

Localization and Application of Scene Theory in the Context of Historic Town Preservation in China: A Case Study of Shannxi Mizhi Ancient Town

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Abstract

Under the discourse of value inheritance in Chinese historic towns, the dual challenge of preserving cultural heritage and revitalizing urban vitality has emerged as a pivotal issue in contemporary urban studies. Clark's scene theory, with its innovative theoretical framework and quantitative analytical methodology for assessing cultural values, has stimulated extensive interdisciplinary research and academic discussions. This study employs Mizhi County as a representative case to establish a localized interpretation and analytical framework of scene theory within the Chinese context. The findings reveal that creative scenescapes serve as crucial catalysts for heritage conservation and vitality regeneration. Furthermore, scene measurement proves effective in quantifying value orientation transmission and public perception patterns, providing empirical evidence that cultural spaces function as dynamic mediators between historical continuity and contemporary urban development.

Key words: Value Transmission; Historic Town Conservation; Scene Theory Contextual Adaptation;

1 introduction

Cultural destiny intertwines with national fortune, and cultural lineage connects with national vitality (Xu Zhong, 2023). As Lewis Mumford noted, "Complex civilizations require stable historical urban containers." President Xi Jinping has repeatedly emphasized strengthening cultural confidence and enhancing the protection of historical heritage. The 19th CPC National Congress highlighted that preserving cultural relics and inheriting cultural heritage are crucial components in building cultural confidence and promoting socialist cultural prosperity, requiring continuous advancement in the "creative transformation and innovative development" of traditional Chinese culture. Sun Jing's (2024) analysis of Operational Guidelines revisions reveals an epistemological breakthrough: historic towns are now recognized as dynamic human ecosystems, transcending traditional monument-centric conservation frameworks. ICCROM defines living heritage sites as "places continuously shaped by historical actors, maintaining both physical structures and socio-cultural practices, with core communities inhabiting or adjacent to these sites" (Zhao Xiaomei, 2016). As inhabited heritage, they differ fundamentally from conventional monuments by preserving not only material artifacts but also unique socio-cultural ecosystems formed through centuries of evolution. However, current conservation practices often prioritize physical preservation over humanistic dimensions while lacking methodologies to measure communities' spiritual perception of heritage values. This study therefore investigates scene theory's applicability in addressing value transmission and vitality regeneration in Chinese historic towns.

2 Literature review: The Evolution of Historic Town Conservation and Theoretical Research in China

2.1 Review of the Development and Research on Historic Town Conservation in China

Historic town conservation in China began later than in Western countries. By integrating Western conservation philosophies with local practices, China has gradually developed a context-specific heritage protection system. The enactment of the Cultural Relics Protection Law in 1982 marked a significant milestone by initiating state-level rescue protection for heritage sites and introducing the concept of "historical and cultural cities." In 1986, the idea of "historical and cultural protection zones" was officially proposed. The 2002 revision of the same law integrated "historical and cultural blocks" and "villages and towns" into urban master planning. The 2008 "Regulations on the Protection of Famous Historical and Cultural Cities, Towns and Villages" established a tiered national conservation framework, comprising three levels: cities, blocks, and cultural relics. In 2010, the Ministry of Housing and Urban-Rural Development introduced management guidelines that emphasized not only authenticity and integrity but also the continuity of social life.

Since the 18th CPC National Congress, cultural heritage "revitalization" has gained prominence, with strategic policies accelerating the construction of integrated urban-rural heritage protection and transmission systems. A value-oriented approach to cultural conservation has gradually taken shape.

Recent research has shifted from the authenticity of heritage objects to system integrity and sustainable cultural transmission. Some scholars have revisited traditional Chinese urban philosophies. Wang Shusheng (2019) conceptualized the "landscape-cultural spatial pattern," proposing that landscape serves as a natural axis and culture as a spiritual axis. Based on this, Gao Yuan (2023) and others constructed a regional network in the Guanzhong region; Liu Shuhu (2024) analyzed visual connectivity in ancient Quanzhou; and Yan Pei (2024) examined the spatial logic of towns along the upper Han River by interpreting their geomorphic settings.

Additionally, scholars are increasingly focused on the spiritual heritage and activation of historic towns. At the macro level, Chen Shuangchen (2022) proposed a heritage value system rooted in the evolution of Chinese civilization. Zhang Huan (2022) developed a collaborative protection framework emphasizing full-element and full-spatial coordination. Wang Kai (2022) explored systemic models for urban-rural heritage transmission. At the meso level, Zhang Guanghan (2023) designed a cultural transmission path for the Grand Canal, and Li Heping (2022) employed scene theory to address the holistic, dynamic, and multi-dimensional characteristics of historic towns.

At the micro level, models have been developed to assess residents' cultural sustainability through dimensions such as cognition, emotion, and practice (Li Lu et al., 2022); and to decode landscape and cultural "genes" to capture spatial vitality (Xiao Jing et al., 2021). Quantitative frameworks have also been proposed to evaluate cultural inheritance (Yang Liguang et al., 2017), liveliness (Zou Jun et al., 2020), and rurality (Liu Peilin et al., 2012), identifying areas of weakness in the preservation process.

In conclusion, China's historic town conservation has transitioned from static protection under a relic-oriented paradigm to dynamic strategies emphasizing social and cultural continuity. The current core of conservation practice lies in addressing how to effectively transmit heritage values and achieve cultural revitalization.

2.2 Literature Review of Scene Theory

Scene theory, pioneered by Terry N. Clark of the New Chicago School, emphasizes cultural consumption as the foundation for urban revitalization. It views urban space not merely as a functional environment but as a cultural amalgam of consumption symbols, with convenience and comfort as essential preconditions (Wu Jun, 2014). Clark's theory argues for fostering urban regeneration through the integration of creative scenes, and subsequent studies have highlighted the role of "amenities" as drivers of population concentration and urban economic growth (Wu Jun et al., 2022; Wang & Wu, 2011). At its core, scene theory evaluates space from the perspectives of aesthetics and lifestyle, focusing on its embedded values, cultural meanings, and aesthetic qualities (Wu Jun, 2022).

