

Integration of *In-situ* Authenticity and Narrativity: Strategies and Practices for Creating a Sense of Spatial Presence in Site Museum—A Case Study of Liu He's Tomb in the Marquis of Haihun State

Jingwei FANG

College of Fine Arts, Jiangxi Normal University, Nanchang 330200, China

Abstract Focusing on Liu He's Tomb within the Han Dynasty Marquis of Haihun State Site Park in Nanchang, this study employs a literature-based approach to systematically explore the interrelationships among *in-situ* authenticity, narrativity, and spatial sense of presence. It identifies the current challenges related to *in-situ* conservation, narrative expression, and the construction of sense of presence at Liu He's Tomb. By addressing four *in-situ* conservation and utilization, reconstruction of the narrative system, multi-sensory scene creation, and the appropriate empowerment of technology, the paper proposes concrete strategies for fostering spatial sense of presence. These strategies are subsequently implemented in a site-specific design practice at Liu He's Tomb. The work offers both a theoretical reference and a practical paradigm for comparable tomb-type site museums in their efforts to merge *in-situ* authenticity with narrativity and to strengthen spatial sense of presence. The study concludes that only through a firm commitment to *in-situ* authenticity, the construction of an integrated narrative, and the reinforcement of immersive scenes can a site museum truly "make history present", thus advancing the living transmission of cultural heritage today.

Key words *In-situ* authenticity, Narrativity, Site museum, Sense of spatial presence, Liu He's Tomb, Strategy for creation

0 Introduction

As China's cultural heritage conservation efforts continue to advance, the site museum has evolved from a traditional "container for displaying artifacts" into a "field for historical experience". Accordingly, public demand has shifted from "passive viewing" to "active immersion," with visitors aspiring to obtain cross-temporal historical experiences and emotional resonance through the spatial context of the site. The Ruins of the Marquis of Haihun State in Nanchang, dating to the Han Dynasty, represent the largest, best-preserved, most structurally complete, and richest conurbation settlement of a marquessate capital currently discovered in China. Its core component (the Tomb of Liu He) is the burial ground of Liu He, the first-generation Marquis of Haihun of the Western Han Dynasty, a former King of Changyi and deposed emperor, along with some of his family members. Covering an area of approximately 46 000 m², the tomb fully embodies the Han Dynasty mortuary concept of "serving the dead as if they were living, and treating the departed as if they were present," as well as its hierarchical system. To date, over 10 000 sets of precious artifacts, including gold, jade, and bronze wares, have been unearthed here, endowing the site with exceptional historical, academic, and exhibition value.

However, as the core venue for presenting the Western Han marquessate burial system, the turbulent life of Liu He, and the social landscape of the Han Dynasty, the Liu He's Tomb exhibition hall still suffers from insufficient *in-situ* utilization, fragmented narrative logic, and a weak sense of spatial presence. It has failed to fully achieve the organic integration of *in-situ* authenticity and narrativity, and therefore struggles to meet the public's demand for immersive experiences.

Taking the Tomb of Liu He as an example, this paper focuses on the core proposition of integrating *in-situ* authenticity and narrativity, and systematically explores strategies and practical pathways for creating a sense of spatial presence in site museums. By reviewing relevant theories, analyzing existing problems, and constructing a scientific framework for spatial presence, the study carries out design practices tailored to the specific conditions of the Liu He's Tomb site. This approach not only improves the exhibition quality and experiential effect of the Liu He's Tomb exhibition hall, but also provides transferable insights for the high-quality development of similar burial-type site museums in China. Ultimately, it promotes the deep integration of cultural heritage conservation and utilization, achieving the living transmission of history and culture as well as the regeneration of heritage value.

