long-term leasing, fund holding, and cooperative development. This change brings new requirements for all stakeholders involved in the renovation process. In terms of social governance, the establishment of mechanisms such as expert evaluation systems, public consultation committees, and community councils fully harnesses the proactive engagement of social forces.

4.3.2 Applicability Analysis of Urban Acupuncture

(1) Alignment of Implementation Targets

On one hand, presently, the most focal point of urban renewal in Guangzhou lies in the historic districts. There are numerous historic districts in Guangzhou that possess cultural value, yet urgently require transformation due to their unfavorable appearance. On the other hand, an analysis of these historic districts from the perspective of Traditional Chinese Medicine and acupuncture reveals several striking resemblances to the composition of human body. Similar to the human body, historic districts are sustained by a material structure and

functional framework, ensuring the systematic operation of the urban organism. Just as the human body undergoes metabolic processes and exhibits a systematic structure, Harvey adeptly exemplified this in urban design. Urban green spaces parallel the role of lungs, while the central area of city mirrors the human heart, with streets as arteries and the flow of people akin to vital fluids. The spatial layout Chandigarh draws inspiration from the human form, with its road network resembling interconnected blood vessels nourishing various organs and transporting material energy. The administrative center corresponds to the human brain, cultural centers align with the nervous system, and commercial hubs equate to the heart, while architectural clusters akin to muscles. Urban acupuncture has found widespread application in historical districts around the world, making historic districts in Guangzhou fitting subjects for urban acupuncture implementation.

(2) Alignment of Purpose and Value

The purpose of renewing historic districts in Guangzhou is to prevent and treat the ailments of the districts, avoiding extensive demolition and loss of their original cultural and spatial features, while enhancing and emphasizing their cultural and spatial characteristics. Similarly, the purpose of Traditional Chinese Acupuncture is to diagnose and treat human ailments, achieving a healthy and harmonious functioning of the body. Both approaches aim to guide the healthy and vibrant state of the subject. From the perspective of Traditional Chinese Medicine, "urban acupuncture" is based on a holistic view and systems theory, studying the logic of the benign development of urban spaces. Urban acupuncture diagnoses, repairs, and strengthens the aging organization of historic districts through precise and small-scale interventions, with the core idea of regulating the overall functions by lightly intervening in key areas. It avoids urban ailments and the loss of original distinctive elements, creating a benign and bottom-up regulatory mechanism. Therefore, the purpose and value of urban acupuncture align with the goals of renewing historic districts in Guangzhou, preserving and utilizing the existing healthy elements while achieving sustained and benign development through precise small-scale interventions.

(3) Alignment of Practical Methods

Successful renovation cases of historic districts in Guangzhou can be divided into five steps: current situation analysis, seizing development advantages and opportunities, establishing functional spatial layouts, improving road and transportation networks, and enhancing core

spatial nodes. These steps follow a top-down and large-to-small gradual progression. Similarly, based on the analysis of urban acupuncture practices from Barcelona, the steps can be categorized as diagnosing, injecting vitality, harmonizing viscera, dredging meridian, and stimulating acupoints. These steps align with the practical approaches taken in Guangzhou's renovation cases. Urban acupuncture translates the language of Traditional Chinese Medicine into the language of urban design, taking the "viscera", "meridians", and "acupoints" of the city as the starting point for understanding, analyzing, and resolving ailments in historic districts. It employs acupuncture as the primary means to comprehensively reorganize the spatial system. The essence of urban acupuncture lies in the necessity to depend on and not disrupt the rational spatial framework of historic districts, intervening at specific "acupoints" on a small scale to adjust the overall functionality of the district and ignite its vitality in a cohesive and appropriate manner. Based on the regeneration of historic districts using the concept of "urban acupuncture", it provides highly suitable practical methods for the manifestation of symptoms, underlying causes, prevention, and holistic treatment of historic district ailments in Guangzhou.

4.4 Summary of this Chapter

This chapter focuses on the applicability of urban acupuncture in the context of Guangzhou's old town renewal. Firstly, it summarizes the historic process and patterns of old town renewal in Guangzhou, which can be divided into four stages from extensive transformation to refined micro-renewal. Then, it highlights three representative and successful cases of historic district renewal in Guangzhou: Enning Road Yongqing Fang, Beijing Road Pedestrian Street, and Pantang Wuyue. The chapter also summarizes the trends in renewal efforts of Guangzhou. Subsequently, it argues for the applicability of urban acupuncture in the regeneration of historic districts in Guangzhou based on the aspects of target implementation, value objectives, and practical methods. Building upon the content covered in chapters one to four, an integrated framework of practice of urban acupuncture suitable for the renewal of historic districts in Guangzhou is presented, encompassing the principles of diagnosing, injecting vitality, harmonizing viscera, dredging meridians, and stimulating acupoints. Lastly, the chapter supplements the key aspect of urban acupuncture, namely the principles and criteria for selecting acupoints, by incorporating existing research.

Chapter 5 Regeneration of Shangxiajiu Historic District in Guangzhou

5.1 Overview of the Historic District

As a window of modern China to the outside world, Guangzhou has constructed a unique urban landscape as a millennium-old commercial hub with a rich cultural heritage. The Shangxiajiu Historic District, representing the traditional commercial districts of Guangzhou, embodies the essence of local characteristics and urban traditional culture. In the present era, the Shangxiajiu Historic District continues to hold a significant position in commercial system of Guangzhou.

This article selects the Shangxiajiu Historic District as a practical example for urban acupuncture theory, based on the following three reasons:

(1) One of the urban development objectives of Guangzhou is to become a nationally renowned city of historic and cultural significance. Supporting the innovative development of cultural industries and shaping cultural soft power are pivotal in establishing Guangzhou as an international commercial center. In October 2018, General Secretary Xi Jinping, during his inspection of Yongqing Fang in Guangzhou, explicitly called for the revitalization of the old town with new vigor. He emphasized the need for urban planning and construction to place high importance on historic and cultural preservation, highlight local characteristics, focus on improving the living environment, and emphasize the inheritance of civilization and culture, leaving lasting memories in the city and evoking nostalgic sentiments.

(2) The Liwan District, commonly known as "Xiguan", is a cultural stronghold of Lingnan culture and representative of Xiguan culture. Currently, Liwan District has preserved 14 historic and cultural districts, accounting for 54% of total preservation of Guangzhou, making it one of the most concentrated and complete areas for preserving traditional historic and cultural charm in Guangzhou. It is necessary to showcase the "Liwan model" for exploring historic and cultural preservation, highlighting the cultural heritage and achievements of historic preservation in Liwan. It is supported for the aggregation and development of innovative and creative industries, gradually forming a cluster of creative parks and cultural and creative industry groups on the west bank of the Pearl River, and constructing a cultural and creative industry system with distinctive Liwan characteristics.

(3) The Shangxiajiu Historic District is a key focus of regeneration of historic districts in Liwan, serving as an "acupuncture point" in the urban context. On one hand, it boasts a deep historic heritage, distinct traditional urban pattern, and rich spatial and cultural traits, embodying the distinctive Lingnan characteristics. On the other hand, it enjoys favorable transportation accessibility, being adjacent to the subway station and located at the intersection of main thoroughfares. It also represents an important section of arcade ring of Xiguan, serving as a connecting link between other historic districts (Figure 5-1). Furthermore, since its transformation into a pedestrian shopping street, after over a decade of development and operation, its existing issues have become apparent, leading to strong demands from the community for transformation. It holds significant demonstrative significance.

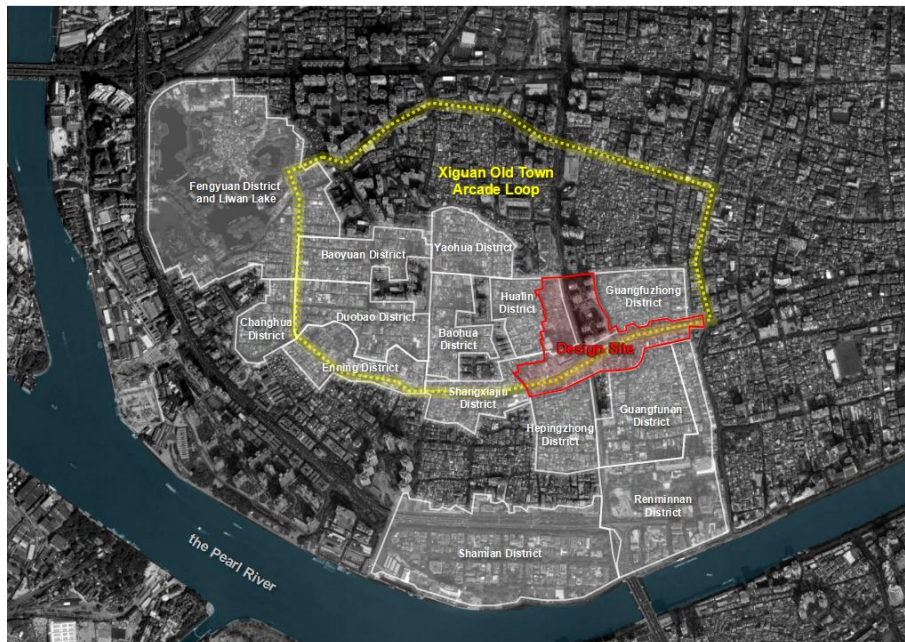


Figure 5-1 The Shangxiajiu Historic District in the Old Town
(Source: Illustrated by the author based on Baidu map)

5.1.1 Location and Design Scope of the Historic District

The Shangxiajiu Historic District is situated in the heart of the Liwan old town area, to the west of Guangzhou city, at the center of Guangdong province, and located in the southern part of China. The planning and design scope encompasses the core preservation area of the historic cultural district and the construction control zone of the historic cultural district. It revolves around the significant acupuncture point of the city, Shangxiajiu Plaza, and includes the closely connected Shangxiajiu Pedestrian Street, Liwan Plaza, and Hualin Jade Street. It extends eastward to Renmin Elevated Road, westward to Wenchang South Road, and

northward to Changshou East Road (Figure 5-3). The design scope covers a total area of 17.6 hectares and comprises approximately 859 existing buildings with a total floor area of around 331,000 square meters.

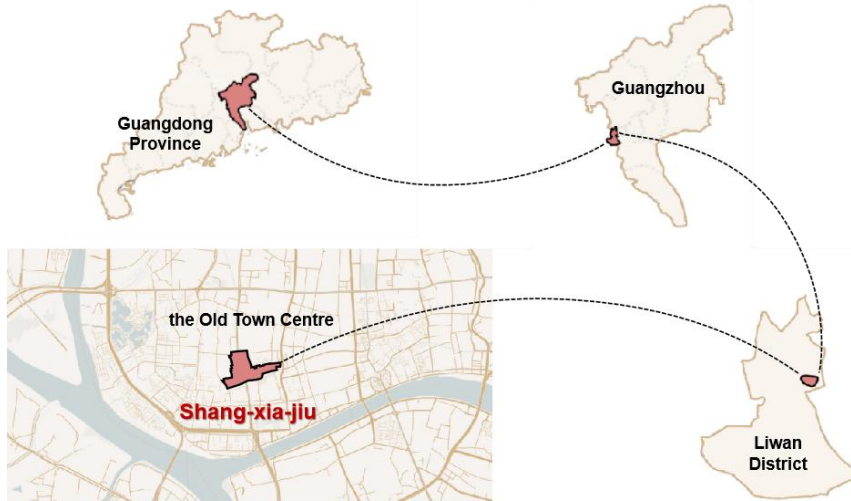


Figure 5-2 Location Map of the Shangxiajiu Historic District
(Source: Illustrated by the author)

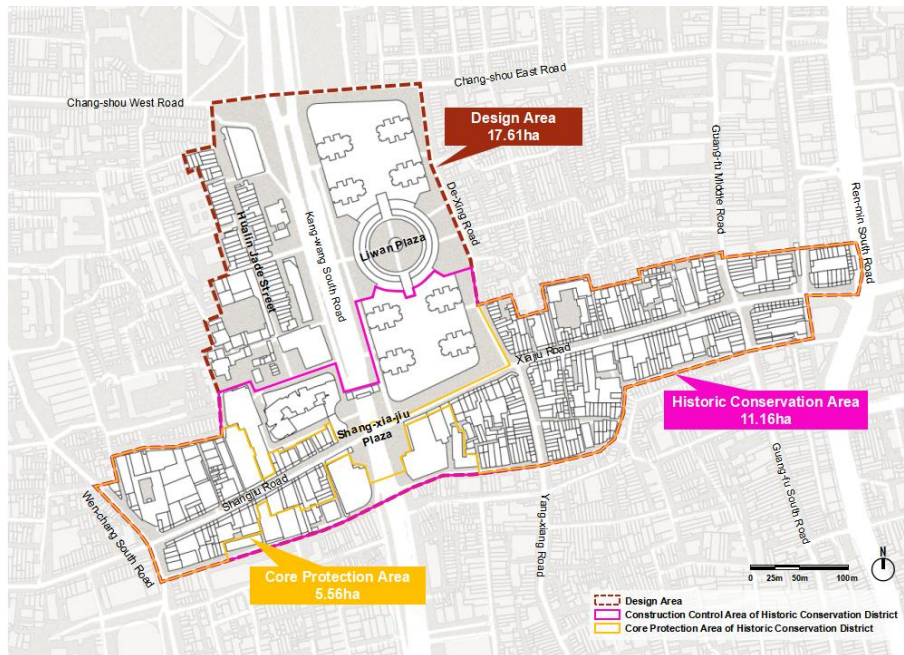


Figure 5-3 Design Scope of the Shangxiajiu Historic District
(Source: Illustrated by the author based on Baidu map)

5.1.2 Historic Evolution and Spatial Transformation

(1) Historic Evolution

According to records, as early as the 6th century, the Shangxiajiu area had already become a

concentrated commercial hub in Guangzhou and a hub for cultural exchanges between China and foreign countries. It was in this area that the three princes from the country of Tianzhu, led by Prince Dharma, arrived to propagate the profound teachings of Zen Buddhism. In the eighth year of the Emperor Wu of the Liang Dynasty's Putong reign (527 AD), they arrived in Guangzhou by sea, disembarked at the Xiuyifang wharf, and established the Xilai Monastery, later renamed as Hualin Temple. Today, there is a stone stele on Xiajiu Road inscribed with the words "Xilai Ancient Wharf" to commemorate the missionary work of the venerable Dharma.

During the Tang and Song dynasties, the Shangxiajiu area remained a bustling waterfront district where sailors and traders constantly came and went, indicating the prosperity of trade. During this period, the Nanhaisi Temple was constructed at the intersection of Dishifu and Xiajiu Roads, dedicated to the worship of the Nansha god. However, as the Pearl River coastline shifted southward, the temple gradually moved away from the water, losing its significance and falling into disrepair.

In the Ming and Qing dynasties, with the accelerated development of the commodity economy, the Da Guan River was excavated outside the city to facilitate the circulation of goods. According to the "Annals of Nanhai County," it was recorded, "Merchants and traders flocked here in constant streams. When faced with strong winds and rough waves, thousands of boats could take refuge by navigating into the river". Meanwhile, 18 "fu" organizations were established for commercial self-defense, and this area developed into a major commercial street and market on the western side of the city. Subsequently, the textile industry flourished, and with a rapid increase in population, Shisanhang Road along the Pearl River became a new trading zone for domestic and foreign commerce. However, during the Second Opium War, Shisanhang Road was devastated by fire, leading to the shift of the commercial center to the Shangxiajiu area, while Shamian Island became a leased territory.

During the Republican era, the commercial development of the Shangxiajiu area reached its peak, with various industries thriving. To facilitate the opening of roads, city walls and some buildings were demolished, and extensive arcades were constructed along the roads, forming the historic commercial streets that exist today and becoming the main framework of the Shangxiajiu area (Figure 5-4).

During the period of New China, through multiple planning repositioning, enhancement

projects, and renovation efforts since the 1980s, the commercial sector of Shangxiajiu district has further prospered and thrived. However, factors such as the emergence of new urban commercial centers and continuous modern development have also led to an adjustment phase for this district.



Figure 5-4 Historic Map of the Shangxiajiu Area during the Republican Era
(Source: Redrawn based on the 1938 Guangzhou Street Map)

(2) Spatial Transformation

In the eighth year of the Ming Dynasty's Chinghua reign (1472), the construction of the Dagan River began, and the western part of the city, due to convenient water transport, became the main commercial hub, gradually expanding into 19 "fu" districts. The term "fu" was used to describe these streets because as the number of shops increased, merchants erected gates and archways at the street corners to enhance self-defense against military and bandit attacks. Each segment of the street was sequentially arranged and referred to as the x fu, thus giving rise to the term "fu" (Figure 5-5).

As the commercial population continued to gather, merchants purchased land and built houses on both sides of the "fu". Starting from the "fu", streets and alleys extended vertically, forming a two-tiered living unit with shops in the front and residences in the back. The main street ran east-west, serving as the primary commercial and trade hub, while the inner streets and alleys functioned as the main areas for residential, neighborhood interaction, and daily services.

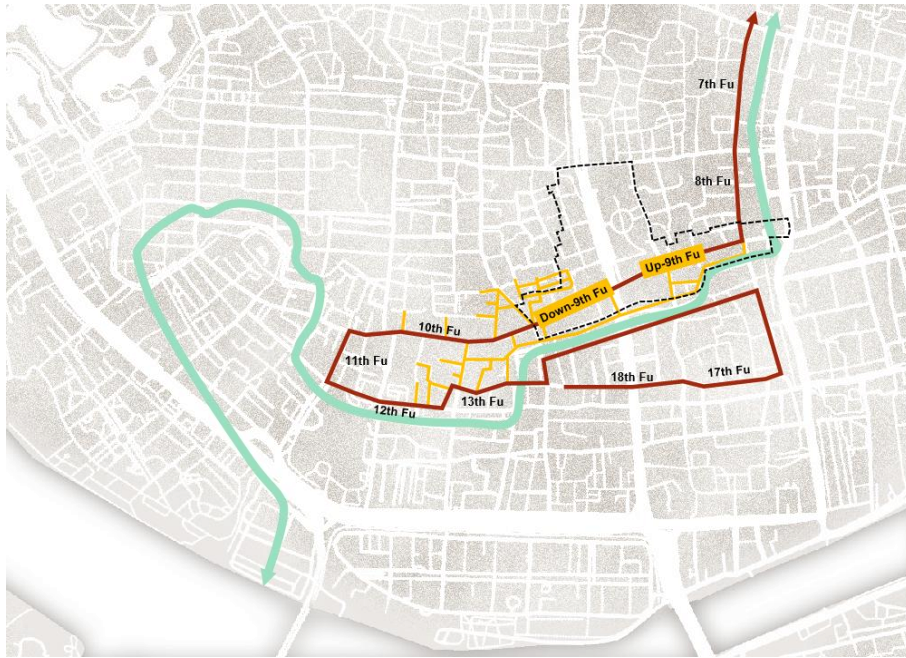


Figure 5-5 Ming and Qing Dynasties: Fu Districts Established Due to Water
(Source: Illustrated by the author)

In 1918, in order to address the increasing congestion in both intra-city and inter-city traffic, the government decided to demolish the city walls and convert the city base into urban roads. Shangjiu Road, Xiajiu Road, and others were gradually constructed in the 1920s and 1930s. The transformation of the road infrastructure greatly enhanced the commercial functions of the Shangxiajiu area.

With the demolition of old houses to make way for roads, the Shangxiajiu area began to witness the emergence of multi-story buildings combining commercial and residential purposes, known as "qilou" (arcade). The ground floor was predominantly used for commercial shops, while the upper floors served as residences or offices. With the concentration of businesses and suitable architectural forms, the commercial development in the area reached its pinnacle.

Perpendicular to the roads were "li" (alleys), while parallel to the roads were "xiang" (lanes). As the commercial development progressed, the population gradually settled in the area, leading to an increase in the density of buildings within the neighborhood. A three-tiered form of residential units comprising roads, "li," and "xiang" gradually took shape (Figure 5-6).

During this period, the main streets expanded into roads, with an east-west commercial arcade street and multiple north-south residential and commercial streets, which also served

additional transportation functions. The widths of the inner streets and alleys remained largely unchanged, with localized renovations and constructions of bamboo-tube-style buildings that combined Chinese and Western elements. They continued to serve as main areas for residence, neighborhood interactions, and daily services.

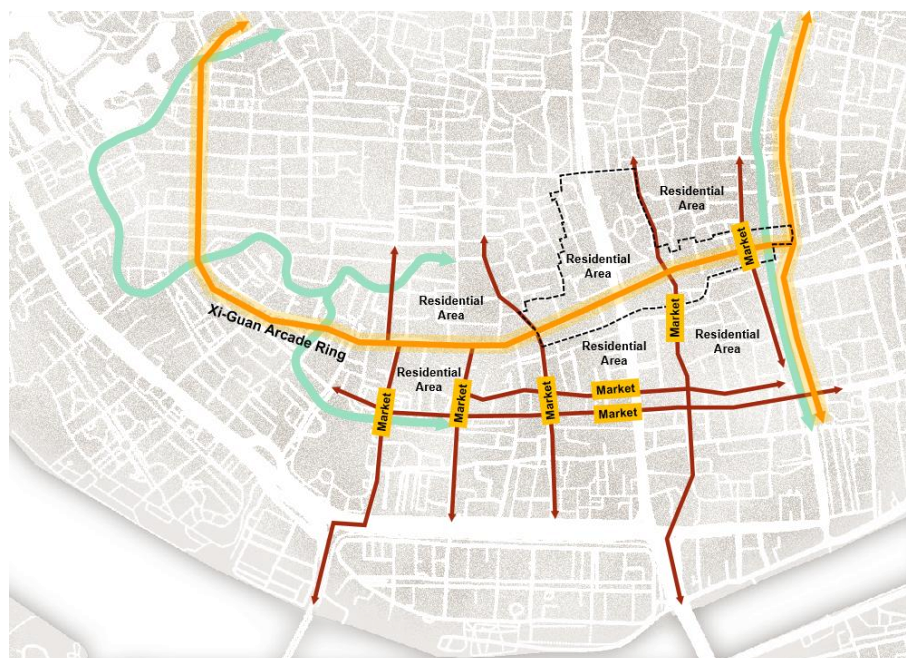


Figure 5-6 Republican Era: Expansion of Streets and Construction of Arcade Buildings
(Source: Illustrated by the author)

After the establishment of the People's Republic of China, modern architectural complexes such as schools and workers' residential areas were gradually constructed in the Shangxiajiu area, which had an impact on the existing urban fabric. In the 1980s, 1990s, and 2000s, there were adjustments and changes in the spatial layout and fabric of the neighborhood. Notable changes include the construction of the Liwan Plaza (residential complex) in 1993, which involved the demolition of a 45,000 square meter area on the north side of Xiajiu Road, replaced by eight 30-story buildings, thereby breaking the continuous facade of the arcade buildings along the Shangxiajiu Road. In May 2002, Kangwang Road was opened as a main road, primarily serving transportation functions, passing under the Shangxiajiu Road, bringing about some impact on the structure of the district.

The Shangxiajiu Pedestrian Street was officially opened on September 30, 1995, becoming the first pedestrian commercial street in China. It transformed from a semi-pedestrian street paved with asphalt to a fully paved pedestrian street with colorful tiles, providing an all-weather shopping experience. With the pedestrianization of the Shangxiajiu area,

peripheral roads bore the brunt of increased traffic flow, leading to compressed pedestrian spaces and significant mixed traffic conditions, resulting in a subpar pedestrian experience. Despite the well-preserved architectural charm and scale of the Shangxiajiu arcade street, the commercial functions have declined. Certain plots of land have been redeveloped into high-rise residential communities and commercial plazas, causing some degree of disruption to the streets, lanes, and overall fabric of the district. The inner alleys continue to primarily serve as residential areas (Figure 5-7).

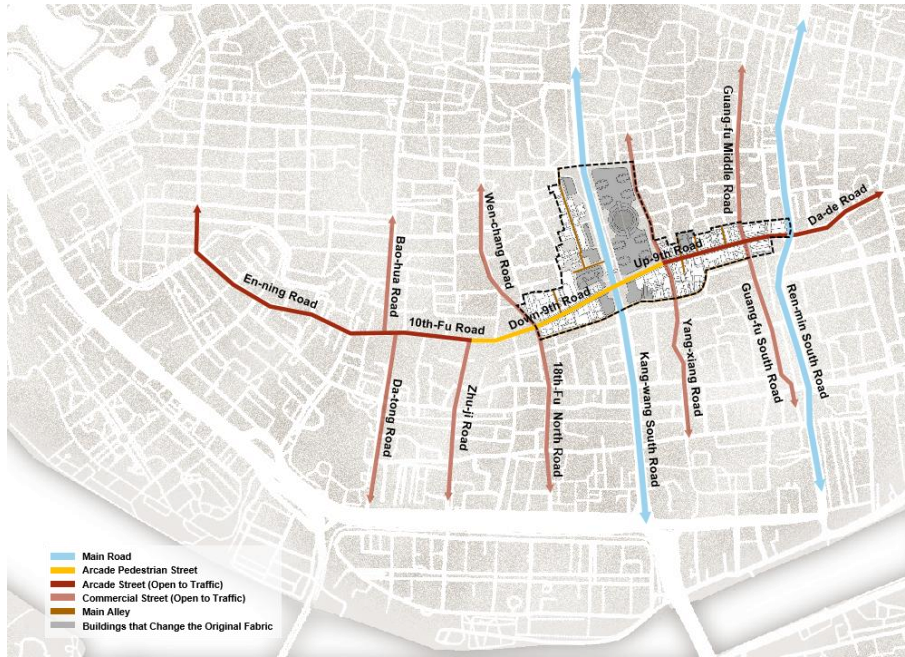


Figure 5-7 Contemporary Layered Coexistence
(Source: Illustrated by the author)

5.1.3 Reflection on Renovations

After Shangxiajiu became a commercial pedestrian street, it underwent two major renovation projects: the 1998 renovation project and the 2009 Asian Games renovation project. Both projects focused on improving and optimizing the facades of the buildings on both sides of the pedestrian street.

(1) 1998 Renovation Project

In 1998, the renovation project of the Shangxiajiu Pedestrian Street commenced. It aimed to preserve the architectural patterns from the 1920s to 1930s in Guangzhou. By collecting information on arcade structures and analyzing their architectural forms, scale, elements, materials, doors, windows, and colors, the project sought to reconstruct the street using old

photographs of Shangxiajiu and architectural elements from other areas. The goal was to restore its original appearance.

Emphasizing the local characteristics and original architecture, the project incorporated representative architectural features. In the process of facade cleaning and restoration, Western architectural language and symbols were partially referenced. Three-dimensional lighting decorations were also added to the street facades in line with the requirements of the "Brightening Project" in the city, creating a vibrant and picturesque atmosphere of the Xiguan district (Figure 5-8).



Figure 5-8 Before (top) and After (bottom) the 1998 Renovation Project
(Source: Guangzhou Design Institute of Sizhe, Ltd.)

(2) 2009 Asian Games Renovation Project

Before the 2009 renovation project during the Asian Games, the buildings in Shangxiajiu had been covered with bar-shaped bricks, article skin stones, and even washing stone materials. The renovation project focused on the exterior walls, emphasizing the choice of materials and colors to recreate the historic charm.

In terms of materials, besides using waterbrushed stones and green bricks for the exterior walls, Swiss imported coatings were selected. Various patterns were employed to retain the charm of the old buildings. Regarding colors, a cool gray tone was adopted as the main theme, complemented by a combination of warm and cool grays, avoiding the use of highly saturated colors. The overall color scheme leans towards an antique and stable atmosphere. With

colorful signs, lightboxes, and display windows, the architectural elements showcased the prosperity of commercial information (Figure 5-9).



Figure 5-9 Before (top) and After (bottom) the 2009 Renovation Project
(Source: Renovation Project during the Asian Games)

5.2 Analysis of the Current Situation

The analysis of the current situation in the Shangxiajiu Historic District focuses on the designated area. Through data research, on-site investigations, and questionnaire interviews, the analysis covers five aspects: roads and alleys, plazas and nodes, buildings and functions, historic elements, and community opinions.

5.2.1 Roads and Alleys

(1) Transport Analysis

In terms of public transportation, ground-based public transportation is the main mode in Shangxiajiu. The district is adjacent to one subway station, Hualin Temple Station, which is on Line 8 of the Guangzhou Metro, serving a radius of 500 meters. Within the district, there are three bus stops, while there are seven in the surrounding area. However, the bus stops have inadequate space and generally poor facilities and waiting environments. Moreover, the core area of the district consists of a 600-meter-long pedestrian street, where buses cannot provide service.

Regarding vehicle traffic, the road network in Shangxiajiu has poor connectivity. Apart from the main roads, Kangwang South Road with an underpass and Renmin South Road with an elevated bridge, the remaining roads are mostly one or two-lane side roads with lower road

grades. The connectivity within the district is low, and horizontal traffic flow is interrupted by the Shangxiajiu Pedestrian Street, requiring detours for vehicles. The roads mostly run north-south, and the connections at the east and west ends of the district are relatively weak.

In terms of static traffic, parking lots generally meet the demand. Most of the commercial pedestrian streets and community alleys in the district have limited provision of parking facilities, resulting in fewer parking spaces. However, there are more parking lots around the district due to the presence of modern buildings. By implementing time-sharing parking and other measures, the utilization efficiency of parking spaces can be improved to meet the long-term parking needs in the area. However, there is a shortage of parking spaces to meet short-term parking demands.

Regarding pedestrian traffic, the walking environment is poor and there are dead-end roads. The effective width of the municipal sidewalks in the district is generally less than 1.5 meters, resulting in narrow pedestrian spaces. Due to the encroachment of goods from shops, illegal parking of non-motorized vehicles, and the layout of municipal facilities and trees, the sidewalks are often interrupted, creating an unfavorable walking environment. On one hand, this is due to the layout of old buildings, and on the other hand, it is due to the deliberate setting of barriers to distinguish private spaces (Figure 5-10 and Figure 5-11).

