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## An Inquiry into the Preservation and Renewal of Historic District, Grounded Within the Theoretical Framework of Catalyst Theory -With a Case Study of Panxi Restaurant

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ABSTRACT: The philosophical approach to urban design in China has been converted from new-built to re-built. Historic districts are hence leading to a heightened appreciation and delicate handling. WU Liangyong, a prominent Chinese academician, has concluded that plans for historic districts should be implemented with gradualness and carefulness, forming the cornerstone of the Organic Renewal Theory. On the other hand, the Catalysts Theory, an urban design theory originated from the progress of American reconstruction, offers an elastic design framework for our ongoing research. From this line of works, the Organic Renewal Theory could be advised in at least two lenses: its systematic perspective and its practical feasibility. Furthermore, the Catalyst Theory could introduce a potential for a chain reaction, facilitating the progress while safeguarding the integrity of authentic lifestyle. To illustrate how the Catalyst Theory guides practical application, this article examines an ongoing project in Guangzhou as a case study, showcasing its implementation and establishing a framework adaptable to the designs of nearby neighborhoods. KEY WORDS: re-built of historic district; Catalyst Theory; Organic Renewal Theory

### Introduction

In recent decades, the preservation of historical architectural contexts and the approach of small-scale neighborhood transformations have become increasingly prevalent in urban planning. As Professor Wu Liangyong has observed, "While the preservation of historic cities is undeniably fraught with challenges, once the direction is established, overcoming short-term challenges will lead to smoother paths and progressively more expansive achievement." [1]. His Organic Renewal Theory underscores the city's functionality as an organism, necessitating appropriate models and scales that address the relation between the present and the future, based on the specifics and requirements of the renovation. This theory advocates for strengthened research into small-scale transformations and governance mechanisms, and the exploration of "small and nimble" renewal methodologies  $\lceil 2 \rceil$ . Furthermore, This theory has become a seminal source of inspiration for subsequent urban planners engaged in small-scale renovation projects, as well as a methodology for the preservation and

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renewal of historic districts. Despite its origin in different context, the Catalyst Theory from the United States aligns with the principles of the Organic Renewal Theory, offering valuable practices for reference.

### 1 Urban Catalyst Theory and operational principles

### 1.1 Emergence of the Catalyst Theory

The Urban Catalyst Theory emerged as a result of American urban planning scholars' contemplation on the "gentrification" in post-World War II city centers. During this era, in response to the deteriorating urban security conditions, many cities began exploring revitalization strategies. Initially, the United States lacked a localized urban planning theory, leading to an extensive reliance on European theories rooted in "monarchical" contexts. Consequently, many revitalization initiatives involved substantial demolition and reconstruction. Large numbers of lowrent housing were quickly demolished, and the subsequent new constructions, owing to disparity in rent, expenses, insurance premiums, and taxation, surpassed the financial reach of the original residents. Consequently, low-income residents were forced to relocate from the revitalized neighborhoods, while wealthier communities further encroached upon the living spaces of the less well-off [3]. Ostensibly alluring urban renewal projects actually morphed into processes of neighborhood "gentrification", eliciting mounting criticism from the public.

Thus, enhancing the living conditions of original residents via urban renewal rather than exacerbating them, became a critical issue for urban planners. Among the various contributors, American architects Don Logan and Wayne Otto, in their work, American Urban Architecture: The Urban Design Catalyst, introduced a significant perspective through their Urban Catalyst Theory. Their framework not only critically examined the previously "imported" approaches adopted in the United States but also creatively proposed, with a view to improving rather than radically transforming the living environment within the context of neighborhood revitalization, a planning paradigm centered on "mutual stimulation of elements," which became known as the Urban Catalyst Theory.