1 Construction of creation framework and influencing factors of site museum sense of spatial presence

1.1 Construction of creation framework

1.1.1 The *in-situ* reliance dimension. This dimension serves as the foundation for creating a sense of spatial presence. Its core principle is to uphold the authenticity and integrity of the site while making rational use of *in-situ* spaces and relic resources. It consists of three main components: First, *in-situ* protection: strictly following cultural heritage conservation principles to preserve the authenticity of the site's physical remains, stratigraphic relationships, and layout of relics, while avoiding excessive restoration or alteration. Second, *in-situ* utilization: rationally planning exhibition spaces and visitor routes based on the site's form and layout, allowing the public to engage closely with and experience the site. Third, environmental continuity, protecting the surrounding historical environment and natural landscape, creating a spatial atmosphere consistent with the site's historical period, and ensuring the continuity of the historical context.

1.1.2 The narrative support dimension. This dimension is central to creating a sense of spatial presence. Its key lies in con-

structing a complete, vivid, and emotionally resonant historical narrative system, and achieving deep integration between narrative and the *in-situ* space. It comprises three main components: First, narrative content construction—sorting out the historical events, character stories, and cultural connotations behind the site to form a layered narrative logic spanning "macro, meso, and micro" scales. Second, narrative method design—adopting a "spatial narrative" approach in alignment with the spatial sequence of the *in-situ* site, allowing narrative content to advance in sync with the visitor circulation route. Third, emotional narrative reinforcement—excavating the human emotions and values embedded in the site, guiding the public toward emotional resonance, and strengthening the psychological experience of "being there."

1.1.3 The immersive realization dimension. This dimension is the key to creating a sense of spatial presence, with its core being the use of multi-sensory stimulation, spatial atmosphere construction, and technology empowerment to enable the public to gain an immersive historical experience within the *in-situ* space. It mainly comprises three core components: first, multi-sensory scene construction, integrating visual, auditory, tactile, and other sensory elements to build a scenographic experience consistent with the historical context; second, spatial atmosphere optimization, employing design elements such as light, shadow, materials, and scale to create an atmosphere that aligns with the narrative content; and third, moderate technology empowerment, applying digital technologies to supplement invisible historical information, thereby enhancing the depth and appeal of the experience while avoiding technological over-stacking.

1.2 Core influencing factors

1.2.1 The authenticity and rationality of *in-situ* utilization. The authenticity and integrity of *in-situ* preservation, as well as the rationality of *in-situ* utilization, are core factors affecting the sense of spatial presence. If *in-situ* preservation is inadequate, excessive restoration or alteration will damage the authenticity of the site, making it difficult for the public to have a "truly present" experience. If *in-situ* utilization is irrational, with poorly designed visitor routes and poor visibility of the relics, it will impair the public's perception of the site and weaken the sense of presence. For example, at the Tomb of Liu He, if preservation efforts overly restrict public viewing distance and angles, visitors will find it hard to closely experience the tomb's form and details of the relics, thereby hindering the creation of a sense of spatial presence.

1.2.2 Integrity and emotionality of the narrative system. The integrity, logical coherence, and emotional quality of the narrative system directly affect the public's cognitive and emotional experience, and consequently influence the sense of spatial presence. If the narrative content is fragmented and logically chaotic, the public will struggle to understand the site's historical connotations and value, and will fail to generate emotional resonance. If the narrative lacks emotional expression and merely lists historical facts in a simplistic manner, the public will remain in the role of "spectators" and find it difficult to achieve the psychological shift toward "being present." The narrative core of the Tomb of Liu He is the turbulent life of Liu He. If his life trajectory is not effectively integrated with the tomb site and the unearthed artifacts, the narrative will lack coherence and emotional tension, thereby weakening the sense of spatial presence.

1.2.3 Experiential quality and adaptability of spatial atmos-

phere. The creation of spatial atmosphere and the adaptability of multi-sensory experience are key factors in strengthening the sense of spatial presence. Elements such as light and shadow, materials, scale, and sound must be compatible with the historical period of the site and the narrative content in order to construct a scenographic atmosphere consistent with the historical context. At the same time, the design of multi-sensory experiences must align with visitors' perceptual habits, employing multidimensional stimuli including sight, hearing, and touch to enable the public to experience historical scenes in an all round way and to reinforce the "being on site" sensation. For example, the solemn and deep atmosphere of a Han Dynasty tomb space should be created using low illumination lighting, rustic materials, and quiet sound effects. If a bright, modern spatial design were used instead, it would become disconnected from the historical context, thereby weakening the sense of presence.