Unlike "place," which emphasizes rooted identity through kinship and geography, the concept of "scene" stresses constructed identity within diverse social groups. Bian Lanchun et al. (2024) argue that creative districts function as a synthesis of site, place, and scene, integrating spatial forms, cultural narratives, and social activities.

In applied research, the theory has been extended in various ways. Zhang Ye et al. (2024) proposed a cultural framework for national cultural parks based on the triad of "cultural genes-cultural elements-cultural scenes." Chen Mingkun et al. (2024) introduced micro-renewal strategies for park cities based on holistic assessment and feature recognition. He Xiaorong et al. (2023) explored how nostalgic consumer spaces, such as the Super Wenhoyou project in Changsha, are constructed and perceived under scene theory.

Further local adaptations have emerged to align the theory with Chinese contexts. Xia Shu (2019) emphasized reconstructing scenes' spatial-temporal dimensions and emotional content in the digital era. Guo Chen et al. (2022) proposed six elements and four levels for scene planning in metropolitan coordination. Xu Wanting et al. (2024) retranslated the concepts of authenticity, theatricality, and legitimacy into "cultural authenticity," "cultural consumability," and "cultural balance" to guide heritage renewal. Tang Juan et al. (2023) applied scene theory to develop a cultural value assessment system for Suzhou's historic streets.

Overall, scene theory offers a holistic, pluralistic, and systematic analytical framework, combining culture-driven development strategies with methods that integrate subjective perceptions and objective evaluations. Beyond serving as an effective tool for assessing cultural value transmission, it also provides a strategic pathway for revitalizing urban vitality and restoring the livability of human settlements. Meanwhile, scholars across disciplines have made contextualized adaptations of scene theory to suit their respective domains. In the context of historic town value transmission in China, its emphasis on culture as the core driver, the value-carrier logic of cultural inheritance, and an integrated perspective that spans all regions, elements, and time periods aligns closely with the foundational principles of scene theory. As such, it is both necessary and timely to explore its applicability in this context and to develop a localized theoretical framework tailored to the cultural preservation of historic towns.

3 Theoretical Framework: A Scene-Based Analytical Model for Value Transmission in Historic Towns

3.1 Compatibility between the Context of Value Transmission in Historic Towns and Scene Theory

3.1.1 Applicability Analysis

(1) Scene theory provides a quantitative analytical framework integrating subjective and objective dimensions for the preservation and renewal of historic towns.

Scene theory constructs a dual-dimensional analytical system encompassing both subjective perceptions and objective environmental elements. Through three core dimensions—legitimacy, authenticity, and theatricality—and their corresponding 15 sub-dimensions, it offers a robust theoretical tool for identifying and quantifying scene characteristics in urban spaces. By analyzing combinations of these coded sub-dimensions, researchers can systematically evaluate what types of scenes attract which groups, trigger specific activities, and generate varying socio-economic and cultural impacts. This process ultimately informs strategic decisions regarding scene configuration for specific development goals.

The integration of subjective and objective dimensions enables a comprehensive pathway for linking tangible heritage environments with intangible value perceptions. It offers a theoretical foundation for unifying the “form” of heritage preservation with the “spirit” of cultural transmission, thereby providing a quantifiable and operational approach for guiding value renewal in the context of historic town conservation.

(2) The cultural-driven model in scene theory offers theoretical guidance for the cultural revitalization of historic towns.

Scene theory advocates for a shift from the traditional post-industrial economy-driven paradigm toward a culture-led model of urban development. By strategically supplying and configuring “comfort amenities,” it aims to cultivate a livable and culturally vibrant environment that attracts and retains members of the creative class, thereby stimulating urban regeneration.

In the context of historic town conservation, protection strategies that solely emphasize heritage elements—akin to “museum-style” preservation—often overlook the everyday production and living needs of local residents, ultimately weakening the town’s livability and vitality.

The culture-driven model thus provides a new developmental logic for revitalizing historic towns: placing traditional culture at the core while integrating emerging contemporary cultural expressions to forge new forms of creative culture. This approach fosters the aggregation of social groups sharing common interests and values, enabling a proliferation of participatory cultural activities. Such a framework not only facilitates the dynamic inheritance of cultural values but also offers a viable theoretical foundation for promoting the integrated economic, social, and cultural revitalization of historic towns.

(3) The amenity system of historic towns contributes to the formation of distinctive scene characteristics

"Amenities" refer to elements that provide comfort and pleasurable experiences for residents, encompassing facilities, activities, and services aimed at improving urban quality of life (McNulty et al., 1985). Early definitions of amenities emphasized their nature as non-market, non-productive public goods (Ullman, 1954; Clark, 2003). Later, Clark expanded the concept to include the spillover effects of private goods, thereby developing a more comprehensive and flexible theoretical framework (Silver & Clark, 2016). Overall, amenities are generally categorized into three types: natural, social, and cultural (Wu Jun et al., 2024).

In the spatial construction of historic towns in China, traditional planning philosophies—particularly the interaction between settlements and natural landscapes—have resulted in the creation of natural amenities. Meanwhile, the integration of rich tangible and intangible heritage resources has fostered a robust cultural amenity system. This, combined with deeply rooted, localized social-cultural amenities, helps form distinctive cultural scenes within historic towns. An emerging academic consensus suggests that the construction of cultural scenes and the conservation of historical heritage are not isolated undertakings but rather interdependent and mutually reinforcing processes (Li Heping et al., 2022).

3.1.2 Inapplicability Analysis

(1) Divergence in Value Orientations under Consumption-Driven Logic

Scene theory is grounded in a logic of cultural consumption. It emphasizes the cultivation of specific urban scenes to attract and retain the creative class, thereby revitalizing urban economies in the post-industrial era. Within this framework, the primary function of scenes lies in stimulating economic growth through consumer-oriented spatial experiences.

In contrast, the contemporary context of historic town conservation in China assigns these spaces a broader set of responsibilities. Beyond supporting the everyday production and living needs of local residents, historic towns are increasingly regarded as key spatial carriers of China's national cultural revitalization strategy. They serve as integral components of the urban-rural cultural heritage system and play a crucial role in reinforcing national and ethnic identity.

