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Virtual–Real Symbiosis in Platform Communication: A Qualitative Study of Gamified Digital Heritage

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Abstract: High-fidelity games increasingly function as communication environments for cultural heritage. Taking Black Myth: Wukong as a qualitative case, this article examines how virtual heritage spaces are recognised, experienced, and discussed across gameplay and social media. The study draws on embodied participant observation and online ethnographic materials from Bilibili, Weibo, and Rednote. The findings show that place naming and architectural correspondence make virtual scenes traceable; repeated navigation turns them into remembered fields of action; and platform users transform this familiarity into practices of comparison, route sharing, and cultural interpretation. These practices differ by platform: Bilibili foregrounds spatial explanation and player experience, Rednote favours visual comparison and check-in narratives, while Weibo links individual expressions to public discussions of regional culture and tourism. The article argues that virtual–real symbiosis is a situated process of meaning-making rather than an automatic conversion from media exposure to travel.

Keywords: Gamified digital heritage; Embodied communication; Online ethnography; Platform communication; Virtual–real symbiosis

Introduction

The digitisation of cultural heritage has traditionally focused on visual preservation and online presentation (Cameron, 2007; Kalay et al., 2008). Technologies such as virtual exhibitions, 3D modelling, and panoramic tours have made it possible to present heritage sites and artefacts to the public through digital images and virtual reconstructions. In this paradigm, digital technologies have primarily served as tools for documenting physical heritage, producing what might be called "mirror-like records" of real-world sites. Consequently, audiences have often engaged with heritage through a form of disembodied viewing, limited largely to visual observation rather than active, embodied participation (Parry, 2007; Champion, 2015; Urry, 2002).

While this approach has significantly broadened public awareness of cultural heritage, it has struggled with the persistent challenge of "high exposure but low conversion." Many digital projects generate considerable online attention, yet this rarely translates into increased on-site visits, tourism consumption, or more meaningful forms of engagement (Guttentag, 2010; Yung & Khoo-Lattimore, 2019). As tourism research has long noted, symbolic viewing under the "tourist gaze" does not automatically lead to real-world action (Urry, 2002). Meanwhile, cultural heritage spaces continue to be reshaped by the dynamic interplay between tourism practices and media narratives (Waitt, 2000). Against this backdrop, this paper examines the role of high-fidelity game-based heritage reconstructions and explores their potential to bridge the gap between digital cognition and embodied action.

Existing studies have focused on psychological mechanisms such as immersion and presence (Lombard & Ditton, 1997; Jennett et al., 2008; Tussyadiah et al., 2018), while devoting less attention to embodied participation and the active role of players as agents. Immersion is generally understood as arising from sustained attention to the virtual environment and the feedback generated through interaction (Jennett et al., 2008; Brown & Cairns, 2004). Embodiment, by contrast, emphasises how individuals construct experience through sensory-motor coupling and spatial interaction (Merleau-Ponty, 1962; Dourish, 2001). Compared with immersion alone, embodied participation is more likely to foster a lasting sense of place, thereby providing a stronger

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cognitive foundation for behavioural change (Grodal, 2003; Calleja, 2011).

The release of the Chinese-developed AAA game Black Myth: Wukong in 2024 provides a revealing case for examining these issues. By using photogrammetry and high-fidelity modelling, the game reconstructs landscapes that players and online communities repeatedly associate with identifiable heritage sites. Through movement, combat, exploration, and subsequent platform discussion, these spaces become objects not only of visual recognition but also of narrated familiarity and comparison. Publicly circulated accounts of 'travelling through Shanxi in the footsteps of Wukong' therefore offer qualitative material for examining how participants interpret the passage from virtual experience to tourism-related imagination and practice (Xinhua News Agency, 2024; Xiang & Gretzel, 2010; Jacobsen & Munar, 2012; Gretzel & Fesenmaier, 2006).

From a technological perspective, high-fidelity game engines are increasingly serving as powerful tools for the restoration and representation of cultural heritage (Champion, 2015; Jenkins, 2006). However, dissemination driven by commercial gaming logics also introduces new challenges. While such approaches can significantly enhance the visibility of heritage, they may simultaneously promote decontextualised interpretations and generate governance pressures arising from sudden surges in visitor attention. These dynamics create tensions between cultural reproduction and the commercial imperatives of digital platforms (Jenkins, 2006; van Dijck, 2013; Bucher, 2018).

Against this backdrop, the article focuses on the qualitative meanings produced around playable heritage rather than measuring tourism conversion. It asks how participants recognise physical prototypes, narrate embodied familiarity, and negotiate cultural and commercial meanings across platform contexts.

RQ1. How do players construct connections between virtual scenes and physical heritage sites through gameplay and online narration?

RQ2. How is embodied familiarity expressed through comparison, route sharing, and site-oriented imagination?

RQ3. How do different platform contexts shape the cultural interpretation and circulation of these virtual–real connections?

Drawing on embodied communication, indexicality, and platform studies, this paper provides a qualitative account of how playable heritage acquires public meaning. Its contribution lies in platform-sensitive interpretation rather than behavioural prediction or model testing.

