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Research on landscape sequence remodeling of Chung Ying Street, Sha Tau Kok

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沙头角中英街研究

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Abstract

This paper mainly explores the influence and promotion of landscape space sequence on Chungying Street, and with the integration of community activities, puts forward the landscape sequence update of Chungying Street at the corner of Sha Tau Kok, and the community structure of the original Chungying Street. By studying the influence of the landscape space on the community structure and streets, the existing landscape space is reconstructed through the interweaving of different types and structures, and establishes the integrated community structure through the crowd structure relying on the cultural attribute. When different cultural background of people in the same street community integration, the street constant succession will give the street unique value, and one of the elements of the street landscape space will produce in the sequence, based on the urban renewal now has been long discussed under the era background, this paper to the streets more refined landscape space reforming to avoid convergence, so the street is not a simple concept statement, but the landscape sequence and community activities or series. In the Contemporary Street Renewal project, Compared with the control of the visual representation of the street style, This paper combs the definition, structure and composition of landscape sequence from the perspective of depth, Regroup the community activities and street structures contained in the landscape sequence, The process of integrating different communities into the street falls in the landscape space sequence from the time dimension, The process goes from isolation from community to adaptation to integration into the street, And in the process of integration to participate in the process of landscape sequence restructuring from the perspective of community witnesses, From witness to action and by action to adapt the street, Finally, feed back to the actor, Complete the mutual restructuring and reorganization of community and landscape elements, While the combing of the landscape sequences mainly through the concepts, Composition, type, path organization and other clear internal logic of community integration and cultural value, By studying the collision between the spatial form of the street and the community of the place and the street landscape sequence, Based on the local memory context, The cultural value and historical emotion of the community to the street are continued in the landscape sequence.

This study in the street, for example, through the street, community, landscape space analysis theory, integration street from the landscape space sequence of organic link reflects the different periods of different cultural background of different people of landscape empty

meaning, from the whole landscape not introspection to the whole landscape space to the awakening of landscape space sequence in the landscape space sequence reforming street structure street structure thinking analysis, analyze the community of the landscape sequence, explore the deep border street landscape sequence update design technique. Based on the literature study on the landscape space sequence presented in this paper, Analyzing previous theories of landscape spatial sequence correlation, Focusing on the analysis and comparison of the commonness and opposite sex of various types of theories from the perspective of reforming the street structure order by landscape spatial sequence, To build a reasonable organic logic, Classify the buildings of different ages and functions, To derive and refine the design logic and strategies, And the site investigation to different regions of the relevant cases for reference, Practical analysis of the landscape sequence update design of Chungying Street combined with the realistic needs of historical research, Coping strategies to structure the landscape sequence as well as to the internal functional organization, Spatial relationships land in the design of important landscape axes and important nodes, Reforming Chungying Street in a more flexible way, It provides reference and ideas for the subsequent reconstruction of streets from the perspective of landscape sequence.

Key Words: landscape sequence; landscape space; regeneration of community structure; street series; Serial View

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Chapter 1 Introduction

1.1 Research Background

As is well known, the neighborhood is a critical site that manifests the local value and uniqueness of a region. In the development of the urbanization process, streets have become indispensable and distinct places in modern urban life. Under the backdrop of globalization and modernization, as urbanization tends to saturate and street character becomes regionally homogeneous, preserving and revitalizing neighborhoods have become important topics in urban development and construction. A new development model focusing on cultural context is emerging as the primary guide for neighborhood development. Streets, as carriers of communities and landscapes, require meticulous and deeper-level control of their structure, texture, and character.However, neighborhood development currently faces a series of challenges. How to strike a balance between preservation and development, and handle the social conflicts and tensions caused by demolition and renovation? Supported by Giddens' theory of dualism in community integration between local residents and newcomers, and taking the tripartite structure of community, society, and street as the fundamental approach, this study explores how landscape sequences can transform from mutual influence to mutual reconstruction within the street context, providing a feasible approach to address the disorder in street spaces.

"Chinese traditional society is a familiar society with no strangers," subtly influencing relationships and behavioral norms among individuals based on kinship[1]. However, "there is a general lack of trust in people beyond the family circle; from a modern society perspective, this is a low-trust society"[2]. Compared to the familiar community based on kinship, affinity, or geographical relationships in traditional segmented communities, the new type of community influenced by post-revolution modern economic development, regional considerations, and commercial development gathers more individualized and diversified external communities.As semi-familiar communities where newcomers integrate into existing communities and form new social relationships, they cannot ignore the potential difficulties faced by newcomers in integrating into these semi-familiar communities: in semi-familiar

communities, the mechanisms of mobility and integration are incomplete, and with complex habits and cultural backgrounds, how to manage the integration of semi-familiar community residents becomes an ecological problem in restructuring the neighborhood structure, and this ecology is closely tied to the main components of the recreational space: landscape space. When complex landscapes and diverse cultures intertwine, from the exclusion and adaptation to integration of different communities, from self-isolation to community formation, and from the unique street texture structure formed by the gradual growth of buildings under different cultural backgrounds, these three elements evolve and intertwine with practice. Therefore, it provides a new challenge for the key renewal of the neighborhood, where the landscape does not exist solely as a concept but is based on the dual evolution of structural context and cultural context within a specific spatial area.

In this context, the street structure not only constitutes the overall context of architectural space but also carries people's emotions and cultural values regarding history. The continuation and evolution of street texture structure, along with the clear definition of the inherent logic and value of the street structure, constitute the objective of this study. It is based on this understanding that this article aims to research how, in street renewal, specific design strategies can respond to the neighborhood spatial structure and landscape spatial structure. This research ranges from the reshaping of the mid-level structure to the renewal of nodal spaces, aiming to drive the overall landscape sequence of the area towards a structurally sustainable and green continuity.

Landscape space plays a crucial role in reconstructing semi-familiar communities. Norberg-Schulz, in *EXISTENCE, SPACE, AND ARCHITECTURE*, mentions: "In a sense, anyone who selects a location in the environment for the purpose of construction is a creator of space"[3]. Landscape is precisely the unique space created by people to express their objective reality and living conditions. James Rose, in *THE FREEDOM OF LANDSCAPE*, states: "Landscape is outdoor sculpture, designed not only as an object but also to surround us with delightful spatial relationships"[4]. Yu Kongjian, in *SPACE AND ABSENCE*, mentions: "Space and matter form a fundamental language, and landscape is fundamentally a concept of space, a concrete expression"[5]. However, there is no unified consensus among researchers regarding a precise definition of landscape space and sequence. Instead, various scholars have

explored landscape space from the perspectives of landscape occurrence and the construction of a theoretical framework for landscape fundamentals, resulting in a dispersed understanding and concept of landscape space. To date, there is no comprehensive and refined theory of landscape space sequences to enhance the construction of the landscape space theory system. For example, John Simonds in *LANDSCAPE ARCHITECTURE* considers: "Landscape space is composed of spatial dividing surfaces of the base, top, and vertical planes, creating spaces that bring emotional changes to people"[6]. The representation of spatial landscapes is the enclosure sense of volume and the feeling brought about by space. Catherine Dee defines landscape space in *AN INTRODUCTION TO GRAPHIC DESIGN* as: "Enclosed and defined by terrain, vegetation, water bodies, and structures, providing a place for human activities"[7]. The primary emphasis is on the definition of place and the constraints imposed by place occurrence. Liu Dunzhen introduces the concept of space into *Classical Gardens of Suzhou* and uses space to refer to three-dimensional volumes, spatial perception, and the continuous extension of fluidity, becoming a medium for translating the poetic and picturesque sentiments of Chinese gardens[8].

The influence of landscape space sequences on the spatial structure of communities is also significant. In the context of rapid urbanization, the problem caused by the disorderly landscape space remains a critical issue. In neighborhoods, landscape space, as a public space guiding pedestrian traffic, is one of the spaces that best reflects pedestrian trajectories and the cultural characteristics of space forms behind them. It is also an effective method to solve road congestion and the complexity of living spaces. Therefore, reorganizing pedestrian traffic networks through a rational landscape space sequence not only helps alleviate traffic congestion and public transportation pressure to a certain extent but also contributes to the rational arrangement of community street structures.

Currently, both the quantity of landscape space and rational landscape space in neighborhoods are lacking, significantly impacting the street structure. The existing landscape space, functioning as a display space for community landscape imagery, is monofunctional and to some extent wastes place resources. Moreover, the organization of pedestrian space in greenways is fragmented, lacks systematic integration, exhibits functional gaps, and is not fully developed to meet human-centered needs, severely affecting people's experiences in

activities[9]. Therefore, creating a continuous and multifunctional landscape space in a complex urban block's neighborhood is a crucial issue that must be considered and resolved in this study on street renewal.

1.2 Study Objectives and Significance

Based on the binary theory of population structure and the current state of development in neighborhood landscape spaces, there is a collision between the analysis of the fusion issue between local residents and migrants in semi-familiar communities and the existing complexity of local issues in our country, as well as deviations from alignment with theoretical frameworks. With the integration of Western modern landscape theories, many designers and scholars in China have begun to interpret Western theories in a localized context, combining regional cultural characteristics and design practices, primarily focusing on the realms of psychology and ecology. However, in analyzing specific on-site issues, direct grafting of Western theories should be avoided, and adherence to the applicability of theory and practice should be maintained to address practical site issues effectively. Therefore, this paper, based on landscape sequence theory, tentatively proposes the reconstruction of street structures by revisiting the landscape space sequence. This aims to achieve the fusion of semi-familiar communities, allowing designers to fully utilize the green network from a landscape space perspective, providing a continuous, safe, convenient, and comfortable street network for the integration of communities with different cultural backgrounds.

1.2.1 Purpose of Research

In addressing the fusion of different communities with complex environments and mixed cultural backgrounds, this study employs fundamental theoretical concepts of neighborhood landscape space structure. It analyzes the evolution of street landscape spaces, specifically focusing on the adaptation process, transformative changes, and the evolutionary trajectory of three-dimensional growth. The research delves into aspects ranging from spatial form content to the contextual meaning of places. Firstly, the study defines and classifies the research subject by examining historical buildings and concepts related to street renewal, establishing clear goals for the renovation. Secondly, based on the theory of landscape space sequences,

the study analyzes the perspective of neighborhood structure for renewal design, explores the impact of landscape space on architectural renovation, and discusses the concepts and attitudes towards the construction of the old-new relationship and renewal.Building upon this foundation, the study concentrates on exploring the logical factors influencing the landscape space sequence's structure and derives and refines design strategies. It validates these strategies using exemplary cases and analyzes the construction of the old-new relationship. Subsequently, through a practical analysis of architectural renewal design in the Mid-levels Escalator in Hong Kong, the study examines the application of strategies for addressing street structure and landscape space, balancing the internal functions, spatial requirements, and external neighborhood morphology shaping in the renovation process, as well as expressing the spatial effects of renovation.Lastly, based on the local cultural context as the foundational structure, the study aims to extend the community's cultural values and historical sentiments towards the landscape sequence. It promotes the reorganization and renewal of the Mid-levels Escalator landscape sequence through guidelines and strategies, resulting in the final design.

1.2.2 Research Significance

The research focuses on the study of street networks and the morphological sequences of green spaces as essential elements of urban form. While these aspects have garnered significant attention individually, there is limited research that integrates them as a whole and explores their interrelationship based on spatiotemporal patterns and characteristics. Furthermore, research on neighborhoods with specific historical and cultural backgrounds is relatively lacking. The present study selects Chungying Street in Shenzhen, Guangdong Province, as the practical site. The current state of the site has evolved over a long period, reflecting the intricate interplay of complex landscape spaces, diverse cultures, and varying urban communities. This dynamic interplay presents a new challenge for neighborhood revitalization, emphasizing that the concept of landscape is not confined to a mere abstraction but rather emerges from the dual evolution of structural and cultural contexts within a specific spatial domain. The structure of the neighborhood not only forms the overall context of architectural space but also encapsulates people's emotions and cultural values associated with history. The continuity and transformation of neighborhood landscape structures, as well as

the clear definition of neighborhood structure, are inherent in the neighborhood's internal logic and value. The objective of this paper is to, based on the aforementioned understanding, explore how to respond to neighborhood spatial and contextual structures through specific landscape design strategies during architectural revitalization. This involves transitioning from the macro restructuring of the landscape sequence to the micro renewal of landscape spaces, thus facilitating sustainable and green overall neighborhood development. Additionally, it is hoped that this research will provide valuable insights for future relevant studies.

1.3 Study Category and Related Concepts

In the realm of this study and related concepts, the spatial quality of street networks is intricately linked to land use structure. Both aspects directly reflect urban appearance and urban characteristics. The "genes" specific to cities, such as regional environment, cultural traits, architectural styles, and so on, must "respect the development laws of streets." It is essential to emphasize the development laws of streets in shaping street features and focusing on the internal order of landscape spaces. Exploring the evolving characteristics and interrelationships of urban street networks and landscape space land use structures is not only a focal point in shaping contextual characteristics but also crucial reference and basis for land use planning and road traffic planning.

1.3.1 Research Category

In the past, the principles guiding the renewal of streets were often based on preserving their original authenticity. There was a skeptical attitude towards their development, utilization, and open integration. Many experts and scholars believed that commercial development and modernization would inevitably have a potentially irreversible destructive impact on streets. This conservative approach regarding culture and traditional memory has led to severe homogenization of cultural streets in Chinese cities today, resulting in a monotonous and uniform appearance. In response to the current fear of forgetting and altering traditional elements, as well as the dualistic approach of preservation versus utilization in street transformation, theories such as Marinovski's "Cultural Function Theory,"

Radcliffe-Brown's "Structure-Function Theory," Fei Xiaotong's "Cultural Development and Utilization Perspective," and UNESCO's "Endogenous Development" provide theoretical foundations for analyzing and renewing neighborhoods by emphasizing the interplay of structural influences leading to reshaping.The aim is to transform the dualistic contradiction between "traditional preservation" and "modern utilization" into a process of mutual reshaping.

1.3.2 Introduction of Relevant Concepts

From the perspective of communities, the theory of dualism in population structure, as proposed by Giddens, builds upon a critical inheritance of the thoughts of Marx, Durkheim, and Parsons. Giddens asserts that the traditional binary oppositions do not exist in reality. Concerning the theory of population structure, both traditional structuralism and functionalism have shortcomings in their interpretation of temporality, structure, and systems. Moreover, in reality, the relationship between individuals and communities is profoundly intertwined. Not only are individuals constrained by communities from the intermediate structural level, but there is also the subjective agency of communities. In other words, communities and societies are part of the same organic entity. Giddens argues that individual mobility and structure are interwoven and mutually constitutive. "Action is the intermediary through which structure unfolds, and structure is the result of action." Giddens believes that in regional contexts, communities exhibit a duality of structure, with interacting individual actors within a certain spatiotemporal range. Through the connection of spatial structures, practice generates communities. The utilization of resources and rules by communities results in the reproduction of new resources and rules, leading to the emergence of dualism in structure. In essence, "the structural features of the social system are both the medium and the result of practice for the agents." As actors, external residents evolve from being segregated in terms of their self-identity to continually reshaping their self-identity. This influences the transformation of community and street structures, facilitating the restructuring of community rules and the recreation of resources. The reconstructed community rules and recreated resources, as new structures within the community, in turn influence the actors, completing the process of mutual construction and reshaping of the community residents, achieving social

integration. The key to the transition from alienation to integration between the community and external residents lies in the high-frequency interaction and enhanced mutual identification between the community and external residents. The mutual construction and reshaping of individuals and structures facilitate their integration, aligning well with Giddens' theory of dualism in structure.

Building upon this, the introduction of landscape sequence concepts into the reconstruction and reshaping of street structures is proposed. Both domestic and foreign literature and works have defined terms such as "landscape spatial sequence," "sequential landscape," and "landscape sequential space." These concepts are derived from the definition based on spatial sequences and relevant landscape theories, and they represent concepts extended from spatial sequences. In the book *Architectural Outdoor Environment Design*, a relatively authoritative definition of landscape sequence is provided: "Landscape sequence has two meanings. First, it is the ordered unfolding of objective scenes, characterized by spatiotemporal movement, and it is the entity combination of landscape spatial environment. Second, it refers to the psychological changes of individuals. As people travel in order, they have momentary and lasting reactions to the spatiotemporal changes in the landscape. This kind of perception originates not only from the stimulation of objective scenes but also transcends scenes to achieve emotional sublimation; it is a combination of perceptual interest in the sensory experience of landscapes."[10] The first layer of meaning emphasizes that natural and cultural landscapes are arranged in an orderly manner in different forms and scales, with the environment entity as the subject. The subject of the second layer of meaning is the psychological changes in individuals. As people travel in order, they have momentary and lasting psychological activities in response to the spatiotemporal changes in the landscape. This perception originates from the stimulation of objective scenes, but it goes beyond the scenes and reaches the sublimation of emotions. It is a combination of perceptual interest in the sensory experience of landscapes[9].

Regarding the concept of street structure from the perspective of landscape sequence, it mainly starts from the complexity of blocks. The refined planning and design of community structure reshaping are the keys to achieving the revitalization of streets. Different street structure types, such as fine connections, overlapping elements, and depth differences, and

their compound interrelationships, constitute an orderly complexity, providing insights into the chaotic properties of community structure resulting from communal integration. The organizational design of landscape sequence is based on a scientific understanding of urban block morphology. By controlling and guiding the organic interplay of street configurations, plot organizations, and architectural layouts, a foundational framework is established for the dynamic development of material spatial forms in blocks. From the perspective of community renewal projects, it is necessary to fully consider the importance of various influencing factors. Strengthening the structural form of block structure in terms of street structure and organizing landscape spaces is vital. It is essential to enhance the understanding of the street structure reshaping perspective in the remodeling of individual landscape spaces within the community. The scope of design research evidently needs to break through certain limitations, and organic integration should take place among factors such as buildings and their respective plots, adjacent plots, urban traffic routes, and street spaces. On the other hand, the guiding idea of linking street structures through landscape sequence should permeate the coherent process of relevant urban design and architectural engineering projects from initial planning and design stages.

1.4 Overview of Relevant Studies

Since the 1980s, historic districts have been part of European and American cities, maintaining a visible and mobile presence[11]. The adjustment of urban renewal strategies in major Western countries has posed challenges to the lives of neighborhood communities due to changes in management practices. Neighborhoods respond to these challenges by activating their own renewal processes, such as commercial revitalization, public spaces, landscape design, and street restructuring. Examining the integration of different communities into the neighborhood through processes such as revitalization, it becomes evident that different types of community structures have a significant impact on the daily lives of the community. Delving into the causes, it is not hard to find that different spatial interweavings greatly influence their daily practices. Therefore, in the process of modernization, it is crucial to carefully consider the relationship between spatial development and the influence of local culture, which is a key focus in community renewal. Starting from the perspective of

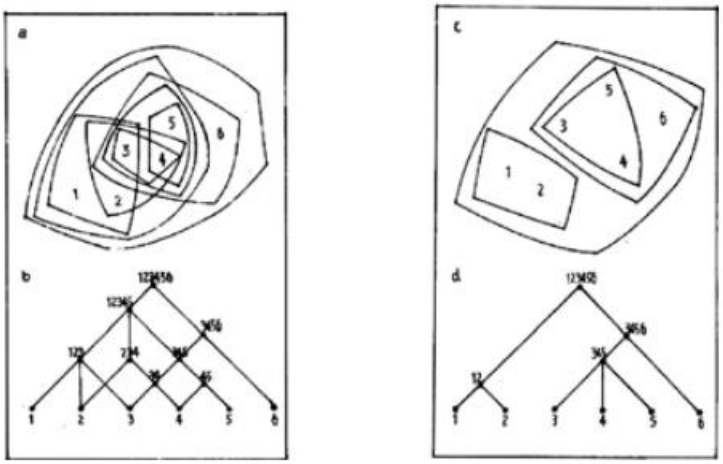
reshaping street structures through landscape spatial sequences, this paper argues that rearranging streets through landscape spatial sequences can overcome the binary dilemma of tradition and modernity. It demonstrates how, under the background of different societal demands in various eras, reshaping streets through landscape sequences can enhance the overall value of the streets and facilitate the integration of neighborhood communities into the area's shared development in a mutually supportive relationship. Simultaneously, in the modern revitalization of streets, it is important to "prevent the homogenization problem of 'one face in a thousand cities' while promoting the creative transformation and innovative exhibition of landscape sequence streets that carry cultural backgrounds" [12].

1.4.1 Street Structure Overview

In the 1960s, Jane Jacobs argued that modern urban planning "plundered" cities, while traditional cities characterized by "organized complexity" were more vibrant [13]. Christopher Alexander viewed the city as a system and explained why natural cities with a "semi-network" structure (Figure 1-1) were more appealing than artificial cities with a "tree-like" structure (Figure 1-1). He revealed that the essence behind the stark contrast in the two city models lay in the structural relationships, and demonstrated that this structure could be understood and described through scientific diagramming methods [14]. Subsequently, network system theory gradually became an important tool for describing and studying the topological relationships and modes of movement between spatial elements in urban blocks. Michael Batty, based on complexity system theory, introduced the concept of fractal cities [15][16]. Building upon this, Nikos A. Salingaros posited that urban forms with fractal features are composed of multiple hierarchical elements interconnected in a complex manner, introducing concepts like small world networks and scale hierarchies to describe these features [17][18].

The Theory of Configuration is a significant school of thought in the field of street morphology, initially introduced by Bill Hillier for analyzing the spatial aspects of street networks. Hillier posited that any specific space within an overall network system has a corresponding position, and the structural relationships between street spaces influence human travel patterns, consequently affecting the distribution of socio-economic activities in

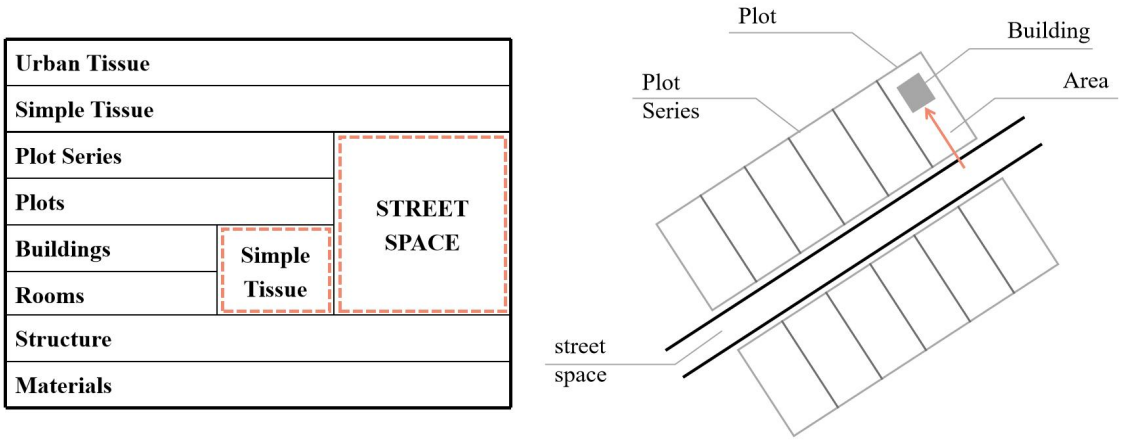
space [19]. Stephen Marshall proposed two prototypes of street configurations, grid-like and dendritic, and quantitatively described and analyzed the characteristics of street configurations using three metrics: continuity, connectivity, and depth [20][21]. Karl Kropf's multi-level theory integrated typological and configurational ideas, elucidating the interconnectedness between streets, sites (unbuilt spaces within plots), and building rooms, forming a spatial network essential for human activities [22].



Semi-network type Tree type

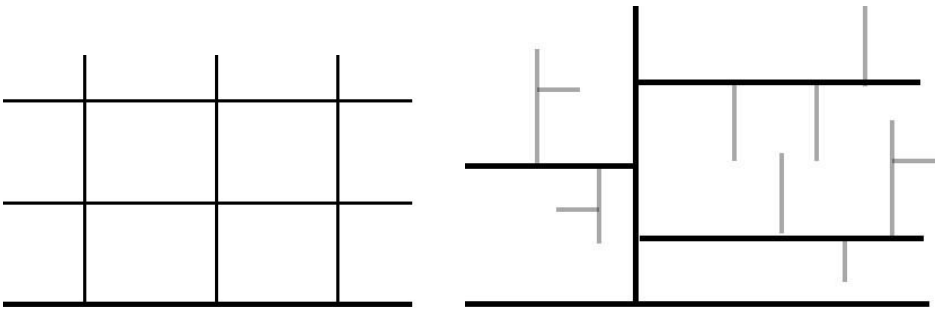
Figure1-1 Urban structure of Alexandria (Photo credit: Alexander Christopher. A City Is Not a Tree [J]. Design,1966(206):45-55.)

In the 1960s, similar academic propositions emerged in the field of architecture following Alexander's publication of *A City Is Not a Tree*。 Japanese architect Fumihiko Maki, in *Investigations in Collective Form*, presented three basic forms of urban spatial connections: Compositional, Megastructure, and Group forms. He indicated that the compositional form is a prevalent pattern in modernist cities, characterized by a lack of connectivity and a static structure [23][24]. On the other hand, the construction cycle of group forms is longer and often found in traditional towns. They are composed of numerous small and dense units interconnected, exhibiting strong growth potential.



The Figure1-2 Karl Kropf 's hierarchy theory

(Source: Author's illustration)



Network type　　Branch type

Figure1-3 Marshall's prototype of the two street configurations

(Source: Author's illustration)

These scholars from diverse disciplinary backgrounds view streets as complex spatial organizational structures formed by various elements and connections. They attempt to analyze the intricate structure behind natural street forms and explore the correlation between material spatial forms and behavioral patterns, functional organization, and spatial efficiency. They share a consensus regarding the description and understanding of street morphological structures: 1) The vitality of streets stems from the connectivity between elements, and the relative quantity of connections largely determines how streets function. Fine-grained connections form a crucial foundation for convenient movement and free interaction. 2) Overlapping is a central feature of complex networks, wherein an element is shared simultaneously by two or more groups of material elements that can function independently. Crossed elements exert double or even multiple connecting roles, acting as structural adhesives. 3) Depth is used to describe the topological distance between elements and

higher-level or more public-oriented benchmark elements. It expresses the ease or difficulty of reaching an element from the benchmark element. Depth is an important concept for identifying node differences and is significant for creating diverse street place environments.

Table 1.1 Comparison of typical block samples in different eras (Source: Author's illustration)

Times	Development demands	Case samples
1850-1930s early modernism, urban beautification movement	Compact layout, improve the quality of the public environment, strengthen the street space	Ottoman block in Paris, France, Zelda
1930-1970s modernism, *The Athenian Charter*, post-war reconstruction	Clear functional zoning, the rapid construction of "large-scale" collective housing	Residential area in Brasilia, Brazil
	During the popularity of skyscrapers, the central business district model initially took shape	The Rockefeller Center, New York, USA
1980s-present *Machu Picchu Charter*, TOD theory, people-oriented	Inherit the street outline and diversity of traditional cities, and bring more sunshine and air into the streets	"Open Block" in the Marena New Area, Paris, France
	The high-density central area, the commercial, office, residential, hotel, exhibition, catering, transportation and other urban functions are highly concentrated and mixed	Rpongi New Town, Tokyo, Japan, Paris, France, Canary Wharf, London, Milan, Italy
	The integrated development mode of station and city integrates the three-dimensional spatial skeleton into various mixed functions, and integrates the development with the surrounding areas	Hong Kong, China Kowloon Station, Admiralty, Swire Center, Tokyo Station, Japan Station, Osaka Station, Two Son Yukawa Station
The superposition and accumulation of the forms in multiple construction periods	Continuous self-organization and transformation. After long-term run-in and accumulation, good traffic accessibility, function mixing, building density and diversification of places	Old Town, Nanjing, China, Harajuku, Tokyo, Japan, and Gangnam, Seoul, South Korea

Since the 1960s, research on street elements has taken several significant steps, establishing an initial language system to describe the structural relationships between urban

morphological elements (Table 1-1). This rich accumulation of knowledge provides a solid foundation for our understanding and construction of street structure networks. However, the current research findings still face certain challenges in their practical application in design practice. Although theories such as the semi-network theory and fractal theory have provided a rich conceptual framework at the theoretical level, they have yet to offer specific implementation methods for the creative process of street renewal design. These theories often remain at the conceptual and awareness level, lacking operability and practical guidance. Meanwhile, although the configurational theory focuses on the organization of individual street elements, it does not provide a coherent understanding of plots and buildings within the block. This means that in practical design, we still face the challenge of how to organically combine different elements into a whole. Fumihiko Maki has provided valuable thoughts on the correlation between architecture and the urban environment; however, this organizational strategy is not yet systematic and complete. Therefore, there is a need for continued in-depth research on the relationship between elements and street structures, seeking systematic organizational mechanisms that can organically integrate morphological cognition with spatial practice. Only through further exploration and innovation can we make more significant breakthroughs in the field of renewal design, achieving more sustainable and human-centric spatial development and construction.

1.4.2 Community Structure Overview

At the micro level, studying the process of residents' integration into the community has become an important research area. For example, Li Peilin's research focuses on a large number of mobile migrants, exploring their social networks, modes of interaction, living conditions, social stratification, and status within the community. He found that although the massive influx of migrants has, to some extent, facilitated the urbanization process of the community, they have not fully assimilated into the local community due to habits and inertia. Instead, they gradually integrate at economic, social, and psychological levels, forming a "semi-integrated" state between the external and local cultures. Another researcher, Wang Chunguang, focuses on the semi-community integration status of communities. He points out that although communities have been somewhat accepted in the economic system, they often

face exclusion in other areas, lacking a true sense of belonging to the community [25]. Particularly with the acceleration of generational transition, clear delineation of generational boundaries, and the gradual emphasis on identity labels, community integration becomes more challenging. In addition to geographical and cultural factors, Gu Xiaobo and Zhou Wei believe that the redistribution of community resources is a major factor leading to integration conflicts between migrants and local residents [26]. Therefore, from the perspective of renewal design, promoting the integration of migrants and local residents, reducing social distance, requires complex and systematic design. This includes population structures based on contextual attributes, establishing community structures with inherent growth space, eliminating isolation between different groups through the transformation of community landscapes, and enhancing the convergence of movement routes between migrants and local residents through the establishment of landscape sequences [27]. Furthermore, other scholars have studied social interactions, settlement choices, adaptation to life, as well as the exclusion of native residents from different perspectives, providing valuable insights for a better understanding of community integration. These studies offer a valuable reference for us to delve into the complexity and diversity of community integration.