### 1.2 The mechanism of the Catalyst Theory

The principles underlying the Urban Catalyst Theory

are concise and coherent. This theory posits that the elements within a neighborhood inherently possess mutualcomplementary attributes, signifying that strategic urban planning can enhance the worth of existing elements by integrating novel ones. This process is analogous to the functioning of a chemical catalyst, which not only possesses intrinsic value but also augments the worth of surrounding substances. The objective of the Catalyst Theory is to instigate the revitalization of adjacent territories through the introduction of one or a select few novel elements. These elements, akin to catalysts, interact with preexisting elements, thereby igniting localized transformation. Ideally, these catalysts would spawn fresh catalytic points among the preexisting elements within the surrounding neighborhood, provoking a cascade of catalytic reactions that propel a chain reaction and foster continuous rejuvenation throughout the entire area.

Past applications of the Catalyst Theory has generally been categorized into two domains. The first domain involves the creation of iconic buildings that exert a centralized catalytic effect on their vicinities, often employed as a means to revitalize declining regions. A paramount illustration of this approach is the Guggenheim Museum in Bilbao, Spain. Designed by architect Frank Gehry in the 1990s, the museum served as Bilbao's first landmark, aimed at reversing the city's economic decline. Its distinctive architecture gathered substantial attention, creating the influx of €166 million in investment on Bilbao within six years since its opening and consistently attracting over 4 million visitors annually. Notably, the museum's ticketing revenue continues to contribute approximately 6% to the municipal revenue stream. This catalytic effect of the museum transformed Bilbao from a traditional industrial city into a hub for art and creative industries, significantly boosting both its economic development trajectory and urban identity (Figure 1)  $\lceil 4 \rceil$ .

The second domain involves the establishment tailored to attracts specific demographics and fosters distinct activities, embodying both a decentralized catalytic influence and a clustering effect, typically aimed at introducing novel elements into established neighborhoods. A prominent illustration is the Hackescher Markt in Berlin, Germany, which exemplifies a classic Jewish "Hofgarten-Straßenbau" (inner courtyard, outer street) community layout, comprising eight courtyards. After redevelopment efforts, two of these courtyards, alongside with the ground floors and public spaces of all courtyards, underwent a transformation into commercial and cultural hubs [5](Figure 2). The "Hofgarten"(inner courtyards) are accessible during daylight hours, enhancing the commercial vitality of the community, while they are secure at night to maintain tranquility. This integration of commercial and residential activities quickly attracted the attention of numerous fashion studios and thousands of visitors upon its initial public opening in 1995. Presently, Hackescher Markt stand as a benchmark for Berlin's fashion scene and nightlife, epitomizing a paradigm where "the government sets the stage, with the community performing."



Figure 1 Guggenheim Museum in Bilbao, Spain



Figure 2 Hackescher Markt in Berlin

- 2 Integrating the Catalyst Theory into the preservation and renewal for historic districts
- 2.1 The relevance of the Catalyst Theory to historic district preservation

The endeavors aimed at preserving historical districts,

primarily guided by the principles of the Organic Renewal Theory, are highly compatible with the notions of the Urban Catalytic Theory. Both methodologies emphasize the implementation of "small and nimble" micro-transformations within neighborhoods; they both acknowledge the inevitability of changes over time and emphasize the need of adaptive management strategies; furthermore, both advocate for enhancing the overall (cultural) value through the introduction or renovation of a select key elements within a systematic conceptual framework over a defined time horizon.

The primary divergence lies in their respective objectives: Historic district preservation focuses on safeguarding the historical and cultural value of neighborhoods while acknowledging their inevitable evolution over time with a primary focus on preserving the "ancient" and "original" aspects of these districts. In contrast, Urban Catalyst Theory concerns itself with the intersection between a neighborhood's historical continuity spanning the past one or two generations and its development across subsequent generations. It primarily addresses the "present" value of human activities, economic worth, and environmental quality. Recent literature has, however, increasingly integrated the cultural value of catalytic effects into Urban Catalyst Theory [6-7], demonstrating progress in the practical application of this theory. This way, the Urban Catalyst Theory can augment the dimensions of considerations, systematic ideas, and implementation pathways employed in the context of historic district preservation.