Literature Review and Analytical Perspective

Studies of digital heritage have largely examined preservation, visual representation, remote access, immersion, and destination evaluation (Cameron, 2007; Kalay et al., 2008; Tussyadiah et al., 2018). These approaches explain why digital environments attract attention, but they say less about how users themselves connect a game space to a physical site through naming, navigation, comparison, and public narration. Media-pilgrimage research provides a useful account of visits to locations associated with media texts, while platform research draws attention to how visibility and meaning are organised by communicative formats and algorithmic conditions (Beeton, 2005; Reijnders, 2011; van Dijck, 2013; Bucher, 2018).

This article uses three sensitising concepts without treating them as a linear causal model. Indexicality describes how place names, architectural details, and spatial correspondence point towards identifiable physical sites (Peirce, 1932; Barthes, 1977). Embodied communication explains how movement, repetition, and feedback produce route knowledge and spatial familiarity (Dourish, 2001; Calleja, 2011). Platform context clarifies why the same virtual–real relationship is expressed differently through Bilibili explanations, Rednote comparisons, and Weibo public discourse.

Research Methodology

Qualitative case design

This study adopts an interpretivist qualitative case design. Black Myth: Wukong was selected because its high-fidelity heritage reconstructions generated sustained prototype identification, player discussion, and site-oriented content across multiple platforms. In this article, the term high-fidelity game-based heritage reconstruction is preferred to digital heritage reconstruction because the case does not demonstrate continuous data linkage or real-time synchronisation with physical heritage sites. The case is used to develop a contextual interpretation rather than to represent all games or estimate behavioural effects.

The study combines two temporally distinct bodies of material. The online corpus captures public discussion surrounding the game's release between 20 August and 20 November 2024. After date screening, it comprises 46 Bilibili videos with 171 comments from 170 users, seven Weibo posts with 32 comments from 32 users, and 17 Rednote posts with 92 comments from 87 users. Three Bilibili records and eight Rednote records were excluded because their comment dates fell outside the stated window or were missing or misaligned. Exact duplicate comment texts were not found.

The researcher subsequently completed approximately 80 hours of embodied participant observation in 2026. This later observation was used as a retrospective analytical reconstruction of movement, route learning, spatial restriction, and prototype recognition; it was not treated as con-

temporaneous evidence of the 2024 platform response or as proof that the same individuals progressed from gameplay to visitation. The temporal separation is therefore a methodological limitation as well as a means of comparing situated gameplay experience with an earlier public corpus.

Platform materials were retrieved through the keywords documented in the research archive. Videos or posts were deduplicated by BV number or URL, and comments were checked for exact-text duplication. Because platform ranking systems are opaque and dynamic, ranking position was not interpreted as evidence of importance. Materials were retained when they contained substantive descriptions of gameplay, virtual–real comparison, travel-related imagination, site visits, cultural interpretation, or critical and non-travel accounts. The materials were then read repeatedly and compared across field notes and platform contexts. Analysis focused on recurring themes and contrasts rather than on formal grounded-theory coding or frequency counts.

No formal institutional ethics approval or exemption was obtained for this study. To reduce identification risk, the analysis is limited to publicly accessible material; usernames, direct profile links, exact dates, and platform identifiers are omitted from the article; quotations are kept brief and used only when analytically necessary; and the archived source links are retained for internal audit rather than public disclosure. The study does not contact users, infer private characteristics, or reproduce private content.

Qualitative Findings

The analysis follows the movement from playable space to platform narration while attending to differences among communicative contexts. The purpose is to interpret recurring practices and meanings, not to infer their frequency or population prevalence.

The emergence of a field of action: From observation to practice

The research entered the game environment in the dual role of player and researcher. The main storyline was completed on PC, followed by multiple rounds of exploration focused on key locations modelled after Shanxi's cultural heritage sites. Over approximately 80 hours of gameplay, a clear shift in spatial perception became apparent: the heritage environments were no longer experienced merely as objects of visual observation, but were gradually understood and internalised through action.

Upon first entering these locations, the spatial layout felt unfamiliar. Pathways, pavilion arrangements, and the hierarchical organisation of the environment had to be learned gradually through movement, exploration, and trial and error. In the early stages of gameplay, the researcher frequently misjudged routes and, after failing in combat, would often leave the area to explore alternative paths before returning later with newly acquired abilities (**Field Note 1**). Through repeated exploration and navigation, an increasing sense of direction and route familiarity gradually emerged from what had initially appeared as a confusing and disorienting environment. In this process, the body came to understand the spatial structure through action rather than through observation alone (**Field Note 4**). Repeated movement, exploration, and return therefore enabled spatial understanding to develop progressively, rather than being acquired through a single act of visual inspection.

As one BiliBili user commented, "it's very easy to get lost on Huangfeng Ridge; some paths can only be found by consulting a guide" (Bilibili corpus, anonymised). Another remarked, "I can't remember which paths I've already taken. I wish the game would record them on the map" (Bilibili corpus, anonymised). These comments illustrate that spatial understanding develops through continuous movement and exploration rather than through passive observation. Previous studies of games have similarly argued that interactive environments are more than mere settings for narrative or visual presentation. Through rule systems, feedback mechanisms, task structures, and spatial exploration, they actively shape how players perceive and engage with the game world (Li Derun & Liu Yaolin, 2021; Wang Xiaoguang, 2022).