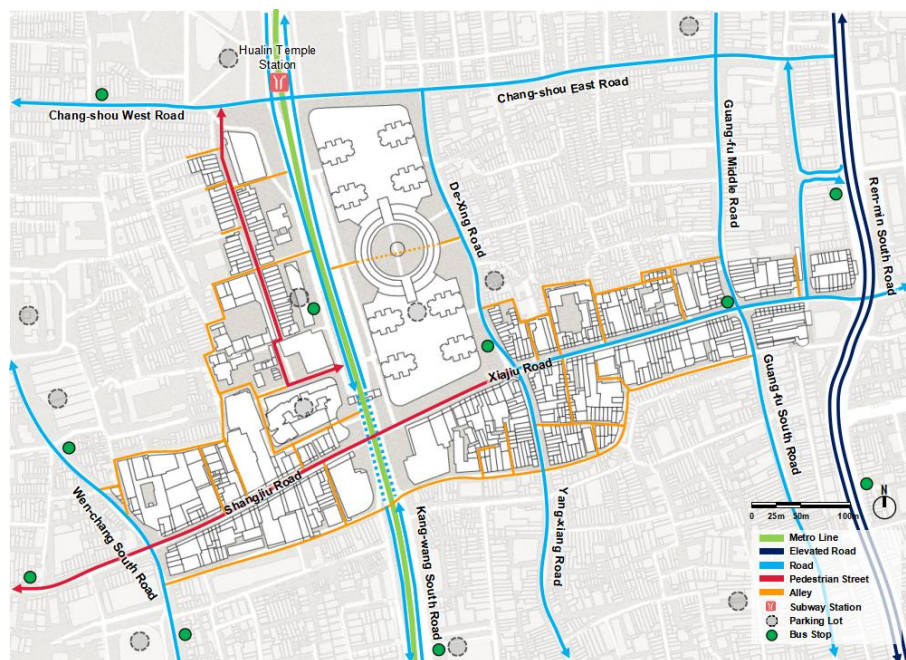


Figure 5-10 Traffic analysis diagram
(Source: Illustrated by the author)

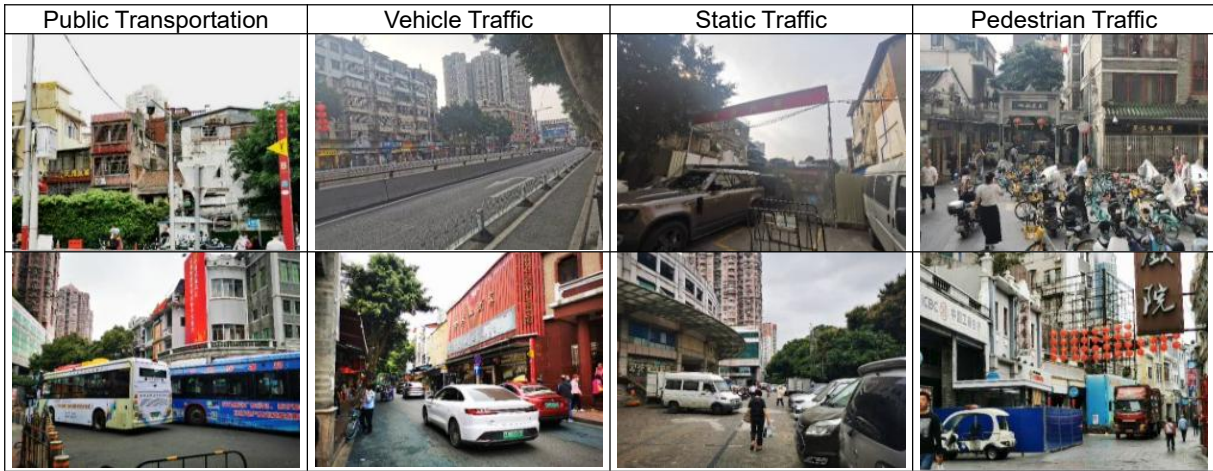


Figure 5-11 Current Traffic Situation
(Source: Illustrated by the author)

(2) Alley Analysis

The alley structure of Shangxiajiu is well-preserved with a clear structure of "arcade street - main street - side alley", forming a hierarchical and tree-like layout (Figure 5-12).

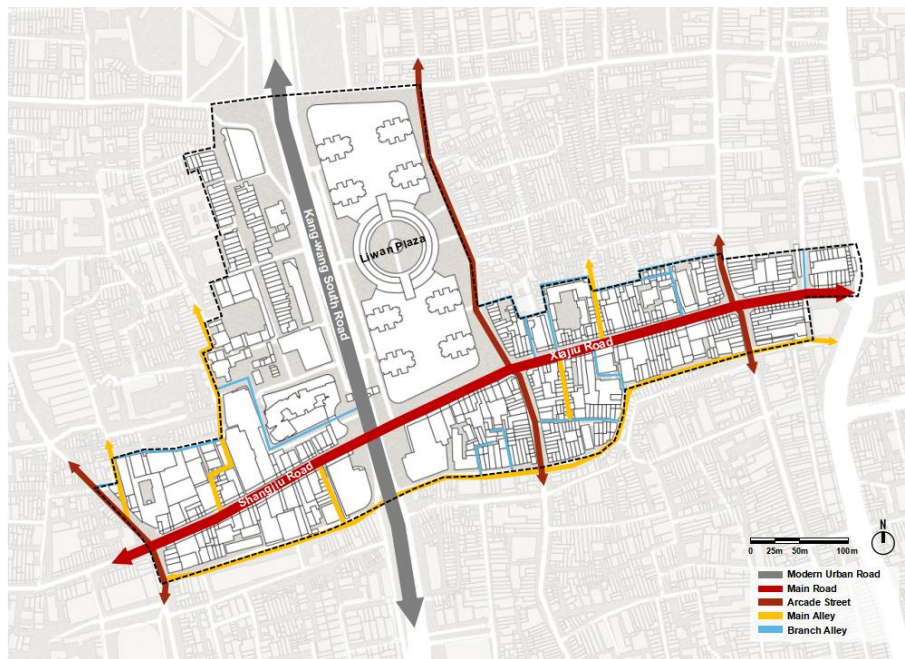


Figure 5-12 Alley Structure Diagram
(Source: Illustrated by the author)

Traditionally, there were no plazas in Chinese street layouts. However, due to the construction of Kangwang South Road, the original arcade commercial buildings were demolished. To minimize the negative impact on the historic district, an underpass was constructed to connect the north and south, and the ground was transformed into a plaza, ensuring the continuity of the pedestrian street. Renovation efforts have primarily focused on the main street. On one

hand, the increase in business turnover has led to higher rents, forcing traditional businesses to relocate. On the other hand, the cultural value of internal alleys has gradually diminished, with a lack of cultural stories and historic scenes highlighted. The transformation nodes, such as gateways and archways, lack sufficient guidance. Additionally, the quality of internal alleys is low, with occasional waterlogging, a lack of public spaces and recreational facilities, poor pedestrian environments, and subpar conditions at garbage collection points (Figure 5-13).



Figure 5-13 Roads and Alleys
(Source: Illustrated by the author)

The majority of the arcade streets in Shangxiajiu have preserved their historic dimensions, creating a pleasant street scale. The architectural form of the traditional arcade buildings on both sides caters to the needs of small-scale diversified businesses, primarily in handicrafts and individual commerce. The typical dimensions include a width of approximately 3-4.5 meters and a depth of 10-20 meters. Most buildings consist of 2-3 floors, with the ground floor reaching a height of 4.5-5.5 meters and the floor height ranging from 3.2-3.6 meters. The overall height of the buildings varies between 10-24 meters. The street itself is around 11 meters wide. The ratio of street width to arcade height (D/H) is approximately 0.4-1, while the ratio of shop width to street width (W/D) is about 0.4. This scale relationship gives the street a narrow and cozy atmosphere, evoking a sense of intimacy for pedestrians (Figure 5-14).

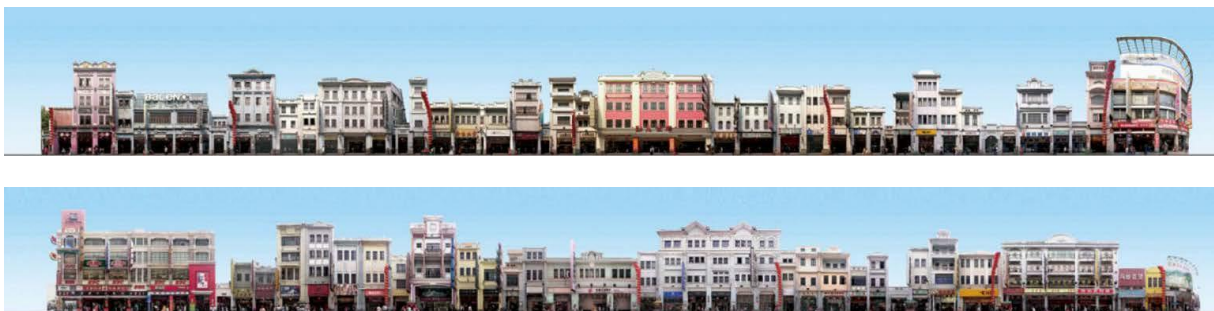


Figure 5-14 Arcade Street Western Section Facade Diagram
(Source: He Yun. Study on the Exterior Space Landscape and Color of Commercial Arcades in Guangzhou [D]. South China University of Technology, 2008.)

However, due to previous unreasonable renovations, particularly the intervention of Liwan Plaza, a distortion in scale has occurred. The street width has expanded to approximately 20

meters, with traditional arcades on one side and Liwan Plaza on the other. Although the lower levels of the plaza also feature arcade-style structures, their column spacing reaches 7-8 meters, creating a stark contrast with the traditional arcades across the street (Figure 5-15).



Figure 5-15 Arcade Street Middle Section Facade Diagram
(Source: 贺芸. 广州商业骑楼外部空间景观色彩研究[D].华南理工大学,2008.)

The vertical facades of the arcades in Shangxiajiu are diverse in form, incorporating a blend of Chinese and Western styles. They boast abundant decorative details, aiming for grandeur and exaggeration, emphasizing impact and showcasing wealth and power^[82]. These facades feature various architectural styles, such as Chinese-Western style, Nanyang style, Roman arcade style, and Gothic revival, making Shangxiajiu a pinnacle of arcade architecture. It epitomizes the artistry of arcades, with a fusion of Chinese elements and Western influences (Figure 5-16).

Chinese-Western Style	Nanyang Style	Roman Arcade Style	Gothic Revival
Taotaoju	Huangshanghuang	Ping'an Grand Theater	Lianxianglou

Figure 5-16 Facade Types of Arcade Buildings
(Source: 黄浩. 广州上下九街区更新若干问题研究[D].华南理工大学,2012)

5.2.2 Plazas and Nodes

(1) Public Nodes

In addition to the pedestrian streets and alleyways, the historic district of Shangxiajiu boasts abundant public spaces, including Shangxiajiu Plaza, street entrances and intermediate nodes, as well as the open spaces and courtyards in front of Liwan Plaza. However, many of these public spaces remain underutilized, accounting for 64% of the total. These spaces are concentrated in three areas: the Wuyanjing node and the adjacent south-side alleyways (locations 2 in Figure 5-17), the surroundings and interior of Liwan Plaza (locations 6, 7, and 8 in Figure 5-17), and the eastern segment of Shangjiu Road (location c in Figure 5-17).

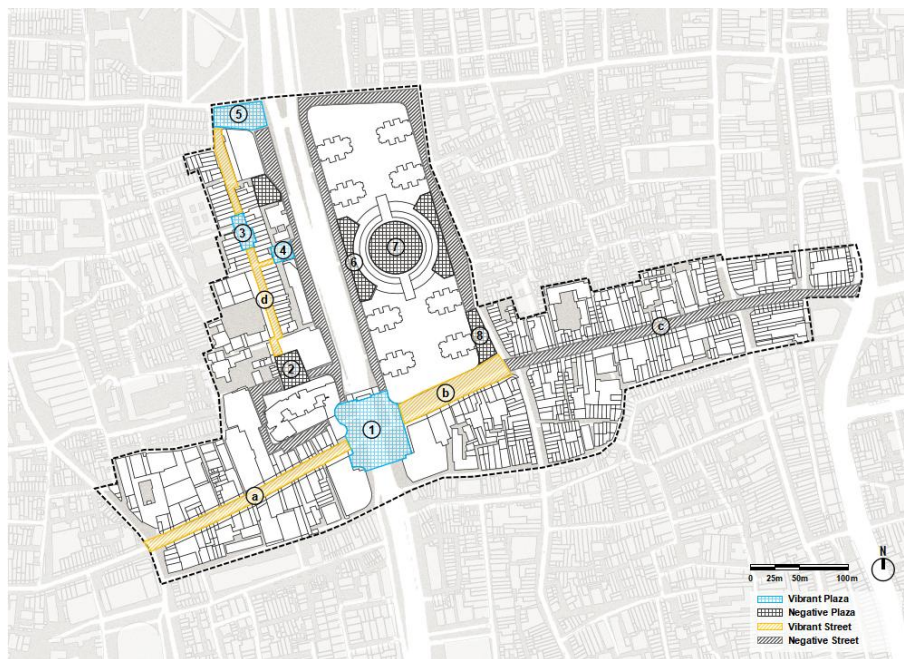


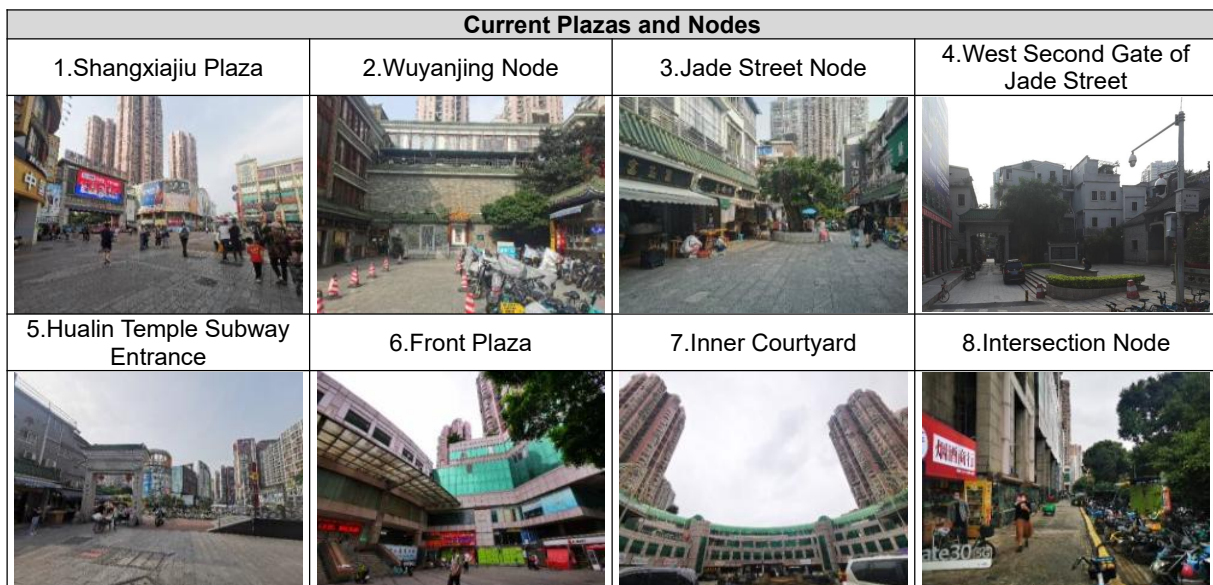
Figure 5-17 Current Public Space Conditions
(Source: Illustrated by the author)

The Wuyanjing node has designated parking spaces for non-motorized vehicles, but it suffers from unauthorized parking, hindering pedestrian flow and obstructing the Wuyanjing, a cultural heritage site at the municipal level. The south-side alleyways are occupied by residential areas for parking and logistics purposes, with fences restricting access to only one person at a time. This setup disrupts the flow of people between the vibrant Hualin Jade Street and Shangxiajiu Pedestrian Street, and it also limits the path from Hualin Temple subway station to Shangxiajiu Pedestrian Street.

Liwan Plaza is a particularly problematic area within the Shangxiajiu Historic District. Both

its interior and exterior fail to attract crowds for several reasons. Firstly, the massive modern architecture disrupts the urban fabric and is incongruous with the historic charm and ambiance of the district. Secondly, the ground-level mall mainly focuses on wholesale jewelry, which does not cater to everyday consumer needs. Moreover, its street-facing openness and transparency are low, with only two main entrances on the north and south sides and four secondary entrances on the east and west sides. Thirdly, the destructive construction of the plaza had caused significant public dissatisfaction, leading to widespread urban legends and superstitions about Liwan Plaza. People have become increasingly averse to it^[83].

The eastern segment of Shangjiu Road is primarily a carriageway, resulting in a sharp decline in pedestrian traffic. In 1995, this section was paved with cobblestone for both pedestrians and vehicles. However, due to aging and non-permeability, coupled with increased vehicular demand, the convenience of sharing the road between pedestrians and vehicles became highly unsafe. Around 2020, it was transformed into an asphalt road exclusively for vehicles. As a result, the pedestrian space of Shangjiu Road was squeezed, and the vitality of the crowd plummeted, leading to the closure of numerous shops on both sides (Figure 5-19). Additionally, the eastern end of the road is densely populated with intersections, busy traffic, and elevated bridges. The lack of vibrant points of interest on the eastern side outside the premises has diminished the desire for people to move eastward, further exacerbating the declining vitality of this area (Figure 5-18).



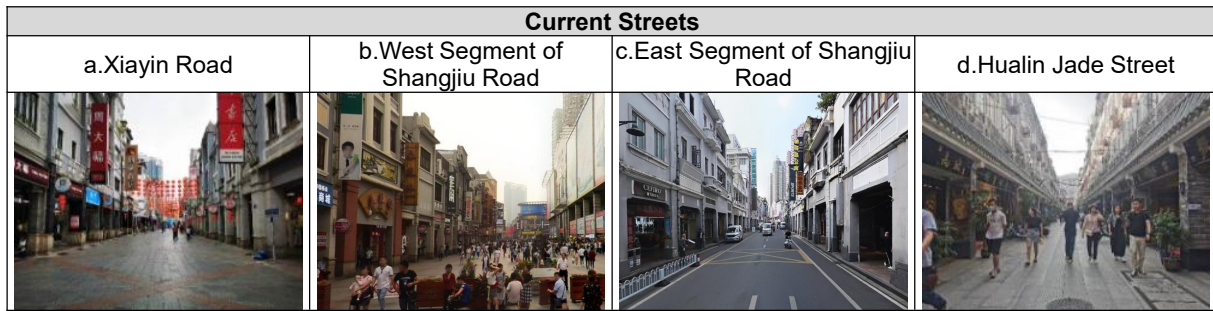


Figure 5-18 Current Public Space Photos
(Source: Illustrated by the author)

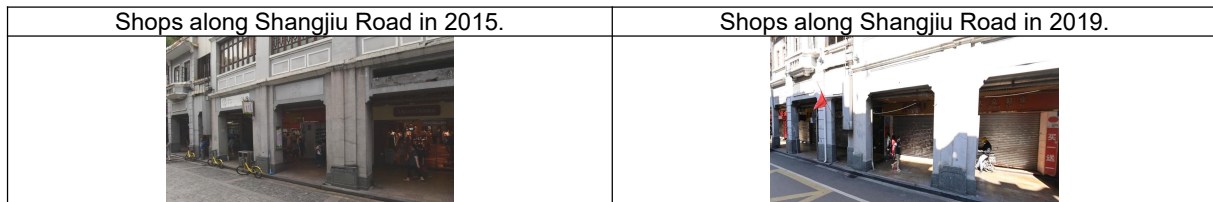


Figure 5-19 Comparison of the vitality of Shangjiu Road
(Source: Baidu Maps Street View)

(2) Shangxiajiu Plaza

Shangxiajiu Plaza, located at the heart of the Shangxiajiu Historic District, is the intersection of the historic Shangxiajiu arcade street and the modern Kangwang South Road. In 2002, the "Shangxiajiu Cultural Plaza Urban Design Plan" proposed the construction of arcade commercial buildings that would enclose the plaza, along with transparent archways at the north and south entrances, forming a cohesive plaza with the existing architecture (Figure 5-20)^[84]. However, due to coordination issues with the developers, the planned archway on the south side was not constructed, and the trees and water features within the plaza were neglected.



Figure 5-20 Shangxiajiu Cultural Plaza Urban Design Plan
(Source: 肖毅强,周军.旧城空间的丰富与完善——广州上下九商业街文化广场城市设计[J],2002)

Nevertheless, the current Shangxiajiu Plaza remains bustling and vibrant, serving as the liveliest area of the entire Shangxiajiu pedestrian street. Based on on-site research conducted

on a weekday afternoon, the 0.385-hectare plaza accommodated 167 individuals, predominantly composed of young and middle-aged people, accounting for 55% and 26% respectively. Apart from merely passing through, people engage in various activities such as shopping, parents accompanying their children, resting, and taking photographs (Figure 5-21 and Figure 5-22). It is worth noting that the plaza lacks seating facilities, and people generally sit under sculptures or on the edges of the steps.



Figure 5-21 Activities in Shangxiajiu Plaza
(Source: Illustrated by the author)



Figure 5-22 Activity Photos of Shangxiajiu Plaza
(Source: Illustrated by the author)

Research revealed that Shangxiajiu Plaza, being a renowned tourist attraction in Guangzhou, is frequently visited by individuals for photo-taking and check-ins. However, it is often challenging to capture clear images of the archways and welcome signs associated with

Shangxiajiu. Instead, the viewfinder frames the massive electronic screens displaying advertisements on the archways and the vibrant, colorful billboards on the facades of surrounding buildings, nearly concealing the distinctive features of the local arcade architecture. The facades surrounding the plaza share a similar appearance, and within the plaza, components of the temporary display shelf, long-term parked patrol cars, and red barriers are present, which detract from the aesthetic appeal of the plaza (Figure 5-23).



Figure 5-23 Shangxiajiu Plaza Facades
(Source: Illustrated by the author)

5.2.3 Architecture and Functionality

This section provides an analysis of the architecture and functionality of the Shangxiajiu Historic District from eight perspectives, including architectural pattern, building height, building quality, construction era, protected buildings, public housing, function, and vitality.

(1) Architectural Pattern

Within the designated area, four types of street block pattern can be identified, reflecting the continuous transformation of traditional spatial forms to adapt to new development needs (Figure 5-24). Buildings with arcade pattern (Figure 5-26) are distributed on both sides of Shangjiu Road and Xiajiu Road, with preserved arcade facades that possess distinct features and high architectural preservation value. However, the interior of these buildings has been merged to create larger spaces to accommodate modern functional requirements. Traditional pattern refer to the presence of traditional features, such as bamboo tube houses (Figure 5-26), and the architecture exhibits a characteristic "commercial and residential" pattern. Traditional derivative pattern gradually expanded in scale over time to meet modern functional needs while still integrating organically with traditional pattern. The buildings in this pattern are predominantly modern multistory structures. Modern pattern consist of modern multistory and high-rise buildings constructed in the 1990s, lacking traditional features and appearing somewhat abrupt within the historic street area (Figure 5-25).

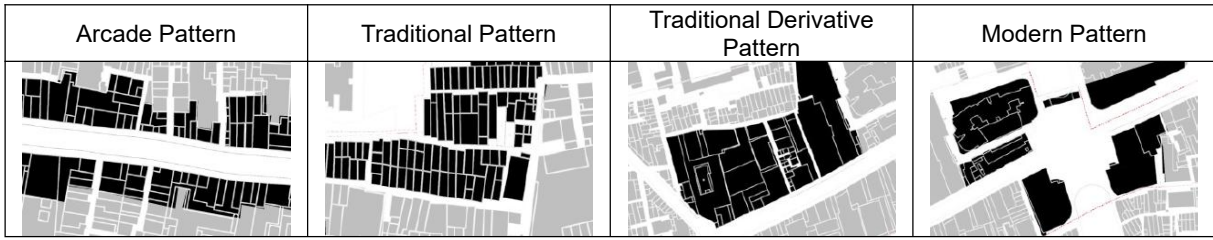


Figure 5-24 Types of Architectural Pattern
(Source: Illustrated by the author)

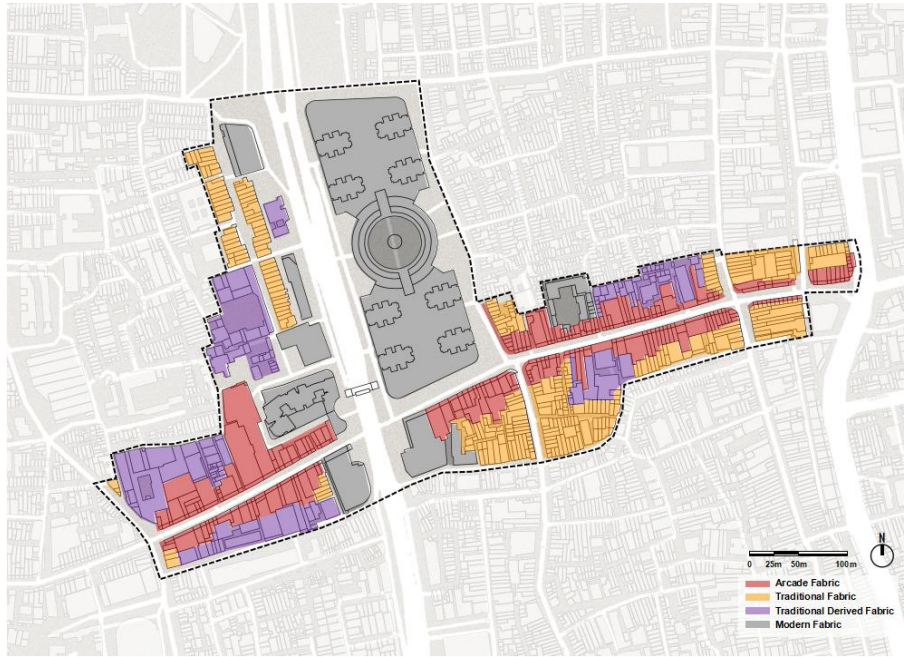


Figure 5-25 Architectural Pattern
(Source: Illustrated by the author)

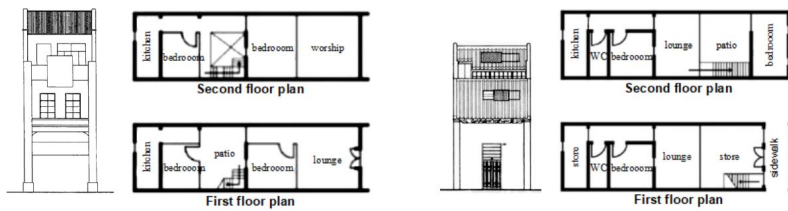


Figure 5-26 Facade and Plan of Arcade Buildings (Left) and Traditional Residences (Right)
(Source: 陆琦. 《广东民居》, 2008)

(2) Building Height

The Shangxiajiu Historic District is primarily characterized by low-rise buildings of 1-4 stories. However, the presence of the 32-story Minghui Building and residential buildings in the vicinity of Shangxiajiu Plaza significantly impact the overall skyline. Nevertheless, the architectural style of the arcade buildings on both sides of Shangxiajiu Pedestrian Street remains unaffected by the taller buildings behind them within the line of sight along the street (Figure 5-27).

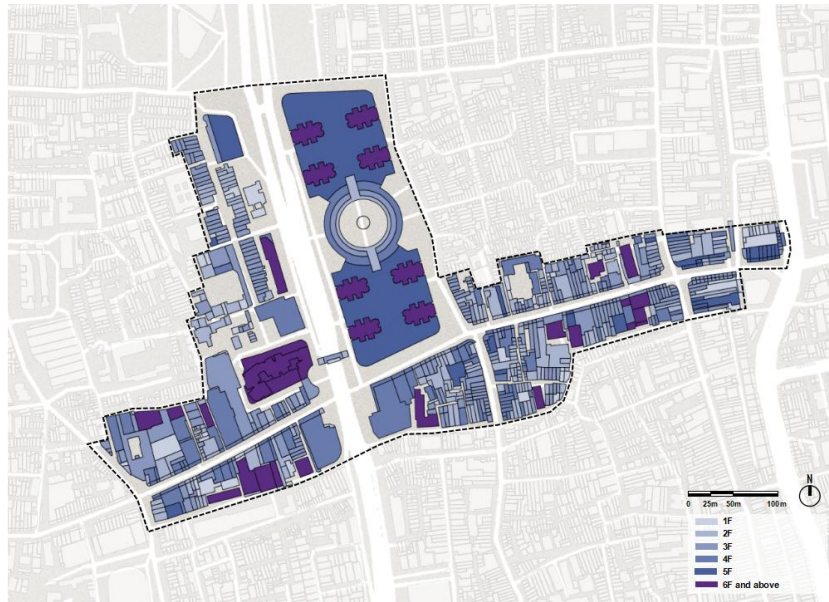


Figure 5-27 Building Height
(Source: Illustrated by the author)

(3) Building Quality

Newly constructed buildings along Kangwang South Road, such as Hualin International, Dongjixin Plaza, Minghui Building, and Liwan Plaza, exhibit good architectural quality. However, traditional arcade buildings and bamboo tube houses within the street block, due to their age, generally possess average building quality. Among them, five buildings have relatively poor quality, and one is classified as a dangerous structure (Figure 5-28 and Figure 5-29). These six buildings are all privately owned.

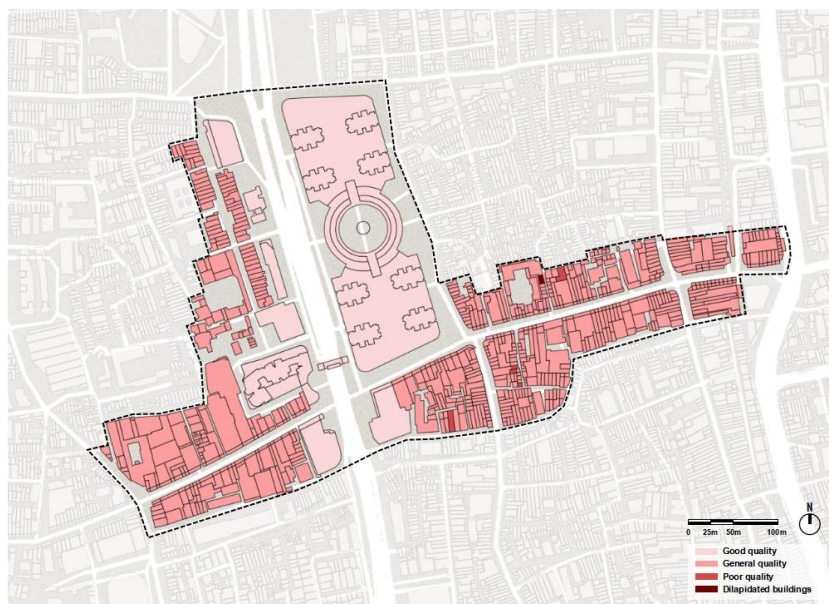


Figure 5-28 Building Quality
(Source: Illustrated by the author)

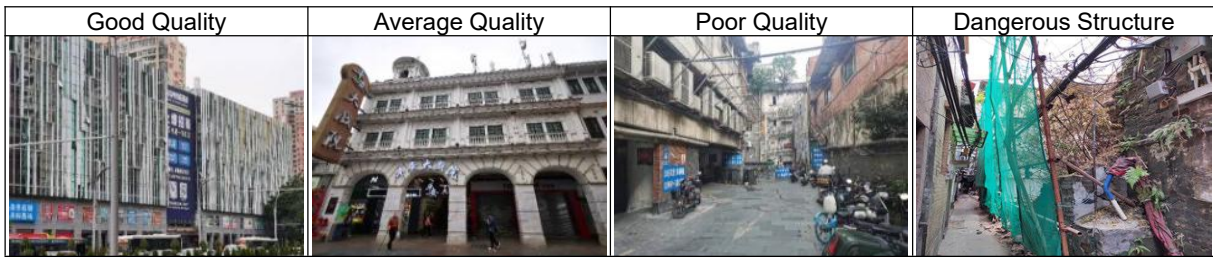


Figure 5-29 Building Quality Photos
(Source: Author's photographs)

(4) Construction Era

Most of the buildings in the street block date back to the Republican era. Along Kangwang South Road, there are some post-liberation multi-story buildings and high-rise buildings constructed around the 1990s (Figure 5-30).