2.2 Theoretical underpinnings for Incorporating modern design exemplars in the historic district preservation

The complexity of preserving historic districts lies in the fact that many instances not only embody historical and cultural values but also serve as vital spaces or vessels for residents' daily lives. As time elapses, subtle shifts in residents' daily activities leads to pronounced disparities between the "present" and the "original" state of these districts. If preservation efforts fail to enhance, or indeed deteriorate, the quality of life for the original residents, such efforts, with their gradual advancements, will inevitably and progressively exacerbate the tension between the routine of the daily life and the preservation of the historic district. This tension can only be resolved through a significant decline in one of the opposing side.

The vitality of the Urban Catalyst Theory, on the other hand, stems from its focus on the contemporary significance of residents' lifestyles. When harmoniously integrated with the Organic Renewal Theory, it unifies disparate design approaches under a unified evaluative framework, thereby offering theoretical underpinnings for comparing and referencing modern design exemplars in the context of historic district preservation. Furthermore, this integration underpins the theoretical possibility of bringing historic district preservation closer to contemporary living.

### 2.3 Maintaining consistency and continuity in design decisions

The preservation and development of historic districts entail a gradual progression where the outcomes of previous stages serve as the foundation for subsequent endeavors. However, given the protracted timeline, it is conceivable that different phases may involve different design entities, and even within the single phase, multiple teams with varying technical expertise may collaborate. This scenario poses a formidable challenge in maintaining consistency and continuity amidst these endeavors.

To address this challenge, the Organic Renewal Theory incorporates the perspective of original residents into the preservation planning process, thus aligning design proposals with residents' needs [8]. On the other hand, the Urban Catalyst Theory, exemplified by its application in American neighborhood designs, exhibits a flexible design approach that fosters inclusivity. This approach not only takes into account residents' opinions but also establishes a relatively standardized list of elements and design procedures, allowing designers to work within this framework while maintaining flexibility. In scenarios where multiple catalytic elements coexist within a neighborhood, the adoption of systematic design principles encourages collaboration among different design teams, ensuring cohesion in terms of appearance, functionality, and content. This approach ensures that various catalytic elements are capable of functioning either independently or collaboratively, thereby optimizing their collective catalytic effect [9]. Furthermore, the design decision-making assistance

provided by the Urban Catalyst Theory prompts planners, architects, and policymakers to propel the chain reaction within urban development, offering valuable insights for the Organic Renewal Theory[10].

### 2.4 Challenges of Catalyst Theory

Catalyst Theory faces several challenges at both theoretical and practical levels. Historically, numerous buildings have touted as "catalytic agents," yet frequently, these assertions merely reflect designers' personal agenda to innovate under the guise of catalyst theory. While such avant-garde buildings may exhibit some catalytic effects, they are frequently driven by designers' egos rather than being responsive to the neighborhood's necessities and functional requirements. As a result, these so-called "catalytic agents" often diverge from the neighborhood's historical continuity and disrupt the original residents' living environment, ultimately becoming burdens to urban development. Such practices undermines the fundamental intent of The Urban Catalyst Theory [11].

Furthermore, the practical application of catalytic effects often suffers from adisparity between theoretical ideals and real-world implementation. The Catalyst Theory embodies a comprehensive approach that bridge the gaps between expansive planning and detailed architectural design. However, in practical scenarios, a designer applying this theory often finds his influence limited to short-term renovations or designs for isolated segments or individual buildings within a neighborhood. Consequently, their influence on broader, district-wide transformations is often constrained, making it challenging to maintain the coherence and unity of the intended catalytic effect. Such complexities cannot be solely overcome by the efforts of individual designers. Only through the intervention and regulation of the local government can the one designer be entrusted as the principal consultant for significant renovations or new constructions within a neighborhood over an extended period, enabling subsequent projects to adhere fully to the framework established by preceding designs. Without this arrangement, it becomes significantly challenging to genuinely achieve the maximization of the envisioned catalytic effect or even propel chain reactions.