On the other hand, research on the community integration of residents from a macro-structural level is also of great significance. For example, Wang Jing points out in her research that institutional exclusion and strict household registration systems restrict the effective integration of migrants [28]. Similarly, Cui Yan, through the use of the Generalized Hierarchical Linear Model (GHLM), found that macro-structural factors such as institutional exclusion, social discrimination, and a sense of relative deprivation have a significant impact on the integration of migrants [29]. Although institutional structural exclusion is gradually improving, some cultural and regional exclusions persist, leading to a "vacuum" state for both migrants and local residents in terms of sharing public resources. Therefore, overcoming the challenges of community integration requires strengthening the social integration between native residents and migrants in terms of social street structures, development concepts, and other aspects [30]. This also includes harmonizing the relationship between migrants and local residents at the macro community and institutional levels. While institutional exclusion is diminishing, cultural and regional exclusions remain a challenge, and comprehensive

measures are needed to promote integration among different groups within the community, ensuring a more equitable sharing of public resources to alleviate the challenges of semi-integrated community residents.

In summary, the academic community has conducted in-depth research on community resident integration, mainly discussing from two perspectives: the micro-level actions of migrants and local residents, such as psychology and social interactions, and the macro-structural factors including pre-existing institutions, local government policies, and exclusionary aspects of community structure [31]. However, we can also better understand the process of community resident integration by examining the interactive relationship between individuals and society, as well as between individuals and their environment. Specifically, by analyzing the integration process among community residents (encompassing both macro-structural and micro-level actors), and recognizing the role of community landscape space as a mediator of resident actions and outcomes, this study investigates how the integration of migrants and local residents is facilitated. The study selects a challenging yet relatively well-integrated case, employing Anthony Giddens' theory of structuration as the research perspective. It aims to analyze how the Chinatown and Piccadilly area (street structure) interact with migrants (micro-level actors) and achieve community integration through the restructuring of the landscape sequence. This research perspective contributes to a deeper understanding of the various dimensions of community resident integration, thereby providing more concrete insights and viable solutions to promote harmonious coexistence among diverse groups within the community.

1.4.3 Overview Landscape Spatial Sequences

（1）Review of relevant studies from abroad

Since the 1960s, perceptual aesthetics and experiential value of landscapes have gradually become significant considerations in urban landscape planning. In 1983, American scholar Norman K. Booth, in his work *Landscape Planning: Environmental Applications* emphasized for the first time that by carefully organizing the sequence of landscape spaces, one can guide and influence people's touring behaviors. This concept was further emphasized by landscape master John Simonds in his 1997 book *Landscape Architecture* highlighting the

importance of well-defined open spaces in shaping landscape structures. Additionally, Japan's Yoshinobu Ashihara, in his book *External Space Design* provided insightful insights into the dimensions and proportions of external spaces such as gardens and squares through architectural examples [32]. Frank Ching from the United States detailed in his work *Architecture: Form, Space and Order* how to organically connect different spaces in architecture and combine them into coherent forms and spaces, thus establishing the order and structure of space [33]. These thoughts also inspired the order of landscape spaces. Researcher Nasar pointed out in her article *Impact of Symbol Complexity and Coherence on Perceived Quality of Retail Environments* that the complexity and coherence of symbols have a significant influence on the perception of spatial sequences [34]. In 1998, Potteiger M and Purinton J proposed the concept of landscape narrative in their work *Landscape Narratives: Design Practices for Telling Stories in Gardens* suggesting that landscapes can be seen as scenes to drive the development of a story. An engaging story can evoke strong emotional resonance with landscape scenes [35].

Therefore, landscape spatial sequences can be seen as presenting the storyline of a landscape environment, typically including a clear theme, a sense of rhythm, and striking conflicts and contrasts, guiding viewers to gain a deeper experience and sensation in the urban environment. These studies not only enrich the theoretical system of landscape design but also provide valuable guiding principles for urban planning and design.

（2）Review of relevant domestic studies

In China, there has been a gradual increase in literature concerning theoretical directions such as "landscape spatial sequence" and "sequential spatial landscape." These publications align conceptually with the concept of "landscape sequence" and provide in-depth analyses of related concepts from various perspectives. These research methods and outcomes offer valuable references and insights, contributing to the enrichment and advancement of the field of landscape design and planning in China.

Early research on landscape spatial sequences in China was primarily focused on classical gardens. For instance, Peng Yigang, in his work "Analysis of Chinese Classical Gardens," first introduced the organizational techniques of spatial sequences in Chinese

classical gardens, including aspects such as spatial contrast, permeation and hierarchy, guidance, and suggestion [36]. In journals, Feng Jizhong proposed an organizational method for landscape sequences based on "broad contrast" in his article "On Landscape Sequence" [37]. Yang Fan et al. extensively discussed the organization of landscape sequences in forest park landscapes in "Organization of Landscape Sequences," covering vertical sequence organization, horizontal sequence organization, landscape ecological sequence organization, as well as boundary and mood sequence organization, providing rich cases and methods for landscape sequence research [38]. In recent years, scholar Liu Binyi, in his work "Organization of Landscape Spatial Sequences Based on Visual Perception," emphasized three key aspects of landscape spatial sequences: spatial changes, temporal changes, and emotional changes. He used mathematical analysis and case studies to conduct in-depth research on the spatial organization, temporal organization, and spatial mood organization of landscape spatial sequences [39]. Additionally, Xiao Yadong, in her article "Application of Space Sequence Organization in Road Landscape Design," explored the characteristics of space sequence and spatial mood organization through graphical illustrations, studying the construction methods of road landscape spaces in terms of form, contrast, rhythm, and seasonal aspects. Furthermore, there have been relevant papers on landscape sequences from domestic universities [40]. For example, Ma Wenqian from Harbin Institute of Technology, in "Research on Urban Landscape Spatial Sequences Under the Concept of Rural Landscape" studied urban landscape spatial sequences, discussing the characteristics and construction of landscape spatial sequences from the perspectives of interface organization, spatial creation, and mood expression [41]. Ji Hua from Southeast University, in "Comparison of Dynamic Landscape Sequence Design in China and the West," emphasized spatial sequence as a key factor influencing dynamic landscapes, comparing the similarities and differences between Chinese and Western dynamic landscape spatial sequences from the perspective of spatial, temporal, and human unity [42]. Moreover, Jiang Han from Chongqing University, in "Research on Landscape Spatial Sequence of University Campus Main Axis—Taking Nanjing University Campuses as an Example," analyzed the organizational strategies and patterns of campus main axis landscape sequences from the perspectives of functionality, ecology, and aesthetics [43]. Lin Ruyu from Huazhong University of Science and Technology, in "Study on

the Characteristics and Optimization Strategies of Landscape Spatial Sequences in Wuhan Zhongshan Park Based on Visual Perception," summarized three principles of urban park spatial sequence organization, including structured arrangement, rhythmic ups and downs, and rich and profound hierarchies [44]. Considering the comprehensive research literature on landscape sequences in China, scholars have delved into the essence, characteristics, constituent elements, organizational methods, and applications in landscape spatial design, providing rich theoretical support and practical references for landscape design and landscape sequences. These studies not only aid in a better understanding and application of the principles of landscape sequences but also offer important guidance and inspiration for future research and practice.

1.5 Research Methods, Research Content and Framework

1.5.1 Research Method

（1）Literature reading method

For domestic and foreign related theoretical works and related literature research, comparative analysis, and systematically collection, sorting and classification, extraction and landscape space, street structure related to the theory and schematic research data, and the analytical theory type refining, classification and integration, and through the literature further study on the analysis of various types theory and illustrations. Sorout the research focus of relevant literature provides support and guidance for the theoretical research of this paper.

（2）Discipline Cross-law

By reading books related to architecture, landscape science, environmental psychology, ecological sociology and other disciplines, how to apply landscape sequence in the street structure of historical blocks, which provides new design ideas for design and creation.

（3）Case Analysis Method

From the above literature research data, the application cases of the analysis theory are extracted, the mechanism of the analysis theory and the characteristics of the analysis expression are discussed from the example prototype through the establishment of the case

bank and case analysis, and the internal correlation between the analysis theory and the diagram is revealed.

（4）Examples of research methods

Collect excellent practice projects at home and abroad, analyze the cases combined with the landscape sequence theory, and provide practical case guidance for the renewal of Chungying Street street structure based on the guidance of the landscape sequence theory.

（5）Comparative Analysis Method

Make comparative analysis and comment on the theory of landscape space and historical streets, strengthen the understanding and application of its mechanism, and highlight the differences, commonness and organic connection.

（6）Graphic Analytic Method

The process of discussion is not a pure text elaboration and speculation, but a clear interpretation of the interaction between the analysis theory and the graphic expression in the illustrated way of the case, and the written discussion reveals the internal relationship between the two.

（7）Summary Method

Due to the scattered and complex situation of the types of analysis theories, it is necessary to make a summary in each section, maintain the systematic and logical discussion process of this paper, and highlight the potential structural correlation between the types of analysis theories.

1.5.2 Research Contents

As a cross-border street market, the study of spatial characteristics and boundary issues of the Chung Ying Street in Sha Tau Kok can provide a unique perspective and reference for the research on street space and landscape sequences. The formation and evolution of its community can reveal the special social relationships and interaction patterns in cross-border areas. Chung Ying Street in Sha Tau Kok serves trade, logistics, tourism, and other economic activities. By studying the street structure, market functions, and community mobility in the

market, we can understand the impact of the community on the development of the streets in this area. Based on the social structure duality, perspectives on landscape space and landscape sequences, proposing the concept of reshaping the street structure of Chung Ying Street, provide theoretical support for the integration of the community and foreign residents. That is, the community, as the theme of action, is also the platform for action. Actors (foreign residents) shift from initial self-identity segregation to reshaping their identity to adapt to the community, and in the process of reorganizing the landscape sequence, they promote community reconstruction and the sharing of community landscape resources. The order of shared landscape space, under the interaction, affects the actors on the streets, achieving the mutual reconstruction of landscape sequences and street structures to achieve the integration of community residents.As a core symbol of Yantian District in Shenzhen, Chung Ying Street in Sha Tau Kok is the only entry and exit point to Hong Kong in Yantian District and is the core location in the "one core leading, four-district linkage" of the Shenzhen-Hong Kong consumption cooperation zone. Therefore, an in-depth understanding of the characteristics and evolution of the streets of Chung Ying Street in Sha Tau Kok in the early stages of this research can provide direct reference for the practice of landscape spatial design. In the middle stage, through deliberation and formulation of specific landscape spatial guidelines and strategies, and in the later stages, by discussing the streets of Chung Ying Street in Sha Tau Kok from the perspectives of community residents' activities, open spaces, and street composition, and promoting the flow of people through the combing of landscape spatial order, we can provide insights and references for reshaping the relationship between the landscape space and the community, achieving the renewal and reconstruction of the landscape sequence of the Chung Ying Street in Sha Tau Kok.

1.5.3 Research Framework

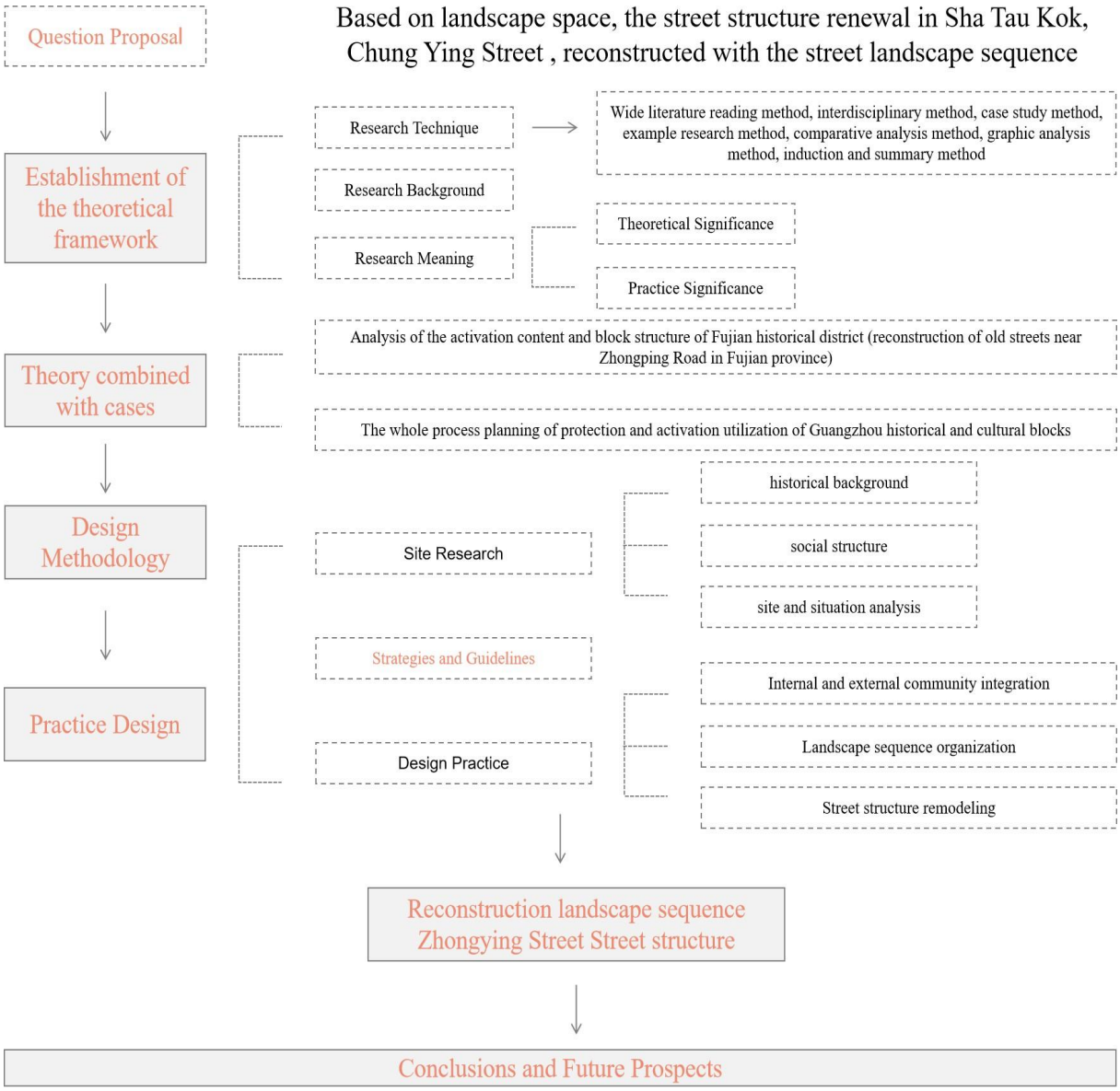


Figure1-4 Research Framework (Source: Author's illustration)

Chapter 2 Analysis of Basic Concepts

2.1 Street Structure

2.1.1 Street Definition

Streets are likened to the backbone of a city and are an essential part of urban layout. A city's street system is usually seen as a whole [45], but the intricate streets and lanes in different areas belong to two separate systems. This unique street structure is undoubtedly a key factor that cannot be ignored when studying the historical evolution of the area.

Before delving into the discussion of the streets of Chung Ying Street in Sha Tau Kok, it is necessary to define the concept of a street. According to the explanation in *CiHai* (a Chinese dictionary), a street is defined as "a relatively wide road with houses on the sides" [46]. This definition indicates that, regardless of the form of the street, it is an indispensable product of urban development, aimed at facilitating communication and interaction among people. Streets, as the foundation of urban public spaces, constitute the framework of the city. Their formation and evolution are based on the linear patterns rooted in human activities. As human activities have become more diversified, the number of streets has gradually increased, and the form and spatial structure of cities have stabilized, reflecting the historical changes in urban settlements. Streets, as the central intersections of communities and neighborhoods, have become the most dynamic and significant public gathering places in continuous social interactions.

However, the tension between streets and roads has always existed in the city. The continuous development of the city has led to changes in traffic patterns, thus affecting the functional evolution of streets. Streets have gradually been endowed with multiple functions, but at the same time, the transformation of traffic patterns has brought about a change in street functionality. To some extent, this urban form of streets has experienced the most drastic transformation over the millennia. In 1963, British scholar Colin Buchanan proposed a modern urban design concept to adapt to the motor vehicle era in his report "Traffic in Towns." He believed that with the advent of the motor vehicle era, cities needed to rethink a "completely new urban form" to accommodate vehicle needs [47]. However, today, we

seldom hear about such ideas. Jane Jacobs vehemently opposed this absurd urban design strategy, emphasizing that streets are the lifeblood of the city and should not be seen merely as means of transportation but should be valued as a multifunctional component of urban form. However, over time, people seem to have gradually forgotten the life functions that streets originally carried. Therefore, we need to re-understand streets from the most basic perspective, i.e., starting from the constituent elements of streets. The most fundamental function of streets is to provide a space for people to gather.

Based on the above explanation, this paper understands streets as the following two concepts: Firstly, "street" refers to the public space of the city, as well as the areas adjacent to the buildings, which carry various functions such as people's daily life, commercial activities, leisure and entertainment, social interactions, etc. Secondly, "street" includes streets, lanes, alleys, and the nodal spaces connected by these linear transportation spaces, such as urban squares, open street green spaces, waterfront spaces, etc. In other words, except for areas inside buildings and areas isolated by barriers such as walls, all other spaces fall within the scope of streets as defined in this paper (Figure 2- 1). The focal point of this paper is to study the life functions carried by street spaces.

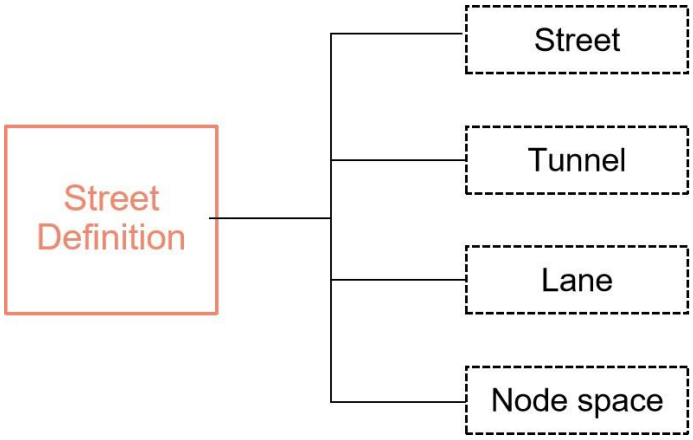


Figure 2-1 Street Definition (Source: Author's illustration)

2.1.2 Street Space Growth and Evolution

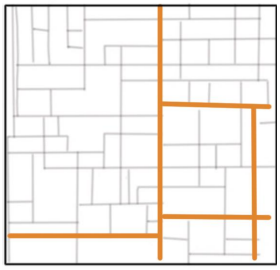
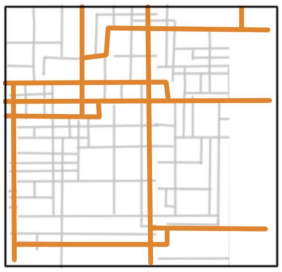
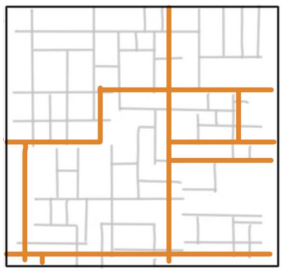
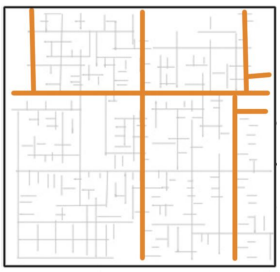
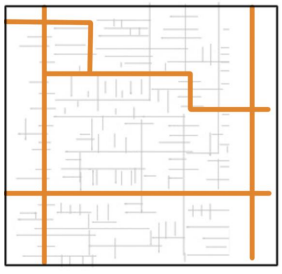
In the spatial and temporal evolution relationship between eastern and western cities, it can be observed that the morphological evolution of street spatial structure basically presents a similar growth and evolution trajectory. Under the guidance of different civilizations, the

cities in different regions generally experience the three-dimensional growth process from plane, vertical to compound degree. Due to the objective imbalance of resources, environment and development, there may be some differences in the development of the spatial structure of urban streets in different regions, but on the whole, it shows the synchronization and the same evolution law of the development history of urban civilization.

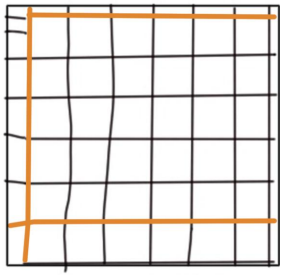
（1）Grid Organization

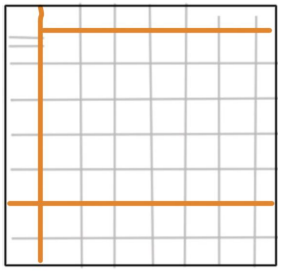
Before the emergence of modern civilization, the development of urban space was subject to the level of productivity, and the form and volume of spatial elements remained relatively stable for a long time. The discussion of spatial structure morphology focuses more on the selection and optimization of horizontal direction structure. Different civilizations gave birth to a variety of spatial plane organization forms, which can be summarized into two basic prototypes: tributary structure and grid structure (Table 2.1). These forms of spatial organization can be seen as these two basic archetypes by combining and deformation, yielding diverse types in regularity, recursion and complexity. Among them, the structure type of "orthogonal grid" is the most typical, and the morphological paradigm of "orthogonal grid" structure repeats in the development of spatial texture, generating new era significance in different spatial and temporal backgrounds. With the continuous expansion of the spatial scale of modern urban streets, the imprint of "orthogonal grid" mode still obviously exists at the level of spatial structure.

Table 2.1 The plane organization logic and structure relationship of street structure
（ Source: Author’ s illusion ）

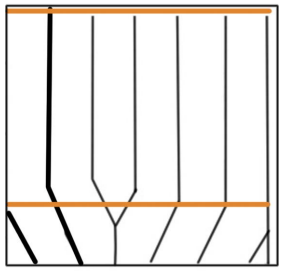
City	Street Structure	Structural Analysis
 Roma		
 Madrid		
 Milan		
 Cairo		
 Tabriz		

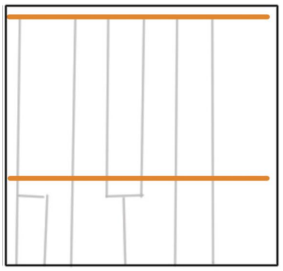
Buenos Aires



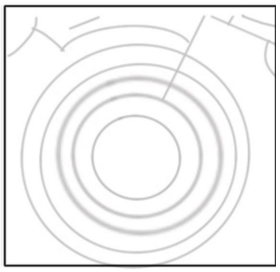


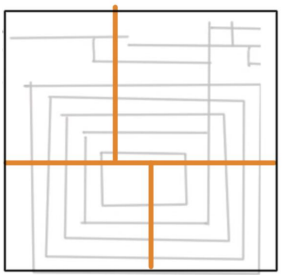
Los Angeles





Arizona





（2）Vertical Lamination

With the rapid aggregation of spatial resources and elements in the city, the spatial organization of the horizontal dimension of the city has been subjected to a continuous extreme challenge. The spatial elements of the street begin to move towards the spatial superposition stage of the vertical dimension. The longitudinal development of spatial elements as a whole produces the type differentiation of vertical dimension in texture morphology. Since the 16th century, the ancient city of Shibham (Figure 2-2A) in Yemen has appeared in the urban texture composed of high-rise buildings. Its flat form continues the typical characteristics of Islamic urban texture, but it presents the embryonic form of high-rise building space texture in the three-dimensional space form. After the 19th century, with the continuous progress of engineering and construction technology, the upper limit of the vertical axial superposition of the space was broken through, and the architects represented by the

Chicago School launched the practice of modern high-rise buildings(Figure 2-2B). The central business district rebuilt after the Chicago fire in 1871 formed a spatial texture of high-rise buildings, which became a model of spatial organization in the modern metropolis. Under the influence of the globalization of modernism, a large number of multi-storey or high-rise buildings have been formed all over the world. The morphological evolution in the vertical dimension strengthens the three-dimensional spatial features of the spatial texture, while weakening the influence of the plane organization form on the overall spatial texture morphology.

Figure 2-2A Hebham City, Yemen (Source: Google)

Figure 2-2B Chicago City, America (Source: Google)

（3）Composite Reorganization

After the growth process of relatively isolated horizontal and vertical dimensions, the modern street spatial texture entered the growth process with compound recombination as the theme, that is, the spatial evolution of multiple dimensions appeared simultaneously in the way of recombination of spatial elements. First, the architectural form evolves from simple monomer form to complex combination form; second, the scale of the structural unit expands from architectural scale to plot and block scale; and finally, the vertical organization of the space begins to extend to the ground. Buildings gather densely, covering the bottom space of the whole block, forming a three-dimensional traffic connection network, showing the typical complex structure structure of a modern city. After restructuring, the spatial structure presents multi-level spatial stratification. Through the structural decomposition and analysis of the open space elements, the structure of street network and the integration form of street, the street spatial form characteristics composed of different hierarchical elements can be extracted.

（4）Adaptability and Stress Evolution

The morphological evolution of street spatial structure is a stress adaptation process stimulated by external environmental factors. Driven by multiple influencing factors, the morphology of spatial structure may undergo slow or drastic changes, including passive adaptation to objective conditions and active response with subjective consciousness. These influencing factors can be divided into three categories: natural environment, science and technology, and ideology, which represent three typical processes of change. Natural environmental factors include surface form, climate environment, sunshine conditions, etc., which provide the background and foundation for the construction of street space, and different differences in environment guide the regional differentiation of muscle texture morphology. Science and technology is an important driver of the morphological change of spatial structure. Urban space is constantly breaking through the limit of design and the limitation of traditional technology in terms of volume. The transformation of urban traffic mode from carriage to car to rail transit makes the urban spatial structure and scale change, and the dense dot pattern under the patterned road network structure has become a typical feature of spatial texture. In the evolution of spatial structure, the mutation of spatial nodes is

easy to identify and trace, and there are also characteristics that cannot be copied.

2.1.3 Street Space Structure

Block (English counterpart: city block, urban block, or block) is an important element of urban planning, and also carries the external carrier of the street. A block is the smallest block surrounded by a street, which covers the construction land, buildings, etc. In a city, blocks are usually surrounded by streets, which are the basic components of the urban structure. blocks are also divided and divided with the help of other natural or human features except the streets, such as administrative boundaries, rivers, lakes, railroads, mountains, cliffs, etc.

Street spatial structure refers to the path system composed by the spatial elements of street matter, emphasizing the importance of the skeleton and trace, while the spatial structure focuses on the basic characteristics and organizational relations of the spatial elements, emphasizes the essential meaning of the word "structure", and conveys the characteristics of series and continuity. From the perspective of blocks, the spatial structure can be regarded as the objective law and common characteristics of the composition of group spatial elements within a specific area. The fine street network and the controlled paragraph length are the basic guarantees to increase the overall connectivity of the street system. The configuration of road network density is mutually the premise of block scale, while the block scale is closely related to the dominant function of the block and the division or combination of the internal plots. Besides the streets, the public space connecting each road network can be regarded as the inseparable joint point in the skeleton.

2.2 Community Structure

2.2.1 Community Structure, based on Street Space Structure

Community structure is a complex research area that covers multiple disciplines. It involves the intricate interrelationships between spatial forms and social processes. If the spatial form is regarded as the result of the spatial shaping of the local context, then the community structure refers to the internal mechanism that leads to this process. The distribution and combination state of the community spatial structure elements within the

spatial scope is based on the attributes of the community itself. Studying the street spatial structure is helpful to understand the spatial projection of the community structure.

The analysis of street spatial structure is based on the root cause of individual site selection behavior —— community structure system. The spatial material environment such as landscape has a huge influence on the community, and the landscape spatial distribution has a certain guiding role on the crowd. The difference of landscape spatial distribution is conducive to the continuation of the community structure system, and the community relationship also has an influence on the street space. The influence of spatial flow on population distribution is the result of the joint action of regional conditions and lifestyle, which is an important mechanism for the formation of urban spatial structure. Although the combination of block components (such as flat form, style layout, etc.) shows the characteristics of street spatial structure, the spatial structure of streets is not only influenced by the comprehensive influence of various natural factors and specific geographical conditions, but also presents complex and diverse performance results. The urban spatial structure is also reflected in the community integration system, that is, in terms of its internal structure, it is the spatial carrier and realization form of community integration.

2.2.2 Community Structure based on the Dichotomy of the Giddens Community structure

Structured theory focuses on how the community uses elements to make better use of environmental resources, so as to transcend the limitation of structure and become the subject of social change. The theoretical basis of community change comes from the structural duality, that is, the structural characteristics of the social system are not only the intermediary of these practices, but also the result of them. The "self-identity" of the actor is not only the result of the projection and construction of individual reflection, but also the result of the influence of social structural construction. It is the process and product of the interaction between the structural construction of society and individual reflective construction. On the basis of reflecting on the traditional community integration theory, the community integration should be understood in the "specific situation".

Based on Giddens' structural duality, we proposed a liberal, atomized flow of individuals to accelerate the formation of communities. The structural duality of Gidens provides theoretical support for the integration of the community and the foreign residents, that is, the community as a product of action is also a platform for action. The actor (foreign residents)

divides from the initial self-identity to adapt to the community through the subject identity reconstruction, and in the process of reconstruction, it promotes the reconstruction of community exclusion rules and the reconstruction of community resources. After the remodeling, the new community structure reflects on the actors, completing the mutual construction of the actors and the structure, and realizing the integration of the community residents (Figure 2-3). The key to realize the integration of community residents from regional exclusion to mutual construction lies in the smooth channels of communication and interaction and the increasing sense of identity among community residents. As an epitome of the history of community, how to promote the integration of community residents through landscape sequence has certain research significance for the exploration of street structure.

