CULTURAL HERITAGE CONSERVATION AND SUSTAINABLE DEVELOPMENT IN KUNMING OLD STREET HISTORICAL AND CULTURAL DISTRICT BY PARTICIPATORY DESIGN

By
Mr. Limeng GUAN

A Thesis Submitted in Partial Fulfillment of the Requirements
for Doctor of Philosophy Culture - Based Design Arts
Silpakorn University
Academic Year 2025

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Field of Study	Culture - Based Design Arts
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Mr. Limeng GUAN : Cultural Heritage Conservation and Sustainable Development in Kunming Old Street Historical and Cultural District by Participatory Design Thesis advisor : Assistant Professor Sarawuth Pintong, Ph.D.

Kunming Old Street Historical and Cultural District, located in the central urban area of Kunming, Yunnan Province, represents one of the most historically significant districts in Southwest China. As an important node of commerce and culture since the Ming and Qing dynasties, the district has undergone rapid transformation in the context of urban renewal and tourism development. Issues such as gentrification, cultural homogenization, and spatial displacement have challenged its historical authenticity and community vitality. Against this background, this research aims to explore strategies for the protection and sustainable development of Kunming Old Street based on Participatory Action Research (PAR). The study addresses three core objectives: (a) to identify key challenges and stakeholder perceptions regarding heritage conservation; (b) to establish a participatory design framework for community co-conservation; and (c) to develop replicable strategies for sustainable cultural heritage revitalization.

Methodologically, this research employs a mixed-method approach combining qualitative and quantitative tools. Through three iterative PAR cycles of Planning–Action–Observation–Reflection, the study integrates interviews, questionnaires, district mapping, co-creation workshops, and field observation. These multi-stakeholder participations—covering residents, experts, and visitors—form the empirical foundation for the PHSD Model framework, which link participatory design principles with heritage conservation practice.

Findings reveal that participatory co-design effectively enhances local identity, promotes community inclusion, and strengthens collective memory within the district. The study concludes that a participatory design–driven model can bridge the gap between cultural conservation and urban sustainability, providing a strategic pathway for revitalizing historical and cultural districts in China and beyond.

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CHAPTER 1
INTRODUCTION

1.1 Significance of Problem

Driven by global urbanization, gentrification has become a shared challenge in protecting historic cultural districts. Environmental upgrades and better housing quality are often achieved. However, these gains frequently come with rising property prices, the out-migration of original residents, and greater social stratification. As a result, making places more beautiful does not necessarily mean keeping people in place. Under intense urbanization and commercialization, informal construction, resident displacement, and breaks in cultural transmission intersect. Addressing how to curb the negative spread of gentrification, retain a meaningful proportion of original residents, and safeguard everyday cultural life has become central to community stability and social cohesion.

Since China initiated the Historic and Cultural City protection system in 1982, the institutional framework has undergone steady improvement. This has enabled many valuable heritage sites to be protected, even as urbanization accelerates. As of 2025, the country has designated 144 National Historic and Cultural Cities, 312 Historic and Cultural Towns, and more than 1,200 Historic Cultural Districts. These measures establish an institutional safeguard for urban memory. In practice, however, top-down transformations led mainly by capital and government actors remain common. The material environment often improves, but these interventions can diverge from community needs. This can sometimes lead to resident relocation, cultural erosion, and social network fragmentation. As a case in Southwest China, Kunming Old Street shows both notable resources and the tensions mentioned above. Its lessons have transferable value for protection practices nationwide.

This study is significant because it puts Participatory Design at the methodological core. It reframes the logic of knowledge and action from doing for the community to doing with the community. The work ensures full-process participation among multiple stakeholders, including the government, developers, original residents, merchants, and visitors. Heritage protection and renewal thus shift from a

one-way engineering project to a negotiated and reviewable social process. This change provides an institutional alternative for mitigating the negative effects of gentrification. The research addresses both the integrated protection and daily maintenance of tangible heritage. It also highlights intangible aspects, such as folk culture and traditional crafts. This approach helps prevent visible upgrades to the district from displacing residents' sense of belonging.

The study is grounded in the Kunming Old Street Historical and Cultural District. It combines field investigation, stakeholder interviews, and design workshops. Together, these methods help build a participatory protection model that is both replicable and assessable. The study also tests the effectiveness and sustainability of this model using empirical data. As a result, the contribution is twofold. Theoretically, it offers a framework for participatory governance in historic district protection. Practically, it provides actionable strategies and tools that respect historical and cultural values and address contemporary needs. This work offers systematic references and theoretical support for Historic Cultural Districts in China and beyond.

1.2 Objectives of Research

1.To study the values and challenges of historic cultural districts, with a focus on the socio-cultural significance and conservation issues of Kunming Old Street.

2.To analyze stakeholder needs and expectations in Kunming Old Street via surveys and semi-structured interviews on heritage attitudes ;

3.To design a PAR-based community co-conservation workflow and workshop, develop replicable strategies for Kunming Old Street, and pilot feasibility.

1.3 Hypothesis

If participatory action research (PAR) is introduced in the conservation of Kunming Old Street, the level of resident participation and satisfaction is expected to increase significantly, promoting multi-party cooperation and achieving heritage conservation and sustainable development.

1.4 Scope of the Research

1.4.1 Content Scope

This study examines the protection of cultural heritage and the pursuit of sustainable development within Historic Cultural Districts, using Participatory Design as the methodological backbone. It advances a closed-loop process of identification, co-creation, exhibition, and collaborative governance, through which Kunming Old Street's heritage resources are systematically recognized, interpreted, and mobilized. The inquiry encompasses the layered identification and documentation of tangible heritage—such as protected historic buildings—and intangible heritage, including traditional crafts and oral histories. On this basis, it develops participatory guide-making that enables residents and other stakeholders to shape wayfinding and interpretive content; curates the collection and public presentation of cultural memory to foreground community narratives and place-based knowledge; and designs mechanisms for collaborative governance alongside a set of evaluation indicators that clarify stakeholder roles, procedures, and metrics for ongoing assessment.

Defining the scope in this way establishes clear research boundaries that ensure consistency and focus across the study. Particular attention is given to how Participatory Design can simultaneously advance the protection of tangible and intangible heritage and strengthen cultural transmission and community vitality. Against the pressures of modernization and commercialization, the chapter interrogates how Kunming Old Street can mitigate threats to cultural heritage and, in response, develop effective and durable mechanisms for protection and management. Through this integrated approach, the study aims to align day-to-day practices of heritage stewardship with broader goals of sustainable urban development.

1.4.2 Population Scope

The study targets the principal stakeholders of the Kunming Old Street Historical and Cultural District: long-term resident households, local merchants, visitors, community management personnel, and domain experts. A stratified, purposeful sampling strategy underpins both the quantitative survey and qualitative interviews. The planned sample comprises approximately 100 residents, 20 merchant entities, 30 visitors, and 10 experts, ensuring basic representativeness across key demographics, including gender, age, length of residence, and business type. All data

collection adheres to ethical approval and informed-consent procedures, implements anonymity and data-minimization principles, and provides necessary communication and accessibility support for older adults, vulnerable groups, and ethnic minorities. External investors and short-term event organizers are consulted only as supplementary informants in policy and operational interviews and are not included in the core statistical sample.

For this study, the principal stakeholders of the Kunming Old Street Historical and Cultural District are designated as follows:

1. Long-term residents (original inhabitants). As a core group, long-term residents sustain deep emotional connections to place through daily routines and inherited memory. Their interests are critical to heritage preservation and district development. Their ongoing involvement and commitment are crucial to protecting cultural heritage and maintaining historical continuity.

2. Merchants. Encompassing permanent shops and temporary vendors, merchants are essential participants and beneficiaries in the district's economic landscape. They directly affect development and operations. Their interests and priorities should be carefully addressed and coordinated so that economic activity supports conservation goals.

3. Visitors. Visitors influence the district's reputation, profile, and economic vitality. Their presence fosters cultural exchange and generates local income but can also strain heritage resources. Clear guidance and management are needed to maintain both experience quality and protection goals.

4. Community management departments. As public entities responsible for governing and maintaining Historic Cultural Districts, these departments fulfill organizing, oversight, and service roles. They coordinate resident self-governance, direct district-level development, and enforce cultural-heritage protection while balancing diverse stakeholder interests.

5. Expert cohort. This group includes architects, historians, intangible cultural heritage bearers, staff from cultural centers and archives, academic researchers, and conservation engineers. They contribute professional perspectives and technical expertise, upholding methodological rigor and ensuring the scientific integrity of the study's approach and findings.

1.4.3 Area Based Scope

The Kunming Old Street Historical and Cultural District is in the urban core of Kunming, Yunnan Province. It extends east to Zhengyi Road, west to Yunrui West Road and Wuyi Road, north to Huashan South Road, and south to the Dongfeng West area. The district covers about 21.9 hectares (≈328.8 mu). Six main streets run through the area: Wenming Street (文明街), Wenmiao Zhijie (文庙直街), Guanghua Street (光华街), Jingxing Street (景星街), Yongdao Street (甬道街), and Shifu East Street (市府东街). There are also fifteen alleys, including Zhengyi Lane (正义巷), Dayingui Lane (大银柜巷), Xiaoyingui Lane (小银柜巷), Qiuzong Lane (邱宗巷), Guojia Lane (郭家巷), Haitiange Lane (海天阁巷), Xingfu Lane (幸福巷), Jixiang Lane (吉祥巷), Shuguang Lane (曙光巷), Dongjuandong Lane (东卷洞巷), Xijuandong Lane (西卷洞巷), Tongcheng Lane (通城巷), Zhidao Lane (直道巷), Xiaozifang Lane (孝子坊巷), and Sizhi Lane (四知巷). The district sits to the west of Kunming's traditional north–south central axis, following the city's historical layout. Wenmiao Zhijie, Wenming Street, Zhengyi Road, and Qianwang Street form secondary axes that intersect Jingxing Street and Guanghua Street, creating a grid-like pattern. This results in a compact street network and a clear urban form.

The study area is vast and encompasses many historic buildings, cultural traditions, and cherished memories. It was once Kunming's political, economic, and cultural center, which adds to its historical and cultural value. The research encompasses both tangible heritage, including protected buildings, designated conservation units, and archaeological remains, and intangible heritage, such as traditional crafts, renowned food businesses, and stories about notable individuals. This approach enables a comprehensive analysis of the district's culture and current protection efforts.

Recent protection and development in the district have taken place in three phases. The first phase, called the Zhengyifang Commercial Pedestrian Street, opened at the end of 2009. In the second phase, the style-preservation area, including Qianwang Street, Wenming Street, the Jingxing Jewelry Market, and Yongdao Street, began operations in mid-2018. The third phase, a combined preservation and development project, has not started yet. This study focuses on the second and third

phase zones. These zones feature the district's traditional architectural groups and the original residents' areas.

1.4.4 Time Scope

The Kunming Old Street Historical and Cultural District received formal approval in 2003. From 2003 to 2012, Phase I focused on constructing a commercial street and selectively protecting historic buildings. Developers played the leading role in both development and conservation during this phase. Between 2014 and 2021, over-commercialization in Phase I led to a change. Responsibility for the remaining components of Phase II and the entirety of Phase III shifted to joint leadership between the government and developers. Progress was delayed mainly by unresolved tensions between the original residents and public authorities. Against this backdrop, the present study defines its analytical window from 2022 to the present.

Covering the period from 2022 to 2025, the study examines how Kunming Old Street has navigated the pressures of modernization and commercialization over this four-year span. From 2022 onward, the research entered the implementation phase of Participatory Design, advancing cultural-heritage protection and community development through workshops and neighborhood activities. These interventions were organized as multiple rounds of a PAR-based pretest–intervention–posttest–feedback sequence, embedded within the PAR cycle of " Planning - Action - Observation - Reflection." All data collection for outcome evaluation was completed within the study period. The ultimate aim is to develop a feasible, evidence-based participatory protection scheme for Kunming Old Street and to provide a transferable reference for the sustainable development of comparable historic cultural districts.

1.5 Assumption Framework

This study develops an integrated framework that encompasses the research problem, objectives, hypothesis, literature review, methodology, experimental design, and evaluation. Structured in three stages, the framework systematically examines how government agencies, community residents, merchants, and visitors perceive and experience heritage protection and sustainable development in the Kunming Old Street Historical and Cultural District. It identifies key drivers and constraints, and—through participatory strategies such as narrative guide-making, a cultural memory

handbook, and a digital memory wall—designs, implements, and validates a replicable model of community-based participatory protection.

Stage 1: Preparatory research (2022–2023). We conduct a systematic review of domestic and international scholarship on the protection of Historic Cultural Districts, Participatory Design, and social impact assessment to clarify variables and indicators. Drawing on policy documents and local gazetteers related to Kunming Old Street, we construct the conceptual framework and operational definitions. We then undertake reconnaissance fieldwork to draft a stakeholder map and an inventory of tangible and intangible heritage elements, followed by the development of survey instruments and interview protocols. Following a small-sample pilot, we revised the instruments based on pretests and an IOC (Item–Objective Congruence) review.

Stage 2: Fieldwork (2023–2024). We implement stratified questionnaires, semi-structured interviews, and sustained ethnographic recording with residents, merchants, visitors, managers, and experts. We also establish community feedback channels to surface latent issues. At the same time, we clean and analyze pretest data in SPSS to conduct descriptive statistics, reliability and validity checks, and difference testing. Where appropriate, we use regression or mediation analysis. Findings from the pretest phase informed a needs assessment for each stakeholder group. These findings inform the design and material preparation for the three Participatory Design experiments.

Stage 3: Implementation, evaluation, and translation of results (2024–2025). Guided by Participatory Action Research (PAR) and its cycle of “Planning - Action - Observation - Reflection,” we conduct three co-creation experiments through community workshops. These workshops produce a district guide map, a pilot edition of the cultural reader, and an Old Street memory exhibition. We collect posttest data and evaluate changes in comparison to the pretest on core indicators, including participation quality, cultural identity, environmental satisfaction, and collaborative governance. The project culminates in the dissertation, the printed Cultural Reader of the Kunming Old Street Historical and Cultural District, journal submissions, and an open dissemination package with archived data and materials (Figure 1).

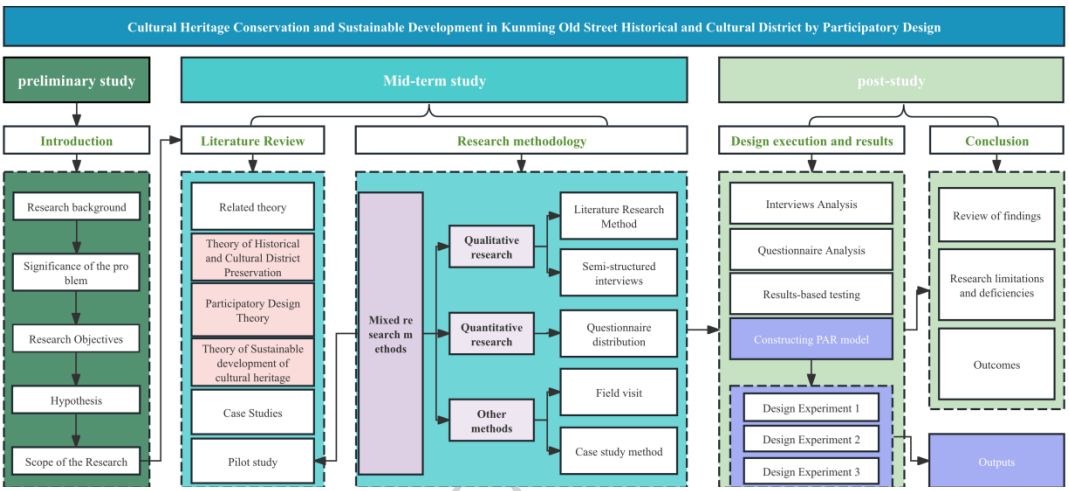

Figure 1 Thesis research framework Chart.
Source: Individual drawing by the author. (Guan, 2024)

1.6 Definition of Terms

1.Historic Cultural District. A spatial unit formed through urban evolution in which ensembles of historic architecture, street–alley morphologies, and everyday lifeways together constitute integrated value. Protection targets encompass both material carriers and the co-evolving sociocultural processes that accompany them. The emphasis is on wholeness, context, and continued use, rather than point-based restoration of isolated monuments.

2.Participatory Design. A design methodology that actively incorporates stakeholder knowledge and preferences throughout the process so that decisions and design outcomes are co-produced and better aligned with real needs and use scenarios. It is particularly suited for domains that require broad public involvement, such as community building and public space design.

3.Participatory Action Research (PAR). A practice-oriented research approach organized around iterative action and reflection. Through joint problem definition, co-created interventions, and feedback-based evaluation among researchers and stakeholders, PAR generates knowledge usable for action. In this study, PAR structures co-creation workshops, the systematic participation process, and evidence collection, following the PAR cycle of “ Planning - Action - Observation - Reflection”.

1.7 Expected Output and Outcomes

This study will deliver a ready-to-use suite of participatory research and design tools tailored to Historic Cultural Districts. The toolkit will include a PAR process adapted to the district context; questionnaire and semi-structured interview protocols; measurement scales and IOC forms; and a curated, multi-source dataset accompanied by concise visualization templates. Building on these instruments, the project will produce both prototypes and deployable versions of three co-created outputs: a district guide map, the bilingual Kunming Old Street Cultural Memory Handbook (in print and digital editions), and the "Kunming Old Street Memory Wall/Online Exhibition." At the governance level, the study will propose a "Symbiosis–Sharing–Co-governance (SHS)" workflow with clearly defined roles and responsibilities to support routine community operations.

Expected outcomes will be evidenced through pre- and post–comparisons. The evaluation will focus on whether participation quality among residents and merchants improves, whether cultural identity and sense of place are strengthened, whether environmental and interpretive satisfaction increases, whether multi-stakeholder coordination becomes more effective, and whether visitor dwell time and interaction rise at key nodes. Results will be reported through clear indicator changes and necessary statistical tests, supplemented by exemplary cases and interview-based evidence to ensure verifiability.

Dissemination will occur through academic publications to facilitate reference and uptake in comparable districts. The overarching goals align with SDG 11.4 (strengthening efforts to protect and safeguard cultural heritage), SDG 11.3 (inclusive and sustainable urbanization and participatory planning), and SDG 17 (partnerships for the goals), emphasizing replicability, operational feasibility, and long-term sustainability.

CHAPTER 2
LITERATURE REVIEW

Introduction

With the acceleration of global urbanization and modernization, the protection and development of historic cultural districts have become a central concern in both scholarship and policy. Unlike the conservation of isolated monuments, Historic Cultural Districts encompass not only material dimensions—architectural ensembles, street and alley morphologies, and spatial form—but also the continuity of social relations, everyday lifeways, and cultural memory. Within this context, striking an equitable balance between development and protection has emerged as a worldwide challenge. Existing research indicates that gentrification is challenging to avoid in many protection efforts. While it can deliver environmental upgrades and reputational gains, it is often accompanied by rising housing costs, the displacement of original residents, community stratification, and cultural dislocation. Consequently, academic inquiry has shifted from a narrow focus on material conservation to a broader perspective of integrated governance that emphasizes community participation, social equity, and cultural transmission in equal measure (Wang, 2022). This shift provides the scholarly backdrop for the present study, positioning Kunming Old Street as a case with wider relevance.

In China, the protection of historic cultural districts entered an institutionalized phase in the 1980s. Policies such as the Regulations on the Protection of Famous Historical and Cultural Cities, Towns, and Villages have progressively incorporated extensive heritage assets into national and local protection systems. Yet, in practice, top-down governance and capital-driven development logic remain prevalent, often marginalizing resident demands and threatening the continuity of intangible cultural heritage (Zhang, 2021). As a result, recent scholarship has focused on how to transcend traditional, technocratic protection models by introducing more interactive and inclusive participatory mechanisms. Participatory Design and Participatory Action Research (PAR) have shown promise in reconciling diverse interests, strengthening community cultural identity, and advancing sustainable development. Building on a systematic review, this chapter distills the theoretical

foundations and practical lessons of these approaches, evaluates their applicability and limitations in the protection of Historic Cultural Districts, and lays the conceptual and methodological groundwork for the empirical study of Kunming Old Street.

To bridge the context provided in earlier sections with the chapter's structure, the following sequence is adopted. First, it outlines the historical evolution, heritage inventory, socio-economic transformations, and relevant protection policies of Kunming Old Street, clarifying both the site's specificity and its broader representativeness. Second, it introduces theoretical foundations closely aligned with the research—namely, the Historic Urban Landscape (HUL) approach, Participatory Action Research (PAR), and the Symbiosis–Sharing–Co-governance (SHS) framework—and examines how they support the study's questions and objectives. Third, it constructs the analytical framework for this research, specifying the relationships among variables and presenting a model to guide research design. Fourth, it analyzes domestic and international cases of historic-district protection and renewal, extracting methodological insights and highlighting persistent gaps. Finally, it draws on preliminary fieldwork in Kunming Old Street to validate the problem framing and to pilot-test the study's methods and instruments. Through this structured review, the chapter establishes a solid foundation for the subsequent methodology and design experiments, while contributing a critical perspective to ongoing debates on the protection and sustainable development of historic cultural districts.

2.1 Overview of Kunming Old Street

2.1.1 Location of Kunming Old Street

Kunming Old Street is situated at the heart of Kunming's main urban district in Yunnan Province (Figure 2), bounded by Zhengyi Road to the east, Wuyi Road to the west, Huashan South Road to the south, and Jingxing Street to the north, occupying the core area of the historic city (Qian, 2017). Covering approximately 21 hectares, it is one of the largest and best-preserved historic cultural districts within the municipal area (Zhang, 2018). Its locational advantages derive not only from centrality but also from its close integration with the morphological structure of the old city. As early as the Nanzhao period of the Tang dynasty, the embryonic Tuodong City

emerged here, making the Old Street one of the origins of Kunming's urban form. Over subsequent centuries, streets such as Wenming, Jingxing, and Yongdao gradually articulated a traditional spatial pattern organized around a central axis and framed by a system of wards and alleys, now constituting a key component of Kunming's urban memory (Sun & Zou, 2010).

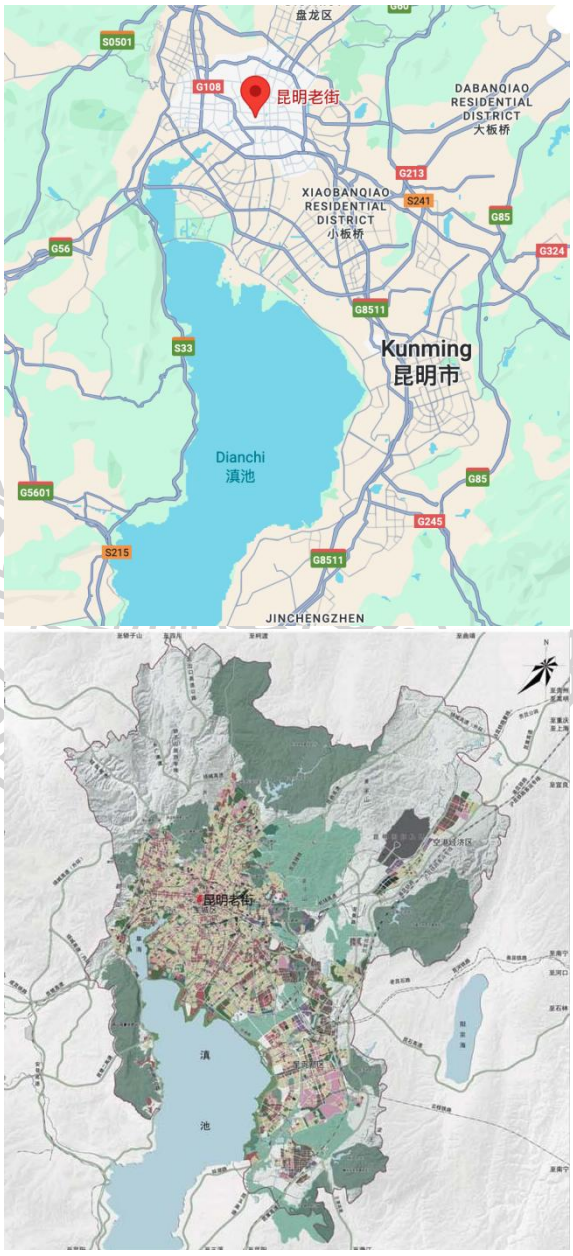

Figure 2 Location of Kunming Old Street.
Source: https://maps.app.goo.gl/BgigHpqZsmTjQoYm9. (Guan, 2024)

From a spatial-structural perspective, Kunming Old Street exhibits a clear distinction between inner and outer zones. Internally, a fine-grained fabric of traditional lanes creates a sinuous pedestrian network, with narrow rights-of-way that are primarily suitable for foot traffic and small-scale circulation. This morphology reflects the "ward–alley" configuration characteristic of Ming–Qing urbanism while endowing the district with a distinctive human scale and historical atmosphere today (Jing, 2021). Externally, the area connects directly to modern urban arterials, producing an immediate interface and gradual transition between traditional and contemporary spaces. As a result, Kunming Old Street functions as a key spatial node of "dialogue between past and present" within the city's modernization process. The spatial and functional traits of its core area confer not only geographical centrality but also a symbolic status as an "urban core" in social and cultural terms(Figure 3).

Figure 3 Spatial Distribution of "Kunming Old Street".
Source: Kunming City Planning Compilation and Information Center. (Guan,2024)

Kunming Old Street's locational advantages extend beyond centrality. It has strong cultural and economic radiance. Historically a seat of administration and commerce, the district's proximity to the Confucian Temple and the Yungui Governor-General's Office made it a nexus of Yunnan's political, cultural, and economic activity (Qian, 2017). Today, it still retains landmark cultural assets

centered on the Confucian Temple and hosts traditional commercial activities exemplified by the Jingxing Flower-and-Bird Market. In recent years, the rise of tourism and cultural industries has further elevated the district as a major destination within Kunming. Excellent transport connectivity, due to its adjacency to the Nanping Street commercial area and the railway station, enables swift visitor access and reinforces its value as a core urban cultural landscape (Si & Liu, 2012).

These advantages, however, also sharpen the tension between protection and development. On one hand, adjacency to modern commercial zones drives up land values and intensifies market-led redevelopment pressures. On the other hand, the district's core historical and cultural significance demands rigorous protection. Over-commercialization risks eroding the authenticity of heritage (Zhang, 2018). In this sense, locational advantage operates as a double-edged sword. It amplifies social and cultural influence, as well as economic potential, while complicating the balance between conservation and utilization.

Summary

Overall, the locational characteristics of Kunming Old Street reflect both historical continuity and the strains of contemporary urbanization. Its central position makes it a focal point of city development, but also subjects it to heightened pressures of conservation and renewal. Location thus not only secures the district's centrality within Kunming's urban morphology; it also conditions subsequent protection policies, economic transitions, and social restructuring. Recognizing these locational dynamics provides a crucial starting point for analyzing the district's protection and sustainable development trajectories.

2.1.2 Historical Evolution

Kunming's historical records state that the Kunming Old Street Historical and Cultural District, also known as the Wenming Street Historic District, was the core of Tuodong City—the precursor to present-day Kunming. In 765 CE, Geluofeng, king of the Nanzhao polity, sent his son Feng Jiayi to build the city. The Old Street area is to the west of the city's north–south central axis. Over nearly a millennium of urban change, the area has spanned the Nanzhao and Dali regimes (more than five centuries), as well as the Yuan, Ming, and Qing dynasties, and the Republican period. Through these changes, the district evolved in tandem with broader trends in human

civilization. This history has unfolded a richly layered regional story, leaving a distinctive cultural imprint within Kunming's urban development.

The district exhibits several notable characteristics throughout its history. First, for long periods, it served as Yunnan's political nerve center and seat of governance. During the Dali Kingdom, the Eastern Prefecture and the residence of Marquis Gaoshisheng of Shanshan were located here. In the Yuan era, it hosted the Yunnan Provincial Secretariat. Under the Ming, it contained the Provincial Administration Commission. In the Qing dynasty, it housed the Yunnan Governor-General's Office. During the Republican period, it oversaw provincial and municipal agencies, including the Kunming Municipal Government, the Police Bureau (later the Police Department), and the Grain Circuit Office. All were concentrated in the Wenming Street precinct. Second, the area was a hub for Confucian learning and the diffusion of "civilization." Its oldest monument is the Confucian Temple (Wenmiao), founded in Zhiyuan 13 (1276 CE). The temple has long served as a shrine to Confucius and as a key educational institution(Figure 4). Over Yunnan's historical development, Confucianism has played a pivotal role. It preserved and passed on learning, shaped the feudal ethical order, and fostered cultural connections among Yunnan's ethnic groups. It also promoted identification with the Chinese nation.

Figure 4 The Temple of Wenmiao in the The Kunming Old Street District.
Source: https://www.sohu.com/a/207828509_417747. (Guan, 2023)

The historical trajectory of Kunming Old Street is closely tied to Kunming's urban development. The city began taking shape during the Nanzhao period of the Tang dynasty. At that time, the construction of Tuodong City established the geographical and functional foundation of the Old Street area (Liu & Zhang, 2023). With the creation of the Yunnan Provincial Secretariat in the Yuan dynasty, Kunming became the administrative hub of the southwest. During this period, key cultural and religious institutions, including the Confucian Temple and a mosque, were established in the district. This foundation shaped Old Street's enduring cultural milieu (Zhang, 2018). The area served as a local administrative center and a vital site for the dissemination of Confucian education and religious culture.

The Ming and Qing dynasties marked the apogee of Kunming Old Street's development. During the Hongwu reign, the establishment of the Yunnan Provincial Administration Commission positioned Kunming as a pivotal political center in the southwest. In the Qing period, the relocation of the Yungui Governor-General's Office to the Wenming Street precinct further propelled the Old Street into the provincial—and indeed regional—seat of power (Liu & Zhang, 2023). Against this backdrop, the district evolved into a cohesive and integrated space. It combined political, economic, and cultural functions. Commercial life flourished. Streets such as Jingxing and Wenming became thriving marketplaces that attracted merchants and guild associations. This reflected the vitality of the urban economy (Sun & Zou, 2010). At the same time, Confucian influence continued to deepen. The Confucian Temple served as a center for the civil service examinations and scholarly activity. The Old Street became both a stage for officials and a cradle for literati.

In the Republican era, the district's political centrality gradually waned. Yet its social and cultural significance remained pronounced. The transformation of the Governor-General's Office into a secondary school marked this change. Educational functions partially supplanted administrative roles. Meanwhile, modern commercial and cultural amenities proliferated along the streets. Playhouses, tea houses, and newspapers turned the area into a key venue for leisure and public communication (Jing, 2021). After the victory in the War of Resistance against Japan, the Victory Memorial Hall was established within the district. This underscored Old Street's importance in the national memory (Zhang, 2018). During this period, the district

completed a transition from a traditional political center to a modern socio-cultural space (Figure 5).

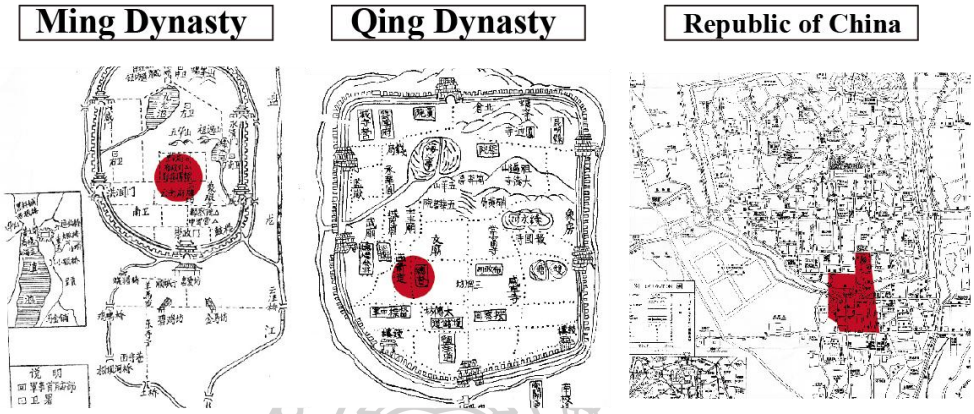

Figure 5 Maps of "Kunming Old Street" from Different Periods.
Source: Individual drawing by the author. (Guan,2023)

After 1949, Kunming Old Street gradually lost its former centrality as the city's development focus shifted eastward and modernization accelerated. In the latter half of the twentieth century, urban redevelopment and functional redistribution changed the area. These trends led to building deterioration, residential out-migration, and spatial decline. There was a marked weakening of the traditional cultural ambience (Qian, 2017). Even so, as a key repository of Kunming's urban memory, the district's value was progressively reappraised. Since the 1990s, national historic city protection has been institutionalized. The Old Street entered the priority protection roster. Urban planning authorities initiated research and pilot renewal projects. These steps laid the groundwork for the policy's subsequent revival (Sun & Zou, 2010).

Since the early twenty-first century, the district has undergone large-scale protective restoration. Beginning in 2003, government–enterprise collaborations undertook targeted renovations. They repaired key historic buildings and reconstituted traditional lane and alley patterns. This gradually consolidated a "repair-as-original" conservation approach (Zhang, 2018). By the 2010s, cultural–creative industries and tourism infused new energy into the district. Its functions diversified further. It evolved into a composite urban quarter that integrates cultural display, tourist consumption, and leisure experiences (Si & Liu, 2012). Today, Kunming Old Street

serves as both a rearticulation of civic memory for residents and a prominent window through which the city presents its cultural identity to wider audiences(Figure 6).

Figure 6 Modern Map of Kunming Old Street.
Source: Kunming City Planning Compilation and Information Center. (Guan, 2023)

Summary

In summary, Kunming Old Street has evolved from an administrative center to a market and is now a modern cultural hub. These changes reflect not only the growth of Kunming as a city, but also shifts in society and culture. The Old Street shows the city's growth, ongoing traditions, and social change. Any effort to protect and renew it should be based on this history to keep it real and make it last.

2.1.3 Heritage Inventory

2.1.3.1 Tangible Cultural Heritage

As the core precinct of Kunming—a city designated as a Famous Historical and Cultural City—Kunming Old Street preserves a concentration of historic buildings and sites that exemplify local architectural styles and trace the city’s historical development. The district features a diverse range of types, from Ming–Qing vernacular dwellings and shop-houses to religious buildings and significant modern-era structures.