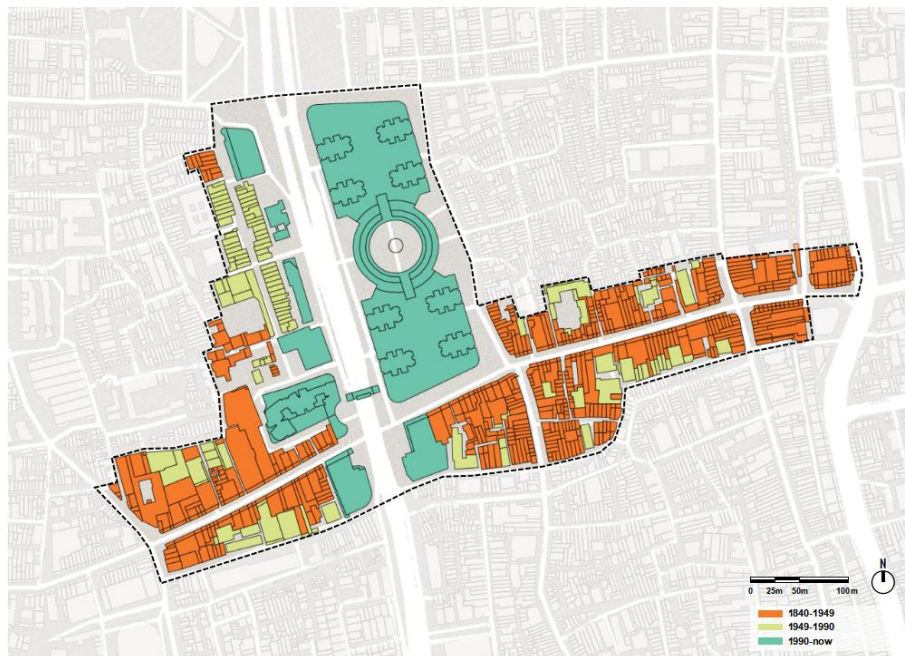


Figure 5-30 Construction Era
(Source: Illustrated by the author)

(5) Protected Buildings

Within the designated area, a total of 67 protected buildings and cultural heritage sites are identified, primarily distributed along Shangjiu Road and Xiajiu Road, with arcade buildings being the predominant architectural style. Among them, Jinlun Guild Hall is a provincial-level cultural heritage site, Wuyanjing is a municipal-level cultural heritage site, and Guangzhou Restaurant is a registered immovable cultural relic at the district level (Figure 5-32). Additionally, there are other historical buildings, traditional-style buildings, and clues to

traditional architectural features (Figure 5-31).

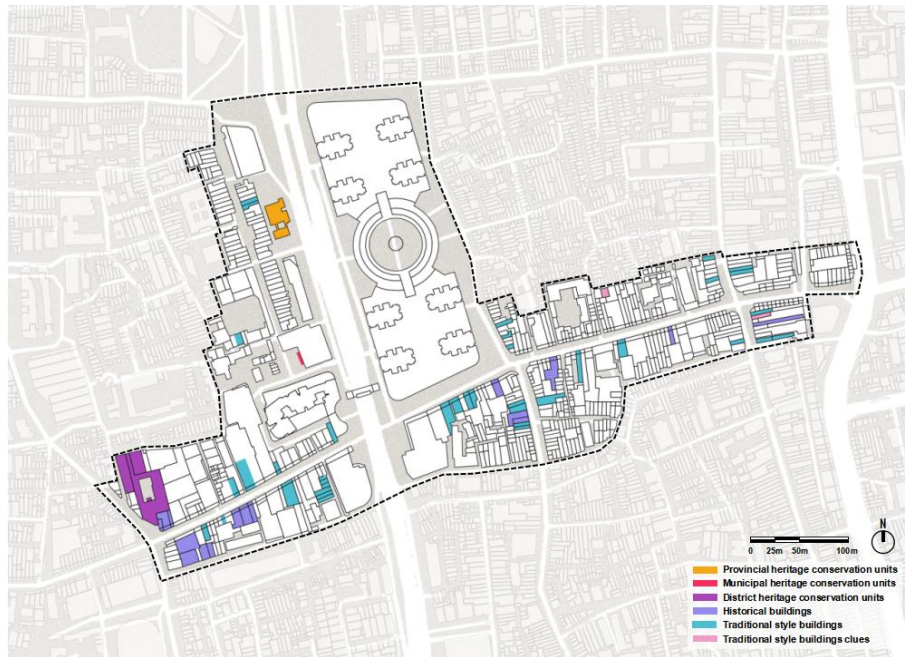


Figure 5-31 Protected Buildings
(Source: Illustrated by the author)



Figure 5-32 Important Protected Objects Photos
(Source: Illustrated by the author)

(6) Public Housing

Within the designated area, there are a total of 128 public housing units, including fully-managed public housing and ground-floor public housing under the Housing and Urban-Rural Development Bureau, as well as public housing owned by other units. Among them, 23 units are currently vacant (Figure 5-33). Public housing is a product of China's unique system and is distinct from privately owned housing, as it lacks individual ownership and instead provides only tenancy rights without transferability. Therefore, these public housing units are more amenable to redevelopment.

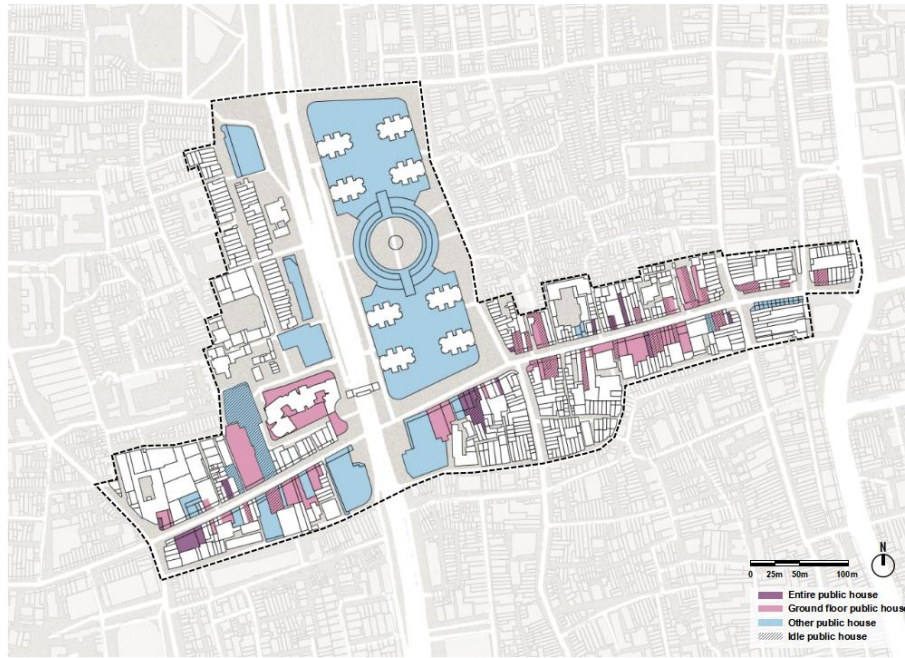


Figure 5-33 Public Housing
(Source: Illustrated by the author)

(7) Functional Formats

In addition to residential functions, the ground floors of buildings on both sides of Shangjiu Road and Xiajiu Road primarily serve clothing sales and dining purposes, accounting for 13% and 7% respectively. The ground floors of buildings in Hualin Jade Street and Liwan Plaza mainly focus on jewelry sales, constituting a significant 34% of the entire street block. However, these businesses do not cater to daily consumer needs. Furthermore, there is a lack of essential service facilities within the street block, accounting for only 1%, which fails to meet the demands of the population. Currently, the vacancy rate of ground-floor shops is approximately 11%, with a particularly severe situation on Shangjiu Road (Figure 5-34). Unlike other main city roads that maintain a traditional commercial street format in Xiguan, the street block is primarily residential. Meanwhile, due to a lack of unified renewal guidelines, some buildings have undergone spontaneous transformations, converting from residential to low-end businesses such as wholesale and warehousing, resulting in a deteriorated street environment and reduced traffic capacity, further exacerbating the decline in the quality of the spatial experience of the street (Figure 5-35).

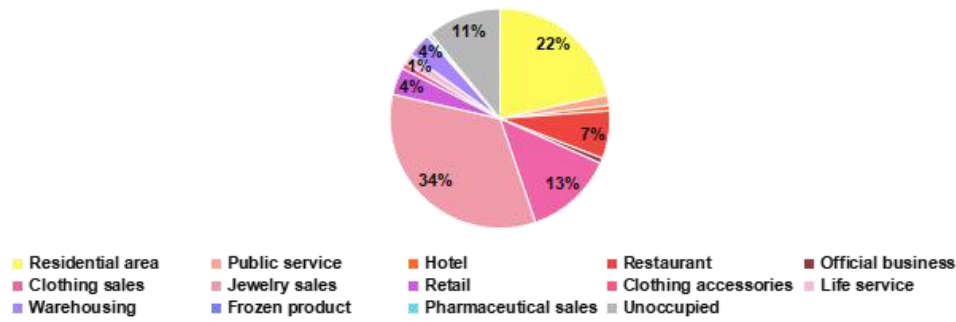


Figure 5-34 Area Percentage of Functional Formats
(Source: Illustrated by the author)

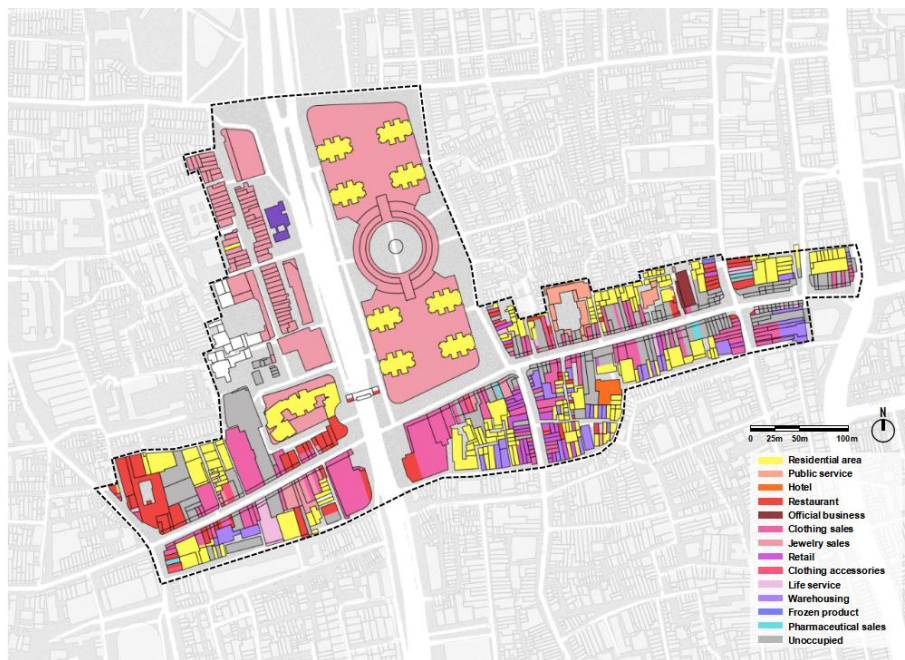


Figure 5-35 Functional Formats
(Source: Illustrated by the author)

(8) Vitality

In terms of spatial distribution, Shangjiu Road and Xiajiu Road exhibit linear gathering of pedestrian traffic and serve as the main activity areas for crowds. Hualin Jade Street and Liwan Plaza, on the other hand, experience minimal activity throughout the day.

Temporal distribution-wise, within the neighborhood, the flow of people noticeably increases from 9 o'clock and reaches its peak in the afternoon at 17 o'clock. It gradually declines starting from 19 o'clock and experiences a rapid decrease from 21 to 24 o'clock. Hence, it is evident that the active period primarily lies in the daytime, concentrated between 9 and 17 o'clock, while the nighttime exhibits significantly less allure to the surrounding urban areas (Figure 5-36).

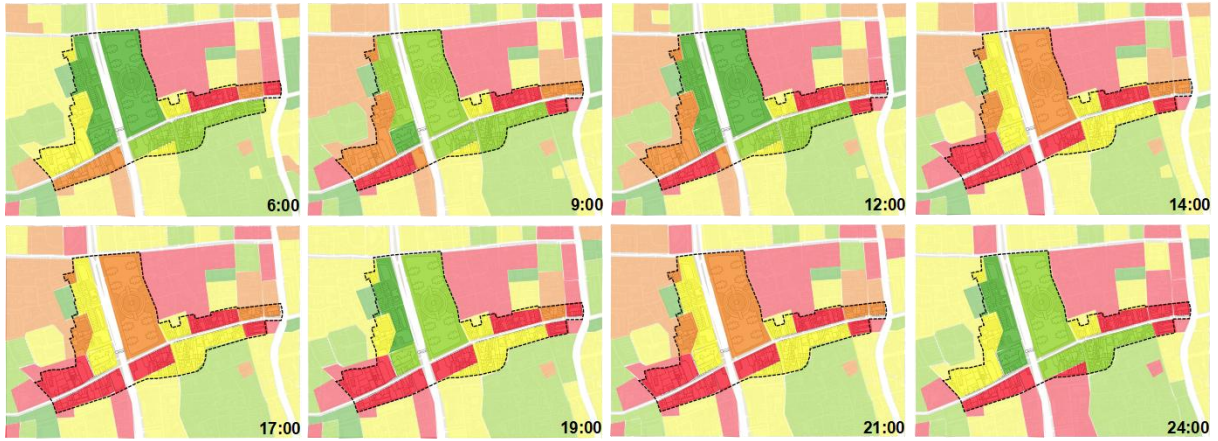


Figure 5-36 Vibrancy Overview (Weekdays)
(Source: Self-drawn based on Baidu Map's heatmap)

5.2.4 Historic Elements

(1) Material Remains

In addition to the 67 cultural heritage sites and protected buildings in 6 categories mentioned in the previous section, the design scope also encompasses 2 sections of arcaded streets, 7 sections of first-class traditional streets and alleys, and 8 sections of second-class traditional streets and alleys. Furthermore, there are 15 archways within the streets and alleys, primarily concentrated on both sides of Shangxiajiu Pedestrian Street and Hualin Jade Street (Figure 5-37 and Figure 5-38).

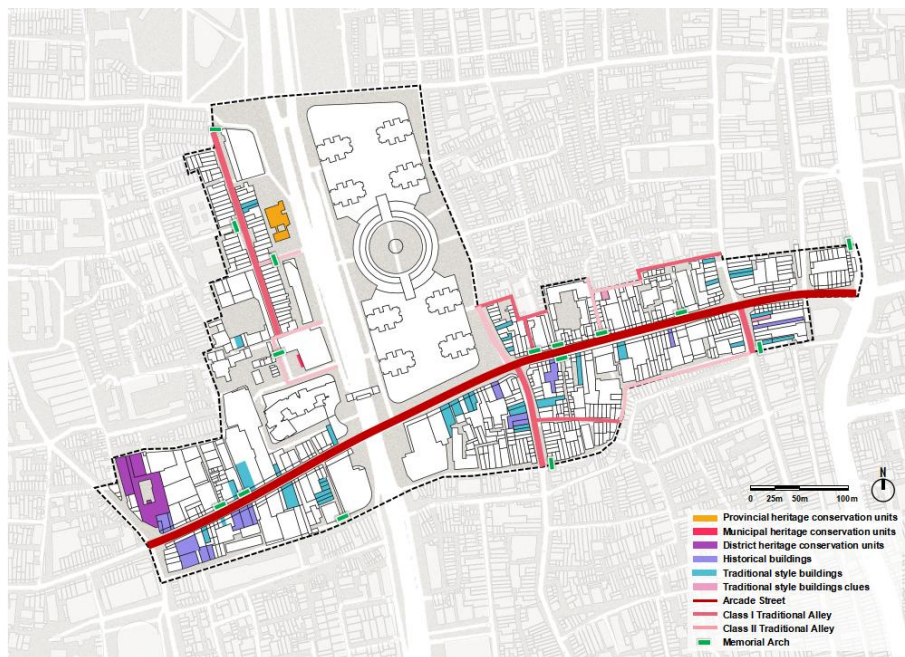


Figure 5-37 Historically Valuable Buildings and Streets
(Source: Illustrated by the author)



Figure 5-38 Street and Alley Archways
(Source: Illustrated by the author)

During the Republican era, Shangxiajiu Historic District flourished with numerous shops and thriving businesses, including department stores, restaurants, teahouses, theaters, and eateries. Presently, the district boasts 18 time-honored establishments, scattered on both Shangjiu Road and Xiajiu Road, with 12 of them retaining their original functions (Figure 5-39). Among them, Guangzhou Restaurant, Fuer Company, Rongzhen Restaurant, Yinji Rice Noodle Shop, and Caizhilin Pharmacy are still in operation to this day (Figure 5-40).

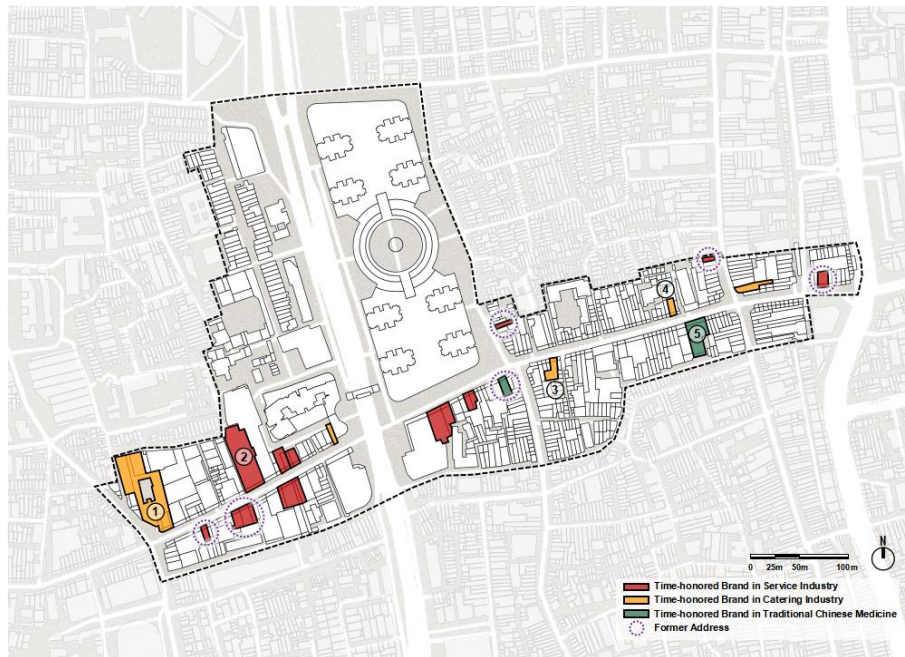


Figure 5-39 Time-Honored Shops
(Source: Illustrated by the author)



Figure 5-40 Photographs of Time-Honored Shops
(Source: Illustrated by the author)

(2) Ancient and Large Trees

According to the "Guangzhou Urban Tree Protection and Management Regulations (Trial)" (2022), "large trees" are defined as deciduous trees with a breast height diameter of more than twenty centimeters. Within the design scope, there are a total of three ancient trees and 173 large trees, ranging in height from 8 to 14 meters, with an average crown width ranging from 4 to 9 meters. The overall growth of the trees is normal, and most of them belong to common Lingnan garden greenery species, such as Phoebe, Ficus microcarpa, Mango, Weeping Fig, Autumn Maple, and Kapok. The three ancient trees are located respectively in the middle and eastern entrance of Hualin Jade Street, and Renmin South Road; while the large trees are mainly distributed along Dexing Road, Kangwang South Road, and Wenchang South Road (Figure 5-41).

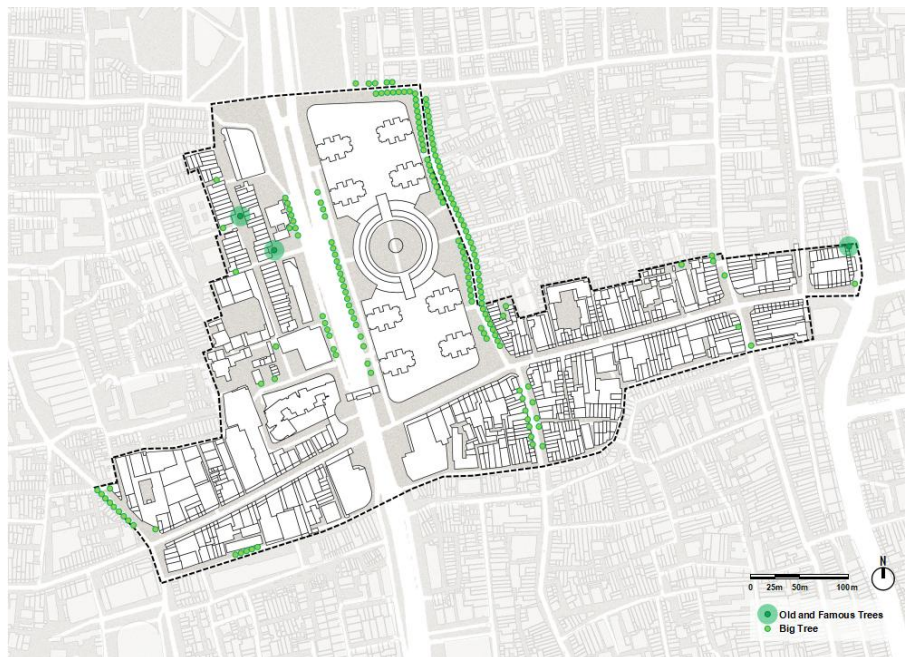


Figure 5-41 Ancient and Large Trees
(Source: Illustrated by the author)

(3) Cultural Features

The inner streets and alleys of the neighborhood preserve a wealth of literati imperial examination culture, Zen culture, market leisure culture, craftsmanship culture, and distinctive residential culture, reflecting the richness and accumulation of grassroots life of Xiguan (Figure 5-42 and Table 5-1).

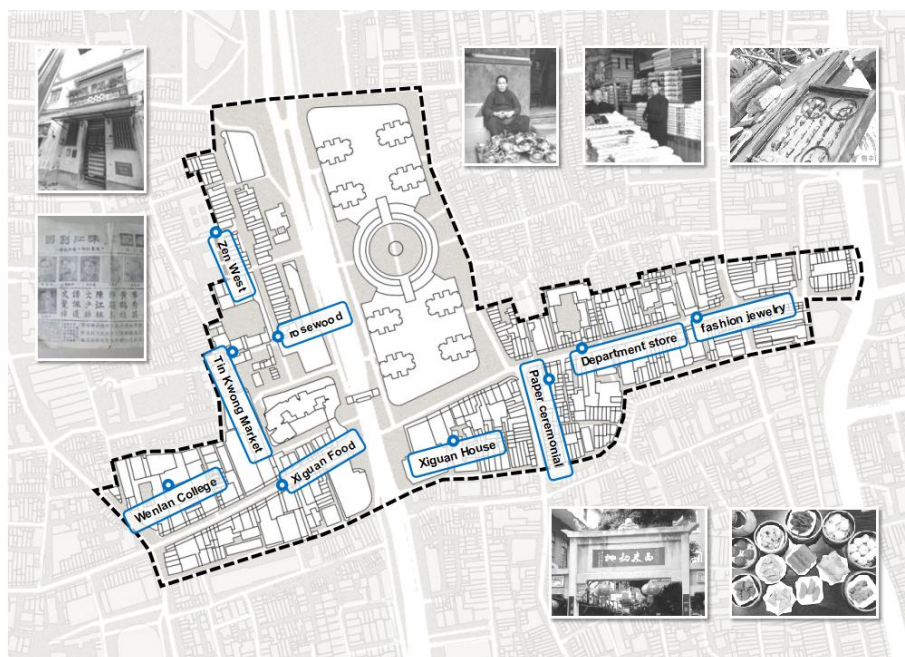


Figure 5-42 Historic Cultural Stories
(Source: Illustrated by the author)

Literati Imperial Examination Culture	Wenlan Academy	In the 15th year of Jiaqing (1810), local literati including the provincial graduate He Taiqing initiated the establishment of Wenlan Academy, a privately funded academy. It continued to operate after the reign of Emperor Daoguang, albeit with a small number of students.
Zen Culture	Zen Arrival from the West	Hualin Temple, originally known as "Xilai An," witnessed the arrival of Bodhidharma, who propagated the profound teachings of Zen Buddhism. During the reign of Emperor Liangwu of the Southern Dynasty, Bodhidharma arrived from Shanghai to the north bank of the Pearl River outside Guangzhou (now Xiazhou Road), where he established a simple hermitage and devoted himself to rigorous practice.
Market Leisure Culture	Xiguan Cuisine	Since the Republican era, Shangxiajiu has been known for its abundance of eateries, with the saying "wherever you go, there's always a small eatery within a hundred steps".
	General Retail	During the Republican era, the majority of the north side of Xiajiu Road was occupied by shoe shops, along with department stores and intriguing photography studios.
Craftsmanship Culture	Tianguang Market	In the late Qing dynasty, Tianguang Market flourished near the initial location of Xilai, adjacent to Hualin Temple. The trading activities commenced around midnight and primarily involved the sale of antique furniture, utensils, second-hand clothing, calligraphy and paintings, and potted plants.
	Acid Branch Redwood	Since the Ming dynasty, the production of redwood furniture in Guangzhou gradually developed, and by the late Qing dynasty and early Republican era, there were over 30 redwood workshops and stores in the vicinity of the initial Xilai area..
	Papier-mâché Processional Objects	In Guangya Alley, formerly known as Gangwalan, during the reign of Emperor Daoguang, there was a market specializing in ceramic wares, hence the name "Gangwalan". During the reign of Emperor Tongzhi, it became a gathering place for funeral processional object shops, florists, and wedding ceremonial supplies.
	Fashion and Jewelry	During the Republican era, the north side of Shangjiu Road was mostly occupied by goldsmiths, while the south side housed stores selling fabrics and cotton goods.
Distinctive Residential Culture	Xiguan Mansions	The neighborhood preserves a significant number of traditional buildings dating back to the Republican era, primarily in the form of bamboo tube houses and Xiguan mansions. The facades, doors, windows, and intricate details of these structures retain their historic charm, showcasing rich Lingnan characteristics.

Table 5-1 Historic Cultural Stories
(Source: Illustrated by the author)

5.2.5 Neighborhood Public Opinion

(1) Customer Segmentation

Tourism consumption in Guangdong province has evolved towards a younger, more upscale, and family-oriented demographic, with a shift from sightseeing to experiential travel. The age distribution of Guangdong tourists is relatively balanced, with the highest proportion in the 30-40 age group, followed by the 45-50 and 25-30 age groups (Figure 5-43). The average annual per capita consumption expenditure in Guangdong province reaches 25,000 yuan, with a significant number of middle-class and high-net-worth individuals who form the main force of travel, but they have higher expectations for tourism products. Family travel constitutes a significant portion, accounting for 39% of Guangdong tourists.

The tourism consumer group in historic districts will primarily consist of Generation Z, women, families, trendsetters, and couples. Their travel characteristics include high travel frequency, a preference for themed and artistic environments, and a tendency towards leisure, entertainment, and experiential consumption. Cultural experiences, shopping, dining options, and leisure activities will be more favored by these tourists.

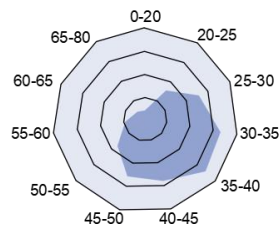


Figure 5-43 Age Distribution of Guangdong Tourists
(Source: Illustrated by the author based on data)

(2) Questionnaire and Interviews

In this study, a questionnaire survey (see Appendix A) and interviews were conducted to understand the regeneration intentions and suggestions for regenerating the Shangxiajiu district among its residents, merchants, and tourists. The questionnaires were distributed both online and offline by the author from June 17th to June 23rd, 2023. Among them, 50 questionnaires were distributed offline in the Shangxiajiu district, and 46 valid questionnaires were collected. Additionally, 112 valid questionnaires were collected online, resulting in a total of 158 responses.

Among the 158 respondents, residents accounted for 4%, merchants accounted for 8%, and

tourists accounted for 88% (Figure 5-44). Furthermore, 153 individuals expressed support for the renovation of the Shangxiajiu district in Guangzhou (Figure 5-45), accounting for a high proportion of 96.8%. All six interviewed residents showed support and expressed their expectations for the renovation in the interviews.

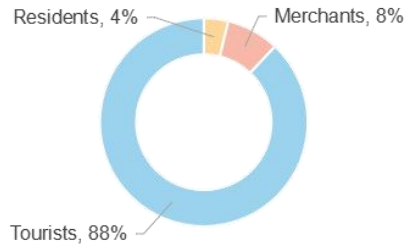


Figure 5-44 Respondents' Identity
(Source: Illustrated by the author)

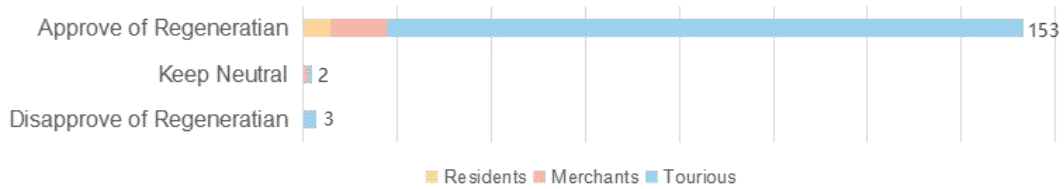


Figure 5-45 Willingness for Renovation
(Source: Illustrated by the author)

Regarding the current satisfaction survey of the Shangxiajiu district, the majority of respondents expressed dissatisfaction with the variety of functional business types and the environment of leisure plazas. The next areas of dissatisfaction were the architectural facades and pedestrian street environment, while the relatively higher satisfaction was observed with the road environment for vehicles (Figure 5-46). Overall, it can be concluded that respondents expressed a high level of dissatisfaction with the environment of the district (Figure 5-47).

