

Spatial Justice in Heritage Communities

Resident Perceptions of Recreational Spaces in Suzhou's Classical Garden Areas

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Abstract

This study examines spatial justice in heritage communities surrounding Suzhou's eight UNESCO World Heritage Classical Gardens. While these gardens have transformed from private estates to public spaces, their development patterns have led to varying impacts on surrounding communities. Through analysis of land use patterns, facility distribution, and 39 in-depth interviews with residents, this research investigates how different development patterns influence spatial justice and residents' daily experiences. The study reveals that spatial differentiation manifests beyond physical accessibility, encompassing temporal, social, and perceptual dimensions. Findings indicate that similar heritage types under different development patterns create distinct community experiences, with social class significantly influencing space utilization patterns. The research contributes to understanding how micro-scale social space differences affect spatial perception and choices in heritage communities, extending beyond traditional macro-scale facility distribution analysis. The study concludes with recommendations for differentiated development strategies that promote spatial justice while respecting community characteristics.

Keywords

Spatial Justice; Heritage Tourism; Community Development; Social Space; Classical Gardens Of Suzhou

1. Introduction

Heritage tourism development has brought unprecedented transformation pressures to communities surrounding World Heritage sites. The Classical Gardens of Suzhou, among China's most significant UNESCO World Heritage sites, exemplify the evolution from private gardens to public spaces. This transformation not only manifests in physical accessibility but profoundly impacts community social structures and residents' daily lives. Under the dual pressures of heritage preservation and tourism development, these garden communities exhibit significant spatial differentiation, raising fundamental questions about spatial justice.

The Classical Gardens of Suzhou, inscribed on UNESCO's World Heritage List between 1997 and 2000, represent the pinnacle of Chinese garden art. These gardens, originally constructed between the 11th-19th centuries, demonstrate the sophisticated integration of art, nature, and ideas in garden design. The gardens selected for this study represent different historical periods and social contexts, from the imperial-

scale Humble Administrator's Garden to the more intimate Scholar's gardens like the Master of the Nets Garden.

Dating back to the 6th century BCE, Suzhou's Classical Gardens have evolved from elite private estates to contemporary public cultural spaces. Through this transformation, surrounding communities have undergone significant changes. While some gardens' tourism development has led to community gentrification and population turnover, others have integrated deeply with community life, becoming vital spaces for residents' daily recreation. These divergent development patterns provide unique insights into spatial justice issues in heritage communities. Figure 1 demonstrates the significant disparity in tourist attention among these gardens. The Humble Administrator's Garden receives over 12,000 reviews, while less prominent gardens like the Garden of Cultivation attract fewer than 1,000 reviews. This disparity in tourism intensity directly influences community development patterns and residents' daily experiences.

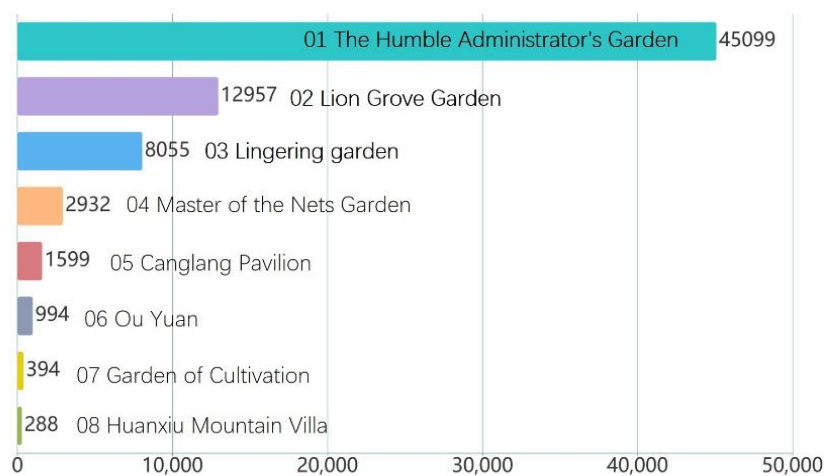


Figure 1. Number of reviews of eight Suzhou gardens on travel websites.