According to the Status of Historic Buildings in Kunming Old Street (as of 2023), the district currently contains approximately 112 historic structures, including traditional residences, religious buildings, public institutions, and early modern commercial properties (Kunming Municipal Planning Bureau, 2023). (Table 1)

Table 1 Overview of Cultural Heritage Buildings in Old Street Kunming (as of 2023)

Name	Grade	Era	Type
Memorial Hall of Victory in War of Resistance	National	Republic of China	Sites of Important Historical Events and Institutions
Fulin Hall	National	Qing Dynasty	Chinese Time-honored Brand
Former Residence of Nie Er	Provincial	Republic of China	Famous Residence
Former Site of Fuchun Heng Store	Provincial	Republic of China	Traditional Residence
Ma Family Courtyard on Wenming Street	Provincial	Republic of China	Famous Residence
Lingxing Gate of Confucian Temple	Municipal	Qing Dynasty	Typical Style Building
Ouyang Family Courtyard on Wenming Street	Municipal	Republic of China	Traditional Residence
Former Residence of Ho Chi Minh (including 81 South Huashan Road Residence)	Municipal	Republic of China	Famous Residence
Fu Family Courtyard	Municipal	Republic of China	Traditional Residence
Residence at No.1 Xijuandong Alley	District	Qing Dynasty	Traditional Residence
Liguanglu Residence	District	Republic of China	Traditional Residence
Fu Family Courtyard (another entry)	District	Republic of China	Traditional Residence
Traditional Commercial Building Cluster on South Huashan Road	District	Republic of China	Traditional Residence

Notable among these are national-level protected sites such as the Victory Memorial Hall of the War of Resistance and Fulin Hall; provincial-level protected units, including Maojia Dayuan (Ma Family Courtyard) and the Former Residence of Nie Er; and municipal-level protected properties, such as the Yunrui Wine Cup Tower and the Wang Chi Residence (Liu & Zhang, 2023). Additionally, over thirty registered historic buildings—such as Maolu and Liguanglu—are listed for conservation. These structures are distinguished by their artistic and craft significance, as well as for illustrating the evolution of residential patterns and social life throughout Kunming's history(Figure 7).

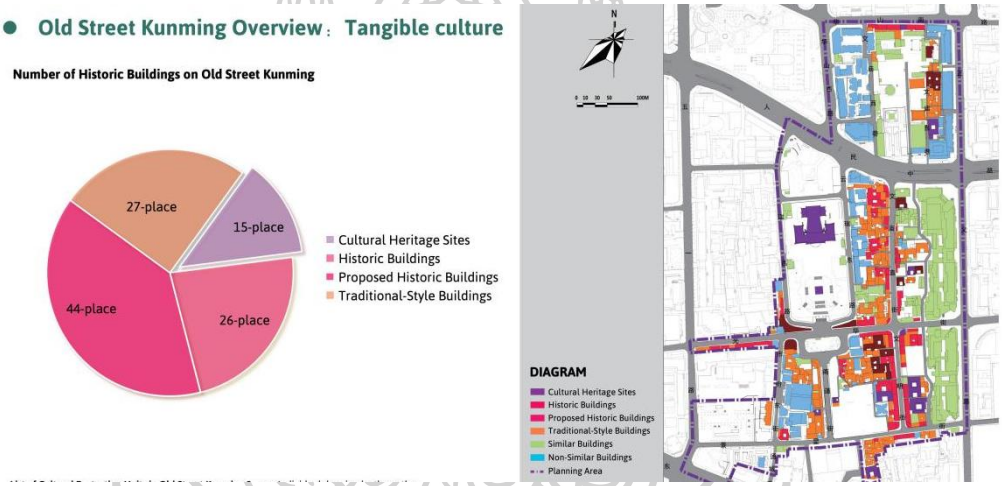

Figure 7 Cultural Heritage Distribution Map of "Kunming Old Street".
Source: Kunming City Planning Compilation and Information Center. (Guan,2024)

The Old Street precinct boasts a highly distinctive historical townscape and a rich building corpus. A lattice of north–south and east–west streets organizes the district into a rectilinear, "井"-shaped grid. The internal road network from the Victory Memorial Hall (Shengli Tang) toward Yongdao Street forms a characteristic "wine-cup" configuration. Within this framework, a wide range of residential and commercial building types persists. There are strip-front shop houses aligned directly to the street, courtyard houses, siheyuan-type compounds, and nested "suite" courtyards. These structures exhibit rich variations on basic vernacular forms. The architecture is deeply informed by Han Chinese traditions, featuring pitched roofs

with pronounced curvature and raised ridge lines, upturned eaves, thick, battered walls, and timber columns with side feet. Yet it also assimilates elements from Bai, Yi, and other ethnic building cultures. Typologies widely noted in the district include the single-courtyard “Yike Yin,” (Figure 8) linear “one-character” single-row houses, “San fang yi zhaobi” (three courtyards with a screen wall) (Figure 9), “Sihe wu tianjing” (siheyuan with multiple lightwells)(Figure 10), “Liuhe tongchun,”(Figure 11) “Sanjian liu’er xia huating” (a three-bay hall with six flanking “ears” and a recessed flower hall), and “Sima tuiche” (“four-horse cart”) compounds(Figure 12). Each expresses distinctive spatial logics and craftsmanship.

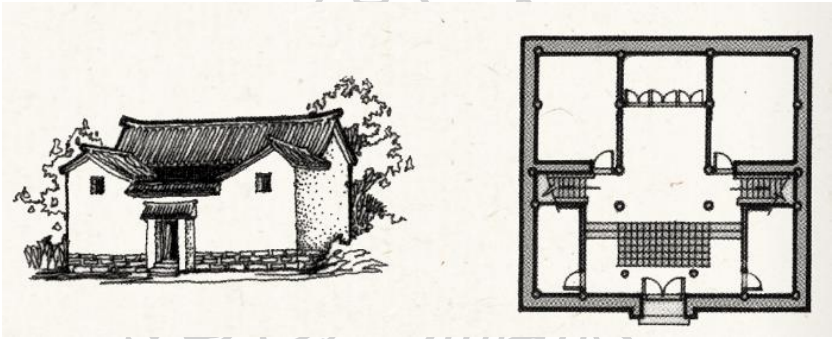

Figure 8 Traditional Houses: YiKeYin.
Source: Chinese Folk Houses Architecture Series-Yunnan Folk Houses. (Guan,2023)

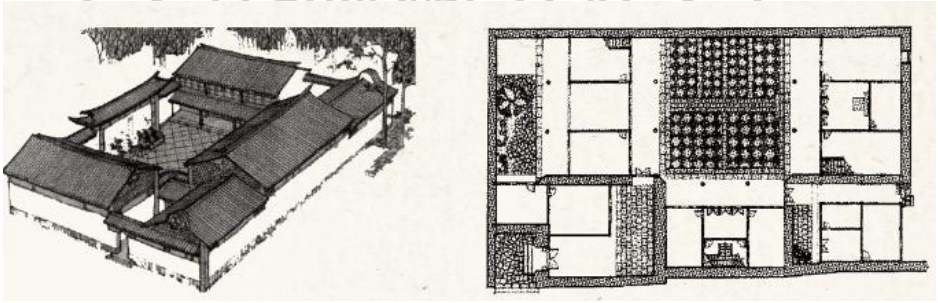

Figure 9 Traditional Houses: SanFangYizZhaoBi.
Source: Chinese Folk Houses Architecture Series-Yunnan Folk Houses. (Guan,2023)

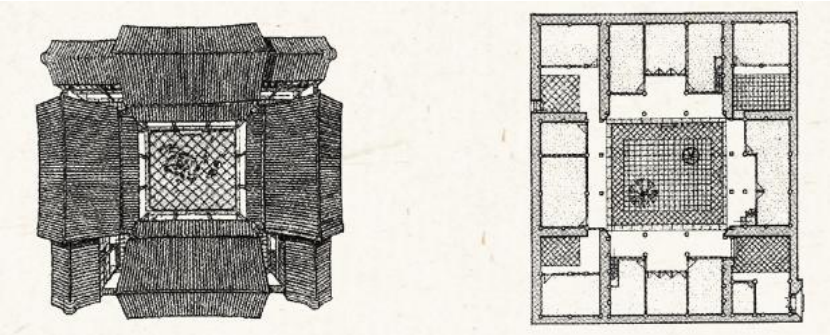

Figure 10 Traditional Houses: SiHeWuTianJing.
Source: Chinese Folk Houses Architecture Series-Yunnan Folk Houses. (Guan,2023)

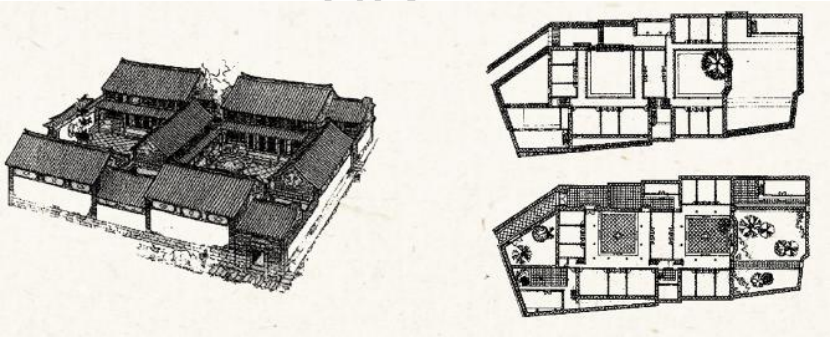

Figure 11 Traditional Houses: LiuHeTongChun.
Source: Chinese Folk Houses Architecture Series-Yunnan Folk Houses. (Guan,2023)

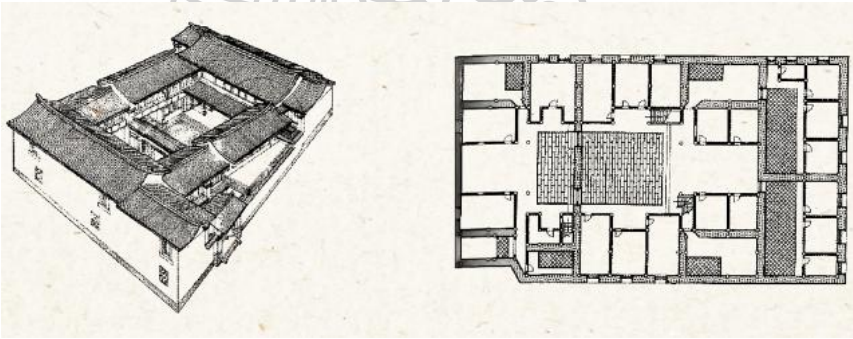

Figure 12 Traditional Houses: SiMaTuiChe.
Source: Chinese Folk Houses Architecture Series-Yunnan Folk Houses. (Guan,2023)

Many large courtyard residences from the late Qing to the Republican decades remain in good condition. Representative examples include No. 7 Xiaoyingui Lane (the residence of Ma Zhen, Kunming's first mayor), No. 8 Xiaoyingui Lane (a General's mansion), No. 5 Shuguang Lane, and No. 11 Wenming Street (now the Panlong District Cultural Center and formerly Commander Ouyang's residence). The

financier Wang Chi (Wang Chi), who invested in China's first hydroelectric plant at Shilongba, operated the Qianwang Piaohao (banking house) in Qiu Family Lane off Wenmiao Zhijie within the district. The Victory Memorial Hall was built after the triumph in the War of Resistance against Japan on the former site of the Qing Governor-General's yamen. This building is an exemplary modern-era structure and is now listed as a national historic landmark.

The street–alley morphology itself is a crucial component of tangible heritage. Thoroughfares such as Wenming, Jingxing, and Guanghua Streets preserve the Ming–Qing fang–xiang (ward–alley) grain. These features include modest street widths, sinuous alignments, and dense intersections that supported face-to-face sociability and neighborhood ties in the traditional city (Jing, 2021). These lanes are not merely physical survivals. They also anchor residents' lived memories and everyday practices. Taken together, the tangible heritage of Kunming Old Street is both diverse and continuous. It spans macro-scale institutions and religious landmarks as well as micro-scale domestic and artisanal spaces. It thus records the full spectrum of urban life across successive historical periods.

2.1.3.2 Intangible Cultural Heritage

Kunming Old Street is anchored by a vibrant intangible cultural heritage that shapes local identity and highlights the district's diversity. Folk customs and traditional crafts—including festivals, religious rituals, and performing arts—form its cultural core. Events like Spring Festival lantern displays and dragon-and-lion dances animate the streets, making the district a living cultural stage that draws visitors and continually reinforces its significance.

Traditional craftsmanship in Kunming Old Street is central to its cultural fabric. Workshops and artisans continue to practice woodwork, embroidery, leatherworking, metal engraving, and silversmithing, which have shaped the district for centuries (Zhang, 2018). These artisanal traditions are inseparable from daily life and commerce. Jingxing Street's role as a core market fosters cultural exchange, as its flower-and-bird market and ongoing street rituals generate a dynamic social landscape and sustain communal memory, notably through culinary traditions that embody local knowledge. (Figure 13)

Figure 13 Kunming Old Street Intangible Cultural Heritage Diagram. source:http://www.yunnangateway.com/html/2019/datu_1122/43701.html. (Guan,2023)

In recent years, stakeholders have increasingly focused on activating intangible cultural heritage as a key component of renewal. Local governments and civic organizations are now implementing exhibition venues, transmission programs, and creative initiatives designed to strengthen public engagement. These actions shift heritage from static preservation to dynamic, community-centered practice, positioning intangible heritage as integral to ongoing conservation. (Table 2)

Table 2 Kunming Old Street Intangible Cultural Heritage List

Project Category	Project Name	Subcategory
·Traditional Fine Arts	Bamboo and Wood Carving, Bone Carving Craft, Kunming Lanterns	Fine Arts
·Calligraphy		
·Music	Dian Opera, Kunming Folk Songs	Music
·Dance		
·Drama	Tiao Mao Donkey and Running Dry Boat, Lion Dance and Bai Ethnic Group Bawang Whip	Dance
·Quyi		
· Acrobatics	Yunnan Ballad Singing, Fishermen's Drums, Kunming Yangqin, Yunnan Storytelling, Yunnan Dialect Cross-talk	Quyi (Folk Art Forms)
Traditional Craftsmanship, Medicine, and Calendar	Miao Ethnic Hemp Weaving Craft, Paper Craft, Miao Ethnic Clothing	Craftsmanship

2.1.3.3 The War of Resistance Against Japan (1937–1945)

The War of Resistance Against Japan (1937–1945) marked a pivotal turning point in the historical evolution of Kunming Old Street. During this period, as major eastern coastal cities of China successively fell to Japanese occupation, a large number of educational, cultural, and scientific institutions—as well as refugees and intellectuals—migrated to the southwest. Kunming thus became a major cultural and strategic hub in China's wartime rear area (GoKunming, 2013). Against this backdrop, the Old Street area, centered on Wenming Street, Jingxing Street, and Guanghua Street, underwent a functional transformation—from a traditional commercial center to a space of culture, education, and public exchange. This transformation was reflected not only in the evolution of street functions but also in the adaptive reuse of urban spaces and the changing social composition of residents.

In terms of spatial structure, after the outbreak of the war, the Old Street area accommodated the everyday life and communication needs of wartime immigrants and intellectual groups. While the traditional commercial street pattern was largely preserved, practical needs led to the temporary conversion of some private houses into classrooms, bookstores, research institutes, or dormitories. Shops on Old Street also began to take on cultural functions, forming a "commerce–culture coexistence" landscape (GoKunming, 2013). These adaptive spatial practices were both responses to wartime material shortages and early experiments in organic urban renewal.

However, the influx of cultural and educational groups coincided with extensive destruction from Japanese air raids. The first air raid on Kunming occurred on September 28, 1938, when Japanese bombers targeted the city, causing casualties and damage to buildings (Yunnan Local Archives). On December 20, 1941, a more significant raid took place, during which the Flying Tigers participated in air defense combat for the first time in Kunming (Correll, 2006). These bombings not only inflicted direct human and material losses but also left cracks in public infrastructure, architectural details, and urban spaces. The Old Street area likely suffered secondary damage such as shaking, broken windows, cracked bricks, and destroyed shop signs.

For the Old Street community, wartime air raids and reconstruction brought dual impacts. First was the physical loss—shop signs, wooden decorations,

tools, and furniture of traditional businesses were often damaged or destroyed during bombing and fires. Second was the cultural disruption—traditional apprenticeship systems were interrupted, handicrafts suspended, and collective cultural practices weakened. Oral histories and local chronicles note that many artisans were forced to halt or change professions due to shortages of materials and declining markets, causing a temporary halt in skill transmission and a loss of communal memory.

At the same time, as Kunming's cultural and educational functions expanded, new intellectual and cultural communities began to form. The relocation of major universities, such as the National Southwest Associated University, brought a large number of scholars and students to the city. Bookstores, teahouses, and public discussion spaces near Old Street took on new functions as nodes of academic and cultural exchange (GoKunming, 2013). The influx of these "academic–public" forces maintained the city's cultural vitality and provided spiritual support for both the wartime and postwar development of Old Street.

In summary, the dual pressures and opportunities during the war collectively shaped the historical character of Kunming Old Street. On one hand, the bombings and wartime modifications caused both tangible and intangible damage. On the other hand, the migration of intellectuals and the re-emergence of public cultural spaces injected new vitality into the district. For contemporary heritage conservation, the traces of destruction and the memory spaces formed during this period should not be erased but rather incorporated into the narrative and design of preservation. The wartime experience of Old Street represents a microcosm of urban cultural transformation. Its spatial adaptability, social inclusiveness, and cultural creativity under wartime conditions sustained the continuity of urban life and provide valuable lessons for today's conservation and revitalization of historic districts. Studying this period is therefore essential for understanding Kunming Old Street's historical context, cultural identity, and the social foundations of participatory conservation.(Figure 14)

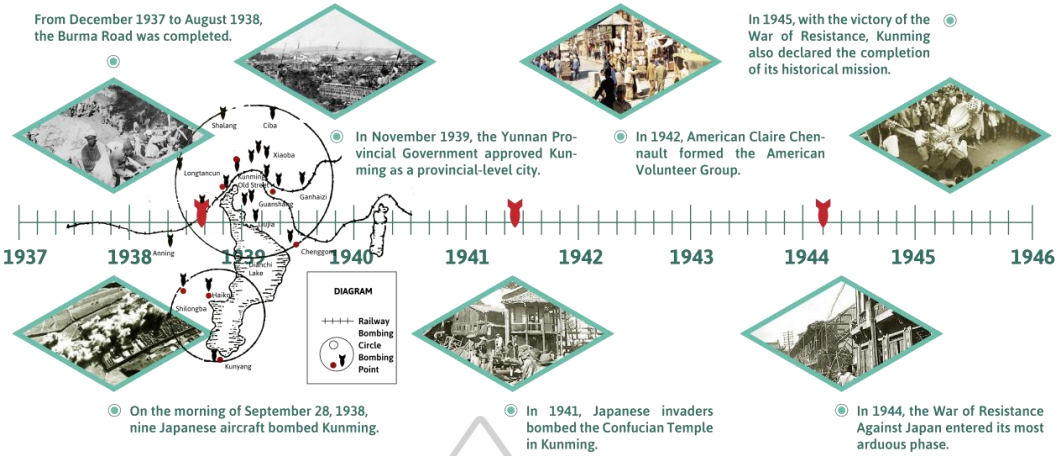

Figure 14 The War of Resistance Against Japan (1937–1945).
Source: The photograph are from the Kunming Municipal Historical Archives. (Guan,2025)

2.1.3.4 Time-Honored Brands (Laozihao) of Kunming Old Street

Within the Wenming–Jingxing–Wenmiao Zhijie–Guanghua sub-area of Kunming Old Street, laozihao (time-honored brands, established businesses passed down through generations) are widely recognized in existing research as key bearers of local memory and everyday urban culture. They co-evolved with the compound spatial order of yamen (government office)–academy–commerce that emerged under modern urbanization. These brands crystallized from long-standing industrial agglomerations that date back to the Ming–Qing period. Notable sectors include the book trade, pharmacy, gold-leaf craft, and Yunnanese foodways. Over time, a clear brand genealogy formed. Guanghua Street earned a reputation as a "book market street." Venerable pharmacies, such as Fulin Hall, and traditional medicinals, like Wang Yuntong plasters, are often cited as conduits of the “Old Kunming flavor” and as mediums of place identity (Wang, 2022).

The formation of laozihao was not a discrete commercial event. It resulted from administrative and cultural functions embedded within urban space. Jingxing Street’s status as an “official street” stimulated high-end dining and public events. Wenmiao Zhijie perpetuated the front-shop/back-workshop morphology and supported trades such as millinery and seal carving. Wenming Street’s night markets, New-Year goods fairs, and used-book stalls became nodal points in everyday

consumption networks. Together, these spatial and sectoral linkages fostered reciprocal shaping among industry, place, and publics. This process produced the durable socio-spatial ecology in which time-honored brands continue to anchor local identity (Zhao, 2020).(Table 3)

Table 3 List of Time-Honored Brands in “Kunming Old Street”

Brand	Industry Category	Founding Era	Main Products	Signature/Status
Jiqingxiang	Confectionery & Baked Goods	1907	Mooncakes; pastries	Yunnan’s leading pastry brand
Dehe Cannery	Canned Foods	1922	Assorted canned foods	Yunnan’s earliest cannery
Guanshengyuan	Confectionery & Baked Goods	1918	Mooncakes; pastries	Nationally renowned pastry brand
Lao Boyuntang	Traditional Chinese Medicine	Qing dynasty	TCM herbs; pills	Time-honored Yunnan pharmacy
Fulin Tang	Traditional Chinese Medicine	1888	TCM herbs; pills	Century-old pharmacy
Tongrentang	Traditional Chinese Medicine	Qing dynasty	TCM herbs; pills	China Time-Honored Brand
Jianxinyuan	Restaurant/Foodservice	1906	Cross-bridge rice noodles	Originator of cross-bridge rice noodles
Qiaoxiangyuan	Restaurant/Foodservice	1980s	Cross-bridge rice noodles	Chain restaurant brand
Lao Zhiqing	Restaurant/Foodservice	1990s	Yunnan cuisine	‘Zhiqing’ (Rusticated Youth) culture restaurant
Jiahua	Confectionery & Baked Goods	1988	Rose pastries	Originator of rose pastry
Pan Xiangji	Confectionery & Baked Goods	1941	Mooncakes; pastries	Time-honored Yunnan mooncake brand

2.1.3.5 Major Historical Events

Kunming Old Street was a principal theater of the Double Ninth Uprising in Yunnan during the 1911 Revolution. Later, it became a significant window into wartime culture during the War of Resistance against Japan. The uprising—one of the earliest, fiercest, and most consequential armed actions after Wuchang—unfolded partly in this district because the Yungui Governor-General’s

Office, the apex of local imperial administration, was located here. In this precinct, Zhu De led revolutionary forces to seize the yamen and proclaimed the end of Qing rule in Yunnan.

During the Anti-Japanese War, the influx of scholars and cultural figures—most notably the National Southwest Associated University—transformed Kunming into the academic and cultural hub of China's southwest rear area. The Wenming Street quarter became the city's densest concentration of bookstores. National presses such as The Commercial Press, Zhonghua Book Company, Kaiming Bookstore, and Zhengzhong Book Company all operated branches here. The former Governor-General's compound housed two levels of normal schools. The renowned composer Nie Er once studied there. Over time, the area gathered a cluster of educational institutions, including Kunhua Primary School, Tongji University Medical College (temporary site), Kunhua Business School, an English Specialized School, and the Chinese Vocational Education Society. This cluster consolidated the district's role in public education and cultural transmission.

2.1.3.6 Notable Historical Figures

The district was home and workplace to several prominent historical figures. National hero Lin Zexu served twice in Yunnan: in 1819 as chief examiner for the provincial civil service examination, and again in 1847. During his second tenure, he arrived in Kunming with his family to serve as Governor-General of Yunnan-Guizhou. He resided and worked in the Wenming Street area. Revolutionary leader Zhu De served as Director of the Provincial Police Department from 1921 to 1922, when it was based within the district. He lived and worked here. Celebrated composer Nie Er was born on Yongdao Street above a pharmacy called Chengchuntang. He spent his childhood and primary school years in the precinct. These experiences later infused his artistic formation.(Figure 15)

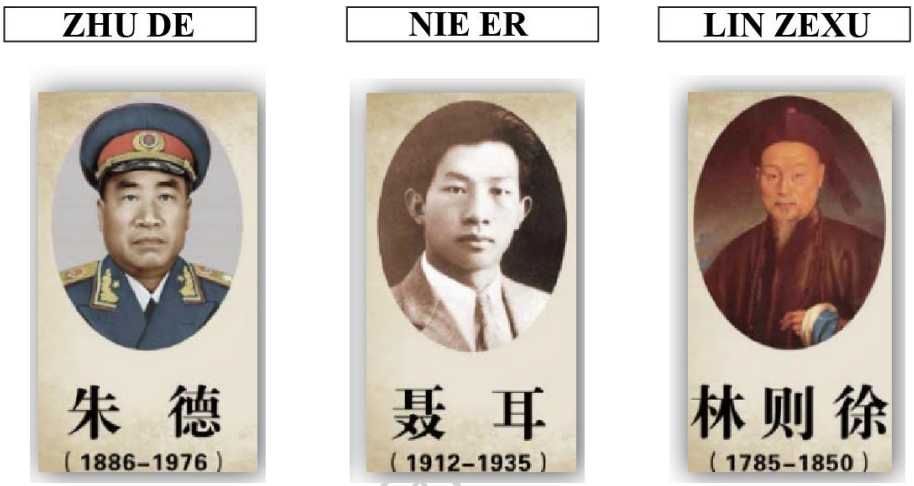

Figure 15 Famous Figures of “Kunming Old Street”.
Source: Huguo Road Subdistrict Community Archives. (Guan,2023)

2.1.3.7 Old Shop

Historically, the Old Street quarter was also among Kunming’s most prosperous commercial areas. It hosted numerous shops for silk and cloth, paper and writing supplies, and banking houses. Hence came the toponyms Great/Small Silver Cabinet Lanes. Since the Qing dynasty, Wenming Street had been the old city’s most vibrant traditional commercial corridor. Culinary culture flourished alongside. Classic Yunnan snacks remained popular, while renowned restaurants appeared—such as Haichuntang, celebrated as the “First Chinese Restaurant.” Other renowned establishments included Xiaopangzi Roast Duck, Renheyuan's flaky buns, and Cross-Bridge Rice Noodles. The medical sphere included venerable pharmacies like Fulin Hall and Yang Da’antang. New clinics and hospitals—including Wang Chengcai Clinic, Wanzi Mei Clinic, Huang Nongshan Medical Hall, Mingfa Hospital, and Zheng’s Female Golden Elixir—opened in succession. Tea houses, antique shops, and flower, bird, and fish markets enlivened the streets, together constituting a dense everyday economy.

Summary

Kunming Old Street’s layered heritage, comprising both tangible and intangible culture—such as time-honored brands, events, and figures—is fundamental to the district’s identity. Tangible heritage secures spatial continuity and structure, while intangible traditions and collective memory preserve meaning. The strength of

Kunming Old Street lies in this interplay. Thus, any conservation effort that focuses solely on physical repair without respecting cultural practices risks diminishing this authenticity. To ensure true sustainability, a comprehensive heritage inventory is not just useful but critical for protection and development.

2.1.4 Socio-Economic Transformations and the Context of Gentrification

The trajectory of Kunming Old Street is not only a history of spatial change but also a condensation of shifts in socio-economic structure. Since the latter half of the twentieth century, urban expansion and the eastward relocation of Kunming's economic core have eroded the district's former administrative and commercial centrality. Environmental decline followed: building dilapidation, deteriorating living conditions, and under-provisioned infrastructure became increasingly evident (Liu & Zhang, 2023). The resident base, largely lower- to middle-income households reliant on small shops, handicraft trades, and street markets, saw their livelihoods weakened as modernization accelerated and the gap between the Old Street and emergent urban districts widened. The district's economic and social functions thus entered a prolonged phase of attenuation.

In the twenty-first century, state-led protective renewal created an opportunity for revival. Beginning in 2003, the municipal government partnered with developers to implement large-scale interventions. Under a "repair-as-original" approach, key buildings—such as the Ma Family Courtyard and Fulin Hall—were restored, and infrastructure was systematically upgraded (Zhang, 2018). This model markedly improved the physical environment, attracted capital and tourism, and reoriented the economic structure from subsistence-oriented commerce toward tourism-led consumption. Cafés, specialty dining, and cultural-creative retail gradually supplanted traditional workshops and everyday service shops, injecting new economic vitality (Si & Liu, 2012).

Yet these shifts also precipitated characteristic dynamics of gentrification. Rising land values and redevelopment pressures fostered the gradual out-migration of original residents; many lower-income families could no longer afford to remain and relocated to the urban periphery (Qian, 2017). The resulting fragmentation of long-standing social networks diminished the district's sense of community and cultural vibrancy. Concurrently, land-use restructuring and spatial upmarketization

transformed the business ecology: traditional flower-and-bird markets and snack stalls were replaced by high-end restaurants, bars, and cultural-creative venues, with the primary clientele shifting from local residents to tourists and higher-income groups (Jing, 2021). While these changes enhanced economic value, they also loosened the ties between historical continuity and everyday life, underscoring the need for governance models that balance conservation, community interests, and sustainable development.

From a broader perspective, the gentrification of Kunming Old Street reflects a common pattern in inner-city renewal across China. Research shows that Chinese gentrification is mostly state-led. Governments guide revitalization through policy incentives and partnerships with capital. Their stated aims usually include heritage protection, economic growth, and city branding. In this model, conservation and commercialization progress together. However, resident rights and social equity are often neglected. Kunming Old Street is a clear example. It upgrades the built environment and stimulates urban vitality, but also increases risks of social stratification and cultural rupture.

Summary

In summary, the socio-economic transformation of Kunming Old Street is a result of both modernization and the interaction between protection and development regimes. The rise of gentrification reveals distributive imbalances in current conservation practices. This highlights the need for governance that prioritizes community participation and the protection of rights. True sustainability comes from improving the physical environment, fostering economic opportunity, and preserving the district's social and cultural fabric.

2.1.5 Protection Policies and Critical Milestones

Kunming Old Street's protection is closely linked to the evolution of China's institutional framework for historic cultural districts. Since its 1982 designation as one of the first National Famous Historical and Cultural Cities, Old Street has been included in the field of heritage conservation policy (Zhang, 2018). In the early phase, however, policy focused on rescue-style repairs of individual monuments and emblematic buildings. Attention to integrated protection of the district's broader environment and lifeways was limited (Sun & Zou, 2010). This established an initial

foundation but emphasized point-based interventions over area-based conservation. As a result, urban grain and cultural spaces eroded under rapid urbanization.

A decisive shift occurred in the early twenty-first century. In 2003, the municipal government partnered with private developers and launched a formal renewal program. This program was guided by the principle of "unified relocation, unified planning, unified construction, and unified operation" (Qian, 2020). This model upgraded the infrastructure and restored key historic buildings. However, it also led to the large-scale displacement of the original residents and disrupted social and cultural continuity. After administrative redistricting in 2004, the promised resettlement land was not delivered. Tensions grew among developers, government, and residents, revealing a policy gap between design and implementation (Zhang, 2018). This moment highlighted the difficulty of balancing social equity and market-driven incentives.

Around 2010, protection became more institutionalized. The 2008 Measures for the Protection of Famous Historical and Cultural Cities in Yunnan Province established a legal basis for district-level conservation. In 2014, the Yunnan Provincial Government approved the Kunming Famous Historical and Cultural City Protection Plan (2014–2020). This plan specified protection scope and priorities for precincts such as Wenming Street (Kunming Municipal Administration of Cultural Heritage, 2015). In July, the Wenming Street Historic Cultural District was designated at the provincial level. This elevated its protection status and funding support. It also signaled a shift from general planning to concrete implementation. Policy at this stage expanded beyond "repair-as-original" to include cultural transmission and community participation, indicating a more diverse range of conservation concepts.

In recent years, policy has entered an "activation and adaptive-use" phase. Following the 2015 revision of the Kunming Famous Historical and Cultural City Protection Regulations, the government emphasized the importance of maintaining functional vitality and long-term development while also preserving authenticity and integrity (Qian, 2017). Since 2020, the district has participated in national pilot programs for the nighttime economy and tourism. Authorities have promoted the diversified use of cultural resources through intangible heritage exhibition halls, cultural markets, and museum clusters (Jing, 2021). This stage highlights an

integrated “culture + tourism + commerce” model. It also underscores the role of Historic Cultural Districts in city branding and economic development.

Summary

Kunming Old Street’s policy pathway has evolved over time. It evolved from rescue and repair to integrated, district-wide protection, and, more recently, to activated, use-oriented conservation. The timing and content of key policies reflect changing national and local priorities. They also show ongoing challenges and weaknesses in practice. Early policies focused on physical repair. Later frameworks prioritized planning over community engagement. The latest policies aim to strike a balance between protection and development. Moving forward, stronger community participation, better regulatory oversight, and limits on over-commercialization will be essential for the conservation and sustainable development of these areas.

2.2 Related Theories

Establishing a robust theoretical foundation is crucial for framing analysis, guiding empirical design, and interpreting findings in studies of historic cultural district protection and sustainable development. Kunming Old Street is complex. A single, monument-centered lens cannot account for its plural values and dynamic transformations. Prior research shows that core issues extend beyond fabric repair. They also include the continuity of social relations, the transmission of cultural memory, and the coordination of multiple interests (Ashworth & Graham, 2019). Taking an interdisciplinary and multi-scalar perspective, this study integrates three complementary strands. The Historic Urban Landscape (HUL) approach, Participatory Action Research (PAR), and the Symbiosis–Sharing–Co-governance (SHS) governance framework are combined.

HUL foregrounds holistic, place-based conservation. PAR organizes stakeholder participation and co-creation. SHS emphasizes collaborative governance attentive to cultural transmission and identity. Their conjunction provides a comprehensive lens on the complexities of Kunming Old Street. This combination underpins the theoretical model and research design in this dissertation.