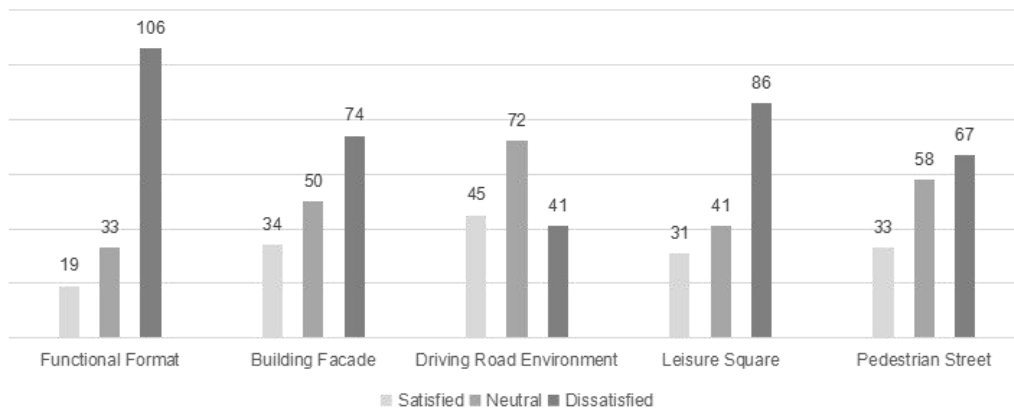


Figure 5-46 Current Satisfaction with the Environment
(Source: Illustrated by the author)

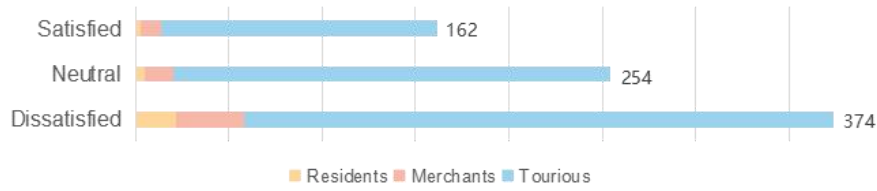


Figure 5-47 Overall Satisfaction
(Source: Illustrated by the author)

In terms of improvement suggestions, the most preferred future development directions for the Shangxiajiu district were in the areas of food and beverage, commercial shopping, followed by entertainment experiences and cultural arts, with a smaller demand for cultural education (Figure 5-48). The respondents believed that the most urgent areas for improvement were the variety of functional business types, architectural facades, environment of leisure plazas, and pedestrian street environment (Figure 5-49).

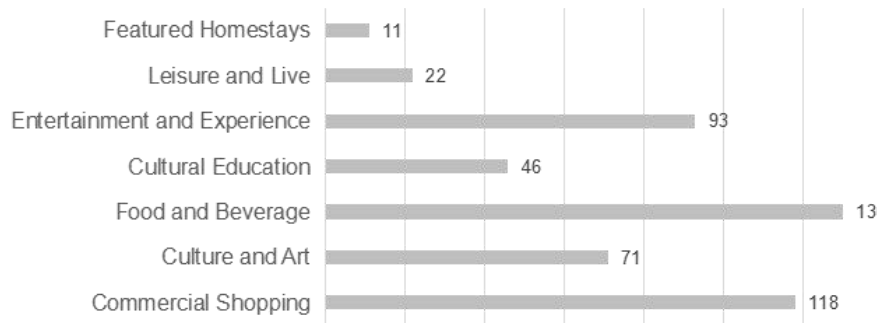


Figure 5-48 Desired Development Directions
(Source: Illustrated by the author)

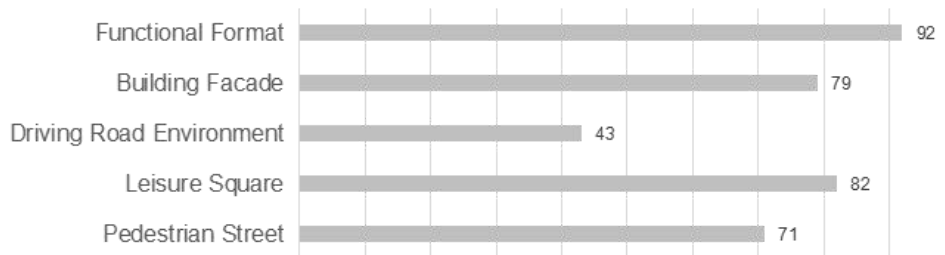


Figure 5-49 Most Urgent Projects for Renovation
(Source: Illustrated by the author)

Among the 158 valid questionnaires, 16 respondents pointed out 25 specific locations within the research scope of the Shangxiajiu district that needed improvement. Among them, six points were related to the Shangxiajiu Plaza, five points were in Liwan Plaza, four points were in the southern public space of Liwan Plaza, one point was in its western public space, two points were at the western intersection of Xiajiu Road, and other points were located in Wenlan Lane, Minghui Building, Tokyu New World, Wuyanjing, a vacant building, and the

eastern architectural cluster (Figure 5-50).

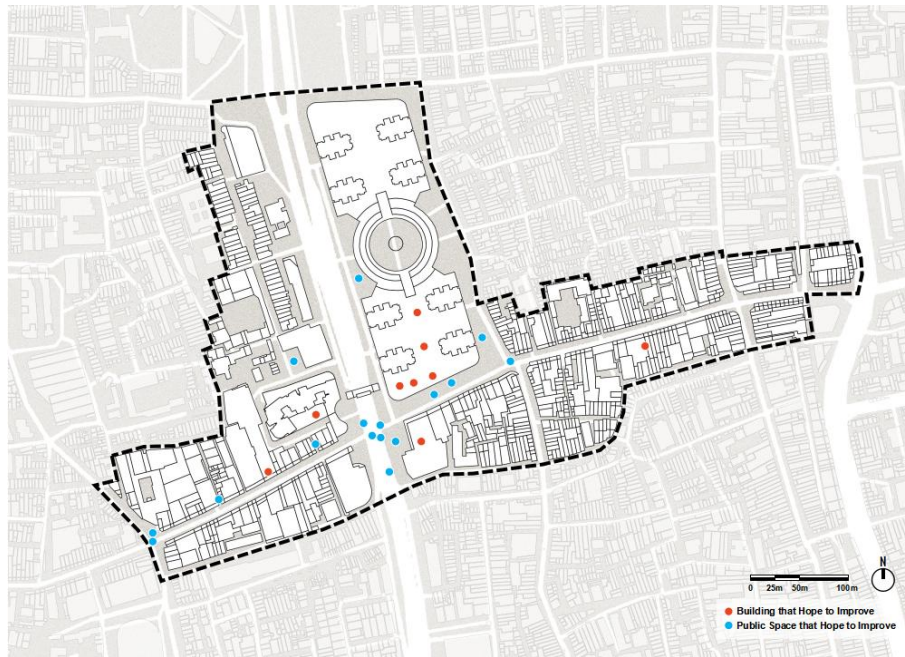


Figure 5-50 Locations in Need of Improvement according to Respondents
(Source: Illustrated by the author)

During the offline questionnaire distribution process, interviews were conducted with 19 respondents. Whether they were Guangzhou locals who witnessed the development of the Shangxiajiu district from a young age or newcomers to Guangzhou who work and live there, they all expressed dissatisfaction with the current state of the district and their expectations for renovation and revitalization (Figure 5-51).

Regarding the pedestrian experience, one interviewee mentioned, "The pedestrian street is scorching in the summer, freezing in the winter, and wet on rainy days. It would be better to go shopping in malls where there is air conditioning and heating. Some malls on the pedestrian street have these amenities, while others do not". This serves as a reminder to the designers to consider the sensory experience of outdoor activities in Guangzhou's unique climate of hot summers and cool winters. In terms of functional diversity, one interviewee stated, "Upgrading the variety of businesses is crucial. The Shangxiajiu commercial district should collaborate with Xidi-Shamian to create a cohesive atmosphere through interconnected pathways". This highlights that the revitalization of the district should not only focus on internal design but also encompass comprehensive planning and coordination within a larger area. Another interviewee expressed their hopes for improvement and renovation, saying, "I grew up here, but gradually, we've lost the original charm of Xiguan. I hope to rediscover the

deep-rooted Lingnan flavor of the past". For historic districts like Shangxiajiu, it represents historic development and cultural uniqueness of Guangzhou, emphasizing the importance of promoting local cultural revitalization.

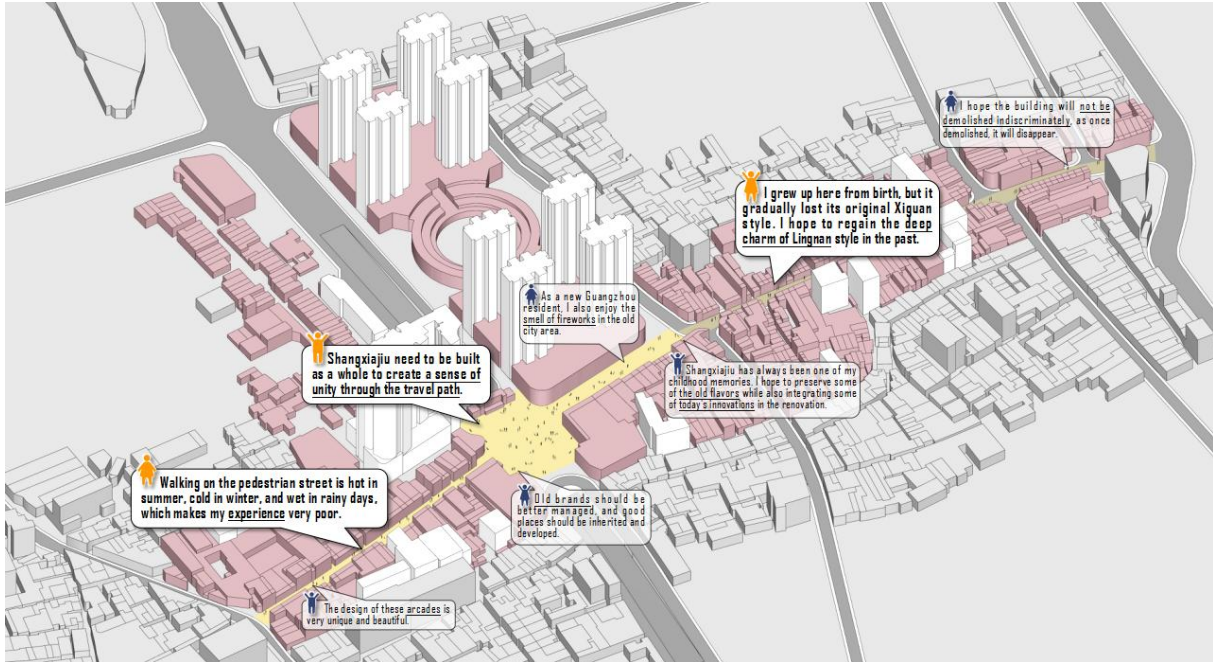


Figure 5-51 Voices of the People
(Source: Illustrated by the author)

5.3 Summary of Dilemmas - "Diagnosis"

The current dilemmas in the Shangxiajiu Historic District can be summarized in four aspects: depleted vitality, imbalanced viscera, obstructed meridian, and unconnected acupoints.

5.3.1 Depleted Vitality

(1) Declining old town and population outflow: Located on the western side of the old town, the Shangxiajiu district has gradually declined as the city expanded towards the east and south. This, coupled with issues such as deteriorating architectural style and aging infrastructure, has led to the decline of the old town and population outflow, resulting in diminished vitality.

(2) Vacant shops and low-end business formats: With the advancement of urbanization and industrial upgrading, the traditional industrial structure in the Shangxiajiu district has disintegrated. Ordinary and low-end businesses such as clothing, dining, handicrafts, hardware, and wholesale are no longer appealing. The industries are facing decline and in need of transformation and upgrading, leading to many shops being unable to sustain

operations and becoming vacant.

(3) Neglected historic and cultural advantages: The historic relics, protected buildings, and long-established shops in the Shangxiajiu district, which have been formed over a long history, have not been fully developed and even face various issues. For example, the construction of large-scale complexes has disrupted the pattern of the historic district, newly built roads have disrupted the coherence of traditional streets and lanes, and certain protected buildings and long-established shops have been neglected. The architectural style of the arcade appears too modern and artificial. Additionally, the stories of the district lack packaging and promotion, gradually fading from the memory of the public.

(4) Lack of a clear vision and positioning: The Shangxiajiu district needs to find a new path for development. It is essential to establish a clear functional positioning and long-term vision that can guide series of renovation, planning, and design efforts.

5.3.2 Imbalanced Viscera

(1) Lack of systematic spatial organization: The overall spatial organization of the Shangxiajiu district is scattered and lacks a structured integration of elements such as points, lines, and surfaces. This includes important nodal networks, development axes, public space systems, and functional zones. The renovation of the historic district will bring about structural changes in spatial form, necessitating the construction of a rational spatial structure to guide the future development of the Shangxiajiu district.

(2) Loose distribution of functions and lack of organization: The functional formats and distribution in the Shangxiajiu district are too loose and lack a systematic organization. There is a lack of strong leading functions and clear thematic zones. It is crucial to consider the coordination between spatial organization and the demands of emerging functions. The traditional concept of a simple "shopping street" can no longer meet the requirements of modern urban development. The district should strive for multi-layered, continuous, and vertically integrated development. Traditional dining, cultural exhibitions, leisure and entertainment should be combined with commercial retail to transform the image of the district from a simple shopping destination to a diverse urban space that emphasizes the richness of urban functions and tourism experiences.

(3) Chaotic overall architectural style and lack of unity: The architectural style in the

Shangxiajiu district is relatively chaotic, with a mix of old and new buildings, lacking a consistent and coherent architectural control. There is a lack of clearly defined thematic architectural areas and indications. The distinctive features of the arcade facades are not fully showcased, and the exterior surfaces and decorations often obscure historic traces. The overall color scheme tends to be monotonous and orderly, while advertising and signage lack proper guidance.

5.3.3 Obstructed Meridians

(1) Lack of a structured road network: Due to the narrow scale of the traditional streets and numerous one-way roads in the Shangxiajiu district, it fails to meet the traffic demands of a large number of vehicles, resulting in traffic congestion. Some spaces designated for pedestrian walkways have been occupied, disrupting the continuity of the streets and impeding pedestrian traffic. Congestion at certain nodes often leads to localized decline, creating "negative spaces" for development and material transport.

(2) Lack of well-defined and themed walking routes: Currently, there is a lack of a well-integrated relationship between pedestrian pathways and tourist activities in the Shangxiajiu district. This has resulted in the absence of clear walking routes, leading to a chaotic walking experience for visitors and a lack of diverse thematic attractions and consumer appeal.

(3) Insufficient intangible communication methods: Besides vehicular and pedestrian traffic, intangible communication methods such as online promotion, virtual reality tours, online educational initiatives, and citizen engagement are crucial means to promote the historic and cultural significance of the Shangxiajiu district. However, the current efforts in these areas are insufficient.

5.3.4 Inactive Acupoints

(1) Lack of distinctive functional nodes: The different functional areas in the district suffer from serious homogeneity, without clear thematic segmentation or prominent showcase areas, resulting in a reduced sense of experience for visitors.

(2) Lack of distinctive public space nodes: The vitality of plazas is lacking, with outdated designs and monotonous landscapes, hosting only simple activities. The quality of street

spaces is poor, providing a subpar experience. Commercial landscapes lack design elements and appear overly dim.

(3) Lack of distinctive architectural nodes: Apart from a few long-established shops that still retain some allure, most buildings lack appeal, leading to the absence of concentrated attractions, popular destinations, and points of interest that attract a large flow of people.

(4) Lack of distinctive intangible factors: On one hand, there are limited year-round planned activities in the Shangxiajiu district, resulting in relatively monotonous experiences. On the other hand, the hot summers and cold winters reduce the desire of tourists and residents to explore and engage in activities in the district.

5.4 Regeneration Strategy 1 - "Inject Vitality"

5.4.1 Leveraging Development Advantages

The current development advantages of the Shangxiajiu district can be summarized into two main aspects: its rich historic and cultural resources and its vibrant commercial and tourist atmosphere (Figure 5-52).

(1) Maximizing the Potential of Historic and Cultural Advantages

The Shangxiajiu district, established during the Qing Dynasty, boasts a long-standing historical and cultural heritage. It was once the commercial and cultural center of Guangzhou, located adjacent to the Shisanhang, a prominent hub for foreign trade. The district encompasses the convergence of maritime Silk Road culture, Zen culture, Lingnan culture, commercial culture, and arcade culture, which have gained recognition beyond its borders. In 2020, the Shangxiajiu district was included in the first batch of historic and cultural district lists in Guangdong Province, highlighting its significance at the provincial and municipal levels. The district is home to numerous historical buildings such as Zhongshan Building, the Old Catholic Church in Xiguan, and Chen Family Ancestral Hall. It also features traditional dining establishments and craftsmanship shops, such as Taotaoju, Lianxianglou, silk stores, and ceramic shops, as well as Lingnan-style and Western-style arcade buildings. These cultural and historic assets are important heritage sites protected by the city of Guangzhou, bearing witness to the prosperity and transformations of the city with profound historical backgrounds and cultural significance, attracting visitors from far and wide.

Therefore, the future development of the Shangxiajiu district should capitalize on its historical and cultural advantages, effectively packaging and promoting its cultural heritage, and sharing its cultural stories with the world to attract visitors of all ages. In the specific planning and design process, cultural intellectual property should be integrated into spatial layout, upgraded functional formats, cultural displays, architectural and landscape designs, advertising signage, and furniture designs, allowing people to experience the cultural uniqueness of the Shangxiajiu district in every corner.

(2) Harnessing the Potential of Commercial and Tourism Development

During the Ming and Qing Dynasties, Guangzhou was the sole major port for foreign trade in China. The Shangxiajiu district represented the thriving commercial activities of that era and served as an important hub for trade and cultural exchanges. Even today, the district remains one of the commercial centers of Guangzhou. Firstly, the Shangxiajiu district is a paradise for food enthusiasts, featuring numerous renowned time-honored establishments and specialty food stalls that offer authentic Cantonese cuisine. Shangjiu Road is home to many long-established shops such as Lizhiwan Dapaidang and Guangzhou Restaurant, while Xiajiu Road is known for its fashionable and creative snacks such as Yaoji Tanghulu and Double-Skin Milk. Secondly, the Shangxiajiu district is a haven of shoppers with various large-scale department stores, shopping centers, brand stores, as well as small independent shops selling handicrafts, tea, and more, catering to a diverse shopping experience. Additionally, the district is a cultural paradise with numerous cultural and entertainment venues, including Guangzhou Grand Theatre and Guangdong Folk Art Museum. These places not only possess rich historical and cultural heritage but also offer vibrant artistic performances and exhibitions that captivate visitors.

Therefore, the future development of the Shangxiajiu district should highlight its distinctive advantages in commercial and tourism sectors, promote the fusion of business and culture, and establish itself as a historic district that combines the revival of authentic local cuisine, immersive shopping experiences, and cultural depth. This will contribute to the development of the Lingnan-style commercial district in Xiguan. Furthermore, it should align with the demands of contemporary consumers, encourage innovation in business formats, facilitate industry renewal and iteration, and create new consumption patterns that attract visitors.

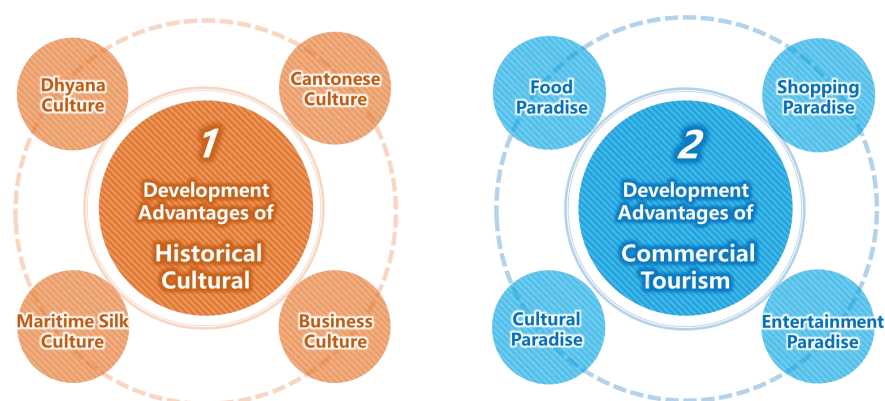


Figure 5-52 Two Development Advantages
(Source: Illustrated by the author)

5.4.2 Seizing Development Opportunities

By exploring various government regulations, official reports, normative documents, local regulations, and urban planning documents related to "historic districts", "preservation and regeneration", and the "Shangxiajiu district" at the national, provincial, municipal, and district levels, significant development opportunities for the revitalization and regeneration of the Shangxiajiu Historic District can be identified (Table 5-2).

(1) Emphasis on the Regeneration of Historic Districts

Historic districts, including the Shangxiajiu district, receive considerable attention and recognition at the national, provincial, municipal, and district levels. Guangzhou has initiated urban regeneration actions, placing a strong emphasis on historic districts, while Liwan District aims to promote the protection and revitalization of historic districts in the current year.

(2) Encouragement of "Embroidery" and "Tapestry" Micro-Renewal

The focus on historical and cultural preservation discourages extensive demolition and construction. Instead, it encourages "embroidery" and "tapestry" micro-renewal to repair and restore the district, preserving its unique layout and pattern, and carrying forward its historic context and distinctive charm. Under this premise, innovative regeneration and revitalization efforts can be implemented.

(3) Shangxiajiu District as a Starting Point for Regeneration

Guangzhou plans to advance the revitalization and utilization projects in the Shangxiajiu

district this year, aiming to create a model for the preservation and inheritance of historic and cultural legacies. Liwan District also plans to commence the protection, revitalization, and construction of the Shangxiajiu district this year, with a focus on showcasing the Lingnan cultural heritage and traditions. It further intends to promote the recognition of the district as a National Grade-A tourist destination.

(4) Integration of New Business and Tourism Formats

Liwan District aims to guide and support the cultivation and development of new tourism formats in the Shangxiajiu district, promoting innovative experiences encompassing dining, accommodation, transportation, sightseeing, shopping, and entertainment. This initiative will propel the development of the Lingnan-style commercial district in Xiguan, activating the advantage of Liwan as a millennium-old commercial hub.

Territorial Level	Policies or Relevant Planning Names	Main Content
National Level	Opinions on Strengthening the Protection and Inheritance of historic and Cultural Heritage in Urban and Rural Construction in 2021	Relying on the construction of historic and cultural districts, specific functional areas such as cultural displays, traditional residences, distinctive commerce, and leisure experiences, to improve urban functions and enhance urban vitality. Adopting "embroidery" and "patchwork" micro-reconstruction methods to increase the public open spaces in historic and cultural districts and make up for the shortcomings in supporting infrastructure and public service facilities.
	Notice on Further Strengthening the Protection of historic and Cultural Districts and historical buildings by the Ministry of Housing and Urban-Rural Development in 2021	Prohibiting large-scale demolition and construction in historic and cultural districts, and allowing innovative renovation and continuous utilization of buildings other than cultural and historical buildings, while respecting the overall layout and style of the district. The renovated buildings should be distinguishable from the historical buildings in the district.
Guangdong Province Level	Notice of Guangdong Provincial People's Government on the List of historic and Cultural Districts in Guangdong Province in 2020	"The Shangjiuxia - Dishifu historic and Cultural District" is listed as the first batch of historic and cultural districts in Guangdong Province, and it is emphasized to strengthen the protection and management of historic and cultural districts.
	Guidelines for the Protection and Utilization of historical buildings and Traditional Architectural Styles in Guangdong Province in 2021	The protection of historical buildings and traditional architectural styles should adhere to the principles of prioritizing protection, rational utilization, and strict management. It aims to maintain the authenticity and integrity of historical buildings and their local cultural values, and inherit outstanding cultural heritage.
Guangzhou Level	Important Speech by General Secretary Xi Jinping during his Inspection of Enning Road historic and Cultural District in Guangzhou in 2018	Urban planning and construction should attach great importance to the protection of historic and cultural heritage, avoiding hasty achievements and large-scale demolition and construction. It is necessary to highlight local characteristics, focus on cultural continuity, improve the living environment, and employ "embroidery" methods of micro-reconstruction to bring new vitality to old cities.
	Government Work Report of Guangzhou City in 2023	Implement urban renewal actions vigorously, promote the transformation of over 100 old residential neighborhoods using "embroidery" methods, advance the activation and utilization of the Shangxiajiu historic and cultural district, and create a model for the protection and inheritance of historic and cultural heritage.

	Guangzhou High-Quality Development Conference in 2023	Urban renewal plays an important role in improving urban spatial structure, optimizing urban functional layout, enhancing public service levels, and promoting sustained, healthy, and stable economic and social development.
	14th Five-Year Plan for Economic and Social Development of Guangzhou City and the Vision for 2035	Overall protection of the traditional layout and historic style of historic districts, leveraging the effects of Yongqingfang's transformation, enhancing the quality of key historic and cultural areas, revitalizing and upgrading the folk customs areas such as Xiguan, and strengthening the promotion and utilization of folk culture.
	14th Five-Year Plan for Culture and Tourism Development of Guangzhou City in 2021	Promote the rational utilization of historic and cultural districts, integrate historic and cultural districts with urban renewal, business and tourism, education and training, leisure experiences, and community life, and create demonstration points for the transformation and upgrading of historic and cultural districts.
	Implementation Opinions on Strengthening the Protection and Inheritance of historic and Cultural Heritage in Urban and Rural Construction in Guangzhou City in 2021	Adhere to the principles of preservation, renovation, and removal, and steadily promote urban renewal. Adopt "embroidery" and "tapestry" micro-renewal methods to improve the cultural display, traditional residence, distinctive commerce, leisure experience, and cultural and creative office functions of historic districts, enhancing urban vitality.
	Implementation Opinions (Trial) on Preventing Large-Scale Demolition and Construction Issues in Urban Renewal in Guangzhou City in 2020	Historic and cultural protection should always be given top priority in urban renewal. Encouraging "embroidery" methods of repair and tapestry-style renovations to maximize the preservation of the unique layout and pattern of the old town, continuing the historic context and distinctive style of the city.
	Implementation Opinions on Deepening Urban Renewal and Promoting High-Quality Development in Guangzhou City in 2020	Attach great importance to the protection of historic and cultural heritage, prioritize protection, avoid hasty achievements, and large-scale demolition and construction. Highlight local characteristics and Lingnan features, focus on cultural inheritance and continuity, leaving memories in the city and evoking nostalgia.
	Work Guidelines for Deepening Urban Renewal and Promoting the Protection and Utilization of historic and Cultural Cities in Guangzhou City in 2020	Attach great importance to the protection of historic and cultural heritage, strictly implement the principle of protection first, and promote innovative protection and renewal. Give full play to the social benefits, economic benefits, and utilization value of historic and cultural heritage, and coordinate the relationship between protection, utilization, and renewal.
Liwan District Level	Government Work Report of Liwan District in 2023	In-depth development of the protection and activation of historic and cultural districts, comprehensively survey and investigate the spatial carriers and historic and cultural resources of 14 historic and cultural districts, and strive to start the construction of Shangxiajiu - Dishifu Street district.
	Liwan District High-Quality Development Conference in 2023	Start the protection and activation of the Shangxiajiu historic and cultural district this year. With the revitalization of Shangxiajiu pedestrian street and the transformation and upgrading of professional wholesale markets as the starting point, promote the construction of the Xiguan Lingnan characteristic business district. Shangxiajiu pedestrian street will be developed into a street of Lingnan food culture and charm.
	14th Five-Year Plan for Economic and Social Development of Liwan District in Guangzhou City in 2021	Focus on the development of distinctive functional areas such as Shangxiajiu, creating a showcase for the inheritance and display of Lingnan culture, activating the resources and commercial atmosphere of Liwan as the birthplace of a millennium-old commercial city. Promote the creation of Shangxiajiu as a national A-level scenic area, guide and support the cultivation and development of new tourism formats, and innovate comprehensive tourism experiences in food, accommodation, transportation, sightseeing, shopping, and entertainment.

Table 5-2 Relevant Policies and Planning
(Source: Illustrated by the author)

5.4.3 Development Vision and Positioning

Taking into account the advantages of the site and development opportunities, this article aims to transform the Shangxiajiu Historic District into a "blend of historic charm and international flair, showcasing Lingnan culture" and a "globally-oriented demonstration area for the integrated development of culture, tourism, commerce, and intelligence". The target audience for the Shangxiajiu district will no longer be limited to the local community but will extend its appeal to a global audience, attracting visitors from around the world with its distinctive features such as exploring the flavors of Xiguan, experiencing its vibrant diversity, and embracing its rich heritage and intangible cultural heritage.

Furthermore, the Shangxiajiu district will undertake three major urban responsibilities: revitalizing the traditional arcade commercial district, serving as a dynamic hub for local grassroots culture, and fostering a livable home for diverse communities. The vibrant and diverse Shangxiajiu district will embody a colorful new life, igniting the hearts of ordinary people with regeneration Lingnan flavor.

5.5 Regeneration Strategy 2 - "Harmonize Viscera"

5.5.1 Establishing Spatial Structure

The Shangxiajiu District is closely connected with the surrounding districts in both the vertical and horizontal dimensions, each possessing distinct characteristics and complementing one another in terms of functionality. The commercial shopping centered around Shangxiajiu Plaza, the new fashion of Shangjiu Road, and the jewelry center led by Hualin Jade Street and Liwan Plaza represent the historic functional foundations within the design scope. This design will further strengthen these core areas and collaborate with the surrounding districts to form a cluster of historic Lingnan-style street blocks in Xiguan, Guangzhou (Figure 5-53).

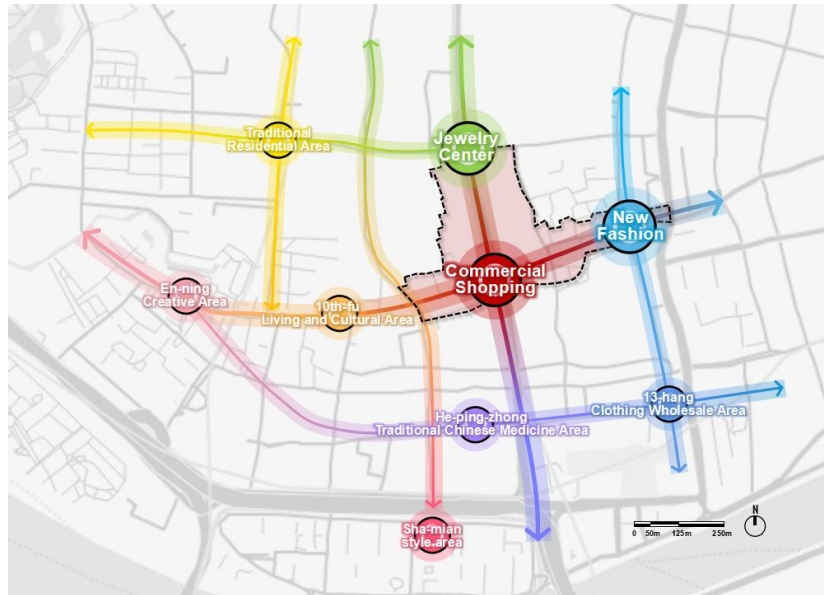


Figure 5-53 Surrounding Spatial Structure
(Source: Illustrated by the author)

The spatial structure within the Shangxiajiu Historic District consists of three major components: three viscera, vertical and horizontal meridians, and multiple acupuncture points (Figure 5-54). Three viscera refer to the commercial shopping, new fashion, and jewelry center. The vertical and horizontal meridians are represented by the axis formed by Kangwang South Road, which embodies the old townscape, and the shopping experience axis of Shangjiu Road and Xiajiu Road, as well as important connecting alleys that link the north and south. And multiple acupuncture points encompass material spaces and intangible factors that are the focus of regeneration, including distinctive blocks, parks and plazas, streets, and buildings.