Lastly, while catalyst theory appears to focus on ar-

chitectural design, it effectively centers on designing user experiences, which often stands in contrast to contemporary urban planning principles. The pursuit of catalytic effects entails crafting an organic unity, rather than merely assembling discrete functional modules within the planning area. This approach blends various elements into a cohesive system, integrating them into the naturally evolving community ecology. This methodology not only increases the designer's workload and necessitates a paradigm shift from perceiving functions as piece-patched modules to embracing them as integral elements. Such a shift presents challenges, as it diverges from conventional modern urban planning practices and complicates the process of adaptation.

In summary, these issues pose a dilemma: achieving catalytic effects through design requires gradual, time-consuming, and complex processes; while designers often opt for short-term innovations that may undermine the existing urban character and ecology.

# 2.5 The Catalyst Theory modified within the context of historic district preservation and renewal

By integrating the characteristics of the Organic Renewal Theory and the Catalyst Theory, and addressing the practical challenges encountered in applying the latter, the following principles can be established for advancing historic district preservation and renewal:

(1) Preserving the Integrity and Vitality of the District's Historical Fabric: Any new elements introduced must integrate seamlessly into the district's historical and daily life. Therefore, it is crucial to first understand the district's architectural traits, street layouts, and lifestyle patterns, ensuring minimal disruption to traditional living spaces and pathways that are intimately connected to the original residents.

(2) Implementing a Gradual Strategy for Preservation and Renewal: The process of the district development ought to be incremental and progressive [12]. This process necessitates small-scale interventions and adjustments, with subsequent plans adapted based on the catalytic effects observed during previous phases.

(3) Ensure Distinct Recognizability of New Elements and Catalysts: The design of catalysts should aim to create projects that are not only integrated seamlessly but also make a distinctive contribution to the original fabric, ensuring a certain level of uniqueness. Thus, while preserving the overall aesthetic coherence of the district, new projects should maintain their distinct recognizability.

(4) Comprehensive Coordination for Preservation and Renewal Efforts: Historic district preservation and renewal are long-term endeavors where any missteps can result in failure. Designing catalysts also requires coordination with previous efforts to enhance their effectiveness. Throughout this process, it is imperative to maintain consistency in guiding principles, underlined by comprehensive planning that identifies and organizes functional and value-bearing elements of the district. This exhaustive planning encompasses the compilation of architectural and intangible heritage related to the district, as well as the establishment of a robust framework to facilitate subsequent design endeavors.

(5) Engage Government Oversight and Resident Participation [13]: The preservation and renewal of historic districts have profound social significance that transcends the mere commercial worth of the endeavors themselves. Optimal catalytic elements exhibit substantial spillover effects, where their value and impact extending well beyond the confines of the project. The societal implications embedded in such projects require the involvement of governmental oversight and the active participation of local residents.

Following these principles, the specific approach can be divided into four steps:

Step 1: Identify and categorize existing elements in the district [14](Table 1).

Step 2: Analyze theattributes and functions of the project as a district element. This step involves examining the project's attributes and functions from four main perspectives:(1)Location: Assess the project's geographical positioning within the district and the functionalities of adjacent buildings.(2) Culture Context: Evaluate the architectural idiom, historical trajectory, and cultural significance of the project.(3) Pedestrian Circulation: Analyze the existing pedestrian flow patterns and volumes in the area.(4) Potential for Transformation: Determine the project's ca-