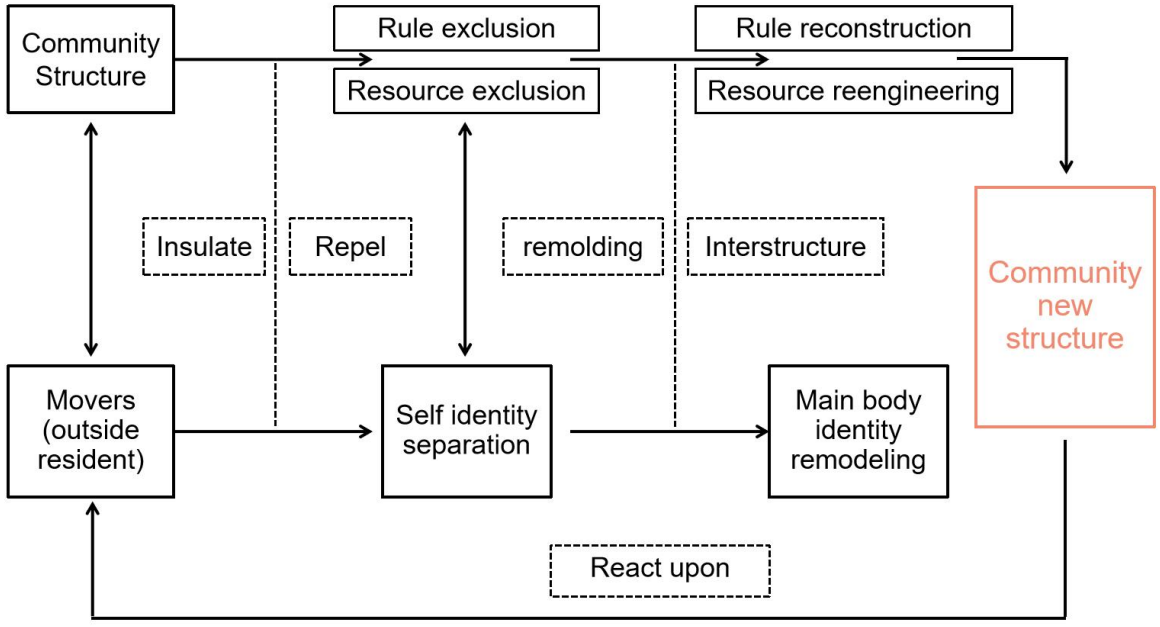


Figure 2-3 The framework of community residents from regional exclusion to mutual integration （Source: Author’s illusion）

2.3 Landscape Space Sequence

2.3.1 Landscape Space and Structure

Translation: The term "space" in landscaping refers to the area defined by elements such as topography, vegetation, water bodies, and structures, providing a place for human activities. The distribution of landscape spaces can help infer the weaving of paths to a certain extent, and the dense nodes of community blending in the paths reflect the location of nodes in the

landscape space (Figure 2-4). What sets landscape space apart from architectural space is that the interface of landscape space combines reality and virtuality, not merely enclosed by walls. The application of structural analysis in landscape space design originates from the borrowing and absorption of architectural constitutive theory by modern landscape design works. Modern landscape design thinking discards the traditional garden's axial system, series, and single-point viewing approach, emphasizing functionality and fluidity. In this context, it's easy to understand the importance of "space" in landscape design, especially when the axial system of classical gardens may have a certain influence on creating continuous flowing landscape spaces [48]. However, modern landscape design focuses more on space rather than style, challenging the limitations of traditional axial system creation [49]. From a constructivist perspective, breaking these traditional limitations can be achieved by constructing space through a planar approach. For example, Rossi emphasizes the scientific use of landscape spatial materials, advocating to view plants as structural elements and employing their continuity in both horizontal and vertical spaces [50][51]. In his article *Form and Space of Plants* Rossi uses models from different perspectives to analyze how different types of plants constitute a sense of flowing space and the significant importance of plants in constructivist sculpture.

Whether analyzing the composition of the interior structure of landscape space, the overall relationship between architecture and landscape space, or even the overall structure analysis between different landscape spaces, it provides a design approach to create a structured landscape space. This approach places the focus of space design on "relationships," breaking free from static viewpoints or patterned planar geometric forms presented by traditional landscape spaces [52]. This new design concept not only enriches the possibilities of landscape design but also makes landscape spaces more adaptable to the needs and values of modern society.

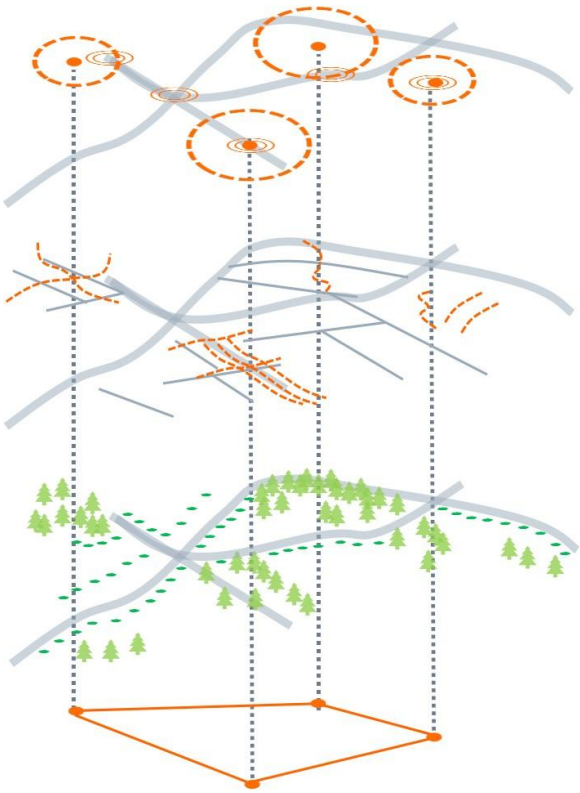


Figure 2-4 A Schematic diagram of the landscape composition (Source: Author’ s illusion)

2.3.2 Landscape Sequence

For the concepts of "landscape space sequence", "sequence landscape" and "landscape sequence sex space", their respective definitions exist in numerous literature and works. The concepts of these derivative words are all based on a combination of spatial sequence theory and landscape theory, forming their respective definitions. In the book *Design of the Environment outside Buildings*, a relatively authoritative definition of landscape sequence is provided: " Landscape sequence has two meanings. The first meaning refers to the objective scenery orderly expansion, with the characteristics of spatial and temporal motion, forming the entity combination of landscape space environment. The second meaning refers to the instantaneous and diachronic reaction of the reflection of the spatial and temporal changes of the landscape. This feeling originates from the stimulation of the objective scenery, and at the same time goes beyond the scenery, and obtains the emotional sublimation, forming the interesting combination of the landscape image feeling.[53]”

The first meaning emphasizes that the natural and cultural landscapes are arranged in different forms and scales to form an orderly whole. The subject of this whole is the environmental entities, which are presented to the viewer in a certain order. The second meaning focuses on the psychological changes of people. When people visit in order, they are stimulated by the landscape intention, resulting in sequential mental activity. This mental activity includes changes in feelings and emotions over time. In the process of sightseeing, people's mental state changes with the change of the landscape, forming an orderly mental activity process.

2.3.3 Landscape Sequence Composition

（1）Elements of Spatial Composition

The constituent elements of the landscape sequence space can be divided into two dimensions: horizontal space and vertical space (Table 2.2).

1.Horizontal Space Component Elements

Based on the concept of landscape ecology, landscape elements can be divided into three types: matrix, plaque, and corridor. Substrate: the substrate is the base of the landscape, occupying a large area and connecting each landscape element in the form of a domain. The terrain is

The base of the landscape environment has an obvious control effect on the landscape elements such as plaque inlay.

Plates: patches in landscape elements generally include three types: water, square and lawn. The larger the area of the patch, the higher the species diversity. The water body creates a lively space; the linear water system can connect and guide the space. The square provides a place for people to relax and gather. Lawn not only reduces noise, provides places for leisure and sports, but also helps to maintain the ecological balance.

Corridor: The road connects all kinds of nodes in the space, plays a guiding role in the tour process, and affects the structural shape of the space block.

2.Vertical Space Component Elements

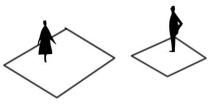
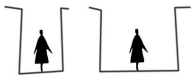
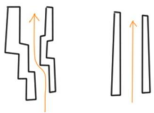
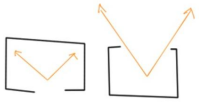
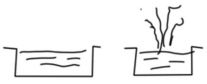
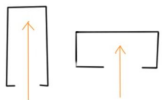
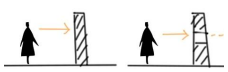
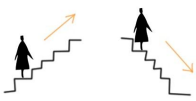
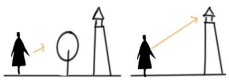
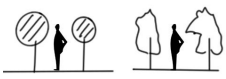
Vertical space mainly solves the site height difference and space enclosure.

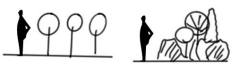
Site height difference category: slope land, steps and bridge are often used to solve the site height difference. According to the slope, the slope can be divided into gentle slope, middle slope and steep slope. Steps guide in a particular space, reminding people that change is coming. Landscape bridge simple, jumping form has a strong sense of rhythm.

Space enclosure: different spatial forms, such as closed, private, transparent and open enclosure methods, will bring different landscape feelings to users. The enclosed sense of landscape space is usually produced by the comprehensive effect of landscape walls, plants and buildings. Landscape wall can separate the space, guide the line of sight, decoration beautification, cover the line of sight, foil scenery. Architecture plays the role of recreation, viewing and service in the gardens. The building and its surrounding environment together form the enclosed space, which should be integrated with the nature, and the volume, enclosed mode and architectural style should be closely combined with the garden environment.

Table 2.2 Common contrasting elements in the landscape spatial sequence

(Source: Author's illusion)

Spatial Features		**Visual Perception**		**Landscape Attributes**	
Size		Amplification		Monotonic and Complex	
Shape		Distance		Shape and Size	
Bend and Straight		To inside and To outside		Move and Static	
Wide and Narrow		Virtuality and Reality		Acute and Slow	
Up and Down		Hidden and Dew		Colour	

Slow and Steep		Look Horizontally		Administrative Levels	
		Look Up			
Soft and Hard		Look Down		Structure Volume	

（2）Emotional Composition Elements

The emotional components of landscape sequences are based on both visual and perceptual spatial elements. It includes four parts: the function and shape of space elements, scale and distance, material and landscape sketch.

Function and modeling: The essence of the elements of landscape space is to serve people. People will have a variety of physical and psychological needs during the tour, such as the need for spatial continuity, security and interest. Providing convenience to people is the basic functional attribute of the constituent elements of landscape space. In addition, through color, form, grafting and other ways to enrich the shape of space elements, can meet people's aesthetic needs.

Scale and distance: Scale and distance are an important basis for people to measure the size and distance of the solid space according to their vision. The coordinated proportion can bring people a comfortable emotional experience, while the unbalanced proportion will make the large space appear empty and lack of atmosphere, and the small space appears cramped and unfavorable. Coordinated scale is crucial to human comfort.

Material: The material selection of the space composition elements should have the durability and the aesthetic degree. Using new materials can bring more possibilities for spatial modeling and visual effects. The fusion and conflict between different materials can bring people rich visual and tactile experience, and add interest to the space.

Landscape sketch: Landscape sketch not only has practical functions, but also is the best carrier to integrate into the local cultural symbols. It is often the finishing touch in the space, so that the viewer has a beautiful association. Landscape sketch can not only provide practical functions, but also become an important part of spatial beauty.

2.3.4 Landscape Sequence Type

After studying the relevant literature, the scholars' classification of the landscape sequence mainly includes two aspects. First, according to the organization form of the ornamental route, the landscape sequence can be divided into closed loop type, through type and radiation type. This classification focuses on the overall structure and layout of the landscape sequence and distinguishes the basic patterns of landscape presentation in different forms. Second, the landscape sequence is divided into simple sequence, complete sequence and complex sequence according to the composition characteristics of landscape rhythm. This classification method focuses more on the interrelationship and combination of the elements within the landscape, as well as the perception and experience of the viewer.

Through such a classification, the characteristics and aesthetic composition of different types of landscape sequence can be better understood, which provides a useful theoretical reference for landscape design. The closed loop landscape sequence presents the characteristics of closure and circulation, which can create a closed viewing space and give people a unique viewing experience. The through-through landscape sequence runs through the whole space with a main line, forming a sense of through-through, so that the viewer has a clear guidance and guidance in the whole sequence. The radiation landscape sequence takes the central point to radiate around the periphery, creating multiple radiation lines, producing various visual effects, and enhancing the richness and hierarchy of space.

On the other hand, the simple sequence emphasizes the simplicity and clarity between the landscape elements, creating a simple, clear, relaxed and pleasant viewing atmosphere. The complete sequence is more rich and diverse in the combination and connection of elements, making the whole sequence present a complete and varied visual feeling. Complex sequences are even more challenging. Through complex combinations and intricate paths, they give people the fun of exploration and discovery, presenting a rich and diverse landscape features.

Such classification provides a basis for gaining insight into the intrinsic characteristics and aesthetic principles of landscape sequences, and also provides a reference for designers to select appropriate sequence types in landscape planning and design.

When classifying landscape sequence, it can be divided according to path form and landscape rhythm:

（1）Classification by Path Form:

Closed loop sequence: The closed loop sequence has a ring shape, usually surrounding the buildings around the garden, forming a relatively closed single space. In such sequences, viewers often experience the spatial contradiction of forward rotation and reversal, so special attention is needed to people's guidance and orientation to ensure their smooth feeling in the sequence.

Through-through sequence: the through-through sequence, also known as the linear sequence, connects different landscape nodes along an axis. Despite following a certain axis, this sequence usually tries to break symmetry to avoid inflexible and stereotyped feelings and to pursue more natural and rich changing experiences.

Radiation sequence: Radiation sequence is centered on a major scenic spot with other landscape space around it. Usually, visitors start at the entrance, first reach the central attraction and then disperse to other nodes. However, the main scene does not have to be located in the center of the park, and can sometimes be placed in other locations.

Comprehensive sequence: the large landscape space may be composed of multiple basic sequence forms, especially when considering the site size, functional positioning and other factors, it may be difficult to find the obvious sequence structure on the whole. However, these large landscape spaces still contain subsequences of the basic sequences.

（2）Classification by Landscape Rhythm:

The landscape rhythm composition of the landscape sequence is another way of classification, which connects the landscape sequence with the concept of the narrative:

Simple sequence: Simple sequence in the landscape is similar to a simple story in literature, including the beginning, foreground, main scene and junction scene, corresponding to the beginning, foreground, main scene and junction scene in the landscape sequence. This sequence emphasizes the basic structure of the story, the elements of the climax, development, and ending.

Complete sequence: complete sequence adds sequence and sequence relative to simple sequence. The sequence scene is the refinement and overview of the whole sequence theme, and the back scene provides a hint at the end. The complete sequence narrative approach is more detailed, with a clear emphasis on the beginning and end of the landscape sequence.

Complex sequences: Complex sequences are usually used in larger landscape sites. They may contain multiple simple sequences or complete sequences, or they can be composed of multiple simple sequences and complete sequences. This sequence has diverse forms of variation.

Free sequences: Free sequences are often used in sites with no clear start and end points, and people can enter from different entrances, so the structure of the sequence may vary depending on the visitors' path. In the free sequence, it is usually necessary to set up a clear main scene to build the climax node, to highlight the focus and create a varied but focused atmosphere.

2.3.5 Landscape Sequence Organization

（1）Spatial Organization:

When people perceive the landscape in the environment, it is actually a comprehensive experience of space and entity. Over time, attention constantly shifts between space and entities, and the perceived environmental information comes from spatial interfaces, visual interfaces, and objects in space.

Space interface: The spatial interface is the relationship between the spatial scale and the human vision. This relationship determines the degree of spatial confinement. Based on human behavioral characteristics and psychological changes, space can be divided into three types: enclosed space: the scale is small, the spatial interface and the visual interface basically overlap, the visual concentration, guide the person's movement direction is obvious. Low enclosed space: the scale is relatively large, the visual interface and the spatial interface are basically consistent, do not obviously guide the direction of human movement. Open space: the space interface is limited, but the vision is open, and people are willing to stay in this space.

Spatial comparison: Spatial comparison can be divided into three categories according to the landscape characteristics, visual feelings and the attributes of landscape elements. These contrast elements include the size of the space, visual expansion, visual distance, and the direction of the line of sight, which influence people's first impression of the space.

Spatial change and connection: spatial change is relative. People feel the instantaneous change when they enter different Spaces, but when they stay, the feelings gradually stabilize until they enter the next space. The form of change can include the extension of curve space, the contrast between real scene and virtual scene, etc.

（2）Time Organization:

The temporal organization of landscape sequences is a process of gradual accumulation of spatial perception. Complete cognitive processes are divided into pre-cognitive stages and cognitive stages. The pre-cognitive stage is the instantaneous perception of the spatial environment, while the cognitive stage is to consciously explore the information in the environment. The degree of cognition of the spatial information depends on the length of time that people stay in the space. The time that people feel in the actual tour is divided into diachronic experience and instantaneous feeling.

（3）Artistic Conception Organization:

In the artistic conception organization of landscape sequence, the concept of landscape narrative can be more easily resonate with people's spiritual feelings. The artistic conception organization can enrich the spiritual and cultural connotation of the landscape space through various plot strategies.

Set the theme: The theme can be a physical scene with a humanistic atmosphere, or a series of physical elements with the same attributes. Clear themes can reflect the style type of the entire landscape sequence, becoming clues throughout the entire sequence.

Grasp the rhythm: the sense of rhythm can be reflected by the landscape elements with regular changes in each space. The amplitude and frequency of the changes will affect the feeling time of the visitors, and the appropriate rhythm can more easily trigger people's resonance to the space.

Application conflict: the conflict can be reflected in the sequence as the strong contrast of the landscape elements in each space, including the contrast between the psychological expectations brought by the landscape environment.

2.4 Chapter Summary

This chapter first discusses a comprehensive definition and composition of streets, in order to understand the growth and evolution of street space. The importance and uniqueness of street spaces in a specific context are elaborated. In addition, the response and response strategies of street space structure in the context of community structure are discussed in order to provide effective theoretical support for better understanding and design of this special street type. When further analyzing the composition of the landscape sequence, we focused on its spatial composition elements, and dug deeply into the role and interrelationship of these elements. The concept of landscape narrative divides landscape sequence into four basic types, including simple, complete, complex and free. Each type has unique connotations and characteristics, which are analyzed in detail to help readers better understand the characteristics and potential design inspiration of different types of landscape sequences. Finally, this chapter focuses on the design points in the sequential organization process to guide the actual street structure landscape space remodeling work. Key design considerations regarding spatial, temporal and artistic conception organization are proposed to ensure the rationality and attraction of the new street structure. These theoretical concepts and practical guiding principles will provide strong support for the improvement and upgrading of the street structure, and reshape the historical street structure with a landscape sequence through a deep understanding of these concepts and design points.

Chapter 3 Case Studies

3.1 Fujian Cangxia Block Activation

3.1.1 Historical background of Fujian Cangxia

Cangxia is located in the southern riverside area of Taijiang District. It used to be the waters of Minjiang River, and then gradually formed a sand bar due to sedimentation, which was connected with the land. It is said that the Cangshan sunset reflected in the river, Cangxia is also one of the ten scenes of Nantai in the Ming Dynasty. Cangxia has a long history because it is located at the corner of the water system. It is an important waterway leading to the upper and lower reaches of the Minjiang River, and also an important port for foreign trade. On the former Maritime Silk Road, this is the starting point, but also one of the birthplaces of Fujian business and commerce. In the late Ming dynasty and early Qing dynasties, commodities from the upper and lower reaches of the Minjiang River were scattered here, and hostels, teahouses, restaurants and theatres also came into being. At the end of the Qing Dynasty, Fuzhou Port became one of the five treaty ports. Rich businessmen and foreign merchants from all over the country moved frequently here, and Cangxia gradually prospered. From the middle of the Qing Dynasty to the early years of the Republic of China, more western cultures were absorbed during the period of "five-mouth trade", and the historical architectural features inside the plot were more distinctive. Mainly reflected in the architectural form in the block on the basis of the traditional residential buildings, adding a small number of western elements [54]. Such as Cangxia Christian church, peace hostel and so on. They have witnessed the prosperity, war and gunfire, as well as the migration of various times, and are now listed as cultural relics protection units in Taijiang District.

However, the old residential buildings have a narrow layout and high building density, which affected the living life of residents (Figure 3-1). At present, the old city, as the center of Fuzhou, still shoulder a considerable part of the complex functions of commerce, culture and tourism, gathering a large number of urban population, thus forming the phenomenon of high local population density, which brings great challenges to the protection and renewal of the ancient city. If the original functions and population in the block are not adjusted and evacuated accordingly, the sustainable development of the historical block will inevitably be hindered, and the distinctive regional culture and humanistic feelings in the block will be destroyed to varying degrees.

Figure 3-1 Project Overview（Source: https://www.gooood.com.cn)

3.1.2 Cangxia "Hai yue jiang chao" historical urban renewal

As a trade port a hundred years ago, the protection and renewal of Fuzhou Cangxia Historical district focuses on inheriting its unique "wharf spirit" context. Create a dynamic, "warm" space from the perspective of urban design. The streets and lanes of Cangxia grow and change from bottom to top. After a hundred years of development, the overall streets and lanes system and spatial scale are very considerable in both traffic activity and regional accessibility (Figure 3-2.3-3).

Figure 3-2 Project overview and a bird's eye view（ Source: https://www.gooood.com.cn)

In this protection and renewal scheme, the original spatial form and scale are extracted, and the new capillary streets are extended. Weaving the network texture (Figure 3-4), inheriting the streets and lanes, making the commercial applicability of its space be inherited and improved, and making this area fully activated.

Figure 3-3 Master Plan（ Source: https://www.gooood.com.cn)

Since the opening of the port, Cangxia's humanistic and class classes have demonstrated its inclusiveness, and its spatial forms also show diversified development. Recently, various architectural Spaces, such as courtyards, school buildings, warehouses, shops and churches, are scattered among them, collage into a colorful and prosperous community scene (Figure 3-5).

Figure 3-4 Repair the Muscle Texture（ Source: https://www.gooood.com.cn)

In order to reproduce the artistic conception of "jade belt around the waist" of Cangxia Christian Church, the landscape belt is set around the church in the way of mirror + shallow

water to reflect the surrounding streets and pedestrians. With the design technique of landscape interaction, there is a subtle overlap with the historical scene in the same coordinate position (Figure 3-6).

Figure 3-5 Multiple Collages（ Source: https://www.gooood.com.cn)

Figure 3-6 Scene Collage Square in front of the Church（ Source: https://www.gooood.com.cn)

At the same time, the design integrates the original humanistic elements of Cangxia, such as ancient banyan tree, tea pavilion and opera, into the context of modern society, so that the peaceful living environment, lively commercial atmosphere, cultural travel experience and the enjoyment of natural scenery can be combined (Figure 3-7).

Figure 3-7 Scene Colcollage of Ancient Tree Square（ Source: https://www.gooood.com.cn)

In the streets and dense texture, public open Spaces of different sizes and scales are set up. Just like acupuncture, under the original site form, the space is activated to different degrees, so as to provide people with more sharing places with suitable sizes and various functions (Figure3-8).

Figure 3-8 Scene Collage of Pocket Square（ Source: https://www.gooood.com.cn)

The culture accumulated by Cangxia is the overlap of the old and the new symbiosis in different times. The "urban collage" technique is used to deal with the spatial relationship between the old and the new buildings. It is neither a "modern block" that emphasizes the result nor the "ancient construction reserve" that traces the source, but makes the historical structure of the city participate in the current and future urban development through the reorganization and integration with a sense of The Times.

Figure 3-9 Street structure and daytime street view of Zhongping Road（ Source: https://www.gooood.com.cn)

3.2 Activation of Guangzhou Enning Road

3.2.1 History Background

Guangzhou has a long history and a history of more than two thousand years. As one of the famous historical and cultural cities in China, Guangzhou is renowned at home and abroad as the "commercial capital for thousands of years", with profound commercial genes and long cultural deposits [56]. As an important central city in China, Guangzhou has always attached great importance to the protection of history and culture, and adheres to the concept of "development in protection and protection in development". Urban development is carried out on the basis of cultural protection, focusing on highlighting local characteristics and improving the living environment. As one of the 26 historical and cultural blocks in Guangzhou, Enning Road Historical and Cultural Block is the first block project to be updated and implemented. Its unique historical background and basic conditions require

planners to solve the problems faced by urban development in an innovative way. This project is the embodiment of the whole process planning to actively explore the protection and activation and utilization of historic districts in Guangzhou.

Enning Road, as the most complete and oldest arcade street in Guangzhou, can be traced back to the rise of Xiguan in the late Ming Dynasty. In 1931, Enning Road was expanded to form a modern style, with the road reaching 18.4 meters wide, and the arcade streets began to appear on both sides. The features of Enning Road is composed of the arcade buildings of Enning Chung and Enning Road and the layout of bamboo houses, which was once the residential area of the upper merchants. However, with the shift of Guangzhou's urban center of gravity, Enningyong became a dark surge in 1992. In 2006, the renovation project was launched, and the government began the demolition work. Although encountered resistance in this process, but in 2010, Litchi Bay Chung carried out a "cover" plan. In 2012, the project of Cantonese Opera Art Museum was officially launched, and in June 2016, the exhibition was completed and officially opened to the public, becoming a new landmark of Enning Road. Today, there is some loss of block texture, but fortunately, the overall surrounding texture is still well preserved (Figure 3-10).

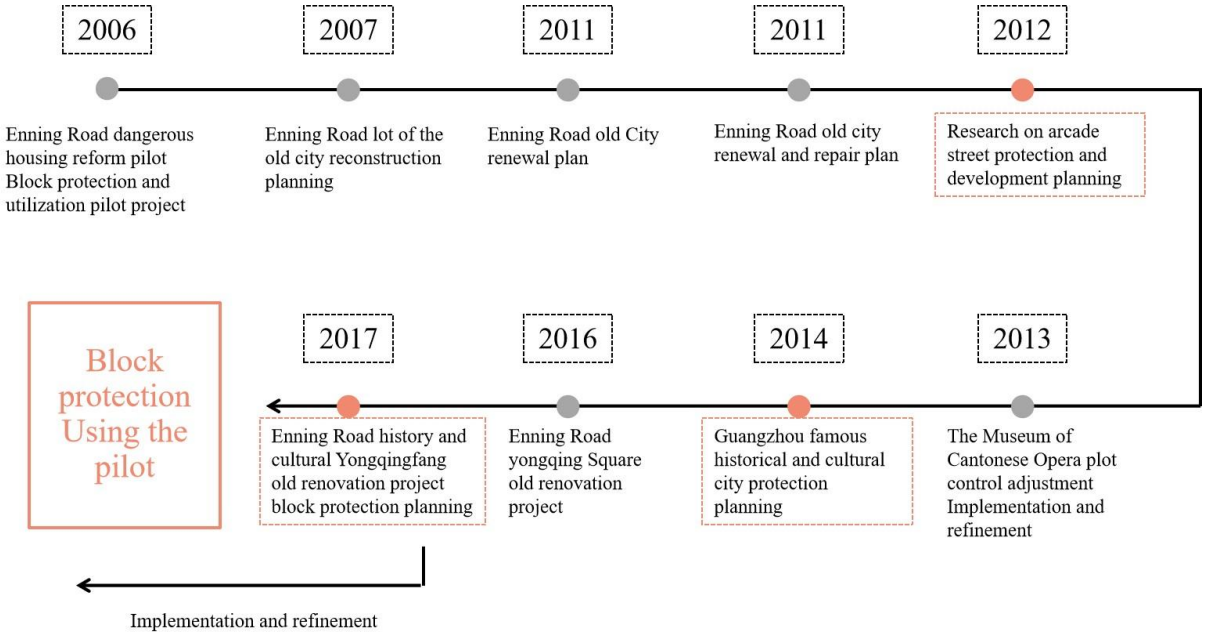


Figure 3-10 Schematic diagram of the related activation process of Enning Road
(Source: Author's illustration)

3.2.2 Project Strategy

According to the protection and activation planning of historical and cultural blocks, the design team put forward the planning and design concept of Enning Road historical and cultural blocks. The core goal of this concept is to improve the living environment on the basis of retaining a part of the existing residential functions, activate the use functions of the existing buildings, and introduce the emerging cultural industries and other industries that develop in harmony with the whole area. The implementation plan aims to respond to the requirements of protection planning, inherit the historical context of Xiguan from the perspective of practical operation, restore the structure of the block, improve the quality of public space, restore and enhance the facade of the arcade street, and encourage the mixed use of multi-functions, so as to improve the vitality of the block. In addition, the program also adds community service facilities, such as neighborhood centers, and proposes strategies for gradual staging and zoning implementation. By creating an urban cultural space with Xiguan characteristics for staying, walking and appreciation, the area will be built into a high-quality life area with distinctive characteristics, beautiful environment and strong culture.

The overall design of the project has implemented six major strategies:

1.Repair the overall spatial form: through careful planning and restoration work, protect the existing traditional streets and alleys, respect the traditional spatial structure and style, and repair the overall block structure in accordance with the actual development situation (Figure 3-11).

Figure 3-11 Schematic diagram of the texture changes in Enning Road
(Source: 汪进,李筠筠,王霖.广州历史文化街区保护及活化利用的全流程规划[J].规划师,34(S2):16-20)

2.Promoting the protection and utilization of the building: the building is divided into three categories: protection, renovation and reconstruction, and the repair and promotion

measures of the facade, internal space and the fifth facade are put forward.

3. Improve the street space quality of the arcade street: optimize the traffic function of the street, maintain the traffic capacity of the arcade street, refine the road section, add facility belts and bicycle lanes, strengthen the interaction between the street space and the shops along the street, improve the level of the street industry, and encourage the multi-functional development (Figure 3-12, 3-13).

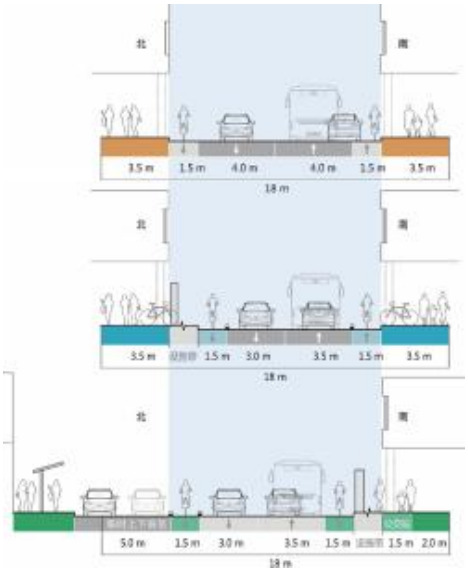


Figure 3-12 Schematic diagram of section optimization of arcade Street on Enning Road
(Source: 汪进,李筠筠,王霖.广州历史文化街区保护及活化利用的全流程规划[J].规划师,34(S2):16-20)

4. Improve the quality of the waterfront space: improve the waterfront space of Enningyong with a total length of 500 meters, maintain the height of the first-line building, increase the hard and soft design elements on the water shore, add new supporting facilities, and improve the interest and richness of the waterfront activity space (Figure 3-14).