Source: Data collected from Ctrip, September 2024

This study examines communities surrounding eight UNESCO World Heritage gardens in Suzhou, investigating how residents of different social classes perceive and use recreational spaces under various development patterns. The research addresses three key questions:

- (1) How do residents across social classes perceive and use recreational spaces in heritage communities amid social-spatial differentiation?
- (2) How do different development patterns of similar heritage sites influence residents' daily experiences and spatial justice?

Through field surveys and in-depth interviews, this research analyzes spatial usage patterns and cultural identity variations across different residential types. Findings reveal that social-spatial differentiation influences not only living conditions but also profoundly shapes residents' spatial perception and usage intentions. Based on these findings, the study proposes recommendations for promoting spatial justice in heritage communities, offering new perspectives on balancing heritage preservation with community development.

2. Literature Review

Research on heritage tourism's community impacts has evolved significantly. Heritage tourism research initially focused on European contexts, with Van der Borg et al. (1996) revealing differentiated tourism

impacts on historic districts through systematic studies of European heritage cities. This framework inspired exploration of Asian contexts, where Su and Teo (2009) analyzed social space restructuring in Chinese heritage tourism through Lijiang case studies. Wang and Bramwell (2012) examined tensions between heritage preservation and tourism development in Hangzhou, while Su and Wall (2014) identified systematic barriers to community participation at the Great Wall.

The perspective on urban renewal and spatial differentiation has shifted from physical to social space. He and Wu (2009) connected spatial differentiation in Chinese urban renewal to neoliberalization processes, while Wu (2016) highlighted state dominance in urban redevelopment. This institutional characteristic significantly influences heritage community development trajectories.

Public space usage patterns reveal social disparities. Peters et al. (2010) demonstrated how social cohesion effects in urban parks vary by user group, while Byrne and Wolch (2009) explained these differences' sociocultural roots. Graham (2002) further emphasized heritage's dual role as knowledge and cultural capital, influencing value distribution in urban societies.

Methodological developments offer new approaches to understanding community spatial perception. Winchester and Rofo (2016) highlighted qualitative research's value in revealing spatial cognition differences, while Bandarin and Van Oers (2012) proposed the historic urban landscape management approach for balancing preservation with development.

Current research gaps include limited systematic comparison of multiple heritage sites within one city and insufficient understanding of how different development patterns affect spatial perception and community experiences. This study addresses these gaps through comparative analysis of Suzhou's eight World Heritage gardens, examining how similar heritage types under different development patterns influence community spatial justice.

3. Research Design and Methods

3.1. Study Area

This research examines eight UNESCO World Heritage classical gardens in Suzhou: the Humble Administrator's Garden, Lion Grove Garden, Lingering Garden, Master of the Nets Garden, Canglang Pavilion, Ou Yuan, Garden of Cultivation, and Huanxiu Mountain Villa. Following Bandarin and Van Oers' (2012) historical urban landscape approach, we defined a 500-meter radius (10-minute walking circle) from each garden's main entrance as the primary study area. This boundary aligns with both residents' daily activity patterns and the spatial characteristics of Suzhou's historic district. Due to geographic proximity, some adjacent gardens were combined into unified study areas (Figure 2).