These observations resonate with the concept of sensorimotor coupling in theories of embodied interaction, which posits that spatial meaning emerges through continuous cycles of bodily action and environmental feedback (Merleau-Ponty, 1962; Dourish, 2001). In digital heritage environments, virtual spaces are experienced not merely as representations to be viewed, but as interactive realms that invite exploration and manipulation. Consequently, spatial understanding is constructed primarily through action rather than visual contemplation alone (Champion, 2015; Calleja, 2011).

This process becomes especially evident when opportunities for action are restricted. Invisible walls, for instance, disrupt the relationship between intended movement and spatial understanding. As one player noted," there's a path, there's detailed modelling, and there's even an attic… but an invisible wall blocks the way, so I can't get through" (Bilibili corpus, anonymised). In such moments, visual realism fails to align with the player's capacity to act, thereby weakening embodied engagement with the virtual space.

Heritage spaces are therefore experienced not merely as landscapes of representation, but as fields of action shaped through bodily engagement. Their significance extends beyond that of visual objects, becoming interactive environments structured around movement, manipulation, and feedback. In players' discussions, comments rarely centre on whether the scenery is visually authentic. Instead, they focus on experiences of walking, searching, getting lost, backtracking and experimenting. In these narratives, heritage spaces are understood primarily as places to enter, explore and visit, rather than landscapes intended for passive viewing (Dourish, 2001; Calleja, 2011).

The construction of indexical reference: From 'Resemblance' to 'Reference'

Once a field of action has been established, the virtual environment begins to acquire concrete real-world points of reference. Through high-precision modelling, the adoption of authentic place names (including the direct use of temple and historic building names), and the faithful reconstruction of spatial layouts, players gradually recognise during gameplay that these environments are not purely fictional but are grounded in real cultural heritage sites (**Field Note 3**). Locations such as Xiao Xitian and Yuhuang Temple, for example, maintain clear and consistent correspondences with their physical counterparts.

Comments on Bilibili clearly reflect this perceptual shift. Rather than simply praising the visual realism, many players actively identify the real-world locations depicted in the game. One user noted, "the scenes in the game are all modelled on actual locations across China; you can find their real-world counterparts" (Bilibili corpus, anonymised). Another wrote, "the burning pagoda scene is based on the East and West Pagodas of Kaiyuan Temple in Quanzhou, which is close to my hometown" (Bilibili corpus, anonymised).

From a semiotic perspective, when a medium anchors a visual representation to a real-world location through naming and the faithful reproduction of architectural details, its semiotic function shifts from iconic resemblance to indexical reference. This shift provides audiences with traceable points of reference in the physical world (Peirce, 1932). At the same time, the meaning of an image is shaped not only by what it depicts, but also by its textual framing and broader ideological context (Barthes, 1977; Mitchell, 1986). Through naming and repeated representation in digital media, virtual environments become firmly anchored to real places, enabling audiences to identify and locate them through the mediated experience (Liu Hailong, 2020).

This process is further reinforced by players' comments such as "exactly the same as the cultural relic" (Bilibili corpus, anonymised) and "even the steel reinforcement has been recreated " (Bilibili corpus, anonymised), both of which highlight the verifiability of fine details. At this stage, authenticity is no longer dependent solely on physical presence. Rather, it is constructed through the precise correspondence of details and the reproduction of spatial structures, giving rise to an experience that players perceive as authentic. This aligns with contemporary authenticity research, which argues that authenticity is not an inherent property of an object but is actively produced through experience and narrative (Belhassen et al., 2008; Kim & Jamal, 2007; Wang, 1999). Consequently, the sense of authenticity in digital cultural heritage arises not merely from visual resemblance, but from the interplay between embodied engagement and indexical reference (Peirce, 1932; Kim & Jamal, 2007; Wang, 1999).

The accumulation of embodied familiarity: From operational experience to a sense of place

The combination of a field of action and indexical reference gradually transforms spatial experience into a pre-reflective sense of familiarity. After repeated exploration, the researcher eventually became able to navigate the environment with little conscious effort. The space was no longer perceived as an external object, but as a place already traversed and internalised (**Field Note 4**). This process mirrors how a sense of place develops in geographical research, where spatial meaning is constructed through lived experience and repeated practice (Tuan, 1977; Relph, 1976). Similar patterns emerge in Bilibili comments. One player remarked, "just getting past Lingxuzi, I probably spent 40 per cent of my time trying to find my way" (Bilibili corpus, anonymised). Another noted, "even with the Nomad's map to find treasure chests, you still end up wandering around several times" (Bilibili corpus, anonymised). These accounts suggest that spatial familiarity develops not through visual immersion alone, but through repeated movement, exploration, and trial-and-error navigation. Embodied media theory similarly argues that interactive experiences strengthen incorporation and presence through bodily engagement and continuous feedback loops (Dourish, 2001; Calleja, 2011). The notion of progressive embodiment further suggests that sustained interaction gradually integrates the media system into the player's body schema. As players repeatedly move through and interact with a space, it ceases to be merely a visual landscape and becomes a lived environment of action. This embodied familiarity endows virtual spaces with memory-like qualities akin to those of real spaces, thereby laying an experiential foundation for subsequent real-world action (Tuan, 1977; Relph, 1976).