Figure 5-54 Spatial Structure of the Shangxiajiu Historic District
(Source: Illustrated by the author)

5.5.2 Integration of Functional Layout

Within the design scope, there are three major functional zones that enhance the existing functions. Each zone can be further subdivided into various smaller functional units (Figure 5-55). These specific functional units serve as guidelines for subsequent detailed design and implementation (Table 5-3), without excessively interfering with the internal original functions. By respecting the current state and development principles of the historic district, the goal is to make the historic charm of the Shangxiajiu Historic District more prominent, the functions more concentrated, and the cohesion stronger.

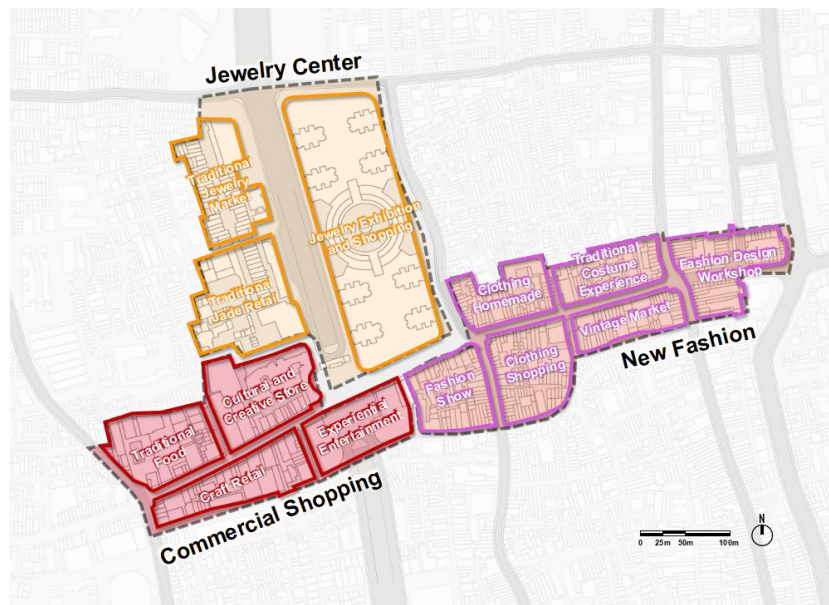


Figure 5-55 Dominant Functional Themes
(Source: Illustrated by the author)

Commercial Shopping	
Traditional Cuisine	Guangzhou restaurants, culinary museums, Cantonese cuisine academies...
Cultural and Creative Department Stores	Trendy figurines, children's books, painting and calligraphy experience centers...
Handicraft Retail	Handcrafted ornaments, wooden furniture, creative handmade products...
Experiential Entertainment	Escape rooms, murder mystery games, private cinemas, themed museums...
New Fashion	
Fashion Show	Fashion runways, fashion education exhibitions...
Fashion Shopping	Fashionable clothing brands, stylish accessories, coordinated footwear...
Clothing DIY	Fashion workshops, DIY accessories, fabric art...
Traditional Costume Experience	Hanfu experience halls, themed photography, makeup and dressing demonstrations...
Vintage Shops	Vintage jewelry stores, vintage treasure shops, branded vintage items...
Fashion Design Workshops	Clothing workshops, master designers' studios, design institutes...
Jewelry Center	
Jewelry Showcase and Shopping	Jewelry design, jewelry trading, jewelry exhibitions, custom jewelry...
Traditional Jewelry Market	Antique jewelry stores, creative jewelry, jewelry accessories...
Traditional Jade Retail	Jade design, jade hunting, jade trading...

Table 5-3 Suggested Dominant Businesses for Functional Zones
(Source: Illustrated by the author)

5.5.3 Control of Overall Style

(1) Control of Arcade Street Style

The commercial arcade streets on Shangjiu Road and Xiajiu Road mainly consist of modern and contemporary arcade buildings. These arcade buildings have been well-preserved with traditional arcade paving, making them the most complete and longest arcade streets in Guangzhou (Figure 5-56).

Respect for the original architectural form, historic significance, and protection of the architectural contours, height, proportions, and original details should be strictly adhered to. The materials and colors of the buildings should remain unchanged, and any modifications should adhere to the principle of preserving the authenticity of historic information carriers while maintaining the overall atmosphere of the streets. It is recommended to avoid constructing large-scale buildings on both sides of the street. The height, column spacing, and column gallery style should be consistently controlled. The facades of traditional arcade streets should not feature external facilities that disrupt the traditional character. Instead, uniform canopies and signs should be installed, with signage placed inside the arcades without obscuring the main features and structure of the buildings. Air conditioning units should be uniformly arranged and covered with wooden or metal louvers that harmonize with the architectural style. Whenever possible, the original pavement materials and forms should be restored.



Figure 5-56 Control of Arcade Street Character
(Source: Illustrated by the author)

(2) Control of Traditional Residential Character

The traditional residences on important streets and lanes primarily consist of modern and

contemporary Western-style residences and traditional bamboo tube houses. The typical features include row houses along the streets, low-rise row houses within the neighborhoods, and a fishbone-shaped road network. They retain the classic stone slab streets, representing the epitome of late Qing Dynasty residential areas in Xiguan (Figure 5-57).

The internal streets and public spaces within the neighborhood should be protected, emphasizing the quality and shared nature of public spaces. The facades should be improved in accordance with the original architectural form. Unauthorized additions such as anti-theft nets, air conditioning units, and drainage pipes are strictly prohibited. Relevant components should comply with the requirements of the historical building improvement guidelines to maintain the historic character of the streets and alleys. The positioning, color, and material of commercial revitalization building signage should be coordinated and regulated, avoiding extensive signage that covers the walls. The use of wooden signs with traditional characteristics is encouraged.

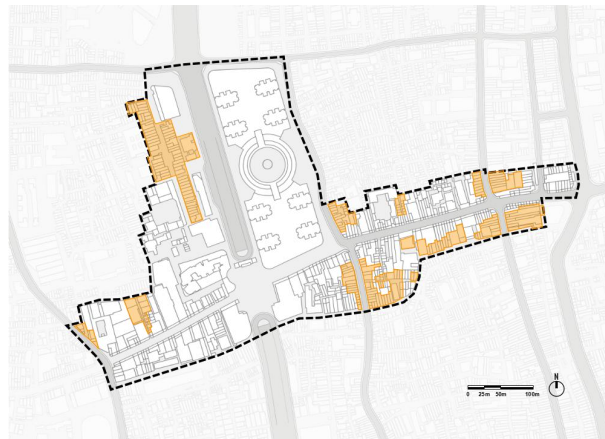


Figure 5-57 Control of Traditional Residential Character
(Source: Illustrated by the author)

(3) Control of General Residential Character

For general residential buildings within the district, overall character coordination is necessary. These buildings include bamboo tube houses, other traditional residential buildings, and general modern and contemporary buildings. This category encompasses aging residential complexes that may affect the pattern of the historic district (Figure 5-58).

In coordination with the traditional character, innovative renovations are encouraged. Improvements should be made in accordance with the original architectural form, scale, and materials. For newly constructed or renovated contemporary buildings, the colors should

harmonize with traditional residential buildings. The facade openings of new buildings should maintain similar dimensions to historical buildings. Traditional elements, such as wooden doors and windows, should be preserved and encouraged, while metal and other materials should be coordinated in terms of color and proportion with traditional elements.

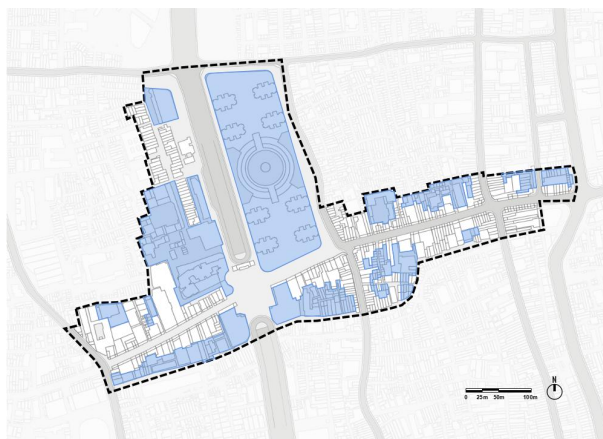


Figure 5-58 Control of General Residential Character
(Source: Illustrated by the author)

(4) Protection and Restoration of Individual Building Character

For heritage conservation units, the original features and basic materials of the building should not be altered. Repairs must be carried out using the same materials, ensuring that the original characteristics are preserved.

For historical and traditional architectural buildings, the height, volume, appearance, and colors of the buildings should remain unchanged. The main facades, which embody the historical character, materials, structures, and decorations, should not be altered. Within the framework of relevant laws and regulations, internal improvements may be made based on functional requirements.

For buildings with clues to traditional character, building exteriors should be maintained and improved without compromising the authenticity of the historical character, following the character guidelines. Enhancements to the building exteriors are encouraged, while improving the conditions of internal usage.

For traditional residences and general buildings, the original building volume and traditional character should be preserved. Necessary updates and renovations to the interiors are allowed, and when necessary, facade appearances can be altered to achieve harmony with the overall traditional character. The building facades should generally follow the style of Lingnan

traditional architecture, employing materials that harmonize with the traditional character, such as blue bricks, red bricks, roof tiles, light gray brushed stone, etc. (Figure 5-59).




Recommended Traditional Materials ✓	Recommended Modern Materials ✓	Not Recommended Materials ✗
		
<p>Blue bricks, red bricks, brushed stone, marble, roof tiles, wood, ironwork, colored glass, embossed glass...</p>	<p>Dark gray textured paint, light gray textured paint, wood-grain aluminum alloy, dark gray aluminum alloy, anti-ceramic materials, machine-made tiles, simulated blue bricks, cadmium telluride photovoltaic glass...</p>	<p>Reflective panels, colored ceramic tiles, stainless steel doors and windows, color-coated steel tiles...</p>

Figure 5-59 Facade Materials for Building Renovations
(Source: Illustrated by the author based on information)

5.6 Regeneration Strategy 3 - "Dredge Meridian"

5.6.1 Optimizing Road Network

Regarding the road network, the focus is on optimizing the profile of the roadways within the block and improving the connectivity of dead-end streets (Figure 5-60). For Shangjiu Road and Dexing Road, part of the space allocated for vehicles will be transformed into pedestrian areas, enhancing the quality of slow-paced walking spaces and ensuring personal safety (Figure 5-61 and Figure 5-62). This requires cooperation at the regional transportation level, redirecting traffic flow to reduce the traffic passing through Shangxiajiu Historic District, and promoting the use of public transportation. For Hualin Jade Street, the pedestrian street, obstacles obstructing the connection between Hualin Jade Street and Shangxiajiu pedestrian Streets will be removed, strengthening the spatial management of the pedestrian street, and improving the efficiency of the high-quality pedestrian street. As for the alleyways within the district, creating communal spaces within specific buildings will connect the dead-end roads, making the pedestrian pathways more diverse and complete.

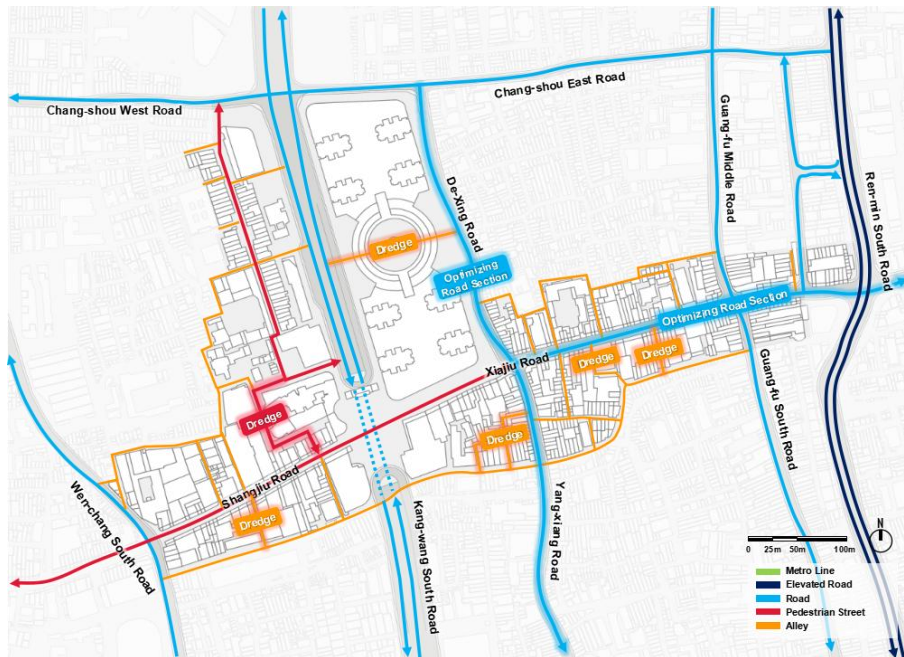


Figure 5-60 Optimizing Road Network
(Source: Illustrated by the author)



Figure 5-61 Enhancing Slow-Paced Walking Rights on Shangjiu Road
(Source: Illustrated by the author)



Figure 5-62 Enhancing Slow-Paced Walking Rights on Dexing Road
(Source: Illustrated by the author)

5.6.2 Organizing Roaming Pathways

(1) Creating Arcade Exhibition Pathway

On a larger scale, create a circular tour route featuring the arcade architecture of the Xiguan old town. Linking important historical and cultural streets and cultural heritage sites, this pathway allows visitors to experience traditional history and culture along with the folk customs of Xiguan, preserving the arcade style and improving the environmental quality of the arcade interfaces, creating a continuous walking and arcade sightseeing experience (Figure 5-63).

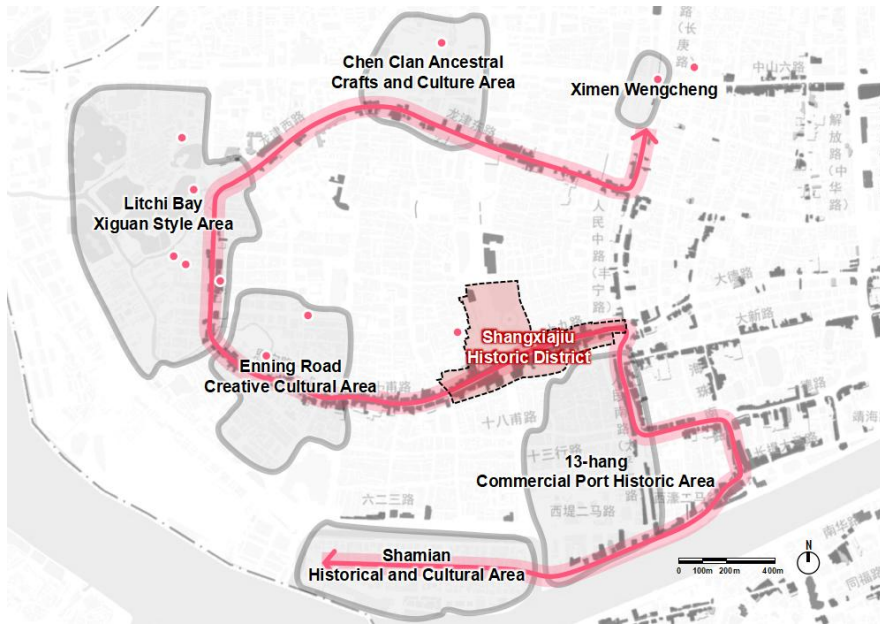


Figure 5-63 Xiguan Arcade Exhibition Pathway

(Source: Illustrated by the author based on "Guangzhou Arcade Street Protection and Utilization Plan")

(2) Establishing Themed Roaming Pathways

Within Shangxiajiu Historic District, there are various historical alleyways. Within the design scope, three themed pathways related to the functional areas will be created, including the Commercial Shopping Pathway, New Fashion Pathway, and Jewelry Center Pathway. These pathways pass through significant spatial nodes, forming a circular route that connects with other pathways, creating a diverse and highly flexible slow-paced walking system (Figure 5-64).

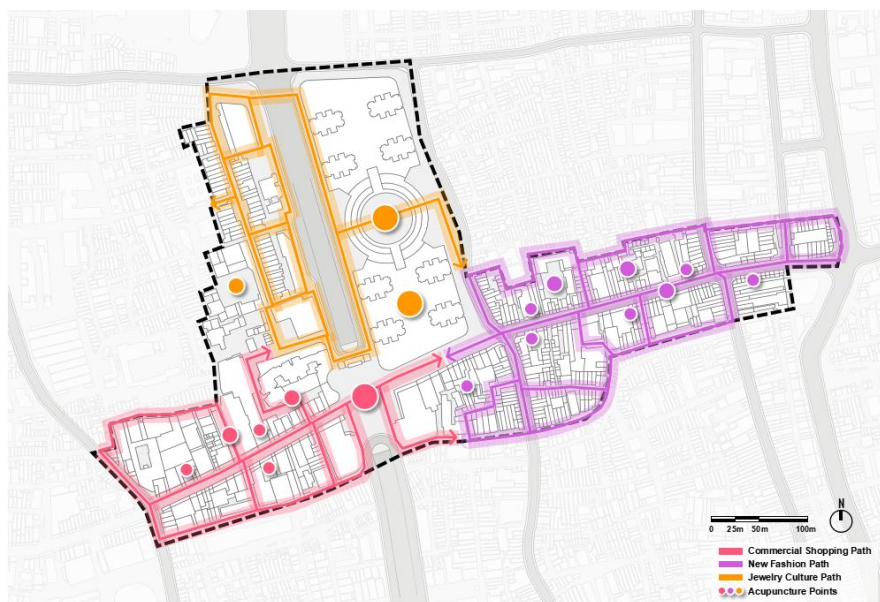


Figure 5-64 Themed Roaming Pathways

(Source: Illustrated by the author)

5.6.3 Expanding Publicity

Establishing and improving official social media accounts and mobile applications for Shangxiajiu Historic District. Strengthening online promotion and educational content through text, images, videos, live streaming, and other means, stimulating residents' sense of belonging and their enthusiasm to participate in the regeneration process. Guiding visitors to explore the Xiguan culture and arcade characteristics of Guangzhou. Creating online virtual reality (VR) functionalities to establish an experiential sharing platform, enhancing interaction between the historic district, residents, visitors, and the outside world, effectively expanding the reach of promotional activities and enriching the information content and entertainment value (Figure 5-65).

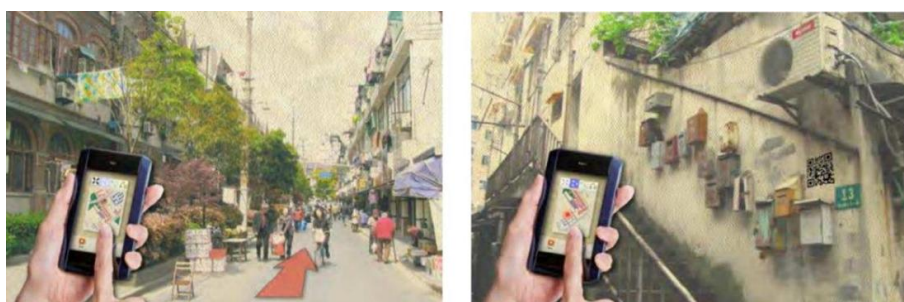


Figure 5-65 New Media Pathways
(Source: Yuman SUN, 2015)

5.7 Regeneration Strategy 4 - "Stimulate Acupoints"

5.7.1 Selection of Acupoints

(1) Selection of Distinctive Block

The Hualin Jade Street not only possesses a rich historical legacy but also boasts a well-established jewelry market. It exudes the essence of local culture, harboring numerous significant historic landmarks, including the provincial-level heritage site known as the Jinlun Hall, the municipal-level heritage site known as the Wuyanqing, and the renowned Hualin Temple on its southern side. Given its connectivity to the subway station and the bustling Shangxiajiu Pedestrian Street, as well as its status as one of the iconic faces of the old town charm of Kangwang South Road, it has been designated as the acupoint for the Distinctive Block (Figure 5-56).

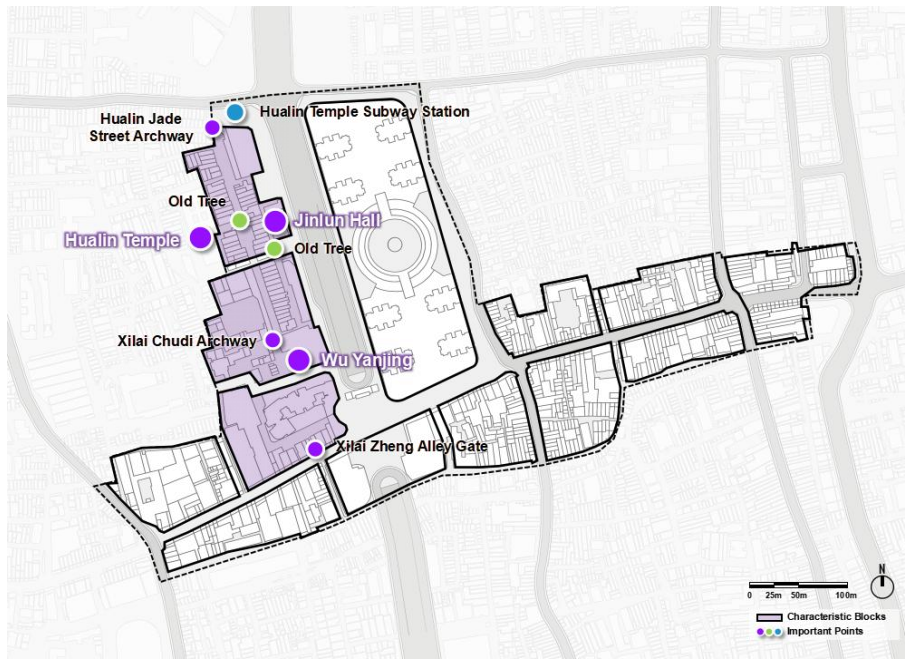


Figure 5-66 Selection of Distinctive Block
(Source: Illustrated by the author)

(2) Selection of Park, Plaza and Street Acupoints

Based on the evaluation system for the vitality of historical streets and streetscapes mentioned in Chapter 4, a comprehensive assessment of 22 indicators has been conducted for the public spaces, including parks, plazas, and streets (Figure 5-67). By considering weighted overlays and conducting an integrated analysis, an overall evaluation of the vitality of public spaces has been derived (Figure 5-68).

1.Location	2.Street Intersection Density	3.Accessibility	4.Sidewalk Length	5.Sidewalk Width	6.Height-to-Width Ratio
7.Aspect Ratio	8.Streetscape Continuity	9.Building Area	10.Floor Area Ratio	11.Transparency	12.unctional Mix
13.Shopfront Area	14.Attractiveness	15.Construction Era	16.Architectural Style	17.Building Quality	18.Green Coverage Ratio

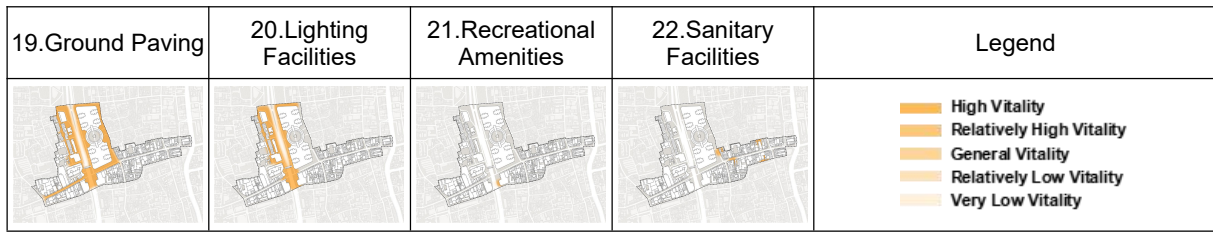


Figure 5-67 Secondary Indicators Evaluation of Public Spaces in Shangxiajiu Historic District
(Source: Illustrated by the author)

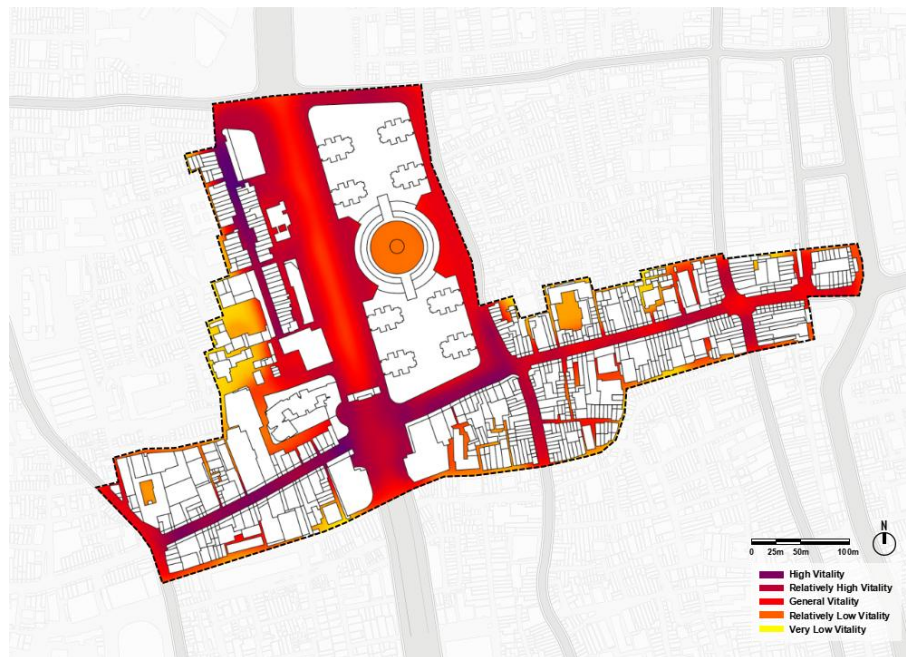


Figure 5-68 Evaluation of the Vitality of Public Spaces in Shangxiajiu Historic District
(Source: Illustrated by the author)

Following the principles of Urban Acupuncture, which emphasize accurate acupoints, small-scale, immediate act, creating places, holistic approach, and public participation, suitable park, plaza, and street acupoints have been identified. These acupoints generally represent areas with a dearth of vitality. They possess favorable existing conditions that require minimal human and material resources to achieve regeneration. Being non-private spaces, they lend themselves well to the implementation of regeneration strategies. Furthermore, all the parks, plazas and streets have ample space to accommodate a considerable number of people and activities. These acupoints are strategically located along the "meridians", ensuring enhanced overall connectivity. Taking into account the current situation analysis and local community feedback, spaces in dire need of regeneration have also been designated as acupoints requiring activation. Ultimately, a total of 5 park and plaza acupoints and 4 street acupoints have been selected for regeneration (Figure 5-69).

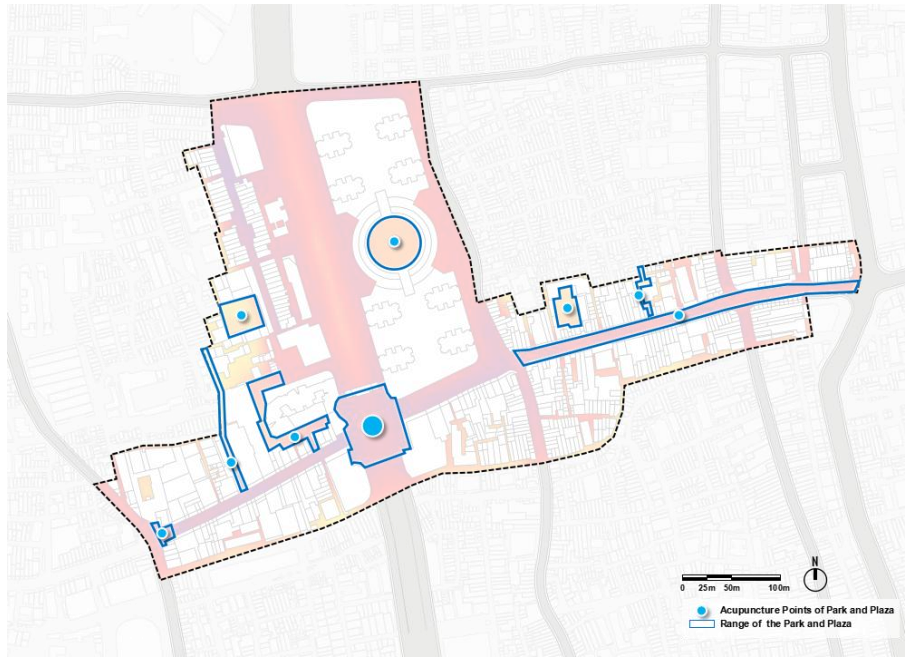


Figure 5-69 Selection of Park, Plaza and Street Acupuncture Points
(Source: Illustrated by the author)

(3) Selection of Building Acupuncture Points

Within the design scope, there is a significant number of public housing units, making them the prime choice for architectural regeneration. Considering factors such as vacancy, construction era, quality, height, historic establishments, and protected structures (see Figure 5-70), an overlay analysis has been conducted to assess the level of regeneration demand for each building (Figure 5-71).