Accordingly, the value orientation of historic towns in China extends far beyond that of consumer-driven scenes. These towns must simultaneously support autonomous, daily-life activities of indigenous populations and facilitate the transmission of cultural heritage and collective memory. This dual function—rooted in cultural identity and historical continuity—stands in marked contrast to the economic utility-driven logic embedded in Western scene theory.

(2) Semantic Divergence of Key Elements in the Context of Migration Societies

Scene theory emerged within the sociocultural context of Western immigrant societies, where urban life is shaped by ethnically diverse communities, heterogeneous value systems, and pluralistic cultural practices. Its conceptual foundation assumes a social structure characterized by individual mobility, multicultural coexistence, and high degrees of personal autonomy in spatial and lifestyle choices. Key elements such as "neighborhood," "amenities," and "activities" are thus defined within this framework of diversity and voluntary association.

In contrast, the value transmission of historic towns in China is grounded in a context of cultural continuity, rooted in localized traditions and collective memory. These towns emphasize the dialectical relationship between the national and the local, privileging emotional attachment to place and shared cultural identity. Rather than being shaped by fluid migration patterns or market-driven consumption behaviors, the social relations embedded in Chinese historic towns prioritize authenticity, temporal continuity, and spatial rootedness.

Consequently, the conceptual underpinnings of scene theory—developed in a Western immigrant context—require contextual reinterpretation when applied to Chinese historic towns. A localized reconceptualization of core elements is necessary to address the specific cultural, social, and functional demands of heritage preservation and value transmission in the Chinese context.

In summary, while scene theory offers a systematic analytical framework and valuable methodological tools for understanding the value transmission of historic towns, its foundational concepts—such as the integration of subjective and objective dimensions, the culture-driven development model, and the interaction between amenities and values—resonate well with China's heritage logic that emphasizes both tangible forms and intangible meanings, as well as the mutual construction of carriers and values.

However, the sociocultural context underlying scene theory—rooted in Western post-industrial and immigrant societies—differs significantly from the cultural missions and social structures faced by Chinese historic towns. These divergences are particularly salient in the value orientations and spatial-social logics that inform scene construction.

Therefore, when applying scene theory to the context of China's historic towns, it is essential to adapt and re-interpret its key concepts, structural elements, and value systems. By constructing a localized analytical framework, scholars and planners can more effectively identify cultural scene characteristics and design more contextually appropriate pathways for value transmission and urban revitalization.

3.2 Scene-Based Analytical Framework for Value Transmission in Chinese Historic Towns

3.2.1 Contextual Adaptation of Scene Elements in Chinese Historic Towns

Silver et al. (2010) argue that the essence of urban scenes lies not in isolated elements such as neighborhoods, facilities, or population, but in the combination of these factors and the resulting activities they engender. Grounded in the theory of social dramaturgy, scene theory conceptualizes the city as a symbolic “stage,” where amenities form the “set,” diverse populations act as “performers,” neighborhood relations provide the “social context,” and activities function as “scripts” that convey meaning and identity. Within this integrative framework, scene theory underscores the interaction between spatial components and cultural values.

Given the unique cultural lineage and spatial characteristics of Chinese historic towns, this study proposes a localized interpretation of the four core components of scene theory—amenities, population, neighborhood, and activities—as follows:

Amenities: Defined as both tangible and intangible resources that bring pleasure or comfort, amenities in historic towns encompass not only physical heritage, natural landscapes, and public infrastructure, but also symbolic environments and cultural atmospheres shaped by intangible heritage and traditional lifestyles.

Population: The population structure of historic towns typically consists of: (1) indigenous residents deeply embedded in local cultural traditions; (2) tourists attracted by the historic and cultural milieu; and (3) new residents who migrate due to shared cultural values or employment needs. These groups interact and co-shape the dynamics of cultural inheritance.

Neighborhood/Social Networks: In the context of historic towns, neighborhoods refer not just to physical proximity, but also to the embedded social relationships, including kinship- and place-based networks, occupational mobility-based communities, and emerging value-based cultural collectives.

Activities: As the dynamic core of scenes, activities embody the interactions among amenities, populations, and social networks. In historic towns, activities range from traditional cultural expressions such as festivals and rituals, to modern cultural-creative practices and participatory events, as well as the daily practices of life and work that continually animate the space.

This contextualized understanding of scene elements provides a more grounded theoretical and practical basis for identifying cultural values, constructing meaningful scenes, and guiding the conservation and regeneration of historic towns in China.

3.2.2 The Scene Hierarchy of Historical Towns

Historic towns possess dual attributes of historical-cultural significance and contemporary living functions. They are required not only to convey profound cultural values but also to meet the diverse production and living needs of residents, thereby revitalizing the town's vibrancy. As a crucial node within the urban-rural cultural heritage system, historic towns must effectively integrate with territorial spatial planning and cultural inheritance systems to ensure comprehensive spatial coverage and dynamic integration. Due to constructive recognition of diverse lifestyles by multiple stakeholders, the boundaries of scenes in historic towns are often ambiguous and dynamic.

Based on related research (Guo Chen et al., 2022), and centered on cultural inheritance, the scene hierarchy in historic towns can be delineated along both horizontal and vertical dimensions:

Horizontal Dimension: Scenes are categorized into three concentric layers—cultural scenes, creative scenes, and living scenes.

Cultural scenes are spaces of cultural significance formed around key historical nodes, serving as the foundation and source of cultural transmission.

Living scenes focus on facilities and services essential for daily production and life, underpinning residents' everyday existence.

Creative scenes lie between cultural and living scenes, representing the integration of traditional and contemporary cultures, embodying cultural innovation and quality of life enhancement, and acting as the core driver of cultural vitality revival.

Vertical Dimension: Scenes are structured from micro to macro levels, including scene units, scene clusters, scene cluster groups, and scene aggregations. These correspond respectively to specific components of cultural scenes, entire categories of cultural scenes, the historic town's complete scene system, and its position within the broader urban-rural cultural heritage framework.

This hierarchical framework clarifies the internal composition logic of scenes in historic towns and provides a theoretical and practical basis for the organic integration of cultural inheritance and spatial planning.