The emergence of verification-oriented intentions: The generation of real-world actions

Once the virtual environment has become familiar through repeated interaction, the absence of its real-world counterpart begins to generate a sense of incompleteness. As exploration continues, players gradually recognise that many in-game locations are based on actual heritage sites, prompting them to draw connections between the virtual and the physical (**Field Note 5**).

Comments on Bilibili clearly reflect this growing desire to bridge the two worlds. One player wrote, "The scenery and architecture are incredible — it really makes me want to visit the temples in Shanxi" (Bilibili corpus, anonymised). Another asked, "Has anyone put together a travel guide covering all the locations featured in the game?" (Bilibili corpus, anonymised). Rather than expressing admiration alone, these comments reveal a shift towards practical planning, with players actively seeking travel routes and location guides that would allow them to experience the places in person.

This tendency is even more pronounced on Rednote, where many posts directly compare the virtual and the real.

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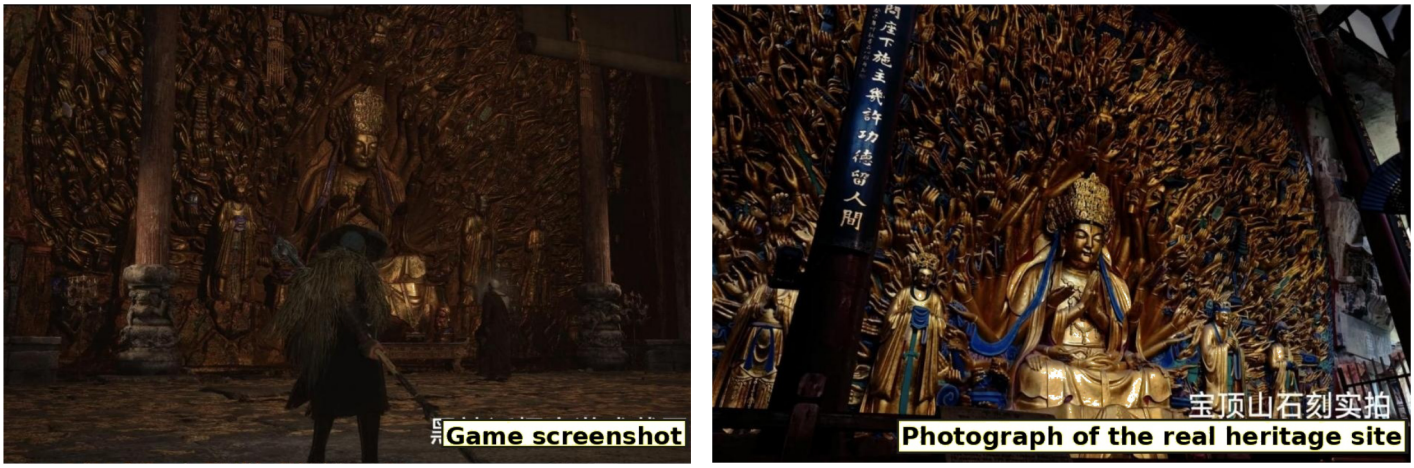

Figure 1 | Comparison between the in-game reconstruction (left) and the corresponding real-world heritage site (right)

Note. From "Black Myth: Wukong, your scenery is way too detailed!!!" [Photograph], by Backyard Fairy Flower, 2024, Xiaohongshu. Copyright 2024 by Backyard Fairy Flower.

A common format involves placing screenshots from the game alongside photographs taken at the actual heritage sites, carefully matching camera angles and composition to highlight their similarity (**Figure 1**). Captions frequently include expressions such as "I finally found the exact viewpoint from the game," "It really looks exactly the same," "the resemblance is incredible," and "standing here feels like stepping back into the game." These comparisons suggest that visiting the site is no longer simply about sightseeing; it becomes a way of confirming and completing an experience that originated in the virtual world.

These narratives suggest that visiting such locations is motivated not merely by a desire for novelty, but also by a wish to validate experiences already formed within the game. In other words, the visit becomes what tourism scholars describe as the "real-world verification of media spaces" (Beeton, 2005; Reijnders, 2011; Connell, 2012). What matters is not the initial encounter with the heritage site itself, but the opportunity to confirm, through physical presence, the correspondence between virtual memory and actual space. When the two align, players' sense of place may be further strengthened (Relph, 1976; Gillespie, 2014). In this way, virtual space provides a framework through which real-world locations are understood, while real-world sites serve as places where mediated experiences can be verified and completed.

Mechanistic disruptions and boundaries: Why immersion does not necessarily lead to real-world action

Not all immersive experiences translate into real-world action. There is no automatic progression from indexical reference to embodied experience and then to verification-oriented intention. Instead, this transformation depends on a specific set of conditions that allow these elements to converge in a stable and coherent manner.