Existing vacant or under the store house culture, tourism, business, office, residential and other functions

Figure 3-13 Schematic diagram of the spatial activation of Enning Road
(Source: 汪进,李筠筠,王霖.广州历史文化街区保护及活化利用的全流程规划[J].规划师,34(S2):16-20)

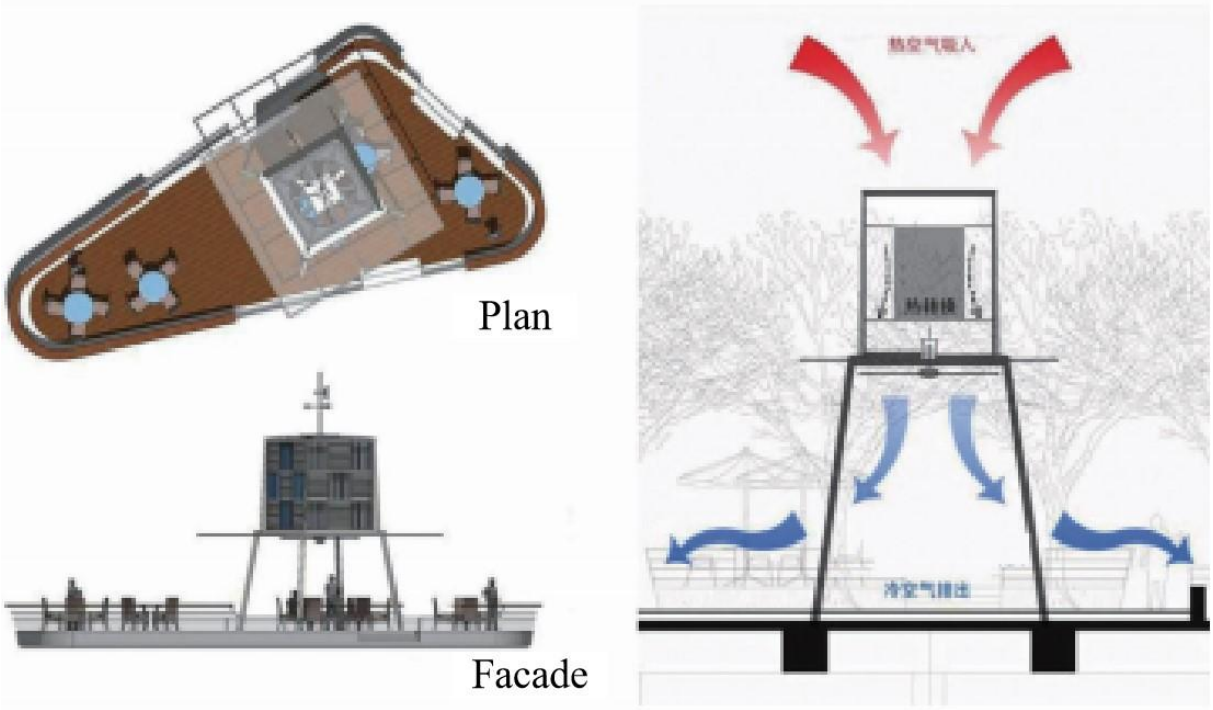


Figure 3-14 Schematic diagram of the water pavilion
(Source: 汪进,李筠筠,王霖.广州历史文化街区保护及活化利用的全流程规划[J].规划师,34(S2):16-20)

5. Slow corridor network: establish a continuous and interesting livable environment, make the three subway stations within a ten-minute walking range, improve the connection of public transportation, optimize microcirculation, and create a safe, comfortable and orderly

block.

6. Optimize service functions and improve the vitality of the block: set up public service facilities and various cultural, artistic, community and tourism service facilities, introduce new business forms, improve people's experience, promote the mixed use of multiple functions, increase community facilities, and meet the parking needs.

3.3 Renovation of the Western Section of Saint Catherine Street, Montreal

3.3.1 Project Profile

The transformation of the western section of Saint Catherine Street was designed by the firm Provencher_Roy. This once car-centric, old Montreal street has now evolved into a safe and ecologically friendly urban thoroughfare, showcasing its long history as a major commercial street in the city. The design involved converting the original four-lane road into a primarily pedestrian walkway, with only a single one-way lane for vehicles, creating a six-block-long pedestrian system between De Bleury Street and Mansfield Street. Here, cars, bicycles, and pedestrians share equal road rights, promoting a shared urban space. Historic department stores line both sides of the pedestrian street, blending the area seamlessly with its surroundings. Additionally, the firm expanded Phillips Square, creating a new green public hub for the city, aiming to make Montreal one of the greenest city centers in North America. The transformed western section of Saint Catherine Street will integrate with the redevelopment of the eastern Spectacles district and further westward neighborhood renewal plans, aiming to create a cohesive green heart for the city (Figure 3-15).

Figure 3-15 Project Overview
（Source: https://www.gooood.com.cn ）

3.3.2 Project Content Strategy

（1）Shared Street

The design banned the parking Spaces on the streets, greatly widened the sidewalks (Figure 3-16A), changed the proportion of space for cars and pedestrians, and transformed the streets into "people-oriented" places. The shared block is designed to create a linear passing route connecting a previously scattered network of squares, monuments, and historic buildings into a cohesive urban landscape. The brass plate on the street serves as a city sign to indicate the large department stores and commercial buildings built at the turn of the century, adding a legendary touch to the architectural heritage of the area.

A B

Figure 3-16 Design Real Scene

（Source: https://www.gooood.com.cn ）

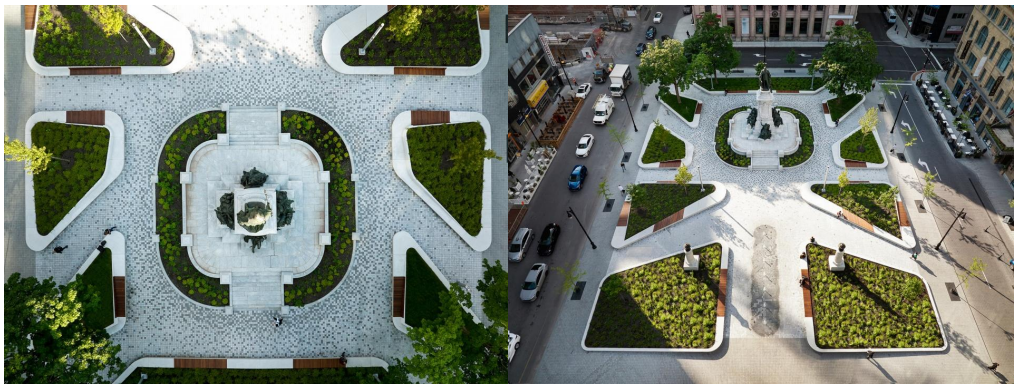
The newly paved pavement is modular to identify different Spaces and their uses (Figure 3-16B). The pavement consists of dark gray to light gray floor tiles that clearly indicating the extent of pedestrian roadways or safe walking areas. The changing colors highlight which areas are specifically for walking and which are shared between cars and bicycles, aiming to create a safe traffic environment while maintaining the unity and cohesion of the public space. To further highlight this goal, Provencher_Roy also changed the density of tree planting to focus them in quieter areas, while the more vibrant blocks used a spacplanting strategy. This greening model will extend from the main street to unify the area into a single, cohesive network of trail blocks, while creating a strong sense of spatial rhythm. In Shared streets, a series of strategies to encourage walking and cycling can fully promote the mobility and sustainability of urban space, more importantly, improve the accessibility of traffic, no matter what the traffic conditions, people in the slow system can enjoy the city landscape brought by the beautiful Montreal old street.

（2）New Urban Oasis: Phillips Square

According to the 1841 design plan, Phillips Square would be used as one of the core components of the city center of Montreal. Today's Phillips Square is a contemporary interpretation of English Garden Square, with wider sidewalks, lush plants and open views, the built environment and the picturesque urban landscape around the square, further expanding the spatial perception. The EdwarVII Monument in the square was built in 1941

after a donation by Henry Birks. The designers added upward lighting at the bottom of the sculpture and a series of urban furniture and a programmable water feature system around the sculpture (Figure 3-17).

This project creates a truly romantic oasis in the city center, and I hope the people in Montreal will come back to the garden, rest in the shade or play in the water view, while enjoying the cultural atmosphere of the historic buildings around them.



A , Square top view　　B, bird's-eye view

Figure 3-17 Design real scene

（Source: https://www.gooood.com.cn ）

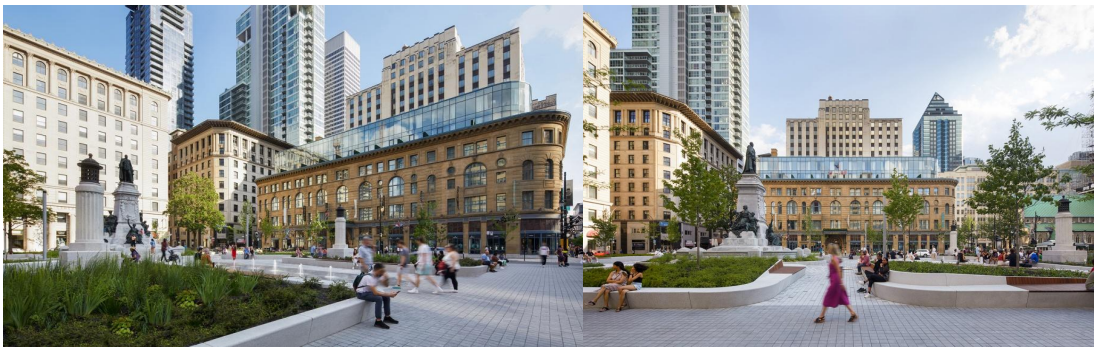


Figure 3-18 Square good views with surrounding historic buildings

（Source: https://www.gooood.com.cn ）

（3）Quebec Design

The brand new urban furniture, designed by the famous Quebec industrial designer Michel Dallaire, provides a unique visual logo for the trail, creating a leisure place for people to relax and socialize, feel the vitality and historical atmosphere of the street. Dallaire Works across the streets of Montreal, including the International district (Quartier international, central Business District) and Peel Street, visually and aesthetically connect St. Catherine Street with the rest of the Ville-Marie district. The benches in the streets and the elaborate railings in the bike stop are created by Dallaire, where the urban furniture makes the

sidewalks cleaner and improves the walking experience and traffic mobility (Figure 3-19)

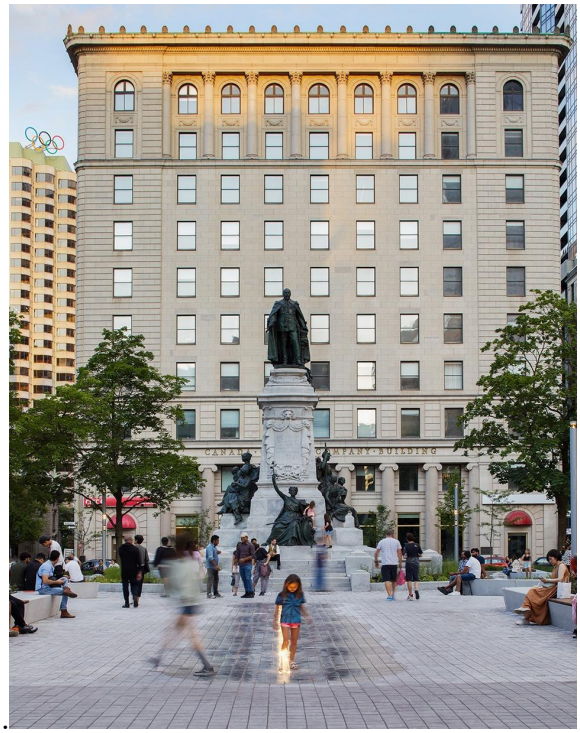


Figure 3-19 The Monument of King Edward VII
（Source: https://www.gooood.com.cn ）

（4）Green City

This project greatly increases the green space in the area, improves the pedestrian experience, and enhances the sustainability of the urban blocks. According to statistics, the western section of St. Catherine Street is 46 percent more vegetation, and the total number of trees planted is 14 times higher. In Provencher_Roy firm greening strategy, including five kinds of urban pollution and selected with tolerance, cold resistance, and strong resilience of trees, this move can promote biodiversity while reducing trees died by disease, wide and continuous planting pit along the street trees can get full growth space and soil.

In Phillips Square, the existing trees were preserved, and in addition, the designers added some new trees along the edge of the street to outline the street in nature. The lush flower beds are juxtaposed with wild plants, and the purple, blue, pink and white flowers depict a soft landscape reminiscent of Victorian gardens. The square is now a vibrant oasis in the city, with its rugged, naturalistic aesthetic blending harmoniously with the English garden design. Other sustainability measures include the use of low water irrigation systems in flower beds to minimize water consumption; the collection and circulation system of surface runoff water for

square water features; the use of locally sourced high reflective materials to alleviate urban heat island effects; and the increase of LED lighting to reduce light pollution (Figure 3-20,21,21).

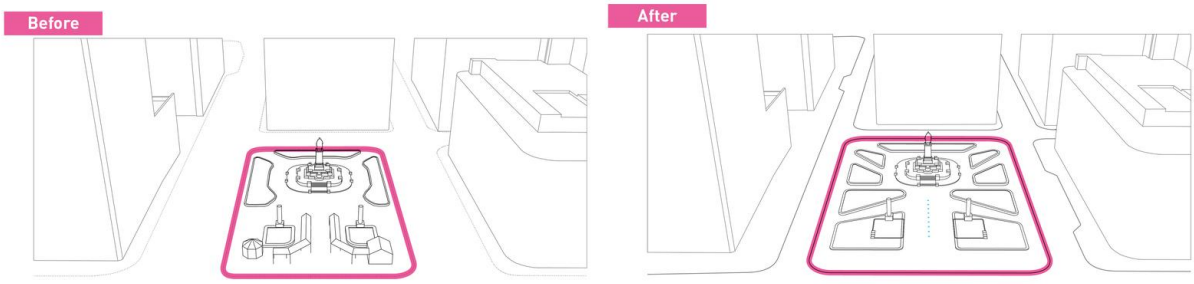


Figure 3-20 Schematic diagram before and after the renovation of Phillips Square
（Source: https://www.gooood.com.cn ）

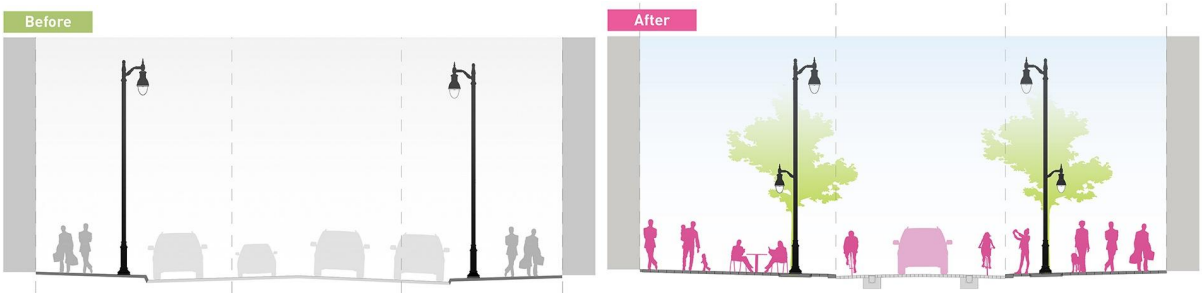


Figure 3-21 Section drawing before and after street reconstruction
（Source: https://www.gooood.com.cn ）

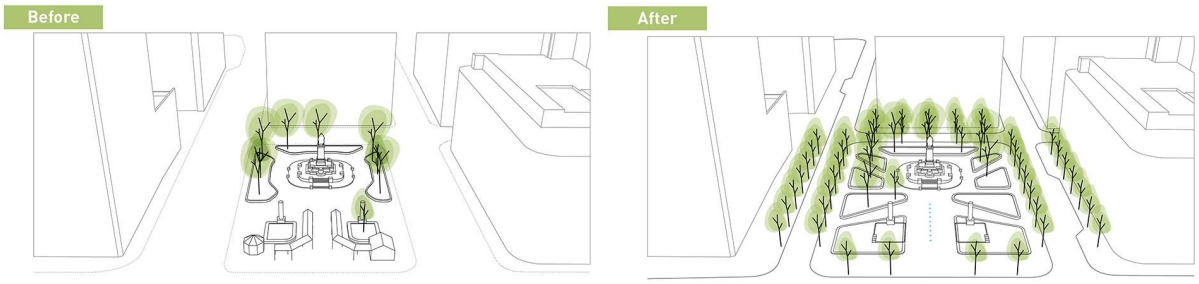


Figure 3-22 Schematic diagram before and after the greening renovation of Phillips Square
（Source: https://www.gooood.com.cn ）

3.4 Chapter Summary

This chapter makes an in-depth analysis and comprehensive summary of relevant cases. Taking the protection and urban renewal of Cangxia "Haiyue River Tide" historical blocks as an example, the innovative and updating ideas about the community integration of historical blocks are put forward. At the same time, the case of Yongqing Square on Enning Road provides a useful reference for retaining the context and improving the functional diversity,

and provides an important inspiration for the site design. In addition, the reconstruction case of the west section of St. Catherine Street shows the excellent landscape sequence and the model of street order reconstruction, which provides rich experience and reference for us to reshape the street structure of Chungying Street from the perspective of landscape.

Comprehensive learning of different cases and comprehensive consideration of them can provide very useful models for our street order remodeling. The in-depth analysis and reference of these cases will provide valuable experience and enlightenment for the street structure renewal and order remodeling of Chungying Street.

Chapter 4 Current Situation and Research and Analysis of Chungying Street in Sha Tau Kok

4.1 Background Overview

In today's world, people live in a world divided by political, economic, and social boundaries. These boundaries include formal national borders, displaying signs of territorial sovereignty, as well as informal social boundaries such as communities, families, etc., used to distinguish social groups and regulate behavioral expectations[57]. Regional boundaries are ubiquitous, creating and showcasing social groups in different areas, attracting extensive scholarly attention and driving research. The study of these specific geographically located streets can be traced back to the aftermath of World War I when the disintegration of empires and the formation of new nations necessitated the redefinition of territorial borders between countries, sparking the rise of boundary studies. However, after the end of World War II, with the basic establishment of national borders between countries, research shifted its focus to the function of border regions, especially the public spaces of the borders, and how various relevant communities coexist in the peculiar border space of streets[58]. As scholars like Kramsch have pointed out, boundaries are not only political; they are also the product of social and cultural practices[59].

Kolossov and other scholars argue that boundary spaces embody the diversity of human society, revealing the differences in human society[60]. This varying understanding of the nature of boundaries has prompted scholars to study boundaries from different scales and perspectives, including cultural, social, and other domains of boundaries. Consequently, boundary studies have gradually expanded to broader social and cultural domains. Meanwhile, the spatial scope of boundary studies has extended to the adjacent regions influenced by boundary functions, known as "borderlands". Although "boundary" and "borderland" are similar in meaning, they have differences in the attribute of "line" and "area" in usage. Particularly, with the advent of economic globalization, the cross-border exchange and cooperation of elements such as resources, labor, goods, capital, and technology have become increasingly frequent. On one hand, countries encourage the cross-border flow of these

elements; on the other hand, they strengthen border control and management to maintain border security[61]. This has made border issues more complex. However, previous studies on Chinese borders mainly focused on the political policies and economic interests of inter-country borders, lacking attention to border studies at the urban design scale and overlooking the border residents deeply affected by the borders. The border is not only a special political and economic space but also a living space with a marvelous life landscape. The economic levels, institutional environments, and social development situations often differ on either side of different borders. Yet, border residents gradually develop survival strategies to reduce these differences through long-term living practices, forming a peaceful cross-border living pattern.

4.2 History Background of Chung ying Street

In Cantonese, Chung means China and Ying means England or the United Kingdom.The name Chung Ying Street is an historical marker of the Second Convention of Peking, a government agreement under which China, then under the Qing Manchu Dynasty, leased the New Territories of Hong Kong to Britain in 1899[62]. Sha Tau Kok area and Chung Ying Street have a complex historical formation. It can be traced back to 1842 with the signing of the Treaty of Nanjing, Article III, where the Qing government formally ceded Hong Kong Island to Britain. Then, in 1860, the Convention of Peking and later in the same year, the Convention of Beijing, Article VI, resulted in Britain forcefully "leasing" the southern part of the Kowloon Peninsula. Further, in 1895, the British/French boundary report came into play when the French occupied Guangzhou Bay, just 210 nautical miles away from Hong Kong. The report stressed the need to have absolute control over the waters between the islands and the mainland to fully defend Hong Kong.

In response to these circumstances, Britain planned to expand its colonial territory and proposed delineating the boundaries based on suitable natural features from the Shenzhen River to Dapeng Bay. The negotiations on the extension of Hong Kong's borders took place in May 19, 1898, resulting in the signing of the "Convention for the Extension of Hong Kong Territory." The accompanying "adhesive map" outlined the proposed expanded boundaries, agreed upon by both parties. The convention specified that the extension was "leased" for a

term of 99 years, with the detailed boundaries to be confirmed after joint inspections and subsequently finalized.

The map attached to the convention clearly marked the latitudinal and longitudinal coordinates for the east, west, and south boundaries. However, the land border in the northern part of the New Territories became a focal point of dispute. After multiple rounds of negotiations and boundary inspections, in 1899, boundary markers were placed along a dried-up riverbed, effectively dividing Sha Tau Kok into "Chinese-controlled Sha Tau Kok" and "British-controlled Sha Tau Kok." Over the years, a border emerged at the land border of Sha Tau Kok, forming Chung Ying Street, which had been jointly administered by China and Britain for a century (Figure 4-1).

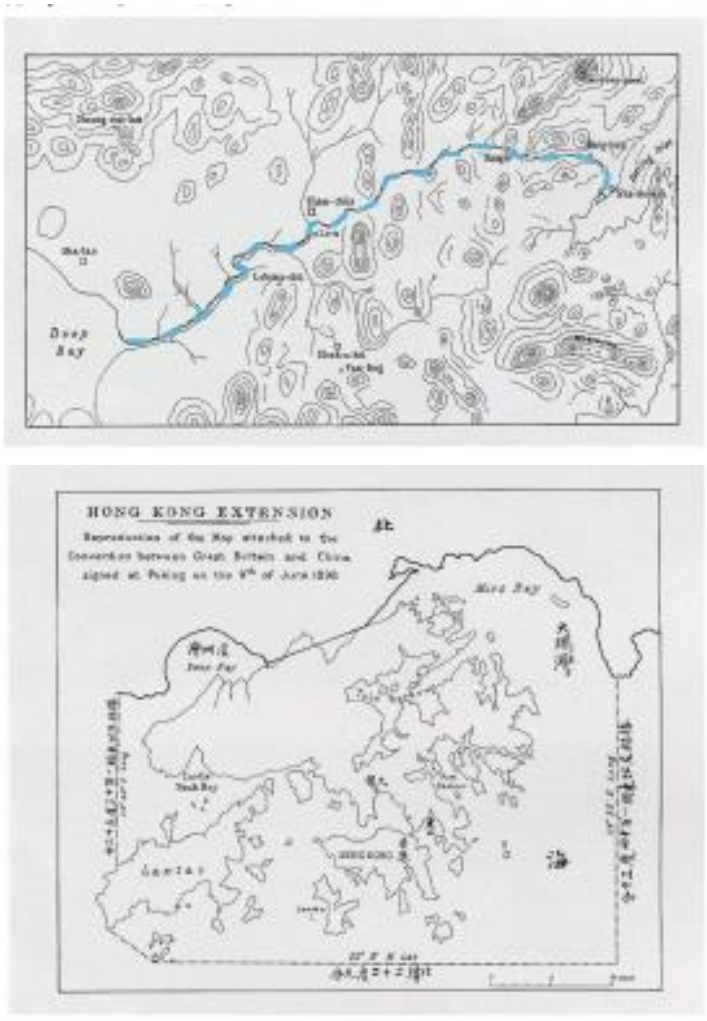


Figure 4-1 Formation of Chung ying Border Survey and Chung ying Street
（Source: Internet ）

In the evolutionary history of Chung Ying Street, particularly during the renovation period from the 1930s to the 1950s and the guidance from the Guangdong Provincial

Committee in 1959, the street underwent road construction and store renovations. In 1930, a villager named Li Xinchang from Hok Hang Village started building a row of two-story arcades, with a South Asian architectural style, beginning from a banyan tree near Boundary Pillar No. 4 to Boundary Pillar No. 5. The second-floor corridor provided a view of the shops on the New Territories side. This section of the street with arcades was called "Youchang Street." Shortly after, following the direction of Boundary Pillar No. 3, eight large tile-roofed houses were built, which later became Xin Hua Bookstore and a complex of eight shops for Xin Xin Apparel Store. In 1956, a merchant from Wah Gate set up a store on Chung Hing Street in Sha Tau Kok. In 1958, during the Great Leap Forward, the government initiated a reform of the privately owned Sha Tau Kok stores, expanding and transforming them into the only state-owned store and a county-level enterprise in Chung Hing Street, named Sha Tau Kok Comprehensive Store. In 1959, the Guangdong Provincial Committee issued guidance to "renovate and develop industry and commerce in Sha Tau Kok." Chung Hing Street began the work of road construction and store renovation [63] (Figure 4-2).

Subsequently, during the land reclamation stages from the 1980s to the 2000s, the area of Chung Ying Street continuously expanded (Figure 4-3). Simultaneously, due to the establishment of the Guangdong Provincial Cultural Relics Protection Unit in 2002, restrictions on construction projects around cultural relic protection units were gradually enforced. These restrictions included controlling building heights, prohibiting activities that would adversely affect the historical appearance of the cultural relic protection units, and requiring approval from the relevant cultural relic administrative departments for construction projects within the controlled zone of cultural relic protection units. In addition, in 2021, Shenzhen's protected units also put forward a series of protective requirements, including prohibiting the storage of flammable and explosive materials, prohibiting construction activities unrelated to the protection and display of cultural relics and cultural heritage, and generally prohibiting underground excavation within the controlled zone of the cultural relic protection units. These requirements aimed to protect the cultural relics and ensure that the environment and appearance remain unaffected, ensuring the safety and preservation of the cultural relics in their original state.

Figure 4-2 Display of Chinese and British historical photos
(Source: Author's illustration)

Chung Ying Street underwent adaptive evolution during its historical periods, and significant transformations were also brought about by government and institutional interventions. The dynamic changes in the three-dimensional growth of the street included aspects such as grid organization, vertical growth, and composite regeneration. Additionally, in the process of population aggregation and community formation, the evolution of Chung Ying Street was influenced by various factors, forming a complex community pattern. This pattern encompassed the intertwining and cross-influence of various functional entities, including colorful arcades, commercial complexes, police stations, restaurants, shipyards (abandoned), and train stations (abandoned). However, with modern development and restrictions imposed by bilateral policies, the street's morphological order gradually became disordered, the distribution of businesses became uneven, and the architectural appearance gradually deteriorated, presenting a state of chaos.

As a part of the Shenzhen-Hong Kong boundary, Chung Ying Street originated from the historical event of the British occupation of Hong Kong in the late 19th century and the subsequent leasing of the New Territories. Since then, it has become a regional boundary separating two major political camps. However, since the reform and opening-up, the nature, status, and socio-economic structure of Chung Ying Street have undergone fundamental changes. Particularly with the development of the market economy and tourism functions of Chung Ying Street, it has profoundly affected the daily life practices and living space of residents on both sides. Furthermore, Chung Ying Street is within China's unique "One Country, Two Systems" framework, implying that border residents, on the basis of the same national identity, have experienced the impacts and challenges brought about by the different developments of China, Britain, and Hong Kong. The life practices of Chung Ying Street residents provide unique material for border studies, further confirming the diversity and complexity of borders. Borders have never been clear-cut linear dividing lines. From the early perception of borders as dividing lines between territories and different political entities to the present view of borders as the product of various social practices and discursive negotiations, it reminds us that we need to study borders not only as what entities they are but also as how they are perceived, understood, experienced, and utilized as political and social resources [64].

4.3 Overview of Site Status

Chung Ying Street is located at the junction of Sha Tau Kok Street, Yantian District,

Shenzhen, Guangdong Province, China, and the Northern District of the Hong Kong Special Administrative Region. It is situated with its back to Wutong Mountain and facing the southern end of Dapeng Bay (Figure 4-3). Originally named "Lu Yu Jing," it was formed by the siltation of a small riverbed flowing from Wutong Mountain to Dapeng Bay. It is approximately 250 meters in length and 3 to 6 meters in width. Chung Ying Street is divided into two parts, connecting Sha Tau Kok in Yantian District, Shenzhen, and Sha Tau Kok in the New Territories, Hong Kong. The eastern side belongs to Shenzhen, while the western side belongs to Hong Kong. The "Boundary Stone" serves as the division in the center of the street, and a pass is required to enter Chung Ying Street, hence the nickname "Special Zone within a Special Zone."

In 1937, a major typhoon struck the area, causing almost complete destruction of the shops in Donghe Market. After the Second Sino-Japanese War, the area underwent reconstruction, and six streets were newly built, forming the intersections of Qiaotou Street, Hengtou Street, Shatou Street, Haibang Street, and Chung Ying Street. The Hong Kong region is located on the southwest coast of Chung Ying Street, separated from the intersection of Shenzhen and Hong Kong streets by a drainage ditch, the original outlet of Sha Tau Kok River. The railway leading to Chung Ying Street, constructed in 1911, created a street intersection at Chung Ying Street and was named Cheping Street, approximately 20 meters in length. On both sides of the streets where Shenzhen and Hong Kong intersect with Chung Ying Street, there are fewer commercial shops, and most of the buildings are mainly used as residences.