2.2.1 Heritage Conservation Theory

Over the past half-century, the field of heritage conservation has undergone significant evolution. It moved from a focus on individual monuments toward holistic, landscape-oriented approaches. Early paradigms privileged technical restoration—"repairing the old as old"—and safeguarding immovable fabric. With the emergence of sociology, anthropology, and cultural studies, scholars began to view heritage differently. Heritage is not only material remains but also carries social life, cultural memory, and identity (Ruan, 2011). In response, theory now balances tangible and intangible dimensions, past and present values, and protection with development.

Since the early twenty-first century, UNESCO's Historic Urban Landscape (HUL) approach has been a major advance. HUL reframes urban heritage within ongoing urbanization as a matter of managing thoughtful change. It conserves historical values while accommodating contemporary needs (Veldpaus & Pereira Roders, 2013). This approach departs from static preservation. HUL calls for identifying plural values, integrating diverse stakeholders, and instituting dynamic assessment mechanisms to align conservation with urban sustainability. This shift responds to rapid urban transitions in developing contexts. It offers an adaptive framework highly pertinent to Historic Cultural Districts.

At the same time, ICOMOS's 2005 Vienna Memorandum urged the field to reconcile heritage protection with new architecture and growth. It warned against rupture between the old and the new, or homogeneous development. Building on this, Sirisrisak (2007) argued that interpretation and presentation must address both material form and intangible cultural value. He cautioned against "touristic re-packaging" that could undermine authenticity and continuity. These extensions underscore that heritage protection is not solely the responsibility of the state and expert institutions. It requires broad participation by the public, resident communities, and industry stakeholders.

Within China, theoretical debates have increasingly converged on holistic protection and community participation. Cheng (2020) proposes a complexity-based paradigm. This moves beyond linear, single-discipline models and adopts an interdisciplinary, systems-thinking approach. It addresses the entanglements of urban renewal and cultural transmission. This view resonates with HUL's emphasis on

multi-dimensional integration. It is especially relevant for composite districts such as Kunming Old Street. Here, historical memory, commercial functions, and everyday community life intersect. Local case studies, such as Wuxi's Qingming Bridge area and Beijing's Nanluoguxiang, have applied HUL-informed methods. These combine spatial syntax, community interviews, and multi-actor coordination to develop evidence-based controls and renewal mechanisms (Wang, 2023). These experiences provide both theoretical reference and operational cues for Kunming.

In general, conservation thinking has shifted from protecting objects to stewarding systems. Protection extends beyond monuments and buildings. Street morphologies, resident lifeways, and the continuity of intangible practices now fall within the scope. As a result, conservation becomes a dynamic and ongoing process. It aims to maintain cultural continuity and social cohesion amid change. Ruan (2011) notes that China's historic-district conservation must balance modernization and tradition. It should avoid "fabricated landscapes" from over-development or excessive cosmetic restoration.(Figure 16)

Figure 16 implementation of HUL.
Source: Adapted from UNESCO, 2011.

In summary, the intellectual trajectory of heritage conservation shows a shift. It transitions from material to holistic, from static to dynamic, and from expert-led to multi-actor collaboration. Internationally, HUL provides a responsive framework for "changing with change." Domestically, explorations of complexity, community participation, and character control offer viable paths for localization. This study adopts HUL as a core theoretical anchor. Complexity-informed thinking and participatory modes complement HUL. Together, these charts provide feasible

pathways for the protection of cultural heritage and sustainable development in Kunming Old Street.

2.2.2 Participatory Design Theory

Participatory Design (PD) is a design methodology that emphasizes the involvement of a broad range of stakeholders. It originated in the Scandinavian trade union movements of the 1970s. The goal was to democratize design processes and empower workers to shape emerging technologies and workplace arrangements (Ehn, 1988; Bjögvinsson et al., 2012). From this lineage, PD is understood not just as a toolkit, but as a social value orientation and research paradigm. It emphasizes democratic knowledge production, equality, and collaboration (Wacnik, Daly, & Verma, 2024). As social and technological contexts evolved, PD spread beyond unionized workplaces. Today, it is adopted in urban planning, community development, education, and cultural heritage conservation.(Figure 17)

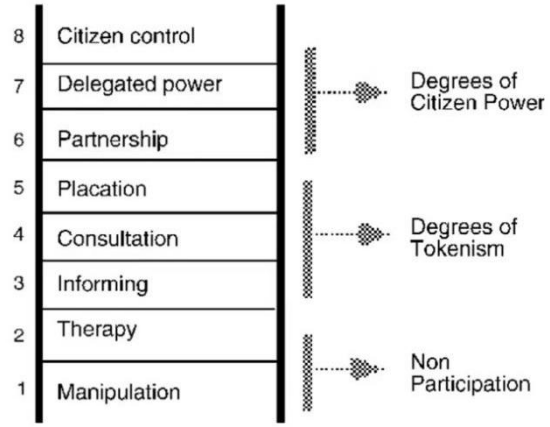

Figure 17 Levels of Citizen Participation.
Source: Wacnik, S., Daly, A., & Verma, H. (2024). Participatory design in transition: A systematic review of participatory design literature. Heliyon, 10(1), e23604.

Recent scholarship tracks a multidimensional expansion of PD. Wacnik et al. (2024) show that PD has grown into an “umbrella” framework. It now encompasses user-centered and human-centered design as well as co-creation. Its core logic lies in structuring multi-stage, multi-level participation. This approach brings heterogeneous stakeholders into decision-making and design. As a result, outcomes align with plural needs and gain sustainability. Methodologically, Hu and Cai (2022) classify and visualize PD tools and formats. They argue that methodological diversity, along with

trust between researchers and participants, influences both the depth of participation and the effectiveness of the research.

In cultural heritage protection, PD has demonstrated distinctive value. Through an empirical study with Uyghur diaspora communities, Salvesen and Keitsch (2021) show that PD can establish a "living mechanism" for transmitting intangible cultural heritage. This enables continuity and transformation in new spatiotemporal contexts. PD places emphasis not only on safeguarding traditional forms, but also on co-creating new modes of expression with communities. This enhances cultural vitality. Thus, PD is more than a technical pathway; it is also a means of cultural regeneration and identity articulation.

Within Chinese scholarship, PD links increasingly to social innovation and community development. Tang (2017) proposes that PD's three levels—co-creation, co-experience, and co-reflection—map onto place-making, situation-building, and relationship-constructing, which are the three elements of social innovation. This mapping catalyzes the emergence and diffusion of innovation. This framework highlights the social character of PD and offers a transferable logic for cross-domain research. From an ethical standpoint, Wang (2022) reflects on Participatory Action Research (PAR). Wang emphasizes the need to balance power between researchers and participants, ensuring that participation remains egalitarian and empowering. In this study, PAR organizes co-creation workshops, systematic participation processes, and evidence gathering through the PAR cycle (Figure 18) of "Planning - Action - Observation - Reflection."

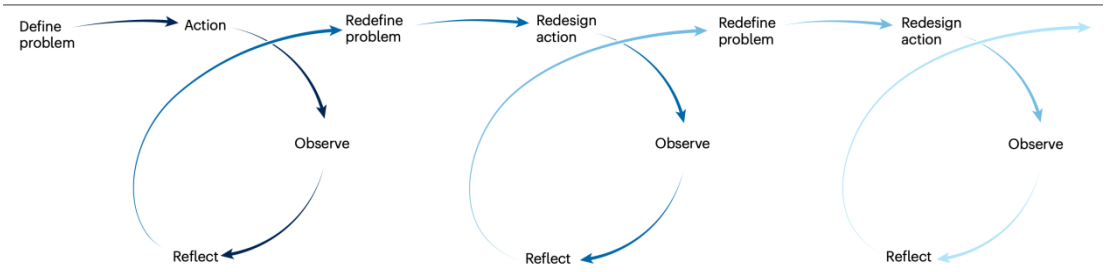

Figure 18 Participatory Action Research (PAR) Cycle.
Source: Baum, F., MacDougall, C., & Smith, D. (2006). Participatory action research. Journal of Epidemiology and Community Health, 60(10), 854–857.

Summary

The evolution of PD has three key features. First, PD transitioned from a history of worker empowerment to a broad, interdisciplinary social use, demonstrating strong adaptability. Second, theory and practice have advanced together. This includes finer distinctions in method classification and process design, as well as applications across cultures and sectors. Third, an ethical dimension is now central. PD goes beyond asking whether participation occurs. It also examines how participation occurs to ensure democracy, inclusion, and sustainability. For this dissertation, PD provides a strong theoretical foundation. It supports co-creation of inclusive, sustainable solutions to cultural and social problems through deep stakeholder engagement. It also offers concrete pathways for protecting and renewing Historic Cultural Districts by rebuilding cultural identity and social networks through collaborative co-design.

2.2.3 Sustainable Development Theory

Sustainable development was first defined by the World Commission on Environment and Development (WCED, 1987) as "meeting the needs of the present without compromising the ability of future generations to meet their own needs." This concept is a central framework for global environmental governance and urban planning. The United Nations' 2015 2030 Agenda (UNESCO, 2015) systematized this approach. Sustainable development encompasses not only balancing economic growth and environmental protection, but also promoting social equity, intergenerational responsibility, and cultural diversity. This integrated perspective considers the environmental, social, and economic dimensions in tandem.

In urban studies and heritage conservation, Sustainable Development Goal (SDG) 11 is especially relevant. It aims to "make cities and human settlements inclusive, safe, resilient, and sustainable" (United Nations, 2020). Its indicators focus on public transport access, land-use efficiency, the proportion of public space, and spending on protecting cultural and natural heritage (United Nations, 2017). Together, these indicators underscore a people-centered approach to urban governance, necessitating systemic coordination across spatial, social, and environmental domains. For Historic Cultural Districts, SDG 11 signals more than just physical upgrades. It calls for the holistic protection of cultural heritage and meaningful community

participation.

Recent scholarship increasingly links sustainable development with heritage protection. This is often framed as sustainable urban regeneration. Chohan and Pang (2005) argue that conservation supports collective memory and cultural identity in the regeneration process. It also builds social capital through community participation. At the same time, the Environment–Social–Governance (ESG) framework connects heritage protection to corporate responsibility, social justice, and long-term economic value (MSCI, 2024). Thus, sustainable development is not only a broad policy idea, but also a practical tool for evaluating governance and guiding resource use.(Figure 19)

Figure 19 ESG Ratings Model hierarchy.
Source: MSCI ESG Research LLC. (2024). MSCI ESG ratings methodology.

Summary

Sustainable development theory gives this study a systemic framework. By combining environmental stewardship, social equity, and economic efficiency, it provides a theoretical base for protecting and renewing Historic Cultural Districts. With the indicators and practice focus of SDG 11, the framework links cultural heritage conservation and urban regeneration. This helps support the long-term vitality of Kunming Old Street and promotes the well-being of the community.

2.2.4 Collaborative Governance Theory

Collaborative governance—here described as SHS: Symbiosis–Sharing–Co-

governance—combines ideas from governance studies and co-design. It shifts from single-actor, top-down control to a process with many actors. In this process, public, private, and civic stakeholders share resources, cooperate, and share responsibility to achieve public goals. In historic cultural districts, government leadership remains necessary but insufficient. Durable results require the participation of residents, enterprises, social organizations, and visitors. This way, governance capacity is collected and not scattered (JPBM, Jan 2022).

SHS is based on frameworks that involve many stakeholders. Liao (2017) demonstrates that success in historic-district protection hinges on the roles of government, communities, firms, visitors, and civic groups within local social networks. Building on this, Zhang (2020) suggests a decision-making approach that puts stakeholder values into policy processes. This helps decisions become more scientific and more democratic. These ideas demonstrate a shift from one-way power to cooperative, multidimensional governance, which aligns with the spirit of SHS.

In practice, SHS focuses on communication systems and building platforms to enable co-governance. In design research, Shi (2017) finds that clear communication helps break barriers between partners and makes co-creation possible. For heritage districts, this means using co-deliberation platforms, community workshops, and ways to coordinate benefits. These steps protect authenticity while sharing social capital and cultural resources. Place-branding research adds to this. Jain et al. (2022) propose a participatory model in which residents and visitors co-create cultural brands. This approach expands SHS from just organizing actions to creating shared meaning.

Summary

SHS offers a strong theory for protecting and developing Historic Cultural Districts. It combines teamwork among many actors with fair sharing of benefits and special communication tools. This enables shared protection of both physical and non-physical heritage. For Kunming Old Street, SHS supports a more resilient and inclusive way to govern. It helps withstand the pressures of urbanization and commercialization while preserving cultural traditions.

2.3 Domestic and international research status

This study examines the current conditions of Kunming Old Street through three tightly related strands of scholarship. First, it offers a diagnostic and governance-oriented analysis of gentrification in Historic Cultural Districts, systematically tracing the mechanisms of demographic and business turnover, rent escalation, and the reallocation of cultural capital, and comparatively assessing the applicability of policy instruments such as business-format controls, tax incentives, community safeguards, and negotiated redistribution. Second, it synthesizes applications of Participatory Design and Participatory Action Research (PAR) in heritage protection, clarifying participation levels from information provision to co-decision and empowerment; surveying co-creation methods such as workshops and oral history; and delineating role allocation and authority configuration among diverse actors across problem identification, solution generation, and implementation evaluation. Third, it distills a sustainability-oriented framework for heritage regeneration aligned with the Sustainable Development Goals (SDGs), exploring integrated Environment–Society–Governance (ESG) indicators and assessment pathways, and examining their articulation with local governance.

The review is organized around a "problem–mechanism–tool" logic and culminates in the methodological choices and indicator system employed in this dissertation: anti-gentrification strategies provide risk constraints; Participatory Design supplies the process methodology; and SDG 11.3, 11.4, and 17 furnish the targets and evaluative coordinates. Together, these elements lay the theoretical and evidentiary groundwork for the research design developed in Chapter 3 and the experimental construction presented in Chapter 4.

2.3.1 Countermeasures to Gentrification in Historic Cultural Districts

Gentrification is often a "hidden cost" in the protection and renewal of Historic Cultural Districts. Its most immediate sign is the rapid rise in housing prices and rents. These prices exclude low-income residents. These individuals have long been concentrated in these areas (Zhang & Zhao, 2010). When new middle-class groups and commercial capital arrive, the district's social structure and atmosphere change. Community networks, folk practices, and place-based memory weaken or disappear. For residents, this means spatial relocation, the breaking of social ties, and

a loss of identity (Sun & Chen, 2024). Gentrification threatens intangible heritage by reducing space for vernacular crafts and customs. This shrinks sites of transmission and erodes practitioner communities. In some renewed districts, over-commercialization turns tradition into a tourist commodity. This strips tradition of authenticity and its roots in daily life (Sun & Chen, 2024). Gentrification, therefore, is not just an economic issue. It is a systemic social and cultural challenge.

Policy responses have varied domestically and internationally. Some cities use tourism-led renewal. They pair conservation with commercial development. Yet this model often accelerates out-migration and deepens social stratification. Shanghai Xintiandi is one example (Sun & Chen, 2024). Other places attempt to combine housing protection and cultural preservation. For instance, Beijing's Shichahai area uses resettlement and compensation mechanisms. These aim to protect residency rights while improving the environment (Zhang & Zhao, 2010). Internationally, community-led projects and holistic heritage strategies strike a balance between economic development and cultural transmission. Failures are instructive, too. Over-reliance on market forces and neglecting community participation erode distinctive cultural vitality (Sun & Chen, 2024). Successful countermeasures require collaboration, policy guarantees, and a systemic culture perspective. Unsuccessful ones highlight the risks of prioritizing capital interests over heritage protection or single-state control.

Summary

Gentrification in historic cultural districts is a likely outcome of urban renewal and a complex challenge. Effective solutions require coordination between state planning, community participation, stakeholder negotiation, cultural-ecosystem protection, and Housing security. Robust housing security should take priority to avoid sacrificing social equity for economic benefits. Participatory processes must ensure that renewal matches real community needs. Safeguarding of intangible heritage must be comprehensive to prevent its dilution or distortion. Sustainable revitalization depends on improving environments and economic prospects while preserving the social and cultural fabric of the community. This lesson applies directly to Kunming Old Street and similar districts.

2.3.2 Applications of Participatory Design in the Heritage Domain

Within heritage conservation and urban regeneration, Participatory Design is recognized as a pathway for public involvement and heritage activation. The approach invites multiple stakeholders. Residents, community organizations, and heritage managers participate throughout the entire cycle of protection and renewal. Beyond consensus-building and value-sharing, recent practice explores how participatory processes mediate conservation and social sustainability. Applications now include urban historic district retrofits, rural heritage revitalization, and digitally augmented methods, such as AR-enabled interpretation. These demonstrate broad applicability and diverse operational routes (Rosetti, 2022). In these settings, Participatory Design is both a technical driver and a catalyst for cultural identity and social cohesion (Silva, Zagalo, & Vairinhos, 2023).

Successful cases in Europe and East Asia show these dynamics. In Antwerp, the “Stuivenberg Program” created collaboration between residents and heritage institutions. This improvement in decision transparency and social acceptance occurred in a World Heritage city (Rosetti, 2022). In China, Wang et al. (2023) show that Participatory Design in Shizhai Village (Jinning, Yunnan) integrated Ancient Dian cultural elements with contemporary public-space design. This strengthened residents’ place attachment while improving convenience and sustainability. Similarly, Changsha’s Youpu Street employed participatory methods for place branding reconstruction. Workshops and surveys aligned brand logic with local cultural narratives and contemporary aesthetics. This achieved conservation and urban marketing goals. Across these examples, Participatory Design proved adaptive and effective. It safeguarded tangible heritage and enlivened intangible practices for contemporary expression.

However, not all participatory initiatives succeed. Where institutional guarantees or resource support are weak, participation often becomes a formality. Studies of old-neighborhood renewal note that, despite consultation, decision-making authority typically remains with the government and developers. This reduces the impact of Participatory Design and lowers resident satisfaction (Wen et al., 2022; Rosetti, 2022). In some AR-based heritage projects, various participation formats were piloted. Still, technical barriers and limited resources made durable conservation

practice difficult. Such shallow participation fails to resolve conflicts and may create new grievances. The effectiveness of Participatory Design depends on enabling institutions, adequate resources, and steady multi-party collaboration.

Summary

Applying Participatory Design to heritage presents both promise and challenges. It encourages dialogue among stakeholders, strengthens cultural identity, and can improve conservation sustainability. However, it can be weakened by governance, power differences, and technical limits. Future development should secure residents' participation rights at the institutional level. It should also explore hybrid online–offline approaches to widen access and engagement. By learning from both successes and failures, Participatory Design can better support heritage protection, community development, and social governance. It provides actionable reference points for Kunming Old Street and similar historic cultural districts.

2.3.3 Sustainable Development in Heritage Conservation (SDGs)

Sustainable development in heritage conservation has become a central theme in recent scholarship and practice. The focus is on balancing economic growth, social well-being, and cultural continuity. From a "collective choice" perspective, urban heritage protection involves both public choice and institutional arrangements. These are shaped by multi-actor interaction and negotiation (Shen, 2019). This view highlights a key feature of sustainable heritage: coordination among diverse stakeholders and shared decision-making. Zhou (2020) argues that protecting traditional Historic Cultural Districts must advance environmental improvement, economic revitalization, and social equity together. Purely material restoration cannot resolve long-term sustainability.

International experience is instructive as well. Studies on the sustainable urban development of Historic Cairo reveal that rapid urbanization in Egypt has led to a dual-track model. This approach combines statutory protection with community collaboration to achieve a comprehensive solution. It has helped sustain historic landscapes and local cultures. However, it also reveals gaps in community participation and a fragmented governance structure. These tensions mirror the conditions found in many Chinese cities.

A growing body of work highlights socio-cultural sustainability. Zhu (2021)

proposes a model that values residents' participation and their sense of belonging. Through Latin American–Chinese comparisons, he demonstrates that protective measures addressing daily needs and cultural practices enhance social value and heritage vitality. Wang (2020), focusing on Huian stone carving, shows how promoting traditional crafts through tourism can drive industrial transition. This bolsters local economies and strengthens the drive for passing on intangible heritage. Taken together, these cases suggest that linking heritage with industry, education, and tourism offers effective paths to sustainability. Failures also teach important lessons. In Tianjin's old-city renewal, over-marketized heritage policy and capital priorities led to the dismantling of traditional neighborhoods. Residents were displaced, social networks unraveled, and conservation became superficial. Similar outcomes appeared in parts of Cairo. There, poor coordination between local authorities and investors fostered "scenicization"—cosmetic restoration replacing deeper community integration. Ultimately, this undermines the social value of heritage.(Figure 20)

Figure 20 intersecting circles of sustainability.
Source:Anderson, F. (2015). The development of rural sustainability using participatory action research: A case study from Guatemala. .

Summary

Sustainable heritage conservation is not a single, fabric-focused project. It is an integrated process involving social, cultural, economic, and environmental dimensions. Successful cases often stress multi-actor participation, community empowerment, and cross-sector collaboration. Unsuccessful cases show the limits of one-sided governance and overreliance on capital. For Kunming Old Street, these lessons suggest striking a balance among policy, community, and market logic. Participatory Design and collaborative governance can enhance the social legitimacy

and durability of protection efforts. This approach is urgent for current practice and foundational for long-term sustainability. It aligns with SDG 11's people-centered urbanism and SDG 17's partnership spirit, while safeguarding cultural heritage as called for in SDG 11.4.

2.4 Case Study

2.4.1 Domestic Case Studies of Historic-District Protection

2.4.1.1 The Dongsi 3rd–8th Alleys Historic–Cultural District (Beijing)

Located in Dongcheng District, Beijing, the Dongsi 3rd–8th Alleys constitute a representative ensemble of hutong–siheyuan morphology with comparatively intact historical character. Since 2014, the area has been placed on a priority protection list and has undergone phased conservation and renewal. Guided by the principles of "protection first, rescue as a priority, reasonable use, and strengthened management," the project adopts a "minimum intervention" approach to repair the alleyway grain, historic courtyards, residential environments, and cultural landscapes. As a flagship undertaking within Beijing's Famous Historical and Cultural City program, the case has garnered widespread attention and has become an influential reference for urban heritage governance in China.

The urban and social background is well known. As a national historical and cultural city, Beijing's hutong and siheyuan are key to its urban fabric. Yet the Dongsi precinct had long suffered from dilapidated housing, spatial clutter, inadequate infrastructure, proliferating illegal structures, and high residential density. Socially, original residents faced declining living quality; many moved out, and the remaining population skewed toward vulnerable groups. Culturally, the historical significance of courtyards and alleys was underappreciated, and place attachment weakened. Balancing citywide modernization goals with the protection of historic character thus became the central driver of the Dongsi initiative.(Figure 21)

Figure 21 Principle of Minimal Intervention Protection.
Source:Yang, L.-X. (2020). Methods to guide public participation in the renewal of Beijing historic-cultural districts
(Master's thesis, Beijing University of Civil Engineering and Architecture).

The project addresses four key problems: how to prevent disruptive clearance that destroys historic grain, how to enhance living conditions while retaining the original residents, how to facilitate meaningful community participation, and how to establish a multi-actor governance mechanism that sustains protection, renewal, and development. The potential for gentrification is explicit: excessive capital-driven commercialization could trigger out-migration and cultural hollowing. In response, the project emphasizes community co-construction, co-governance, and benefit-sharing, aiming to strike a balance between fabric repair and social continuity.

Institutionally, the pathway combines planning guidance, government leadership, and resident participation, weaving together policy instruments, spatial planning, and on-site retrofits. The core model integrates area-wide conservation with incremental renewal, emphasizing "minimum intervention" and "recognizable repair," in line with the Historic Urban Landscape (HUL) approach, which prioritizes holistic, systemic conservation. Governance innovation includes "street-block co-governance" via alley stewards, lane chiefs, and grid managers, mechanisms that broaden resident involvement and embed routine stewardship.

Implementation proceeded on several fronts. On the material side, the

project repaired eighteen immovable monuments and a large number of courtyards, strengthening the protection of hutong morphology. Environmental measures removed illegal additions, tidied overhead wiring, upgraded public facilities, and inserted small green interventions to enhance livability. Culturally, the project advanced "craft-centered" restoration that retained traditional materials and techniques, recovering the spatial atmosphere of old Beijing. Socially, it organized public cultural activities—such as "Searching for Dongsi Memory" and community festivals—to rebuild participation and foster a sense of identity. In governance terms, the project operationalized co-construction, co-governance, and sharing among residents, government, and social actors. Although not employing sophisticated quantitative instruments, the process utilized cultural resource surveys, district value assessments, and resident satisfaction studies to form a relatively comprehensive evaluation system.

The outcomes are notable. The overall environment improved markedly; hutong landscapes were restored; and living conditions rose. Protection of historic character cohered with modern functionality, drawing positive national media coverage. In 2018, Dongsi 4th Alley received honors as a "Capital Civilized Street–Alley" and one of "Beijing's Most Beautiful Alleys." Resident participation increased, governance became more plural, and the co-governance mechanism provided a demonstrative model for other districts. The project also advanced cultural transmission by coupling restoration with activation, reinforcing the cultural memory and identity embedded in siheyuan life.

Limitations nevertheless persist. Despite the rhetoric of participation, both the depth and breadth of resident influence in planning and decision-making remain constrained. Financing relies heavily on public funds; limited social-capital participation raises questions about long-term maintenance. An emphasis on environmental clean-up and visual enhancement risks flattening the diversity of cultural life. Finally, the latent risk of gentrification has not been fully addressed: an overreliance on tourism or high-end commerce could weaken residential functions and reduce social diversity.

For this dissertation, the Dongsi case yields several lessons. First, it demonstrates a practicable pathway of "minimum intervention + area-wide

conservation," underscoring the need to avoid disruptive clearance—a point directly applicable to Kunming Old Street. Second, its stress on resident participation and co-governance signals the importance of specifying concrete mechanisms for Participatory Design beyond normative advocacy. Third, the case affirms the dual emphasis on cultural transmission and livelihood improvement, aligning with this study's commitment to protecting both tangible and intangible heritage. Finally, it highlights latent challenges—financing continuity, institutional robustness, and anti-gentrification safeguards—that Kunming Old Street must anticipate. In summary, the Dongsi 3rd–8th Alleys project is a significant experiment in Chinese urban heritage protection and community renewal: exemplary in concept, governance, and performance, yet not without its constraints. Its experience and caveats provide practical reference points and theoredddtical support for the research framework and empirical design developed in this study.

2.4.1.2 The Shamian Historic–Cultural District (Guangzhou)

Situated on the Pearl River, the Shamian Historic–Cultural District is widely regarded as a representative enclave of China's "first treaty-port business quarter." Its exceptional concentration of colonial-era buildings and public-space ensembles projects a distinctly European streetscape, making the district both a microcosm of Guangzhou's modern urban development and a site of substantial heritage value. Rapid socio-economic change, however, has sharpened tensions between protection and use: the district must preserve historical character and cultural memory while accommodating contemporary urban functions and everyday life. This complex setting provides the backdrop for Shamian's recent protection and renewal.

Historically, Shamian faced multiple, intertwined challenges. Aging and damaged structures posed safety risks; spatial efficiency was low, with lagging public facilities and services undermining urban vitality; and an increasingly tourist-oriented commercial profile squeezed residential space, diluting the district's traditional lifeways. These constraints limited cultural transmission and the feasibility of sustainable development, rendering the balance between conservation and modernization an urgent governance problem.

The district did not adopt a purely top-down pathway. Instead, authorities combined an area-based conservation plan with multi-actor governance. A

guiding principle of “protection first, reasonable use” delineated legal boundaries and renewal trajectories through statutory planning and policy directives, while public-participation mechanisms brought residents, experts, and civic organizations into the process to form a co-governance arrangement. Operationally, Shamian integrated spatial renewal models, cultural landscape conservation, and sustainability frameworks to weave together traditional building repair, public space improvement, and calibrated tourism development—signaling a systematic and evidence-based approach.

Implementation advanced along several coordinated fronts. At the urban form scale, the district restored and refined the overall spatial structure by repairing French-style gardens, European building ensembles, and the central boulevard’s public realm, thereby recovering a modern-historical character and elevating visual coherence. Building conservation and fabric repair, coupled with adaptive reuse, allowed historic properties to retain their original structures and details while accommodating exhibitions, museums, and art spaces that enhanced public cultural functions. Upgrades to public facilities—such as pedestrian priority systems, green corridors, and nighttime illumination—improved the experiential quality for residents and visitors alike. Cultural festivals and community activities further sustained social vitality, enabling a dialogue between historical narratives and contemporary urban life.

Evaluation relied on a mixed toolkit. Landscape–viewshed analysis, green-coverage monitoring, and walkability assessments provided environmental performance baselines, while resident satisfaction and visitor experience surveys supported iterative adjustments. The use of quantitative indicators strengthened accountability and supplied a technical basis for adaptive management.(Figure 22)

Figure 22 Enhance the landscape.
Source:Demonstration Cases of Historical and Cultural Preservation and Inheritance (Volume I).

Outcomes are visible at several levels. The district's historic character has been substantially maintained; buildings and public spaces have been reanimated as a prominent window onto Guangzhou's modern history and Sino–Western exchange; residential quality has improved with a more livable environment; and tourism appeal has increased, positioning Shamian as an emblem of the city's international image. The process also fostered a relatively mature collaborative-governance model through the participation of governmental, civic, and market actors. Nonetheless, limitations persist. Heavy reliance on tourism risks performative "spectacularization" and commodification of culture, with attendant weakening of everyday neighborhood life. Conflicts remain between parts of the commercial program and resident needs, indicating room to deepen and broaden community participation. Finally, the durability of funding streams and institutionalized maintenance mechanisms requires further reinforcement to secure long-term stability.

For this dissertation, the Shamian case offers three principal insights. First, it validates the feasibility of running holistic protection and adaptive activation in parallel, providing a reference pathway for Kunming Old Street. Second, it underscores the importance of public participation and collaborative governance, reminding us to embed stakeholder claims more concretely in participatory mechanisms rather than relying on normative appeals. Third, it cautions against the over-commercialization of heritage: the balance between protection and development must be vigilantly managed to avoid cultural hollowing. In theoretical terms, Shamian corroborates the relevance of a Participatory Design + Sustainable Development

framework; in practical terms, it furnishes operational lessons for aligning conservation quality, community well-being, and economic viability.

2.4.1.3 The Lvshun Taiyanggou Historic–Cultural District

This study examines the Taiyanggou Historic–Cultural District in Lvshun through the guiding questions of why it should be protected, how it should be protected, and how it can be developed. Framed by cultural geography, it catalogs landscape types, traces evolutionary mechanisms and values, and on that basis constructs both a value-evaluation index system and a coordination-degree assessment. The findings indicate that Taiyanggou's cultural landscape possesses high overall value and a high level of coordination, providing a realistic foundation for integrated protection and development. Practically, the work proposes a three-stage dynamic protection model, categorizes heritage assets into eight types of tourism products, and explores development modes and countermeasures, culminating in a "coordinated protection–tourism development" regulation model aimed at balancing authenticity with vitality.

Situated against the macro-context of accelerated urbanization and the "homogenization of a thousand cities," the study argues that modern historic districts—shaped by global exchange, colonial entanglements, and national revitalization narratives—are critical carriers of urban distinctiveness. Taiyanggou's multi-sourced, stratified cultural landscape simultaneously registers industrialization, colonial rule, and anti-colonial resistance, and the recomposition of local identity. On this basis, the formation, development, and maturation of Taiyanggou are articulated as the analytical entry point, grounding subsequent valuation and governance modeling.

Reviewing comparable cases (Tianjin's Wudadao, Shanghai's Xintiandi, Qingdao's Badaguan–Yushan), the study cautions that when "object value" is over-consumed and everyday lifeways go unaddressed, historic buildings are readily subsumed by commercial logics—producing "activated façades with hollow cores." It therefore calls for revaluing cultural landscapes as people-centered resources and for designing mechanisms that convert popularity (renqi) into prosperity (caiqi) in a sustainable manner. This diagnosis directly addresses Taiyanggou's real-world tensions: weak value recognition, inadequate protection, and

disorderly development—issues that the study addresses through integrated evaluation and phased governance.

Methodologically, the research combines a literature review, field surveys (questionnaires and interviews), and comparative analysis. Literature grounds theory and indicators; fieldwork documents landscape types, spatial patterns, and use conditions; questionnaires/interviews elicit stakeholder perceptions and preferences; cross-city comparisons supply experiential lessons. The theoretical scaffold draws on cultural geography, postcolonial studies, urban image, and stakeholder theory, supporting interpretations of representation, power, and identity, as well as analyses of collaboration, games, and governance.(Figure 23)

Figure 23 Lüshun Taiyanggou Historical and Cultural District.
Source: Che, L. L. (2012). Research on the protection and tourism development of cultural landscapes in modern urban historical and cultural districts.

Two linked index systems are developed: a cultural-landscape value evaluation system (capturing historical, cultural, aesthetic, and social values) and a coordination-degree system (testing fitness and coupling among protection, development, and urban growth). Weights are determined through the Analytic Hierarchy Process (AHP) and expert consultation. Single-factor and multi-level fuzzy comprehensive evaluations produce quantitative judgments, which together form a three-step chain: weighting → evaluation → coordination degree. On the governance side, the three-stage dynamic protection model and the coordinated protection–tourism development regulator align phased targets with feedback loops to orchestrate authenticity, landscape renewal, and industrial activation.(Figure 24)

Figure 24 Integrated Participation in Governance.
Source: Che, L. L. (2012). Research on the protection and tourism development of cultural landscapes in modern urban historical and cultural districts.

At the district scale, the study advances an integrated typology–pattern–process strategy: clarify fundamental landscape types and spatial structure; trace drivers (policy, power, cultural hybridization, interest bargaining) to design differentiated protective measures and spatial guidance. Development policy groups resources and constraints into eight tourism-product types, with corresponding development modes and implementation tactics aimed at reconciling value realization and risk control. Lessons distilled from mature cases—"old houses, new wine," "museology + tourism," "legal protection, marketized activation"—offer transferable operating cues for local practice.

Technically, AHP, combined with expert consultation, yields judgment matrices and hierarchical rankings that balance subjective and objective inputs. Single-factor and multi-level fuzzy evaluations integrate indices from factor to goal levels and derive a coordination degree to test structural matches between protection and development. This quantitative chain is congruent with the study's high value–high coordination conclusion.