2 Combing the space of Liu He's Tomb exhibition hall

2.1 Balance between *in-situ* protection and display The Liu He's Tomb exhibition hall conducts its exhibition layout based on the site itself, adopting strict protective measures for core features such as the main tomb and the chariot- and-horse pit while preserving the original spatial layout of the tomb and pit. It recreates the relic scene of the chariot- and-horse pit as it appeared during archaeological excavation, allowing visitors to feel like being on an actual dig and experiencing the excavation process in a tangible way. The exhibition hall also displays a restored model of the four horse chariot unearthed from the pit, paired with a mural of chariot processions, offering visitors a direct impression of the majestic dignity of Han Dynasty princes and marquises on the move. At the same time, unearthed artifacts are presented through a combination of centralized display in the front museum and *in situ* display within the cemetery. This approach effectively ensures the integrity and safety of the site, echoes the atmosphere of the Han Dynasty burial environment and the character of the artifacts, and further strengthens the historical gravitas of the *in situ* context.

2.2 Richness and emotionality of narrative methods The Liu He's Tomb exhibition hall systematically conveys historical information related to Liu He's life and Han Dynasty burial culture through traditional means such as graphic panels and audio guides. The content is rigorous and logically organized, providing effective support for the public to understand the site's history. However, there remains potential for optimizing current narrative methods. Compared to passive information delivery, interactive and experiential design elements could be appropriately introduced to further stimulate public engagement. Moreover, while the narrative content is solid in its presentation of historical facts, future efforts could deepen emotional exploration and the interpretation of humanistic connotations, placing greater emphasis on the emotional expression of Liu He's turbulent life and elaborating on the cultural significance of the Han Dynasty mortuary concept of "serving the dead as if they were living" as well as the hierarchical system of the marquise.

2.3 Integration degree of technology application The Liu He's Tomb exhibition hall has actively introduced digital technologies to restore and display the structure of the main tomb and important burial objects, while using naked-eye 3D dynamic presen-

tations to introduce the various chambers and collections of Liu He's tomb. Above the tomb pit, a 360 degree four-side suspended screen presents the construction process of the tomb and the funeral rituals of Han Dynasty marquises, offering a panoramic restoration of the Han people's belief in "serving the dead as if they were living" over 2 000 years ago. This provides the public with a diversified viewing experience and reflects a proactive exploration of modern exhibition technologies. However, in the process of technological application, further attention could be paid to balancing entertainment value with historical authenticity and emotional resonance.

3 Strategies of creating sense of spatial presence based on the integration of *in-situ* authenticity and narrativity

3.1 Optimizing the protection and utilization of the original site and consolidating the foundation of sense of presence

In the conservation and display of the Liu He's Tomb site, a balance has been maintained between *in-situ* protection and exhibition functions, strictly following the principle of "minimum intervention." Protective displays have been implemented for core features such as the main tomb, the chariot and horse pit, and the sacrificial architectural remains. Traditional isolation barriers have been replaced with transparent protective facilities, ensuring site safety while allowing visitors to observe details up close. For features requiring restoration, materials and techniques consistent with those of the Han Dynasty have been adopted; for example, rammed earth-imitating materials and logs have been used for the sacrificial architectural remains, preserving the original texture and historical authenticity to the greatest extent possible. Meanwhile, the spatial layout and visitor route of the insite area have been optimized. Based on the original layout of the cemetery, a narrative circulation following the sequence of "prelude → introduction → development → transition → climax" has been constructed. Combined with multiangle viewing platforms and sunken corridors, this enables an allround perceptual experience. The barrier between artifacts and site display has been broken; unearthed artifacts are returned to their corresponding spatial contexts for display, strengthening spatial coherence. The architectural style of the exhibition hall incorporates Han Dynasty elements, using materials such as rammed earth imitations and logs to harmonize with the site and its natural environment. In addition, the surrounding historical setting has been protected; incongruous modern facilities have been removed, plants common in the Han Dynasty have been introduced, and sacrificial scenes have been recreated, thereby extending the historical context and cultural atmosphere. Altogether, these measures enhance the authenticity, integrity, and experiential quality of the site.