Currently, the spatial structure of Chung Ying Street's market area exhibits a narrow linear characteristic, with limited open space and dense commercial buildings. Unlike traditional urban center market areas, Chung Ying Street's market area has not formed a mesh-like spatial structure. Residential buildings on the Shenzhen side will retreat at the street intersections and historical and cultural gathering points. Therefore, in addition to the entrance square of the street, three open spaces have been created within the street, located near Boundary Stones 2, 4, and 6. By the 1930s, over 50 connected shops were formed along the boundary line, including wholesale and retail businesses such as sea salt and rice, seafood, and dried fish, as well as handicraft workshops such as brewing, shipbuilding, and carpentry, and service industries like hairdressing, pawnshops, and inns. The commercial street concentrated on the boundary line due to the border effect is the prototype of Chung Ying Street. Currently, most of the buildings on the Shenzhen side of Chung Ying Street are

commercial complexes, including shopping malls and arcades, representing typical commercial or mixed-use buildings. The arcades serve as a transitional expression of the transitional space. Originally, most residential buildings in Shenzhen did not have commercial functions on the ground floor, but through commercialization transformation, the ground floor spaces have generally been converted into commercial shops. Meanwhile, shops on the Hong Kong side are mostly independently constructed small and low-rise houses. The comparison between the two sides has created completely different architectural forms and street appearances (Figure 4-4).

Figure 4-3 Location of Chungying Street
(Source: Author's illustration)

Regarding the current state of the architecture in Chung Ying Street, several characteristics can be summarized as follows:

1. Multiple Revisions: Over a span of three decades and through various rounds of alterations, the present appearance of the street's architecture no longer reflects its original form. The initial appearance can only be glimpsed through preserved precious photographs.

2. Architectural Features:

Construction Era: Visually, the current buildings were primarily constructed in the mid-to-late 1980s, ranging from low to mid-rise structures (2-6 stories).

Uneven Exterior: The exterior appearance is uneven and lacks unified planning and design, resulting in a disorderly and chaotic impression.

Unauthorized Constructions: Many unauthorized constructions and irregular additions have taken place, contributing to a disorderly and haphazard appearance.

Imbalanced Urban Development: The urban development on the two sides of Chung Ying Street is uneven. On the Chinese side, the buildings are mostly multi-story, creating a sense of bulkiness on the relatively narrow street. However, setbacks are commonly seen in the upper levels, and areas closer to pedestrians often undergo commercialization, mitigating an excessively imposing atmosphere. On the Hong Kong side, buildings are mostly single-story, maintaining a better sense of proportion, but often with compromised construction quality.

Figure 4-4, Building Type
(Source: Author's illustration)

The main historical buildings in the central section are several "qilou" (arcades) (see Figure 4-5). The first "qilou" is located between Boundary Markers 4 and 5, facing Youchong Street. It was constructed in the 1930s, funded and built by Mr. Li Yongchang from the He

Keng village in the New Territories. According to historical photos from the 1930s, it has an approximate width of 5.6 meters, a depth of about 3.5 meters, and an overall depth of around 21 meters. The building has an estimated height of about 6 meters, with a preliminary structure assumption of reinforced concrete, relatively independent of the sloped-roof structure in the rear part. The front columns have prominent column capitals, and the second floor has balustrades with vase-shaped decorations, while the columns on the first floor have column bases. Currently, the front arcade still maintains its original 6-bay structure, and the original building might still exist, but on-site surveying is needed to confirm any changes in the bay data. In the rear, a 4-story extension has been added along with a new stairwell.

The second "qilou" is situated between Boundary Markers 3 and 4, built in the 1930s. Based on historical photos from the 1930s, it has a width of approximately 6 meters, spanning 8 bays. According to aerial photos and topographic maps from the 1970s, the depth is around 12 meters, and the height is about 4.5 meters, with a total height of around 10 meters. The preliminary structure assumption is reinforced concrete, relatively independent of the sloped-roof structure in the rear. The columns on the first floor have column bases, and there are advertising boards on the lateral skirting boards. Currently, the building has been converted into a 5-bay arcade, with stairwells and elevators added on each side. In the rear, a 5-story extension has been added, suggesting a possible alteration of the original second-floor arcade around the 1950s.

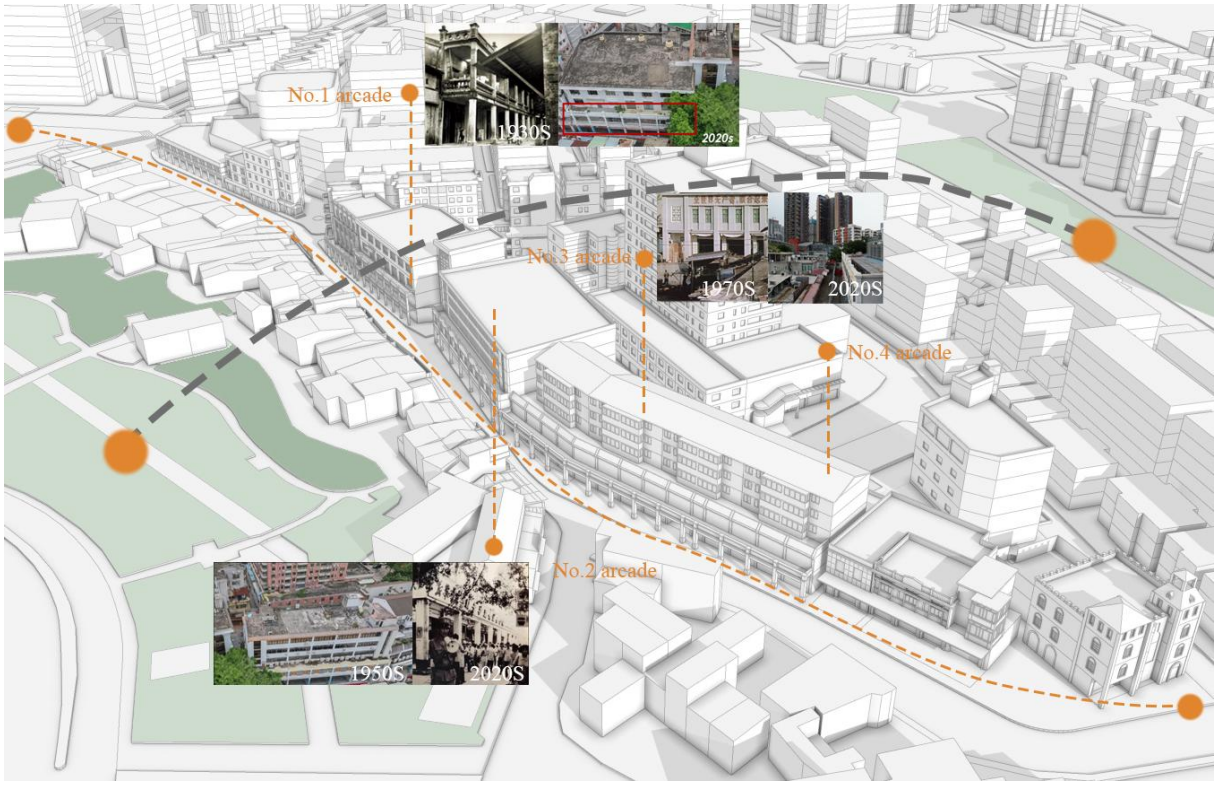


Figure 4-5 Architecture Status
(Source: Author's illustration)

The fourth "qilou" is located near Boundary Marker 3, at the intersection of Chung Ying Street and Sha Tau Kok Road, and was initially built in the 1950s. Based on perspective relations from historical photos, the width of the bays on both sides is approximately 3 meters, while the central bay is around 4.2 meters wide. According to aerial photos and topographic maps from the 1970s, the depth is about 9 meters. The building has a height of about 4.5 meters, with a total height of approximately 10 meters. The stairwell features a lattice window design, and the facade is primarily characterized by vertical lines, combined with decorative bands reflecting the era's slogans. Historically, the facade of this building underwent changes in the 1950s, 1960s, and 1970s. In the 1950s, it was connected to eight adjacent large tiled houses near Boundary Marker 3, creating a total of 19 bays (excluding later additions of stairwells and elevators).

4.4 Community Structure Analysis

4.4.1 Community History and Current Status quo

Since the Qing Dynasty, the residents in the Sha Tau Kok area have been primarily Hakka people, and they have lived here for more than 300 years. After the local people settled in the area, to commemorate the hardships their ancestors endured during migration, the constructed Hakka ancestral temples became important venues for clan council meetings and gatherings. Fishing operations at sea were fraught with unpredictable natural conditions that endangered lives and property. Therefore, the original residents of Sha Tau Kok built the Tin Hau Temple and the Ng's Ancestral Hall. These two buildings are important historical relics reflecting the local customs and traditions.

Simultaneously, Chung Ying Street was a fishing village characterized by small-scale agriculture, salt production, and fishing, primarily led by the Wu family, a Hakka clan. Around 1835, the area rapidly developed into an important supplier of grain and essential commodities for Shenzhen. The revenue from the market became a significant economic source for the residents of Sha Tau Kok. However, with the appearance of the boundary line, the lives and economic activities of the Sha Tau Kok residents had to adapt to this change. Firstly, essential daily resources like wells and the Tin Hau Temple for religious beliefs were located in Shenzhen. New Territories Sha Tau Kok residents had to cross the border into

Shenzhen for fetching water and worship. Conversely, some land in Sha Lan Ha village was assigned to the New Territories, and the residents of Sha Tau Kok Town in Shenzhen had to cross the border to cultivate land and fish in the New Territories. Secondly, due to the inclusion of Chung Ying Street in Shenzhen, and to avoid cumbersome customs procedures and tariffs, which might convert everyday economic transactions into imports and exports, some shopkeepers in Shenzhen relocated their shops to the boundary line. Despite the division of Sha Tau Kok by the border into Shenzhen and the New Territories, both sides of the border were not subject to too many restrictions. There were no border management checkpoints at the time. Besides customs inspections for goods coming in and out, residents on both sides could still visit each other, trade at the market, conduct marriage activities, and other daily life events without significant hindrance.

After the founding of the People's Republic of China, for political considerations and to curb illegal immigration and other cross-border criminal activities, both Guangdong and Hong Kong decided to block the border. In 1950, the British Hong Kong government enacted the "People's Control of Entry Regulations," beginning to restrict the free movement of Chinese residents into and out of Hong Kong. Subsequently, in 1951, the "Border Closure Area Order" was enacted to establish a border exclusion zone in the northern New Territories, which included Sha Tau Kok. The Guangdong Provincial Government also promulgated the "Regulations on the Management of Travelers between Hong Kong and Macau" in 1951 and the "Interim Implementation Measures for the Management of Travelers between Guangdong Province, Hong Kong, and Macau" in 1954, with the border defense unit responsible for duty in the Sha Tau Kok border exclusion zone. The impact of the border blockade brought significant changes to the lives and economic activities of Sha Tau Kok residents. In daily life, Shenzhen Sha Tau Kok residents needed to show identity documents for crossing-border operations such as farming and transportation, while residents outside the town needed to obtain the "Sha Tau Kok Border Exclusion Zone Pass" for entry. Residents of the New Territories Sha Tau Kok village needed to apply for border exclusion zone passes regularly and required sponsorship from local residents for visiting relatives. As cross-border trade increased, customs, border inspections, foreign trade, and other departments introduced the "three fives" rule for Shenzhen residents carrying goods into Hong Kong: a limit of five times per month, each time not exceeding 5 kg in weight, and goods valued at no more than 5 yuan. In terms of economic activities, the border blockade exacerbated the trend of shops concentrating at the boundary line. In the 1950s, as China implemented land reform and agricultural collectivization, it stimulated the production enthusiasm of Shenzhen Sha Tau

Kok residents. Agricultural and sideline products were abundant and inexpensive. The shops in Shenzhen's Chung Ying Street mainly sold agricultural products such as rice, vegetables, and meat to the residents of the New Territories. New Territories Sha Tau Kok residents brought "western-style" and "foreign goods" from the Hong Kong market to Chung Ying Street, where they operated businesses with imported goods and sought after mainland-scarce items, such as matches, kerosene, fabric, medicines, and more. The clear contrast in the range of commodities traded on both sides of the border also indirectly reflected the differences in social structures and ideologies between Hong Kong and mainland society at the time.

Figure 4-6 Historical Elements (Source: Author's illustration)

The identity attributes of residents in the Chung Ying Street community are extremely complex. They encompass residents holding mainland or Hong Kong identity cards, as well as those holding identity cards from both Shenzhen and Hong Kong. Residents with Chung Ying Street household registration are relatively free to enter and exit Sha Tau Kok in Hong Kong, and residents of Sha Tau Kok in Hong Kong can also freely travel to the Chung Ying Street area. However, for other Chinese residents, including tourists, they can only enter the Hong Kong-controlled Chung Ying Street and cannot cross the border into Sha Tau Kok in Hong Kong. Hong Kong-controlled Chung Ying Street plays the role of a buffer zone in this process (Figure 4-7). Despite this, over the long history of development, residents on both sides have still formed a border community that shares border space and resources.

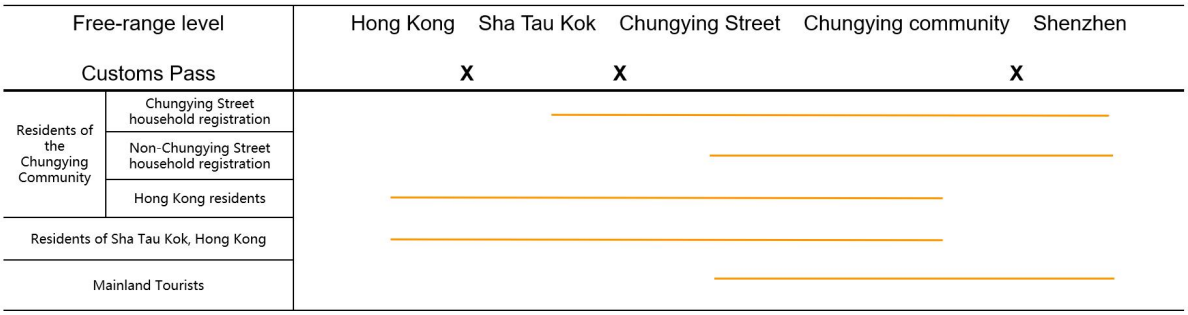


Figure 4-7 Restriction of identity attributes on the range of active space
(Source: Author's illustration)

4.4.2 Community Structure and Street Structure

The daily life practices of border residents are profoundly influenced by the border in a dual manner. On one hand, the border acts as a physical barrier, restricting the residents' freedom of movement. On the other hand, the geographical location of the border provides abundant opportunities and resources for the residents. The daily life practices of different communities interact with the structure of Chung Ying Street, particularly where the practices of economically disadvantaged communities are often influenced or even assimilated by those of economically strong communities. Analyzing the daily life practices of residents and the role of the structure in community integration can provide in-depth insights into the impacts and influences of political, economic, social, and cultural aspects from both sides of the

border on the daily life practices of residents in the Chung Ying Street area.

To this end, this study conducted targeted in-depth interviews, specifically seeking individuals who have lived in the Chung Ying Street area for an extended period and have been actively involved in and influenced the development and changes in the Chung Ying Street area. The purpose of these interviews was to understand in detail the impact of border changes on residents' daily life practices in the Chung Ying Street border area. Additionally, interviews were conducted with other groups, including the indigenous residents of Sha Lan Ha Village, new residents who moved to the Chung Ying Street area after the 1990s, workers and laborers in the Chung Ying Street area, waterborne travelers active in the Chung Ying Street area, and ordinary tourists. These interviews varied in duration, ranging from 0.2 to 2 hours. Furthermore, field investigations were carried out on the commercial facilities in Chung Ying Street and the living facilities in residential areas, aiming to provide a multifaceted perspective on the authentic Chung Ying Street area from various groups and different spatial landscapes.

During Mr. Ng's childhood in the 1950s and 1960s, he remembers that the residents of Sha Tau Kok received more cloth and rice coupons than residents in other areas, as they lived on the "border," and the Chinese government was concerned that the residents of the town might escape. Meanwhile, 62-year-old Cheng Siu-fai has to undergo strict security checks to work at a state-owned department store on the mainland side of Chung Ying Street. He describes, "In our shops here, we have products that are scarce in the inland, like bicycles and electric fans." However, mainland residents cannot enter this store, operated by the mainland government but open only to Hong Kong customers. Cheng and his colleagues patrol the border with firearms during the day. He recalls, "The atmosphere becomes more tense during holidays." He adds that Kuomintang agents once chose to act during the holidays on mainland facilities. "There were radio warnings of approaching enemies, but I never knew if the warnings were real," he says.

In 1980, the area around Sha Tau Kok (then called Bao'an County) was renamed Shenzhen and became the first special economic zone in the country. By the 1980s, Hong Kong's industrial development had progressed to the point where manufacturing could expand northward. Researchers pointed out that cultural and popular products such as pilot sunglasses, bell-bottom pants, and Cantonese pop songs changed the culture and trends of the mainland. He cited another example: "Time is money," a slogan promoted in the Shekou Industrial Zone in Shenzhen.

However, the prosperity of Chung Ying Street has gradually faded. The 82-year-old gold dealer quietly watches the people in the store. Recalling the street's prosperous past, even though the competition was fierce, there would be a continuous flow of people every day. But now, although his store is one of the few gold dealers still operating on the Hong Kong side, his customer numbers are less than half of what they used to be. Worse, the street is filled with counterfeit products and gray market traders who purchase products from the street and then sell them at a markup elsewhere. Due to customs restricting the tax-free allowance for each shopper, these traders transport goods in small quantities off the street, as described by Wu Ngan-ta, "like ants moving house." A visitor from Shanghai remarked, "To be honest, if not for shopping, because the street is too short, there is nothing much to see." She said she heard about the street from a high school history teacher.

At one end of the street, construction workers are renovating the Chung Ying Street History Museum, next to a giant bronze bell. Every year on the anniversary, the bell rings, reminding people on both sides not to forget the "humiliating" moment. The greatest value of this street lies in its numerous historical relics, which vividly demonstrate the traces of integration among different communities at the border.

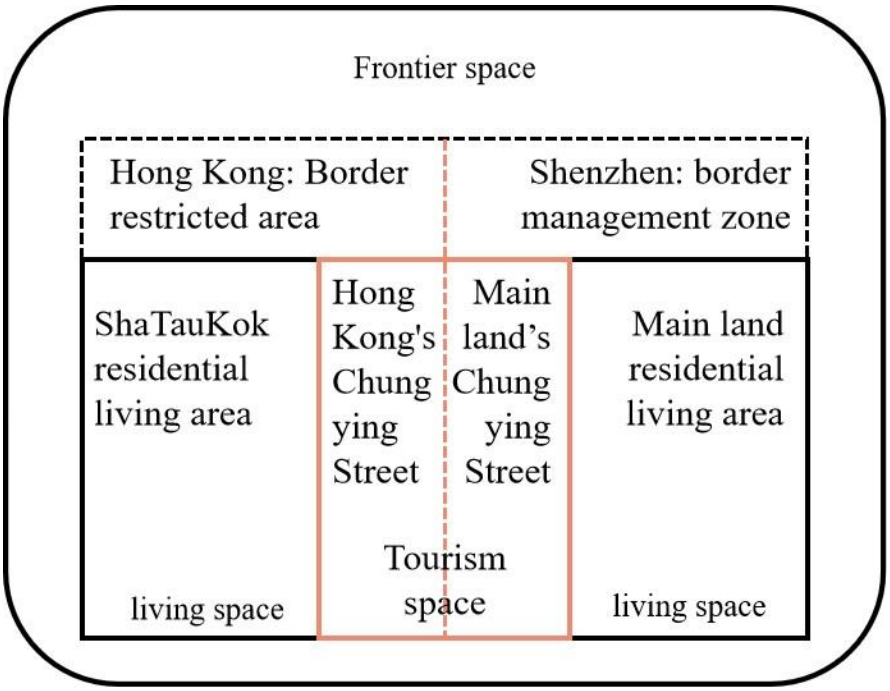


Figure 4-8 Daily living range of the residents
(Source: Author's illustration)

The daily life practices of border area residents and their interaction with the border (Figure 4-8), as well as how this interaction drives the reconstruction of cross-border living

spaces, highly depend on the existing structures of the community. Specifically, for community structures that rely on cultural context attributes, form integration, and possess endogenous growth space, the original community structure significantly influences community integration and exhibits forces and counterforces in the interweaving of actions. The community constitutes the premise and intermediary of actions, enabling various actions to be realized; meanwhile, the actions of individuals both maintain the existing structures and modify these structures in the process. The integration, from the fusion of cultural backgrounds in Chung Ying Street to the fusion of path interweaving, clearly has profound effects on community construction. Therefore, for Chung Ying Street, the formation of a semi-fused community resulting from the integration of people from different cultural backgrounds is crucial. Establishing community structures that integrate population structures based on cultural context attributes and have endogenous growth space, particularly street structures, becomes exceedingly necessary.

4.5 Street Structure Analysis

Since the demarcation of the border in Chung Ying Street, its functions have responded to the main social contradictions of different historical stages, presenting multiple levels of border functions. In the initial stage, based on the dominant daily life needs of border area residents, they utilized the intertwined state of judicial jurisdiction blurred by the border line and spontaneously formed a "third zone" with economic activities as the mainstay. This situation allowed residents on both sides to meet their daily life needs without challenging the authority of the border managers. The border managers understood and tacitly approved of this state, and there was not much intervention. Therefore, the border primarily played a permeation effect function, facilitating the smooth economic activities in the "third zone." However, this permeation effect was limited to the border area residents within the border control zone, while other groups were strictly isolated outside the border control zone.

Figure 4-9 Existing Site pattern
(Source: Author's illustration)

With the establishment of the People's Republic of China, influenced by factors such as the widening economic disparity between Shenzhen and Hong Kong, as well as the Cultural Revolution within the country, social contradictions on both sides of the border gradually escalated to the economic and political levels. Particularly, the areas around Shenzhen, such as Sha Tau Kok, Yantian, and Meisha, witnessed a phenomenon of people attempting to illegally cross to Hong Kong through Chung Ying Street. At this point, the function of the border shifted to a screening effect to cope with the wave of villagers attempting to flee to Hong Kong during this stage. According to statistical data from Sha Tau Kok, from the liberation of Sha Tau Kok town in 1949 to the end of 1978, 2,518 people fled to Hong Kong, equivalent to twice the population of Sha Tau Kok town in 1978. The border transitioned from an open state to a closed state. Apart from political reasons, this shift was also related to the gradually emerging and widening socioeconomic development gap between the two sides of the border. This development gap was a significant driving force behind cross-border population movement, as people sought a better life. However, this behavior disrupted the peace of the border area and challenged the authoritative status of border managers. Therefore,

the border was sealed, and border authorities increased the intensity of border management to prevent the free movement of people. The complex historical background and formation process of the border have had a profound impact on the street structure and pattern of Chung Ying Street in Sha Tau Kok (Figure 4-9).

4.5.1 Block Structure Change

（1）Block Change

Up until 1979, the total area of Sha Tau Kok in Shenzhen was only 0.09 square kilometers, while the New Territories' Sha Tau Kok was 0.12 square kilometers. With the establishment of the Shenzhen Special Economic Zone in 1980, both Shenzhen and the New Territories initiated reclamation projects, resulting in an increase in the area of Sha Tau Kok in Shenzhen to 0.166 square kilometers and the expansion of Sha Tau Kok in the New Territories to 0.167 square kilometers. In this evolving process, we can summarize three stages of spatial expansion in the Chung Ying Street area (Figure 4-10).

Figure 4-10 Block Changes
(Source: Author's illustration)

The first stage was the reclamation and land development phase in the 1980s. Some of the reclaimed land was used for building village-funded houses, primarily for purchase by residents of Sha Lan Ha village. The second stage occurred in the mid to late 1990s, focusing

on the construction of residential developments. This phase included five residential areas covering a total area of 26,800 square meters and a total floor area of 50,600 square meters. Additionally, a small number of villas were constructed. Due to relatively low property prices at that time and easy customs access, over 90% of the buyers were residents from the New Territories. The final stage began after the 21st century, involving the construction of villa developments primarily located between Bik Hoi Road and Lam Hoi Road. The buyers in this stage were mainly from outside the area, and their motivations for purchasing varied. Some were attracted to the beautiful environment and good security in the Chung Ying Street area, while others sought to take advantage of the border attributes of Chung Ying Street for activities such as smuggling and tax evasion. In the 1980s, a state-owned enterprise, Sha Tau Kok Tourist Company, obtained a large area of reclaimed land. Many of the newly constructed residential developments were invested in by this company. In reality, the primary business sector of the Sha Tau Kok Tourist Company was real estate. These developments illustrate that in the process of spatial expansion in the Chung Ying Street area, the integration of communities was also influenced by externally-driven changes in street structures.

（2）Structural Analysis

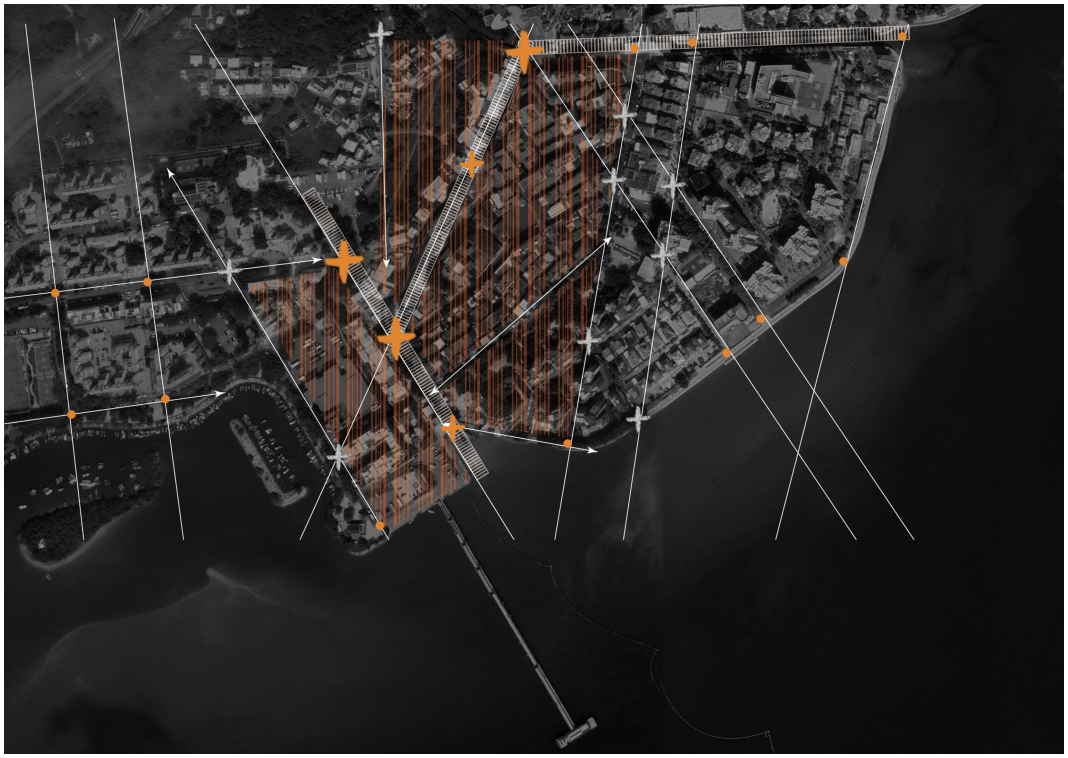


Figure 4-11 Structural Analysis
(Source: Author's illustration)

The street organization in Chung Ying Street is of a compound type. The main streets act

as major routes connecting Hong Kong and the mainland, while secondary roads extend in a tree-like fashion from the main arteries into residential areas (Figure 4-11). The street organization in Chung Ying Street is primarily influenced by geographical factors and external influences. The area is located along the bay and is close to the extensive hilly terrain of Sha Tau Kok. The complex topography has led to homes being built along the hillsides and close to the water (Figure 4-12). In addition to political and geographical influences, a natural street system based on the mountain and water pattern has evolved over time. In this complex cultural context, the integration of different communities is constrained by the street structure, resulting in a densely populated and intricate spatial layout in the region. Major traffic routes converge here, making the area around Chung Ying Street to Tai Peng Wan Line the most active part of the entire Sha Tau Kok area. However, due to the constraints of the street structure, access to green spaces and public areas in residential areas is very limited for visitors. Today, the street and lane layout in Chung Ying Street still retains its ancient features, although it has undergone multiple changes and renovations, altering the appearance of the old streets. Many of the buildings in the old streets are aged, and due to prolonged exposure to the elements, they appear weathered and dilapidated. The architecture is diverse and exhibits various styles, resulting in a diverse and somewhat chaotic appearance of the street facades.

Figure 4-12 Structural Analysis
(Source: Author's illustration)

In terms of the scale of the streets, only Chung Ying Street has a certain spatial scale, while the roads extending to Hong Kong and Shenzhen appear relatively narrow due to obstruction or visibility issues. Additionally, the streets in the residential areas are narrow and not suitable for vehicle passage. In some areas, this impedes the residents' normal mobility. Therefore, the street space in Chung Ying Street is relatively narrow, displaying a distinct sense of spatial demarcation, making it easy for people to perceive its spatial capacity and architectural facade details. With the increasing number of self-built houses, the housing density in this area has become too high, causing difficulties in entry and exit, resulting in congested streets where many residents can only travel on foot. At the same time, environmental hygiene conditions also need improvement. Based on these issues, the street structure urgently needs to be addressed and improved.

Figure 4-13 Structural Analysis
(Source: Author's illustration)

4.5.2 Block Structure and Landscape Space

Based on the previous discussion, we can further analyze the street structure of the Sha Tau Kok area and extract structural lines (see Figure 4-13). By utilizing these important structural axes, we can seamlessly reconnect the street clusters of Chung Ying Street in different areas. Furthermore, based on the description of the community situation earlier, we

noticed a lack of significant scenic nodes in the area, leading to a weaker perception of public spaces. However, the inadequacy of public spaces can hinder the harmonious integration between different communities. Therefore, determining the locations of scenic nodes is crucial, as they can guide community members into public spaces and disperse throughout various areas along the paths, effectively promoting crowd movement. With the flow of people, the placement of scenic nodes and public spaces can stimulate the regeneration and improvement of street structures. Therefore, based on the analysis in the diagram (Figure 4-14), we can conclude that the intersection of scenic nodes with the street network helps facilitate community integration. Through the analysis above, it is evident that landscape spaces are not only an essential component of public spaces but also have positive diffusion effects, potentially playing a significant role in promoting community integration.