3.2.3 Value Dimensions of Historic Town Scenes

While scene theory offers robust tools for measuring scene dynamics, the value dimensions it proposes—rooted in Western consumer culture—are not universally applicable, especially in contexts like Chinese historic towns where cultural inheritance plays a central role. Scholars have thus proposed localized reinterpretations of scene value structures. For example, Hou Xueyan (2025), through analysis of 43 rural public cultural spaces, distilled three perception dimensions: locality, consumer orientation, and cultural depth. Similarly, Chen Bo (2025), drawing on the triadic dialectic of spatial production and historical town value systems, identified local expressiveness, symbolic perception, and social integration as key dimensions.

In contrast, Clark's formulation, developed within the framework of Western cultural consumption, identifies three primary value layers: Dramaturgy – the emotional expressiveness of a scene; Legitimacy – the behavioral norms and regulations embedded within the scene; Authenticity – the degree to which individuals can derive identity and belonging.

These three dimensions effectively address how scenes evoke emotions, structure behavior, and foster identification. They also reflect the capacity of space to guide cultural meaning and social conduct.

For this study, these are consolidated into three analytical layers: Emotional Layer (linked to dramaturgy); Behavioral Layer (linked to legitimacy); Identity Layer (linked to authenticity).

This framework is applied to a representative historic town case, and thus the observed value orientations reflect specific characteristics of that locality.

3.2.4 Analytical Framework for Historic Town Scene Typologies

This framework unfolds in four key steps:

Step 1: Constructing a Database of Comfort Amenities. Identify and catalog both cultural and daily-life elements within historic towns. Cultural elements are derived from field surveys and planning documents, including various levels of heritage sites, historic buildings, traditional-style architecture, time-honored commercial entities, and landscape-oriented urban design features. Daily-life elements are extracted primarily through POI (Point of Interest) data mining, including public services and cultural industry facilities.

Step 2: Scene Typology and Hierarchical Structuring. Based on the dual nature of historic towns—cultural heritage and everyday life—this step identifies cultural scenes and living scenes. The creative scene serves as a dynamic link between the two, offering pathways for cultural innovation and revitalization. From the perspective of integrated heritage systems, scene typologies are structured hierarchically as follows: Scene Units: constituent elements of cultural scenes; Scene Clusters: typological groupings of cultural scenes; Scene Cluster Groups: aggregations of scenes across a town; Scene Aggregations: macro-level systems aligning with the national cultural heritage framework.

Step 3: Scene-Based Diagnosis through Measurement. This involves two diagnostic approaches: Scene Cluster Value Assessment—quantifying the cultural value supply by comparing actual scene characteristics with expected symbolic representations. Scene Cluster Group Value Diagnosis—evaluating the integrity of the value system at the emotional, behavioral, and identity levels.

Step 4: Integrated Scene Analysis and Strategic Response. Using a holistic approach, this step synthesizes comfort amenities, user groups, social network structures, activities, and value orientations to analyze cultural transmission bottlenecks and formulate adaptive planning strategies for historic towns.

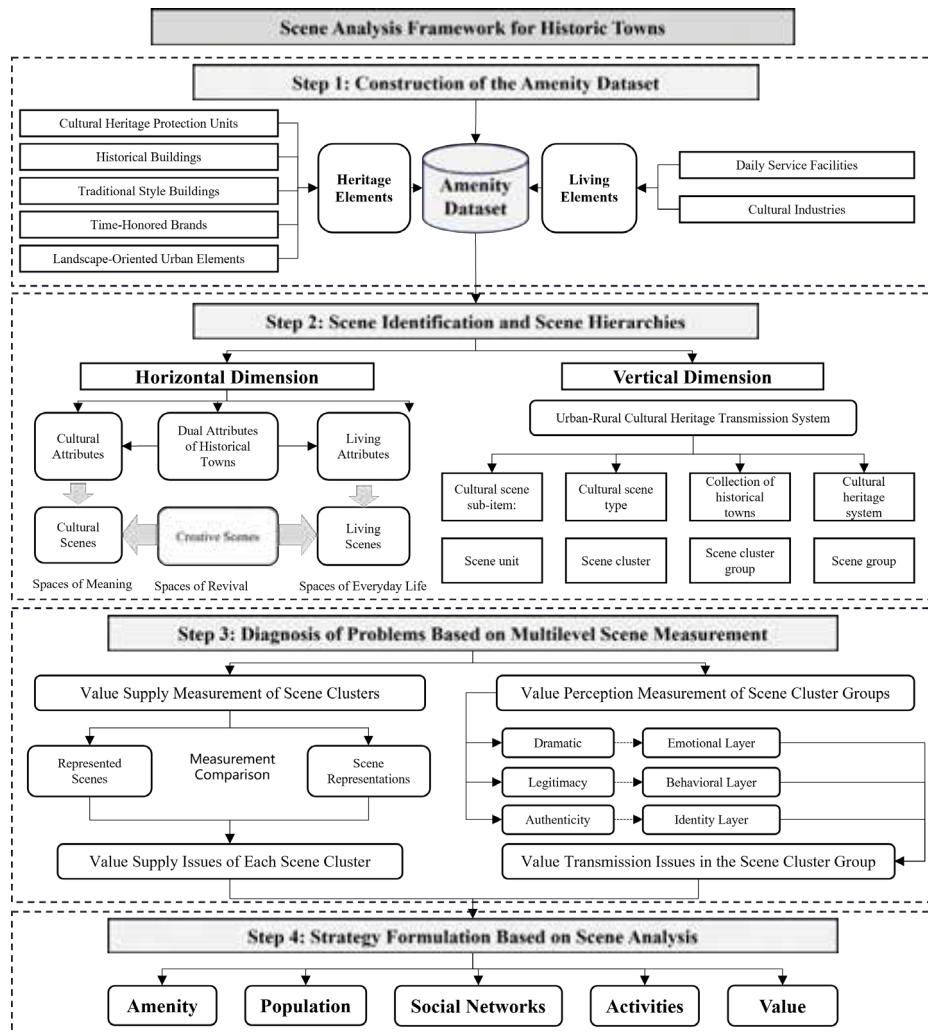


Fig1 Analysis framework of historical town scenes

4. Empirical Study: Scene Analysis of Mizhi Historic Town

4.1 Overview of Mizhi Historic Town

Mizhi, historically known as “Yinzhou,” derives its name from the saying, “the land yields golden streams and fertile soil; its rice juice is as smooth as fat.” In 2023, it was designated as the sixth batch of provincial-level historic and cultural cities by the Shaanxi Provincial Government. Located in the Wuding River Basin in eastern Yulin City, Shaanxi Province, Mizhi lies in the transitional zone between agriculture and pastoralism in the middle reaches of the Yellow River. It has long served as a cultural intersection between farming and nomadic civilizations, fostering a rich and diverse heritage that remains vibrant today through numerous forms of intangible cultural heritage.