Firstly, immersion alone is insufficient to motivate real-world visits. Previous research indicates that while immersion can enhance emotional engagement and generate more positive attitudes towards destinations, it does not necessarily translate into actual behaviour and may even produce a substitution effect (Guttentag, 2010; Yung & Khoo-Lattimore, 2019; Tussyadiah et al., 2018; Flavián et al., 2019; Beck et al., 2019). As one player commented, "The visuals are certainly stunning, but seeing them in the game is enough." This suggests that visual immersion or emotional engagement by itself does not automatically lead to real-world action. If players do not recognise a virtual space as representing a specific real heritage site, or cannot connect it to a particular physical location, its meaning tends to remain confined within the game world.

Secondly, merely recognising the real-world prototype is also unlikely to motivate action unless it is accompanied by embodied familiarity. Some players acknowledged connections such as "this is based on a particular temple" or "this place really exists," yet stopped at cognitive recognition without expressing any intention to visit (e.g., "I want to go and see it" or "I have to see it for myself"). This indicates that indexical reference alone is insufficient. Unless reinforced through embodied interaction and repeated spatial experience, the virtual environment remains merely a place that is known, rather than one that has been experientially inhabited. Consequently, its absence in the real world does not generate the sense of incompleteness required to drive action (Dourish, 2001; Calleja, 2011; Biocca, 1997).

Furthermore, real-world action is also shaped by external constraints. Comments such as "it's too far," "I don't have time," and "I'll just look at the photos" indicate that even when players have developed both indexical reference and embodied familiarity, practical barriers — including dis-

tance, time, and cost — may still prevent them from acting on their intentions. In these cases, although the motivation to verify exists, it may remain at the level of intention only.

Examining such negative cases helps clarify the specific conditions under which the proposed mechanism operates effectively:

1. The virtual space must be consistently presented as representing a real-world prototype;
2. Players must develop route familiarity and spatial mastery through embodied interaction;
3. A real-world visit must be feasible in terms of time, cost, and geographical accessibility;
4. The wider communication environment must legitimise expressions of travel intentions and verification practices.

When these conditions are not met simultaneously, the transformation from virtual experience to real-world action is likely to be interrupted. This suggests that real-world action is not a straightforward outcome of immersive experiences. Rather, it is a context-dependent outcome shaped by the interplay of indexical reference, embodied experience, and real-world accessibility (Tussyadiah et al., 2018; Flavián et al., 2019; Liu Hailong, 2020).

This analysis also refines the theoretical framework proposed in Chapter II. Virtual experiences do not automatically translate into real-world action. Instead, only when indexical reference and embodied familiarity combine to create a sense of incompleteness does the foundation for verification-oriented intention emerge (Dourish, 2001; Calleja, 2011; Tuan, 1977). Ultimately, the mechanism depends not simply on immersion itself, but on how immersion is organised into meaningful, actionable connections with real-world places.

Platform circulation and the negotiation of cultural value

When physical visits and practices of comparing virtual and real-world locations become part of social media communication, the meaning of cultural heritage shifts in two important ways. On the one hand, it is reinterpreted as a form of shared cultural memory. On the other, it is transformed into a content resource that can be circulated, promoted, and monetised within platform economies. In this sense, the real-world actions encouraged by high-fidelity game-based heritage reconstructions extend beyond individual tourism decisions. They become embedded in the broader ecosystem of digital communication, where the cultural value of heritage is continuously negotiated alongside the commercial logics of online platforms (Jenkins, 2006; van Dijck, 2013; Bucher, 2018; Gillespie, 2014).

Weibo data further illustrate how heritage sites are rapidly transformed into widely shared discussion topics. Through expressions such as “Shanxi tourism,” “offline replicas,” and “check-in routes,” heritage is repackaged into easily shareable and consumable travel itineraries. This reflects the significant role of social media in travel information seeking, experience sharing, and destination decision-making (Jacobsen & Munar, 2012; Belhassen et al., 2008; Cohen, 1988). Under the hashtag “Tour Shanxi with Sun Wukong,” one user commented: “I’ll go out on a limb and predict that Shanxi’s tourism sector will benefit the most. I’d like to visit too” (Weibo comment, 20 August 2024). Local tourism authorities also adopted the game’s language, posting: “Shanxi Culture and Tourism welcomes all Chosen Ones to experience the offline dungeon” (Weibo post, 2 August 2024). These examples suggest that cultural heritage is no longer presented merely as something to be viewed. Instead, it is reframed as an interactive cultural experience that aligns closely with the communication logics of contemporary digital platforms and media convergence (Qian Jianwei et al., 2022).

There is also a clear trend towards the commercialisation of these verification practices on Weibo. Users actively propose ideas such as “tourist routes,” “passports,” “stamp collection,” and “co-branded cultural products,” seeking to transform individual acts of verification into organised tourism activities. For example, one user suggested: “Launch a tourist route with a passport for collecting stamps. Let’s create cultural products and co-branded merchandise…” (Weibo comment, 2 August 2024). Another commented: “Release a co-branded passport… collect a stamp and check in at every location” (Weibo comment, 24 September 2024). These suggestions go beyond simply recommending places to visit. Instead, they frame verification as a repeatable form of cultural consumption, illustrating how the value of cultural heritage is continually reshaped within the attention economy of digital platforms (van Dijck, 2013; Bucher, 2018; Lombard & Ditton, 1997).