Strengths. Three contributions stand out: (1) Evaluation–governance integration—dual index systems for value and coordination furnish measurable bases for the questions "why protect" and "how to orchestrate," avoiding purely aesthetic or purely economic judgments; (2) Phased governance—a three-stage dynamic model that aligns authenticity–vitality–industry along a single temporal sequence, improving the operability of policy tools and spatial strategies; (3) Cross-case generalization—comparative synthesis from Wudadao, Xintiandi, and Badaguan/Yushan couples

market mechanisms with cultural narrative-making to propose people-centered reuse paths.

Limitations. Three agendas merit deepening: (1) Institutionalized participation—despite stakeholder perspectives and expert inputs, the work lacks an operational framework and process indicators for continuous participation, negotiation platforms, and oversight spanning residents–merchants–government–developers; (2) Social equity and anti-gentrification tools—the emphasis on value–coordination is not matched by a systematic evaluation of displacement effects, rent-to-income ratios, original-resident retention, or the stability of cultural bearers; (3) External validity and robustness—AHP and fuzzy evaluation hinge on expert judgments and indicator design; broader transfer requires sensitivity analysis and longitudinal tracking to test weight robustness, index portability, and conclusion stability. These gaps do not undermine the study's foundation, but rather delineate a clear agenda for follow-up.

Implications for this dissertation. Taiyanggou offers an actionable evaluation–governance–development loop with multi-indicator support for phased decision-making and cross-case transferability. For Kunming Old Street, it underscores the need to place institutionalized participation mechanisms and quantifiable social equity monitoring on equal footing with value coordination metrics. Only by embedding participation, collaboration, and sustainability into indicators and procedures can "protection" expand from a spatial form to the continuum of everyday lifeways and cultural transmission.

2.4.1.4 The Renfengli Historic District (Yangzhou)

The Renfengli Historic–Cultural District is the only precinct within Yangzhou's Ming-era walled city that still retains its overall urban pattern, and it constitutes a key node in Jiangsu's program of Famous Historical and Cultural Cities. Set against Yangzhou's rapid urbanization, the case responds to the fragmentation of traditional alley–courtyard morphology, deteriorating living conditions, and industrial hollowing. The value of Renfengli lies not only in extending the city's historical lineage but also in addressing contemporary demands of urban renewal and sustainable development.

Problem framing. The project confronts a core dilemma: how to

improve habitability while preserving the historic grain. Long-term building decay, proliferating illegal additions, and declining residential quality had pushed the district into a double bind of “traditional protection vs. modern life.” The study argues that wholesale clearance or cosmetic “facadism” would damage authenticity and accelerate resident out-migration and cultural rupture. It therefore advances incremental, small-scale, micro-renewal strategies as the point of departure for district-wide revitalization.

Methods and process. The research integrates empirical inquiry with planning and design. Field surveys, architectural censuses, and cultural-resource inventories establish a baseline archive that identifies protected units, character buildings, and the distribution of intangible heritage. Aligned with policy documents and local plans, the project proceeds through an iterative planning, implementation, and feedback cycle. Community participation is embedded via questionnaires, interviews, and resident roundtables, ensuring that proposals are both evidence-based and responsive to local concerns.

Framework and approach. The intervention adopts a triadic model of area-wide conservation → phased repair → adaptive activation. At the macro scale, it safeguards the street–alley pattern and blocks large-scale demolition. Phased repair targets aging housing and selected public-realm segments to improve environmental quality. Adaptive activation couples industry and culture, introducing a “intangible-heritage transmission + cultural–creative enterprise + tourism” mix to infuse new vitality. This model aligns with international trends in sustainable development and community engagement.

Key measures. Four paths structure implementation:

(1) Habitat improvement—removal of illegal structures, rectification of ad hoc additions, drainage upgrades, and greener public spaces to mitigate safety risks and improve comfort.

(2) Heritage activation—rehabilitation of historic dwellings for B&Bs, cultural–creative workshops, and exhibit venues, converting architectural value into social and economic utility while extending historical memory.

(3) Industry transition—support for small-scale cultural–creative economies (bookstores, artisan studios, ICH experience centers) to avoid

homogenizing, large-format commercialization.

(4) Public participation and co-governance—mobilizing resident initiatives and civic organizations to form a co-construction, co-governance, co-sharing arrangement.(Figure 25)

Figure 25 Public participation and co-governance.
Source: Peng, M. (2022). Strategies for the renewal and renovation of the Renfengli Historic District in Yangzhou. Dazhong Biaozhunhua [Popular Standardization], (23), 76–78.

Evaluation tools. Spatial surveying and GIS analysis document urban form; building-census data underpin a resource database; and questionnaire analytics assess resident satisfaction and participation. This mixed-methods apparatus yields a combined qualitative–quantitative evaluation framework and operational indicators for ongoing monitoring.

Outcomes. Three advances stand out. First, the physical environment improved markedly—illegal additions were removed, greenery enhanced, and drainage systems upgraded—raising residential comfort and safety. Second, heritage assets were effectively activated: historic buildings now support B&Bs, galleries, and maker spaces, sustaining memory while strengthening economic viability. Third, community cohesion increased as residents assumed greater roles in governance, yielding a model that combines resident self-organization, government guidance, and social-sector participation. Renfengli has thus emerged as a notable example of protection–use–use in Yangzhou.

Limitations. Challenges remain. Some segments display “repair-as-new,” inviting questions about authenticity. Risks of over-tourism persist: excessive capital inflows could erode everyday neighborhood life. Participation, while

improved, remains shallow at the decision-making level, and funding continuity and institutionalized maintenance mechanisms require reinforcement to ensure long-term stability.

Implications for this dissertation. Renfengli emphasizes the value of micro-renewal as an alternative to disruptive clearance, aligning with this study's participatory design orientation. It underscores the importance of activation over static preservation, informing the dissertation's sustainability argument. Its exploratory co-governance model provides a concrete reference for the SHS (Symbiosis–Sharing–Co-governance) framework. Equally, its shortcomings prompt vigilance regarding authenticity vs. livability and commercialization vs. community tradeoffs. The case thus supplies both transferable practices and cautionary notes, sharpening the dissertation's evaluative criteria and design of indicators for Kunming Old Street.

2.4.1.5 The Old Town of Nanjian (Yunnan): Renewal and Activation

This study focuses on the historic district of Old Town in Nanjian Yi Autonomous County, exploring pathways for renewal and activation amid rapid urbanization and the decline of old towns. The district embodies regional culture and social memory, yet it has progressively lost its function and vitality under the pressures of modernization. Through a review of domestic and international theories of "beautification renovation" versus "renewal–activation," and by drawing on cases such as Changsha's Taiping Street and Hong Kong's Revitalising Historic Buildings initiative, the study proposes strategies tailored to Nanjian. The overarching aim is to maintain the street–alley grain and spatial pattern while injecting new functions and vitality, thereby advancing sustainable development through protection-in-use.(Figure 26)

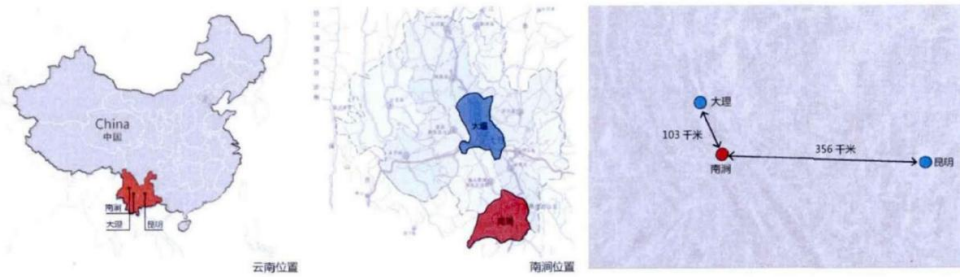

Figure 26 Location of the Old Town Historic District in Nanjian, Yunnan.
Source: Hu, L.-Y. (2016). Renewal and activation design strategies for urban historic districts. (Master's thesis, Kunming University of Science and Technology).

Context and problem framing. As in many Chinese old-city upgrades, large-scale clearance has often erased form, memory, and social function. In Nanjian, resident out-migration and aging infrastructure precipitated decline. The study identifies four interlinked challenges: (1) damaged spatial pattern and degraded urban grain; (2) abandonment or underuse of traditional dwellings; (3) misalignment between residents' lifeways and contemporary needs; and (4) weak policy and management instruments. These conditions typify dilemmas faced by historic districts in small and medium-sized towns.

Methods and approach. Combining literature review, fieldwork, questionnaires, and interviews, the research integrates qualitative and quantitative analysis. It compares renewal cases to extract transferable lessons, conducts on-site surveys of land use, building conditions, and residents' spatial needs, and, by bridging theory and evidence, formulates design strategies. The method follows a bidirectional arc—theory → practice → theory feedback—to ensure both rigor and operability.

Conceptual distinction and dual model. The study differentiates "beautification" (surface improvements that risk cultural loss) from "renewal–activation" (functional continuity and revitalization). It adopts a dual framework: renewal addresses the macro street–alleys system and infrastructure, while activation targets the adaptive reuse of exemplary dwellings and courtyards. While resonant with Western "organic renewal" and "urban regeneration" theories, the model adapts to the realities of China's smaller cities by advancing gradual, culturally grounded transformation.

Multi-scalar strategies.

(1)District scale: repair the urban grain and reanimate street-space vitality.

(2)Courtyard scale: enhance courtyard landscapes and reintegrate functions.

(3)Building scale: tailor activation schemes by location and condition.

(4)Lifeways: prioritize cultural transmission and structured community participation.

To support these tactics, the study employs questionnaires, condition assessments, and spatial pattern analysis to quantify resident satisfaction, space-use

intensity, and protection grades, yielding an evaluation framework that couples qualitative diagnosis with operational metrics. (Figure 27)

Figure 27 Functional Division of Buildings.
Source: Hu, L.-Y. (2016). Renewal and activation design strategies for urban historic districts. (Master's thesis, Kunming University of Science and Technology).

Contributions. Three strengths stand out: (1) tight theory–practice coupling, using comparative cases and local evidence to craft place-specific renewal–activation modes; (2) a systematic, multi-level framework spanning macro pattern to micro courtyard; and (3) a people-centered orientation that links cultural transmission with spatial updating. These contributions are significant for revitalizing Nanjian and serve as a reference for historic districts in other small and mid-sized towns.

Limitations. The analysis of socio-economic drivers and policy supports is thin, leaving open questions on financing and conflict mediation. Participation is mentioned, but it lacks an institutionalized mechanism or a collaborative governance (SHS) architecture. Quantitative evaluation remains exploratory—more classification than modeling—with limited statistical inference and visualization. These gaps suggest opportunities to strengthen the integration of theory and practice.

Implications for this dissertation. Four lessons are especially pertinent to Kunming Old Street. First, protection should not stop at beautification or repair; it must combine renewal + activation across space, function, and culture. Second, residents' lifeways and institutionalized participation are central—aligning with the study's Participatory Design / PAR orientation. Third, the case exposes deficits in

policy instruments and socio-economic drivers, underscoring the value of collaborative governance (SHS) and sustainability frameworks. Fourth, future work should deepen quantitative methods (e.g., statistical modeling, sensitivity tests, or NVivo-assisted qualitative analysis) to enhance evidentiary strength.

Overall, the Nanjian Old Town study advances a practicable dual-path approach to renewal and activation that respects spatial grain while catalyzing cultural vitality. At the same time, it demonstrates that spatial design strategies alone cannot resolve the complex challenges of protection and development. By embedding Participatory Design, cross-disciplinary methods, and SHS co-governance—and by institutionalizing metrics for authenticity, social equity, and adaptive use—historic district protection can evolve from a static form toward a living continuum of everyday practice and cultural transmission.

Summary

Across the representative cases of Beijing's Dongsi 3rd–8th Alleys, Yangzhou's Renfengli, and Guangzhou's Shamian, a broadly convergent pathway has taken shape in China's historic-district practice: holistic conservation, incremental renewal, multi-actor co-governance, and cultural activation. Dongsi emphasizes small-scale repair, coupled with community co-governance; Renfengli advances "small parcels, stepwise" protection, while introducing intangible-heritage workshops; and Shamian leverages its European streetscape and festival programming to build a culture–tourism hybrid. Collectively, these cases demonstrate that effective heritage work must move beyond fabric repair to embed community participation and cultural transmission, aligning conservation with socio-economic development.

Persistent limitations, however, temper these gains. Over-commercialization can compress residential space and attenuate everyday life; fiscal and institutional guarantees are uneven; and the depth and breadth of participation remain constrained in many settings. For Kunming Old Street, the lesson is twofold: adapt proven mechanisms and methods to local conditions, and proactively avoid observed pitfalls. Doing so can support a locally grounded, sustainable model of protection and development that respects historical authenticity while sustaining community livelihoods and cultural vitality.

2.4.2 International Case Studies of Historic-District Protection

2.4.2.1 Community Participation in the Revitalization of Japanese Historic Districts

This case study examines community-participation models in the revitalization of Japanese historic districts, with attention to social, institutional, and resident–state interactions. It is motivated by the persistent "deactivation" observed in China's historic quarters—short-cycle, rescue-style, government-led projects with limited continuity and weak community involvement. Given Japan's cultural affinities and comparable spatial typologies, Japanese cases offer valuable reference points. The study's goal is to synthesize theory and evidence to explicate participation models and their formation mechanisms, and to derive lessons for the Chinese context.

Problem framing. "Deactivation" in historic districts manifests as resident out-migration, declining everyday functions, and ruptured community culture. Community participation is therefore essential to sustainable revitalization, bearing directly on authenticity, integrity, cultural identity, and the reproduction of social capital. The study proposes a two-axis analytical frame: (1) a process dimension (project-level vs. district-wide process; initiation vs. consolidation stages), and (2) a behavioral dimension (actors, contents, and modes of participation). This framework structures the subsequent case analysis.

Methods. Combining literature review with field-based inquiry conducted during an academic exchange at the University of Tokyo, the author assembled a mixed body of evidence: policy documents, community meeting minutes, participation records, in-depth interviews, and on-site observation. Three exemplary cases—each aligned with a distinct stage of revitalization—were selected to illuminate model variation and evolution.

Cases and stages.

Mikuni-machi (visioning in the initiation stage): Expert-led comprehensive surveys catalyzed resident mobilization, culminating in shared vision setting and pilot trials—illustrating the transition from non-participation to structured engagement.

Sawara (youth participation in the consolidation stage): High-school students were activated as new-generation agents through festival planning and place-

making, strengthening youth identity and a sense of civic responsibility—demonstrating intergenerational transmission of participation.

Yanaka (collaborative regime across the full cycle): Residents, experts, government, and NPOs formed a long-term cooperation mechanism that balanced cultural continuity with everyday functions—an archetype of institutionalized, routine participation.

Theoretical contribution. The study's "process–behavior" schema clarifies the constituent elements and temporal evolution of participation. It further distills two classes of formative factors: developmental conditions (urban trajectory, community organizational base) and institutional–normative conditions (administrative arrangements, legal guarantees, policy support). Together, these suggest that building a localized participation model in China requires both the cultivation of resident consciousness/organization and durable institutional safeguards for long-term collaboration.(Figure 28)

Figure 28 Japan Community Participation Process.
Source: Gao, Y.-C. (2019). Community participation models in the revitalization of historic districts in Japan (Doctoral dissertation, Zhejiang University).

Limitations. The focus on Japan raises issues of transferability given institutional differences with China. Quantitative instrumentation is limited; precise measurement of participation intensity is lacking, which constrains cross-cultural comparability. The analysis privileges success cases, underexamining failures or participation setbacks under institutional friction.

Implications for Kunming Old Street. Three lessons are salient: (1) Do not rely solely on state push—introduce community and civic organizations at different stages to sustain momentum; (2) Invest in intergenerational participation—youth mobilization (e.g., high-school projects akin to Sawara) can anchor cultural transmission and future stewardship; (3) Institutionalize cooperation—legal–policy guarantees and stable collaborative platforms (resident–expert–government–NPO) are prerequisites for long-term sustainability. In short, the revitalization of Kunming Old Street requires not only design-led interventions but also sustained institution-building and social-capital formation.

2.4.2.2 Protection and Renewal of Historic Districts in Los Angeles

This case examines the protection and renewal of historic districts in Los Angeles, considering how heritage is mobilized for community regeneration within a highly multicultural setting. As one of the most emblematic cities on the U.S. West Coast, Los Angeles preserves early architectural fabrics and layered social memories while also registering interethnic encounters and conflicts under rapid urbanization. The literature indicates that local heritage policy emerged in the 1960s–1970s, during the height of urban renewal. Extensive infrastructure development and real estate speculation led to the demolition of buildings and a decline in the urban core. Under pressure from public opinion and academic advocacy, the city began to reconceptualize historic districts not as “residual spaces” but as repositories of cultural identity and multiethnic memory. Protection was thus reframed as a dual task: to conserve fabric and to restore community vitality while sustaining cultural diversity—a tension closely aligned with the “conservation–development” paradox in Chinese historic districts.(Figure 29)

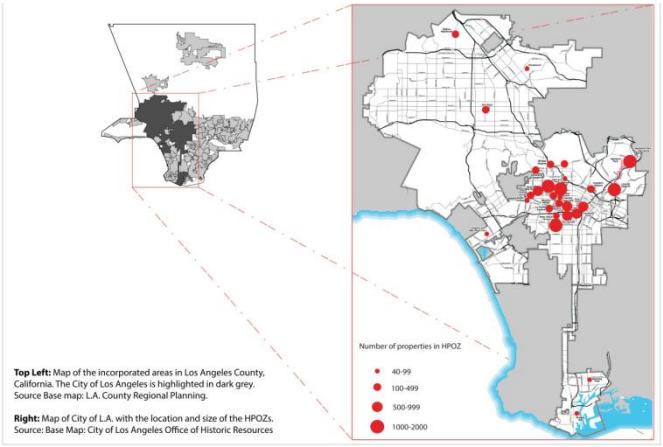

Figure 29 Map of Los Angeles' 29 HPOZs. Map.
Source: Gao, Y.-C. (2019). Community participation models in the revitalization of historic districts in Japan (Doctoral dissertation, Zhejiang University).

Methodologically, the research proceeds through an interdisciplinary design that combines planning history, policy analysis, community interviews, and spatial fieldwork. This approach traces policy shifts across phases and documents how institutional frameworks interacted with community practice. Empirical materials—resident and merchant testimonies, developer positions, and neighborhood-level datasets—clarify divergent stakeholder claims and reveal how they shaped the trajectory of renewal.

In practice, Los Angeles followed a phased pathway. The early period was policy-led and government-driven, with historic preservation zones being designated and basic standards for rehabilitation and land use established. Because residents' needs were underweighted, some projects devolved into scenicization and hollowing. From the 1990s onward, the city incrementally institutionalized community participation by chartering nonprofit organizations and community development corporations that organized bottom-up initiatives. This transition expanded resident agency and bolstered a sense of belonging, while enabling negotiated cooperation among heterogeneous groups.

Evaluation relied on a mixed toolkit. Community satisfaction surveys, cultural-value assessments, and economic impact estimates were used to balance conservation and development and to align public action with community-defined needs. GIS-based spatial analysis and feasibility studies further informed plan

optimization, providing an evidence base for decision-making.

Outcomes are visible at architectural, social, and cultural registers. Representative building ensembles and public cultural spaces were retained, residential conditions improved in several districts, and community functions were partially restored. Equally important, cultural pluralism became legible through joint participation, thereby strengthening identity formation and social cohesion. In these respects, Los Angeles offers a reference model for heritage-led neighborhood renewal in Western U.S. cities.

Limitations remain. Even with stronger participation, conflicts of interest persist, especially between real estate capital and low-income residents. Tourism-oriented programming in some projects risks cultural commodification and marginalization of residents. Funding streams are uneven, with many actions dependent on short-cycle grants rather than sustainable funding, and interdepartmental coordination is not always ensured. These constraints indicate that effective protection requires more than policy intent and market energy; it demands institutionalized funding guarantees and stable cross-sector mechanisms.

For Kunming Old Street, three implications follow. A robust legal and institutional framework is a precondition for credible protection and should be accompanied by clear oversight. Community participation must be treated as the core driver of renewal, with residents, merchants, and civic organizations engaged in substantive co-production rather than consulted episodically. Finally, in a context of cultural diversity, conservation should attend to relations between original residents and immigrants and guard against over-commercialization that dilutes authenticity. Incorporating these lessons enhances the feasibility of participatory design in the Chinese context and supports a protection model that combines cultural integrity with social equity and long-term viability.

2.4.2.3 Participatory Action Research in Rural Sustainable Development: Evidence from Coastal Guatemala

This case examines Participatory Action Research (PAR) on the Pacific coast of Guatemala, focusing on how co-produced knowledge can enhance agroecosystems, strengthen farmers' livelihoods, and promote community sustainability. The study sites—primarily Retalhuleu and Suchitepéquez—are

characterized by high poverty, land degradation, and food insecurity, conditions that are emblematic of the rural development challenges in the Global South. The central objective was to translate scientific findings into context-appropriate practices through reciprocal learning between farmers and researchers, thereby pursuing social, environmental, and economic sustainability in a mutually beneficial manner. Against a backdrop of fertilizer-dependent agriculture and routine stubble burning—both linked to soil decline, unstable incomes, and negative health externalities—PAR was positioned not merely as a research protocol but as a social praxis built on equitable collaboration among farmers, researchers, and NGOs.(Figure 30)

Figure 30 Retalhuleu and Suchitepequez Municipalities on the Pacific side of Guatemala. Source:Anderson, F. (2015). The development of rural sustainability using participatory action research: A case study from Guatemala. Journal of Human Resource and Sustainability Studies, 3(1), 28–33.

The five-year intervention (2010–2014) followed an integrated research–education–action design consistent with the PAR cycle of "Planning–Action–Observation–Reflection." In the research phase, local and international partners conducted soil analyses, crop trials, and resource assessments to generate site-specific technical support. The education phase institutionalized knowledge circulation via field trainings, household nutrition courses, and community meetings, progressively establishing "farmer-to-farmer" (Los Promotores) and "neighbor-to-neighbor" (Las Promotoras) dissemination networks. The action phase deployed on-farm experiments—including no-till, green manures, intercropping, and the introduction of pigeon pea and quality-protein maize—with comparative plots to evaluate outcomes.(Figure 31)

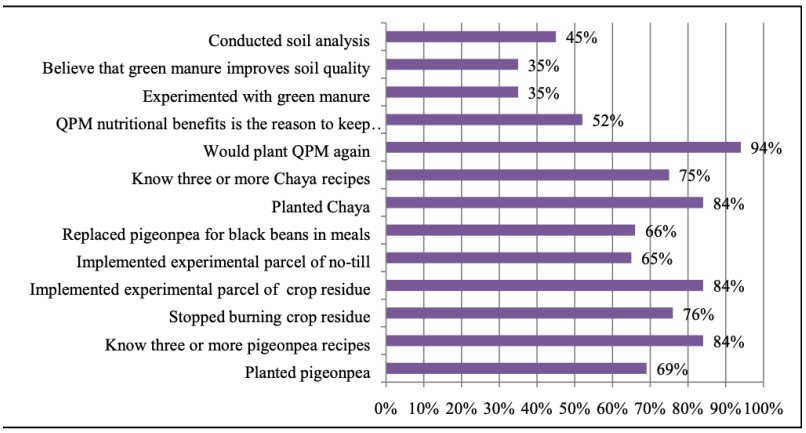

Figure 31 The main outcomes of 2014 community survey.
Source: Gao, Y.-C. (2019). Community participation models in the revitalization of historic districts in Japan (Doctoral dissertation, Zhejiang University).

Statistical tests (F-tests and repeated-measures t-tests) indicated significant shifts in practice and perception over the intervention. Even during the 2013 drought, farmers adopting the new methods realized maize revenue gains of around USD 180—sufficient, locally, to cover a child's annual school fees—bolstering trust and participation. Approximately 40 percent of participating households discontinued chemical fertilizers, average yields rose by roughly one quarter, and respondents widely reported improvements in household diet and perceived quality of life.

Measured impacts aggregated across three domains. Environmentally, no-till, cover crops, and green manures improved soil fertility and water retention. Socially, household welfare increased, with notable empowerment effects for women through roles in nutrition and health education. Institutionally, community capacities expanded as the promoter networks accelerated peer learning and accumulated social capital. Together, these results substantiate PAR's effectiveness in advancing rural sustainability.

Limitations temper these findings. The absence of a robust baseline complicates pre–post comparisons; several indicators rely on self-reported data, inviting response bias. Early-phase skepticism toward external knowledge slowed diffusion, and the initiative's dependence on external funding and technical support raises questions about post-project continuity. These constraints highlight the

importance of establishing durable local institutions and financing frameworks alongside methodological rigor.

The implications for Kunming Old Street are twofold. First, authority and initiative should be vested in residents as co-producers—mirroring farmer agency in PAR—so that community members function not only as beneficiaries but as drivers of protection and renewal. Second, targeted engagement of women and youth is critical to sustaining participation and transmitting cultural practice across generations. More broadly, the Guatemalan case underscores the value of coupling the scientific method with local knowledge and institutional innovation. In the heritage context, this argues for co-created protocols for intangible heritage safeguarding, iterative feedback loops, and transparent evaluation aligned with SDG-oriented metrics.

In sum, the Guatemalan experience demonstrates how PAR can convert collaborative inquiry into measurable gains across environmental, social, and economic dimensions, while also revealing the institutional and epistemic frictions that must be addressed for long-term viability. For Kunming Old Street, it offers both methodological guidance—participation organized through structured cycles of planning, action, observation, and reflection—and a caution to secure local ownership and sustained support if participatory processes are to endure beyond the pilot stage.

2.4.2.4 Infill Development and Design Guidelines for the Ithaca, New York Historic Districts

This case examines the protection and renewal of historic districts in Ithaca, New York, through the development of an Infill Development and Rehabilitation Design Guidelines framework (Karimifar, 2021). The central aim is to manage the impacts of new construction, alteration, and repair on district-wide architectural character and cultural value by articulating clear standards, review procedures, and stakeholder interfaces that balance conservation with development.

Ithaca’s historic quarters—typical of a university town—contain dense ensembles from the nineteenth and early twentieth centuries, serving as repositories of local culture and community memory. Economic restructuring and population mobility, however, have precipitated functional decline and spatial fragmentation. Under pressure from urban reinvestment and real estate markets, waves of infill

proposals challenge the compatibility of new buildings with historic settings. The core problem is to reconcile building massing, scale, materials, and detail with established urban fabric (Beasley, 1998; Suchman, 1997).(Figure 32)

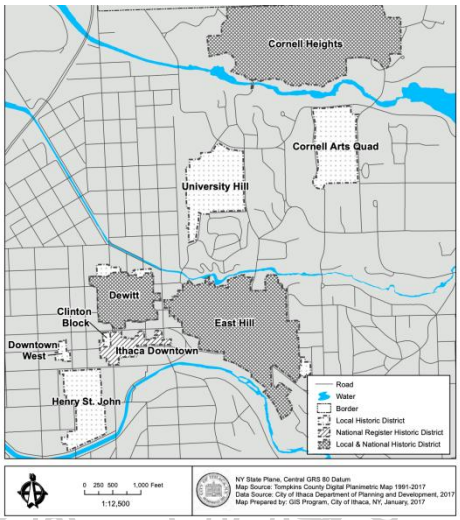

Figure 32 Historic districts in Ithaca.
Source: Karimifar, S. (2021). Design guidelines for infill developments and alterations in the historic districts of Ithaca, New York (Master's thesis). Cornell University.

Methodologically, the study integrates literature review, policy analysis, precedent study, and participatory interviewing. It grounds local guidance in the U.S. National Historic Preservation Act (NHPA, 1966) and the Secretary of the Interior's Standards for the Treatment of Historic Properties, and draws on participation in Ithaca Landmarks Preservation Commission (ILPC) meetings and expert interviews to derive place-appropriate standards and implementation pathways. The approach thus links preservation theory to day-to-day governance.

Compatibility is advanced as the primary evaluative construct. Building on Brolin (1980) and Smeallie and Smith (1990), the guidelines operationalize compatibility through calibrated tests of scale and proportion, massing and rhythm, material and color continuity, and contextually responsive detailing. At the same time, a contextualist stance allows for thoughtful contemporary expression that respects historical character without devolving into rote imitation or oppositional contrast.

To move from principle to practice, the study proposes a full guideline-making process: identify character-defining features, conduct resource inventories, analyze streetscape typologies, prepare a draft, solicit community feedback, and revise through commission review. Pre-application workshops are emphasized to surface issues early, reduce conflict, and improve review efficiency (Cox, 1994). Visual instruments—such as building inventory sheets, block-scale diagrams, sections and elevations, and side-by-side comparative plates—translate the otherwise abstract notion of compatibility into communicable, reviewable criteria, thereby increasing transparency for applicants and residents alike.

The resulting framework is both normative and flexible. It sets consistent standards that limit arbitrariness and conflict while providing designers and property owners with actionable references and illustrative cases. In practice, the guidelines enable the ILPC to weigh preservation goals against private investment, providing a replicable model for small and mid-sized cities facing similar pressures.(Figure 33)

Figure 33 Clinton House, Past and Present.
Source: Smeallie, P. H., & Smith, P. H. K. (1990). New construction for older buildings: A design sourcebook for architects and preservationists. New York: Wiley.

Limitations remain. Effective implementation depends on the authority and capacity of the local commission, as well as public cooperation; resource constraints can hinder enforcement. The focus on architectural compatibility overlooks social dynamics—such as resident displacement, gentrification, and cultural substitution—that are underexplored. Finally, expert- and commission-led procedures still underutilize the deep participation of ordinary residents in shaping design outcomes.

For this dissertation, the Ithaca case underscores three points. First, historic-district protection should be embedded in a dynamic governance system rather than confined to static fabric preservation; clear rules and procedural standards can improve predictability and equity in project review. Second, design guidelines can coexist with innovation, provided that compatibility is specified across scale, massing, and material rather than reduced to stylistic mimicry. Third, Ithaca's blind spots highlight the need—central to Kunming Old Street—to integrate architectural standards with substantive community participation and social equity safeguards, ensuring that protection, development, and participation advance in tandem.

2.4.2.5 London's "High Street Regeneration" and Community Co-Governance

Historic high streets across London confront a shared set of pressures—commercial hollowing, spatial fragmentation, and community estrangement—under waves of urban reinvestment. Jan Kattein Architects (JKA) has advanced a regeneration approach that is temporary, incremental, and community-led, using low-cost, recyclable, and iterative interventions to restore everyday vitality and publicness while respecting historic settings. Representative projects include Sayer Street at Elephant & Castle (a temporary "street living room"), Aberfeldy Street in Poplar (high-street stitching through community–commerce resonance), and Fore Street Living Room Library in Enfield (a composite cultural living room anchored by an existing library). Rather than treating design as a one-off object, JKA foregrounds process, prioritizes reusable and demountable fabrication, activates local supply chains, and couples "scenarios–activities–economies" to catalyze place-based revival. The method combines sensitivity to historic context with practical deliverability. (Figure 34)

Figure 34 High Street Regeneration Sketch.
Source: ArchDaily. (2022, July 1). How London's high streets became the most popular commercial corridors. ArchDaily.

Governance and design proceed in tandem. On the public side, JKA aligns with local authorities and funding streams, such as the Mayor of London's Good Growth Fund, to secure fiscal and policy support. On the civic side, the practice employs micro-compacts of "co-creation—stewardship—give-back" to bring traders and residents into project authorship and ongoing care. At Aberfeldy Street, for example, the client consortium (Poplar HARCA and EcoWorld London) commissioned a two-year "high-street works" program that paired light-touch façade repairs with business incubation. Vacant units received conspicuous yet economical refreshes, while new uses were curated. Beneficiary traders, in turn, are committed to community "give-back" activities, closing a loop of support, participation, and outreach. On Fore Street, a shared vision emerged from community consensus around pressing barriers in education, culture, and employment. That platform leveraged roughly £2 million in public funding to establish a learning and cultural network anchored by the library, balancing immediate response with long-term resilience.

Spatial strategies are purposefully lightweight. On Sayer Street, a four-metre-wide linear strip was composed as a demountable street living room, featuring undulating canopies, modular work kiosks, a community broadcast point, and interspersed florist and art units set within dense planting, choreographed to create a sequence of walking, meeting, and lingering. Once the main development advanced, the temporary structures could be dismantled and redeployed to schools or community sites, extending the life cycle of the public investment. At Aberfeldy Street, donated

textiles were sampled, patterns digitally scanned, and a “patchwork mural” in some 200 colours wrapped 26 buildings, translating Poplar’s garment-making memory into a legible wayfinding and identity system. The visual strategy was integrated with the “From Here” program, which provided local traders with operational and spatial improvement support, enabling branding, façade enhancements, and business practices to advance in tandem. On Fore Street, a “living-room library” prioritized adaptive rehabilitation over demolition—preserving structure to reduce carbon—while hybridizing library, work, and social functions into an all-day civic hub for the high street.(Figure 35)

Figure 35 modular work kiosks.
Source: ArchDaily. (2022, July 1). How London’s high streets became the most popular commercial corridors. ArchDaily.

Multiple projects have been shortlisted for or received London and UK urban-renewal awards, reflecting their effectiveness in activating public life, strengthening a sense of place, and advancing low-carbon retrofit. More consequentially, they institutionalize an iterative operating mechanism that links participation, space, and economy. Temporary and movable installations reduce the cost of trial and error; co-creation and give-back agreements align merchants and residents around shared outcomes; and a network anchored in public cultural facilities lowers barriers to entry and expands opportunity, producing positive spillovers for social sustainability.

Compared with one-time “like-for-like” façade repairs, London’s high-street regeneration privileges small, rapid steps and structured participation.

Lightweight, demountable pilots are tested in real-world use before scaling; micro-compacts among community members, traders, and managers formalize operating responsibilities; and civic anchors, such as libraries, carry programming for culture, learning, and re-employment, generating a mutually reinforcing cultural and economic cycle. For Kunming Old Street, analogous tactics could be adopted without disturbing historic grain: deploy reusable guide and display units and participatory roving installations to elevate local storytelling and everyday engagement; pair a co-creation plus give-back trader support scheme with differentiated rents, tax incentives, and performance metrics; and prioritize cultural reproduction over mere spatial reproduction. Taken together, these measures can seed a durable loop of governance and economic vitality suited to local conditions.