On one hand, Mizhi boasts abundant historical and cultural resources, including 50 officially protected heritage sites, 59 historic buildings, and 64 items of intangible cultural heritage at or above the county level. On the other hand, situated in the heart of the Loess Plateau, the town faces significant challenges due to its fragile ecological environment, the demographic siphon effect of the Xi'an metropolitan area, and a resource-dependent industrial structure. These factors have led to a reconfiguration of the local social structure and hindered the transformation of rich historical resources into drivers of urban revitalization. As such, Mizhi represents a typical case among China's historical towns, highlighting the developmental constraints faced by many similar locales.



Fig2 satellite image of Mizhi historic town

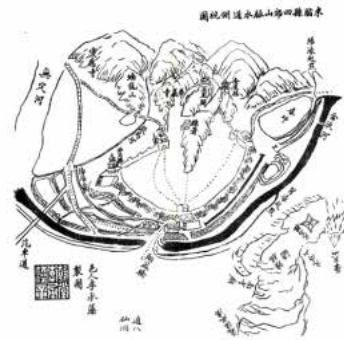


Fig3 The landscape layout map in the county annals

(Source: Mizhi County Annals)

4.2 Research Setting and Data Source

This article takes “Mizhi” as the keyword, and searches on websites such as Weibo, Douyin, and Ctrip. Through Python programming, 785 pieces of online text data were crawled. After data cleaning, 512 online review data related to Mizhi were obtained.

Then, through a Python program connected to an AI large model, multimodal analysis was conducted on the online text data. It obtained keyword strength and keyword information based on the comprehensive number of likes, reposts, and comments, as well as the emotional tendency attached to the online texts.

4.3 Cultural Scene Identification

Based on fieldwork and questionnaire surveys, a “comfort objects” database was constructed for Mizhi Historic Town. Four distinct types of cultural scenes were identified through thematic categorization:

4.3.1 Scholarly Culture Scene

Mizhi is renowned as a cradle of education and literature in northern Shaanxi. It was once said, “Every three steps there’s a scholar’s courtyard; every five steps, a residence of a successful candidate.” During the Ming and Qing dynasties, Mizhi produced 24 military and civil jinshi, a successful candidate in the highest imperial examinations, 105 juren, a successful candidate in the imperial examinations at the provincial level, and 345 tribute students, earning it the name “Cultural District of Shaanxi.” Notable figures include Li Jiqian, Li Dingming, Du Bincheng, Du Yuming, Li Jianhou, and Ma Jianling. Comfort objects in this scene include academies, ancestral halls, historic residences, and literary landmarks.

4.3.2 Landscape Culture Scene

The county’s majestic topography, marked by hills and gullies, exemplifies classical Chinese geomantic principles. The town is strategically situated “facing mountains and overlooking water,” with northern elevation provided by Phoenix Ridge and southern proximity to three rivers: Yinma, Liu Jin, and Wuding. It is surrounded by Panlong, Wenping, and Xiangfeng Mountains, forming a natural defense. Key comfort objects include mountain and river systems, scenic nodes, and culturally resonant landscape features.

4.3.3 Revolutionary Culture Scene

As part of the revolutionary heartland of Shaanxi-Gansu-Ningxia, Mizhi played a pivotal role during the Anti-Japanese War and the Chinese Civil War. It hosted early communist institutions like the Mizhi Party Branch and the County Committee, nurturing significant revolutionary developments. Associated comfort objects include martyrs’ memorials, revolutionary heritage sites, and historical signage.

4.3.4 Loess Culture Scene

Situated at the intersection of agrarian and pastoral civilizations, Mizhi developed a unique regional identity blending both traditions. Its rich folk customs and tangible heritage reflect the essence of the Loess Plateau. This category includes intangible cultural heritage like paper cutting, suona music, and folk tales, with comfort objects encompassing cave dwellings, traditional hamlets, and folk performance spaces.

4.4 Measuring Cultural Scenes in Historic Towns

4.4.1 Scene Clusters Based on Representation of Scene

In the context of historic towns, scene representation refers to the projected scenes constructed by governmental bodies and planners under specific ideological and planning frameworks. These representations reflect the top-down expectations for cultural expression and spatial organization.

Scene cluster measurement under this logic relies on policy-based weighting, where cultural assets are scored according to their protection status: National-level protected heritage sites: 50 points; Provincial-level sites: 40 points; Municipal/county-level sites: 30 points; Registered historic buildings: 20 points; Other minor cultural elements: 10 points; Non-contributive points: 5 points. Using this scoring system, comfort objects associated with six previously identified scene types (Scholarly, Landscape, Revolutionary, Loess, Everyday, and Creative) were analyzed. The results were visualized via GIS (see Figure 4).

The analysis reveals several patterns: Scholarly scenes are highly concentrated along West Street, East Street, and around the Palace of Li Zicheng, mainly located in the Ming-Qing Lower Town zone. Landscape scenes align with natural topography, clustering along the town's periphery and in the Song-Yuan Upper Town, while the river-converging Ming-Qing Lower Town shows a notable deficiency. Revolutionary scenes are scattered due to fragmented comfort object distribution, but mainly appear in the Republican New Town and Song-Yuan Upper Town. Loess cultural scenes are shaped by traditional cave dwellings and intangible heritage, concentrated between the Yinma River and Galaxy River, across the upper and lower historical zones. Everyday scenes show a striking vacuum in both major historic zones, indicating insufficient integration of contemporary residential life. Creative scenes, defined by integration of tradition and industry, are sparse and predominantly composed of low-tier education-related facilities, lacking cultural-industrial synergy.