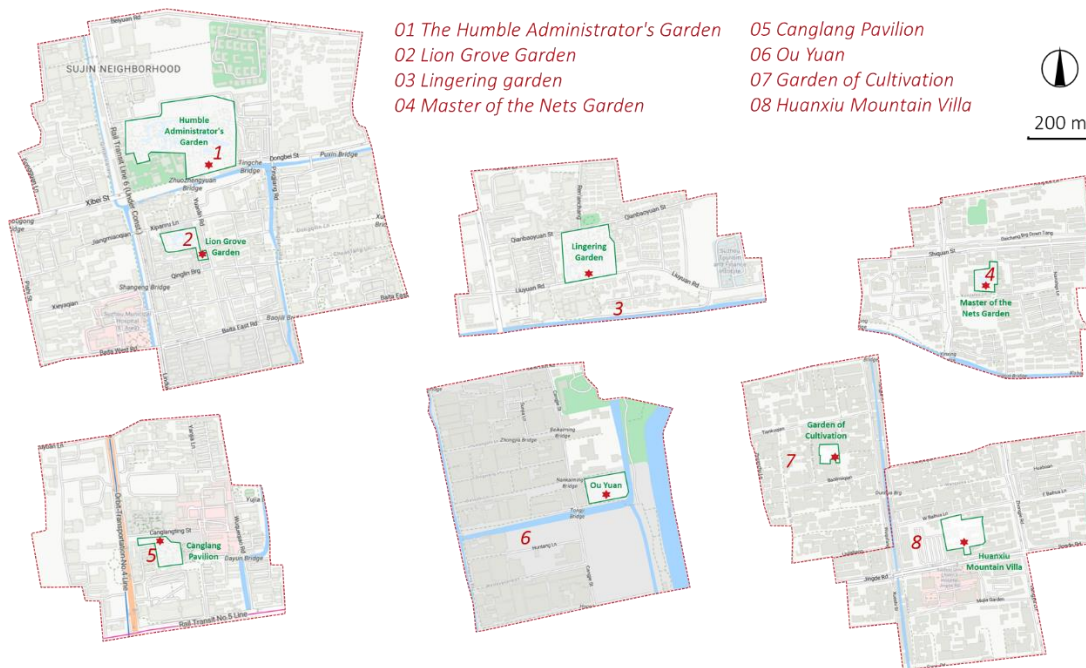


Figure 2. Study Population and Scope of Heritage Communities

The research examines two spatial scales: (1) Community scale: 500-meter radius for analyzing immediate neighborhood dynamics. (2) Extended neighborhood scale: 2-3 km² area (15-minute living circle) for assessing broader public facility distribution

3.2. Methodology

The study employs a mixed-methods approach combining field surveys, interviews, and supporting data analysis. Field investigation includes mapping of land use patterns and public facility distribution within defined study areas. Semi-structured interviews (n=39) were conducted with residents (n=26), garden and community managers (n=9), and local business owners (n=6). The resident interviews were stratified by housing type to ensure representation across different social groups. Besides, the interviews followed a carefully designed protocol addressing three key aspects: daily recreational patterns, cultural recognition, and spatial accessibility perception. The interviews adopted a focused format, with each conversation lasting approximately 10-20 minutes to accommodate residents' daily routines while capturing key information about their spatial experiences. The interview questions were carefully designed and refined through pilot studies to ensure efficient data collection focusing on three key aspects: daily recreational patterns, cultural recognition, and spatial accessibility perception. The resident interviews were stratified by housing type to ensure representation across different social groups.

Supporting data includes analysis of online platforms (Ctrip, Anjuke, Dianping) for tourism, housing, and consumption patterns, alongside government planning documents and historical records. This multi-source approach enables triangulation of findings and comprehensive understanding of community dynamics.

The analysis framework examines both physical and social space characteristics. Physical space analysis focuses on residential land proportion, facility accessibility, and spatial configuration. Social space analysis considers community demographics, activity patterns, and social interactions. This integrated approach allows for systematic examination of how different development patterns in heritage communities influence residents' daily experiences and spatial justice issues.

4. Research Findings

4.1 Spatial Differentiation in Heritage Communities

The systematic investigation of eight classical gardens and their surrounding communities reveals distinct patterns of spatial differentiation. Through analysis of residential land proportion and public facility distribution four development patterns emerge in these heritage communities (Table 1).

Table 1. Assessment of residential area proportion and surrounding facilities of heritage community.

	Proportion of residential area	Tourism service	Hospital	School	Cultural venue	Exercise area	Pattern
1 The Humble Administrator's Garden	49.98%	●	●	●	●	/	Tourism
2 Lion Grove Garden							
3 Lingering garden	45.91%	○	/	/	○	○	Synthesis
4 Master of the Nets Garden	40.26%	○	/	●	/	/	Synthesis
5 Canglang Pavilion	15.98% (min)	○	●	●	●	○	Facility
6 Ou Yuan	56.64%	●	/	/	●	●	Tourism
7 Garden of Cultivation	67.67% (max)	/	/	/	/	○	Marginalization
8 Huanxiu Mountain Villa	45.34%	/	●	○	○	/	Facility

● Adequate ○ Medium in quantity or quality / Hardly any

The distribution of public facilities shows complex patterns beyond simple quantity measures. Tourism service facilities in the Humble Administrator's Garden area, for example, demonstrate a hierarchical structure, ranging from high-end hotels to local guesthouses, creating a complete tourism service chain. This contrasts with areas like the Garden of Cultivation, where tourism facilities are not only limited but also lack systematic organization.