### pacity for renovation and the potential for new construc- tion initiatives.

Table 1     Available Elements of Historic District	
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Carrier	General definition	Catalytic element
Streets, lanes, and nongs	Pedestrian or vehicular areas.	Streets, lanes, and nongs serve as connectors between various points, and important venues for residential and economic activities. Additionally, they have the function of linking different aspects of the urban landscape, fostering a cohesive and interconnected urban environment.
Historical buildings	Buildings or complexes processing historical significance and enduring value.	Historical buildings serve as tangible embodiments of the district's historical narrative and conti- nuity. While the streetscape may evolve over time, historical buildings largely remain steadfast. Additionally, they function as temporal repositories, reflecting the transformation of the district's living culture across generations.
Landscape architecture	Classical gardens or parks.	The purpose of landscape architecture is to create visually pleasingscenes that delight and invite exploration. Areas of transition, where one scenic element gives way to another, provide ample space for the imagination to wander.
Time-honored brands	Traditional old shops related to neighborhood life.	The interdependence between time-honored shops and historical districts is profound: the exist- ence of historical district supports the emergence of time-honored shops, while these shops, in turn, serve as shared memories and life experiences across generations of the original residents.
Structures	Objects within a district designed to display, indication, or the deliv- ery of municipal services, such as monuments, signage etc	Structures convey the historical and contemporary narratives of a district, serving as the carriers of the history.
Activity squares	Open spaces within the district for residents and tourists to engage in activities.	The activity squares are public activity spaces that serves as the most adaptable and inclusive cat- alytic carriers. By incorporating different (activity) elements at various time points and stages, they can reflect different types of values.
New buildings	Newly constructed or renovated buildings in historical districts.	New buildings represent a new historical phase of the district, which may interact with the older history in diverse manners including integration, juxtaposition, or confrontation, shaping a multi-faceted temporal context.

Step 3: Assess the intrinsic value of the project. This step is divided into tangible and intangible elements: (1) Tangible Elements: Repair any damage to existing buildings to enhance their overall quality. Restore or add tangible components such as interior and exterior finishes, decorative elements, and fixtures. If necessary, reconfigure internal spaces for functional optimization or construct new buildings to address functional deficiencies. (2) Intangible Elements: Intangible catalysts, such as traditional crafts, arts, and public events, represent elements with widespread influence [15].

Step 4: Evaluate and foster the project's catalytic effects within the district.(1)Scope of Catalytic Effects Assessment: Determine the project's reach within a 10-minute walking distance. Based on the project's functionalities and values, estimate the number of buildings within this radius that could potentially be influenced.(2) Enhancing Connections with Neighboring Buildings: Leverage the value of tangible and intangible elements as creative elements to design streetscape structures and organize activities that foster connections with surrounding buildings. (3) Iterative Refinement: Post-construction, continually refine or augment elements based on public feedback and project outcomes to maximize the catalytic effect [16].

### 3 Case study: an analysis of Panxi Restaurant

The following section provides an overview of the application of Catalyst Theory within the framework of historic district preservation and renewal, using the renovation of Panxi Restaurant as an illustrative case study.

### 3.1 Accessible catalytic elements in the vicinity of Panxi Restaurant

3.1.1 Catalytic elements in the vicinity of Panxi Restaurant: (Table 2) (Figure 3)

### 3.1.2 Value elements of the Panxi Restaurant district

(1) Xiguan Area: Since Qing Dynasty, Xiguan has flourished as a prosperous area known for its vibrant commercial activities. The district features well-preserved historical architectural complexes, including the Xiguan Mansion and the Qilou streets.