Public Housing	Vacant Public Housing	Pre-1990 Public Housing	Below Average Quality and Lower Public Housing
	Public Housing Buildings with 1-3 Floors	Longstanding Public Housing	Protected Public Housing

Figure 5-70 Feasibility of Transforming Public Housing Buildings in Shangxiajiu Historic District
(Source: Illustrated by the author)

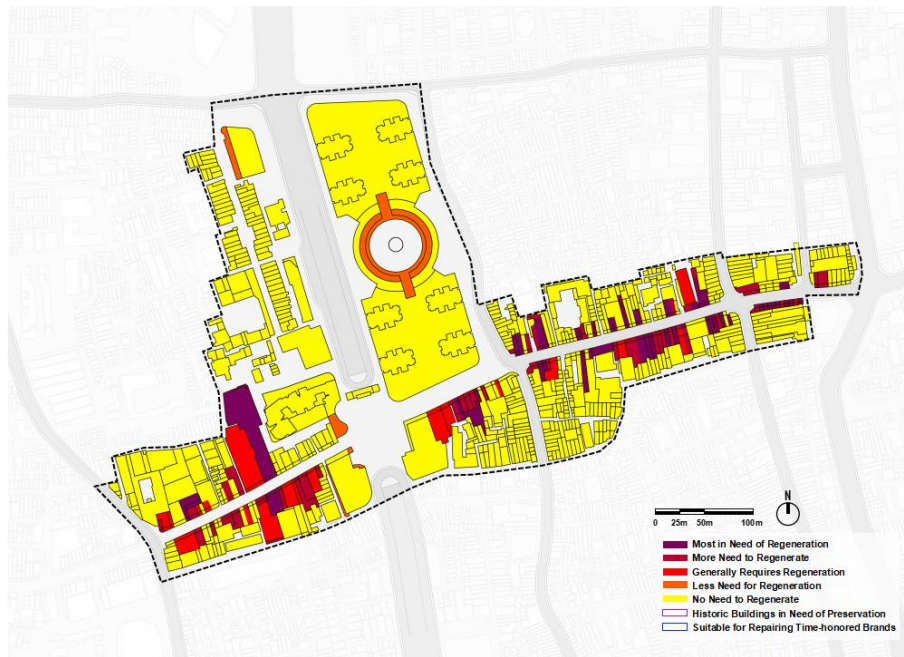


Figure 5-71 Buildings in Need of Regeneration
(Source: Illustrated by the author)

Following the principles of urban acupuncture, which emphasize accurate acupoints, small-scale, immediate act, progressive catalysis, holistic considerations, and public participation, appropriate building acupoints have been chosen. These acupoints represent specific individual buildings within small functional units, with a preference for smaller-scale structures. They are vacant public housing units, making them ideal for the implementation of regeneration strategies. Located in clusters of buildings in need of rejuvenation or in close proximity to historic structures and renowned establishments, they possess great catalytic potential. These acupoints are strategically situated along the "meridians", ensuring strong overall connectivity within the neighborhood. Based on the analysis of the current situation and feedback from the local community, buildings in urgent need of regeneration have also been designated as acupoints requiring activation. In total, 10 building acupoints have been selected for regeneration (Figure 5-72).



Figure 5-72 Architectural Acupoints
(Source: Illustrated by the author)

(4) Selection of Intangible Factors

Regarding intangible factors, the Shangxiajiu Historic District faces certain challenges. On one hand, while large-scale events have taken place in Shangxiajiu Plaza, the type of events and the venues themselves have been monotonous. On the other hand, the climate of Guangzhou, characterized by scorching summers, chilly winters, and heavy rainfall, poses difficulties for outdoor activities. Although the arcade streets were originally designed to mitigate such weather conditions, they still fail to meet the comfort requirements of modern individuals. Therefore, in this design, event planning and pedestrian comfort have been identified as the acupoints for regenerating intangible factors (Figure 5-73).

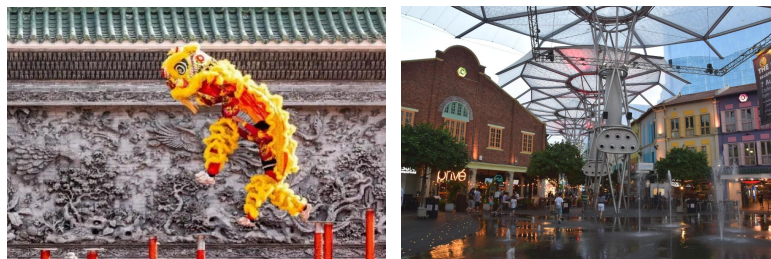


Figure 5-73 Acupoints for intangible Factors
(Source: <https://image.baidu.com>)

5.7.2 Creating Distinctive Block

Designating the Hualin Jade Street as the acupoint for the distinctive block, the focus lies on

creating seamless spatial connectivity and fostering a connection between historical culture and people. In terms of spatial connectivity, this entails renovating archways and alley gates, incorporating sequential sculptures to accentuate entrance guidance, connecting the front and rear entrances of ground-level shops to unlock the potential of the hidden spaces of street, supplementing the street interface with temporary structures to complement its diverse character, and introducing movable shrubs at key nodes to enhance green spaces and elevate the quality of street. In terms of cultural promotion, it is essential to ensure that heritage sites are accessible and visible while upholding their conservation value. This involves transforming vacant public housing units into historic story corners or reading rooms, utilizing inactive solid walls as historic information boards and cultural murals, and organizing relevant historic and cultural events in plazas or parks (Figure 5-74).

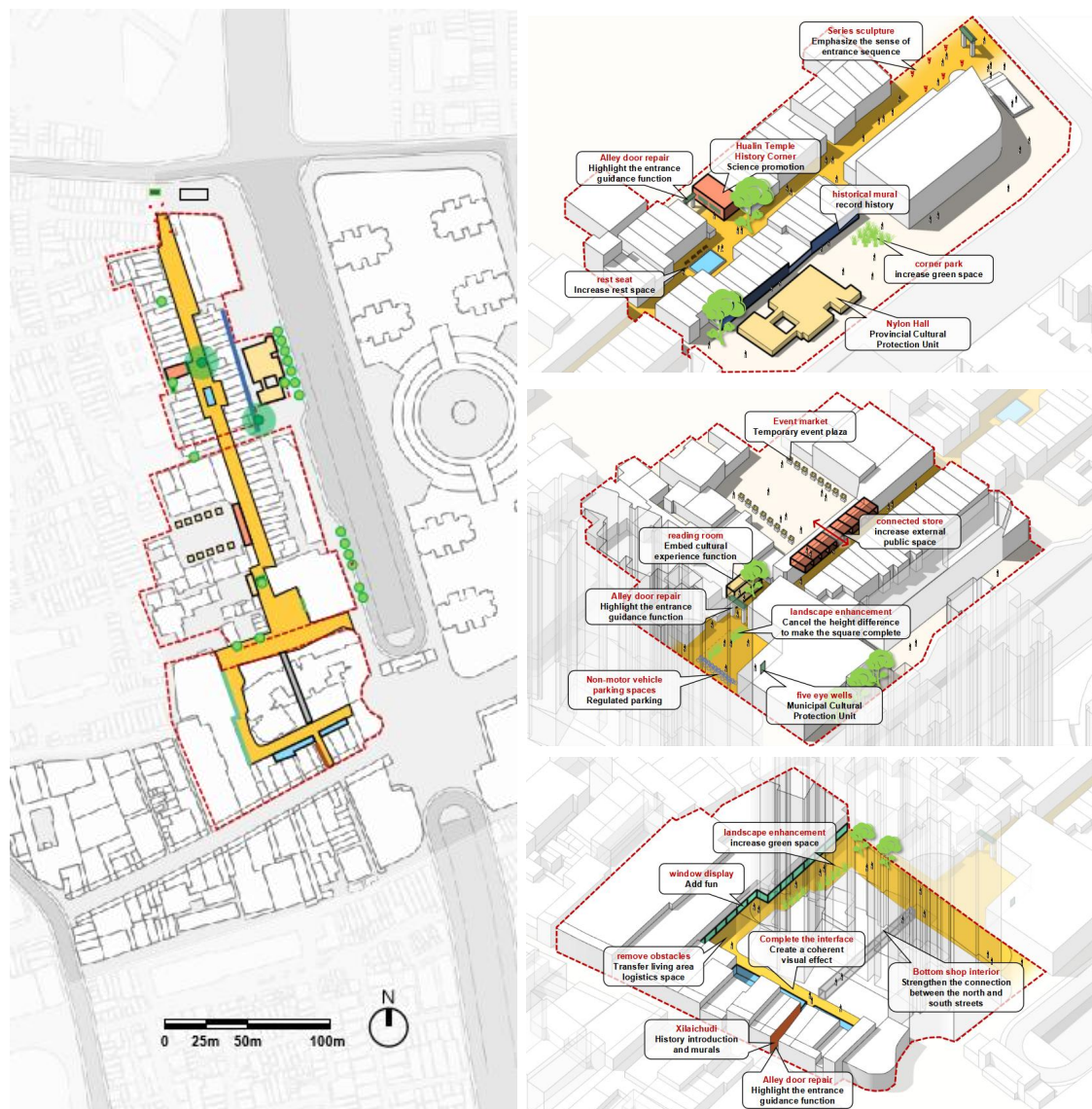


Figure 5-74 Plan and Axonometric Drawing of the Distinctive Block
(Source: Illustrated by the author)

5.7.3 Enhancing Parks and Plazas

For the selected 5 park and plaza acupoints, the primary focus is on functional optimization and landscape enhancement. Transforming the Shangxiajiu Plaza into a shared plaza that offers expansive activity spaces and private resting areas, special attention is given to the rhythm of connecting the east and west sides of the pedestrian street by emphasizing the entrance at the western end. Connecting the vacant space on Hualin Jade Street with the pedestrian street, market stalls and street vendors are integrated. The underutilized courtyard within the Liwan Plaza, which is currently used only for passive parking and unloading, is upgraded into a shared green park. Additionally, the elementary school playground is opened for residents to do activities during designated time periods (Figure 5-75).

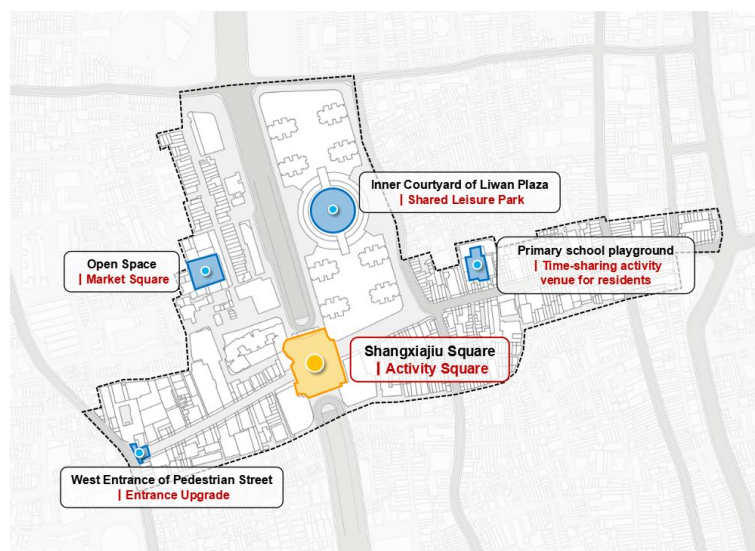


Figure 5-75 Park and Plaza Acupoints
(Source: Illustrated by the author)

This article takes the acupoints within the Shangxiajiu Plaza as an example to illustrate detailed regeneration design. Without altering the existing well-maintained gates and pavements, the focus is on removing billboards and cleaning the ground. Local trees are planted on both sides of the plaza, along with evenly distributed lampposts, emphasizing the orientation of the plaza and softening the irregular boundaries of surrounding buildings. Flexible outdoor dining areas and public seating are introduced in irregular spaces to optimize space utilization. Sculptures arranged in a linear fashion on the southern side not only showcase the historical and cultural stories of Guangzhou but also enhance the sense of enclosure while separating them from the vehicular lane. A landscaped fountain is constructed in the middle intersection with the pedestrian street, serving as a landmark centerpiece for the

plaza. The landscape design features relief sculptures that incorporate elements of Guangzhou culture, seamlessly integrated with the ground and incorporating drainage facilities as part of municipal infrastructure. Pedestrian pavements are laid in the drop-off areas on the north and south sides of the plaza, expanding pedestrian space, limiting vehicle speed, and prioritizing pedestrian safety (Figures 5-76 and 5-78).



Figure 5-76 Before and After Regeneration of the Shangxiajiu Plaza
(Source: Illustrated by the author)

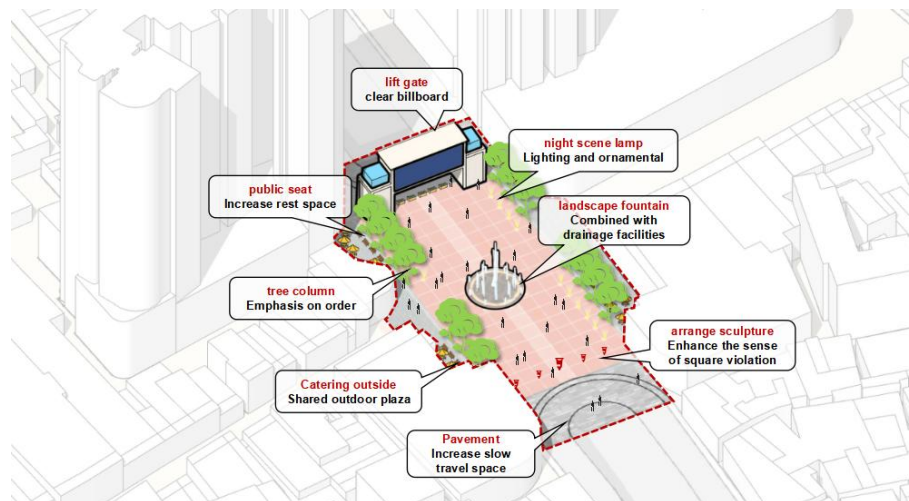


Figure 5-77 Axonometric Drawing of the Shangxiajiu Plaza
(Source: Illustrated by the author)

5.7.4 Embellishing Streets

For the selected 4 street acupoints, the main focus is on removing obstacles and optimizing profiles. Transforming the Shangxiajiu Road, which currently allows mixed pedestrian and

vehicular traffic, into a street that prioritizes slow traffic while still permitting vehicles to pass. Emphasis is placed on enhancing the connectivity of the north-south side alleys and uncovering the cultural stories of the street and its lanes (Figure 5-78).

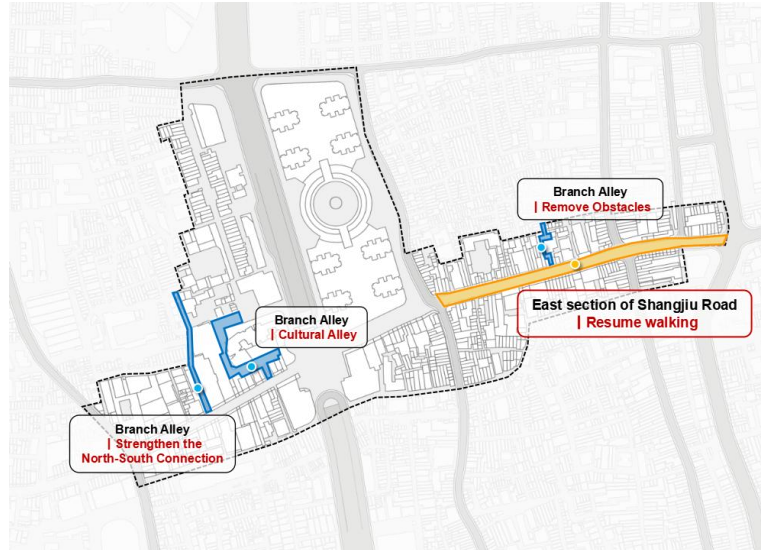


Figure 5-78 Street Acupoints
(Source: Illustrated by the author)

This article takes the acupoint within the eastern section of Shangjiu Road as an example to illustrate detailed regeneration design. Currently, Shangjiu Road is a one-way, two-lane road, with limited vehicle flow due to surrounding lanes mostly being one-way streets. Only vehicles from Dexing Road, Changshou East Road, and Guangfu Middle Road flow into Shangjiu Road, resulting in low traffic volume (Figure 5-79).

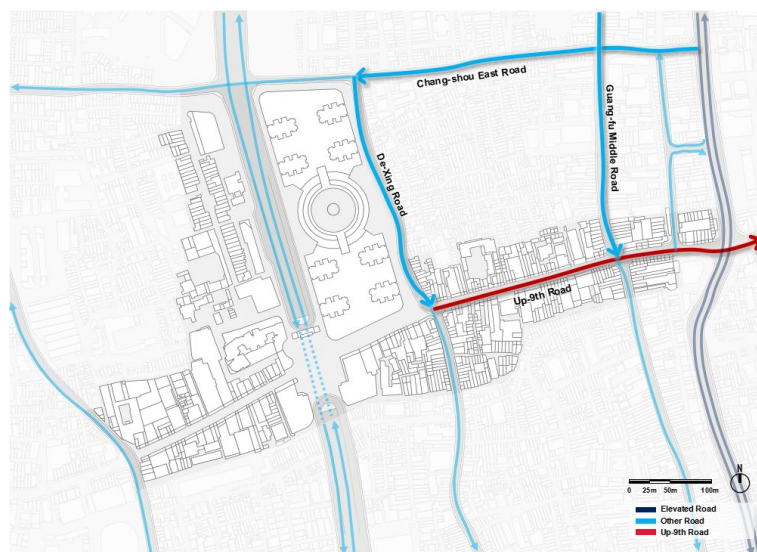


Figure 5-79 Surrounding Traffic Related to Shangjiu Road
(Source: Illustrated by the author)

The design choice is to retain the vehicular function of Shangjiu Road but allocate the space of one lane to pedestrian sidewalks on both sides, providing a semi-indoor and outdoor walking space with a total width of 5.3 meters on each side (Figure 5-80). Adequate space is reserved for bicycles and non-motorized vehicles, while street management is strengthened, prohibiting long-term roadside parking and the accumulation of goods. However, in the event of traffic congestion or emergencies, vehicles are allowed to use the non-motorized vehicle lanes (Figure 5-81). Essential urban furnishings, such as green plants, public seating, trash bins, and lighting fixtures, are added to enhance the landscape environment of the street. Advertising boards are regulated in terms of style and placement to minimize obstruction of the view of the arcade facades (Figure 5-82).

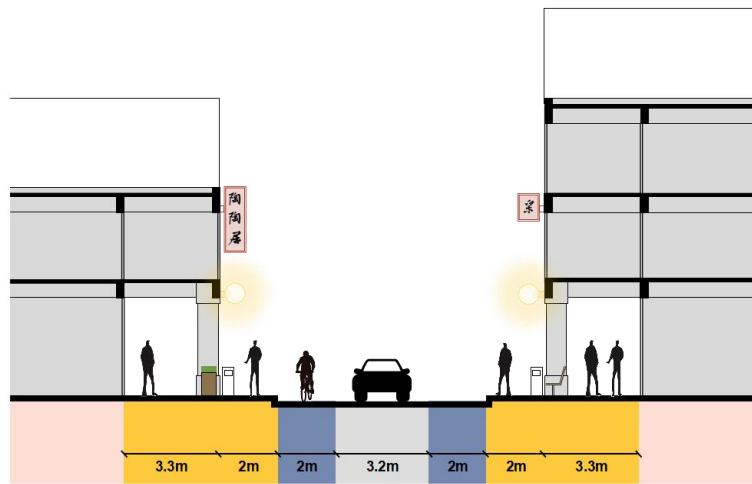


Figure 5-80 Cross-section of the Eastern Section of Shangjiu Road
(Source: Illustrated by the author)

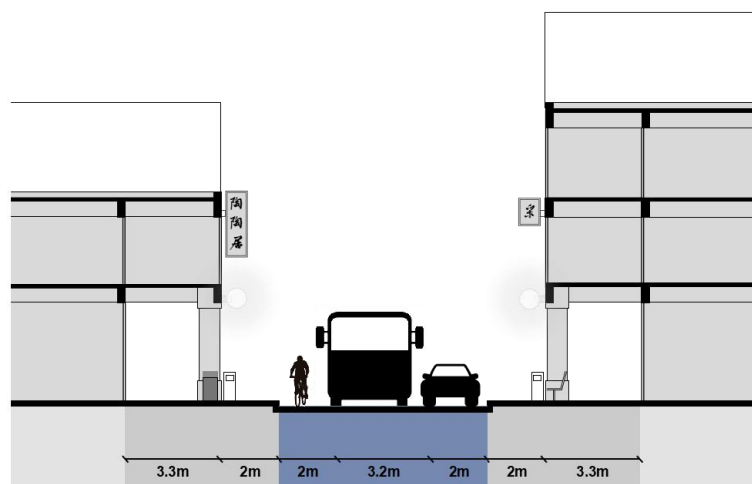


Figure 5-81 Special Usage Conditions of Shangjiu Road
(Source: Illustrated by the author)

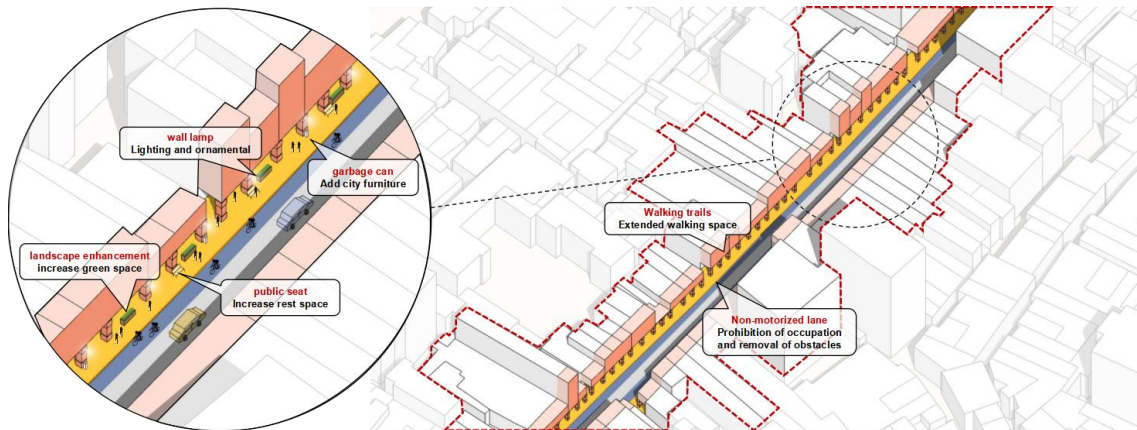


Figure 5-82 Axonometric Drawing of the Eastern Section of Shangjiu Road
(Source: Illustrated by the author)

5.7.5 Revitalizing Buildings

The selected 10 building Acupoints are all public housings, and the main focus is on their material restoration and functional activation. These sites require facade refurbishment while providing more public spaces for the neighborhood. Based on the harmony of organs, various themed functional areas will be guided. For example, the Liwan Plaza will be transformed into a vibrant jewelry center for the new era. On the west side, spaces related to Xiguan lifestyle, such as Cantonese cuisine academies, calligraphy and painting experience stores, and creative handicraft stores, will be integrated. On the east side, there will be fashion science exhibitions, trendy clothing boutiques, branded vintage shops, garment workshops, DIY accessories, and Han Chinese Clothing experience spaces. Detailed regeneration designs will be expressed for three selected building Acupoints of Large, medium, and small in three relative scales, namely, Liwan Plaza, calligraphy and painting experience center, and branded vintage store (Figure 5-83).

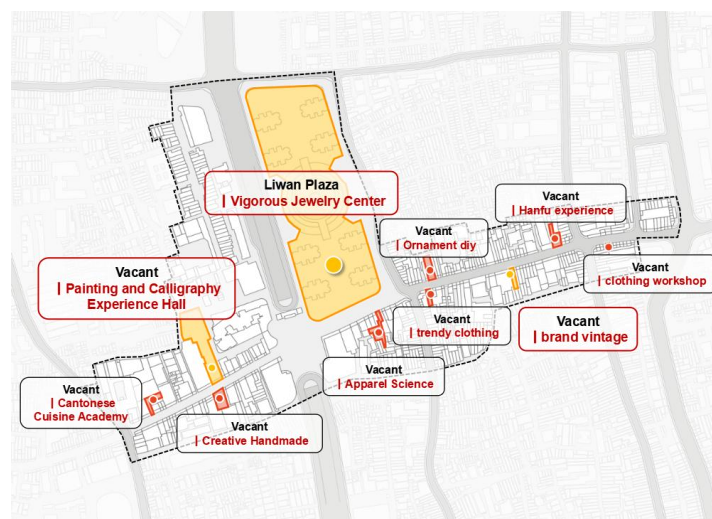


Figure 5-83 Building Acupoints
(Source: Illustrated by the author)

(1) Liwan Plaza

Liwan Plaza is located at the northeast corner of the Shangxiajiu Plaza, covering an area of 26,300 square meters. It consists of six floors of commercial space (including basement floors) and 27 residential floors. First, the huge billboards on the building facade will be removed, and advertising promotion will be transformed into specialized consultation services, online promotion, and event announcements. The exterior walls will be cleaned and repaired, and transparent glass will be installed on the core display areas facing the Shangxiajiu Plaza, creating windows to showcase internal commercial activities. Obstacles around the first floor will be removed, and the space under the corridors will be reactivated (Figure 5-84).



Figure 5-84 Acade Regeneration of Liwan Plaza
(Source: Illustrated by the author)

The main entrance of the building will be upgraded, and the signage of "Liwan Plaza" will be updated. Street-facing shops will be enhanced with increased transparency, and secondary entrances will be added to spark interest of visitors and welcome them inside. The crowded shops in the central atrium area will be systematically relocated to other vacant spaces and undergo interior design improvements, such as the addition of potted plants, artistic installations, and leisure seating. The most spacious circular atrium will be reserved as a space for small-scale events. Internal shops will be divided into different color-themed sections, enhancing signage and route guidance. Private workspaces, including jewelry live streaming rooms and design studios, will be reasonably arranged in the innermost space (Figure 5-85).

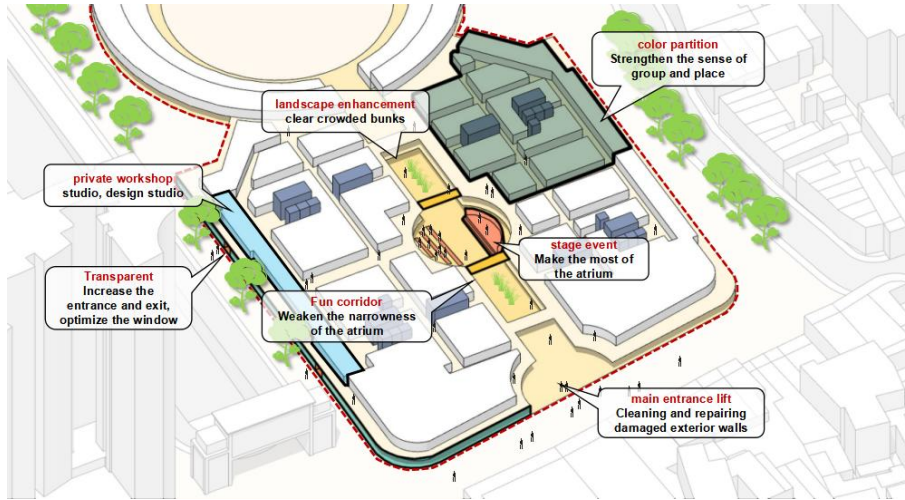


Figure 5-85 Interior of the Southern Part of Liwan Plaza
(Source: Illustrated by the author)

The abandoned fountain pool in the courtyard will be replaced with a relatively easy-to-maintain green park, featuring various-sized accessible activity spaces. The architectural spaces enclosing the courtyard will be transformed into continuous galleries, creating open public gathering places. Unloading and stacking requirements will be centralized on the eastern side of the building, designated as logistical spaces that do not hinder crowd activities. The external space on the western side, serving as the urban image frontage of the main road, can host external activities such as weekend markets (Figure 5-86).

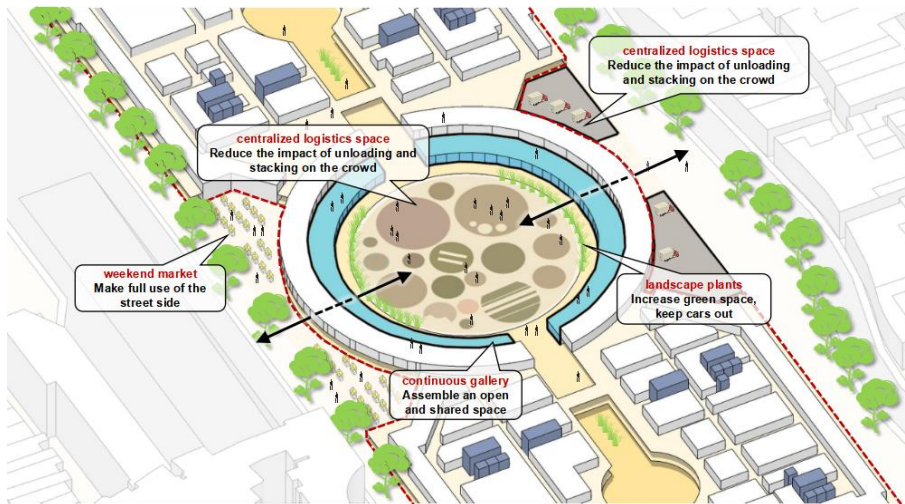


Figure 5-86 Interior of the Middle Part of Liwan Plaza
(Source: Illustrated by the author)

(2) Calligraphy and Painting Experience Center

Located on the north side of Xiajiu Road, this building is a large-scale arcade with two floors, covering an area of 4,103.8 square meters. It was previously used as a shopping mall and is

currently vacant. It will be transformed into a calligraphy and painting experience center, bridging the local cultural characteristics and shopping experience needs. The long and narrow space on the south side will serve as the main exhibition hall, while the north side will be a multifunctional area for dining, shopping, resting, participating in calligraphy and painting experiences, and discussions. The first floor will be driven by calligraphy and painting cultural and creative stores, enhancing the connection between Hualin Jade Street and Shangxiajiu Pedestrian Street (Figure 5-87).



Figure 5-87 Floor Plan of the Calligraphy and Painting Experience Center
(Source: Illustrated by the author)

(3) Branded Vintage Store

Located on the south side of Xiajiu Road, this building is a two-story arcade, resembling a

long and narrow bamboo tube, with a total area of 201 square meters. In addition to cleaning and repairing the building facade, its functionality will be updated and interior layout will be redesigned to create a branded vintage store that leads the surrounding buildings toward a clothing-oriented direction. The ground floor will feature a stylish and eco-friendly lobby, while the rear will house facilities such as restrooms and warehouses. The second floor will serve as the main space for clothing displays, and the rooftop will be transformed into a garden, providing a leisure and sightseeing area for visitors and generating additional revenue from catering services (Figure 5-88).