2.4.3 Case Comparison and Implications

2.4.3.1 Synthesis and Comparative Findings

A cross-case comparison of five domestic examples—Beijing Dongsi 3rd–8th Alleys, Guangzhou Shamian, Lushun Taiyanggou, Yangzhou Renfengli, and Nanjian Old Town—and six international cases—Japanese historic districts, Los Angeles, rural Guatemala, Bangkok's Old City (HUL), Ithaca (NY), and London's high streets—reveals pronounced differences in governance lead and participation form. Domestic projects are predominantly state-led, with resident involvement largely consultative and oriented toward holistic conservation and cultural continuity. International cases display plural leadership models—for example, resident/NGO-led PAR in Guatemala, developer-led with community workshops in London, and institutional–community hybrids (e.g., CDCs in Los Angeles)—and place greater emphasis on deep participation and community empowerment.

With respect to protection typologies, domestic cases focus on area-wide conservation and adaptive (re)use, with a selective emphasis on habitability upgrades. International practice more commonly begins with livability and environmental improvement, while also incorporating conservation and activation. U.S. cases such as Los Angeles and Ithaca integrate professional planning and CDC mechanisms to align interventions with resident needs and everyday quality of life; Japanese and Thai examples emphasize historic landscape integrity and multi-scalar value transmission (material and intangible). Among activation-led models,

Guangzhou's culture–commerce mix illustrates the potential for dual gains but also the risk of over-commercialization and resident displacement if safeguards are weak.

On participation depth and outcomes, deep participation—notably PAR cycles and well-structured community workshops—correlates with stronger social capital formation and more durable results (e.g., rural Guatemala; Yangzhou Renfengli). By contrast, passive or symbolic participation rarely generates sustained momentum. Across cases, the most effective arrangements combine diversified leadership, incremental implementation, and professionalized facilitation, which together help balance conservation and development. In parallel, systematic cultural-value elicitation and intergenerational engagement emerge as practical bulwarks against gentrification, anchoring authenticity in everyday use rather than façadal repair.

These comparisons suggest a menu of context-sensitive choices for future practice: select an appropriate governance lead (state, civic, developer, or hybrid), calibrate the protection type (conservation-first, livability-first, or integrated), and institutionalize participation (from consultation to co-production) according to local capacity and risk. Such tailoring can advance sustainable and inclusive historic-district trajectories that align cultural continuity with social equity and economic viability.(Table 4)

Table 4 Summary Table of Domestic and International Cases

Case Category	Case Name	Lead Mode	Protection Type	Participation Form
Domestic	Beijing Dongsi Lanes 3–8	Government-led + resident cooperation	Comprehensive preservation	Passive participation
Domestic	Shamian, Guangzhou	Government-led + developer partnership	Adaptive reuse	Consultative participation
Domestic	Taiyanggou (Sun Valley), Lüshun	Government-led + military history protection	Comprehensive preservation	Expert-led participation
Domestic	Renfengli, Yangzhou	Government-led + community participation	Residential environment improvement	Community workshops
Domestic	Old Town of Nanjian	Government-led + ethnic culture protection	Comprehensive preservation	Cultural community participation

Case Category	Case Name	Lead Mode	Protection Type	Participation Form
International	Historic Cultural Districts in Japan	Government-led + cultural transmission	Comprehensive preservation	Traditional culture participation
International	Historic Cultural Districts, Los Angeles (USA)	Government-led + CDC involvement	Residential environment improvement	CDC community participation
International	Rural Sustainable Development in Guatemala	Resident-led + NGO support	Residential environment improvement	Deep participation (PAR)
International	Bangkok Old City – Historic Urban Landscape	Government-led + UNESCO guidance	Comprehensive preservation	HUL expert participation
International	Ithaca, New York (USA)	Government-led + professional planning	Residential environment improvement	Planning participation
International	London High Streets (UK)	Developer-led + community participation	Residential environment improvement	Community workshops

2.4.3.2 Differences in Community Participation

Across the domestic cases, a "government-led, resident-assisted" pattern prevails. In Dongsi's "hutong co-governance" and Renfengli's "small-parcel, incremental renewal," residents and social organizations are present, yet their roles are largely confined to providing information and implementing projects. Deep participation—spanning agenda-setting, option generation, and decision execution—remains limited. Cultural identity and place memory are often incorporated downstream into project design rather than positioned upstream as drivers of policy and investment choices.

International cases prioritize community-driven participation. In Tokyo's Yanaka, long-term collaboration among NPOs, residents, and government embeds community actors as co-authors of agendas and executants of projects. In Los Angeles, community development corporations (CDCs) institutionalize neighborhood agency in planning and delivery. The Guatemalan PAR program goes further by converting farmers into peer educators, establishing "farmer-to-farmer" diffusion that builds autonomy and endogenous momentum. Such models consistently elevate community capacity, sustain engagement over time, and improve alignment between interventions and local priorities.

2.4.3.3 Differences in Governance Models

Domestic governance remains predominantly top-down, with government and developers controlling resource allocation and planning approvals, even when multiple stakeholders are consulted. In Renfengli and Shamian, multiple actors are present, but decisional authority ultimately resides with public agencies; community engagement is proceduralized as consultation, rather than shared power.

International practice leans toward collaborative governance and devolution. Japanese cases cultivate process-oriented governance through sustained tri-partite dialogue among experts, residents, and officials. Experiments such as collaborative mapping in Spain incorporate ordinary citizens into knowledge production, granting them a voice in heritage identification and evaluation. Bangkok's adoption of the HUL framework—despite early-stage limitations—signals a shift toward multi-actor dialogue and coordination. The common thread is a deliberate reallocation of authority and the construction of cooperative mechanisms that institutionalize co-decision, co-production, and shared accountability.

2.4.3.4 Differences in Approaches to Sustainability

Domestic cases largely pursue a "culture + tourism" pathway. On Shamian, European-style ensembles and festival programming have been leveraged to create a cultural tourism district. In Beijing and Yangzhou, micro-renewal enhances the environment while stimulating consumption. This trajectory, however, tends to slide toward over-commercialization, as residents are marginalized and community culture becomes increasingly commodified. Discussions of sustainability remain concentrated on economic returns and city branding, with comparatively limited attention to ecological performance and social equity.

By contrast, international cases typically adopt a three-pillar approach. The Guatemalan PAR program addresses environment (soil rehabilitation), economy (household income gains), and society (women's and youth empowerment) simultaneously. Bangkok's application of the HUL method advances an integrated, dynamic, participatory framework that embeds social resilience and cultural continuity within sustainability goals. Experiments in Spain use digital tools to expand community awareness and cultural vitality, exemplifying knowledge co-creation and the sustained accumulation of social capital. Taken together, these examples articulate a cross-dimensional, comprehensive logic of sustainability that

balances environmental, social, and economic objectives rather than privileging a single axis of performance.

2.4.3.5 Implications for Kunming Old Street

First, the contrast between domestic and international practice indicates that participatory design on Kunming Old Street must move beyond opinion solicitation toward resident empowerment and community co-governance. Models such as “farmer-to-farmer” pedagogy in PAR or collaborative mapping initiatives suggest actionable templates for redistributing agenda-setting power and building durable participation.

Second, differences in governance point to the need for a multi-actor collaborative mechanism that complements government leadership with the structured involvement of residents, experts, and enterprises. Such an arrangement can mitigate conflicts associated with gentrification, enhance the social legitimacy of policy, and improve implementation fidelity through shared responsibility and transparent evaluation.

Third, sustainability for Kunming Old Street should not rely primarily on tourism or commercial activation. A credible strategy must integrate social, cultural, and ecological considerations. The Guatemalan case underscores the importance of community capacity-building as a foundation for long-term change, while Bangkok’s HUL framework highlights the value of dynamic protection—safeguarding intangible heritage and everyday lifeways alongside the physical fabric—to avoid the drift toward scenicization or performative culture.

Summary

Domestic cases demonstrate the strengths of China’s institutional pathway—speed and policy support—yet reveal deficits in deep participation and holistic sustainability. International cases offer more open and plural models centered on community empowerment and three-pillar sustainability, but often struggle with funding continuity and incomplete institutionalization. For Kunming Old Street, the central task is to translate these lessons into the Chinese institutional context: embed participatory design that genuinely shifts authority, construct co-governance platforms with clear rules and metrics, and align cultural conservation with social equity and ecological stewardship. Only by coupling institutional support with community

vitality can a sustainable protection model be both legitimate and resilient.

2.5 Pilot Research

2.5.1 Stakeholder Typology

To avoid the limitations of top-down protection models that overlook participant heterogeneity and interaction, this study adopts a dual typology that integrates an “onion-ring” proximity map with role-based grouping. First, the stakeholder map visualizes each actor’s proximity to—and salience for—the research/action goals: the closer to the center, the greater the need for frequent interaction and joint decision-making. Second, three analytical groupings—expert cohort, general cohort, and random cohort—characterize knowledge and identity structures, as well as their relationships to tangible and intangible heritage. In combination, the two lenses answer who is present, how close they are, and in what capacity they participate within a single diagrammatic grammar. The proximity map indicates importance and depth of participation; the grouping scheme clarifies knowledge sources and social roles. Together, they facilitate the organization of Participatory Action Research (PAR) processes and enable the design of downstream quantitative empowerment and participation pathways.

2.5.1.1 Ring Delineation

Guided by the “salience” criteria—power, legitimacy, and urgency—and drawing on Mitchell scoring and social network analysis (SNA) adapted to Chinese historic-district governance (Liao, 2017), key actors in Kunming Old Street are organized into three rings and five categories. Prior research on Kunming reveals a high spatial overlap between zones of active renewal and areas of peak vitality, suggesting that government–enterprise–visitor interactions significantly influence spatial vibrancy and should therefore be concentrated in the inner rings.

(1) Innermost Ring: Partners

Core co-producers who share responsibility for outcomes and deliverables:

• the research team/design workshops (organizing PAR, coordinating stakeholders, producing and evaluating outputs);

• community organizations (resident representatives, volunteers/boards,

operators of co-creation and stewardship);

• managers of historic sites (operations and safety of heritage venues);

• key site owners (access and use rights).

Positioning these actors at the center reflects a bottom-up logic linking everyday life, episodic events, and spatial interventions, and secures organizational commitments for pilots such as workshops, oral-history collection, and community memory curation.

(2) Inner Ring: Primary Stakeholders

• Residents (long-term and renters): everyday users and carriers of memory; consistently central in network analyses; priorities include livability, affordability, belonging, and cultural identity.

• Government departments (culture–tourism, planning–housing, subdistrict offices): rule-setters and resource allocators; their actions correlate positively with spatial vitality.

• Community management bodies (residents' committees, service centers): micro-governance nodes that interface between state and civil society.

• Merchants/enterprises (including time-honored brands, cultural/food/night-time economy): drivers of vitality that may also induce scenicization, performative uses, and rent escalation.

• Visitors: agents of cultural consumption and word-of-mouth diffusion; their preferences reshape commercial mixes and streetscapes and can generate tensions with resident needs.

(3) Outer Ring: Secondary Stakeholders

• Experts and technical professions (conservation engineers, architects/designers, urban and communications scholars, archives/museum/cultural-center staff): their inputs calibrate authenticity and display.

• Cultural actors and ICH bearers: reproduce and transmit intangible heritage and folk practices, energizing the memory–practice–space cycle.

• Media/journalists/photographers/artists: amplify narratives and shape external image and attention.

• Schools, civic groups, NGOs: deliver education, community-building, and public culture programs.

2.5.1.2 Grouping Dimensions

Actors on the map are further organized by knowledge structure and action attributes into three cohorts:

(1) Expert Group: historians, design/conservation professionals, restoration engineers, and staff of cultural/archival institutions. They lead standards setting, technical oversight, and evaluation for tangible heritage.

(2) General Group: local residents, time-honored brands and artisans, community cadres, and media/art practitioners. Through everyday practices and events, they connect tangible and intangible dimensions and (re)produce memory.

(3) Random Group: tourists and itinerant vendors characterized by high mobility and unpredictability; they directly influence commercial vitality and streetscape dynamics.

These cohorts intersect across the tangible–intangible–folk practice nexus and constitute the core participant base for participatory design workshops, oral-history programs, and pilot renewals.

Synthesis. The “onion-ring + grouping” schema integrates domestic empirical insights (resident–visitor centrality; state and enterprise as institutional/capital drivers) with findings on memory production and tourism in Kunming Old Street. By visualizing participation tiers and coupling them to heritage types, the framework provides an operational basis for field observation, sampling strategies for surveys/interviews, empowerment design, and co-creation workflows. It thereby supplies a structured pathway to diagnose and intervene in the three problems identified in Chapter 1—insufficient participation, top–down disjunction, and fractured identity.(Figure 36)

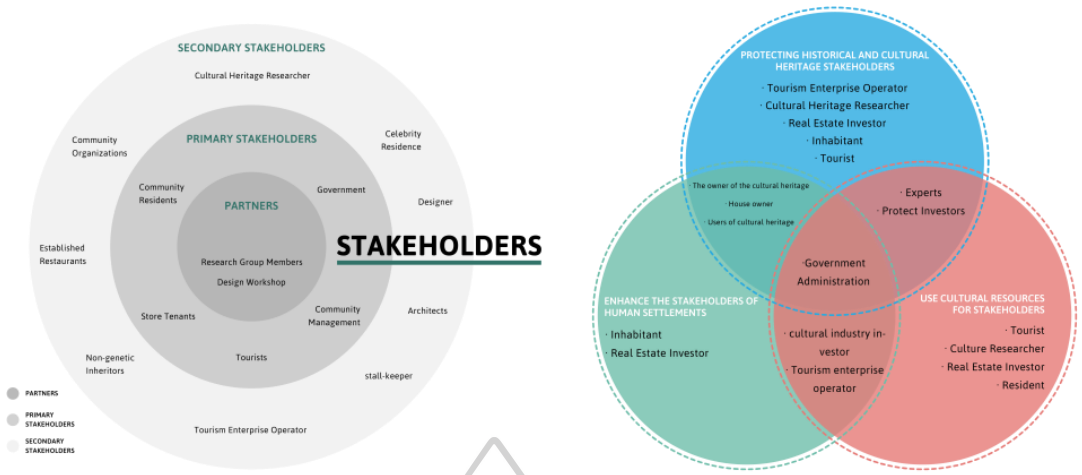

Figure 36 Stakeholder Stratification in “Kunming Old Street”.
Source: Individual drawing by the author. (Guan,2023)

2.5.2 Field Observation and Rapid Appraisal

This stage employed walking surveys, situational recording, and quick intercept interviews across the core streets and adjoining back lanes of Jingxing, Wenming, Guanghua, and East/West Juandong, among others. Observation focused on four interconnected domains: (1) material space and the built environment (courtyard typologies, repair status, illegal extensions, long-standing scaffolding and hoarding); (2) commercial structure and opening rhythms (relative shares of cultural–creative retail, food and beverage, souvenirs, and everyday services); (3) public space and everyday events (street activities, temporary vendors, alleyway sociability, festivals and folk performances); and (4) traces of renewal and operational mechanisms (property-style management, wayfinding systems, night lighting, and continuous commercial arcades).(Figure 37)

Figure 37 Observations on “Kunming Old Street”.
Source: Photographed by the author. (Guan,2023)

Built environment. A pronounced juxtaposition is evident between area-wide “integral conservation” and localized “as-new” refurbishments. Select segments display added floors, cantilevered projections, and scaffolding that has become quasi-permanent, signaling uneven standards and implementation lags.

Commercial structure. Primary corridors are dominated by dining and cultural–creative retail, while daily-life services remain scarce. This pattern aligns with prior vitality assessments, indicating a strong overlap between renewal zones and high-vitality clusters, with an unmistakable commercial orientation.

Public life and everyday events. Pedestrian flows tend to concentrate in crowded “hot spots” at nodal spaces and in relatively quiescent back lanes. Festival programming and intangible-heritage performances tend to concentrate at display-oriented thresholds—shopfronts and alley mouths—corresponding to a “everyday-events-as-spatial-drivers” perspective in which episodic activities choreograph interaction.

Memory and narrative. Coexisting official and vernacular memory regimes are legible in oral-history fragments, curated displays of “old objects,” and the retention of historic storefronts. Yet curation is selective: nostalgia is often staged, and younger cohorts show attenuated identification with local cultural narratives—findings

consistent with communication studies on the production, reproduction, and filtering of memory in Kunming Old Street.

Synthesis. These preliminary observations substantiate the three problems identified in Chapter 1—insufficient participation, top–down disjunction, and fractured identity. The boundary between residents' everyday life and commercial display, as well as between folk/ICH practices and tourist consumption, emerges as particularly sensitive. Subsequent instruments and experimental designs will therefore prioritize these fault lines, refining sampling protocols, co-creation methods, and evaluation metrics to address them directly.

2.5.3 Findings from Resident and Merchant Interviews

Semi-structured interviews were organized around five themes—spatial use, cost of living, cultural identity, governance participation, and business expectations—yielding the following insights.

(1) Residents.

Retention and habitability. Long-term residents wish to keep historic houses and express limited interest in relocating to high-rise resettlement units. Their core demand is not "scenicization" but affordable, livable housing coupled with everyday public spaces.

Selective de-commercialization. Many voiced concern about over-commercialization and modernized storefronts, which they perceive as eroding ordinary life and neighborhood social networks.

Desire for co-governance. Multiple interviewees indicated a clear willingness to participate in shared governance, signaling a shift in self-identification from "managed objects" to community members with agency.

(2) Merchants.

Returns and uncertainty. Merchants are attentive to rising rents and policy volatility, which shape investment horizons and operational risk.

Cultural authorship. Time-honored shops and artisan studios are eager to "tell the Old Street's story," but they require a shared narrative repository and coordinated wayfinding/interpretation system to convert heritage into sustained cultural value-added.

Resident interface. Merchants generally support daytime markets and flexible

evening operations, while calling for clear rules on noise, waste management, and stall boundaries to reduce friction with residents.(Figure 38)

Figure 38 Stakeholder Quick Interview Photographs.
Source: Photographed by the author. (Guan,2023)

Implication. The interviews converge on a common agenda: prioritizing habitability and affordability, tempering commercial intensification to protect everyday life, institutionalizing co-governance channels for residents, and providing standardized interpretive tools that enable merchants to co-produce cultural value without amplifying conflict. These findings directly inform the design of subsequent PAR experiments (agenda-setting, rules-of-use, and evaluation metrics).

2.5.4 Preliminary Survey Findings

Using a five-point Likert scale, the questionnaire assessed participation pathways, spatial accessibility, cultural identity, protection expectations, and sense of empowerment. The pilot sample consisted of residents, merchants, and visitors, with responses collected both on paper in situ and via QR code links. The emergent trends are as follows:

(1) High willingness, unclear channels. Residents and time-honored merchants reported strong willingness to engage in co-governance and co-creation, yet scored low on knowing how and with whom to participate. This indicates the absence of

accessible platforms and weak interfaces between the community and the government.

(2) Accessibility and information asymmetry. Visitors frequently noted difficulties in obtaining coherent information; discontinuities between main streets and back lanes in the wayfinding system detract from the overall experience.

(3) Balancing protection and everyday life. Residents rated both “prioritize protection of historic buildings” and “ensure basic living facilities” highly, suggesting a preference not for anti-commercialism but for joint advancement of heritage protection and livability.

(4) Age-differentiated cultural identity. Middle-aged and older respondents reported stronger pride in Old Street culture and higher festival participation, whereas younger locals and non-local visitors valued novelty and the potential for social media shareability.

(5) Lowest scores on empowerment. Among all indices, empowerment (perceived influence on decisions) scored the lowest, confirming that participation largely remains at the consultation/notification level rather than the co-decision or co-production level.(Figure 39)

Figure 39 Stakeholder Interview Findings Bubble Chart.
Source: Individual drawing by the author. (Guan, 2024)

Summary

This chapter presents an integrated framework for reviewing object, theory, evidence, and method. First, it mapped Kunming Old Street's locational structure, historical evolution, and inventory of tangible/intangible heritage, and situated current challenges within the trajectories of urban renewal, tourism-led gentrification, and key policy inflection points. Second, it introduced four theoretical pillars—HUL, PAR, ESG, and SHS—to ground a methodology that links protection, participation, sustainability, and collaborative governance. Third, synthesizing domestic and international literature and cases, it distilled counter-gentrification strategies, participatory design pathways in heritage protection, and SDG-aligned evaluation criteria, yielding transferable lessons in restoring everyday functions, community empowerment, tiered participation, and multi-dimensional assessment. Finally, through a stakeholder map and preliminary observation, interview, and survey evidence, the research refined its instruments and identified the core gaps: insufficient participation within top-down models, demand misalignment, and fractured cultural identity. These insights provide an operational basis for the methodological design in Chapter 3 and for the subsequent participatory experiments.

CHAPTER 3
RESEARCH METHODOLOGY

Introduction

Building on the theoretical foundations and empirical insights developed in Chapters 1 and 2, this chapter details the study's research paradigm, design steps, and implementation plan. Guided by a pragmatic paradigm, the project employs an embedded mixed-methods approach that integrates qualitative and quantitative techniques—namely, participant observation, questionnaires, interviews, and co-creation experiments—to provide a comprehensive examination of heritage protection in Kunming Old Street. The chapter explains the rationale for the chosen paradigm, specifies the overall research design and workflow, describes the sampling frames and strategies, defines variables and measurement tools (including questionnaire constructs and the IOC procedure), outlines the fieldwork phases and timeline, and addresses ethics review and risk control. All components are tailored to the Kunming Old Street context to ensure tight alignment between methods and research objectives.

3.1 Method of Research

3.1.1 Research Paradigm and Overall Design

This study employs a pragmatic research paradigm and an embedded mixed-methods design to assemble a "theory-informed—empirically validated—practice-oriented" framework. Three considerations motivate this choice.

First, the protection of historic cultural districts is inherently complex. Kunming Old Street involves heterogeneous stakeholders, layered processes of cultural transmission, and evolving conservation needs. A single method cannot capture these dynamics; quantitative analysis is needed to identify general patterns, while qualitative inquiry is required to elucidate mechanisms and context.

Second, participatory heritage protection presupposes substantive stakeholder involvement; accordingly, the methods themselves must be interactive and participatory, enabling co-production of knowledge with residents, merchants, and institutional actors.

Third, the project is explicitly practice-oriented: the design must generate

actionable strategies and policy guidance that can be implemented and evaluated in situ.

Operationally, the design integrates five complementary methods: (1) questionnaire surveys to collect large-sample quantitative data and test hypotheses; (2) in-depth interviews to surface lived experience and underlying motivations; (3) participant observation to document behavior and use patterns in natural settings; (4) participatory design experiments to test the real-world effects of the theoretical propositions; and (5) document analysis to situate findings within the historical and policy context. Together, these components enable triangulation across data sources and levels of analysis, strengthen internal validity, and ensure that analytical results translate into feasible interventions for Kunming Old Street.(Figure 40)

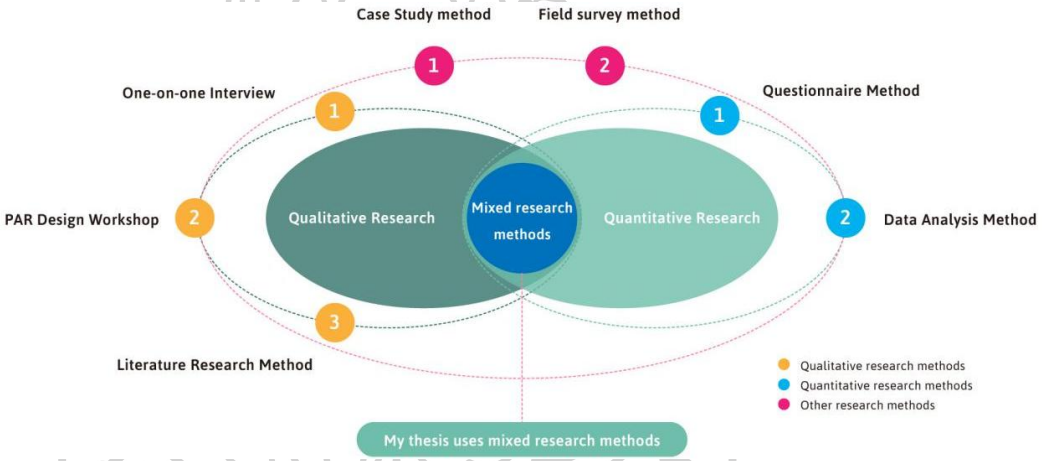

Figure 40 Mixed Methods Research Framework Diagram.
Source: Individual drawing by the author. (Guan,2024)

3.1.2 Participatory Action Research (PAR) Framework

Participatory Action Research (PAR) is the study's core methodological scaffold, premised on egalitarian collaboration between researchers and stakeholders and executed through iterative cycles that couple knowledge production with practical change. The framework adheres to four principles: democratic participation, practice orientation, knowledge co-creation, and empowerment. Operationally, the design follows the PAR cycle of "Planning – Action – Observation – Reflection," ensuring that insights continuously inform adjustments to process and tools.

Applied to Kunming Old Street, PAR unfolds in three iterative rounds:

Round 1 (July–December 2023): Problem identification and consensus-

building. Through stakeholder interviews, field observations, and baseline surveys, the team identified core issues and formulated testable hypotheses.

Round 2 (January–June 2024): Data collection and analytic validation. A large-N questionnaire, supplemental interviews, and pre-test analysis were undertaken to assess the hypotheses and refine intervention priorities.

Round 3 (July 2024–June 2025): Participatory design interventions. Co-creation workshops produced design prototypes, accompanied by post-test evaluations to measure intervention effects and provide feedback for reflection back into practice.(Figure 41)

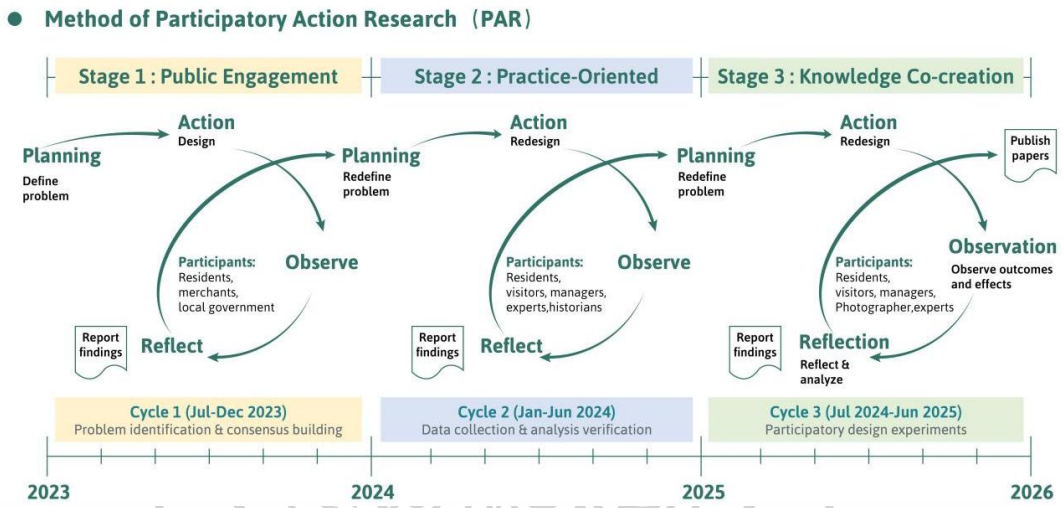

Figure 41 Participatory Action Research (PAR) Cycle Research Framework. Source: Individual drawing by the author. (Guan,2024)

3.1.3 Research Phases and Timeline

The 36-month program comprises four phases:

Phase I: Exploratory groundwork (March–December 2023; 10 months).

Tasks: literature review; theoretical framing; scoping fieldwork; stakeholder mapping; instrument design; pilot testing.

Outputs: finalized research plan, theoretical framework, field instruments, and baseline data.

Phase II: Data collection (July 2023–June 2024; 12 months).

Tasks: large-scale survey (target n = 150), in-depth interviews (n = 30), participant observation (cumulative ~240 hours), and documentary compilation.

Output: a consolidated, queryable research database.

Phase III: Experimental interventions (July 2024–June 2025; 12 months).

Tasks: three participatory design experiments—co-created guide map (3 months), cultural memory handbook (4 months), and interactive cultural wall (5 months)—each structured with pre-test, intervention, and post-test components.

Phase IV: Evaluation and synthesis (March–August 2025; 6 months).

Tasks: pre/post comparisons, effect evaluation, limited longitudinal follow-up, and the articulation of conclusions and policy recommendations.

This sequencing anchors methodological rigor in the specific context of Kunming Old Street, aligning inquiry, intervention, and evaluation within a single, adaptive research architecture.(Table 5)

Table 5 Research Timeline Schedule

Research Phase	Timeframe	Key Tasks	Expected Outputs
Preliminary Study	Mar–Dec 2023	Literature review; fieldwork; instrument/tool design	Research framework; survey instruments; baseline data
Data Collection	Jul 2023–Jun 2024	Questionnaire surveys; in-depth interviews; observational records	Empirical database; pre-test (baseline) data analysis
Experimental Intervention	Jul 2023–Jun 2025	Participatory design experiments; prototype development	Design prototypes; intervention process records
Evaluation & Synthesis	Mar–Aug 2025	Impact evaluation; comparative analysis; consolidation of outputs	Research report; policy recommendations; academic papers

3.2 Sampling of Population

3.2.1 Definition of Study Population

Building on the scoping work and stakeholder analysis, the study delineates six principal stakeholder categories in Kunming Old Street as the target population:

(1) Long-term residents—individuals residing in the district for ≥5 years;

(2) Local merchants—operators with ≥6 months of continuous business activity (e.g., traditional crafts, food and beverage, cultural–creative retail, daily goods);

(3) Government personnel—staff of departments responsible for management and regulation of the Old Street (planning, cultural relics, tourism, subdistrict/community governance);

(4) Domain experts—professionals in cultural heritage protection, urban

planning, architecture, museum/archives, or related fields with demonstrable practice;

(5) Visitors—nonresident users engaging in sightseeing or cultural consumption;

(6) Other affiliates—volunteers, media practitioners, and cultural–creative workers with substantive ties to the Old Street.

Eligibility standards are as follows. Residents: ages 18–75 with varied incomes and educational backgrounds. Merchants: coverage across key business types noted above. Government personnel: inclusion from relevant bureaus and community-level offices. Experts: relevant disciplinary training plus practice experience. Visitors: diversity in age, education, and place of origin. Other affiliates: demonstrable association with Old Street programs or activities.

3.2.2 Sampling Strategy and Sample Composition

A multi-stage mixed sampling design is employed, tailored to account for stakeholder heterogeneity. The planned total sample (N = 150) comprises quantitative respondents (n = 120) and qualitative interviewees (n = 30), with partial overlap.

Quantitative sampling. Stratified random sampling uses stakeholder type as the stratification variable. Planned stratum sizes are as follows: residents, 60 (50%); merchants, 18 (15%); government personnel, 12 (10%); experts, 6 (5%); visitors, 18 (15%); and other affiliates, 6 (5%). Within each stratum, simple random procedures are applied to enhance representativeness.(Table 6)

Table 6 Expected Distribution Table of Sample Composition

Stakeholder Type	Quantitative Sample	Qualitative Sample	Sampling Method	Key Measured Variables
Local Residents	60 (50%)	12	Stratified random sampling	Cultural identity; willingness to participate; satisfaction
Local Businesses	18 (15%)	6	Purposive sampling	Business performance; cooperative attitude; development expectations
Government Staff	12 (10%)	5	Convenience sampling	Policy understanding; implementation effectiveness; management challenges
Domain Experts	6 (5%)	4	Expert referral	Professional assessment; theoretical guidance; practical recommendations

Stakeholder Type	Quantitative Sample	Qualitative Sample	Sampling Method	Key Measured Variables
Tourists	18 (15%)	3	Convenience sampling	Experience satisfaction; cultural awareness; revisit intention
Others	6 (5%)	—	Snowball sampling	Overall impression; participation experience; improvement suggestions
Total	120	30	Mixed sampling	Multi-dimensional comprehensive evaluation

Qualitative sampling. Purposive sampling, complemented by snowball procedures, yields 30 in-depth interviewees: residents 12, merchants 6, government personnel 5, experts 4, and visitors 3. Participant observation does not pre-fix a sample; naturally occurring behaviors, events, and interactions constitute the observed units.

Sample size rationale. For the survey, a minimum effective sample size of $n \approx 100$ satisfies common planning criteria (95% confidence, ±5% margin of error) for detecting population-level tendencies. Qualitative sampling follows the principle of theoretical saturation. Allowing a 10–20% invalid/non-response rate, the total target is set at $N = 150$, balancing precision, feasibility, and the needs of mixed-methods triangulation.

The study sample comprises 120 participants selected through purposive stratified sampling to represent key stakeholder groups associated with the historic district. Participants include local residents, business owners, cultural heritage professionals, and frequent visitors, all of whom have a direct interest in or relationship with the district. This sample was intentionally chosen to ensure consistency in perspective and relevance: each participant has lived experience or expert knowledge related to the district's heritage and development. This selection ensures that data are gathered from individuals intimately familiar with the district's context and issues.

The rationale for the sample size of 120 is twofold. First, the number was determined to ensure sufficient statistical power and validity for quantitative analyses (such as the reliability tests and severity evaluations reported in Tables). In social

science research, a sample of at least 100 is commonly recommended for stable exploratory and confirmatory factor analysis of survey instruments. Given the scope of the questionnaire items used in this study, 120 responses exceed typical guidelines (which often recommend 5–10 respondents per survey item) and allow robust statistical analysis.

All participants were engaged using a consistent protocol. Prior to data collection, inclusion criteria were established (e.g., a minimum of six months residency in Kunming old street district or at least annual professional involvement with the site). The survey and experimental procedures were standardized across the entire sample to maintain uniformity. Each participant completed the same questionnaires and participated in the same experiments under similar conditions. By adhering to these criteria and procedures, the study maintains internal consistency: every respondent contributes data collected under uniform methods and meets the same inclusion standards.

3.2.3 Experimental Sample Design

Participants for the participatory design experiments are drawn from the overall sample. Three experiments are planned, each aligned with the PAR cycle and targeting complementary stakeholder mixes:

Experiment I: Co-created Guide Map. Target 20–25 participants, purposively sampled to include all stakeholder categories (long-term residents, merchants, government personnel, experts, visitors, and other affiliates) to maximize cross-perspective co-production.