Medical and educational facilities show distinct spatial logics. The concentration of high-quality medical resources near Canglang Pavilion reflects historical institutional land use patterns, as this area traditionally hosted important public facilities. Educational resources demonstrate a more dispersed pattern, though quality disparities exist. The presence of key schools has become a significant factor influencing residential choices, particularly among middle-class families, further reinforcing social-spatial differentiation.

Cultural venues and exercise areas exhibit different accessibility patterns across development types. In tourism-oriented areas, cultural facilities primarily serve visitors, with operating hours and programming that may limit local access. Exercise areas in these zones often take the form of formal parks with regulated access, while traditional neighborhoods rely more on informal spaces like street corners and small squares for community activities.

At the community level (500m radius from garden entrances), residential land use proportions vary significantly. The Humble Administrator's Garden area maintains 49.98% residential land within its immediate surroundings, while the Garden of Cultivation area shows the highest residential density at 67.67%. The Canglang Pavilion area exhibits the lowest residential proportion at 15.98%, reflecting its public service orientation.

Analysis of the extended neighborhood scale (15-minute walking circle, approximately 2-3 km²) reveals differentiated patterns of public facility distribution. Cultural facilities, including museums, libraries and exhibition halls, are predominantly concentrated in tourism-oriented areas, particularly around the Humble Administrator's Garden and Lion Grove Garden. Medical resources show the highest concentration near Canglang Pavilion, with varied levels of accessibility across different communities. Educational facilities demonstrate relatively balanced distribution in synthesis development areas, though quality

resources tend to cluster in certain districts. Exercise and leisure spaces are better provided in tourism-oriented zones, while traditional neighborhoods rely more on informal public spaces.

Based on these spatial characteristics, four distinct development patterns emerge. Tourism-driven areas, exemplified by the Humble Administrator's Garden, demonstrate intensive tourism development while maintaining substantial residential functions. Mixed development areas like the Linger Garden achieve a relative equilibrium between tourism services and residential needs. The Canglang Pavilion area represents a public service-oriented pattern, with concentrated educational and healthcare facilities. In contrast, the Garden of Cultivation area shows characteristics of marginalization with limited facility development despite its high residential density.

4.2 Residential Typology and Social Space

Field research and in-depth interviews reveal that social class significantly influences residents' recreational space choices and usage patterns. The research identifies three distinct community types, each exhibiting unique spatial-social characteristics. (Table 2).

Table 2. Characteristics of Different Residential Types in Heritage Communities

Type	Built Environment	Social and Usage Features	Resident Voice
Villa Areas	• Low plot ratio (0.35-1.30) • High green coverage (40-60%) • Gated layout • Private facilities	• Wealthy residents • Private activities • Self-sufficient spaces	"The community has excellent facilities, we prefer exercising here." (Retired resident, Lion Grove area)
Multi-storey Residential	• Medium plot ratio (1.0-1.5) • Medium green coverage (30%) • Semi-open layout • Mixed facilities	• Mixed income groups • Active community life • Regular public space use	"We often visit Guangji Park, it's conveniently close." (Residents, Linger Garden area)
Traditional Residence	• Low plot ratio (<1.0) • Low green coverage (10%) • Open streets • Limited facilities	• Elderly and migrants • Time constraints • Public space dependent	"No leisure places nearby, too busy working to have free time." (Resident, Master of Nets area)

The residential composition analysis (Figure 3) reveals patterns of socio-spatial stratification in the heritage communities. The figure shows the distribution pattern of the three residential types - villa areas, multi-storey residential buildings and traditional houses - across the eight garden communities in different color scales. The types of residential spaces and their proportions greatly influence the social structure and interaction patterns of the communities.

In areas such as the Humble Administrator's Garden (Community 1), the social spatial differentiation is most pronounced, with upscale villas adjoining traditional homes, creating distinct physical and social boundaries. This juxtaposition of contrasting housing types creates what Graham (2002) calls "micro-scale social enclaves" within heritage communities. Spatial proximity paradoxically widens social distance, as evidenced by the limited interaction between these neighboring but socially distinct groups.