Rednote exhibits a somewhat different communication pattern. Rather than relying on hashtag-driven mobilisation as seen on Weibo, it centres on visual evidence and easily replicable photography styles. Posts typically combine in-game screenshots with photographs taken from matching viewpoints, turning heritage sites into visually appealing, easily verifiable, and algorithmically promotable content. This pattern closely reflects the spatial consumption logic of check-in culture (Sun Wei & Li Tong, 2020). At the same time, algorithmic visibility and platform governance play a significant role in determining which narratives gain prominence and are subsequently reproduced by other users (Bucher, 2018; Gillespie, 2014).

It should be emphasised that commercialised dissemination does not necessarily diminish the cultural significance of heritage. The Weibo data also contain comments that actively affirm and defend the cultural value of games. For example, one user wrote: “Our understanding of games cannot simply be limited to spending money to play them…” (Weibo comment). These comments suggest that audiences do not passively accept the platform’s traffic-driven logic. Instead, they actively construct interpretive frameworks that justify the relationship between games and cultural heritage,

thereby reaffirming and reproducing the cultural significance of heritage through new forms of platform communication. This aligns with research that views platform-based communication as a site of cultural connection and meaning negotiation (van Dijck, 2013; Bucher, 2018).

Accordingly, negotiation is not an abstract concept but an ongoing practice within platform communication. On the one hand, the popularity of the game brings cultural heritage into trending topics and consumption narratives, encouraging the development of tourism routes, cultural products, and commercial collaborations. On the other hand, both users and official organisations continue to frame these activities in terms of cultural value and heritage preservation, preventing them from being reduced to purely entertainment-oriented consumption. In this way, high-fidelity game-based heritage reconstructions not only activate the real-world value of cultural heritage but also help maintain a dynamic balance between platform-driven traffic and the continued reproduction of cultural meaning (Jenkins, 2006; van Dijck, 2013; Bucher, 2018; Gillespie, 2014).

Cross-platform discussion

The materials show that virtual–real connections are produced through several related but distinct practices. Within gameplay and Bilibili discussion, movement, failure, return, and route explanation make heritage space actionable. Naming and architectural comparison then connect these experiences to identifiable physical prototypes. Rednote gives this correspondence a visual and practical form through matched viewpoints, travel notes, and check-in accounts, while Weibo relocates it within wider narratives of regional culture and tourism.

Embodied familiarity and indexical reference are therefore best treated as interpretive resources rather than sequential variables. Participants draw on them when explaining why a location feels recognisable, why a particular viewpoint matters, or why a visit can be narrated as a continuation of gameplay. Platform formats determine which elements are emphasised and how readily others can repeat the practice.

The negative cases also remain important. Fictionalised locations, restricted movement, distance, cost, and limited interest can interrupt the connection between virtual experience and physical place. Accordingly, the study does not claim that immersion produces tourism behaviour; it shows how particular virtual–real meanings become available, credible, and shareable under specific conditions.

Conclusion

Main findings and contribution

This qualitative study has examined how gamified heritage spaces acquire meaning across embodied play and platform communication. High-fidelity reconstruction supplies material for recognition, but participants actively construct the virtual–real relationship through navigation, prototype identification, matched images, route sharing, and cultural interpretation.

The comparison among Bilibili, Rednote, and Weibo demonstrates that platforms do not simply transmit the same experience. They organise different forms of evidence and participation: spatial explanation, visual verification, lifestyle documentation, public mobilisation, and cultural-value negotiation.

The article contributes the idea that virtual–real symbiosis is a situated communicative accomplishment. It shifts attention from whether exposure automatically causes travel to how relations between game spaces and heritage sites are made meaningful and publicly shareable.

Limitations

The study is limited by its single case, purposive corpus, and dependence on publicly visible platform content. Online expressions cannot establish how widespread a practice is or whether an intention resulted in travel. Future research may compare different games, heritage regions, or platform ecologies.

Overall, gamified digital heritage extends beyond digital representation when participants incorporate it into practices of movement, comparison, narration, and cultural discussion. The relationship between the virtual and the real is consequently produced through ongoing social interpretation rather than through technological fidelity alone.

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Appendix 1: Field Notes on Black Myth: Wukong [1]

Research Setting: PC gameplay experience of Black Myth: Wukong
Researcher Role: Player-researcher
Observation Method: Embodied Participant Observation
Observation Period: February 25–March 30, 2025
Total Gameplay Time: Approximately 80 hours

Over a period of approximately four weeks, the researcher completed the main storyline of the game and explored some of its optional content. Gameplay was generally conducted in sessions of two to four hours, with approximately 24 sessions recorded in total. The following notes are organized according to different stages of the gameplay experience.

Field Note 1: The First Level and Initial Exploration (Hours 1–5)

Time: February 25, 2025, 7:25 p.m.
Gameplay Duration: Approximately 3 hours

Observation Notes

This was my first time properly playing Black Myth: Wukong. Shortly after completing the opening sequence, I encountered the first obvious combat encounter. As I moved forward along the main path, I could see a boss standing ahead. The game did not provide any explicit instructions, so I naturally assumed that defeating this boss was what I was supposed to do next.