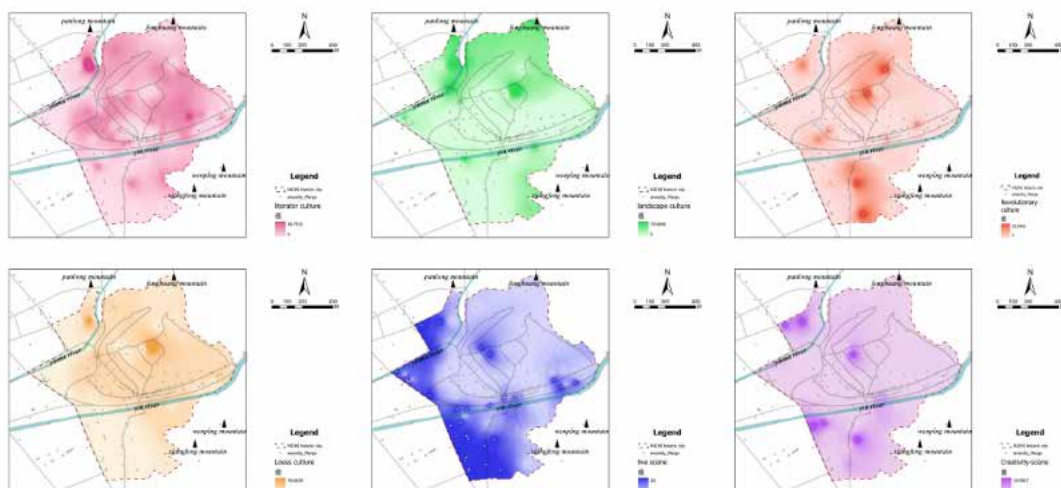


Fig.4 The measure of scene clusters in the representation of scene

4.4.2 Scene Clusters Based on Representational Scene

Representational scenes refer to the meanings assigned to spaces by users such as residents and tourists through symbols, memory, and cultural practices. To evaluate this subjective perception, surveys were conducted with 20 residents and 20 tourists, asking them to rate the contribution of each comfort object to six identified

scene types. A five-point Likert scale was used, and the resulting data were standardized to generate a “Comfort Object-Perceived Intensity Matrix.” These data were then integrated into GIS for spatial visualization (Figure 5).

Overall, the distribution of representational perception values shows greater dispersion than the values from the scene representation perspective. There are no clear high-value clusters, suggesting a lack of strong perceptual hotspots. This implies that the current interpretive and display mechanisms in Mizhi Historic Town are underdeveloped, and public cultural perception is fragmented and ambiguous.

However, substantial spatial overlap between perceived scenes and designed scene representations indicates that comfort objects possess strong inherent cultural attributes that are widely recognized across different user groups.

Key spatial patterns include: Scholarly cultural scenes cluster in the northern areas (Song-Yuan Upper Town and Ming-Qing Lower Town); Everyday life scenes concentrate in the southern Republican New Town; Revolutionary scenes are perceived more strongly than their institutional weightings suggest but lack focal centers; Loess and literati cultures are generally perceived north of the Galaxy River; Landscape culture perception focuses on major mountains (Panlong, Fenghuang, Wenping, Xiangfeng), but riverine landscapes are less perceptible; Creative culture has not formed significant or perceptible clusters.

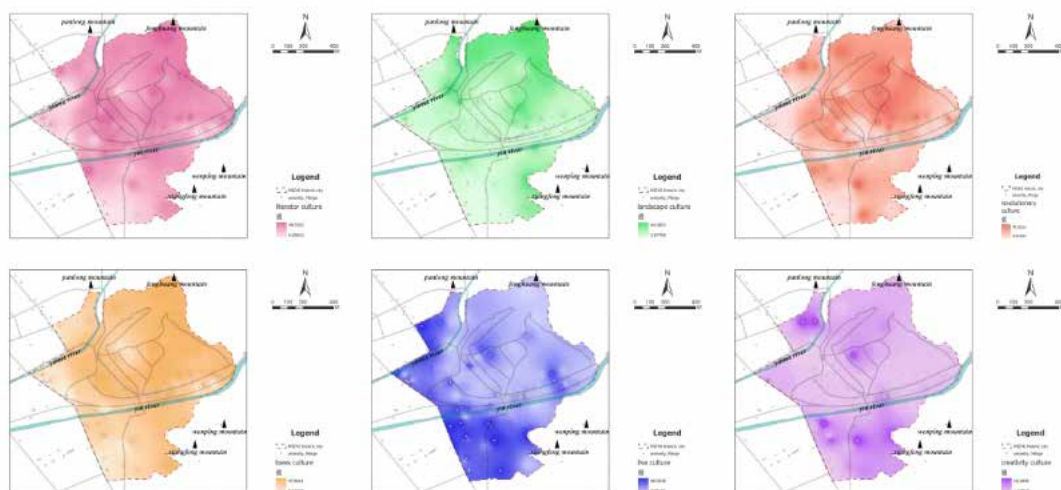


Fig.5 The measure of scene clusters in representational scene

4.4.3 Scene Cluster Value Perception

Based on the web-text data crawled via Python and cleaned accordingly, NVivo 20 was used for word segmentation. The top 60 keywords were selected for coding within the behavioral and identity dimensions. Since emotional inclinations are often implicit in text, Python interfaced with DeepSeek to perform sentiment analysis on individual texts, extracting the top 20 high-frequency emotional words for coding the emotional dimension.

Following grounded theory, a total of 80 keywords and their related texts underwent open coding, axial coding, and selective coding, progressively refining the emotional, behavioral, and identity layers of scene values. This process culminated in the establishment of a value perception framework for the scene clusters of Mizhi Historic Town.