Carrier	Instance	
Streets, lanes, and nongs	Panxi Restaurant is located on Longjin West Road, intersecting with Enning Road and Pantang Road, thereby facilitating the in gration of catalytic elements at the street level.	
Historical buildings	Qilou Buildings (a type of building architecture in southern China where the upper floors extend over to offer shade for pedes ans), Liwan Museum, Liangjia Ancestral Hall, Xiao Huafang Studio, Xiguan Mansion, Haishan Xian Pavilion, Ciwei Pavilion, R wei Temple, Bruce Lee's Former Residence, Bahe Artists Association of Guangdong, etc.	
Landscape architecture	Haishan Xian Pavilion, Liwan Lake Park, Liwan Scenic Area, etc.	
New buildings	the Renovated Pantang Wuyue Cultural Area, Cantonese Opera Art Museum, Yongqing Square, etc.	
Structures	Wen Tower, Moon Shadow, etc.	
Time-honored brands	Guangzhou Restaurant, Xiangqun Hotel, Royal Fine Dim Sum, Xiguan Clan House, Lingji, Provincial City Rice Noodles.	
Activity squares	Plaza withinLiwan Park, Liwan Children's Activity Center.	

### Table 2 Available Elements in the Vicinity of Panxi Restaurant

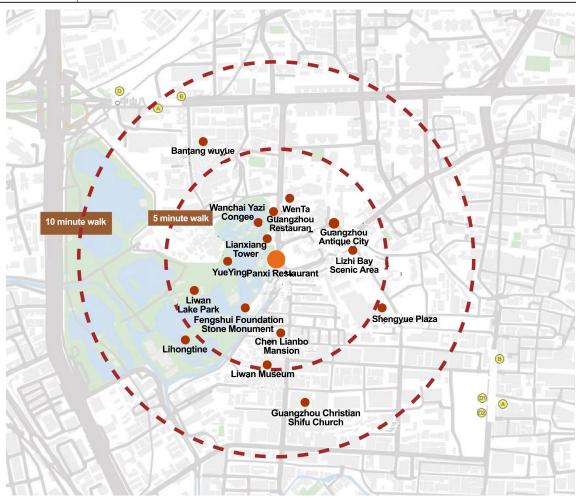


Figure 3 Available elements around Panxi Restaurant

(2) Lingnan Gardens: Lingnan gardens are distinguished by three main characteristics: (i) The integration of influences from Central Plains culture, Jingchu culture, Wu-Yue culture, Min-Gan culture, and various overseas cultures with local traditions; (ii) The blend of pragmatism and innovation within commercial culture; (iii) The influence of water and maritime culture, leading to garden designs that emphasize water elements [17]. Historically, the district boasted many classic gardens, such as the Haishan Xian Pavilion and the Changhua Garden of the Southern Han Dynasty.

(3)Cuisine: Since the Qing Dynasty, Xiguan has been

a central hub for Cantonese cuisine. The area surrounding the Panxi Restaurant is populated with numerous renowned, bustling eateries, where famous chefs and signature dishes continue to emerge.

(4) Cantonese Opera: The district has long been recognized as a community of Cantonese opera, housing many prominent performers lived during the Republic of China and the early years of People's Republic of China.

(5) Traditional Crafts: The traditional architecture in the district prominantly features Guangdong's traditional "three carvings" (stone carving, wood carving, brick carving) and "two sculptures" (plaster sculpture, ceramic sculpture).

### 3.2 Historical regrets of Panxi Restaurant

Panxi Restaurant, designed by academician Mo Bozhi in the 1950s and 1960s, exemplifies Lingnan garden-style dining, featuring a thoughtfully arranged layout (Figure 4). This establishment seamlessly integrates distinctive elements of Lingnan gardens with Qing Dynasty architectural decorations, functioning as a living art museum. It houses rare and valuable artifacts, including antique flower covers, door panels, intricate wooden carvings, colored floral window screens, rosewood furniture, and calligraphy and paintings by notable figures. In addition to its representation of Lingnan garden culture, the restaurant embodies vital aspects of local dining and Cantonese opera traditions.

Despite its many virtues, Academician Mo Bozhi acknowledged certain shortcomings in the design of the restaurant. He pointed out that the layout did not fully accommodate the logistical needs of the operation. The service areas were undersized, and the kitchen lacked provisions for gas-fired equipment. Additionally, there were no provision for a staff cafeteria or childcare facilities, and the overall space allocation was insufficient. As the implementation phase began, the team discovered that the operational area was too limited, leading to a reduction in the courtyard space to expand dining capacity, which resulted in a cramped courtyard landscape and skyline [18].