3.2 Reconstructing the narrative system and strengthening the support of sense of presence

The display of the Marquis of Haihun State site takes "the turbulent life of Liu He" as its main narrative thread, constructing a layered narrative system spanning "macro, meso, and micro" levels. At the macro level, it interprets the history of the Marquis of Haihun State, the Western Han marquisate system, and Han burial concepts. At the meso level, it traces Liu He's life trajectory from King of Changyi, deposed emperor, commoner, to Marquis of Haihun, and interprets the influ-

ence of his personal experiences on the tomb's form in relation to the burial layout. At the micro level, it draws on unearthed artifacts and details of the remains to present Han Dynasty craftsmanship, daily customs, and humanistic spirit, while simplifying specialized terminology to enhance accessibility. In terms of narrative methods, the exhibition moves away from one-dimensional text-and-image delivery, adopting a combination of spatial narrative and interactive experience. Scenes of ritual music and daily life are recreated in corresponding exhibition areas, using light, shadow, and sound to create atmosphere, while interactive installations are provided to engage visitors, thereby enhancing enjoyment and emotional resonance. Furthermore, the narrative should be deeply integrated with the *in-situ* space. The narrative sequence is designed according to the cemetery's layout and the distribution of remains. The main tomb, chariot and horse pit, sacrificial architecture, and other exhibition areas correspond respectively to burial concepts, travel rituals, and sacrificial culture, allowing visitors to immerse themselves in a historical experience within the actual spatial context.

3.3 Creating multi sensory scenes to enhance the sense of presence experience

The display at the Marquis of Haihun cemetery creates an immersive historical experience through multi sensory intervention, spatial atmosphere construction, and viewpoint transition design. At the multi-sensory level, visually, Han Dynasty materials such as simulated rammed earth, logs, and granite are used to restore architectural features, while murals and scene reconstructions depict daily life and burial rituals. Audibly, Han ritual music, environmental sounds, and chariot sound effects are matched to the themes of different exhibition areas. Tactilely, experience zones are set up for artifact materials and sacrificial implements. Olfactorily, scents of grass, wood, and incense are added to heighten the feeling of being on site. The spatial atmosphere changes with the narrative emotions: the Changyi Years area is open and bright with warm tones, creating a relaxed atmosphere; the Confinement area is narrow, dim, and cool in tone, emphasizing depression and oppression; the main tomb area uses low illumination accent lighting to convey solemnity and dignity, guiding emotional shifts through changes in light, shadow, and scale. Meanwhile, through the visitor route and first person scene design, the public is guided to shift from being spectators to historical participants, allowing them to perceive site details up close and identify with Liu He's turbulent life, thereby achieving deep identity resonance and emotional connection.

References

- [1] WU YQ, LI SP, ZHANG WL. Study on site museum[J]. Relics and Museology, 1996(1): 86-97. (in Chinese).
- [2] SUN X. Study on individual characteristics of site museum[J]. Chinese Museum, 1989(4): 62-66. (in Chinese).
- [3] HUANG Y. Classification of archaeological site museum[M]//East Asian Civilizations. Beijing: Social Sciences Academic Press, 2019: 273-281. (in Chinese).
- [4] WITMER BG, SINGER MJ. Measuring presence in virtual environments: A presence questionnaire[J]. Presence: Teleoperators and Virtual Environments, 1998, 7(3): 225-240.
- [5] WIRTH W, HARTMANN T, VORDERER P. A process model of the formation of spatial presence experiences[J]. Media Psychology, 2007, 9(3): 493-525.