Figure 4-14 Node Divergence Analysis
(Source: Author's illustration)

4.6 Analysis of Serial view

4.6.1 Landscape Composition of Chung ying Street

Regarding the landscape composition in the Sha Tau Kok area, the distribution of green spaces in Figure 4-14 indicates that the overall area hasn't fully utilized its geographical

advantages of being surrounded by hills and water to create effective landscape connections. Large expanses of forests and reclaimed land are primarily concentrated on the left side of Chung Ying Street in Sha Tau Kok. However, due to policy restrictions related to Chung Ying Street, accessibility is hindered in this area, resulting in relatively weak community connections and a disjointed street structure. On the mainland side, there's potential to free up more space for better design and integration of pathways, although the green space in residential areas is relatively small.

Chung Ying Street, as the main tourist attraction, is a vital node for connecting the surrounding areas and should be an active public space. However, the analysis indicates that these two parts are not the most integrated in the ancient town, with relatively low selectivity compared to the riverbank. This suggests that the current road planning in Sha Tau Kok somewhat limits the activity in these two areas. Combined with the structural line extraction in Figure 4-12, it is recommended to strengthen the planning of Chung Ying Street's streets, enhance the connectivity between clusters, improve spatial permeability and accessibility, guide foot traffic towards the most attractive spots, and maximize the utilization of historical resources.

Figure 4-15 Chung ying Street landscape green space composition
(Source: Author's illustration)

For public spaces closely connected to the landscape, there is a lack of complete functional alignment, resulting in limited interaction between the space and people. This deficiency hinders pedestrian guidance within the landscape space and sequence. Therefore, it is recommended to optimize the proportion and placement of landscape elements to enhance the comfort, enjoyment, and social integration of pedestrian activities. Adjusting the sequence of landscape elements to meet people's needs is also advised. During walking processes, individuals will actively or passively choose and utilize landscape facilities, and the scale and proportion of landscape elements can significantly influence these preferences. Hence, a broader adjustment of the landscape composition in Chung Ying Street is warranted.

4.6.2 Existing Landscape Sequence

The planning of landscape spaces should emphasize the rational division and functional arrangement of different types of spaces to meet the needs of diverse communities. The design of landscape space sequences should be based on the varied needs of people, achieved through the proper organization of landscape elements and optimization of space layout to enhance the perceived quality and accessibility of the space. This aims to guide the flow of people, enrich social activities, and increase the liveliness of the space. Chung Ying Street, as a major tourist attraction, should become an active public space. However, the current analysis suggests that these two parts are not the most integrated in Chung Ying Street (Figure 4-15), indicating a relatively lower level of selectivity. This suggests that the current road planning in Sha Tau Kok to some extent limits the activity of these two areas. Therefore, the street planning of Chung Ying Street should emphasize strengthening the connection between clusters, improving spatial permeability, enhancing accessibility, and providing greater choice for people, enabling them to be guided to the most attractive attractions to maximize the utilization of historical resources.

For both public spaces and landscape spaces, they are fundamentally interdependent, but they have not yet received complete functional alignment. There is a lack of effective interaction between space and people, and the landscape spaces and sequences lack guidance for pedestrian behavior. The comfort and enjoyment of walking activities are greatly affected due to the mixed sequence of landscape elements. During actual walking processes,

individuals will actively or passively choose and utilize landscape elements. Different communities will seek suitable landscape facilities in the environment based on their own needs, and the scale and proportion of landscape physical elements will also influence people's choices. However, the disorder in the landscape of Chung Ying Street highlights various problems. For example, the lack of enclosed landscape spaces prevents people from experiencing relatively quiet and private social activities, while the lack of openness and visual permeability of the landscape spaces restricts dynamic and collective activities of the community. This also prevents the formation of dynamic and static zones in the landscape sequence. To improve these situations, detailed planning should be carried out for landscape spaces to ensure that they meet the needs of different communities. Properly dividing landscape spaces, optimizing layouts, and designing appealing landscape elements help enrich spatial experiences, guide pedestrian flow, and facilitate social interactions. Emphasizing the order and organization of landscape spaces, connecting them with street structures, can create more attractive, comfortable, and vibrant public spaces, promoting the overall liveliness of the area and the integration of communities.

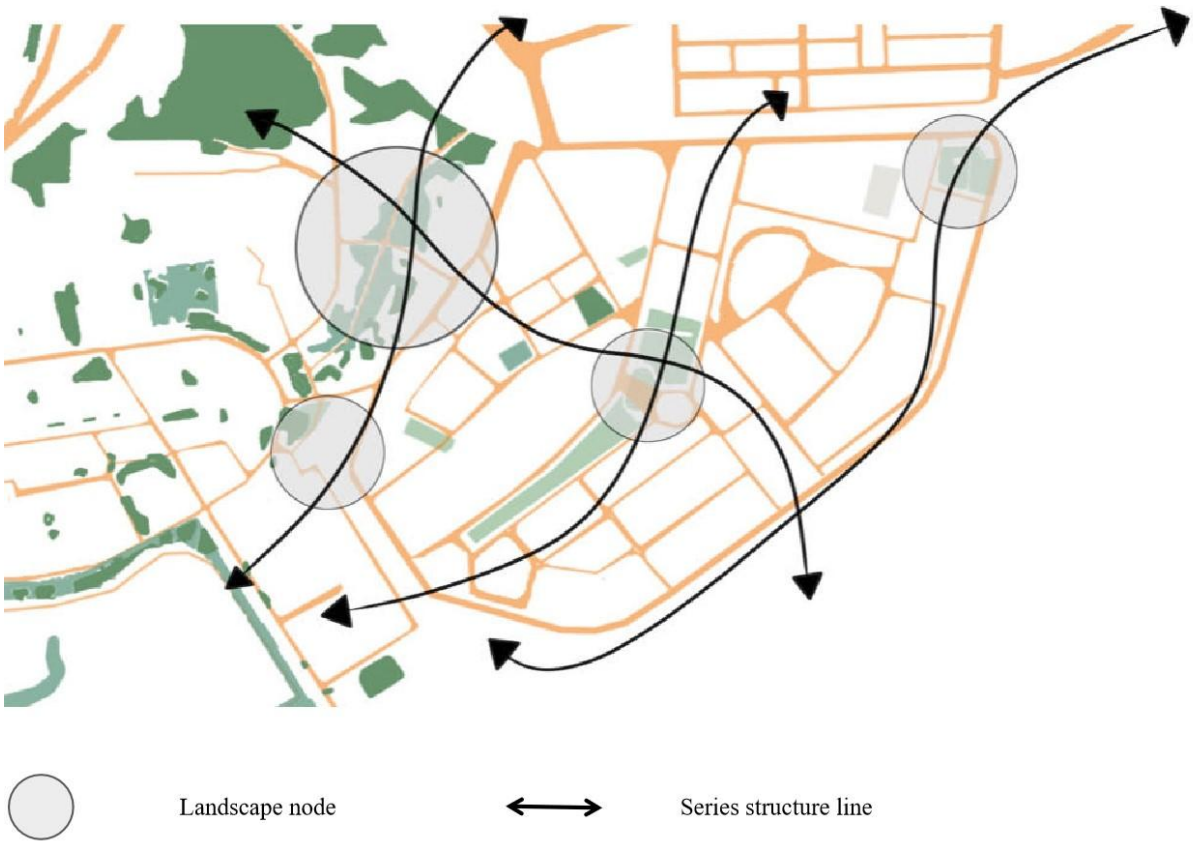


Figure 4-16 Landscape Structure and Node Generation
(Source: Author's illustration)

Through the in-depth analysis in the previous sections, it is evident that human psychology and emotions have a far-reaching impact on the experiential aspect of Chung Ying Street's landscape, surpassing the role of sensory stimulation. Moreover, this influence has a more lasting effect. The organized sequence of landscape ambiance endows the landscape space with a structured directional feature, enhancing the rhythm and cadence of the walking experience. Building upon this understanding, a reevaluation of major landscape nodes was conducted, delving into the visual focus of these nodes from the perspective of environmental psychology. In doing so, elements were identified that could resonate culturally and emotionally with the community, aiming to facilitate a specific design approach for these elements. The goal is to foster a sequential interaction between the community and the ambiance of the landscape, thus collectively shaping the overall perceptual impression of the Chung Ying Street landscape sequence.

4.7 Chapter Summary

The purpose of this chapter is to comprehensively expound on the fundamental overview of Chung Ying Street. Firstly, it provides background information about Chung Ying Street, establishing a foundation for subsequent analysis. Following this, it traces the historical development of Chung Ying Street based on a chronological approach, placing special emphasis on historical buildings and connecting them to the research theme of this paper. Subsequently, in conjunction with historical context and on-site survey results, a detailed exposition and in-depth analysis of the geographical location and positioning characteristics of Chung Ying Street are presented. The evolution of street structure is examined, revealing the causes of the current state and identifying crucial structural elements. Concurrently, in alignment with the current status of community integration and insights from various interviewees, this chapter lays the groundwork for the subsequent strategy guidelines.

Furthermore, this chapter conducts an in-depth analysis of the landscape spaces within the blocks. It delineates significant landscape nodes based on the interplay of structural networks and landscape spaces, anticipating their pivotal roles in the subsequent chapters. By interconnecting these landscape nodes, a set of objective and actionable strategy guidelines are selected to meet the research requirements. Finally, through an analysis of these landscape

nodes, relevant strategies and guiding principles are provided for the subsequent chapter.

Chapter 5 Strategies and Guidelines of Chung ying Street

5.1 Current Demand

5.1.1 Street Structure and Landscape Space

Chung Ying Street takes on a "一" (Chinese word one in written) shaped layout, but due to varying street widths, this layout may feel somewhat constrained for tourism and sightseeing. Therefore, it is necessary to create a touring loop by integrating surrounding open spaces to enrich the street space. In terms of transportation planning, a shared street approach can be adopted, replacing the traditional separation of internal and external street blocks, promoting harmonious coexistence between the local community and external visitors (see Figure 5-1). The revamped Chung Ying Street can implement time-limited pedestrianization, prioritizing the street usage for local residents to ensure pedestrian spaces align with human scale. For external visitors, selective open touring routes can be established, restricting accessible areas through guided landscape sequences to minimize the interference of external visitors in the primary living zones. This restructuring approach aims to restore street vitality, attract more residents and visitors, invigorate the streets while safeguarding the privacy of the local community.

Simultaneously, to preserve the overall integrity of Chung Ying Street, the principle of authenticity should be upheld. Alleys, buildings, courtyards, decorative elements, landscaping, and other historical features collectively constitute the broad and narrow lanes. The information from these elements must be preserved and showcased comprehensively, encompassing protection at various levels such as streets, courtyards, buildings, and decorative details. Emphasis should be placed on maintaining authenticity, retaining the main streets as broad lanes, branches as narrow lanes, and wells as alleyways, while preserving the original appearance, spatial form, and architectural style of the historical neighborhood to the greatest extent possible.

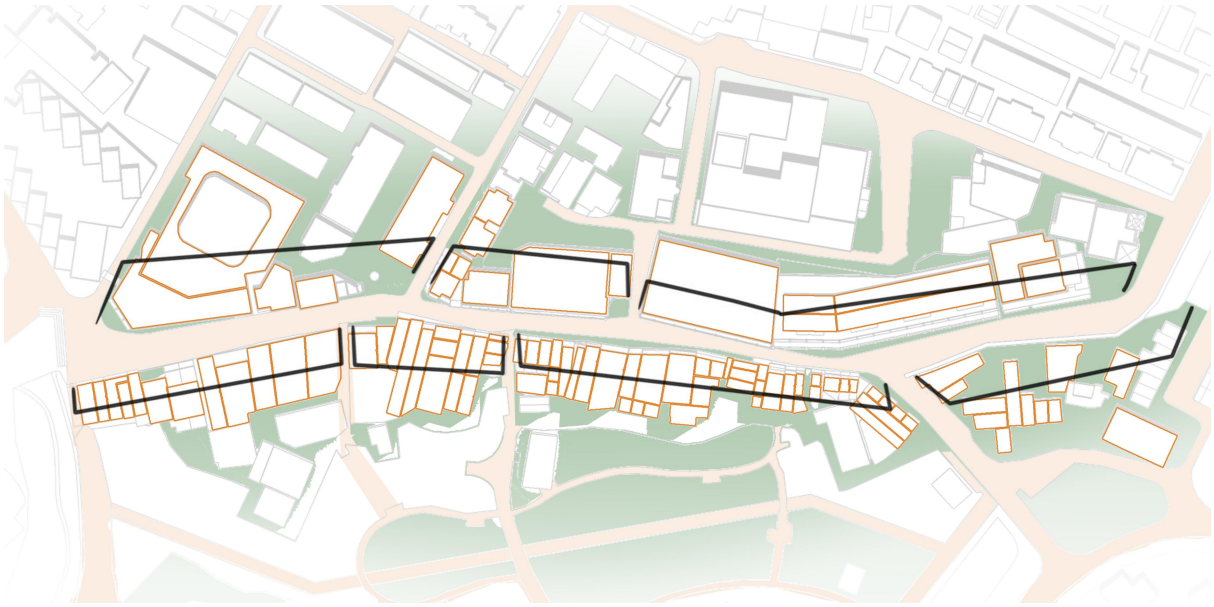


Figure 5-1 Street landscape strategy
(Source: Author's illustration)

（1）Path Organization

Regarding the route organization of Chung Ying Street, the greenway's overall spatial sequence can be classified as a traversing type (see Figure 5-2). The greenway on both sides follows an asymmetric layout along the main road, with curved spaces overlapping multiple times, presenting a sense of progression and merging. The path organization in each zone is in a locally closed state, with landscape structures and visual focal points arranged around the paths, creating a relatively cohesive and centralized space. Based on the characteristics of scenic rhythm composition, this site belongs to the free sequence type. The greenway space does not have distinct starting and ending points, providing a high degree of freedom. Each space is designed with a main attraction, serving as a climactic point in the space. Starting from different entrances, new narrative sequences of landscapes can be formed.

Figure 5-2 Pathway Organization
(Source: Author's illustration)

（2）Pathway Landscape Space

At the structural level of neighborhood spatial organization, public spaces are integrated into the existing architectural complex. In this concept, the layout of public spaces revolves around small public landscapes, with the organization of path structures centered around them. This approach helps to blur distinct spatial boundaries, stimulating interaction among people and greatly activating the value of public spaces. Considering the overall integrity of the streets, the paths of Chung Ying Street serve as the axis, connecting the two zones through open landscape spaces on side roads. Each space forms one or more spatial nodes, collectively creating an overall rhythm in the landscape.

The elongated spatial form imposes restrictions on the path organization of the strip-shaped greenway walking system. It typically presents an organizational form with a single or double parallel paths, with clear path directions and a strong spatial connectivity effect. Along the way, certain landscape spaces may be enlarged locally to form activity spaces, thus creating points, lines, and surfaces in space. Different path forms convey different spatial experiences. By weaving and breaking the boundary landscape spaces within the path (see Figure 5-3), the flow lines of the streets become smoother, allowing individuals

to experience a natural, flowing visual perception while walking. Additionally, the opening of boundaries reduces the overall shift in walking direction, creating a sense of sequence along the axis. This organized and rhythmically changing form enhances pedestrians' perception of spatial rhythm variations.

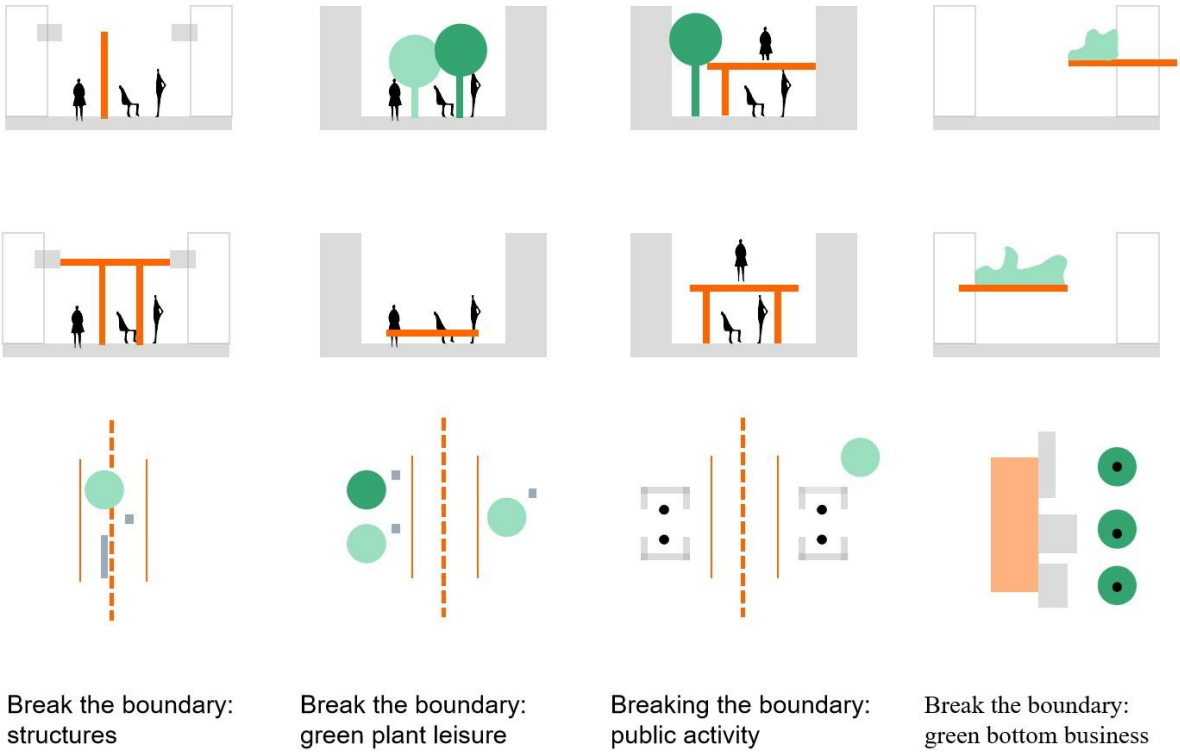


Figure 5-3 Breaking Boundary Space
(Source: Author's illustration)

The numerous issues present in the current state of Chung Ying Street can mainly be attributed to the lack of a systematically designed street landscape and relatively low green coverage. Additionally, the landscape lacks distinctive characteristics that define a sense of place. Hence, there is an urgent need for the sequential construction of the greenway landscape. The current organizational form of pathways within the green spaces is relatively monotonous, resulting in a poor experiential quality. Therefore, the transportation system requires re-planning and improvement. Furthermore, the highly energetic spaces created by the landscape construction can serve as diversified outdoor scenes, providing convenience to people and enhancing the humanized experiential feel of the space (Figure 5-4). The construction of a landscape sequence space relies on the clever use of landscapes to create a

specific atmosphere. In such an atmospherically enhanced environment, people are more inclined to linger in green spaces with rich landscape layers, thereby increasing the utilization rate of the greenway and the vitality of the space.

Figure 5-4 Landscape constitutes public space
(Source: Author's illustration)

5.1.2 Landscape Nodes drive Community Reconstruction

From a functional perspective, the landscape space is composed of public and non-public elements. Landscape space nodes, as fundamental organizational elements of the landscape sequence, form the foundational structure of the landscape space. These basic nodes are interwoven with path landscapes, constituting the entire landscape sequence. Public elements encompass spatial and human environments. In the spatial environment, we can distinguish between the interface environment and roadside environment. The interface environment primarily refers to the attribute characteristics of the space, including the organizational methods of various spaces, the presence of attractive landscape nodes within the space, the changing characteristics of the space during walking, the relationship between spatial scale and environment, and the degree of spatial enclosure. These factors constitute the fundamental aspects of spatial form and directly influence the perception of spatial sequence

during walking. On the other hand, greenery, buildings, squares, landscape features, service facilities, and more in the roadside environment play a role in filling and activating the space. Rich landscape material elements can meet diverse physiological needs in different communities. In terms of the human environment, it includes cultural ambiance and ecological communities. These elements embody the regional cultural characteristics within the space, the construction of ecological communities, and the humanized care for specific groups. Regional cultural characteristics aim to enhance the value of the place, guide the emotional needs of people as they walk through the landscape sequence, and foster a sense of identity with the space. The construction of ecological communities imposes requirements on the sustainability of the spatial environment. It needs to satisfy people's viewing needs while maximizing the influence of the landscape sequence on reshaping street structures.

（1）Community Activation

Providing personalized care for specific communities should elevate the value of the place based on regional cultural characteristics, guide the emotional needs of people as they walk through the landscape sequence, and foster a sense of identity with the space. The construction of community landscapes imposes requirements on the sustainability of the spatial environment. It needs to satisfy people's viewing needs while maximizing the influence of the landscape sequence on reshaping street structures. Therefore, in integrating the community into the context of Chung ying Street, it primarily relies on the creation of landscape square spaces to provide corresponding activity venues. However, in constructing such spaces, this article chooses to depart from the traditional form of squares. Traditional squares often lack a clear framework, have many obstacles to spatial division, and tend to overlook the functional needs of the surrounding community. Therefore, based on the premise of protecting the historical background and traditional culture of Central and English Streets, a landscape-led square space design is adopted (Figure 5-5). This design aims to construct one aspect of the landscape sequence by enhancing the accessibility and orderliness of the space, carefully designing the mixed space. This approach aims to open up the square space, avoid obstructing spatial elements in sightlines, allowing the landscape to serve as both a soft boundary and a way to define the space while maintaining openness. The landscape square

space has the function of attracting internal users, promoting community integration, while clearly defining the space and distinguishing it from other building functional bodies, ultimately achieving the goal of activating community integration.

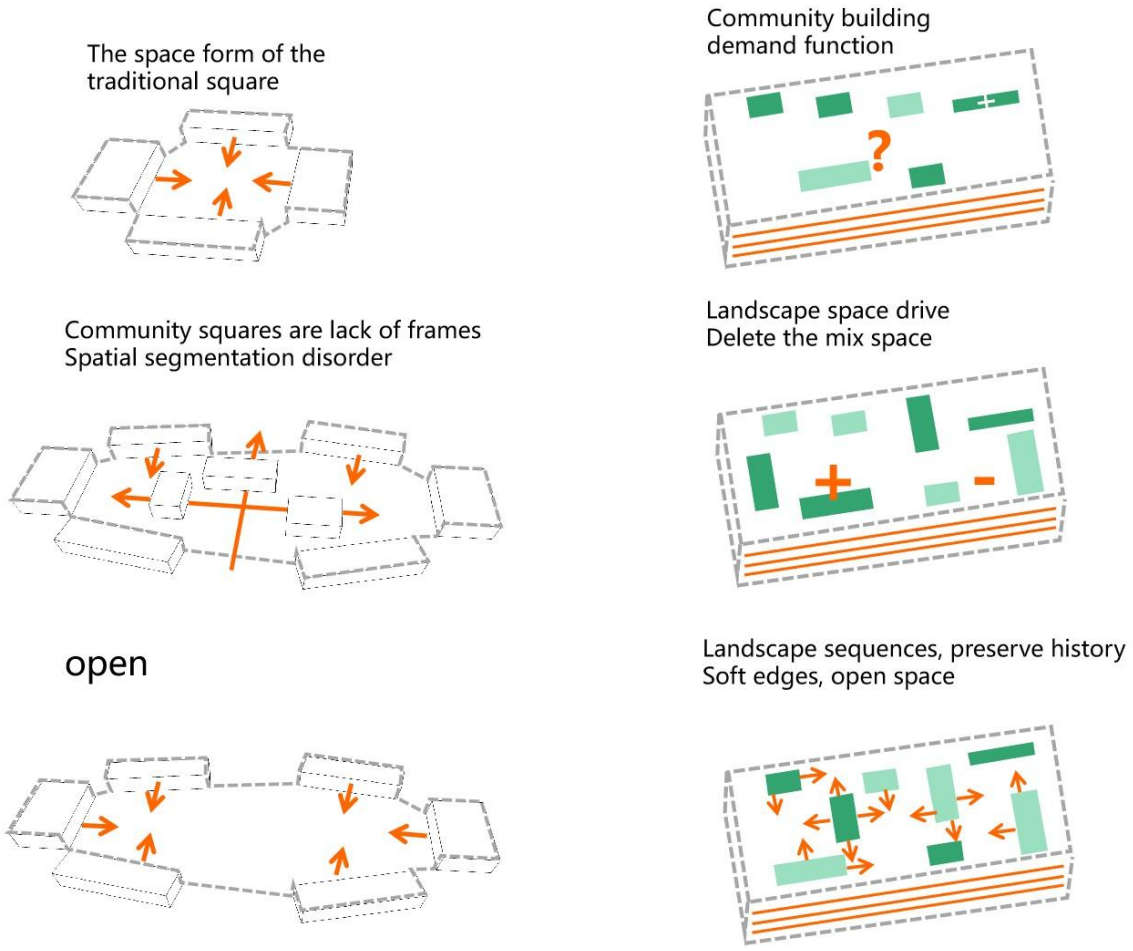


Figure 5-5 Landscape Square Public Space
(Source: Author's illustration)

（2）Community Organization

Due to the diverse cultural backgrounds of the existing residents in Chung ying Street, including Hakka culture, Anti-Japanese War culture, and Shenzhen-Hong Kong culture, the residents, whether indigenous or those who relocated later, are important participants in the changes in the street structure of Central and English Streets. Central and English Streets, with its distinct historical street features and rich community culture, reflect the abundant historical information of the district and the unique way of life of the local residents. It is closely connected to the local society's economic and cultural aspects and profoundly

influences people's production and daily life.

Therefore, in terms of functional planning, it is essential to consider the improvement of local landscape infrastructure and the connection of local residents. This is crucial to preserve the indigenous people and their unique daily lifestyle, making the streets vibrant and instilling a sense of belonging. This article envisions the ways they can engage in behavioral activities in the landscape spaces (Figure 5-6). These landscape spaces can provide possibilities for various activities for people of different age groups within the same space. By cleverly designing the landscape as separating barriers, it offers them the possibility of having both independent and inclusive spaces. We distribute such landscape features in the street structure not only to facilitate the flow of people but also to promote activities of different communities in the same area, enhance communication between different communities, and thereby organize the integration of the communities.

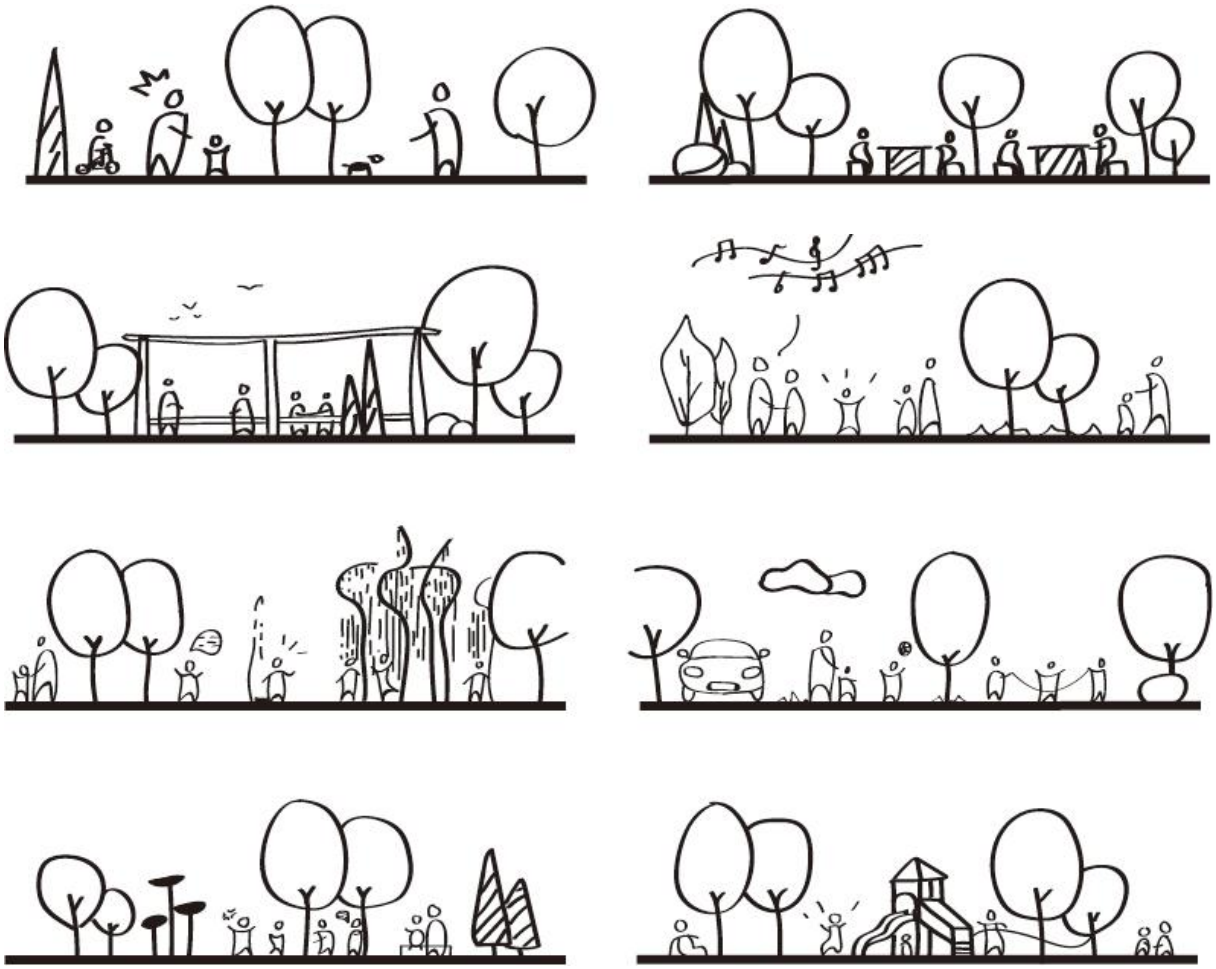


Figure 5-6 Landscape Activity Assumption
(Source: Author's illustration)

5.1.3 Community Integration Reshapes Street Structure

In the design of the connection between the community and historical spaces, emphasizing the close connection between buildings, streets, and landscapes is crucial. The purpose of this connection is to create a harmonious and coordinated overall environment, where buildings are not isolated entities but an intertwined and mutually influential part of the surrounding landscape. The design of landscape spaces needs to consider the characteristics and cultural connotations of the streets, creating a harmonious and symbiotic relationship with the buildings. Through carefully designed landscape elements such as greenery, sculptures, water features, etc., the spaces around the buildings are connected to the streets. These landscape elements should not only reflect aesthetic guidance and functional needs but also respect and embody the characteristics of street culture, maintaining the continuity and integrity of the space. Through clever landscape layout, specific parts of the street can be emphasized, highlighting their value. At the same time, landscape spaces can guide, set off, and complement the buildings, making them more attractive and expressive in the landscape. In the design process, considering the characteristics and cultural background of the streets and combining modern design concepts can achieve a harmonious integration between streets and landscapes. This integration can not only preserve the original features of the buildings but also meet the needs of modern society, creating a space environment of coexistence and symbiosis.