As shown in Table 1 and Figure 6, the emotional layer clusters into five categories: joy, pride, comfort, sadness, and negativity. Positive emotions (joy, pride, comfort) accounted for 67%, indicating that the scene clusters generally evoke significant positive affect. Joy and pride primarily stem from awe and grandeur related to heritage sites, while comfort arises from the town's atmosphere. Sadness accounts for 7.62%, largely reflecting reflections

on historical events; negative emotions comprise 25%, partly due to resentment towards certain negative historical figures and partly due to ecological challenges faced in Northern Shaanxi.

Behaviorally, clusters are categorized as nostalgic, innovative, integrative, and philanthropic. Nostalgic behavior dominates at 45%, demonstrating strong public reminiscence and respect for heritage. Integrative behavior follows at 32.5%, showing a sense of affinity and participatory intention toward the town. Innovative behavior stands at 19.3%, reflecting a strong public interest in new developments. Philanthropic behavior is the least prevalent, mainly driven by official initiatives and lacking spontaneous societal engagement.

The identity layer divides into local, national, ethnic, historical, and fashionable identities. Historical and local identities predominate, reflecting the profound historical and regional cultural significance of Mizhi. National identity ranks next, based more on general patriotism without strong resonance to the town's red heritage. Ethnic and fashionable identities extend from regional ties and contemporary trends.

From score distribution and item concentration analysis (Figure 7), high cohesion in pride and comfort (emotional), philanthropy (behavioral), and fashionable and ethnic identity dimensions are pivotal for optimizing cultural heritage transmission in Mizhi. Attention must also be paid to mitigating concentrated negative sentiments regarding environmental facilities.

Table 1 Value Perception Metrics of Scene Clusters in Mizhi Historic Town

Selective coding	Axial coding	Open coding	Example
Emotion	Delighted	Liked (68), Affirmed (60), Praised (54), Amazed (10), Anticipated (13)	"Visited Li Zicheng's Palace on Panlong Mountain. The architecture towers majestically, exuding imperial grandeur."
	Proud	Shocked (17), Excited (16), Proud (15), Admired (4), Recalled (2)	"The palace appears solemn and majestic, narrating the glory of past dynasties."
	Comfortable	Suitable (20), Romantic (20), Leisurely (12), Refreshing (12), Satisfying (6), Pleasant (7)	"Had lamb offal with Chinese hamburger in Mizhi—absolutely delicious!"
	Sentimental	Regretful (23), Campaigns (10), Sorrowful (4), Disappointed (2)	"Though the rebellion failed, the grandeur of the palace remains a poignant memory."
	Negative	Indifferent (86), Resentful (24), Angry (13), Disgusted (4)	"Dusty winds in Mizhi—feels like eating sand outdoors."
Behavior	Nostalgic	Historical past (83), Transitions (64), Deeds (45), Remembrance (42), Exclamation (30);Nostalgia (6)	"Though Li Zicheng failed, his deeds inspire generations."
	Novelty	North of shaanxi Ballads (52), Cultural Festivals (43), Folk Songs (20)	"A north of shaanxi folk song is now trending in local tourism promos."
	Integrative	Participate (48), Recommend (46), Together (45), Follow (32), Charm (23)	"Joined local folks, danced Mizhi's sky and waters into memory."
	Public	Caring (10), Friendly (5), Warm (2)	"Story-sharing event featuring Mizhi's local role models."

Identity	Regional	Place (413), Mizhi Millet (275), Cave dwellings (97), Mizhi Aunts (91), Home-town (89), Loess (82), Taste (30), Down-to-earth (12), Paper-cutting Art (24), Intangible Cultural Heritage (37), Li Dingming Clinic (6), Iron Flower (20)	With a quick stroke of the knife, cut it into thin shreds and pour it over the simmered minced meat. That's the taste of home.
	Historical	Li Zicheng (314), History (167), Western Xia (145), Ming Dynasty (123), Period (107), Emperor (24), Ancient Times (28), Emperor Xiaowen of Northern Wei (12), Tongwan City (4)	In Chinese history, Li Zicheng is an inescapable figure. This "pioneer" from Mizhi County, Shaanxi Province, led the peasant army to launch a nationwide uprising, eventually overthrowing the Ming Dynasty and establishing the Great Shun.
	National	China (170), the State (138), "Dawn" (24), the Yan 'an Spirit (20), the Eighth Route Army (11), the War of Liberation (6)	Mizhi County held a research and study activity for the "Red Millet" cultivation project. This event closely combined red education, cultural inheritance and knowledge learning, allowing students to receive spiritual cleansing in a variety of rich and colorful activities.
	Fashionable	National Trend (25), Pop-up (20), style (12)	The rice fat in Hayao Miyazaki's paintings is undoubtedly a romantic collision of Oriental rural and fantasy aesthetics
	Ethnic	Ethnicity (74), Military (51), Ancestor (19), Thousand-year-old County (17), Genealogy (10), Descendants (7), Continuation (5), Branch (3)	"The Du clan of Mizhi traces its lineage over 800 years through detailed records."