To address these challenges, the restaurant operators constructed a four-story logistics office building to increase operational space. However, this purely functional addition stands in starkly contrasts to the original architectural style, creating a discord between the old and new aesthetics. Over time, the original buildings have also deteriorated, with many of the furnishings and structures showing significant wear and damage, diminishing the once vibrant ambiance.

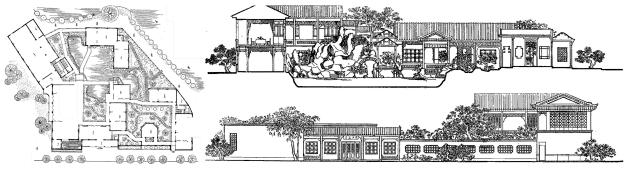


Figure 4 Panxi Restaurant blueprint (manuscript by academician Mo Bozhi)

### **3.3** The restoration of the tangible carriers

The ongoing restoration work at Panxi Restaurant primarily addresses the aforementioned historical issues while striving to minimally disrupt the environment and maximize the restoration of academician Mo Bozhi's original vision, particularly regarding academician Mo Bozhi's thought on the fabrication of the mounts and water. Due to space limitations, this paper will not cover all aspects of the restoration but will highlight a few key elements. One significant aspect is the renovation of the lakeside façade of the logistics office building. This building, which has undergone several expansions since the 1990s, presents various structural and functional challenges. Its lakeside façade features a protruding elevator shaft and large ventilation ducts extending from the first floor to the roof, which significantly disrupts the surrounding historical environment and stands out as a major discordant element on the boundary between Panxi Restaurant and Liwan Lake South.

The objective of the facade renovation is to restore, to the greatest extent possible, the characteristics of Lingnan garden architecture, specifically the integration of extensive courtyards and elevated terraces [19], while continuing academician Mo Bozhi's vision for Lingnan garden aesthetics. The renovation involves several key strategies:

(1) Focus shift: The large ventilation ducts are concealed behind partition walls, and the protruding elevator shaft is decorated as a Western-style tower. As the central and highest point of both the restaurant and the lake south boundary, the Western-style pavilion at the top of the tower serves to draw visual focus, thereby mitigating the adverse effects of surrounding high-rise buildings on the restaurant's skyline. The Western-style tower design is inspired by the technique of blending Eastern and Western styles found in Lingnan gardens. It not only creates an exotic atmosphere but also complements the existing Meeting of Winds and Clouds Dome on the Liwan Lake South boundary, enhancing the overall visual appeal.

(2) Minor adjustments to façade details: Some flat roofs have been converted to pitched roofs, incorporating elements common in Guangdong folk architecture, such as Xieshan-style roofs, connecting corridors, and window cornices. These modifications refine the partition walls and façade style, softening prominent features and altering the visual rhythm of flat sections through thoughtful arrangement of doors and windows (Figure 5).

Secondly, the restoration of handcrafted artifacts and the display of traditional craftsmanship are key components of the project. Panxi Restaurant, a quintessential Lingnan garden restaurant, originally employed handcrafted products and building techniques prevalent in Guangdong during the renovation overseen by academician Mo Bozhi. Building materials such as bricks, stones, wood, screens, windows, lintels, and wooden carvings predominantly came from salvaged materials of the "Xiguan Mansion," thereby preserving many characteristics of Lingnan garden aesthetics and Qing Dynasty architectural decoration (Figure 6). Additionally, government departments of the time selected period-specific artworks, including Li Guohua's woodcut "Red Ridge Sunrise" and Mao Zedong's calligraphic inscriptions, to decorate partitions and doors.