In the unique context of Chung ying street, which integrates various cultural elements such as Shenzhen-Hong Kong culture, resistance culture, Hakka culture, fish lantern dance, Tin Hau Temple, ancestral halls, and functional buildings, the construction of the landscape sequence adopts various composite approaches to seek common ground while reserving differences, creating a spatial experience with continuity and directionality. Focusing on the psychological feelings of the community, through the evocation of landscape mood, using visual, auditory, olfactory, and tactile stimuli, historical and cultural charm is presented in the most intuitive way.

Among them, the technique of combining reality and illusion plays a significant role in landscape space organization (Figure 5-6). Through this technique, the visual depth of space

is expanded, enhancing the atmosphere and interest of the space. In addition, using sound to stimulate the sense of hearing can evoke people's imagination of historical memories and activate the perception of historical elements. This multi-sensory stimulation design technique helps make the landscape sequence more diverse, allowing people to resonate in the surround of historical culture and integrate into a rich and varied landscape experience.

5.2 Regeneration Method —— Landscape Sequence Strategy

5.2.1 Guidelines for Landscape Space Renew

The rhythm of the landscape sequence in the street structure is closely related to the branches and intersections it connects. Each paragraph of space must ensure the continuity of the overall spatial rhythm while meeting its own landscape rhythm. The division of the landscape space into paragraphs can be approached from the following four perspectives. First, different spatial themes can be set using similar elements to highlight the characteristics of the place and apply them effectively. Secondly, divisions can be made based on the surrounding environment; for instance, greenway landscape rhythm near residential areas should be gentle and friendly, while those near commercial areas should have an open and modern feel. Additionally, within historical preservation areas, the landscape should emphasize the use of orderliness to shape the landscape rhythm. Furthermore, divisions based on spatial nature can classify spaces into active areas - transitional areas combining activity and tranquility - and tranquil areas. This division can be based on changes in spatial interfaces, forming a rhythm transitioning from private to semi-open to open. Moreover, division based on people's walking experience is possible. To reduce fatigue during walking, the vertical space of the greenway can be divided, setting visual focal points locally to increase interest during the walk, improve the perception of long distances, and mitigate the perception of narrowness in the greenway space.

（1）Street Landscape Space Guideline

This guideline is primarily aimed at establishing one or more narrative themes for the walking spaces of the greenway, allowing each space node to assume its role in sequence. This enhances the spatial distinctiveness and emotional appeal, linking various spaces together through the lens of local culture to achieve overall harmony. When selecting theme elements, it's essential to align with the cultural characteristics of the urban space where

people reside. Regional style often serves as an expression and translation of traditional culture. Compared to a rigid "copy-and-paste" approach, integrating local cultural features into the environment using modern design techniques is more in line with people's aesthetic preferences and can evoke a sense of identity with the space, resonating with its spiritual and cultural aspects. By applying the principles of clustering basic shapes, variations in the size, direction, shape, color, and position of theme elements can be achieved. Additionally, utilizing regular patterns like overlaying, approximation, gradients, and abrupt changes helps maintain continuity and coherence of the theme culture in both visual and cultural aspects.

（2）Street Space Block Guidelines

The purpose of guideline 1 is to design the landscape nodes with large space, aiming to improve their visual height and increase the openness and appreciation of the area (Figure 5-7). In addition, it also emphasizes the addition of gray space to enhance the flexibility of the landscape space organization and coordinate it with the landscape sequence. The development of landscape scale needs to take into account the living needs of communities, and different communities have different spatial original intentions. Such landscape nodes are scattered and relatively small in area, distributed in each region, mainly used to guide and separate the space, to create a pleasant large-scale spatial experience. The setting of green space in this area helps to guide and separate the space, providing a comfortable and pleasant rest place for people.

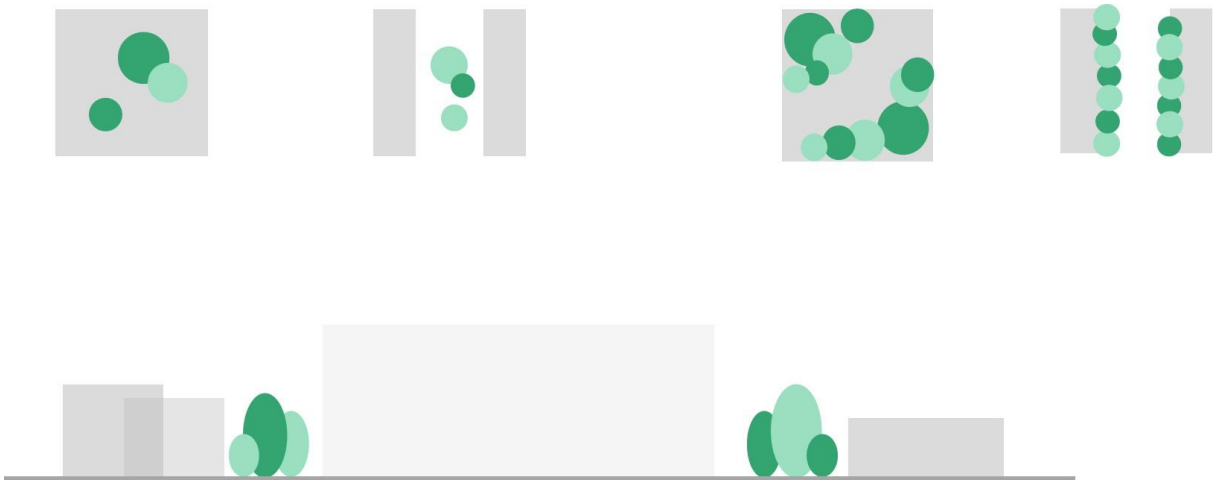


Figure 5-7 Landscape Space Guideline 1
(Source: Author's illustration)

Guide 2, the main design goal of this kind of landscape space is to create a spacious and

comfortable architectural space to meet the community needs of different age stages and cultural backgrounds (Figure 5-8). Considering that the area is mainly dominated by Shenzhen-Hong Kong culture, this guideline requires outsiders to meet the spiritual needs of outsiders while promoting their understanding of the local culture. As the main entertainment and leisure place for outsiders, it should pay attention to the spiritual needs of outsiders and integrate their favorite traditional culture into it.

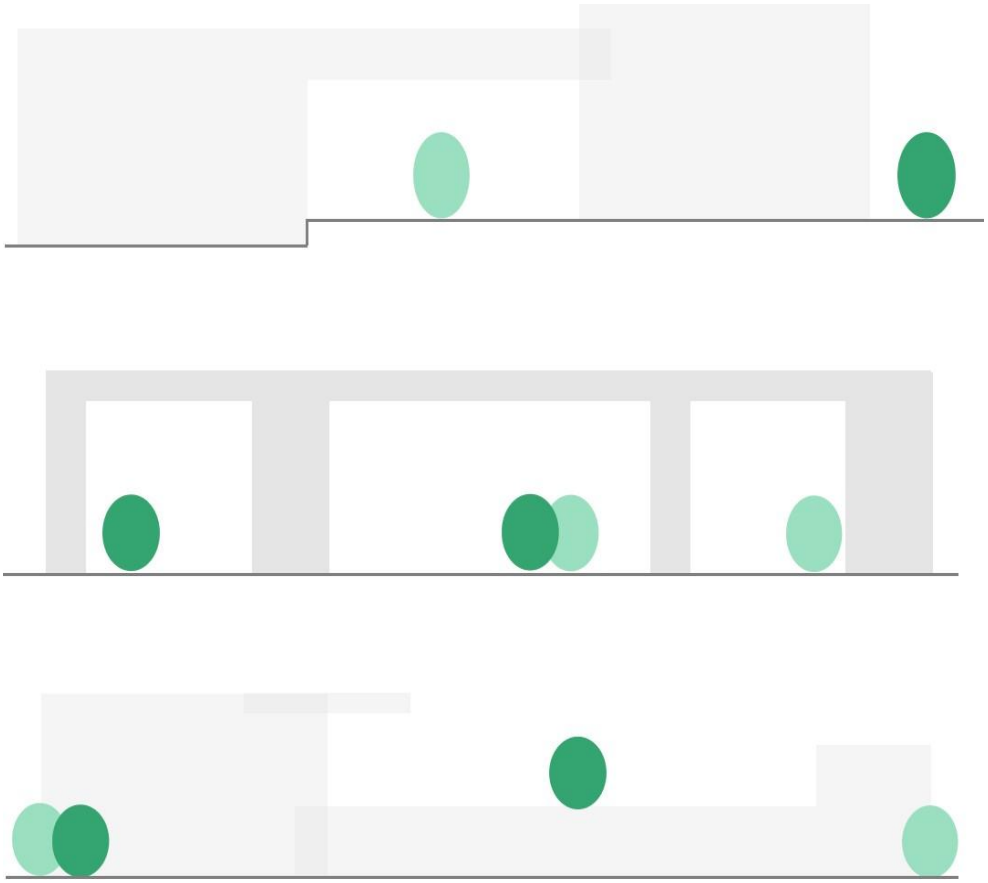


Figure 5-8 Landscape Space Guideline 2
(Source: Author's illustration)

Guide 3 this kind of landscape space is mainly singular and shrubs, showing a dotted layout (Figure 5-9). Small space nodes can be arranged according to the actual functional requirements. The landscape is designed to guide and divide the space so that people feel comfortable and willing to stay in the space of the appropriate scale. As the site of historical fragments, Zhongying Street has left a mark and should retain the memory of the area. The living atmosphere of the different communities should also be preserved.

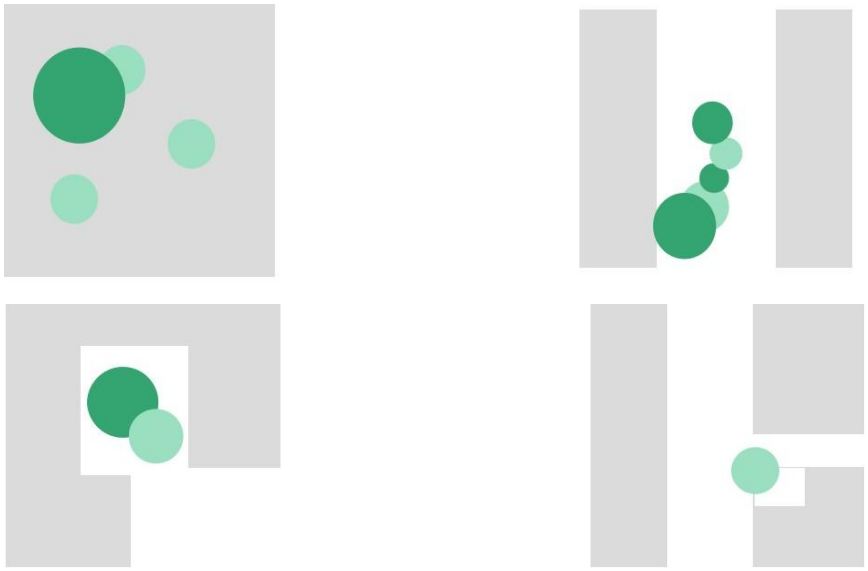


Figure 5-9 Landscape Space Guideline 3
(Source: Author's illustration)

Guide 4 is based on the original narrow spatial scale of Chung ying Street. It aims to retain the spatial scale needed by some indigenous people and expand the spatial scale needed by outsiders, so as to show the architectural characteristics of the integration of old and new cultures (Figure 5-10). The space in this area is crowded and messy, so it is necessary to sort out the space, including adding or decreasing the building and arranging the traffic space relationship, to improve the space experience.

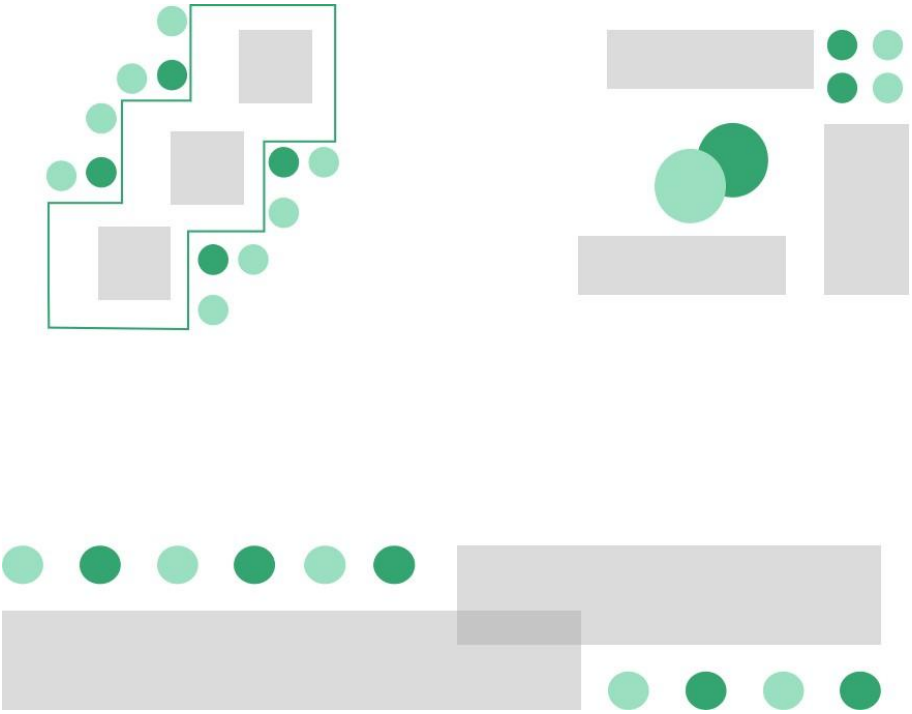


Figure 5-10 Landscape Space Guideline 4
(Source: Author's illustration)

5.2.2 Landscape Nodes in Streets Form Serial View

Combining the landscape sequence to link the streets, based on different spatial layouts, one can abstract and derive the mutual influence model between landscape sequences and human emotions in urban complexes. The basic model refers to the emotional interaction model under the basic landscape sequence pattern of "entrance space - transition space - core space - buffer space - exit space": First, in the entrance space, people form a preliminary impression of the environment and feel attracted, creating an expectation for the beauty of the next space; then, the transition space is compared with the entrance space, attracting and guiding people forward, gradually entering the beautiful scenery, and generating anticipatory predictions of the beauty of the next space; in the core space, people experience a contrast with the previous space, creating emotional shock and spiritual excitement; then, in the buffer space, an emotional drop occurs, feeling the contrast and nostalgia compared to the main space; finally, in the exit space, people reflect and evaluate the memories, and ultimately return to a state of calm and leave peacefully. Therefore, in the main streets and branching streets of Chung ying street, the basic model is complexified in specific scenarios. The multi-turn model often includes two or more core spaces. People progress from the entrance space to the first core space, experiencing emotional twists and brewing, then proceed to the second core space, going through a repeated emotional cycle of "falling back - attraction - excitement - falling back..." and finally reaching the exit space. Based on this, using the landscape sequence to construct two or more street landscape sequences, an intertwined and influencing street structure is formed. Through such repeated intertwining of landscape arrangements in different streets, the aim is to reshape the street structure of the Chinese and British streets (Figure 5-11).

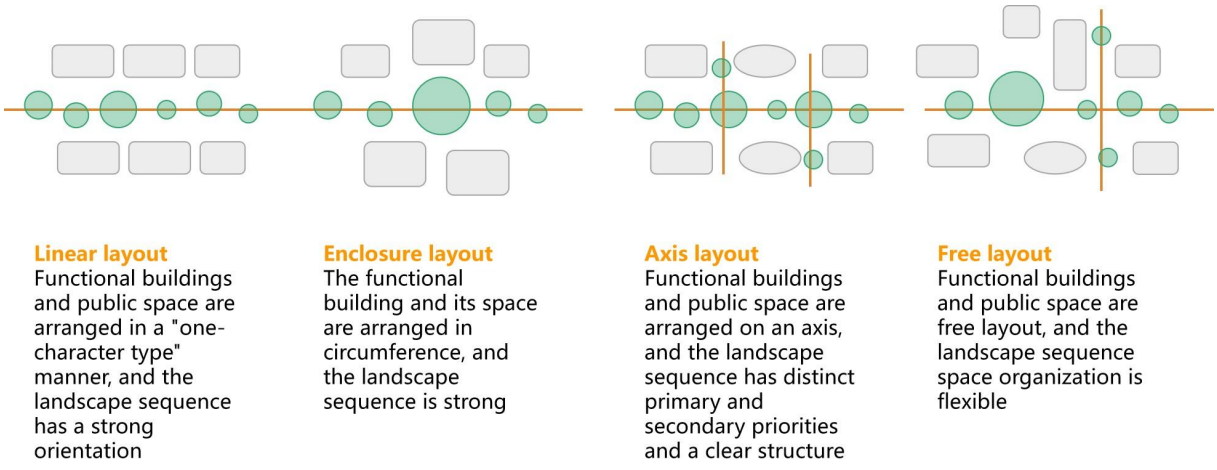


Figure 5-11 Street Landscape Layout Form (Source: Author's illustration)

5.3 Landscape Node of Chung ying Street

Based on the guidelines outlined earlier, we can further define design strategies for structural nodes in the landscape sequence of the Sha Tau Kok, Chung ying Street area. By carefully designing these key public landscape spaces, we can cleverly reconnect different clusters of streets in the Chinese and British streets. Landscape public space nodes are embedded into blocks, linking one functional area to another, or introducing another type of activity pattern to a certain activity area. This transformation of landscape node spatial patterns is achieved through adjustments to the functional organizational structure, thereby fundamentally changing the pattern of street space organization.

5.4 Updated Objective - Guidelines for Structural Reshaping

5.4.1 Landscape Sequences Drive Street Structure

In the vertical space design of Chung ying street, the ordered spatial connection process is based on the guideline of a sense of order. This process freely uses a series of spatial handling techniques such as contrast, repetition, transition, connection, and guidance to organically organize individual, independent spaces into an orderly, varied, unified spatial cluster. For the strip-like vertical space of Middle and English Streets, heterogeneous contrast is often used as a technique to divide paragraphs and chapters, such as the contrast in the sequence's beginning, development, climax, and resolution, the contrast between major and minor nodes in space, the contrast between movement and stillness, and the contrast in spatial forms. This rich sequence of rhythm changes makes it easier for people to sense the fun of spatial changes and is more attractive compared to a straightforward sequence.

In terms of the guidelines for lateral spatial changes, the lateral space in the Sha Tau Kok area is somewhat restricted. Therefore, adding levels to the vertical interface becomes a primary technique for enriching the view (Figure 5-12). By introducing landscape micro-terrain into flat terrain, we can avoid monotonous designs and draw people's attention to spatial dimensions, widths, heights, etc. The height, density, and structure of plants, as well as structures and walls, can create varying degrees of coverage in the space. Contrasts in different forms, materials, colors, etc., greatly enrich the visual experience. If the site conditions do not allow for micro-terrain, short viewing distances can be achieved through sculptures, fountains, forest paths, or overlaying heterogeneous interfaces to attract people's

sightlines. These techniques collectively create rich variations and visual appeal in the lateral space.

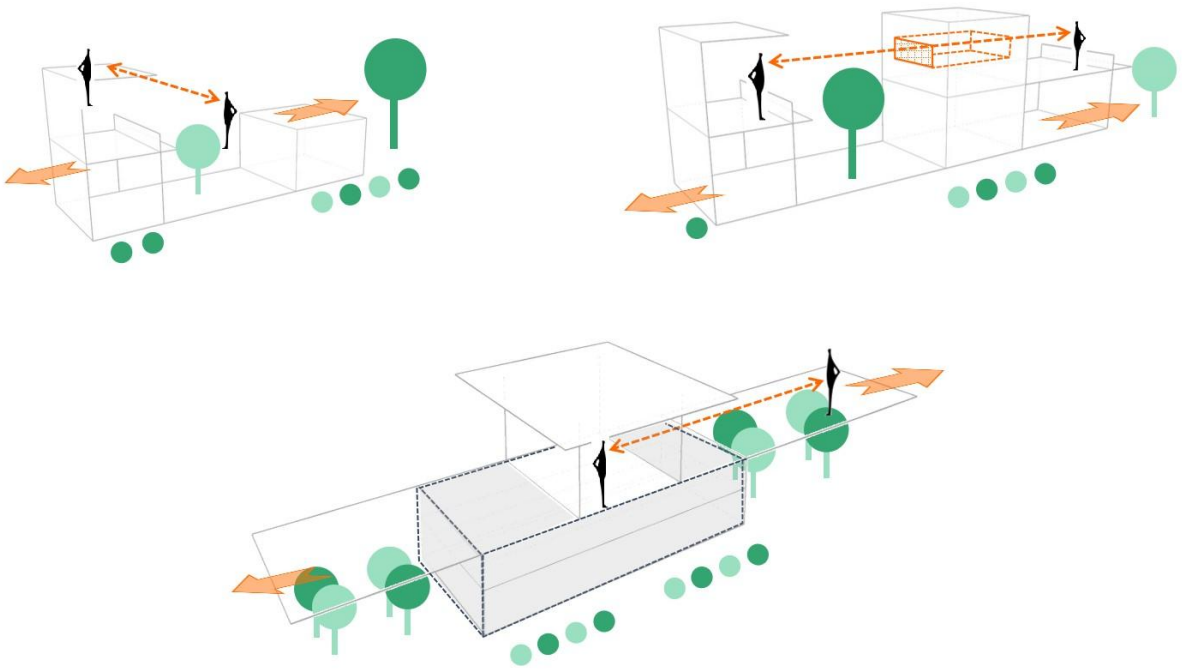


Figure 5-12 Line of sight guides the landscape
(Source: Author's illustration)

5.4.2 Street Structures promote Community Integration

Through the creation of the main landscape space of Chung ying Street, the residents of Sha Tau Kok and the mainland are connected. By introducing small landscape space nodes in the narrow streets, it can effectively guide the flow of people, attract people's attention to the landscape streamline with different space sizes, and promote the integration of the community. The author also made some ideas for the possible activity scenes of the main body of the street (Figure 5-13). By combing the vertical direction of the street space and taking the dotted landscape activity space as the horizontal guidance, the street landscape sequence of Chung ying Street was formed.

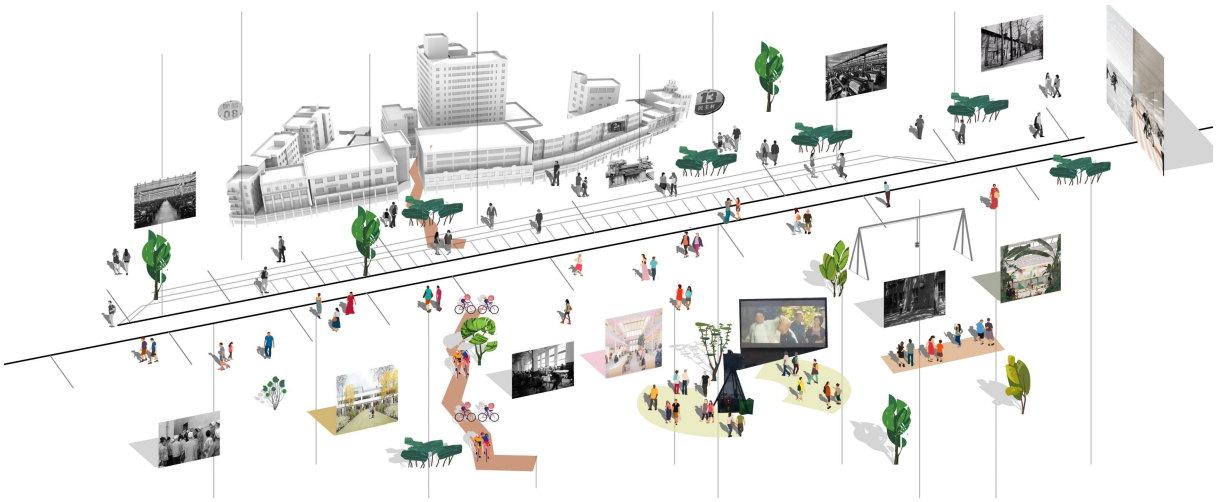


Figure 5- 13 Daily conception of Chung ying Street landscape
(Source: Author's illustration)

5.5 Chapter Summary

This chapter after a comprehensive understanding of the current needs of Chung ying Street. Through the fourth chapter of the research and guidance of the problem summary. Combined with the needs of the community integration of comprehensive considerations, the different functions of landscape space put forward different guidelines, and how the landscape space series street space also made a certain exploration and assumption, the guidelines can be very good service for updating the target, namely the landscape sequence guide the street structure, and the street structure can reverse landscape space divergence promote community integration, at the same time, these guidelines for the design of the next chapter provides bedding, for further design provides the feasible methodology and guidelines.

Chapter 6 Remodeling Design of Landscape Sequence of Chung ying Street in Sha Tau Kok

6.1 Design Analysis

6.1.1 Landscape Function Partition

Through the previous research and analysis and the guidance of the guide strategy, the design idea of landscape functional partition is carried out from three aspects: space construction, geographical location and design application. The project is divided into three central axes: Sha Tau Kok Living Area, Chung ying Street Business District and Chung ying Street Living Area (Figure 6-1). According to the spatial positioning and the space demand of the users, the three areas present the characteristics of private, open and semi-open space enclosure in turn. The theme of the living section is the central axis of the landscape, aiming to create an integrated and pedestrian-guided landscape atmosphere space. The commercial section is mainly distributed through the dotted landscape space nodes, aiming to show the colorful and dynamic street culture to guide the crowd through the dotted landscape. As the commercial center on the two sides of Shenzhen and Hong Kong, it undertakes the task of connecting different communities on both sides. Due to the different residential areas, the living area of Chung ying Street also has corresponding landscape nodes along the first section of the coastline, aiming to provide a landscape activity space that breaks down the community barriers and can participate in the whole community. Space from west to east forms a spatial rhythm from static to dynamic to static.

Figure 6-1 Landscape Function Partition (Source: Author's illustration)

6.1.2 Landscape Sequences influence Street Structure

Due to the large radiation range of the central axis of the landscape, it can radiate the surrounding areas well, while the landscape nodes of the streets are organized according to the route. The overall spatial sequence type of the greenway is through, and the greenways on both sides are asymmetrically arranged along the main road, and the curve space is opened and closed for many times. The path organization of each partition is partially closed, the landscape structure and the focus of sight are arranged around the path, and the space is relatively concentrated in the inside. The central axis of Sha Tau Kok landscape and the middle axis of Chung ying Street landscape are divided according to the characteristics of landscape rhythm. The site belongs to the type of free sequence. There is no clear starting and ending point in the greenway space, and the spatial freedom is relatively high. Each space is equipped with multiple main scenes as the space climax node. Starting from different entrances, a new landscape narrative sequence can be formed. According to the nature and

theme of the landscape space in the whole site, and eleven main nodes are sorted out (Figure 6-2). In addition to the original streamline of the road, these landscape nodes can respond to each other in the sight crossing of community flow, and play a good visual guidance to promote crowd flow and community integration.

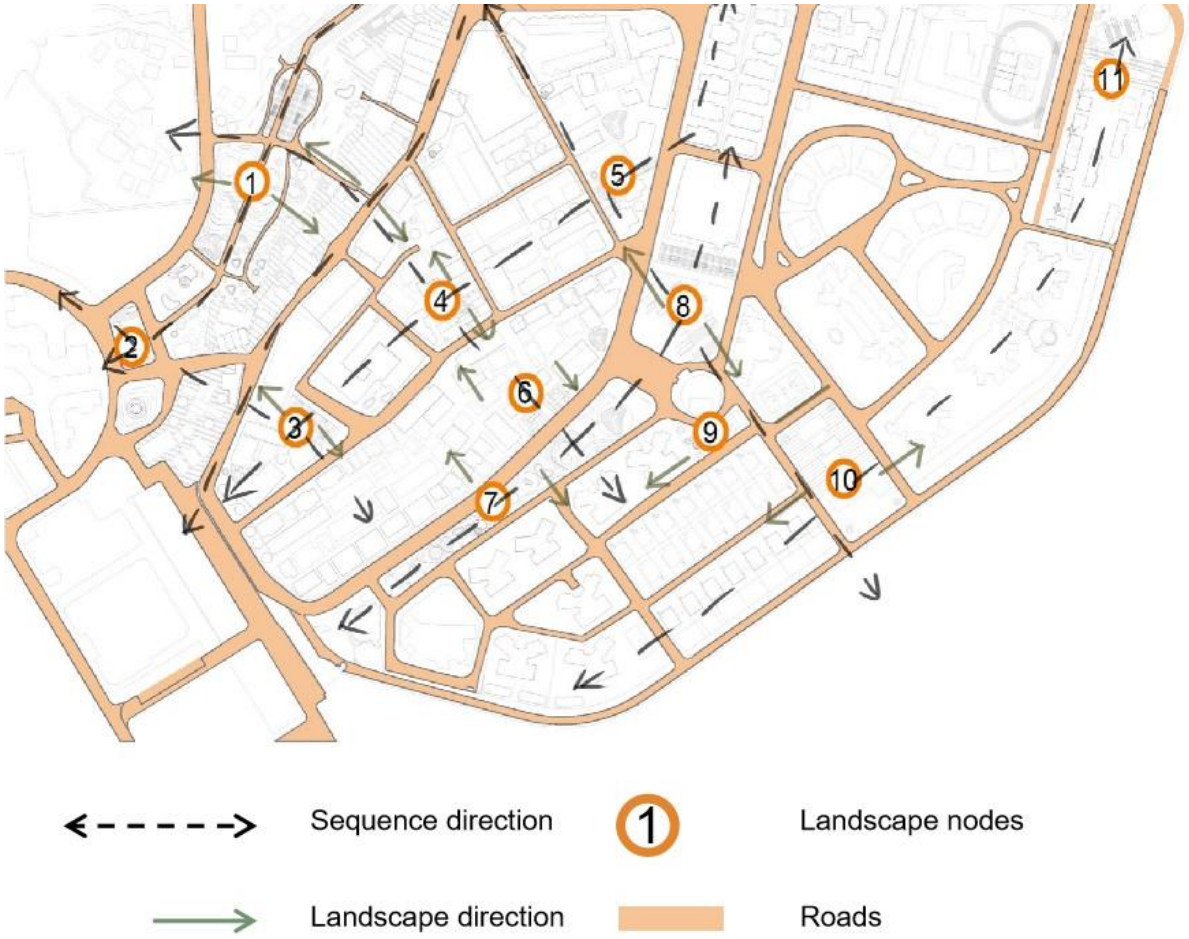


Figure 6- 2 Landscape sequence in tandem roads (Source: Author's illustration)

6.2 Design Overview

Through the analysis and research of the fourth chapter, this paper clarifies the current problems of the landscape space from the middle scale, while the strategies and guidelines obtained in the fifth chapter systematically deliberate from the micro scale, and puts forward the corresponding guidelines; the general plan (Figure 6-3) is presented as follows, designed to create a landscape sequence of community integration. According to the design idea, it is

divided into two large areas in terms of spatial form, namely, the central landscape area of Sha Tau Kok area is connected with landscape nodes and the central landscape area and theme nodes of Chung ying Street. The theme, form organization, functional partition and landscape tone of each area have its own characteristics. The two Spaces are mainly connected through the pedestrian street, Chung ying Street and the landscape space. Chung ying Street has a good crowd streamline in the longitudinal space. Chung ying Street located in the central commercial section road gently connects the greenway space on both sides of the area to form the overall landscape sequence. And site on the east and the west two landscape axis presents an organic form, the west side from the north hills to the village to the sand community, in the future will establish ecological corridor on the basis of the continuation of the street surrounding block texture, the east coastline face Dapeng bay, combined with the natural scenery of the coastline will break village boundary, in the interval to guide a new landscape axis, build complete campus green network. The continuous green landscape axis guides the community life to form the urban visual corridor at the same time. The whole landscape sequence covers the Sha Tau Kok Chung ying Street area, guiding different regional functional groups, and creating a good landscape environment for the integration of the community.