Experiment II: Cultural Memory Handbook. Target 12–15 participants, with priority to long-term residents (as memory holders) and heritage/urban history experts (for curation and verification), ensuring depth and credibility of narrative materials.

Experiment III: Interactive Cultural Wall. Target 15–20 participants, emphasizing community organizations, artists/designers, and technical staff capable of translating co-created content into spatial/interactive media and managing installation logistics.

Control group. Where feasible, a non-participant comparison group (≈approximately 30 individuals) will be established for pre- and post-assessment. Matching will be performed on key demographics and role attributes (e.g., age,

gender, residency duration, business tenure, education level, and stakeholder category) to approximate covariate balance between the experimental and control samples. Individuals in the control group will complete the same survey instruments at equivalent time points but will not take part in design activities.

Assignment and integrity. Experimental participation is achieved through purposive recruitment to ensure the required role mix; control participants are selected from the same strata using random sampling with replacement, as needed. To mitigate attrition, sessions will be scheduled at community-convenient times, with brief reminder prompts and non-monetary acknowledgments (e.g., credit in outputs). Baseline characteristics and exposure will be monitored to enable difference-in-differences analysis and sensitivity checks. All participants will provide informed consent and may withdraw at any time without consequence.

3.3 Collected Data Processes

3.3.1 Data Collection Procedures

Data were gathered in six staged steps:

(1) Questionnaire design. Drawing on the literature, theoretical framework, and field observations, a draft instrument was developed that covers background information, cultural identity, spatial use, and participation attitudes (closed items with Likert scales, plus a final open-ended question). Two specialists reviewed content validity and alignment with research aims.

(2) Pilot test. A small pilot with ~10 typical respondents (residents and merchants) in the Old Street community assessed clarity and answerability. Feedback on ambiguous wording and missing options was recorded.

(3) Revision (IOC). Based on pilot feedback and IOC ratings from three experts, items were refined: unclear phrasing was adjusted, low-IOC items (e.g., <0.67) were removed or replaced, and necessary options were added. The team approved the final version.

(4) Administration. The survey was distributed over two weeks using paper forms on-site (e.g., Wenmiao Square, main gateways) and a QR-linked online version posted via community channels. A total of 158 valid responses were obtained (overall response rate >90%).

(5) Semi-structured interviews. After the survey, 30 interviews were conducted with residents, community staff, and heritage experts, sampled via “zonal quotas + snowballing” to ensure spatial and typological coverage. Cases concentrated along major spines (e.g., Jingxing Street, Qianwang Street, Guanghua Street) while including lower-traffic lanes and key nodes (e.g., Wenmiao precinct, Shenglitang environs), balancing time-honored brands, everyday shops, residential courtyards, and public culture sites to support cross-space comparisons of perception, participation, and identity.(Figure 42)

Interviewee Street Area Distribution

Street Name	Number of Interviewee	Percentage (%)
Wenming Street	3	10%
Wenmiao Straight Street	2	6.6%
Yongdao Street	3	10%
Qianwang Street	4	13.4%
Zhengyi Road	2	6.6%
Guanghua Street	4	13.4%
Jingsing Street	6	20%
Victory Hall Surroundings	1	3.4%
Wenmiao Surroundings	2	6.6%
Others	3	10%
Total	30	100%

Figure 42 Interviewee Street Area Distribution.
Source: Individual drawing by the author. (Guan,2024)

(6) Data processing and coding. Survey data were screened (removing patterned or invalid responses) and coded in SPSS; composite indices (e.g., cultural-identity score, perceived participation) were calculated. Interview transcripts were coded in NVivo using an initial scheme (e.g., cultural identity, participation channels, spatial memory) with inductive subcodes added during constant comparison, resulting in a thematic matrix that integrated qualitative insights with quantitative results. (Table 7)

All procedures complied with ethics requirements. Participants received study information and assurances of confidentiality; informed consent was obtained prior to their participation. Paper and digital records were anonymized and securely stored.

Table 7 Six Steps in the Research Process

Step	Activity	Participants	Organization & Support
1. Questionnaire Design	Draft questionnaire structure and items; IOC expert review	Researcher; 3 IOC experts	Advice from local residents of the historic street
2. Pilot Test	Small-scale trial completion of the questionnaire; collect feedback	Residents of the historic street (~10 people)	Community volunteers assist with organization
3. Questionnaire Revision	Revise questionnaire content based on feedback	Researcher	—
4. Questionnaire Distribution	Distribute paper questionnaires on-site; release online questionnaire	Researcher; community contact of the historic street	Residents' Committee provides venue and publicity
5. Semi-Structured Interviews	In-depth interviews with key respondents (n = 30)	Researcher; residents, business owners, experts, etc.	Community provides meeting room; audio-recording equipment
6. Data Processing	Enter questionnaire data into SPSS; transcribe and code interviews	Researcher	Use SPSS and NVivo software

Table 7 summarizes the end-to-end workflow from instrument design to data organization, evidencing careful execution and data quality control. The multi-phase, multi-channel approach yielded both robust structured data and rich open-ended evidence for subsequent analysis of the district's complex social dynamics.

3.3.2 Data Collection Methods and Instruments

To enable triangulation, four complementary methods were employed.

Structured questionnaire. A bespoke, multi-dimensional instrument measured cultural identity, willingness to participate, satisfaction, sustainability awareness, and perceived collaborative governance using 5-point Likert scales (1 = strongly disagree, 5 = strongly agree). Expert review and a pilot ensured sound validity and reliability.

Semi-structured in-depth interviews. Tailored guides were developed for each stakeholder group: residents (daily experience, cultural identity, and participation expectations); merchants (business conditions, cooperation attitudes, and development suggestions); government personnel (policy understanding, implementation, and improvement ideas); and experts (professional assessment, theoretical guidance, and practice advice). All interviews were audio-recorded and transcribed; average duration 45–60 minutes.

Participatory observation. Using a structured observation sheet, researchers recorded the flows of people, spatial use, and cultural activities across weekdays and weekends, as well as morning afternoon/evening periods, under varied weather conditions; the cumulative observation time exceeded 100 hours.

Document analysis. A corpus of 50 items (policies, plans, historical sources, and media reports) was compiled to contextualize the field evidence.

3.3.3 Data Preprocessing and Quality Control

Quantitative data. Raw responses were cleaned and coded in SPSS 28.0, with treatment of missing values, outliers, and logical inconsistencies. Variables were recoded per the analytic framework, and dimensional and composite indices were computed. Distributional properties were tested for normality to guide model selection in subsequent analyses.

Qualitative data. Audio recordings were transcribed and analyzed in NVivo 12 using a unified codebook organized by themes and categories. Multiple-coder procedures were applied, yielding an inter-coder reliability of 0.89. A reflexive memo log documented analytic decisions and emergent insights throughout the collection and analysis process.

3.4 Data Analysis

3.4.1 Quantitative Data Analysis

Descriptive statistics. Compute means, standard deviations, and frequency distributions for all variables; visualize distributions and summarize respondents' sociodemographic profiles.

Inferential statistics. Use t-tests to compare group means, ANOVA for multi-group differences, bivariate correlations to examine associations, and multiple regression to identify predictors and estimate effect sizes.

Multivariate analyses. Conduct EFA to reduce dimensionality and extract common factors; perform CFA to test construct validity; estimate SEM to assess the hypothesized causal structure.

Analyses for descriptive and inferential statistics are conducted in SPSS 28.0; structural models are estimated in AMOS.

3.4.2 Qualitative Data Analysis

Thematic analysis. Following the six-step protocol—familiarization, initial coding, theme generation, theme review, theme definition, and reporting—to derive salient themes from interviews.

Content analysis. Apply a systematic coding frame to documentary sources, quantify category frequencies, and interpret meanings within their context.

Case analysis. Select theoretically informative cases; integrate multi-source evidence to construct thick descriptions, identify common patterns and distinctive features, and relate findings to the analytical framework.

All qualitative coding and retrieval are supported by NVivo 12, using a structured codebook to ensure consistency and auditability.

3.4.3 Mixed-Methods Integration

Adopt a convergent design to compare and corroborate quantitative and qualitative results. Use an explanatory strand to interpret statistical patterns with qualitative evidence, and deploy an exploratory strand whereby qualitative insights inform subsequent quantitative hypotheses. Credibility is strengthened through triangulation across data, methods, and theory.

3.5 Finding experiment and Evaluation

3.5.1 Participatory Design Experiments

Building on the diagnostic findings, three participatory design experiments were planned:

(1) Experiment 1: Co-created District Guide Map (Sep–Oct 2024).

Objective: produce a map that integrates wayfinding with cultural interpretation.

Participants: 20–25 individuals (5–8 each from long-term residents, merchants, visitors, and experts).

Process: four three-hour workshops—(i) needs assessment and consensus building; (ii) collection of cultural memory points; (iii) concepting and prototyping; (iv) user testing, refinement, and finalization.

(2) Experiment 2: Kunming Old Street Memory Handbook (Oct 2024–Mar 2025).

Objective: curate historical memories and document intangible heritage in a

publishable handbook.

Participants: 12 (5 long-term residents, 3 historians/heritage experts, 4 youth participants).

Phases (≈3 months): project launch; archival and oral-history collection; content organization; layout design; proofreading/final edits; print and digital release.

(3) Experiment 3: Interactive Culture Wall (Mar–Jun 2025).

Objective: create a hybrid space for display, interaction, and education.

Participants: 15 (4 community organizers, 2 artists, 3 technologists, 6 resident representatives).

Phases (≈3 months): site appraisal and schematic design; design development and preparation; fabrication/installation; content production and commissioning.

All experiments follow the PAR cycle of "Planning–Action–Observation–Reflection," with embedded documentation for subsequent evaluation.(Table 8)

Table 8 Overview of Three Participatory Design Experiments

Experiment	**Timeline**	**Objective**	**Participants**	**Implementation Process**	**Expected Outcomes**
Experiment 1: Co-creation Navigation Map	September -October 2024 (2 months)	Create practical and cultural navigation map through multi-stakeholder collaboration	• Local Residents (5-8) • Merchants (5-8) • Tourists (5-8) • Experts (5-8) Total: 20-25 participants	4 workshops (3 hours each): • Needs assessment & consensus building • Cultural memory point collection • Concept design & prototyping • Testing, revision & finalization	• Enhanced spatial cognition • Improved visitor navigation • Cultural storytelling integration • Multi-stakeholder collaboration
Experiment 2: Memory Handbook	October 2024 - March 2025 (6 months)	Collect and preserve historic memories and cultural heritage through community documentation	• Long-term Residents (5) • Cultural Historians (3) • Young People (4) Total: 12 participants	6 phases over 6 months: • Project initiation • Historical material collection • Content organization • Layout design • Proofreading & refinement • Printing & distribution	• Preserved cultural memories • Intergenerational knowledge transfer • Community identity strengthening • Historical documentation

Experiment	Timeline	Objective	Participants	Implementation Process	Expected Outcomes
Experiment 3: Interactive Cultural Wall	March-June 2025 (3 months)	Develop integrated display, interactive and educational cultural space	• Community Organizations (4) • Artists (2) • Technical Staff (3) • Resident Representatives (6) Total: 15 participants	4 stages over 3 months: • Site survey & scheme design • Detailed design & preparation • Construction implementation • Content development & testing	• Interactive cultural education • Commun

3.5.2 Evaluation Framework

A multi-dimensional framework assesses participation, outputs, process effects, and longer-term impacts:

(1) Participation quality encompasses breadth (who is involved), depth (roles and decision-making influence), and continuity (retention across sessions).

(2) Output quality: utility (functional use), cultural value (heritage meaning, authenticity), and innovation (novel methods or media).

(3) Process effects include capacity building (skills and confidence), relationship improvement (between residents, merchants, and government), and strengthened place identity.

(4) Long-term impacts: sustainability (maintenance and governance), scalability (transferability to other sites), and institutionalization (integration into local rules and routines).

Methods: (i) pre/post comparisons using the same indicators to estimate change; (ii) a matched control group of non-participants for difference testing; (iii) longitudinal tracking to monitor persistence; and (iv) multi-source appraisal combining self-evaluation, peer review, and expert assessment.

3.6 Data Analysis

All survey instruments underwent rigorous validity and reliability testing.

Content validity. Five domain experts reviewed each scale; items were retained only when the item–objective congruence (IOC) index exceeded 0.50.

Construct validity. We employed both exploratory and confirmatory factor analyses. Acceptance thresholds were KMO > 0.70 and cumulative variance

explained ≥ 60% in EFA (with Bartlett's test $p < .001$). CFA targeted $\chi^2/df < 3.0$, CFI/TLI ≥ 0.90 (≥ 0.95 preferred), RMSEA ≤ 0.08, and SRMR ≤ 0.08; convergent validity was assessed via CR ≥ 0.70 and AVE ≥ 0.50, and discriminant validity via the Fornell–Larcker criterion.

Reliability. Internal consistency was estimated with Cronbach's alpha:

$$\alpha = \frac{k}{k-1}\left(1 - \frac{\sum_{j=1}^{k} \sigma_{Y_j}^2}{\sigma_X^2}\right)$$

Where k is the number of items, $\sigma^2_{Y_j}$ the variance of item j, and σ^2_X the variance of the total scale score. All scales were required to achieve $\alpha \geq 0.70$. Split-half reliability was examined using the odd–even method, and test–retest reliability was assessed through repeated administration at a two-week interval.

Trustworthiness of qualitative data. Member checking was used to confirm transcript accuracy. Researcher triangulation (multi-coder analysis) enhanced analytic objectivity; data triangulation drew on multiple sources (surveys, interviews, observation, documents); and theory triangulation applied complementary theoretical lenses to strengthen interpretation.

Summary

This chapter establishes a rigorous methodological framework for the participatory heritage protection study of Kunming Old Street. The mixed-methods design ensures breadth in data collection and depth in analysis; the PAR cycle secures practice orientation and social value. Stringent validity, reliability, and quality control procedures ensure the credibility and usefulness of the findings. Chapter 4 applies this framework to implement data collection, analysis, and experimental interventions, using pretests to identify needs, conducting participatory design experiments, and evaluating posttests to verify hypotheses and generate actionable guidance.

CHAPTER 4
DESIGN EXPERIMENTS

Introduction

Grounded in the theoretical foundations presented in Chapter 2 and the methodological design outlined in Chapter 3, this chapter tests the research hypotheses through three participatory design experiments and derives practical pathways for heritage protection in Kunming Old Street. We begin with an analysis of pretest data to identify core problems and needs. We then present the implementation, participant feedback, and outputs of the three experiments. Finally, we report posttest results and pre–post comparisons to evaluate the effects and draw conclusions. The entire process follows the Participatory Action Research (PAR) cycle, which involves planning, action, observation, and reflection, to ensure both scientific rigor and practical validity.

4.1 Pretest Analysis and Problem Identification

4.1.1 Overview of Pretest Implementation

The pretest was conducted from January to August 2024, in accordance with the sampling strategy and data collection procedures specified in Chapter 3. A total of 150 questionnaires were distributed, and 120 valid responses were obtained (effective response rate: 80%). Thirty in-depth interviews were completed, totaling 1,350 minutes. Participant observation covered multiple functional zones of the Old Street, yielding 240 observation hours and 86 structured field notes.

Sample composition. Original residents: 60 (50%); local merchants: 18 (15%); government administrators: 12 (10%); domain experts: 6 (5%); visitors: 18 (15%); other stakeholders (e.g., volunteers, media, cultural workers): 6 (5%). The distribution aligns with the targeted quotas. By gender, 69 males (57.5%) and 51 females (42.5%). By age: 18–25 (22%), 26–45 (41%), 46–60 (21%), and 60+ (16%). Educational attainment was predominantly at the college level or above (67%).(Figure 43)

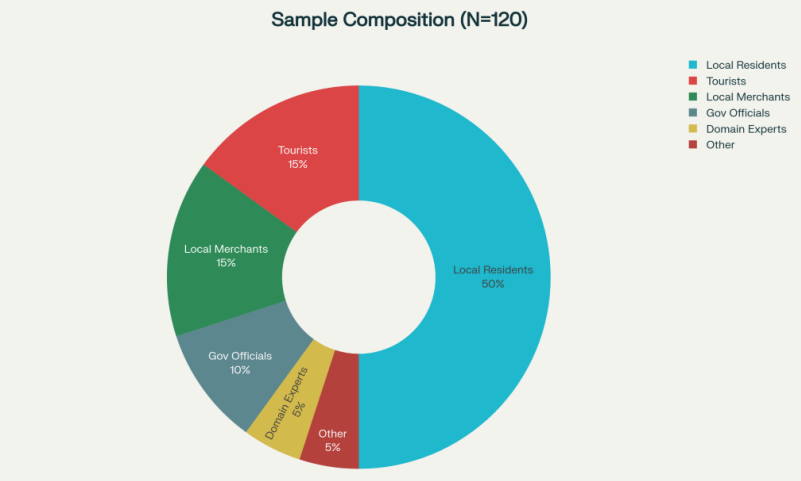

Figure 43 Sample Composition Pie Chart.
Source: Individual drawing by the author. (Guan,2025)

4.1.2 Core Issues Identified from the Pretest

Using SPSS 28.0, we conducted descriptive and inferential analyses to locate problem areas and gauge their severity.

Cultural identity. Only 18% of respondents reported strong identification with Old Street's cultural value; 35% "moderate," 31% "insufficient," and 16% "none." One-way ANOVA indicates significant group differences ($F = 4.318$, $p = 0.003$), with original residents and experts scoring higher than visitors and merchants.(Figure 44)

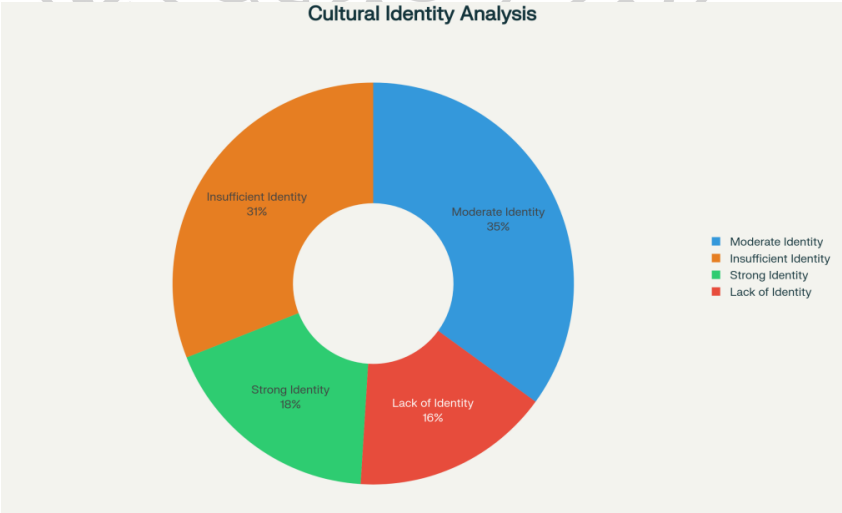

Figure 44 Cultural Identity Analysis Pie Chart.
Source: Individual drawing by the author. (Guan,2025)

Awareness of participation mechanisms. Just 12% “fully understand” existing participation channels; 28% “partly,” 45% “little,” and 15% “none.” Awareness is positively associated with the willingness to participate ($r = 0.542$, $p < 0.01$), underscoring the importance of transparent and accessible mechanisms.(Figure 45)

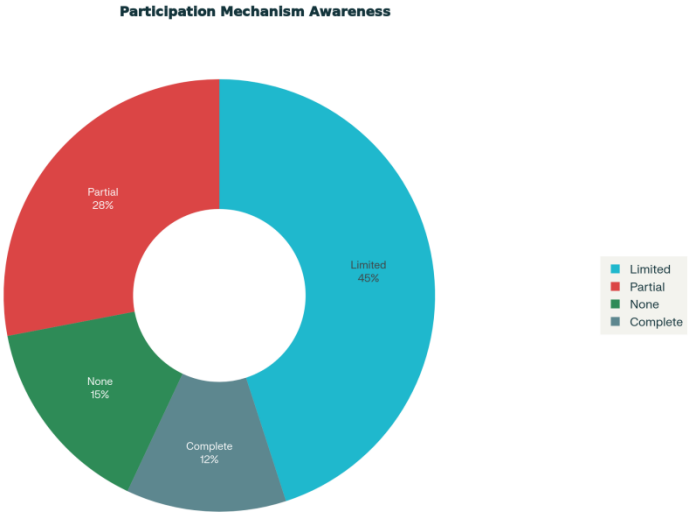

Figure 45 Understanding of Participation Mechanisms Pie Chart.
Source: Individual drawing by the author. (Guan,2025)

Spatial familiarity. Responses were: 22% “very familiar,” 38% “fairly,” 25% “average,” 15% “low.” Familiarity increases with length of residence ($r = 0.638$, $p < 0.001$) and correlates with cultural identity ($r = 0.456$, $p < 0.01$).(Figure 46)

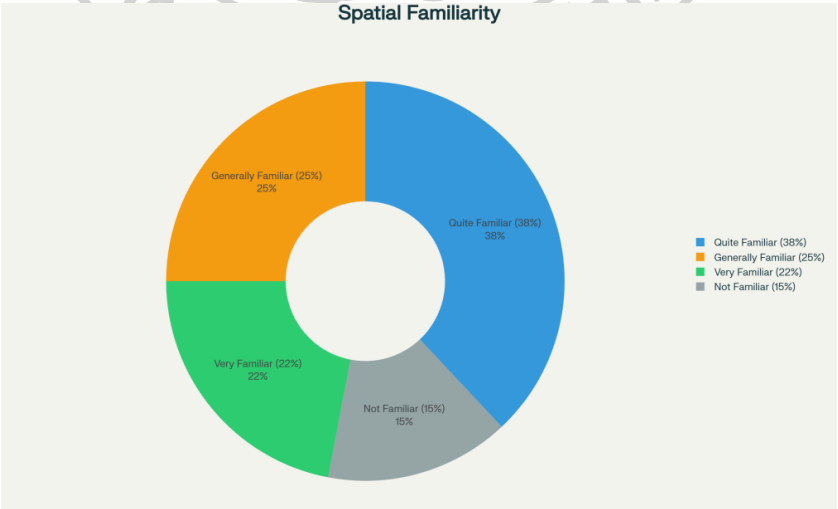

Figure 46 Spatial Familiarity Pie Chart.
Source: Individual drawing by the author. (Guan,2025)

Severity profile (derived from distributions and theme frequencies).

(1) Opaque participation mechanisms (57% report little/none) — high severity.

(2) Weak/uneven cultural identity (47% report insufficient/none) — high.

(3) Uneven spatial cognition (40% ≤ "average") — moderate–high.

(4) Deficits in everyday infrastructure and environmental quality (resident themes most frequent) — moderate–high.

(5) Weak cross-departmental coordination (recurrent in government interviews) — moderate.

(6) Fragmented interpretation/visitor services (tourist themes prominent) — moderate.(Table 9)

Table 9 Assessment of the Severity of Core Issues in Kunming Old Street

Problem Dimension	Severity Score	Affected Population (%)	Urgency Level	Problem Manifestations
Breaks in Cultural Transmission	75	47%	Very High	Insufficient cultural identity; broken transmission chain
Imperfect Protection Mechanisms	72	65%	High	Fragmented management system; lack of overall coordination
Insufficient Community Participation	68	60%	High	Limited participation channels; weak voice/power
Deficient Tourist Experience	65	78%	High	Monotonous cultural display; poor interactivity
Low Resident Satisfaction	58	43%	Medium	Living environment needs improvement; inequitable benefit distribution
Insufficient Spatial Cognition	40	40%	Medium	Lack of effective signage and interpretation for historic spaces

4.1.3 Overview of Pretest Implementation

From 30 semi-structured interviews, NVivo coding yielded four overarching themes with twelve subthemes:

(1) Original residents.

• Everyday environment: upgrades to infrastructure, sanitation, and local mobility.

• Cultural continuity: retain traditional lifestyles, safeguard memory,

strengthen belonging.

• Decision voice: meaningful say in planning; timely, adequate information.

• Economic security: fair compensation, reasonable rents, local employment opportunities.

(2) Local merchants.

• Operating conditions: coherent management, basic services, and footfall growth.

• Cultural differentiation: deeper storytelling and product development around Old Street culture.

• Policy support: tax relief, streamlined permits, targeted funds.

• Coordination: merchant collaboration, resident–business comity, joint marketing.

(3) Government administrators.

• Interagency coordination: clear roles, cross-department mechanisms, and efficiency.

• Participatory channels: robust feedback loops, improved transparency.

• Technical capacity: planning guidance, conservation know-how, management innovation.

• Financing: diversified funding and efficient allocation for protection projects.

(4) Visitors.

• Depth of experience: access to history, everyday culture, and participatory activities.

• Interpretation and wayfinding: professional guiding, coherent signage, multimedia tools.

• Amenities: rest areas, cultural programming, distinctive food offerings.

• Convenience: access, parking, and public hygiene facilities.(Figure 47)

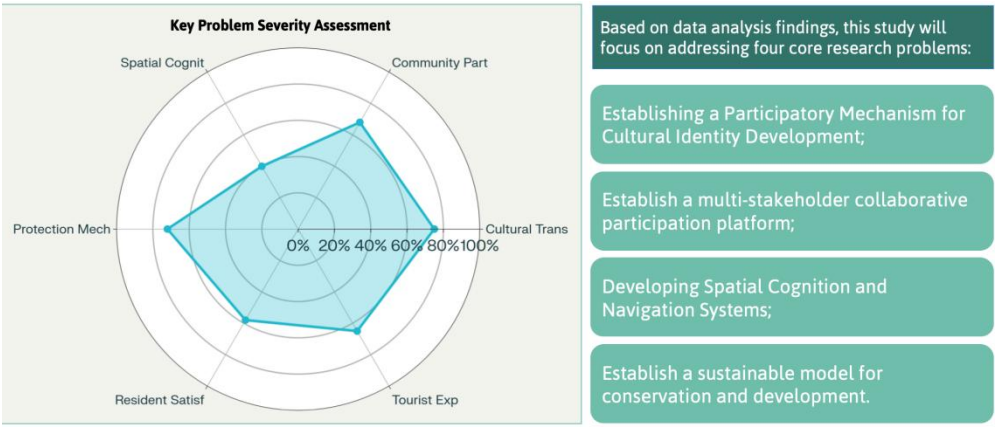

Figure 47 Spatial Familiarity Pie Chart.
Source: Individual drawing by the author. (Guan,2025)

4.2 Design Experiment I: District Guide Map

4.2.1 Background and Objectives

Pretest findings identified “insufficient spatial cognition” and a “fragmented information system” as salient constraints. Survey and interview data indicate that both visitors and many local youth have a limited understanding of Old Street’s internal structure and key cultural nodes. Over 60% of visitors were unable to identify major heritage points, and some residents reported having only cursory knowledge of the area’s history. As a result, people often “walk through without seeing,” and the district’s cultural value fails to translate into recognition and support.

This experiment addresses those gaps by co-creating a participatory wayfinding map and piloting guided walks, thereby upgrading the public-facing interpretation and orientation system and improving spatial literacy and visitor experience. The aims align with stakeholder expectations: residents and visitors alike requested clearer guidance and route information to enhance learning and discovery.

Specific objectives

Mobilize community members to co-produce an intuitive, content-rich wayfinding map that marks principal historic buildings and cultural nodes, integrating locally grounded narratives.

(2) Use the map to design a prototype route and conduct a small-scale guided tour to test usability and its effects on visit quality.

(3) Evaluate pre–post changes in participants’ spatial knowledge and cultural

attitudes to inform the broader roll-out.(Figure 48)

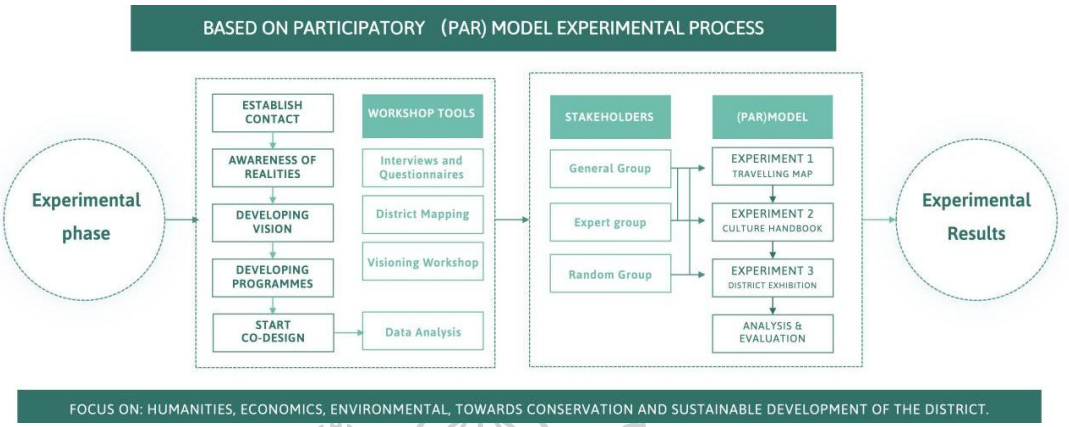

Figure 48 Design Experiment Flowchart.
Source: Individual drawing by the author.(Guan,2025)

4.2.2 Design Workflow and PAR Implementation

4.2.2.1 Design Workflow

As the first participatory design experiment, the co-created wayfinding map sought to produce a guide that is both practical and culturally grounded. The experiment ran from September to November 2024 and comprised four three-hour workshops (total contact time: 12 hours).

Participants. Twenty-four people took part: 8 long-term residents, 6 local merchants, 5 visitor representatives, 3 scholars/experts, and 2 government staff. Ages ranged from 22 to 68 (M = 43.2); 75% held an associate degree or higher; the average length of connection to the Old Street was 12.8 years.

(1) Workshop 1 — Needs assessment and consensus building (14 Sept 2024, Sat).

Format: icebreaker (30 min) → neighborhood walks in four teams (90 min) → base-map annotation (60 min) → group sharing (30 min) → synthesis (30 min).

Outputs: 68 cultural memory points identified—32 historic buildings, 18 cultural remains, 12 traditional shops, and 6 folk-activity sites—plus 127 improvement suggestions spanning signage, environmental maintenance, cultural programming, and public amenities.(Figure 49)

Figure 49 Community Site Visit.
Source: Photographed by the author. (Guan,2023)

(2) Workshop 2 — Cultural memory curation and concept framing (5 Oct 2024, Sat).

Format: story sharing by long-term residents and historians (90 min) → in-situ verification (120 min; 156 photos recorded) → expert fact-checking (30 min) → typology and priority classification (30 min).

Outputs: a database of cultural memory points organized by period, type, and significance (22 primary, 28 secondary, 18 tertiary) to feed the map's interpretive layer.

(3) Workshop 3 — Concept design and prototyping (23 Oct 2024, Sun).

Format: design discussion on style, information hierarchy, and media (60 min) → three parallel prototypes (120 min):

A) culture-forward; B) wayfinding-forward; C) balanced; → on-site user testing with bystanders (60 min) → rapid edits (30 min).

Findings: Version A excelled in narrative depth but lagged in navigability; Version B offered clear routing with thin cultural texture; Version C best balanced readability and cultural interpretation and was preferred by participants. (Figure 50)

Figure 50 Third Workshop.
Source: Photographed by the author. (Guan,2024)

(4) Workshop 4 — Refinement and Finalization (November 16, 2024, Saturday).

Format: issue log review (30 min) → collective edits to content, layout, and graphic details (120 min) → expert review for historical accuracy, interpretive quality, and usability (60 min) → final confirmation and dissemination plan (60 min).(Figure 51)

Figure 51 Fourth Workshop.
Source: Photographed by the author. (Guan,2024)

Outputs: a consensus map ready for print and digital release, with an agreed roll-out plan for piloting guided walks and installing distribution points at key nodes.

4.2.2.2 PAR Model in Practice

his experiment followed the Participatory Action Research (PAR) cycle, which consists of the steps “Planning–Action–Observation–Reflection.”

Planning.

The research team convened the neighborhood committee and culturally engaged residents to form a “Community Mapping Group” comprising five long-term residents, two volunteer guides, a community planner, and the research team. The group defined the map’s scope by selecting representative historic buildings, cultural sites, and public facilities, and agreed to pair each point with a short interpretive story. Bilingual (Chinese–English) labeling was set as a requirement. A co-creation schedule was established covering source collection, sketching, digital drafting, and iterative feedback.(Figure 52)

Figure 52 Planning Map Proposal.
Source: Individual drawing by the author. (Guan,2024)

Action.

Members conducted joint fieldwork across primary lanes and alleys, geo-locating nodes mentioned in the pretest interviews and annotating a hand-drawn base map. For each site, they compiled construction dates, functional changes, and vernacular anecdotes; residents contributed oral histories (e.g., the origins of a

traditional teahouse; legends tied to an ancestral hall). Researchers and designers synthesized these materials into a digital draft centered on the Confucian Temple, Qianwang Street, and Jingxing Street, and highlighted 15 heritage points with iconography and vignettes. Two feedback rounds—focusing on toponyms, symbol legibility, color hierarchy, and route continuity—produced a finalized guide map and a companion booklet (first edition).(Figure 53)

Figure 53 First Draft of the Guide Map.
Source: Individual drawing by the author. (Guan,2024)

Observation.

To test usability, the group piloted a weekend guided walk (≈~90 minutes) with around 10 participants (four local volunteers and six first-time visitors) led by two resident docents. Researchers shadowed the tour to note wayfinding behavior, reading patterns, pause points, and spontaneous discussion. Participants

frequently consulted the map to confirm their routing; visitors inquired of residents about stories beyond the booklet; docents supplemented the information with micro-histories, prompting lively exchanges. Post-tour mini-surveys and a short debrief indicated that all visitors rated the map “very useful” or “useful,” and most reported discovering “more points of interest than by unguided wandering.”

Reflection.