In contrast, Neighborhood 3 and Neighborhood 4 demonstrate a more mixed housing pattern, with multi-storey buildings serving as transition zones between different housing types. This gradual transition of housing types seems to favor a more balanced pattern of social interaction. Neighborhood 7 Garden of Cultivation area), however, shows a more homogenous pattern with a predominance of traditional housing. The population in this area is aging, with younger local residents moving out and being replaced by vulnerable groups.

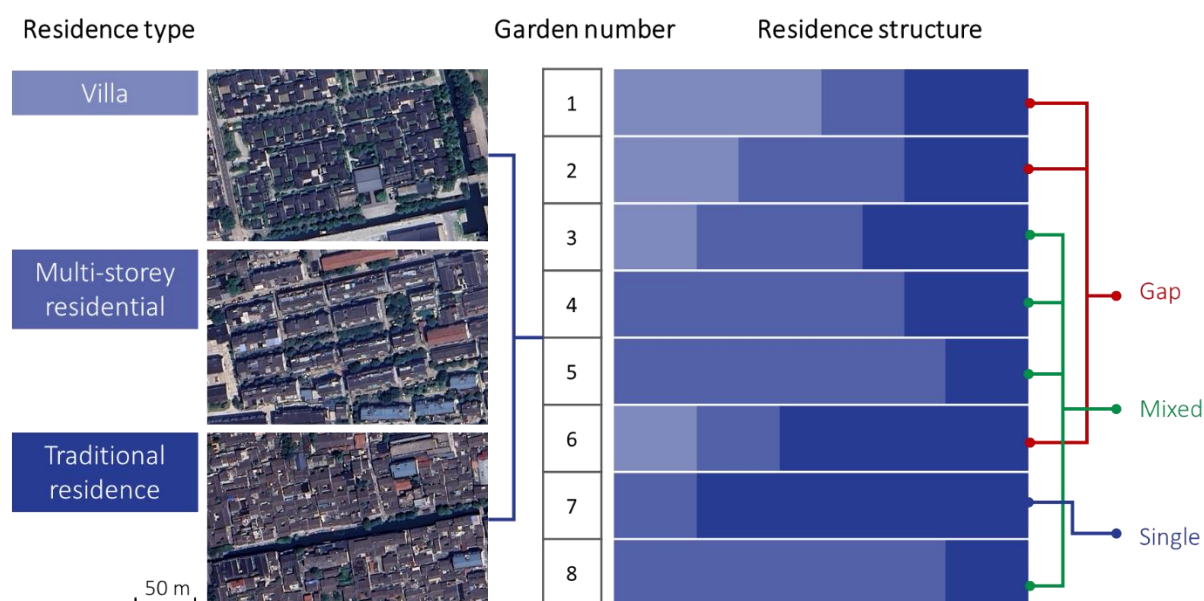


Figure 3. Residential typology analysis

The spatial and social characteristics revealed in this typological analysis demonstrate significant variations in how different resident groups interact with heritage spaces. As Su and Wall (2014) observe in their research on heritage tourism impacts, residential patterns often reflect complex relationships between spatial configuration and social practices.

4.3 Spatial Usage and Cultural Recognition

The analysis of interview data reveals significant variations in spatial usage and cultural recognition across different community types (Table 3).

Table 3. Analysis of residents' interviews and garden usage patterns

Garden number	1	2	3	4	5	6	7	8
Development Pattern	Tourism	Tourism	synthesis	synthesis	facility	Tourism	marginalization	facility
Urban leisure space compensation	○	○	●	○	○	●	/	/
Use of Gardens and surrounding spaces	○	/	/	○	●	/	●	/
Garden culture recognition	60% of the surveyed residents agreed Vulnerable groups: 47% other groups: 88%							
● Many Medium	○ Medium	/ Hardly any						

The research finds that spatial usage patterns are closely related to community development modes. In synthesis development areas, residents show more active engagement with both garden spaces and surrounding public areas. However, in tourism-intensive areas, despite better facility conditions, residents demonstrate lower usage rates of heritage spaces, supporting Su and Wall's (2014) findings about the impact of tourism intensity on local community participation.