I started fighting the boss, but after several attempts, I realized that I was having considerable difficulty defeating it. Each attempt lasted for a while before I was eventually defeated. I tried about four or five times without success.

After one of these failed attempts, I began to wonder whether I was simply not familiar enough with the controls or whether I was still missing some ability. Instead of continuing to fight the same boss repeatedly, I decided to leave the area for the time being and explore the nearby paths.

During this exploration, I entered another area, where I encountered new enemies and another boss. After completing this fight, I acquired a new skill. Thinking back to the boss I had been unable to defeat earlier, I suddenly realized that perhaps the game was not designed for the player to defeat that enemy immediately. It might instead expect the player to explore first, acquire new abilities, and then return to the earlier encounter.

I therefore returned to the previous area and challenged the first boss again. Compared with my earlier attempts, the fight went much more smoothly this time.

Analytical Notes

This experience made me realize that the game space is not simply organized as a linear route. It is an environment that encourages players to gradually understand its structure through exploration. At first, I interpreted the boss encounter as a task that had to be completed immediately. After repeated failures, however, I changed my approach and began exploring other areas in search of new abilities or alternative routes.

My way of acting therefore shifted from "completing the immediate objective" to "exploring the environment, acquiring an ability, and returning to the original objective." This experience suggests that an understanding of game space does not emerge through observation alone. It gradually develops through action, experimentation, and repeated attempts.

Field Note 2: Exploration and Getting Lost After Entering Chapter Two (Hours 6–12)

Time: February 28, 2025, 8:00 p.m.
Gameplay Duration: Approximately 3 hours (approximately 8 hours cumulative)

Observation Notes

After completing the main content of Chapter One, I entered the area for Chapter Two. Compared with the first chapter, the overall environment changed noticeably. Most of Chapter One took place along mountain and forest paths, and its spatial structure was relatively straightforward. For much of the time, I could simply follow a main route and continue moving forward.

After entering Chapter Two, I quickly noticed that the map had become considerably more complex. Although the environment was still largely composed of paths and natural landscapes rather than groups of buildings, there were clearly more connections between different routes. More branching paths began to appear. Some led to entirely new areas, while others only led to small spaces or treasure chests.

While exploring, I repeatedly made mistakes in judging which direction to take. At one junction, for example, I chose the path that looked more like the main route. After walking along it for some time, I realized that it only led to a small area and did not advance the story. I therefore returned to the junction and tried the other path.

By this point, the game had already been updated with a built-in map system, but the map only provided a general sense of the spatial layout and could not fully replace actual

1 This content has been translated from Chinese. The original content is available at: https://docs.qq.com/doc/DSE1xQ2VvbEVoTFdT

exploration. In many cases, I still needed to move through the environment myself to determine whether a particular path really led to a new area.

On another occasion, I followed a mountain path for several minutes before realizing that I had actually looped back to a place I had already visited. Once I noticed this, I stopped, opened the map to check my position again, and then chose a different direction before continuing.

Compared with Chapter One, Chapter Two made it much easier to get lost. I gradually realized that simply moving forward based on intuition could easily lead me in the wrong direction. I had to pay closer attention to the structure of the paths and to the information provided by the map.

Analytical Notes

This stage of the gameplay experience shows how the complexity of game space can directly affect the way a player moves through and engages with the environment. In Chapter One, the relatively simple path structure meant that I could mostly follow the main route and progress through the story. In Chapter Two, however, the map began to develop a much more obvious branching structure.

This change in spatial structure required me to understand the environment through exploration and trial and error. Even with the built-in map, I still needed to move through the space myself to determine where particular paths actually led. Spatial understanding, therefore, was not achieved simply by looking at the map. It gradually developed through movement, experimentation, and returning to previously visited locations.

During this process, getting lost and repeatedly exploring the same areas became part of how I came to understand the spatial structure. I did not grasp the map through a single act of observation. My understanding developed gradually through the practical experience of moving through the game world.

Field Note 3: Exploring Architectural Spaces in Chapter Three (Hours 20–35)

Time: March 5, 2025, 5:40 p.m.
Gameplay Duration: Approximately 3–4 hours (approximately 25 hours cumulative)

Observation Notes

After completing the main content of Chapter Two, I entered the area for Chapter Three. Soon after entering the chapter, I noticed a clear change in the visual style of the environment. Unlike the first two chapters, which were dominated by natural settings such as mountain paths and forests, this chapter began to feature more distinct architectural spaces.

During my exploration, I entered several areas that resembled temples or courtyard complexes. Moving through these spaces felt different from travelling through the outdoor environments in the earlier chapters. They were often composed of multiple platforms, stairways, and buildings, requiring me to move between different levels. Some routes, for example, required me to climb stone steps to reach an elevated platform before continuing through a passage on the other side.

When I first entered these architectural areas, I still needed time to work out their spatial structure. I would sometimes stop and rotate the camera to check whether there were stairs, platforms, or entrances to nearby buildings. At times, a passage that appeared to be the main route turned out to lead only to a small area, forcing me to go back and look for another way forward.