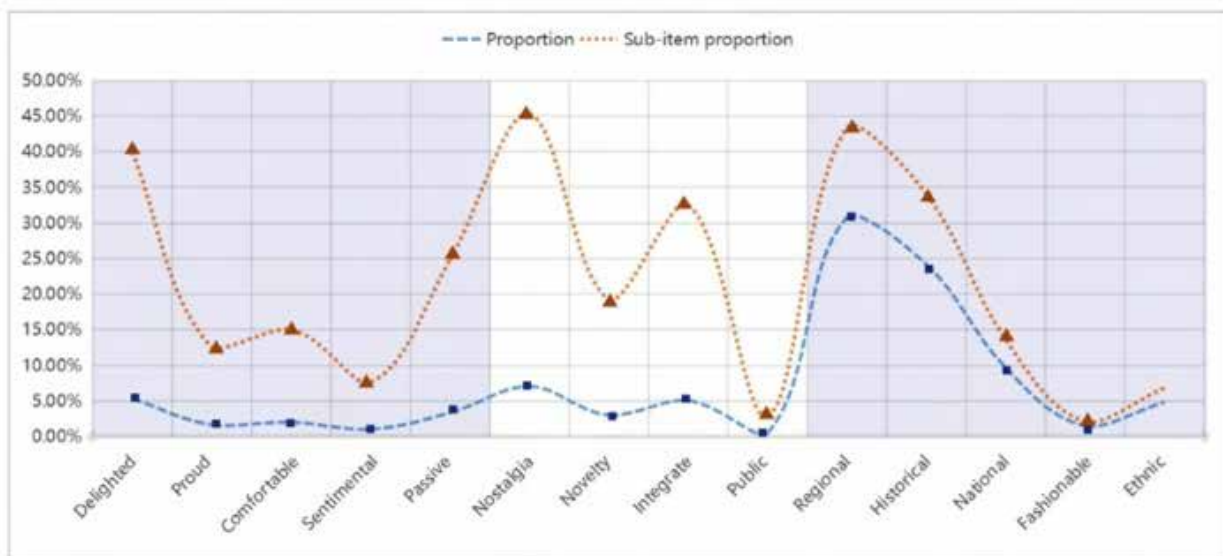


Fig6 The scores and the number of items of the scene cluster values

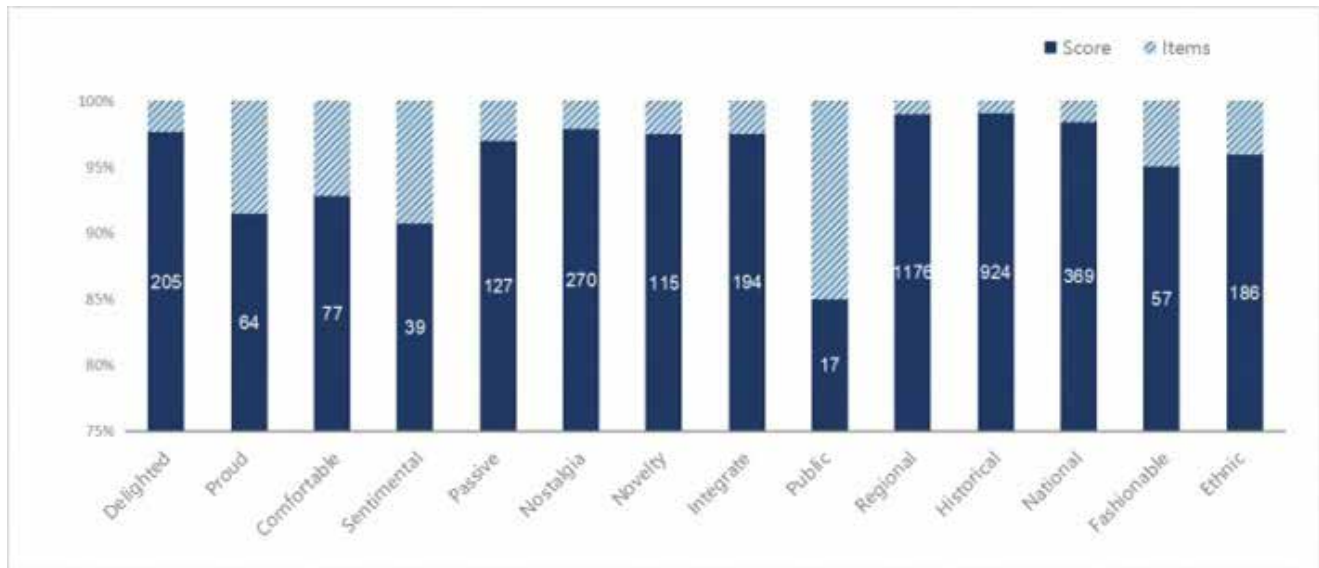


Fig7 The scores and the number of items of the scene cluster values

To conclude, the scene-based evaluation of value transmission in Mizhi Ancient Town reveals three key challenges: First, there is a clear rupture in everyday life scenarios, as local cultural elements have not been effectively transformed into creative or experientially meaningful scenes, leading to a disconnect between daily practices and cultural representation. Second, a structural mismatch exists between the supply of and demand for landscape-oriented and red culture scenes. This has resulted in an unclear, even chaotic, perception of cultural clusters, undermining the coherence of scene-based cultural value. Third, the value perceptions within the scene clusters tend to focus on grand historical and national narratives, or on aesthetic enjoyment derived from historical atmospheres, rather than cultivating targeted cultural transmission or sustaining distinct cultural types embedded in each scene. Notably, there is an emerging enthusiasm for integrating traditional culture with contemporary, trendy expressions. Effectively channeling this momentum to enhance emotional resonance, behavioral engagement, and identity expression will be crucial to realizing the creative transformation and innovative development of traditional Chinese culture.

5 Conclusion

Space in itself holds no inherent meaning. It is through the diverse needs of individuals—manifested in comfort objects, neighborhood interactions, and human activities—that space materializes into scenes and acquires meaning. Responding to the practical challenges of value transmission in China's historical towns, this study constructs a localized scene analysis framework rooted in Clark's scene theory and informed by Lefebvre's theory of spatial production. By incorporating the dual perspectives of "scene representation" and "represented scenes," the framework enables measurement of scene clusters to reveal mismatches in value supply within the spatial production process.

Building on this, the paper evaluates the value transmission of historical town scenes from the perspective of collective value perceptions across scene clusters. It further examines whether the transmission process effectively achieves both spiritual inheritance—from heritage to human consciousness—and living cultural revitalization—from preservation to regeneration.

Creative scenes, as intermediaries between cultural and everyday life scenes, play a critical role in mediating traditional and modern cultural expressions. Using the value dynamics of scene clusters as indicators, this approach provides a viable method to assess the direction and effectiveness of value transmission in historical towns. Moreover, scene connections at varying scales offer a practical pathway for linking different levels and missions

of urban-rural cultural heritage.

Finally, while the scene analysis framework offers a holistic tool for evaluating outcomes and influencing factors of value transmission in historical towns, it remains limited in diagnosing specific combinations of comfort objects, user groups, and activities. Thus, it is imperative to integrate process-based assessments of cultural transmission effectiveness, in order to identify actionable elements and links, and ultimately enhance the overall effectiveness of cultural inheritance in historical towns.

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