6.2.1 Master Plan

Figure 6-3 Master plan (Source: Author's illustration)

Total plane landscape sequence mainly depends on the street structure to build, according to the original main road to sort, west sand landscape center mainly depends on shun xing street and village, shun xing street, road and the street built a triangle area node 1,2,3, respectively for the landscape axis, road landscape center and commercial landscape park. The nodes 3,4 and 5 parallel to Chung ying Street are the commercial landscape parks built on the commercial attributes of Chung ying Street to guide people to flow into the community. In the street community inside the ring road and the narrow axis of the landscape of the street landscape center, namely node 7, along the ring road north way some open landscape space, node 6 for community landscape park, until the return of node 8 landscape square as the center of each landscape sequence will all the landscape sequence gathered in this. Along the Dapeng bay coast Haidong node for node 9,10,11, node 9 for corresponding to regression square, communication, the crowd to the coastline, node 10 for the movement landscape space, node 11 as the original ancient tower is located, on the premise of retaining the original building, open perspective, and the opposite elementary school field form landscape on the scene.

These eleven nodes jointly construct the landscape sequence of the area, and the small landscape sequences formed by different regions will be different. This paper arranges the possible marching sequence (Figure 6-4), aiming to explore the different landscape sequences to form different styles of sightseeing fun.

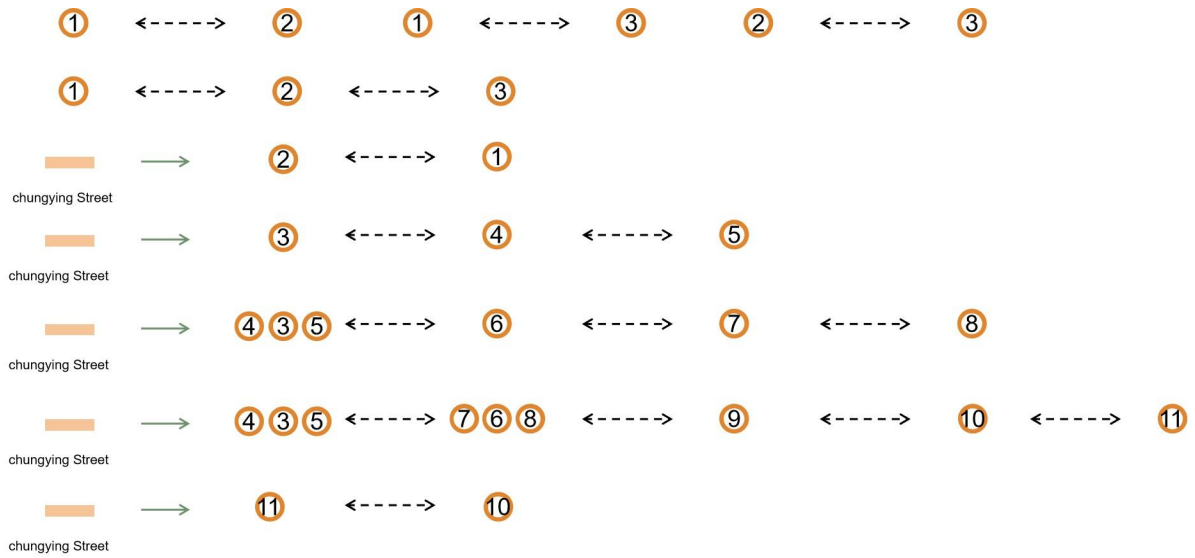


Figure 6-4 Possible Tour Sequences (Source: Author's illustration)

6.2.2 Landscape nodes influence each other

The area sets multiple landscape narrative nodes of greenway walking space, and each

space node plays its own roles in sequence, so as to strengthen the spatial identification and crowd appeal, and connect each space from the level of place culture, so as to achieve the overall coordination. Sand head Angle landscape axis close to the Hong Kong people living space characteristics, and the traditional culture translation for regional style, using modern design technique of Hong Kong culture characteristics into the environment to more close to people's aesthetic temperament and interest habits, inspire people identity of space, and space spiritual culture, and produce regional catalyst effect, radiation to Chung ying street (figure 6-5). The central axis of the landscape makes the change of the size, direction, shape, color and position of the theme elements, and superposition, approximate, gradient and mutation, so as to achieve the continuation and unity of the theme culture in visual and cultural connotation. Aided by pavement, landscape sketch and plant configuration constitute the landscape artistic conception, using the similarity of the surrounding nodes to start from the divergence of the crowd. Each node has corresponding design techniques or similar landscape areas, so that the random sequence generated in the process of crowd builds the landscape connection of the site.

Figure 6-5 Landscape Connection (Source: Author's illustration)

6.3 Sha Tou Kok Chung ying Street Landscape Sequence

The presentation of the landscape sequence designed in this paper is mainly by starting from people's psychological feelings, using different landscape mood to arouse the most intuitive feelings including the stimulation of vision, hearing, smell and touch. The space organization technique of the combination of virtual and real in the design visually expands the space depth of field and highlights the space atmosphere and interest. Using sound to stimulate hearing, to arouse people's imagination, and to choose different sound types and sound sources according to spatial attributes. Suitable aromatic plants can stimulate people's sense of smell, can relieve the psychology of the crowd. Under the premise of clear theme and unified style, the artistic conception organization of serail view seeks common ground while reserving differences in changes.

6.3.1 Central axis sequence landscape of Sha Tau Kok

The central axis of Sha Tau Kok landscape penetrates the original narrow spatial scale of Chung ying Street into two paths with small landscape space to ensure the fluency of the streamline. The design aims to retain the spatial scale needed by some indigenous people and expand the spatial scale needed by outsiders, so as to show the architectural characteristics of the integration of old and new cultures. Through the combing of the space, including the increase or decrease of the building and the arrangement of the traffic space relationship, to improve the landscape space experience (Figure 6-6).

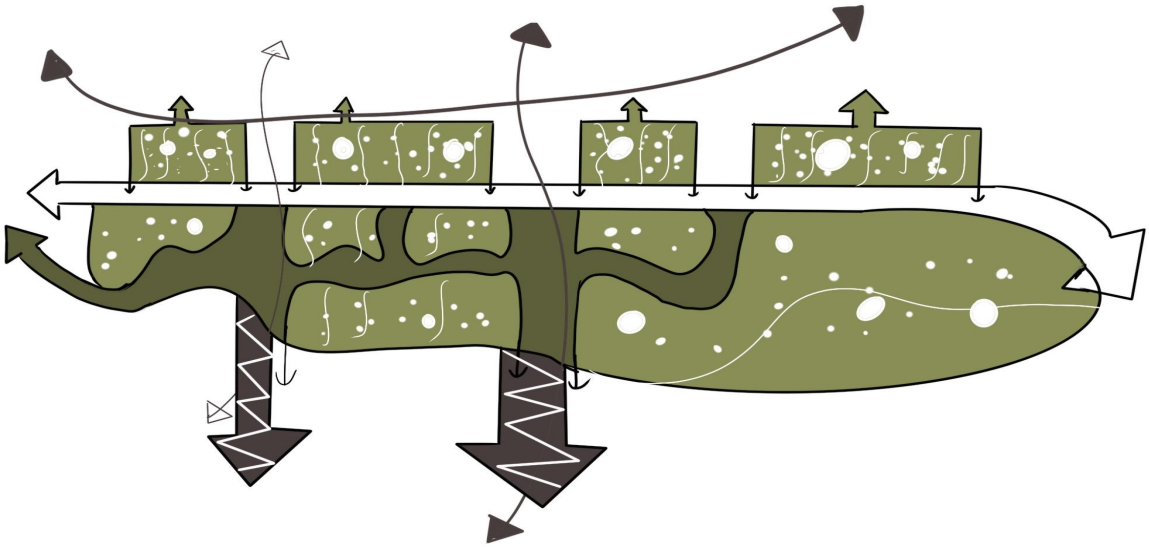


Figure 6-6 Central axis strategy in Sha Tau Kok (Source: Author's illustration)

In contrast, the main landscape square inside Chung ying Street has designed facilities for shelter from the sun and rain, lying down and resting, which provides convenience for people's walking activities and is an indispensable landscape element in the landscape sequence to relieve people's fatigue. In general, most people can accept the continuous walking distance within 500 meters, on the layout of the site space characteristics, the actual rest facilities based on the space function of physiological fatigue curve for reference, through continuous landscape node of landscape axis, communication for local residents and residents provide activity space, and increase the interaction between people and space of time (figure 6-7,6-8).

Figure 6- 7 Master Plan of Sha Tau Kok Landscape Center (Source: Author's illustration)

Figure 6- 8 Isometric Drawing of Sha Tau Kok Landscape Center (Source: Author's illustration)

6.3.2 Central axis sequence landscape of Chung ying Street

The central axis sequence of Chung ying Street is arranged to the west of the narrow space, and the main commercial parks are combined with certain elastic green space. The dynamic linear activities such as running and walking are inserted into the central axis of the landscape. The structures in different areas are integrated with different types of landscape trails, and the dotted activities such as Tai Chi and dance can be stored in square and green space (Fig. 6-9).

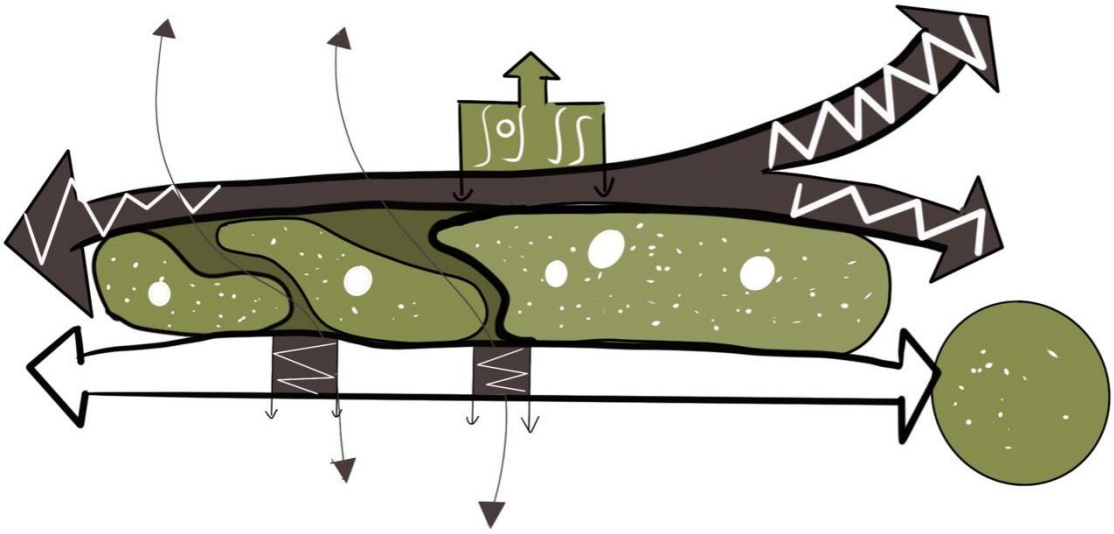


Figure 6-9 Central axis strategy in Chung ying Street Area (Source: Author's illustration)

The natural separation of the road and the surrounding land properties divide the greenway space into different theme areas. Residential section, commercial section and school section represent the past, present and future respectively in the time theme. The reorganization of the landscape sequence makes people calm their hearts in the natural pastoral atmosphere. In this area, the community integration of Chung ying Street is taken as the theme clue, and the flow of the crowd is guided through the series of landscape clues. The Chung ying Street itself, as a dynamic business district, makes people feel the charm of the colorful and romantic landscape space in the warm and open street atmosphere. On the east side of the area as a living space, the main landscape space is to show the green home through sports space and landscape walking path, and show the community integration scene with the game space and supporting facilities of all ages (Figure 6-10,6-11).

Figure 6- 10 Master Plan of Chung ying Street Landscape Center (Source: Author's illustration)

Figure 6- 11 Isometric Drawing of Chung ying Street Landscape Center (Source: Author's illustration)

6.4 Landscape Node Presentation

6.4.1 Sequence of Sha Tau Kok Nodes

（1）Node.1——Node.2

Node.1 mainly focuses on abstract line modeling, and the light shape contrasts with the large open and closed water system. This sense of contrast can attract people's attention and stimulate people's imagination. The curve shape implies the time axis of Sha Tau Kok, which can show the tortuous historical changes in the landscape and attract people to stop and watch (Figure 6-12).

Figure 6- 12 A Schematic representation of the landscape node.1 (Source: Author's illustration)

Node.2 conveys the texture of different materials through the changes of different types of paving, and the water system guides the flow of people and the Settings of various kinds of rest Spaces all convey the relaxed and interesting artistic conception atmosphere (Figure 6-13).

Figure 6- 13 A Schematic representation of the landscape node.2 (Source: Author's illustration)

6.4.2 Sequence of Chungying Street Area

（1）Node.3——Node.4——Node.5

Node.3 is located in the commercial interior of Chung ying Street on the side of China. The activity site is arranged according to the activity functions required by the crowd and closely combined with the site landscape. The specific activity type site is arranged in the area with open space, which is mainly used as an open space at the close building combination to attract the attention of people and used as a distribution square(Figure 6-14, 6-15).

Figure 6- 14 Master Plan of Landscape Node.3 (Source: Author's illustration)

Figure 6- 15 A Schematic Representation of Landscape Node.3 (Source: Author's illustration)

Node.4 is a dynamic commercial landscape park, with the most obvious width contrast of the street. The landscape rest square and the straight and narrow commercial square are adjacent to each other. The space width of the rest square is far greater than the long and narrow road in the commercial area. The path form, boundary enclosure mode and plant planting distinguish the two Spaces. The space of the former is stable and centripetal, and the vision is radial, while the latter is bounded by high-rise buildings. Influenced by the internal greening of the square, the vertical extension sense is weakened to a certain extent by the short view of the horizon, and the short horizon is expected to reach the road horizontally (Figure 6-16, 6-17, 6-18).

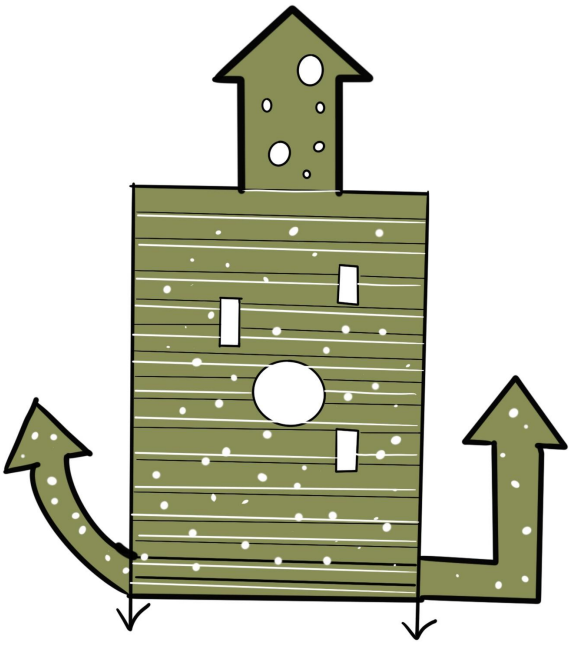


Figure 6-16 Strategy of Node.4 (Source: Author's illustration)

Figure 6- 17 Master Plan of Landscape Node.4 (Source: Author's illustration)

Figure 6- 18 A Schematic Representation of Landscape Node.4 (Source: Author's illustration)

Node 5 is located on the west side of Haitang Road. Similar to Node 4, it is located in commercial residents, which need to consider both commercial and privacy, closely combine with the site landscape, and arrange the activity space in the open area, mainly as an open space at the combination of commercial buildings, to attract people's attention and guide the flow of people to the central axis of the landscape(Figure 6-19, 6-20, 6-21).

The horizontal space of the dynamic business district emphasizes the open permeability of the line of sight. The hard square has a large area, and mainly uses plant groups, landscape construction and activity square to increase the level of the horizontal space. The green pool on the commercial square has a rhythmic partition of the open square space on the horizontal path.

Figure 6- 19 Master Plan of Landscape Node.5 (Source: Author's illustration)

Figure 6- 20 A Schematic Representation of Landscape Node.5A (Source: Author's illustration)

Figure 6- 21 A Schematic Representation of Landscape Node.5B (Source: Author's illustration)

（2）Node.6——Node.7——Node.8

Node 6 is located near the central axis of the Chung ying Street landscape. As a static resident integration area, it emphasizes the open permeability of the sight. The hard square area is large, which mainly uses plants, landscape construction and activity square to improve the level of horizontal space. The green pool on the commercial plaza has a partition of the

rhythmic open plaza space on the horizontal path(Figure 6-22).

Figure 6- 22 A Schematic Representation of Landscape Node.6 (Source: Author's illustration)

Under the unique background of integrating Shenzhen-Hong Kong culture, anti-Japanese culture, Hakka culture, fishermen's lantern dance, Tianhou Temple, main hall, temple and various functional buildings, the construction of the central axis sequence of Chung ying Street landscape (Node.7) adopts various composite technologies to realize the unity of diversity and create continuous and directional spatial experience. With the community as the center, using mixed technology, through the multi-sensory method of visual, auditory, olfactory and tactile stimulation, arouse the charm of history and culture, and present the history and culture in the most intuitive way. Through this method, the visual depth of the space is expanded, and the atmosphere and interest of the space are enhanced. The tortuous landscape trail streamlines help to diversify the landscape sequence and allow people to resonate in embracing historical and cultural elements into a rich and diverse landscape experience(Figure 6-23，6-24).

Figure 6- 23 A Schematic Representation of Landscape Node.7 (Source: Author's illustration)

Figure 6- 24 A Schematic Representation of Landscape Node.7 (Source: Author's illustration)

As a relatively independent landscape theme, Huigui square (Node.8) mainly adopts the transition of natural continuation to cope with the collection of each landscape sequence. The landscape square and the road are gradually widened in space. In the square, the vast square space is separated by the water system and green plants, transforming the wide space into multiple narrow Spaces, which is naturally connected with the opening and closure of the

east-west road space design (Figure 6-25，6-26).

Figure 6- 25 Master Plan of Landscape Node.8 (Source: Author's illustration)

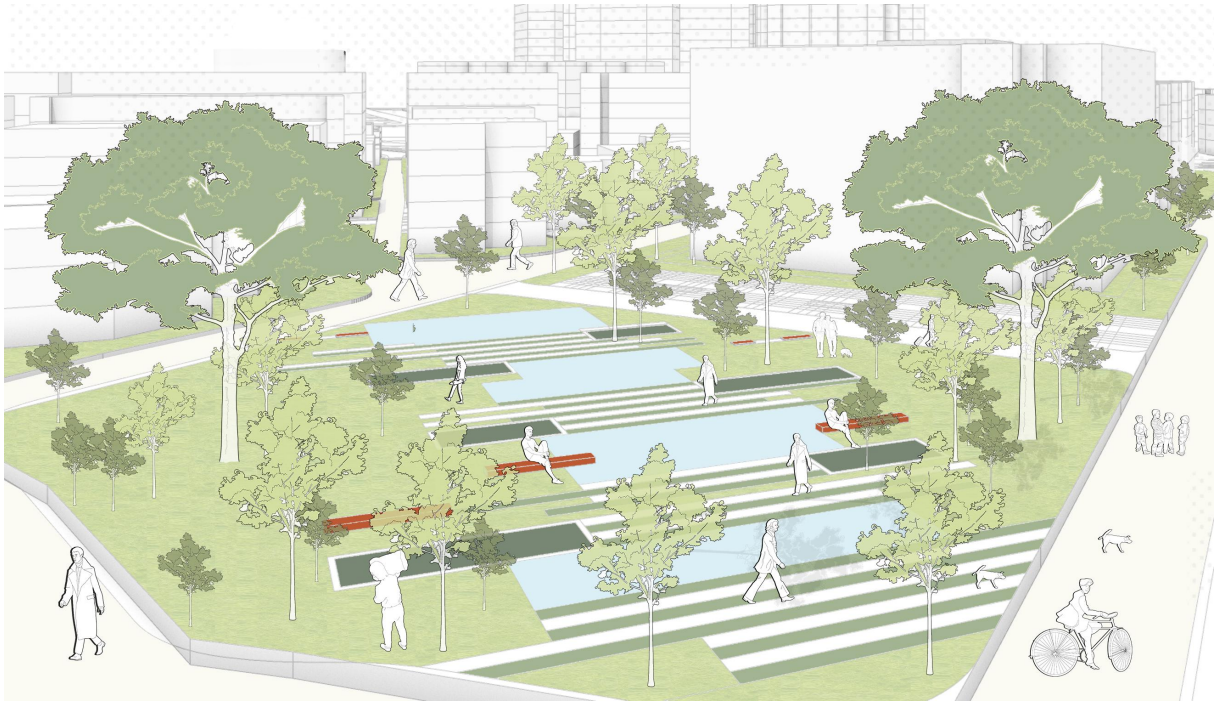


Figure 6- 26 A Schematic Representation of Landscape Node.8 (Source: Author's illustration)

（3）Node.9——Node.10——Node.11

Node 9 enhances the rhythm of the landscape by introducing changes within the space, thereby increasing the perceptual duration of the landscape. From node 8 Huigui Square to the central circular landscape to node 9, a series of spatial changes are created. The cultural square, through landscaping, water system and rest facilities, enhances the information content in the space, and effectively promotes people's interaction and socialization(Figure 6-27，6-28).

Figure 6- 27 Master Plan of Landscape Node.9, Node.10 (Source: Author's illustration)

Node 10 building square area landscape space covers an area is larger, at the same time as a roadside green space, through the proper drainage and plant group in the space, block the negative impact of the greenway landscape space, for the green periphery to provide a good roadside ornamental landscape and block across the basketball court(Figure 6-27，6-29).

Figure 6- 28 A Schematic Representation of Landscape Node.9 (Source: Author's illustration)

Figure 6- 29 A Schematic Representation of Landscape Node.10 (Source: Author's illustration)

Node 11, where the ancient pagoda where the kindergarten is located, is full of vitality and historical atmosphere. The node mainly uses decorated greening and rest facilities to enhance the richness of space elements. Coastline plants, rest seats and other space elements along the way provide ample information. The visual and cognitive distance during walking is relatively short, and the landscape space changes rapidly and intensively, together with other facilities around the node, increasing the perceptual duration in the space, allowing pedestrians to stay longer in the kindergarten activity area and Guta Square(Figure 6-30，6-31, 6-32).

Figure 6- 30 Master Plan of Landscape Node.11 (Source: Author's illustration)

Figure 6- 31 A Schematic Representation of Landscape Node.11A (Source: Author's illustration)

Figure 6- 32 A Schematic Representation of Landscape Node.11B (Source: Author's illustration)

Conclusions and Outlook

Conclusion

China has long experienced a rapid process of urbanization. However, in this process, the street landscape space is often not received due attention. As an indispensable part of Shenzhen-Hong Kong culture, Chung ying Street should play its local role in improving the regional cultural quality and improving people's cultural life. How to inject vitality into Chung ying Street, and set up and update the scientific and reasonable landscape sequence? How to make the landscape sequence in the street layout not only convenient for people's cultural needs, but also conform to the established characteristics of the block is the focus of this research.

Combining the disciplinary strengths of urban design and spatial research, this study intends to weave complex history and multi-layered culture together to meet the needs of different communities and achieve integration. This paper analyzes the unique street structure formed by the gradual evolution of buildings under different historical and cultural backgrounds, and clarifies the understanding of landscape space, realizing that landscape is not just a concept but an essential content based on the structural and cultural context of a specific spatial area. Based on this understanding, after studying how to respond to the street space structure and landscape sequence structure through specific design strategies, from the reshaping of the overall landscape sequence structure to the reconstruction of landscape nodes, we promote the continuity, greenery, and sustainable development of the overall street structure. This paper not only explores the layout of the Middle and English Streets' street structure at the macro level but also studies the impact of landscape distribution on land use layout structure at the micro level. It analyzes the importance of landscape sequence space and explores the methods of setting and layout of different levels and categories of landscape spaces. Combined with land planning, it strongly guides the continuity of street structure and the continuation of historical context.

Through the study of fundamental theoretical concepts such as the street structure, community construction, and landscape sequence in Chung ying Street, and in-depth research into the spatial connotations and contextual connotations of the street space forms and scenes of Chung ying Stree, this paper clearly defines and classifies the concepts of streets, landscape spaces, and renewal. It defines the goals of renewal and, based on theoretical analysis, formulates the design stance for renewal under the landscape sequence. Through research and

analysis, it summarizes the factors influencing renewal design, including landscape elements and street structure, and discusses the concepts and attitudes of landscape sequence construction and renewal. Based on these studies, this paper defines the landscape nodes of Chung ying Street and the landscape paths to be constructed, and derives and refines the design strategies based on the logic of community influence factors. Through the verification of typical cases, it is not difficult to find that landscape nodes help promote the diffusion of communities, while flexible landscape spaces and order enable communities to blend. The practice of reorganizing the landscape sequence of Chung ying Street has yielded application strategies for landscape sequence in architectural renewal design in Chung ying Street, as well as a balance between spatial requirements and the external street structure shaping during the renewal, and the expression of spatial effects of the renewal. In the end, based on the local cultural context as the fundamental structure, this paper incorporates the community's cultural value for the block and historical emotions into the landscape sequence. Thus, it proposes a dual approach: integrating traditional preservation and modern openness through the fusion of landscape space sequence and contextual street structure, reshaping the street structure of Chung ying Street, Sha Tau Kok, integrating the fundamental structure of the block's own historical context, and incorporating the community's cultural value and historical emotions for the block into the landscape space.

Insufficient Research and an Outlook

The concept of landscape sequence is currently in a stage of continuous development and has not yet formed a systematic and comprehensive theoretical framework or methodology. The methods used in its research require further refinement. Additionally, due to the fact that the primary research areas and theoretical sources of this concept are based largely on urban development and spatial planning in Western countries, many research cases and focal points are centered around issues of disorganized landscape functionalities that emerged in Western countries after the urban post-industrial era. Therefore, when it comes to understanding, researching, and applying this concept to address issues in China's urbanization process, there are practical difficulties to contend with.

In examining the research achievements of various domestic scholars in this field, it is evident that the focus primarily lies in specific cases, approaching the analysis and formulation of strategies for restructuring landscape sequences from a localized perspective within the landscape space. Presently, this approach is mainly applied in the early stages of

regional planning and construction. The author's study on the application of landscape sequence theory to the renewal of street structures is a bold attempt. However, due to personal experiences and limited capabilities, a more in-depth research and validation of the practicality of the theory's implementation cannot be conducted at this stage. Therefore, this thesis can only offer speculative and anticipatory research in many respects.

The task of reshaping street structures through the reconstruction of landscape sequences is complex and challenging. It requires a comprehensive coordination of various complex landscape elements, necessitating interdisciplinary skills encompassing landscape architecture, urban planning, and related fields. However, the author's current level of knowledge and abilities are still relatively limited, and a profound understanding and practical application of the landscape sequence concept to effectively address the diverse challenges in the street renewal of Shatoujiao and Chung Ying Street is not yet achievable.

The framework proposed in this paper and the preliminary exploration of problem-solving possibilities are only theoretical and exploratory in nature. Future endeavors in learning and professional engagement are expected to further integrate theoretical research with practical applications. Moreover, the landscape sequence concept emphasizes frequent cross-disciplinary interactions, demanding a balance between various social realities to achieve optimal comprehensive benefits. However, the author's current shallow knowledge base does not meet this requirement.

Hence, this paper may contain some conceptual misunderstandings, immature viewpoints, and shortcomings in the conceptual understanding, theoretical overview, and strategy formulation. It is hoped that in future studies and professional practice, a deeper investigation into the landscape sequence theory will be pursued, continuously enriching the knowledge base and enhancing cognitive abilities. The landscape sequence has already attracted the attention of an increasing number of scholars and designers. It is believed that with growing recognition of landscape spaces, it will be interpreted in various ways in urban renewal projects, offering diverse possibilities and paving the way for urban development.

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