Figure 5-88 Brand Vintage Store floor plan
(Source: Illustrated by the author)

5.7.6 Utilizing Intangible Factors

(1) Event Planning

To enhance the allure of the Shangxiajiu Historic District, events should be meticulously planned and organized on the plazas and pedestrian streets to enrich the visitor experience. On one hand, efforts should be made to extend the duration of nighttime visits by creating urban nightscapes, folk activities, night markets, and performances. On the other hand, to maintain year-round vitality, captivating events and urban activities can be planned from the perspectives of historic context, Xiguan lifestyle, traditional festivals, and contemporary trends. These may include cultural and art exhibitions, food festivals, Spring Festival lantern displays, and fashion shows, creating an everlasting celebration in the historic district. (Figure 5-89)

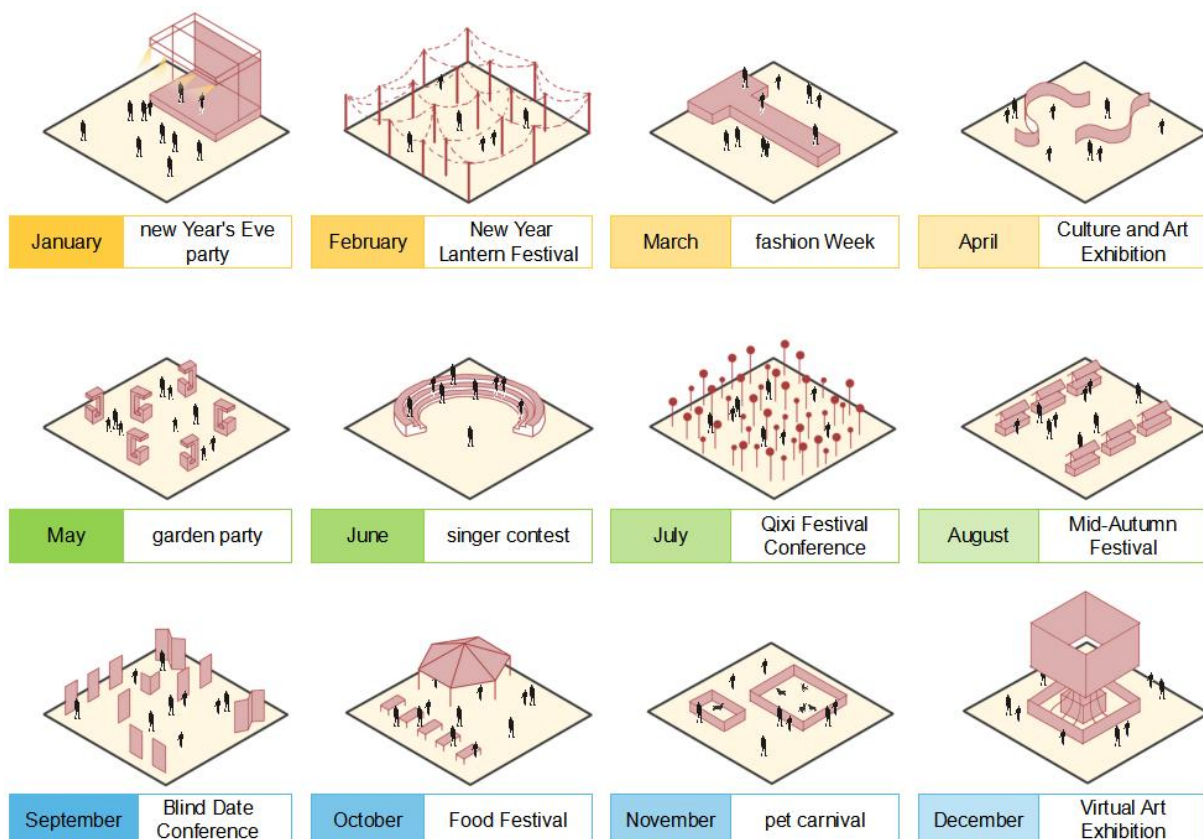


Figure 5-89 Festival Event Planning
(Source: Illustrated by the author)

(2) Pedestrian Comfort

The climate in Guangzhou is characterized by high humidity, temperature, and radiation

levels during the hot and humid summers, as well as high wind speeds and humidity during winters, exacerbating discomfort in exposed areas. The western section of Shangjiu Road, with a width exceeding 21 meters, is twice as wide as other sections of the pedestrian street. It is subjected to year-round exposure to sun and rain, yet only features continuous colonnades on one side. To enhance outdoor comfort in this section, the concept of a lightweight canopy, inspired by the Marina Barrage in Singapore, can be introduced (Figure 5-90). This canopy, made of transparent ETFE material, allows natural light to penetrate, preserving the natural ambiance of street while providing a sheltered space for leisure and commercial activities, unaffected by weather conditions. The central part of the street is equipped with concealed ventilation fans to promote air circulation. In combination with misting systems, it creates a cooling effect, maintaining a pleasant and constant temperature of 28 °C (Figure 5-91 and Figure 5-92).



Figure 5-90 Marina Barrage Lightweight Canopy
(Source: <https://image.baidu.com>)

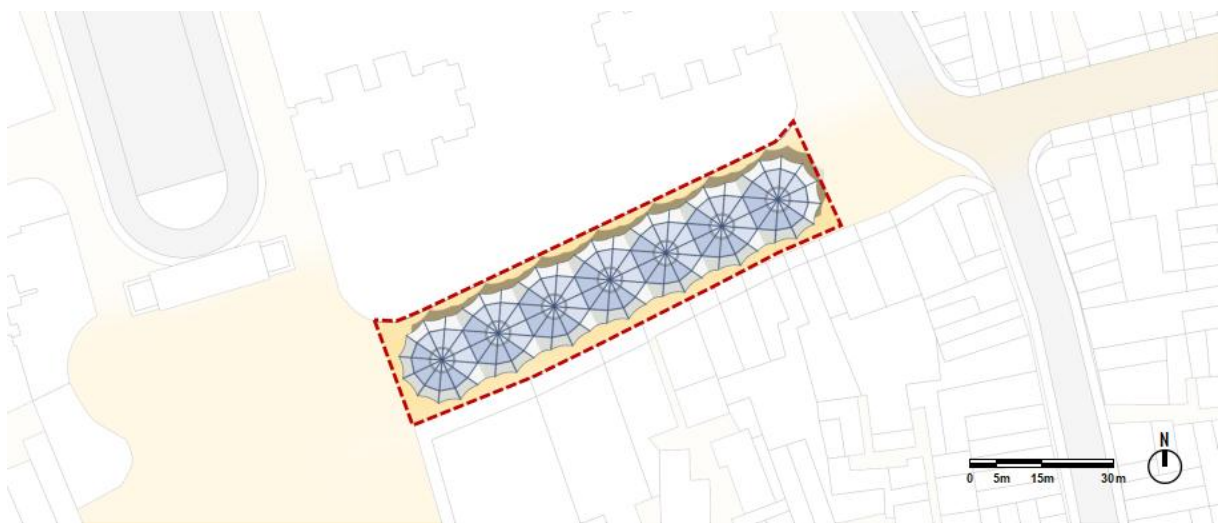


Figure 5-91 Lightweight Canopy Plan
(Source: Illustrated by the author)

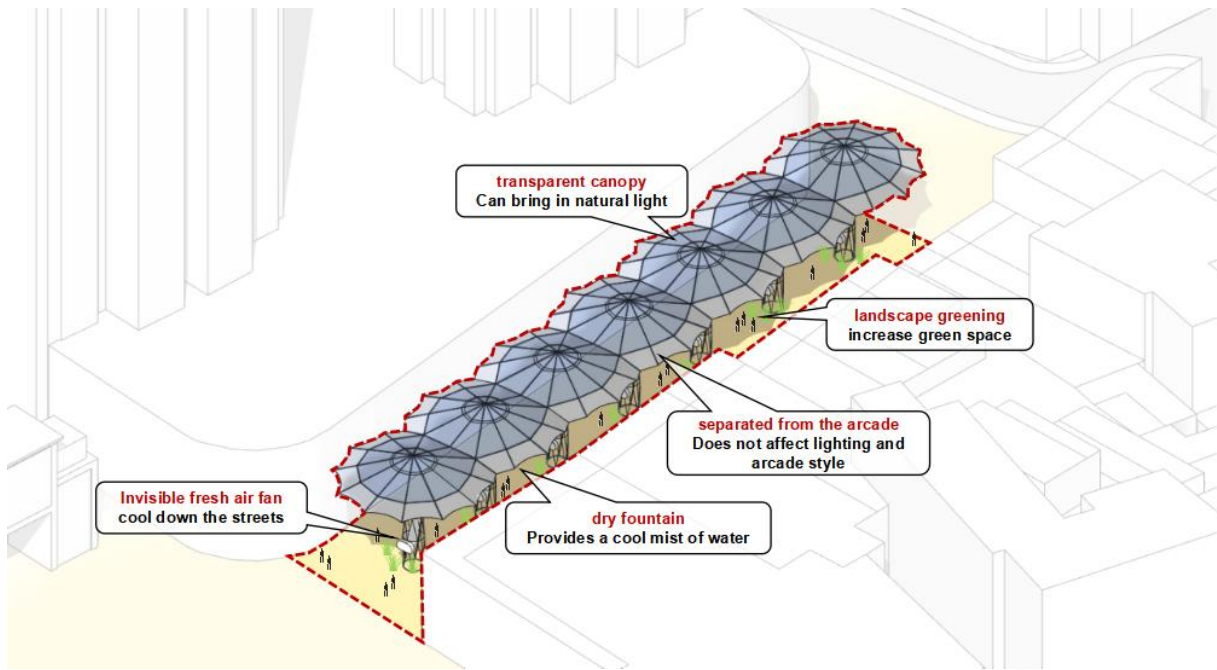


Figure 5-92 Lightweight Canopy Axonometric View
(Source: Illustrated by the author)

5.8 Regeneration Blueprint and Implementation Mechanism

5.8.1 Master Plan and Aerial View

Through the application of Urban Acupuncture, the Shangxiajiu Historic District will be revitalized by tapping into its hidden potential. By adopting a multi-faceted approach, the regeneration efforts will be coordinated across different areas, leading to sustainable development. The ultimate goal is to transform it into a traditional arcade street in Guangzhou, showcasing Lingnan culture and the seamless integration of tourism, culture, and commerce on a global scale. Once again, it will serve as a vibrant hub for diverse and vibrant lifestyles. (Figure 5-93 and Figure 5-94)

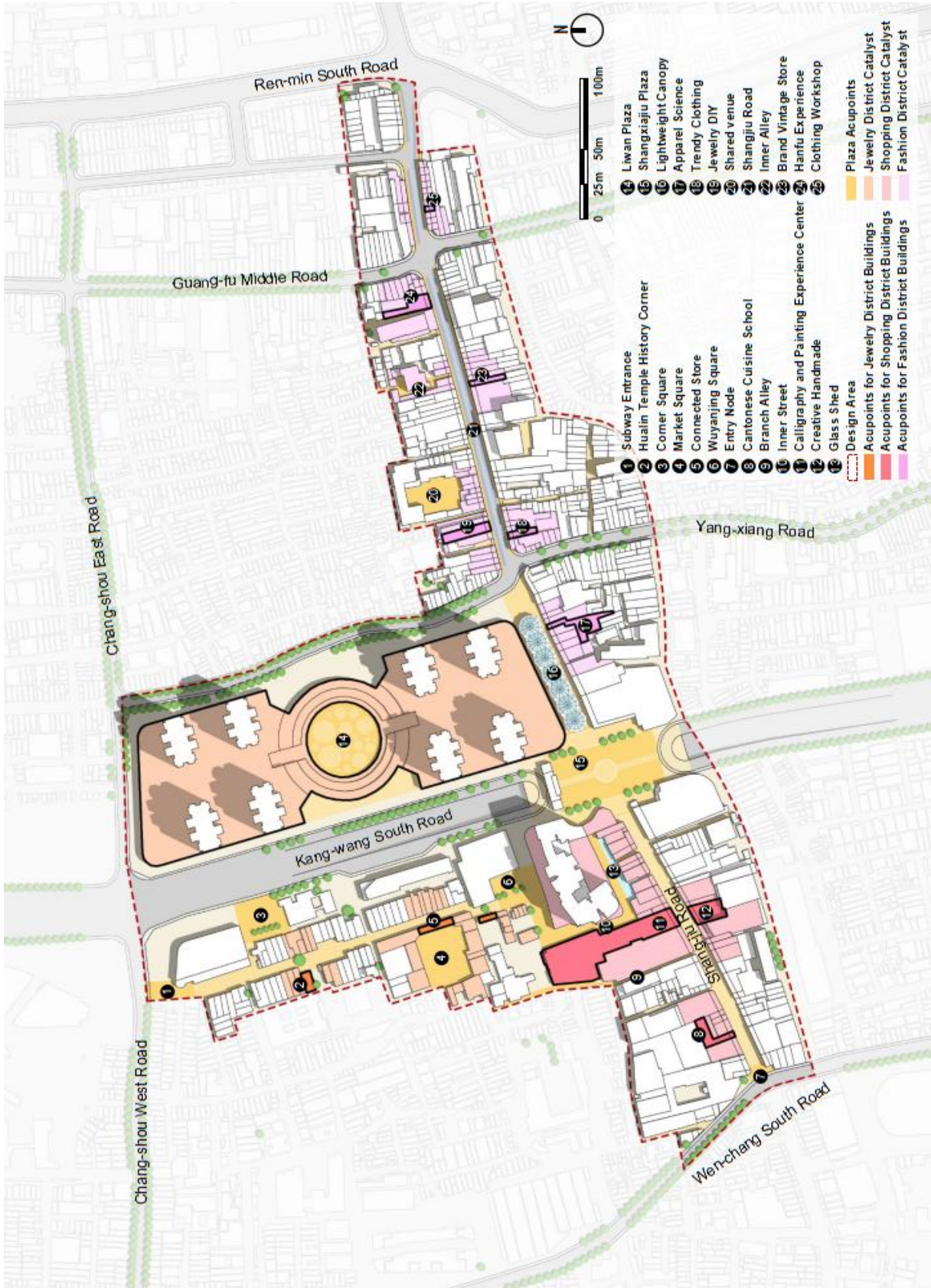


Figure 5-93 Master Plan
(Source: Illustrated by the author)

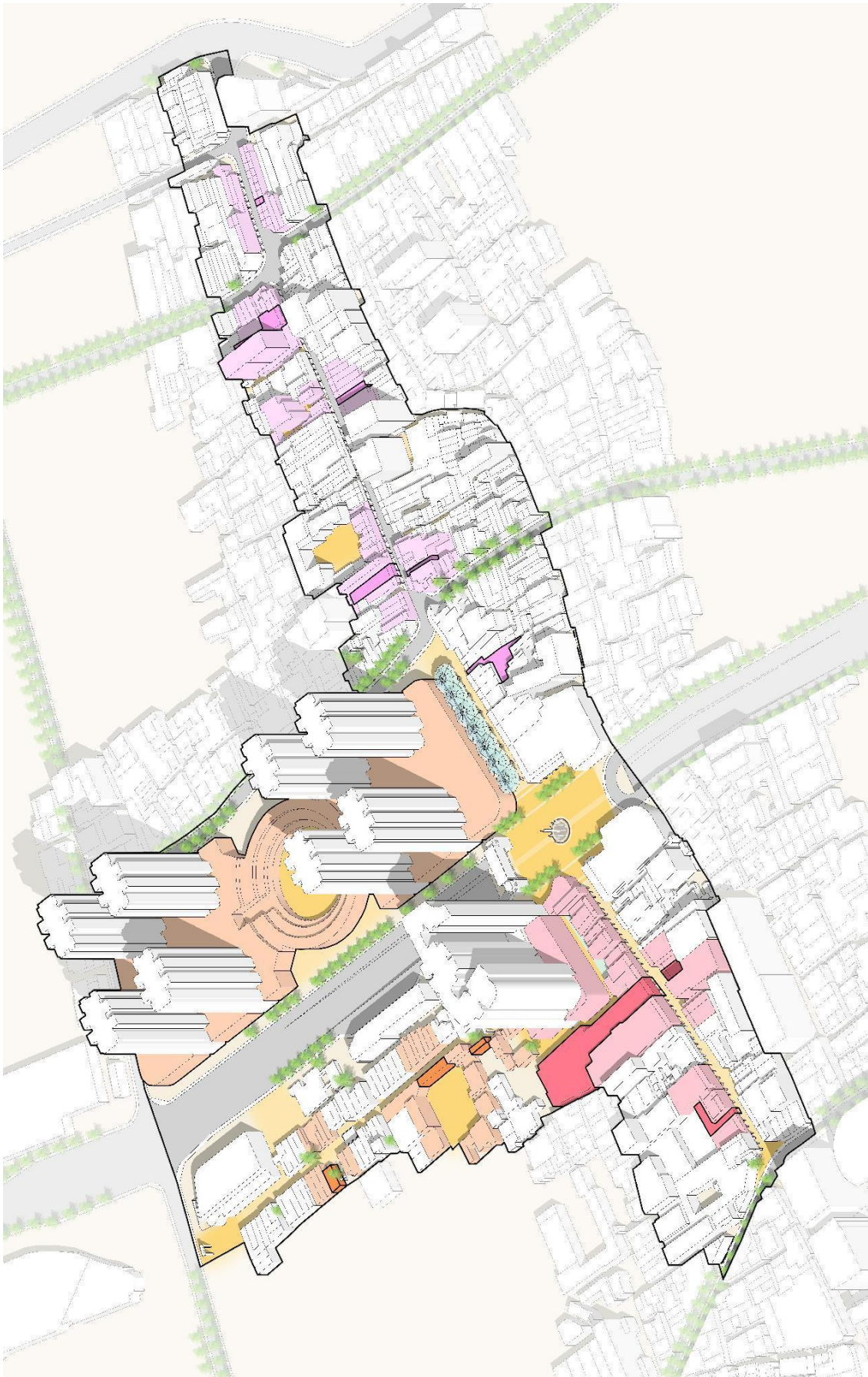


Figure 5-94 Aerial View
(Source: Illustrated by the author)

5.8.2 Phased Implementation

The revitalization plan for the Shangxiajiu Historic District will be implemented in stages, gradually catalyzing and driving the development of the entire area. The first phase will focus on improving the public spaces of Shangxiajiu Pedestrian Street and Hualin Jade Street, with Shangxiajiu Plaza as the core. In the second phase, the building sites along both sides of the pedestrian streets will be activated, leading to the functional revitalization of the entire district. In the third phase, the focus will extend to the inner streets, alleys, and plazas, aiming to achieve the goals of meridian unblocking, organ harmonization, and vital energy regeneration across all the sites (Figure 5-95).

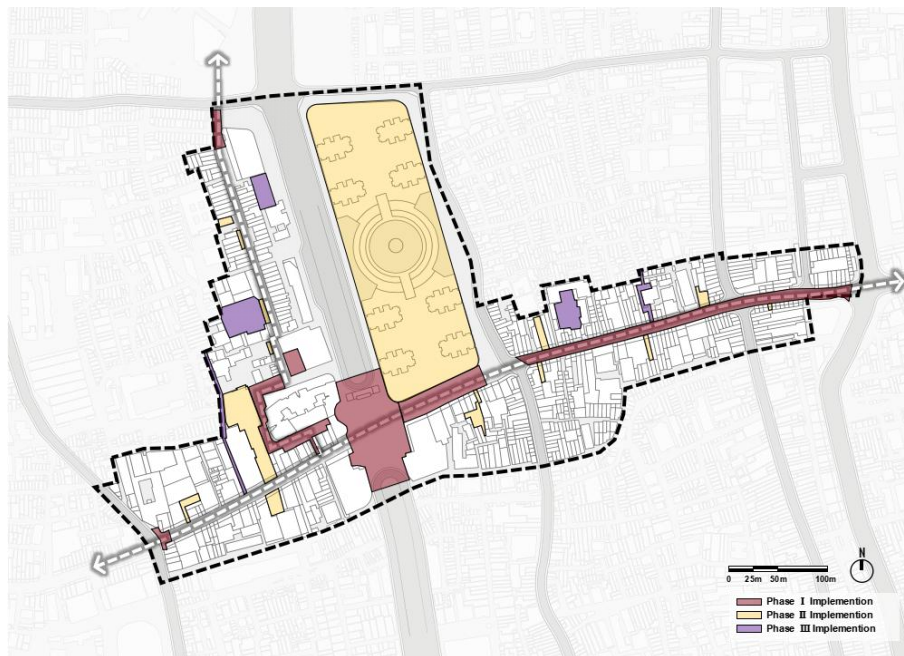


Figure 5-95 Phased Implementation
(Source: Illustrated by the author)

Subsequently, the scope of the regeneration area will expand westward to include the Hualin Temple Historic District and Dishifu Road Area, continuing the urban acupuncture approach. By connecting the dots and expanding the coverage, the entire Liwan old town area will undergo comprehensive regeneration, ultimately achieving a fully functional and thriving hub that seamlessly integrates Lingnan culture with cultural tourism and commerce (Figure 5-96).

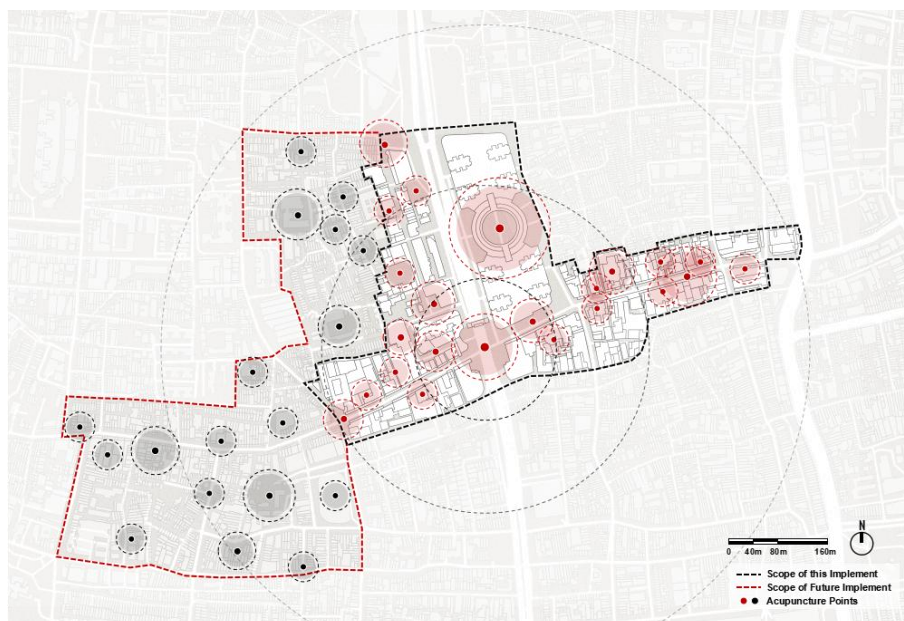


Figure 5-96 Future Implementation
(Source: Illustrated by the author)

5.8.3 Diverse Stakeholders

The revitalization of the historic district relies on the cooperation of government, market forces, and society. Only through the harmonious coexistence of multiple stakeholders can urban renewal and transformation work be propelled in a harmonious, diverse, and efficient manner. By studying successful cases of historic district revitalization in various parts of the country, such as Yongqing Fang in Guangzhou, it can be observed that adopting a "government leadership, experts consultation, enterprises undertaking, and residents participation" model is conducive to dealing with the complexities that arise during the regeneration process.

(1) Government Leadership

The government plays a leading role in ensuring the prioritization of protection and a people-centered approach while balancing the interests of multiple parties. During the initial stages of the regeneration of Shangxiajiu Historic District, when some houses need to be demolished, the government should organize the relevant property acquisition and demolition work, as it possesses property and land ownership and can establish better connections and communication with residents. The government can also serve as a platform for consultation among various stakeholders, facilitating effective communication and coordination, including organizing expert consultation meetings, involving businesses, and guiding public

participation. Additionally, the government can develop and refine relevant policies and regulations, continuously innovating the working mechanism.

(2) Experts Consultation

Experts, as advisors, ensure that the entire process of the regeneration of Shangxiajiu Historic District stays on the right track, avoiding significant deviations. Experts from the fields of urban planning, urban design, urban renewal, historic districts, historical and cultural preservation, and operation and development of ancient streets should be organized to participate in relevant expert consultation meetings at different stages of the renewal, playing a significant role. Furthermore, a community planner system can be established to facilitate in-depth community engagement and coordination among multiple parties to overcome difficulties.

(3) Enterprises Undertaking

Enterprises, as investors and operators, ensure the proper functioning of the market, attract investment and construction funds, establish mature commercial formats, and attract renowned commercial brands. It is essential to cultivate various investment and financing models such as BOT (Build-Operate-Transfer) and PPP (Public-Private Partnership), actively introducing private capital, diversifying funding channels for protection and utilization, and reducing the government's burden. For example, the Yongqing Fang renewal project in Guangzhou adopted the BOT model, introducing private capital, and assigning the reconstruction, construction, and operation responsibilities to the winning bidder. After a 15-year operation period, the project will be handed back to the government. During this period, the enterprise enjoys the authority to attract and manage tenant businesses and plan activities.

(4) Residents Participation

Residents, as the primary beneficiaries and stakeholders, need to have their needs fully considered. Residents can participate in the renewal of the Shangxiajiu Historic District through various means: self-improvement of their residences while complying with relevant planning requirements, renting their properties to developers for operation or renting out properties independently for income generation, or having their properties acquired by the government in exchange for funds and alternative housing spaces.

5.8.4 Public Participation

The regeneration of the Shangxiajiu Historic District relies on the participation of residents, visitors, experts, scholars, and other members of the public. They can provide diverse and valuable suggestions and become the recipients of the services offered by the renewed district. At each stage and in every aspect of the transformation process, public participation should be respected and encouraged, transforming the public from mere spectators to active contributors.

First, a three-tiered linkage among the city, district, and community should be established to facilitate comprehensive public participation in planning, design, construction, operation, maintenance, and management.

The government should develop and continuously refine policies and regulations, as well as innovative working mechanisms. These may include implementing an expert consultation system, establishing a public consultation committee, community planner system, and resident council system to standardize the procedures for public participation and provide clear guidelines for the exercise of public rights, such as the right to be informed, to raise questions, and to participate in decision-making.

Prior to the renovation, the proposed renovation plans, formulated in line with public demands, should be made public. Survey and analysis should be conducted to understand the desires and issues related to the regeneration, considering different income levels, cultural backgrounds, and age groups of the public, to ensure that the regeneration content aligns with the needs.

During the renovation, a public participation platform for the historic district's renewal, such as a Co-creation Committee, should be established to coordinate the interests of various stakeholders. Additionally, innovative online platforms like WeChat groups and QQ groups can be utilized to enhance daily consultation and decision-making mechanisms. Furthermore, engaging methods such as art workshops and visits by community planners can be employed to expand the channels for public participation. Projects that are closely related to the public, such as those concerning local matters and issues directly affecting their daily lives, can be used as platforms to attract public involvement in decision-making, construction, and management.

After the regeneration, public satisfaction should be one of the evaluation criteria, and continuous updates and improvements should be made to ensure satisfaction and happiness of residents.

5.8.5 Policy Safeguards

The regeneration blueprint for the of Shangxiajiu Historic District requires a series of policy safeguards at various levels, including project initiation, planning, design, construction, operation, maintenance, and management.

(1) Policy Safeguards for Promoting Shangxiajiu Regeneration

The official reports and conferences, such as the 2023 Guangzhou Municipal Government Work Report, Liwan District Government Work Report, and Liwan District High-Quality Development Conference, have emphasized the need to promote the protection, revitalization, and utilization of the Shangxiajiu Historic District this year. Therefore, the relevant government departments at the municipal and district levels should seize the policy opportunities and include the work on Shangxiajiu in the work plans of government for the next few years. They should also sign work agreements with planning, design, and construction units to promote project implementation and ensure that the revitalization of the Shangxiajiu district can realize the blueprint as soon as possible.

(2) Policy Safeguards for Cultural Protection and Micro-Renewal

Various policies, such as the "Opinions on Strengthening the Protection and Inheritance of historic and Cultural Heritage in Urban and Rural Construction (2021)", "Notice on Further Strengthening the Protection of historic and Cultural Streets and Buildings (2021)", "Implementation Opinions on Strengthening the Protection and Inheritance of historic and Cultural Heritage in Guangzhou's Urban and Rural Construction (2021)", "Implementation Opinions on Preventing Large-Scale Demolition and Construction Issues in Guangzhou's Urban Renewal Action (2020)", "Implementation Opinions on Deepening Urban Renewal to Promote High-Quality Development in Guangzhou (2020)", and "Working Guidelines for Deepening Urban Renewal to Promote the Protection and Utilization of historic and Cultural Cities in Guangzhou (2020)", have all emphasized the priority of historical and cultural protection in urban renewal. These policies advocate for the use of micro-renewal methods, discourage large-scale demolition and construction, encourage "embroidery" and "tapestry"

renewal that preserve the unique layout and texture of the old town area, and continue the historical context and distinctive charm of the city. They also promote the rational use of the streetscape and its integration into new cultural, commercial, and tourism formats. The relevant government departments should strictly implement these policies, disseminate them widely, and ensure compliance during the planning and construction approval process to preserve the cultural value of the Shangxiajiu Historic District.

(3) Policy Safeguards for the Protection of Traditional Architectural Features

The "Regulations on the Protection of Traditional Architectural Features in Guangzhou" developed by the Guangzhou Urban Planning and Natural Resources Bureau and the Judicial Bureau, which came into effect in 2023, should be implemented. In accordance with the policy requirements, the protection and management of traditional architectural features in the Shangxiajiu Historic District should be strengthened.

Firstly, it is necessary to prohibit unauthorized relocation, demolition, or alteration of traditional architectural features, including changes to the building facades, and establish legal responsibilities for violations.

Secondly, the construction management should be optimized, allowing responsible parties to carry out external repairs and routine maintenance without changing the appearance and ensuring safety of traditional architectural features.

Thirdly, to prevent the destruction of the architectural features, regulations stipulate that additions, alterations, and expansions should maintain the original appearance of traditional architectural features.

Fourthly, a system of protected architectural features should be established, requiring the planning and natural resources department to set up protection plaques within six months after the protection list is announced. These plaques should include information about the responsible party, building name, recognition time, architectural features, historical events, and significant figures.

Lastly, safety management and digital protection should be strengthened by marking traditional architectural features during house safety surveys and sharing information with relevant departments. The use of information technology and digital techniques should be employed to enhance the protection, management, and display of traditional architectural

features. Therefore, the relevant departments should uphold the authenticity and integrity of the historic and traditional architectural features in Shangxiajiu, ensuring scientific and well-balanced renewal and maintaining a consistent architectural style with historical buildings while distinguishing them from each other.

(4) Policy Safeguards for Staged Implementation

Relevant departments can formulate policies to encourage the phased implementation of the revitalization of Shangxiajiu and other historic districts. The implementation plan should adhere to the principles of "prioritizing livelihood of people, flexible staging, and dynamic progress", with clear plans for each phase. Each phase should start with the construction of public service facilities, municipal infrastructure, and projects aimed at improving living environments as well as public spaces. To facilitate orderly progress in demolition and construction, a model of "signing, demolishing, supplying, approving, and constructing" can be implemented.

(5) Policy Safeguards for Funding and Development

On one hand, relevant departments can increase financial support, develop specific fiscal policies, and innovate financing mechanisms to provide financial security for the protection and revitalization of the Shangxiajiu Historic District. On the other hand, under government leadership, private capital should be actively encouraged to participate. Policies should be established to screen and evaluate potential partners with a good social reputation, and incentives such as commercial development and tax support can be provided to attract private investment. Additionally, strict market mechanisms should be established. The development plan should be formulated using a phased development approach, and agreements should be signed with development entities. Severe penalties should be imposed if excessive damage to historic streets is caused. Furthermore, enhanced supervision of local commercial development activities should be implemented, and a team of scholars should be assembled to conduct comprehensive market research. Destructive development driven solely by short-term benefits should be avoided.