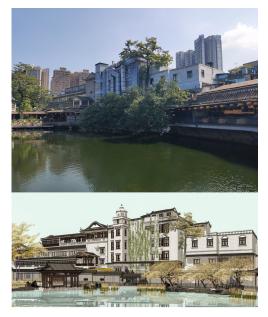


Figure 5 Before and after renovation of the logistics office building

Academician MoBozhi and the Panxi staff also collected furniture from the Qing Dynasty to the early Republican era [20], which was once displayed in the restaurant's main hall. Through the collaborative efforts of Mo Bozhi's team, Panxi staff, and government agencies, Panxi Restaurant had preserved the essence of the Xiguan architectural spirit and Lingnan building culture that might otherwise have been lost. The external decorations, components, and furnishings possess significant cultural and aesthetic value, making it one of the most notable examples of Guangdong's heritage. In 2016, Panxi Restaurant was included in the "First Batch of 20th Century Chinese Architectural Heritage" list [21].

As Panxi Restaurant underwent restructuring, valuable historical furniture was collected by the Liwan Cultural Relics Bureau, with some pieces displayed in the Liwan Museum. Due to the passage of time, the remaining furniture, components, and decorations have suffered various degrees of damage. The design team plans to collaborate with renowned traditional craftsmen to restore or reconstruct architectural decoration components, doors, windows, and railings. Notable works include ceramic ridge pieces such as "Longevity Celebration," "Joyful Mood," and "Dragon Rising" (Figure 7). Through this restoration and limited new construction, the design team aims to more fully integrate Guangdong's traditional "three carvings" and "two sculptures" into the restaurant's interiors and exteriors, transforming Panxi Restaurant from a culturally rich garden restaurant into a showcase of Guangdong's traditional craftsmanship.



Figure 6 Interior decoration of Panxi Restaurant



Figure 7 Ceramic sculptures by master He Zhanquan

### 3.4 The introduction of the intangible carriers

Panxi Restaurant naturally embodies various intangible catalytic carriers. First, it seamlessly integrate the traditional craftsmanship of Guangdong, including Lingnan garden design techniques, the "three carvings" and "two sculptures", as well as traditional furniture-making processes. Second, the restaurant is renowned for its culinary heritage. During the 1970s and 1980s, it became a national center for Cantonese cuisine, earning the reputation of "Half of Cantonese cuisine masters come from Panxi," featuring classic dishes such as the "Eight Great Dishes," "Eight Great Dim Sum," and "Shape-Representing Dim Sum Banquet." Prominent chefs like Luo Kun, Lin Rangming, and He Jixiong have significantly contributed to this illustrious culinary tradition. Third, Panxi Restaurant is situated in the traditional Cantonese opera community of Xiguan, which was frequented by many renowned Cantonese opera performers from the Republican era and the early People's Republic of China, creating an intrinsic connection with Cantonese opera culture.

These inherent attributes make it logical for Panxi Restaurant to incorporate existing public activities and events from the district as intangible carriers. For instance, Panxi Restaurant could serve as a venue for the district's longstanding traditional craft exhibitions and Cantonese opera seminars, and it could also participate in themed food events organized by the district. By introducing these intangible catalysts, Panxi Restaurant not only enhances the recognition of its components among specific audiences but also contributes to enriching the overall cultural value of the district.

### 4 Conclusion

The protection of historic districts is an emerging field that often requires gradual, step-by-step progress due to external constraints. This process involves more than just government investment; it demands broader participation and collective effort. The systematic framework provided by the Urban Catalytic Theory offers a theoretical foundation for historic preservation work and refines the implementation path for specific design steps. The Panxi Restaurant renovation project aims for a non-centralized catalytic effect, focusing on minimal intervention to restore the original design intent and enhance the historical and cultural value of Panxi Restaurant while highlighting the district's historical character. The renovation of Panxi Restaurant, along with the integration of nearby available elements, sets new standards and higher expectations for the protection of adjacent historic districts.

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