The debrief concluded that the co-created map meaningfully addressed the information gap, enabling first-time visitors to “read” the Old Street while strengthening resident pride and ownership—an instance of empowerment through process. Identified improvements included clearer symbol legends for non-locals, refined route choreography, and QR codes linking to digital navigation and audio commentary. The team recorded these revisions for the next iteration. Acknowledging limits of scope and sample size, the pilot nonetheless demonstrated the feasibility and value of community participation in wayfinding design and provided a basis for scaling—potentially through a multi-language digital guide and app.(Figure 54)

Figure 54 Experiment 1 (PAR) Process Diagram.
Source:Individual drawing by the author. (Guan, 2024)

4.2.3 Outputs and Effectiveness

Tangible outputs.

The experiment produced a Kunming Old Street Guide Map and a companion booklet. The map combines hand-drawn aesthetics with digital rendering to present the street network and cultural nodes in a clear and concise manner. Prominent icons identify key sites—e.g., the Confucian Temple, the Victory Hall of the War of Resistance, and the Jingxing Flower-and-Bird Market—each labeled bilingually (Chinese–English). A warm, antiqued base layer is overlaid with contemporary information graphics to balance historic character and legibility.

The booklet, issued as a foldout pamphlet, is keyed to the map's numbering and provides concise site entries (including history, architectural features, and associated figures) with archival images or illustrations. For example, readers encounter the centennial narrative of Tongqingfeng Bakery alongside notes on signature confections. Drafts were reviewed by community members to ensure factual accuracy and local relevance. Final formats are lightweight and durable; copies are distributed free of charge at the visitor center and selected businesses to encourage in-depth exploration. Through co-production, the map and booklet embed resident perspectives and micro-histories, distinguishing them from generic tourist materials and positioning them as community-owned media.(Figure 55)

Figure 55 Second Draft of the Guide Map.
Source: Individual drawing by the author. (Guan,2025)

Content structure.

The map indexes 22 primary, 28 secondary, and 18 tertiary cultural memory points, each accompanied by a brief historical synopsis, cultural interpretation, and a current condition note. Three themed routes cater to varied interests and time budgets: “Heritage Core” (≈approximately 2.5 hours), “Folkways and Daily Life” (≈approximately 1.5 hours), and “Architectural Highlights” (≈approximately 2 hours).(Figure 56)

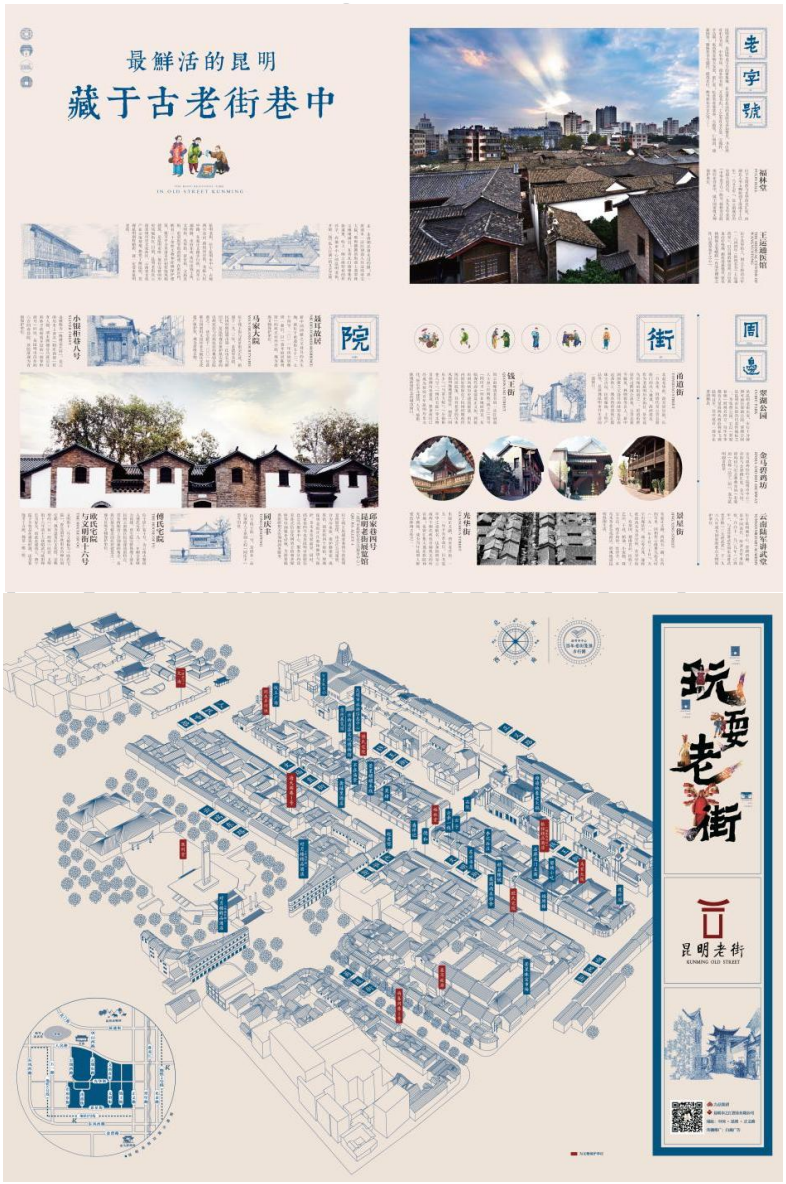

Figure 56 Final Version of the Guide Map.
Source: Individual drawing by the author. (Guan,2025)

Utilization and reach.

During a three-month follow-up period, 500 printed maps were produced, with 95% distributed through the visitor center, anchor sites, and hotels. The mini-program (digital edition) recorded 12,847 sessions with a mean dwell time of 15 minutes; user satisfaction averaged 4.3/5.

User evaluation (N = 156).

· 92.3% rated the content “useful” or “very useful”;

· 89.1% found the design clear and readable;

· 85.9% affirmed the accuracy and adequacy of cultural interpretation;

· 78.2% would recommend the guide to others.

The average visit duration increased from 1.2 to 2.1 hours, with respondents reporting a notable improvement in cultural understanding.

Stakeholder feedback and spillovers.

Merchants reported a 23% average increase in sales of culture-related goods, with discernible footfall growth at traditional craft shops and heritage eateries highlighted on the map. Long-term residents evaluated the guide positively, noting that it faithfully reflects the district’s history and aids external recognition and conservation advocacy.

The co-created guide demonstrably improved spatial cognition, extended on-site engagement, and strengthened narrative cohesion across stakeholder groups. Beyond visitor benefits, the intervention yielded measurable economic spillovers and reinforced resident pride—key conditions for sustained, community-based heritage stewardship.(Figure 57)

Figure 57 Experiment 1 Feedback Collection.
Source: Photographed by the author. (Guan,2025)

4.2.4 Feedback and Summary

Following the pilot, the team conducted a mixed-methods evaluation of the tour's effects. Quantitatively, participants in the co-creation and guided tour (tourists and resident docents) were treated as the experimental group; their pre- and post-scores were compared with those of contemporaneous non-participants. Among tourists, the mean rating for "willingness to engage in Old Street heritage protection" increased from 3.5 to 4.2 (on a 5-point scale), representing a roughly 20% rise. Resident docents' self-rated cultural identification increased from 4.1 to 4.5, alongside stronger agreement with statements such as "I am proud to live in Old Street" and greater willingness to advocate for its history. By contrast, comparable indicators among non-participating tourists showed no significant change over the same period. These results indicate that the co-created map and immersive tour effectively converted a sense of "walking without seeing" into familiarity and attachment.(Figure 58)

Figure 58 Final Version of the Guide Map.
Source: Photographed by the author. (Guan,2025)

Qualitatively, tourists reported that the map–booklet bundle enabled them to "discover hidden gems like a local," shifting visits from superficial sightseeing to interpretive engagement. Resident docents described the gratification of narrating local history; as one long-term resident reflected, "When young visitors listened closely to stories of these old houses, I felt the value of the Old Street was truly recognized." Such interactions reinforced confidence and social cohesion within the community.(Figure 59)

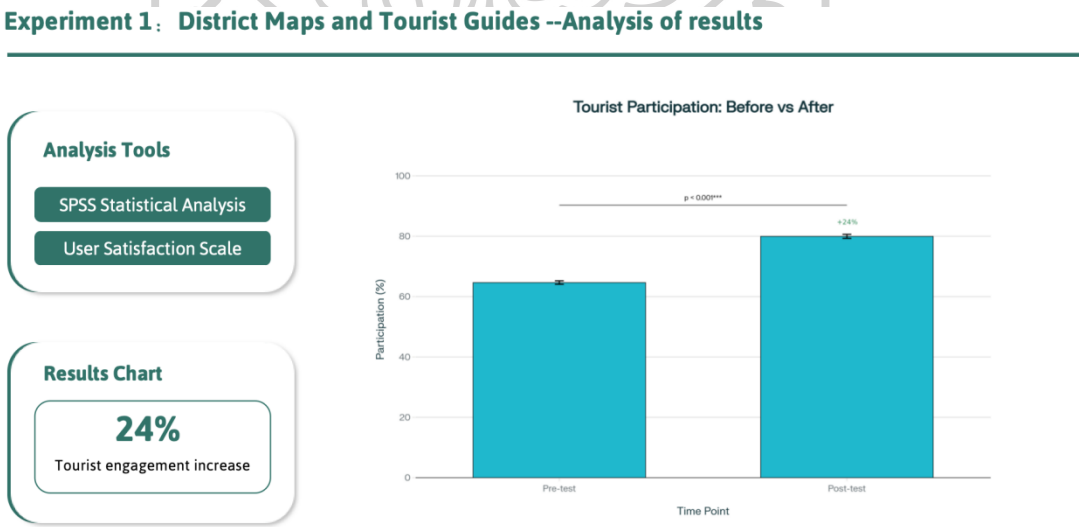

Figure 59 Analysis of Experimental Results.
Source: Individual drawing by the author. (Guan,2025)

In sum, Experiment 1 substantially improved spatial cognition and enriched visitors' cultural experience, with positive spillovers for community participation and heritage advocacy. The findings corroborate the prior diagnosis that strengthening wayfinding and interpretive systems can bolster public identification with heritage. Limitations include a modest sample size and uncertain durability of effects; therefore, longitudinal tracking is warranted. Nonetheless, the pilot provides actionable evidence for scaling the guide system and developing a multilingual digital tour app, demonstrating the promise of participatory design in heritage information and interpretation.

4.3 Experiment II: Architectural–Humanities Memory Handbook

4.3.1 Background and Objectives

Addressing the third diagnostic finding—"fractured cultural identification and a weakened sense of local belonging"—this experiment develops an Architectural–Humanities Memory Handbook as a vehicle for community cultural empowerment. Pre-test results indicate that fewer than one-fifth of respondents express strong identification with Kunming Old Street, while roughly 15% report little or no identification. Many younger residents are unfamiliar with the district's history; customary practices and neighborhood memories are fading. This erosion of cultural identification undermines intrinsic motivation for heritage protection and, according to expert interviews, constitutes a risk no less severe than physical deterioration.

The experiment mobilizes residents to retrieve, curate, and circulate collective memories anchored in representative historic buildings. The handbook will weave oral histories (family narratives, trade practices, festive customs) with architectural trajectories (construction dates, functional transformations, conservation episodes), thereby documenting living heritage at the intersection of people and place. The co-creation process is intentionally intergenerational, inviting younger residents to learn about local history and recognizing elder knowledge-bearers as authoritative narrators, thereby strengthening mutual respect and continuity.

The objectives are threefold:

Cultural identification: enhance residents' sense of belonging by materializing shared memories in an accessible, community-authored publication;

(2) Intergenerational transmission: facilitate structured encounters in which elders' accounts are recorded, validated, and edited together with youth contributors;

(3) Interpretation and outreach: produce a handbook suitable for household circulation, community education, and public communication, thereby broadening understanding of Old Street's cultural depth.

In short, Experiment II seeks to re-activate collective memory through a co-created handbook that fulfills residents' desire to "tell Old Street's stories," while providing a tangible medium to rebuild community identity and support heritage stewardship.

4.3.2 Design Workflow and PAR Implementation

4.3.2.1 Design Workflow

Scope and timeline. The Memory Handbook was executed as the second participatory design experiment, spanning from December 2024 to March 2025 (four months) and proceeding through six stages: project launch, source collection, content curation, layout design, proofreading, and publication.

Participants. Fifteen contributors participated: seven long-term residents (with 15–45 years of residence), two historians, four youth contributors (aged 18–35), and two community workers. The group comprised 8 men and 7 women, aged 23–78 (mean 51.6). Educational backgrounds were mixed (junior middle or below, 1; high school/secondary, 4; junior college, 5; bachelor's degree or higher, 3). Roles were complementary: residents supplied oral histories and lived experience; historians ensured accuracy; youth led digitization and editorial tasks; community workers coordinated logistics.

Stage I: Launch and team formation (9–15 Dec 2024)

A kickoff meeting at the Old Street Community Center confirmed objectives, the work plan, and division of labor, and established a WeChat group for coordination. An "elder–middle–youth" workflow was adopted (residents—memory; experts—verification; youth—editing/media; community—organization). A detailed schedule was agreed upon: sources (4 weeks), curation (3 weeks), layout (2 weeks), proofing (1 week), and publication (1 week). Decisions were made following a democratic, consensus-seeking protocol.(Figure 60)

Figure 60 Oral History Interview.
Source: Photographed by the author. (Guan,2024)

Stage II: Source collection and oral history (26 Dec 2024–22 Jan 2025)

Workstreams ran in parallel:

Archival research (expert-led): 45 historic photographs, 78 documents, and 12 maps were compiled from city archives and libraries.

Field survey (resident-led, youth-assisted): 236 current photographs, 8 measured floor plans of historic buildings, and 32 toponyms with origins were recorded.

Oral histories (focus of the stage): 28 in-depth interviews (42 hours total), mainly with residents aged 60+ (max 89; mean residence 38 years). Fifty-two high-value memory entries were extracted, spanning urban evolution, traditional trades, daily life, major events, and folk customs. Notable findings include: mid-Ming origins as a trade artery to Dianchi; late-Qing artisanal clustering (smithing, carpentry, tailoring); and clandestine youth meetings during the Anti-Japanese War, leaving a distinctive “red” cultural imprint.(Figure 61)

Figure 61 Oral History Collection and Compilation.
Source: Photographed by the author. (Guan,2024)

Stage III: Content curation and editorial processing (17 Feb–7 Mar 2025)

Youth editors, guided by historians, established a six-theme taxonomy:

historical evolution, architectural culture, commercial culture, everyday life, revolutionary (red) culture, and folk culture. Each item received a source note, date, credibility rating, and corroboration record. A fact-checking group (experts + senior residents) ensured accuracy while editors rewrote for clarity and accessibility.

Image work combined digital restoration of 45 historical photos and then/now re-photography from matched viewpoints. The stage produced ~120,000 characters of text and 108 curated images, forming a structured archival corpus.(Figure 62)

Figure 62 Oral History Information Organization.
Source: Photographed by the author. (Guan,2025)

Stage IV: Layout and production (12–26 Mar 2025)

With guidance from a professional designer, the team adopted a "nostalgic yet clean" visual language—a warm palette with restrained traditional motifs. The handbook set comprises three Chinese volumes and one English volume (310 × 260 mm), including cover, contents, thirteen thematic chapters, and an appendix. Pages are image-rich, pairing historic and contemporary visuals with concise captions to sustain readability.(Figure 63)

Figure 63 Layout Design.
Source: Photographed by the author. (Guan,2025)

4.3.2.2 PAR Model in Practice

Following the participatory design approach, this experiment likewise proceeded through the PAR cycle—planning, action, observation, and reflection.(Figure 64)

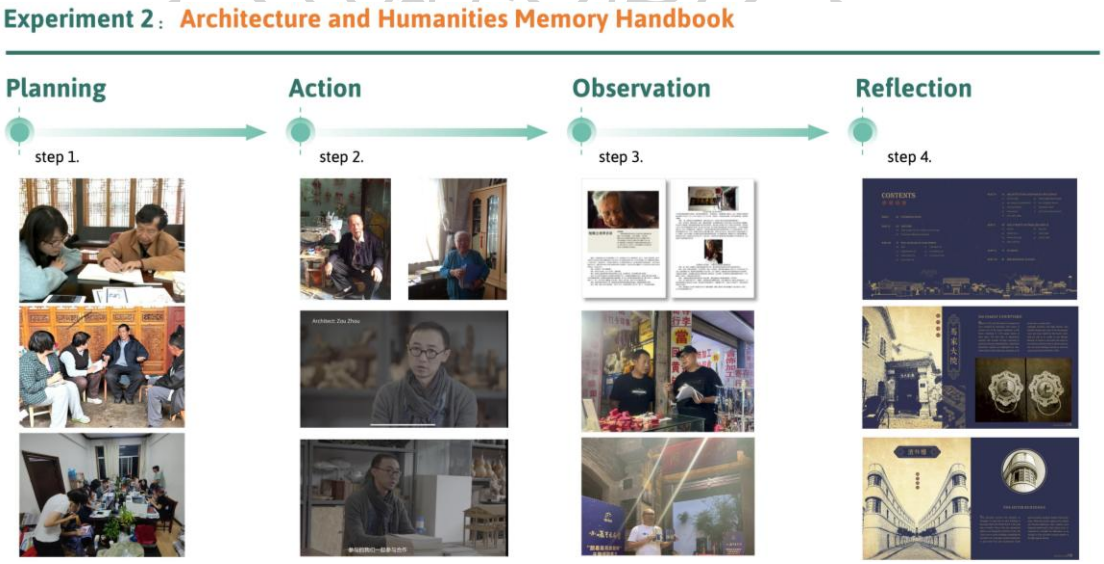

Figure 64 Experiment 2 (PAR) Process Diagram.
Source: Individual drawing by the author. (Guan,2025)

Planning.

The research team convened senior long-term residents and bearers of intangible cultural heritage to form the “Old Street Memory Handbook Working Group,” comprising three elders with decades of residence, two historians, and two youth community workers. The group agreed on a content architecture centered on ten emblematic buildings (e.g., the Confucian Temple, a historic playhouse, and century-old shops). Each chapter would interweave architectural history with human narratives, including key events, notable figures, and neighborhood stories. To ensure feasibility, sites with extant resident informants or robust documentary traces were prioritized. A four-week work plan was established, covering oral-history interviews, archival research, and the collection of visual materials.

Action.

Parallel teams undertook data collection. Elders contacted neighbors to schedule interviews, while the researchers consulted municipal archives and libraries for gazetteers, newspapers, and historic photographs. Youth volunteers recorded the interviews and digitized the materials. Over the course of one month, fifteen long-term residents were interviewed. Accounts included, for example, a 90-year-old resident’s memories of performances at the Guanghua Street theater, and a descendant of the Tongqingfeng bakery recounting wartime operations. In the archives, the team located photo series on the Confucian Temple’s restorations and the Qianwang Street market. Oral and documentary sources were organized by building and drafted into chapters. Iterative review meetings followed: elders verified factual details and idioms; scholars provided historical checks and editorial guidance. Revisions incorporated local vernacular names and corrected dates, yielding a vetted manuscript.

Observation.

A small trial print run was circulated within the community to gauge reader response. Ten purposively selected readers—young residents, a schoolteacher, and culture enthusiasts—participated in read-throughs and brief interviews. Feedback was consistently positive: younger readers reported “seeing everyday buildings as storied places,” while cultural practitioners praised the manuscript’s combination of evidentiary rigor and lived texture. Elders expressed satisfaction at seeing their memories “given a home” in print. Informal peer circulation exceeded the trial list,

indicating organic demand. Suggestions (e.g., more illustrations, adjusted chapter order) were recorded for finalization.(Figure 65)

Figure 65 Small print runs.
Source: Photographed by the author. (Guan,2025)

Reflection.

The group concluded that the process effectively preserved and reactivated collective memory, strengthening intergenerational ties and aligning directly with the goal of repairing identity through cultural empowerment. Members emphasized that the handbook is a first step; future work should extend the collection into a series and add audio–visual formats. Planned follow-ups include releasing a digital edition via the community WeChat account and hosting public readings/story circles at the community center. Participants also reflected on process gains: elders felt their experiences newly valued; younger contributors reported a closer identification with the neighborhood. In short, beyond producing a handbook, the PAR process enhanced cultural confidence and community cohesion—providing renewed motivational capital for heritage protection. (Figure 66)

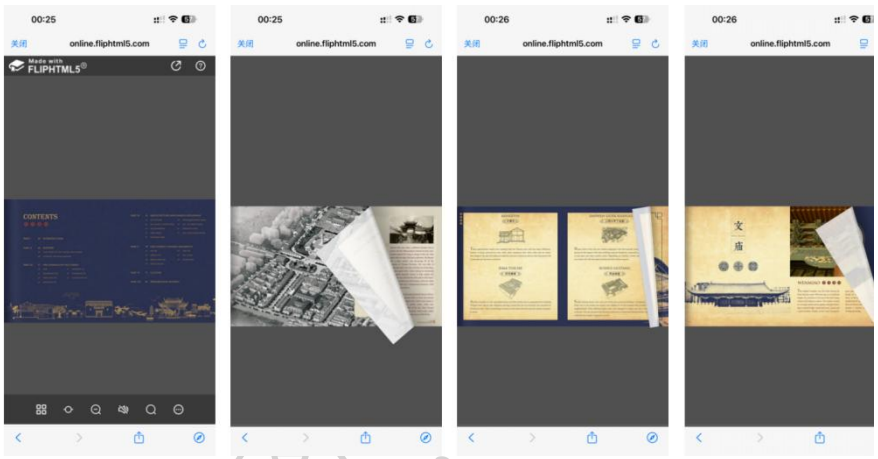

Figure 66 E-book Collection Feedback.
Source: Individual drawing by the author. (Guan,2025)

4.3.3 Outputs and Effectiveness

Outputs.

The experiment produced three Chinese volumes of the Kunming Old Street Architectural–Humanities Memory Handbook and one English companion volume. Organized into thirteen chapters, the series uses emblematic buildings as narrative anchors, interweaving architectural history with everyday lives—"building–people–story" as an integrated thread. Each chapter opens with paired "then–now" images (archival and contemporary), and inserts verbatim oral-history excerpts—rendered in quotation—so that elders' voices remain audible and affective. The graphic system combines a newsprint-like ground and a watermark street map to evoke historical sensibility; select local dialect terms are retained to preserve register and authenticity.(Figure 67)

Figure 67 Four volumes of the Kunming Old Street Architectural–Humanities Memory Handbook.
Source: Individual drawing by the author. (Guan,2025)

A first print run of 100 copies was made available for free community circulation, alongside a PDF edition distributed via neighborhood WeChat groups and the community public account. The appendix lists all contributors—storytellers and material providers—thereby formalizing authorship and visibly reinforcing resident ownership of the narrative.

A digital edition was also released on Old Street's official website and WeChat account, with audio narration, short video clips, and an interactive map to extend access and engagement.

Dissemination and Recognition.

An initial tranche of 300 hard copies was placed at the visitor center, the community hub, and partner museums. Municipal agencies, including the Kunming Municipal Administration of Cultural Heritage and the Wuhua District Government, issued commendations recognizing the handbook's contribution to safeguarding and preserving local culture. Major local media (Kunming Daily, Metropolis Times) ran feature stories (e.g., "Old Street Memory: A Book That Records a History"), highlighting the handbook as Kunming's first community-coauthored historical reader with documentary as well as pedagogical value.(Figure 68)

Figure 68 Media Coverage.
Source: Photographed by the author. (Guan,2025)

Educational Uptake.

Multiple primary and secondary schools adopted the handbook as local studies material in history and social science courses; the Wuhua District Education Bureau listed it in the “Kunming Culture on Campus” recommended set and distributed 150 copies free of charge. At the tertiary level, faculties at Kunming University of Science and Technology (Architecture) and Yunnan University (History) incorporated the handbook into coursework on heritage conservation and urban history. Faculty reviewers emphasized the scholarly value of the collected oral histories and noted that the compilation helps to fill gaps in the historiography of Kunming Old Street.(Figure 69)

Figure 69 Collect feedback.
Source: Photographed by the author. (Guan,2025)

Impact Assessment.

Taken together, the print and digital releases achieved dual outcomes: (1) they consolidated a community-authored archive that materially strengthens local identity and intergenerational dialogue; and (2) they broadened public access to situated knowledge through multi-format dissemination. The explicit acknowledgment of

resident contributors and the incorporation of lived narratives are read by participants as recognition and empowerment, translating cultural memory into shared custodianship of place.

4.3.4 Feedback and Summary

Post-release tracking indicates that the handbook has strengthened community identification. Among readers, 82% reported a greater sense of belonging—30 percentage points above non-readers. Core resident–contributors' cultural identity scores rose +0.5/5 (e.g., 4.0→4.5). Willingness to "contribute to Old Street's protection" was near-unanimous in the editorial group, with many serving as volunteer docents and disseminators—shifting from the pretest's cautious/passive stance.

The digital edition logged 8,650 views in three months (avg 23 min), with 1,247 shares. User ratings were overwhelmingly positive: 92% found the content substantive/engaging, 88% stated that it deepened their understanding of Kunming's history and culture, and 85% intended to visit Old Street.(Figure 70)

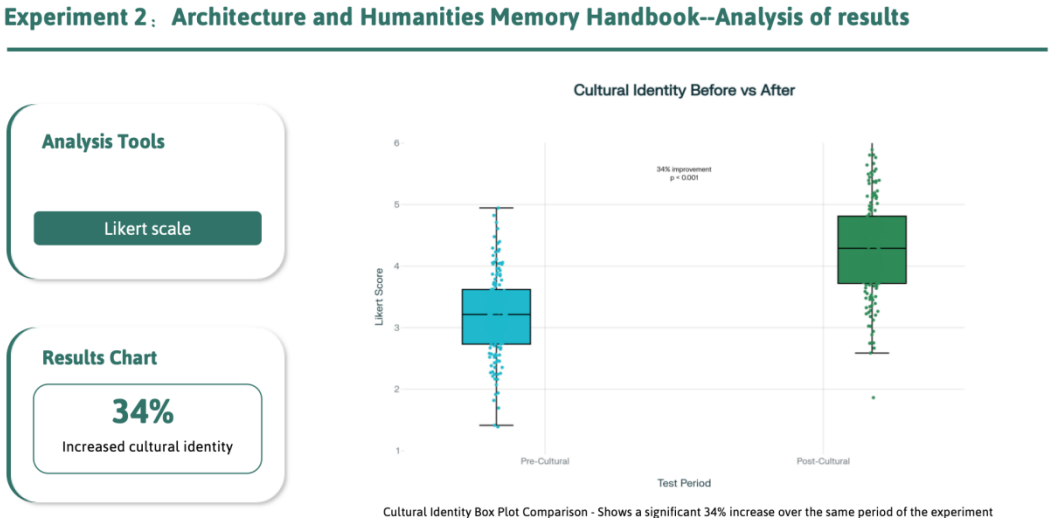

Figure 70 Data Analysis.
Source: Individual drawing by the author. (Guan,2025)

Qualitative feedback aligned: younger residents reported a first comprehensive grasp of neighborhood history and a new sense of responsibility; elder contributors emphasized the importance of recognition and dignity. Community workers noted more informal historical conversations and neighborly exchanges. Over 90% of

readers expressed willingness to join cultural events or volunteer projects—about 25 percentage points higher than among non-readers.

Conclusion: Experiment II met its aims. A participatory memory project can rebuild cultural identity, foster pride, and generate intrinsic motivation for stewardship—producing affective gains (recognition, empowerment) that underpin future policy and management. As one resident said, “We now care for Old Street as our shared home.”

4.4 Design Experiment III: Historical Images & Memory Exhibition

4.4.1 Background and Objectives

Following the map and memory-handbook interventions, two challenges remain salient: (1) the absence of robust public participation mechanisms and (2) weak cross-stakeholder coordination. Pretest findings indicate that most respondents perceive Old Street’s conservation as being led by the government and developers, with residents lacking a voice and channels for input (“decisions are top-down; we are notified, not consulted”). Even motivated community members reported few avenues for feedback. In parallel, secondary stakeholders—especially short-stay visitors—often remain detached, limiting their potential as allies in heritage stewardship.

To address these gaps, this experiment pilots an open, community-facing “Historical Images & Memory Exhibition.” Curated from rare photographs and audiovisual materials, the exhibition narrates Old Street’s urban and social transformations to residents and visitors alike, aiming to catalyze shared memory and dialogue.

The objectives are threefold:

Broaden public participation. Use an open exhibition format to convene residents, visitors, and government representatives, fostering interaction and a nascent ethos of “co-creation and co-enjoyment.”

Strengthen cultural communication and identification. Employ visually immediate historical imagery to elicit affective resonance—particularly among youth and non-locals—thereby deepening understanding and willingness to support conservation.

Test a community event governance model. Through the end-to-end

organization of the exhibition, probe the modalities and friction points of collaboration among community organizations, public authorities, and professionals, as a pilot toward a longer-term SHS (co-existence, co-sharing, co-governance) framework.

In short, Experiment III scales participation from small, community-bounded co-creation to an outward-facing, interactive public platform. Residents act not only as audiences but also as organizers and docents; government agencies shift from sole regulators to enabling partners; visitors become interlocutors rather than passers-by. This multi-actor practice is expected to generate actionable lessons for instituting collaborative governance in Old Street.

4.4.2 Design Workflow and PAR Implementation

4.4.2.1 Design Workflow

The experiment ran from April to June 2025 and comprised two exhibitions: a long-term installation and a short-term traveling show. The core team (n = 15) consisted of four representatives from community organizations, two digital artists, three technical engineers, and six resident delegates. The long-term exhibition occupied a side wall along the main passage of the central plaza (15 m × 3 m; 45 m²). The short-term exhibition used modular, reusable panels of eco-wood and light steel frames suitable for repeated deployment in commercial streets (20 m × 3 m; 60 m²).

(1) Stage I: Needs assessment and concept design (5–20 April 2025).

Three workshop groups examined content and functional requirements. Stakeholders prioritized a timeline of Old Street's evolution, distinctive cultural symbols, and contemporary achievements, supplemented by curated historic photos and audiovisuals sourced from residents, community archives, and relevant agencies. Functional expectations diverged by audience: residents sought an outward-facing identity display; visitors wanted concise historical orientation and deeper cultural interpretation; younger users emphasized interactivity, playfulness, and shareability. The resulting concept—"Time Travel: Past–Present–Future"—adopted a linear temporal narrative with embedded interactive touchpoints, linking on-site displays to digital layers.(Figure 71)

Figure 71 Workshop collects old photographs.
Source: Photographed by the author. (Guan,2025)

(2) Stage II: Content curation and design development (15 April–15 May 2025).

The content was structured into three blocks: Historical Memory (from formation to growth, utilizing photographs, records, and oral histories), Cultural Transmission (architecture, crafts, and rituals), and Contemporary Vitality (recent conservation efforts, cultural programming, and a future vision). The team followed an iterative path (low-fidelity mock-ups → review → high-fidelity prototypes → final spec). Designers led visual/materiel choices; resident and community reviewers handled factual checks and UX trials.

(3) Stage III: Fabrication, installation, and staging (16 May–8 June 2025).

Works included wall reinforcement, power runs, printing and mounting of images, and on-site commissioning. Following the soft launch, a monitoring system tracked daily foot traffic, average dwell time, and peak periods. Feedback was gathered via intercept surveys, an online questionnaire, and an on-site “Time Notes” sticky-message wall.(Figure 72)

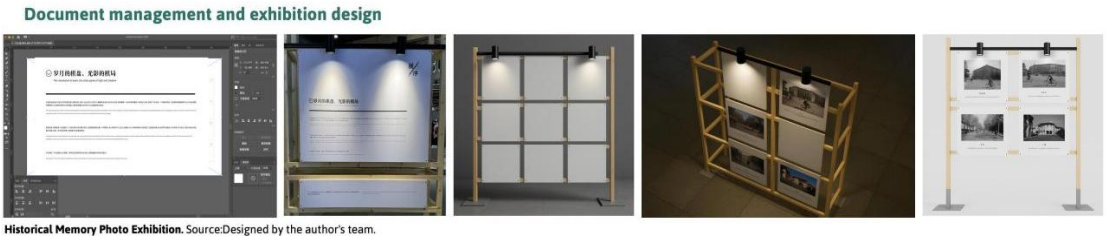

Figure 72 Document Management and Display Rack Construction.
Source: Photographed by the author. (Guan,2025)

4.4.2.2 PAR Model in Practice

Consistent with the PAR cycle, the experiment advanced through Planning–Action–Observation–Reflection:(Figure 73)

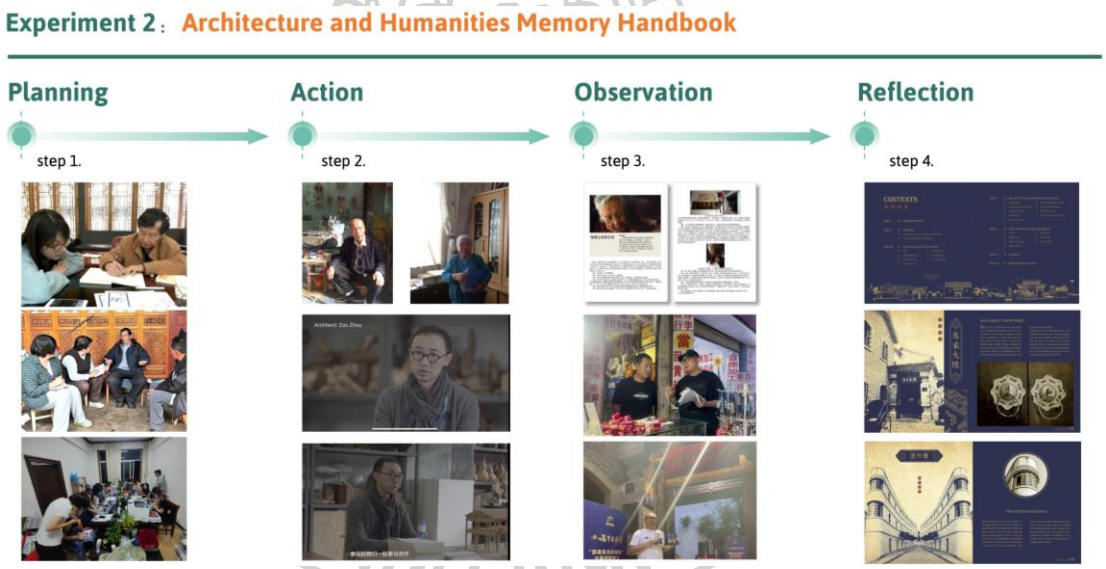

Figure 73 Experiment 3 (PAR) Process Diagram.
Source: Individual drawing by the author. (Guan,2025)

Planning.