As I continued exploring, I also began to notice more architectural details. Certain roof and eave structures, Buddhist statues, and the forms of pagodas gave me a vague sense that these buildings might have been designed with reference to real historical architecture.

At this stage, however, I still treated these buildings mainly as part of the game environment. Most of my attention remained focused on finding the correct route and progressing through the story.

Analytical Notes

My experience in Chapter Three was noticeably different from that of the first two chapters. As architectural spaces became more prominent, the way I explored the environment also began to change. Compared with following roads through natural environments, moving through groups of buildings required more attention to spatial structure, particularly the connections between platforms at different levels.

In this kind of environment, spatial understanding depended more heavily on practical engagement. I had to gradually make sense of the architectural layout by moving through the space, trying different routes, and returning to previously visited areas.

Field Note 4: Complex Architecture and Spatial Exploration in Chapter Four (Hours 40–60)

Time: March 11, 2025, 5:00 p.m.
Gameplay Duration: Approximately 3 hours (approximately 50 hours cumulative)

Observation Notes

After entering Chapter Four, I again noticed a clear change in the scale of the environment. There were considerably more buildings, and the spaces were organized across more levels. Compared with the courtyard-like spaces encountered in Chapter Three, this chapter contained larger architectural complexes, including complicated areas made up of multiple platforms, corridors, and buildings.

While exploring these areas, I found myself observing the environment more frequently. When entering a new architectural space, I would usually stop first and rotate the camera to look at the surrounding structures and judge where a route to the next area might be located.

Although I was still entering each of these environments for the first time, by this point I had gradually developed certain habits of exploration. For example, whenever I saw

stairs, platforms, or clearly visible building entrances, I would usually try these directions first, as they were often more likely to connect to new areas.

Even so, I still occasionally took the wrong route. In one architectural complex, for example, I followed a corridor for quite a long distance before realizing that it was only a side path. I then had to turn back and search for the main route again.

As I continued exploring, I also paid increasing attention to architectural details. Sometimes, while moving through an area, I would stop to look at particular features, such as the form of the roofs, the placement of Buddhist statues, or the layout of courtyards. These buildings gradually made me wonder whether some of the environments might be connected to real cultural heritage architecture.

Analytical Notes

At this stage, although each new chapter still presented an unfamiliar environment, I had gradually developed a relatively stable way of exploring it. Compared with the early stages of the game, I was better able to use spatial features to judge where possible routes might be located. I would, for example, give priority to stairs, platforms, and building entrances.

This change did not come from familiarity with the specific environments themselves. Rather, it developed as a form of practical experience through prolonged interaction with the game. By repeatedly moving through and exploring different spaces, I gradually learned how to interpret the structure of the game environment.

At the same time, as architectural spaces appeared more frequently, I also began to pay greater attention to their resemblance to real-world architecture. These observations did not result from deliberately searching for real-world prototypes. The associations emerged gradually in the course of exploration.

Field Note 5: Architectural Spaces and Real-World Associations in Chapter Five (Approximately Hours 65–80)

Time: March 16, 2025, 6:00 p.m.
Gameplay Duration: Approximately 3 hours (approximately 70 hours cumulative)

Observation Notes

After entering Chapter Five, I immediately noticed another change in the atmosphere of the environment. The architectural spaces were larger and denser than before. Compared with the more scattered architectural spaces in the earlier chapters, this chapter contained many more elements associated with temples, Buddhist statues, and pagodas.

During my exploration, I entered an area composed of multiple platforms and buildings. Its spatial structure was highly complex, with platforms at different elevations as well as numerous passages and stairways connecting the buildings.

When I first entered this area, I followed the same approach I had developed earlier and stopped to look around before moving on. I rotated the camera to examine the layout of the buildings and identify places that might lead to the next area. I usually looked for stairs or platforms first, since these often served as important points connecting different parts of the environment.

While moving through the area, I still occasionally took the wrong route. On one occasion, for example, I followed a corridor that looked like the main path for quite some time, only to discover that it was a side route. I had no choice but to return to where I had started and look for another direction.

During this chapter, however, I noticed that I was paying attention to architectural details more frequently. When passing through temple-like buildings, for example, I would sometimes stop to look at the structure of the eaves, the placement of Buddhist statues, and the layout of the courtyards. At times, I even found myself wondering whether these buildings were based on particular examples of historical architecture in the real world.

As I continued exploring, this feeling became stronger. Certain architectural forms and spatial arrangements seemed familiar, as though I had encountered similar styles of architecture somewhere in the real world.

Analytical Notes

At this stage, architectural spaces had become much more prominent in the game. Compared with the earlier chapters, I encountered temple-like buildings, pagodas, and other forms of cultural heritage-inspired architecture much more frequently during exploration.

Through continued interaction, my understanding of space gradually began to extend beyond simply finding routes and toward observing architectural structures. As architectural details appeared repeatedly, it became easier to connect the virtual environments with buildings in the real world.

These real-world associations did not emerge only after I had become completely familiar with a particular environment. Instead, they developed gradually through the accumulation of prolonged interactive experience. As I repeatedly encountered these architectural spaces through movement and exploration, I began to understand some of the virtual environments as places that might have real-world architectural references.