(6) Policy Safeguards for Public Participation

Relevant departments need to formulate policies and regulations to specify the procedures for public participation, including the exercise of public rights, working mechanisms, and

information disclosure methods. Throughout the revitalization process of the Shangxiajiu Historic District, systems such as expert consultations, public consultations, joint creation committees, community planners, and resident councils can be implemented.

5.8.6 Expected Values

(1) Enhancement of Cultural Value

The revitalization of the Shangxiajiu Historic District greatly enhances their cultural value. By preserving the complete historic streets, maintaining traditional alleys and historical buildings, protecting intangible cultural heritage, and enriching the cultural charm of the area, the continuity of urban heritage and memory is ensured. The vibrant cultural connotations vividly reflect the unique production and lifestyle, folk customs, and cultural traditions of the Lingnan region. This also facilitates in-depth research by urban researchers and historians on the Shangxiajiu Historic District. Moreover, it allows everyone to experience the cultural charm of the historic streets, strengthening urban cultural cohesion and influence, and enhancing cultural pride and confidence of people.

(2) Enhancement of Social Value

The revitalization of the Shangxiajiu Historic District greatly enhances its societal value. While preserving and regenerating the historic district, it also promotes the regeneration of the neighborhood, facilitates urban functional adjustments, drives infrastructure updates, contributes to the enhancement of public spaces, and assists in improving living conditions. These efforts significantly improve the living and business environments in the area, greatly enhancing the quality of life for residents. The emphasis on improving lives of residents is the source of vitality for the continuity of the historic and cultural street district. The exquisite and charming environment and the cultural ambiance of ancient buildings complement an unparalleled sense of charm of life. The revitalization of the Shangxiajiu Historic District will be a successful project that enhances the happiness of the people and brings positive energy to society.

(3) Enhancement of Economic Value

The regeneration of the Shangxiajiu Historic District greatly enhances its economic value. It not only brings economic income to the district itself but also stimulates and drives the

surrounding cultural and tourist areas, effectively enhancing the commercial and residential value of the surrounding region. This fosters a positive development model for the economic growth of the regional business district, thereby promoting the comprehensive development of the cultural, leisure, and tourism industries in Liwan District and Guangzhou. After the regeneration of Shangxiajiu, it will attract numerous tourism developers and individual entrepreneurs to operate businesses in the area, injecting industries and vitality into the city, and generating substantial revenue and tax income annually. This will enable the tourism industry in the historical street area to embark on a path of sustainable and positive development, no longer relying on large-scale financial investment from the government but also supporting public welfare initiatives.

5.9 Summary of this Chapter

This chapter aims to apply the relevant theories and practical frameworks of urban acupuncture as the basis for the regeneration design of the Shangxiajiu Historic District in Guangzhou. It deepens the argument for the practical guidance value of urban acupuncture in the regeneration of historic districts. Firstly, it introduces the historic evolution, spatial transformation, and retrospective of the street area. Then, it conducts a current analysis of roads and alleys, plazas and nodes, buildings and functions, historical elements, and neighborhood opinions, summarizing the challenges faced by the historic district in terms of development dependence, functional areas, corridors, and vitality to diagnosis. It continues to plan and design the regeneration process by injecting vitality, harmonizing viscera, dredging meridians, and stimulating acupoints in accordance with the principles of urban acupuncture. The focus is placed on the scientific and rigorous selection of acupuncture points and detailed design expression for eight different types of acupoints. Finally, it outlines the regeneration blueprint of the Shangxiajiu Historic District and supplements the relevant implementation mechanisms.

Conclusion and Prospects

(1) Main Research Conclusions

As the urbanization process of China rapidly advances, the arrival of the stock era has made the old town areas the main focus of renewal and development. Among them, historic districts not only constitute an important part of the old town areas but also embody rich historical culture and folk customs, demanding attention and regeneration. However, the emergence of urban ailments after rapid urbanization has gradually become prominent, and the issues surrounding historic districts have become increasingly pressing, making urban check-up a crucial aspect of urban well-being. Faced with a considerable number of areas in need of renewal and limited construction funds, relevant theories and practices for regeneration still require optimization.

Against this backdrop, the "urban acupuncture" approach, characterized by minor interventions, has garnered increasing attention from scholars in urban renewal. This article introduces the theory of "urban acupuncture" with the core objective of regenerating historic districts and delves into the development of related theories and explorations in both West and Chins. The aim is to derive a more sustainable strategy for historic district regeneration in line with current urban development trends. Through analysis and discourse in this article, the following four conclusions are drawn:

① In the concept of urban acupuncture, the city is perceived as a multi-dimensional sensitive energy organism, and this article further establishes its connection with Traditional Chinese Medicine. It proposes a four-tier urban organic composition, namely "vitality", "viscera" , "meridians", and "acupoints", which correspond to the "development foundation," "functional areas", "corridors", and "vital nodes" of city respectively.

② Through the compilation and summary of literature on urban acupuncture from both Western and Chinese sources, this article outlines eight fundamental principles, operating mechanisms, and planning methods. The eight principles encompass accurate acupoints, small-scale, immediate act, creating places, progressive catalysis, holistic approach, public participation, and citizen education. The operating mechanisms involve acting from small to large, from point to area, starting with minor interventions to activate potential, coordinating multiple points for regional regeneration, and guiding sustainable development. The planning

method requires considering the overall picture and delving into details, with five steps: "diagnosing", "infusing vitality", "harmonizing viscera", "dredging meridians," and "stimulating acupoints."

③ The article delves into the analysis of two urban acupuncture cases in Barcelona, including the regeneration of the old town and its surrounding and the regeneration of Superblock, exploring the practical content of urban acupuncture. It also examines the process and patterns of historic districts regeneration in Guangzhou, presenting four successful cases to demonstrate the applicability of urban acupuncture in historic districts. Ultimately, a practical framework for historic district regeneration based on urban acupuncture is constructed, encompassing both material and non-material aspects. It comprises the following elements: "diagnosing", starting from the issues, assessing the development advantages and challenges of the site, and summarizing the development themes; "infusing vitality", approaching the top-level perspective, actively responding to development advantages, opportunities, and image requirements, and summarizing the vision and positioning; "harmonizing viscera", acting on surface elements, establishing the spatial development order and functional forms; "dredging meridians," acting on linear elements, improving the linear corridor system and non-material communication carriers; "stimulating acupoints," acting on point elements, activating crucial nodes such as public spaces, blocks, streets, buildings, as well as intangible factors like sound, light, temperature, and fragrance.

④ Based on the above-mentioned practical framework, the of Shangxiajiu Historic District in Guangzhou is taken as a case study. Through on-site investigations and interpretation of relevant materials, the current situation of historical evolution, spatial changes, roads and alleys, plazas and nodes, buildings and functions, historical elements, and local opinions are explored, leading to the identification of four major challenges: depletion of vitality, imbalance of viscera, blockage of meridians, and lack of connection in acupoints. Subsequently, the four regeneration strategies based on the practical framework are elaborately described for the site, serving to validate the feasibility and rationality of the historic district regeneration strategy based on urban acupuncture from an empirical perspective.

(2) Research Innovation Points

① The scope and depth of the research have been expanded, refining and enriching the

academic exploration related to urban acupuncture. Currently, both domestic and international studies on urban acupuncture are in their preliminary and fragmented stages, particularly lacking comprehensive mechanisms and application methods, with more emphasis on design concepts and practical experiences, or unilateral investigations. This article addresses research gaps and practical needs, delving into the relationship between urban acupuncture and Traditional Chinese Medicine. It proposes a four-tier urban organic composition, innovatively presenting the principles and planning methods of urban acupuncture. By analyzing cases from both home and abroad, the article elaborates on urban acupuncture design aspects, supplementing and updating academic achievements in this field.

② The research theory is effectively applied in design practice, presenting a comprehensive framework for urban acupuncture with practical value. This article has completed the regeneration design scheme for Shangxiajiu Historic District in Guangzhou. Based on firsthand data obtained through on-site investigations and interviews, and combined with other relevant information, it identifies the current challenges of the site. By incorporating theoretical research and case analyses, the practical framework is applied to revitalize the historic district through injecting vitality, harmonizing viscera, dredging meridians, and stimulating acupoints. This integration of theory and practice renders the conclusions more scientifically sound and the practical outcomes more compelling.

(3) Research Insufficiency and Prospects

① Due to personal constraints, the accuracy of "acupoint selection" is still somewhat insufficient, lacking comprehensive and quantifiable criteria or standards. The article only partially refers to the evaluation system used by previous scholars. For instance, the selection of building acupoints involves a combination of quantitative and qualitative approaches, while intangible factors are selected qualitatively. Although both are based on theoretical experiences and local opinions, the evidence remains somewhat inadequate, and the selection methods are not entirely systematic, lacking universal applicability. Future scholars are encouraged to conduct further in-depth research in this regard.

② Both "urban acupuncture" and "regeneration" encompass multiple dimensions, such as economic, social, and cultural aspects. However, this article mainly focuses on spatial design in its case analysis and empirical research. The spatial intervention is limited to overall spatial design, architectural imagery, and functional layout within the districts, while the systemic

organization and developmental patterns of historic districts require further exploration. Therefore, future practices in historic districts regeneration should shift from singular district transformation to comprehensive and systemic interventions.

③ Although this article establishes a practical framework for urban acupuncture and applies it to the regeneration design of Shangxiajiu Historic District in Guangzhou, it remains limited to the initial planning stage. The efficacy of the project in the future and how it can adapt to uncertainties during construction and usage require extended verification and testing. The author hopes that this research will serve as a catalyst for future scholars, providing a fresh perspective for theoretical research and practical guidance in historical neighborhood regeneration. The effective implementation of urban acupuncture in the subsequent stages of the project will require further examination over time.

References

- [1] Parsons, Adam. (2010, December). "Urban Acupuncture: Marco Casagrande". University of Portsmouth.
- [2] Tang Y, Chen L, Sun Y, et al. Urban Acupuncture and its Practices in China & Egypt[J]. Institute for European Urban Studies, BAUHAUS-University Weimar, 2015.
- [3] Hoogduyn R 2014 Urban Acupuncture Revitalizing urban areas by small scale interventions, Master of Science Program in Spatial Planning with an emphasis on Urban Design in China and Europe.
- [4] Harjoko T 2009 Urban Acupuncture: An Alternative pp:163-172
- [5] Urban acupuncture as an approach for reviving
- [6] Minhao Z, Lubei L, Junyi F, et al. City acupuncture: the sustainable development of the balanced city in post-industrial age[C]//VI Seminario Internacional de Investigación en Urbanismo, Barcelona-Bogotá, junio 2014. Departament d' Urbanisme i Ordenació del Territori. Universitat Politècnica de Catalunya, 2014.
- [7] Heath T, Oc T, Tiesdell S. Revitalising historic urban quarters[M]. Routledge, 2013.
- [8] 阮仪三.历史街区的保护及规划[J].城市规划汇刊,2000(02):46-47+50-80.
- [9] 李晨".历史文化街区" 相关概念的生成、解读与辨析[J].规划师,2011,04:100-103
- [10]Zhang Rubin. Historic Preservation in USA and A Comparison of that with Other Developed Countries [J]. China Ancient City, 2011(8):52
- [11]Our Towns and Cities: The Future - Delivering an Urban Renaissance[M]. London: DETR, 2000: 序言.
- [12]阳建强,陈月.1949-2019年中国城市更新的发展与回顾[J].城市规划,2020,44(02):9-19+31.
- [13]吴良镛.从“有机更新”走向新的“有机秩序”——北京旧城居住区整治途径(二)[J].建筑学报,1991(2):7-13.

- [14]吴明伟,柯建民. 试论城市中心综合改建规划[J].建筑学报,1985(9):40-47,84.
- [15]旧城更新——一个值得关注和研究的课题[J].城市规划,1996(1):4-9.
- [16]阳建强,吴明伟. 现代城市更新[M]. 南京:东南大学出版社,1999.
- [17]Murtagh W J.Keeping Time:The History and Theory of Preservation in America.New Yord:John Wiley & Sons INC,1997
- [18]王景慧. 保护历史街区的政策和方法[C]//中共上海市建设党校,上海市建设职工大学. 城市管理世纪论坛 2001 会议学术文集.[出版者不详],2001:3.
- [19]朱自焯.屯溪老街历史地段的保护与更新规划[J].城市规划,1987(01):21-25+42.
- [20]阮仪三.历史文化名城的特点、类型及其风貌的保护[J].同济大学学报(人文·社会科学版),1990(00):55-65.
- [21]阮仪三.中国历史文化名城保护的现状[J].同济大学学报,1990(04):452.
- [22]单霁翔.从“大规模危旧房改造”到“循序渐进,有机更新”——探讨历史城区保护的科学途径与有机秩序(下)[J].文物,2006(07):26-40.
- [23]张松,赵明.历史保护过程中的“绅士化”现象及其对策探讨[J].中国名城,2010(09):4-10.
- [24]吕舟.论遗产的价值取向与遗产保护[J].城市与区域规划研究,2017,9(01):214-226.
- [25]朱光亚,方道,雷晓鸿.建筑遗产评估的一次探索[J].新建筑,1998(02):26-28.
- [26]吕舟.发挥民众力量 加强社区参与[N]. 中国文化报,2011-12-07(006).
- [27]冯江,蒲泽轩,汪田.门·墙·院——广州泮塘五约“微改造”三辩[J].建筑学报,2020(10):43-48.DOI:10.19819/j.cnki.ISSN0529-1399.202010007.
- [28]王昭雨,庄惟敏.点评数据驱动下的感性评价SD法使用后评估研究——以城乡历史街区为例[J].新建筑,2019(04):38-42.

- [29]陈仲光,徐建刚,蒋海兵.基于空间句法的历史街区多尺度空间分析研究——以福州三坊七巷历史街区为例[J].城市规划,2009,33(08):92-96.
- [30]De Solà-Morales, M. (2008). *A Matter of Things*. Rotterdam, NAI Publishers.
- [31]Lerner J. *Urban acupuncture*[M]. Washington, DC: Island press, 2014.
- [32]Casagrande M. *Biourban acupuncture. Treasure hill of Taipei to Ardena*[M]. International Society of Biourbanism, 2012.
- [33]Tortosa L, Vicent J F, Zamora A, et al. A neural network model to develop urban acupuncture[C]//*Knowledge-Based and Intelligent Information and Engineering Systems: 14th International Conference, KES 2010, Cardiff, UK, September 8-10, 2010, Proceedings, Part I 14*. Springer Berlin Heidelberg, 2010: 31-40.
- [34]Hoogduyn R. "Urban Acupuncture" Revitalizing urban areas by small scale interventions"[J]. 2014.
- [35]Apostolou M A. Urban eco-acupuncture methods: case study in the city of Athens[C]//*2nd International Conference on Changing Cities II: Spatial, Design, Landscape & Socio-economic Dimensions*. 2015: 932-940.
- [36]Petrova M, Nenko A, Sukharev K. Urban acupuncture 2.0: urban management tool inspired by social media[C]//*Proceedings of the International Conference on Electronic Governance and Open Society: Challenges in Eurasia*. 2016: 248-257.
- [37]Daugėlaitė A, Gražulevičiūtė-Vileniškė I. Urban acupuncture in historic environment: research of analogues[J]. *Journal of sustainable architecture and civil engineering*, 2018, 23(2): 5-15.
- [38]Andrade A L. Acupuntura urbana: o caso do Planejamento Estratégico de Barcelona/Es[C]//*X Seminario Internacional de Investigación en Urbanismo, Barcelona-Córdoba, Junio 2018*. Departament d' Urbanisme i Ordenació del Territori. Universitat Politècnica de Catalunya, 2018.
- [39]Salman K A H, Hussein S H. Urban acupuncture as an approach for reviving[C]//*IOP Conference Series: Earth and Environmental Science*. IOP Publishing, 2021, 779(1):

012031.

- [40]Nassar U A E. Urban acupuncture in large cities: filtering framework to select sensitive urban spots in riyadh for effective urban renewal[J]. Journal of Contemporary Urban Affairs, 2021, 5(1): 1-18.
- [41]Jain K 2011 Urban Acupuncture and better cities, university school of architecture and planning, Dissertation, Bachelor of architecture, Guru Gobind Singh Indraprastha University, Delhi, India, p.19-22.
- [42]Spirn A 2011 Ecological Urbanism: A Framework for The Design of Resilient Cities. Springer Verlag, Berlin, p.11-14.
- [43]De Lange M, De Waal M. The Hackable City: Digital Media and Collaborative City-Making in the Network Society[M]. Springer Nature, 2019.
- [44]Al-Hinkawi W S, Al-Saadi S M. Urban Acupuncture, a Strategy for Development: Case Study of Al-Rusafa, Baghdad[C]//IOP Conference Series: Materials Science and Engineering. IOP Publishing, 2020, 881(1): 012002.
- [45]吴中平.都市肌理的“针灸术”——“微小”介入的“巨大”效应[J].新建筑,2015,No.160(03):4-8.
- [46]伍婧萱.历史街区再生中的“城市针灸”策略初探[D].华南理工大学,2016.
- [47]肖薇.基于“城市针灸”的历史街区保护更新研究[D].华中科技大学,2016.
- [48]刘江.声景在场所营造中的应用——以意大利阿尔泰纳小镇声景设计为例[J].城市规划,2016,40(10):105-110.
- [49]龚书章.以再生与公共意识启动城市的微更新行动[J].时代建筑,2016,No.150(04):29-33.DOI:10.13717/j.cnki.ta.2016.04.007.
- [50]舒婷婷,林晗.城市公共空间的绿色针灸[J].南方建筑,2018,No.188(06):87-91.
- [51]白雪燕,童明.城市微更新——从网络到节点,从节点到网络[J].建筑学报,2020,No.624(10):8-14.DOI:10.19819/j.cnki.ISSN0529-1399.202010002.

- [52]贾永达. 基于城市针灸理论的历史文化街区街道活力复兴策略研究[D].华南理工大学,2021.DOI:10.27151/d.cnki.ghnlu.2021.004738.
- [53]周海洋".城市针灸"在一般历史城镇空间改造中的运用——以耀州古城空间改造为例[J].科技创新与生产力,2015(09):10-12+15.
- [54]吴盈颖,王竹.城市针灸:贫民窟“再生”的催化研究[J].华中建筑,2016,34(01):29-33.DOI:10.13942/j.cnki.hzjz.2016.01.009.
- [55]文超,杨新海,文剑钢等.基于“城市针灸”的城中村有机更新模式探究[J].城市发展研究,2017,24(11):43-50.
- [56]姜岩,杨斯亮.基于“城市针灸”理念的西安老城区保护与利用[J].中国名城,2019,No.219(12):65-73.DOI:10.19924/j.cnki.1674-4144.2019.12.009.
- [57]徐甜甜.松阳故事:建筑针灸[J].建筑学报,2021,No.627(01):9-16.DOI:10.19819/j.cnki.ISSN0529-1399.202101002.
- [58]邢玉瑞,孙雨来.类比思维与中医藏象学说的建构[J].山东中医药大学学报,2002(06):414-416.DOI:10.16294/j.cnki.1007-659x.2002.06.004.
- [59]Marco Casagrande,徐云涛.城市针灸术之台北宝藏岩[J].世界建筑导报,2014,29(02):18-19.
- [60]Lerner J. A Song of the City[J]. Accessed, 2007, 6(10): 2019.
- [61]肯尼斯·弗莱普顿.千年七题:一个不适时的宣言——国际建协第20届大会主旨报告[J].建筑学报,1999(08):11-15.
- [62]Sherry R. Arnstein, “A Ladder of Citizen Participation”, Journal of American Institute of Planners, Vol. 35, No. 4,1969.
- [63]Arnstein S R. A ladder of citizen participation[J]. Journal of the American Institute of planners, 1969, 35(4): 216-224.
- [64]Nurdiansyah A. Urban slum upgrading policy in Jakarta (case study: Kampung Deret

- program implementation)[J]. *The Indonesian Journal of Planning and Development*, 2018, 3(1): 19-31
- [65] Frampton K. Seven points for the millennium: an untimely manifesto[J]. *The Journal of Architecture*, 2000, 5(1): 21-33.
- [66] Enia M, Martella F. Reducing architecture: Doing almost nothing as a city-making strategy in 21st century architecture[J]. *Frontiers of Architectural Research*, 2019, 8(2): 154-163.
- [67] 陈蔚镇,刘荃.作为城市触媒的景观[J].*建筑学报*,2016,No.579(12):88-93.
- [68] Attoe W, Logan D. *American urban architecture: Catalysts in the design of cities*[M]. Univ of California Press, 1989.
- [69] Rowe C, Koetter F. *Collage city*[M]. MIT press, 1984.
- [70] 吴良镛. *北京旧城与菊儿胡同*[M]. 中国建筑工业出版社, 1994.
- [71] Lydon M, Garcia A, Lydon M, et al. *A tactical urbanism how-to*[M]. Island Press/Center for Resource Economics, 2015.
- [72] Permentier M, Kullberg J, Noijs L. *Werk aan de wijk*[M]. 2013.
- [73] Haddad, Marie El. “Small-Scale Public Interventions as Urban Acupuncture”. Master’s. Universitat De Barcelona, 2012.
- [74] Busquets J. *Barcelona: the urban evolution of a compact city*[M]. Actar D, 2005.
- [75] Calavita N, Ferrer A. Behind Barcelona’s success story: citizen movements and planners’ power[J]. *Journal of Urban History*, 2000, 26(6): 793-807.
- [76] *Urban Mobility Plan of Barcelona 2013-2018*. <https://ajuntament.barcelona.cat>
- [77] *the Green-Hub Model*. <https://ajuntament.barcelona.cat>
- [78] Mueller N, Rojas-Rueda D, Khreis H, et al. Changing the urban design of cities for health: The Superblock model[J]. *Environment international*, 2020, 134: 105132.

- [79] Scudellari J, Staricco L, Vitale Brovarone E. Implementing the Supermanzana approach in Barcelona. Critical issues at local and urban level[J]. *Journal of Urban Design*, 2020, 25(6): 675-696.
- [80] 樋口正一郎, 苍峰. 巴塞罗那的环境艺术[M]. 大连理工大学出版社, 2002.
- [81] 彭天奕, 王国光. 基于旧城区商业空间营造的思考——以巴塞罗那兰布拉大道为例[J]. *中外建筑*, 2021, No.240(04):62-66. DOI:10.19940/j.cnki.1008-0422.2021.04.001.
- [82] 黄浩. 广州上下九街区更新若干问题研究[D]. 华南理工大学, 2012.
- [83] 徐金龙, 林铭豪. 民间表达与塑造: 都市传说经久不衰的生命力——以广州“荔湾尸场”传说为例[J]. *长江大学学报(社会科学版)*, 2021, 44(02):32-36.
- [84] 肖毅强, 周军. 旧城空间的丰富与完善——广州上下九商业街文化广场城市设计[J]. *新建筑*, 2002(03):24-26.

附录 A

广州上下九改造意愿调查问卷

尊敬的受访者：

您好！该问卷将用于“广州上下九街区再生设计”课题研究，此问卷主要是为了了解居民、商户和游客对于上下九街区的改造意愿和改造活力点的建议。所有信息均为学术研究，不涉及任何商业利益和个人隐私，问卷采用匿名填写的方式，感谢您的配合！

一、基本信息

1、您是上下九街区的？

居民 商户 游客

二、改造意愿

2、是否支持上下九街区进行更新改造？

支持 一般 不支持

3、对上下九街区目前环境的满意度？

	满意	一般	不满意
人行街道环境			
休闲广场环境			
车行道路环境			
建筑立面风貌			
功能业态类型			

三、更新建议

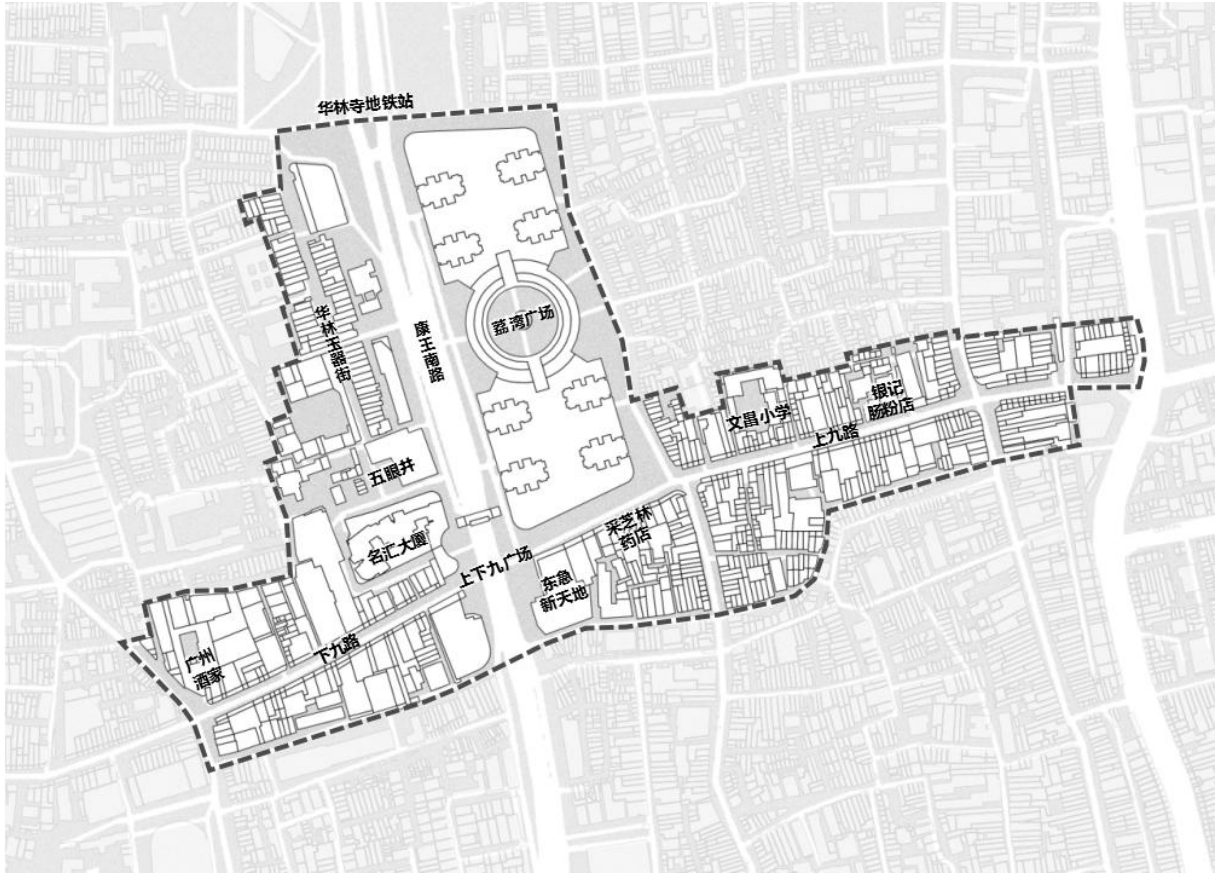
4、希望未来的发展方向是？【多选】

商业购物 文化艺术 美食餐饮 文化教育
娱乐体验 休闲生活 特色民宿

5、您认为最迫切需要改造的是？【多选】

人行街道环境 休闲广场环境 车行道路环境
建筑立面风貌 功能业态类型

6、请在平面图中指出您认为需要提升的地方？【多选】（线上问卷：请在根据平面图信息，写出您认为需要提升的地方？）



7、对上下九街区有什么其他看法？

攻读硕士学位期间取得的研究成果

一、已发表（包括已接受待发表）的论文，以及已投稿、或已成文打算投稿、或拟成文投稿的论文情况（只填写与学位论文内容相关的部分）：

序号	作者（全体作者，按顺序排列）	题目	发表或投稿刊物名称、级别	发表的卷期、年月、页码	相当于学位论文的哪一部分（章、节）	被索引收情况

注：在“发表的卷期、年月、页码”栏：

- 1 如果论文已发表，请填写发表的卷期、年月、页码；
 - 2 如果论文已被接受，填写将要发表的卷期、年月；
 - 3 以上都不是，请据实填写“已投稿”，“拟投稿”。
- 不够请另加页。

二、与学位内容相关的其它成果（包括专利、著作、获奖项目等）

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This is the end of the article, and also the end of my seven-year architectural planning learning trip in Huagong Campus. During my two years as a graduate student, I have left many precious memories in South China University of Technology and Turin University of Technology. Many interesting and unforgettable things happened, and there were some regrets, but they all make me look forward to the future. The completion of the paper cannot be separated from the guidance of Chinese and foreign tutors, the help and discussion of friends, as well as the spiritual support of family and friends.

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Dedicate this article to all the people who have helped and supported me!

LI YING

2023/08/11

3.答辩委员会对论文的评语

(主要包括：1.对论文的综合评价；2.对论文主要工作和创造性成果的简要介绍；3.对作者掌握基础理论、专业知识程度、独立从事科研工作能力以及在答辩中表现的评价；4.存在的不足之处和建议；5.答辩委员会结论意见等)

硕士研究生李莹所完成的题为《基于城市针灸的广州上下九历史街区再生设计》的学位论文，选题紧贴新时代下我国老城区的更新发展问题，为解决历史街区的再生问题提供了新的思路，具有一定的理论价值与现实意义。论文完成了下列研究成果：

1、通过对中西方城市针灸相关资料的梳理和总结，本文总结了城市针灸八大原则、作用原理、规划方法等基本内容；

2、将城市针灸与中医学的联系进一步深入，提出四个层级的城市有机构成，即“元气”“脏腑”“经络”和“穴位”这些实现针灸机体再生的概念；

3、深入剖析巴塞罗那的两个城市针灸案例，包括老城与周边再生和超级街区再生，补充分析国内四个再生案例，探讨城市针灸的实践内容；

4、把广州上下九历史街区作为实证研究对象，对其进行多方面的现状调研和分析，以实践框架的四个再生策略对基地的再生设计过程展开详细陈述。

论文逻辑清晰、研究方法可行、分析较充分、结论较合理。答辩中作者较好地回答了提出的问题。依据投票结果，答辩委员会同意通过硕士学位论文答辩，同意其毕业，并建议授予硕士学位。

论文答辩日期：2023年9月4日

答辩委员会委员 5 人

表决票数：同意毕业及授予学位 (5) 票



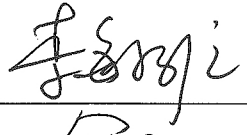

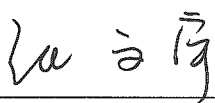
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表决结果 (打“√”)：同意毕业及授予学位 (√)

同意毕业，但不同意授予学位 ()

不同意毕业 ()

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