Cultural recognition presents a notable disparity between different social groups, with an overall recognition rate of 60%. The significant gap between vulnerable groups (47%) and other groups (88%) in cultural recognition suggests that heritage cultural capital is not equally accessible to all community members, confirming Graham's (2002) theory about the uneven distribution of heritage values in urban societies. This disparity manifests in multiple ways: through participation in cultural activities, understanding of garden history and design principles, and sense of connection to heritage spaces.

Interview data reveals that cultural recognition is closely tied to residents' daily experiences and economic conditions. Vulnerable group members often express appreciation for the gardens' aesthetic value but feel disconnected from their cultural significance. As one resident from a traditional neighborhood noted, "The gardens are beautiful, but they feel like they belong to others." This sentiment reflects broader issues of cultural capital distribution and access to heritage interpretation resources.

The relationship between development patterns and cultural recognition is particularly noteworthy. Areas with synthesis development patterns tend to show more balanced cultural recognition rates across social groups, suggesting that moderate tourism development might actually facilitate cultural transmission within communities. This finding challenges simplistic assumptions about tourism's impact on local cultural identity.

5. Discussion

5.1 Multi-dimensional Spatial Differentiation

Physical proximity to heritage sites does not guarantee equitable access to recreational spaces. Our research reveals that social space differences significantly influence spatial perception and usage patterns. For instance, a community library adjacent to both villa areas and traditional residences shows contrasting utilization patterns - wealthy residents have alternative resources and show little interest, while residents from traditional neighborhoods, despite geographic proximity, face invisible barriers to access.

The temporal dimension emerges as a critical factor in spatial justice. Heritage communities demonstrate adaptive usage patterns across different development modes. In tourism-intensive areas, residents utilize cultural plazas for evening activities after tourist hours, while in residential areas, elderly residents engage in morning exercises in garden spaces. This temporal adaptation reflects both constraints and opportunities in heritage space utilization.

5.2 Heritage Integration Challenges

The integration of heritage spaces into community life varies significantly across development patterns. Tourism-driven areas face tensions between preservation, commercial development, and community needs. Our findings support Graham's (2002) argument about heritage's dual role as cultural capital, revealing how social class shapes cultural recognition and space utilization.

Different development patterns require distinct approaches to community space provision. The research demonstrates that successful heritage integration depends not only on physical accessibility but also on addressing social barriers and temporal constraints. This finding extends Wu's (2016) observations about state-led urban development by highlighting the importance of community-specific solutions.

5.3 Planning Implications

Research findings suggest three key planning considerations:

First, inclusive design strategies must address both physical and social accessibility. This includes creating flexible spaces that accommodate different user groups and considering temporal use patterns in facility planning.

Second, community participation mechanisms need strengthening, particularly for vulnerable groups. The significant disparity in cultural recognition rates between social classes (47% vs. 88%) indicates the need for more inclusive heritage interpretation and community engagement approaches.

Third, development strategies should be differentiated based on community characteristics while maintaining spatial justice principles. This might involve time-sharing arrangements in tourist-heavy areas or integrated community facilities in residential zones.

6. Conclusion

This research advances our understanding of spatial justice in heritage communities through systematic comparison of Suzhou's eight World Heritage gardens. Three key findings emerge from the study:

First, spatial justice in heritage communities extends beyond physical accessibility. The research reveals how social space differences significantly influence residents' perception and usage of recreational spaces, challenging traditional approaches that focus primarily on facility distribution.

Second, similar heritage types under different development patterns create distinct community experiences. The study identifies four development patterns - tourism-driven, synthesis, facility-oriented, and marginalized - each generating unique challenges and opportunities for community space utilization.

Third, temporal dynamics play a crucial role in spatial justice. Communities demonstrate adaptive usage patterns, suggesting the need for flexible and time-sensitive approaches to heritage space management.

These findings have important implications for heritage community planning. While the study focuses on Suzhou's Classical Gardens, the analytical framework and findings contribute to broader discussions of spatial justice in heritage contexts. Future research could explore long-term changes in community adaptation patterns and examine the effectiveness of different policy interventions in promoting spatial justice.

The research has certain limitations, particularly in capturing the full complexity of residents' subjective experiences. Additionally, the study's focus on current conditions could be complemented by longitudinal research examining how community spaces evolve over time.

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