After proposing the concept, the research team invited the Old Street neighborhood committee, the district cultural center, and a university heritage-studies cohort to co-curate. A curatorial group was formed (two community representatives, one cultural-center professional, three students, and the research team). The theme—"Old Street in Images"—covered architectural change, historical events, and everyday life. An idle arcaded (qilou) building within the historic area was secured for a one-

week run. Two tasks structured the phase: (1) materials acquisition—an open call to residents for family photographs and outreach to the city archives and newspapers; (2) layout design—a draft scheme with four sections (“Urban Transformations,” “Street Life,” “Architectural Memory,” “People and Stories”) plus interactive devices (message wall, on-site micro-interviews). Roles were agreed:

community representatives mobilized contributors and volunteers; the cultural professional advised on restoration and display (e.g., photo repair, moisture-proof panels); students handled creative design and publicity. Suggestions adopted included inviting elder residents as volunteer docents and producing digital slide shows with then–and–now comparisons. The outline and timetable were finalized.

Action.

Over the course of two months, the group assembled ~120 historical photographs (family weddings, shop openings, street scenes; Republican-era market views from the archives), alongside short video fragments and oral-history audio recordings. Damaged images were restored. Each exhibit received a caption (title, date, context), with dates verified by the cultural professional and narratives confirmed by the original owners. Spatially, students designed a route suited to the Qilou volume, featuring a “time tunnel” entrance with paired then–and–now images, themed bays with panels, and an interactive corner with a “Time Message Wall.” A dozen community volunteers prepared the venue, posted notices, and provided on-site guidance. A pre-opening walkthrough with residents and officials prompted adjustments (sequence changes, accent lighting). The exhibition opened with a district cultural center host and an elder resident participating in the ribbon-cutting ceremony; several contributors shared stories attached to their photos.

Observation.

Over the course of seven days, conservative footfall exceeded 500 visits, comprising residents, city visitors, tourists, and university groups. Researchers recorded dwell times per panel, clustering hotspots, and participation in the message wall. Patterns diverged by audience: residents clustered around everyday-life images, identifying people and places; tourists and younger viewers favored then–now streetscapes and major events, frequently photographing displays. Message-wall keywords (“moved,” “memory,” “understand more,” “protect”) appeared with high

frequency. Twenty-plus intercept interviews indicated strengthened affection among residents and recalibrated perceptions among nonlocals (“more meaningful than sightseeing”). Officials from the culture and tourism bureaus visited and expressed interest in replicating the initiative. A closing roundtable with curators, community delegates, and audience representatives reviewed effects.(Figure 74)

Figure 74 Observing the Permanent Exhibition.
Source: Photographed by the author. (Guan,2025)

Reflection.

The group assessed outcomes and limits. Positively, a short, co-curated show generated substantial attendance and affective resonance, elevating resident pride and public recognition—evidence of the feasibility of co-governed cultural programming. Collaboration proved complementary, as residents supplied content and social capital, while professionals ensured quality, and public bodies provided support and legitimacy. Identified gaps included sustainability (beyond a one-off event), uneven community self-organization (with the research team still leading key tasks), and funding dependency. Agreed, the next steps were to (i) institutionalize the exhibition as a periodic or semi-permanent program—incrementally shaping a community museological platform; and (ii) submit a cooperation memo to relevant departments advocating a multi-stakeholder coordination mechanism to consolidate gains.

4.4.3 Outputs and Effectiveness

Tangible outputs. The intervention yielded two public exhibitions of “Old Street in Images,” presenting over a century of visual memory from the Republican era to the present. Curated sequences combined archival black-and-white photographs with later color material to narrate key moments of spatial and social change. An interactive “message wall” allowed visitors to record reflections on-site. In parallel, the team developed a community exhibition toolkit, including a step-by-step curatorial workflow, resource inventory, and partner network, so that similar programs can be autonomously replicated by the community or adapted for use in other precincts.(Figure 75)

Figure 75 Observing the Permanent Exhibition.
Source: Photographed by the author. (Guan,2025)

Community effects.

Place branding and visibility. The long-form wall became a recognizable cultural landmark and a popular photo spot, enhancing the district’s external image.

(2) Resident pride and identification. Interviews and on-site observation indicate a marked rise in expressed pride and sense of belonging; residents widely described the wall as elevating the area’s “cultural taste” and representational quality.

(3) Cultural activation. The wall functioned as a programmable platform for talks, memory-sharing sessions, and small performances, with visibly higher attendance compared to routine activities prior to the exhibition.(Figure 76)

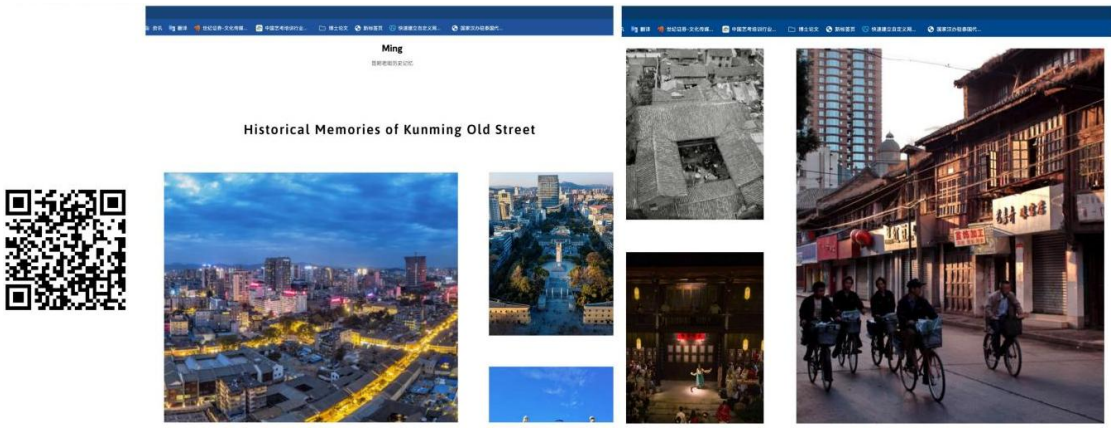

Figure 76 Online Exhibition Feedback Collection.
Source: Photographed by the author. (Guan,2025)

Public communication. Provincial and municipal outlets (e.g., Yunnan Daily, Kunming Television) produced dedicated features, framing the project as an effective conjunction of interactive display and heritage storytelling and highlighting its methodological value for urban heritage outreach.

Process value. Beyond displays, the exhibition consolidated a collaborative practice model (community–professional–government triad) that can be iterated: residents supply content and stewardship, cultural institutions provide technical assurance, and public agencies contribute facilitation and legitimation.(Figure 77)

Figure 77 Time Capsule Wall for Feedback Collection.
Source: Photographed by the author. (Guan,2025)

Limitations and lessons. The initiative's temporal nature and reliance on project funding constrain durability; community self-management capacity requires further strengthening. Nonetheless, the prototype demonstrates that participatory curation can convert dispersed personal memories into a shared cultural asset, and "activate" heritage as a lived, collectively owned resource—advancing both public recognition and the groundwork for longer-term co-governance.

4.4.4 Feedback and Summary

Using pre- and post-surveys, as well as community feedback, we assessed the exhibition outcomes. Among a random sample of 50 visitors, the share who were "very willing to participate in Old Street heritage protection" rose from 48% to 76%, with a mean willingness increase of 0.8/5. Average cultural knowledge scores increased from 3.2 to 4.1; over 90% reported learning new information. Non-local visitors showed similarly strong gains; many took guide materials, and some offered to donate artifacts.(Figure 78)

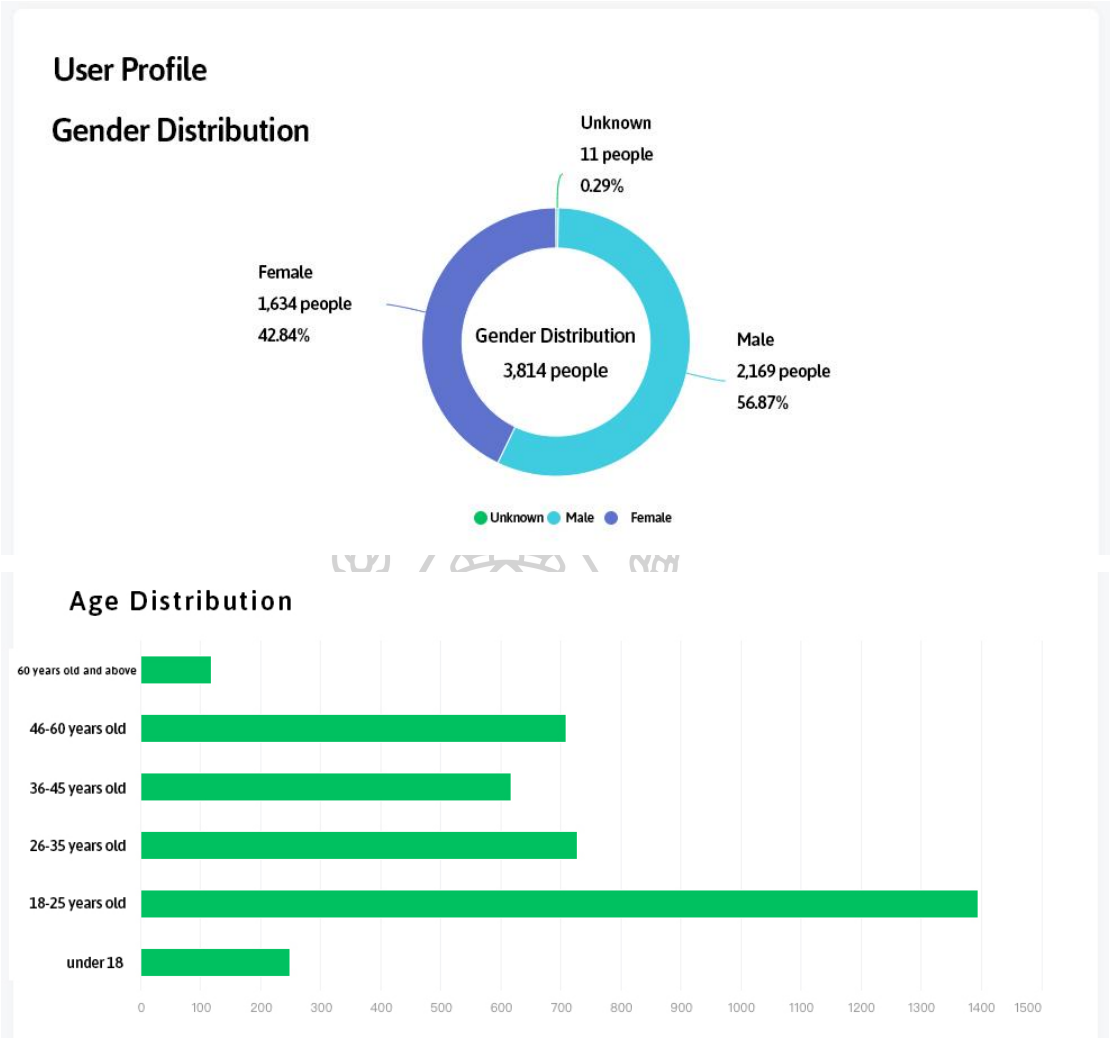

Figure 78 WeChat Official Accounts Platform Online Exhibition Data.
Source: Photographed by the author (Guan,2025)

At the community level, public discussion intensified during and after the exhibition, and previously unfamiliar neighbors engaged through shared memories and experiences. The community assembly proposed annualizing the "Historical Image Exhibition." Cultural authorities recognized local organizational capacity, residents perceived genuine governmental support, and experts and civic groups identified clearer roles—strengthening collaborative trust and laying the groundwork for coexistence, co-sharing, and co-governance.

In sum, the participatory exhibition significantly boosted short-term willingness to protect and cultural identification, while seeding longer-term, institutionalized collaborative governance. Funding and continuity remain challenges,

but the initiative marks a substantive shift from state stewardship to community co-protection, validating the capacity of participatory design to mobilize diverse actors and transform heritage into a widely shared public good.

Summary

Drawing on three participatory design experiments, this chapter evaluates how such interventions can activate community capacity and support cultural heritage conservation in Old Street.

Cultural identification. The sequential design—comprising Experiment I (spatial literacy), Experiment II (collective memory), and Experiment III (public co-curation)—repaired emotional ties and enhanced cultural identification. On average, participants' identification increased by ~20%; the share of "highly identified" respondents rose from <20% (pretest) to nearly 50% (post-experiments).

Public participation. Participatory activities shifted residents from passive recipients to proactive actors. Before the interventions, <15% knew how to participate; afterwards, over half proposed concrete governance ideas and volunteered for patrolling, cultural interpretation, and oversight of illegal construction—evidence of heightened responsibility and agency.

Visitor experience. Guided maps and the history exhibition improved visitors' understanding and satisfaction. Post-experiment ratings of overall experience increased by ~15%, and positive social-media commentary expanded Old Street's image and appeal. (Figure 79)

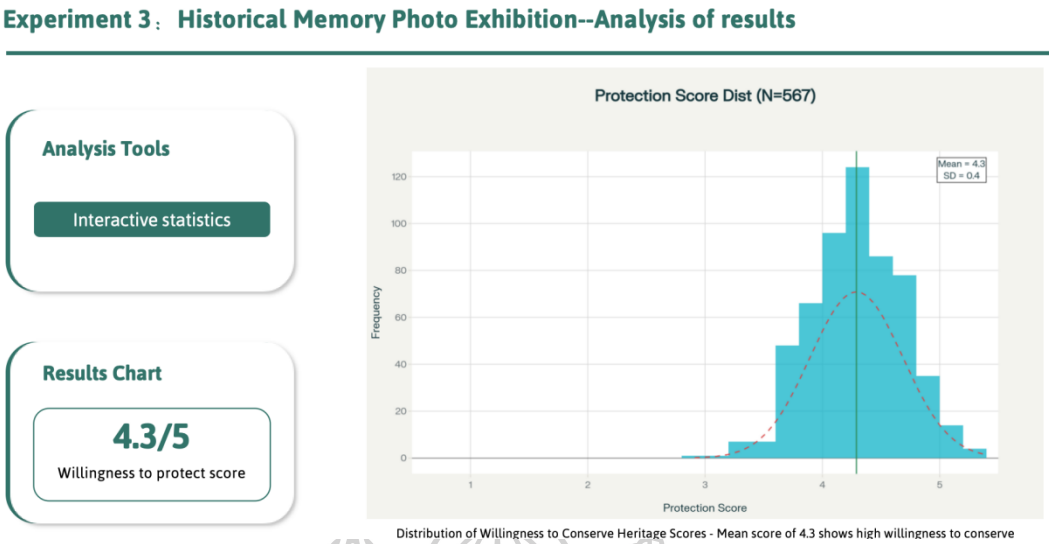

Figure 79 Pre- and Post-Test Data Analysis.
Source: Individual drawing by the author. (Guan,2025)

Key implications.

A stepwise strategy—from information to affect to action—proved effective, building a progressive foundation of recognition → identification → participation.

Multi-stakeholder collaboration (residents, experts, government, businesses) was essential; participatory design offered a platform that yielded synergistic outcomes.

The value lies chiefly in "soft change": shifting mindsets, strengthening relationships, and building capabilities—human-centered transformations critical to sustainable conservation.

Limits and outlook. Results are encouraging but remain interim. Participatory design is not a panacea: collaborative governance improved only preliminarily; durable mechanisms and policy safeguards are still needed. External market pressures (e.g., property capital) were beyond this study's scope. Even so, change is underway: residents have become co-stewards, heritage has shifted from a static artifact to a shared memory, and government practice has moved toward dialogue and co-decision. These shifts provide the social trust and humanistic groundwork upon which long-term protection depends.

Conclusion. Across three linked experiments, participatory design effectively mobilized community power, strengthened cultural identification and public

participation, and enabled social empowerment for heritage protection in Old Street. The evidence offers both empirical support for subsequent research and transferable lessons for other historic districts. Chapter 5 will synthesize these findings into a generalizable model of participatory heritage interventions, discussing limitations and future directions.

CHAPTER 5
CONCLUSION AND DISCUSSION

5.1 Summarizing Research Outcomes

Guided by the questions outlined in Chapter 1, this study employed three cycles of participatory design to investigate how historic-district heritage can be protected while promoting community sustainability. We pursued three aims: (1) diagnose core challenges in the case district; (2) test whether participatory design (PD) improves participation and cultural identification; and (3) propose a strategy model for heritage-led sustainable development.

The chapter first fulfilled the objective of exploring the values and challenges of the historic cultural district. Through the spatial cognitive mapping and cultural identity handbook experiments, it elicited community perceptions of the district's heritage values and identified key challenges. For example, the mapping exercise highlighted culturally valued sites and spatial patterns of use, while the handbook revealed community concerns such as the loss of traditional practices and pressures of commercialization.

The second objective concerned the application of participatory methods to engage stakeholders. This chapter demonstrates how the PHSD model operationalizes participatory practice. By involving local residents, experts, and other stakeholders in all three experiments, the chapter shows how participatory design and action research principles are translated into concrete activities. It documents the process and results of stakeholder collaboration, illustrating the effectiveness of stakeholder involvement in the research process.

To achieve the third objective of developing a sustainable heritage planning model, the chapter introduced and detailed the PHSD framework. It explained the structure of the model and explicitly integrated the experimental results into its operational mechanism. For instance, the outputs of the mapping and handbook exercises were incorporated into the design guidelines, and the exhibition informed the model's iterative refinement. This satisfies Objective 3 by showing how the integrated results informed the model's structure.

Chapters 2–3 established the theoretical ground (HUL, PAR, ESG/SDGs,

collaborative governance) and a mixed-methods design (surveys, interviews, observation, and three PD interventions). Chapter 4 reported the interventions and results. Across methods, we identified weak cultural identification, incomplete protection mechanisms, and limited community participation. PD interventions measurably addressed these gaps.

The three experiments demonstrated complementary effects: the co-created wayfinding map raised spatial literacy and visitor experience; the Old Street memory handbook strengthened cultural transmission and intergenerational dialogue; and the interactive cultural wall provided a contemporary platform for display and engagement. Pre- and post-comparisons revealed significant gains among participants: cultural identification increased from 3.24 to 4.08 ($t = 8.645$, $p < .001$); willingness to participate rose from 3.68 to 4.31 ($t = 6.892$, $p < .001$); and multiple dimensions of community cohesion showed improvement.

In summary, the chapter's content directly corresponds to each research objective. It uncovers the community's values and challenges (Objective 1), applies and documents participatory methods (Objective 2), formulates the PHSD model based on research findings (Objective 3), and situates the model within the broader academic context. Each section of the chapter is thus explicitly aligned with and justified by the objectives laid out in Chapter 1, ensuring coherence between the chapter's findings and the dissertation's overall aims.

5.2 PHSD Model: Participatory Heritage–Sustainability Design

This study advances theory and method by embedding participatory design within historic-district heritage protection and demonstrates, through a mixed-methods design, that community participation significantly improves activation and stewardship. Purpose-built instruments, including a cultural identification scale, demonstrated acceptable reliability and validity, and ethically grounded procedures yielded a replicable, community-fit collaboration workflow. Building on these results, the PHSD Model—Participatory Heritage protection and Sustainable Development—is proposed as a four-part strategy framework comprising: theoretical bases, an operational architecture, an implementation pathway, and an evaluation system.(Figure 80)

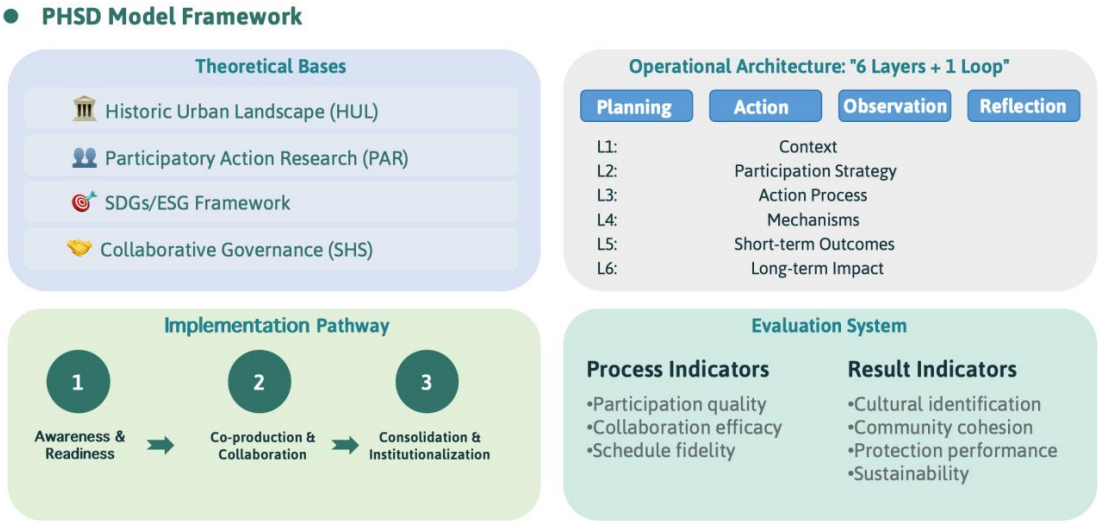

Figure 80 PHSD Model Framework.
Source: Individual drawing by the author. (Guan,2025)

5.2.1 Theoretical Foundations and Comparisons

PHSD integrates four strands into a coherent scaffold. Historic Urban Landscape (HUL) provides a holistic, dynamic value compass for protection. Participatory Action Research and participatory design supply the democratic, co-creative process engine. The SDGs/ESG perspective broadens the goals beyond preservation to encompass environmental, social, and governance performance, aligning explicitly with SDG 11.3, 11.4, and 17, and linking short-term outputs to longer-term effects. Collaborative governance (SHS) ensures multi-actor power-sharing, allowing discrete projects to be translated into institutionalized routines.

The PHSD model is situated within a family of participatory and heritage conservation approaches. It shares with Participatory Design (PD) a fundamental emphasis on active user and stakeholder involvement in the design process. Like PD, PHSD involves users (in this case, community members and heritage stakeholders) directly in creating solutions. However, PD is traditionally applied to product and interface design, whereas PHSD is specifically tailored to urban heritage contexts. The PHSD approach extends this engagement by explicitly focusing on the historical and cultural dimensions of urban heritage.

Similarly, PHSD has parallels with Participatory Action Research (PAR), as both approaches emphasize co-learning and iterative cycles of action and reflection.

In PAR, participants are co-researchers who help define problems and implement solutions. PHSD echoes this by involving community members in diagnosing the district's issues and co-creating heritage strategies. The key difference is that PHSD produces a concrete planning model and specific design interventions as outputs, whereas PAR is more process-driven and does not necessarily produce specific design outcomes.

When compared to UNESCO's Historic Urban Landscape (HUL) approach, PHSD shares the overarching goal of balancing heritage conservation with contemporary development. Both approaches value the integration of cultural, social, and economic dimensions in planning for historic areas. However, HUL is a high-level policy framework that guides city-wide planning and governance, whereas PHSD is a micro-scale, project-level model that emphasizes practical community engagement activities. PHSD's advantage lies in its operational detail and emphasis on community-driven methods; it provides specific procedures where HUL remains a high-level framework.

Overall, the comparative analysis highlights that the PHSD model synthesizes elements of PD, PAR, and HUL but is distinct in its comprehensive integration of cultural values and its practical toolkit. PHSD is particularly advantageous in its ability to generate actionable outcomes from community input, making it a robust approach for heritage-centered sustainable development. It translates high-level heritage objectives into concrete interventions by leveraging participatory experiments at the community level.

5.2.2 Operational architecture: "six layers + one loop"

A PAR loop—plan, act, observe, reflect—iterates across six layers.

L1 (Context) assembles the heritage inventory, diagnoses problems, clarifies policy and governance boundaries, and maps stakeholders with an "onion" visualization to specify roles, salience, and claims.

L2 (Participation strategy) defines who participates, when, and with what authority along the participation ladder, while formalizing disclosure, consultation, and co-decision procedures.

L3 (Action process) develops and tests three intervention families: cognitive

interventions such as wayfinding maps, signage, and trial walks to raise spatial familiarity and information accessibility; affective interventions such as oral-history capture, image collection, and co-edited memory handbooks to reconnect memory, space, and people; and collaborative interventions such as photo exhibitions and public forums to articulate shared agendas and test cross-actor cooperation.

L4 (Mechanisms) specifies the mediating variables—spatial cognition (SC), cultural identification (CI), public participation (PP), and governance coordination/ownership (GCO).

L5 (Outputs and short-term outcomes) records tangible products and experience shifts—maps, digital guides, handbooks, exhibitions, meeting minutes—and their pre-/post-gains.

L6 (Long-term impact) tracks sustained satisfaction and sustainability perception (SS), stronger intangible-heritage transmission and community networks, and the normalization of co-governance through protocols and shared management lists.

5.2.3 Implementation pathway

Implementation proceeds through three iterative cycles, each following the diagnose, design, implement, and evaluate steps. The first cycle fosters awareness by enhancing spatial and cultural cognition, as well as readiness for participation. The second cycle co-produces content and formats, delivering visible protection outcomes through collaborative design. The third cycle consolidates and institutionalizes practice by establishing platforms, defining rules, and refining mechanisms to ensure durability.

To operationalize the PHSD (Participatory Heritage Sustainable Development) model, three participatory experiments are integrated as core components of its mechanism. First, a spatial cognitive mapping exercise engages community members in collaboratively mapping their perceptions of significant places and pathways within the historic district. This mapping activity reveals collective spatial knowledge and local value clusters, providing empirical data on how residents and stakeholders perceive and value the district.

Second, the development of a cultural identity handbook involves stakeholders in documenting the intangible heritage and identity of the district. Participants work

together to articulate cultural symbols, local narratives, and historical meanings, which are compiled into a handbook. This process uncovers underlying values and shared heritage elements that shape community identity. The handbook serves as a repository of qualitative insights, informing the PHSD model by embedding community-specific cultural values and identity information.

Third, a participatory exhibition is conducted to present interim design proposals and research findings back to the community in a public format. Through interactive displays and group discussions, participants (including local residents and heritage experts) review and refine the proposed interventions. This exhibition creates a feedback loop: the community validates and iterates on the design concepts generated through the previous experiments. It allows the PHSD model to remain adaptive as new insights emerge from participant feedback.

Each experiment component contributes uniquely to the PHSD model's mechanism. Spatial cognitive mapping supplies quantitative and spatially referenced information on community perceptions, helping to pinpoint priority areas and issues. The cultural identity handbook provides depth on intangible values and ensures that the model's outputs are culturally resonant. The participatory exhibition operationalizes community input by transforming research outputs into tangible proposals and collecting stakeholder feedback.

5.2.4 Evaluation system

Evaluation combines process and results. Process indicators consider participation quality, collaboration efficacy, and schedule fidelity. Result indicators cover cultural identification, community cohesion, protection performance, and sustainability. Evidence is assembled through statistical testing, interviews, observation logs, and document review.

Summary

PHSD makes the chain from cognition to identification, to collaboration, and finally to sustainability explicit and testable. HUL anchors values and context; PAR secures procedural quality and fair distribution of capabilities; SDGs/ESG align public goals and enable comparability. Through iterative cycles and continuous assessment, PHSD shifts practice from project-based interventions to institutionalized co-management, offering a governance-ready research–design–evaluation paradigm

for historic-district heritage and sustainable urban development.(Figure 81)

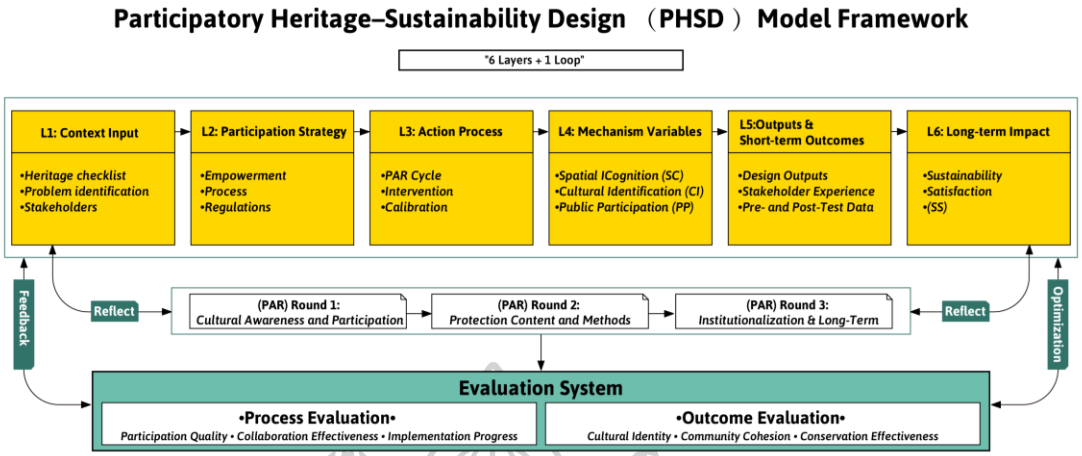

Figure 81 PHSD “6 layers+1 loop” Model Framework.
Source: Individual drawing by the author. (Guan,2025)

5.3 Social Relevance and Impact

5.3.1 Outcomes on Gentrification Mitigation

The study demonstrates that participatory approaches can effectively curb gentrification. The perceived policy influence of long-term residents increased from 2.1 to 3.8 on a five-point scale, indicating a reduction in passive marginalization and a stronger sense of agency in decision-making. Memory handbooks and cultural walls revitalized intangible heritage without sliding into commodification; participation in cultural activities rose by 65 percent and knowledge of tradition by 42 percent. Co-creation processes strengthened ties across groups and measurably enhanced cohesion, generating social capital that is resilient to external shocks. By balancing stakeholder needs, the initiative achieved inclusive development: merchant revenues grew by 23 percent while resident satisfaction with the living environment increased by 24 percent.

5.3.2 Societal Outcomes

Public recognition of Old Street’s cultural value and the importance of protection rose from 42 to 78 percent. Trust and collaboration among stakeholders improved, and institutional channels for participation began to take shape. These shifts manifested as stronger community cohesion, heightened senses of belonging and pride, renewed intergenerational dialogue, and the emergence of a cadre of

community cultural stewards capable of sustaining cultural work beyond the project cycle.

5.3.3 Sustainability Outcomes

Environmental conditions improved through better building conservation and sanitation, accompanied by a palpable enhancement of the cultural atmosphere. Social inclusion and fairness increased, opportunities to participate became more equal, conflicts declined, and cultural diversity was safeguarded as traditions engaged productively with contemporary life. Economically, cultural value was preserved alongside growth, as visitor numbers and dwell time rose, cultural product sales expanded, and employment opportunities increased, all together supporting a sustainable development pathway. These results align with SDG 11—especially Target 11.4 on heritage protection—and with SDG 17 on partnerships, as local government, universities, residents, businesses, and NGOs jointly produced heritage and governance benefits.

5.3.4 Knowledge and Capacity Building

The project produced an Old Street historical and cultural archive, a trained volunteer corps, the PHSD design model, participatory anti-gentrification strategies, and policy recommendations. It strengthened urban governance by institutionalizing dialogue between government and community, thereby improving transparency and implementation. At the neighborhood scale, participatory design deepened cultural identity, catalyzed intergenerational transmission, and reinforced cohesion among long-term and newer residents. It also improved visitor experience and cultural reputation, supporting cultural tourism without over-commercialization. Taken together, these outcomes indicate that a participatory, community-based model offers a transferable pathway to reconcile social inclusion, cultural revitalization, and sustainable development, with direct implications for both policy and practice.

5.4 Limitations and Reflections

This study presents encouraging results, albeit with clear limitations. External validity is limited: the evidence derives from a single historic district and a modest, partly self-selected sample of residents, merchants, and administrators, which restricts statistical inference and generalizability. The intervention window was brief, and the

evaluation relied on immediate pre–post contrasts. Observed gains in participation and cultural identification may not endure, and short-term designs cannot detect rebound or longer-term effects. Time limits also meant that some measures were only partially implemented, and no longitudinal follow-up was conducted.

Implementation reflected contingencies typical of participatory design. On-site conditions necessitated iterative adjustments, complicating strict comparisons across cycles. The researcher's dual role as facilitator–observer may have introduced reactivity or interpretive bias, despite mitigation efforts. The approach is context-dependent: what works within Kunming's cultural, social, and administrative setting may not transfer without adaptation.

These limitations point to priorities for future work. Multi-site, larger-N studies should test robustness across different governance and market contexts. Longitudinal tracking is needed to assess persistence and path dependence. Quasi-experimental or matched comparisons could strengthen causal inference. Sensitivity analyses with explicit reporting of facilitation effects would enhance credibility and replicability.

5.5 Suggestions for Future Research

Future work should expand techno-methodological integration. Digital tools—such as online community archives, AR/VR interpretive layers, and mobile or social-media platforms—can broaden participation, attract younger cohorts, deliver immersive experiences, and strengthen cultural identification and diffusion.

Longitudinal designs are needed to assess durability. Multi-year panel studies with periodic community follow-ups should track shifts in participation, identity, and district trajectories, examining whether participatory projects cultivate local leadership, sustain organizations, and promote the normalization of heritage stewardship.

Comparative research across cities and countries can identify context-invariant principles and context-specific adaptations. Cross-case analyses under different cultural and governance regimes will clarify which elements require priority (e.g., civic education versus trust-building) and refine localization strategies.

Focused inquiries should probe specific dimensions, including the effects of

participatory design on the transmission of intangible heritage, youth engagement and value formation, and the institutionalization of participatory outputs within statutory heritage management, incentives, and routine procedures.

Interdisciplinary collaboration and theoretical synthesis merit emphasis. Perspectives from social psychology, communication, and economics can enrich explanations of participation motives, channel effectiveness, and the balance between culture and economy. Integrating frameworks such as sustainable livelihoods and social capital can consolidate the present model and extend the significance of participatory design within the sustainable development agenda.

In sum, historic-district heritage protection and sustainable development constitute a complex field where participatory design shows substantial promise. Continued experimentation, reflection, and innovation can help communities jointly regenerate heritage, advancing more inclusive and sustainable urban futures.

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