

Narrative Strategies and Cultural Memory Representation in Digital Exhibitions Based on Media Memory Theory

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Abstract: The exhibition *Shopping in Canton: China Trade Art in the 18th and 19th Centuries* brings the commercial landscape of the Qing dynasty's Thirteen Hongs district to touchable cultural memory through digital interaction and immersive environments. Using touch-screen installations, animated projections, and reconstructed spaces, it recreates scenes of foreign merchants shopping, socializing, and dining in historical Guangzhou. This article does not focus on the craftsmanship or historical value of the artifacts themselves, but instead explores how the exhibition uses digital storytelling and cultural representation to guide visitors in playing historical roles—experiencing history through action. In doing so, visitors contribute to shaping urban cultural memory and revisiting Guangzhou's role as an early hub of global trade. The analysis draws on theories of digital narrative, cultural memory, and spatial practice. It examines how digital museums turn historical materials into narrative experiences through storytelling structures, spatial design, audience participation, and cultural politics. It also considers how memory is selectively shaped and the broader cultural impact.

1. Introduction

The analysis draws on theories of digital narrative, cultural memory, and spatial practice. It examines how digital museums turn historical materials into narrative experiences through storytelling structures, spatial design, audience participation, and cultural politics. It also considers how memory is selectively shaped and the broader cultural impact.

Janet Murray argues that immersion and agency are central to creating compelling interactive experiences. When visitors engage with interactive elements, they enter a rich, coherent fictional world and can influence outcomes through their actions. This leads to an “active creation of belief” [1]. Through this process, participants deepen their trust in the scenario, allowing them to fully immerse themselves in the narrative. Marie-Laure Ryan, meanwhile, emphasizes that virtual storytelling is effective because it allows audiences to actively build meaning by stepping into character roles [2]. On the other hand, Aleida Assmann's theory of cultural memory distinguishes between “archive memory” and “communicative memory” [3]. The communicative memory refers to memories actively shaped by a group to form identity, while archive memory consists of dormant historical records rarely revisited. Museum exhibitions serve as a bridge between this two kind of

memory. By selecting certain materials and giving them contemporary relevance, exhibitions turn archived history into part of functional memory—though they inevitably leave much untold. Hirsch’s concept of “postmemory” refers to how second generations inherit collective traumas they didn’t personally experience—through stories, images, and other media passed down from earlier generations [4]. Although Canton Shopping Street doesn’t focus on traumatic history, it still allows visitors—outsiders to the actual events—to inherit others’ experiences through media reenactment and sensory engagement. Cultural memory theory helps us understand how the exhibition makes choices in shaping memory and how visitors emotionally and physically engage with a history they did not live through.

In the realms of spatial theory and media archaeology, Michel de Certeau points out that “space is a practiced place”. A place only becomes meaningful space through human activity—walking, observing, and interacting [5]. Media archaeologist Erkki Huhtamo describes the screen as an “information surface”—both a flat plane and a “virtual window” into a three-dimensional world [6]. The frame of the screen, like a picture or window frame, links the viewer to distant scenes, enabling perception of another time and space [7]. By drawing on theories from de Certeau and Huhtamo, this article analyzes how the exhibition space becomes a site for practicing historical memory. And how digital screens act as “windows” connecting the past and the present, creating a historical atmosphere that blurs the line between real and imagined.

2. Analysis

2.1 Digital storytelling and audience involvement

At the heart of the exhibition is a set of interactive animations located near the end. Visitors take on the role of foreign merchants who came to Guangzhou for trade in the 19th century. By selecting different objects, they trigger different stories. Each item serves as a narrative entry point, offering a glimpse into a specific aspect of Guangzhou’s commercial streets at the time. This design reinforces the sense of participation by having visitors make purchase decisions.

Just as Murray describes, in participatory media, audiences discover new information by exploring the world and asking questions, and their belief and engagement grow through their own actions [8].

(1) Porcelain: A Panoramic View of the Streets and Goods

In this module, a virtual guide helps visitors recognize differences in the quality of “Nanking cargo” and introduces the layout of various districts. The animation even takes viewers into a painting shop, explaining why artworks from the time were often unsigned. When a visitor clicks on the porcelain, the historical detail makes the shopping experience in Qing era Guangzhou feel truly immersive.

(2) Booklet: A Glimpse into Cross-Cultural Communication

Before this animation segment, an exhibition panel displays historical documents containing Canton Pidgin English. In the animation, a virtual shopkeeper reenacts the communication between Chinese interpreters and foreign merchants. The booklet features English words phonetically transcribed using Chinese characters, highlighting the unique cross-cultural exchange. By linking physical artifacts with digital storytelling, the exhibition helps visitors both observe the objects and understand their historical context.

(3) Wine Bottle: Blending of Eastern and Western Cultures

This module begins with a tale of drunken brawls among sailors in the commercial district. It also traces the evolution of a nearby alley famously known as “Zhu Street”. Alongside, the animation introduces local herbal tea and snacks, revealing both the differences and the fusion in Chinese and Western food culture.

(4) Silverware: Reconstructing Historical Context

This final section introduces shops from various streets known for selling specific goods. The

animation also recounts the major fire of 1822, weaving real historical events into the digital narrative and enhancing its sense of authenticity. A digitally reconstructed street map helps visitors learn how each street was known for different types of merchandise. Paired with a printed exhibition booklet styled like a travel journal written by foreign visitors to China, this part allows visitors to fully step into the shoes of historical merchants, as shown in Figure 1.

After sailing for five months and four days, we finally docked at the Whampoa Port. On a chop boat, we then made our way to Canton via the Pearl River.

The river was busy like the River Thames, teeming with a myriad of vessels—from local merchant, passenger and houseboats, to patrol and flower boats.

By nightfall, we arrived at the foreign factories. Lanterns hung on houses along the shore while fireworks could be seen in the sky; the sounds of bustling crowds, gongs and drums, and music could be heard from all directions. Everything felt so new and exotic. We walked through the crowd. Before us stood a row of Western-style buildings—the foreign factories, our temporary residence in Canton.

Figure 1. Exhibition Booklet

The exhibition achieves a deep connection between audience and historical context through a structure of “object selection & immersive storytelling”. True virtual storytelling allows participants to be both immersed and interactive [9]. The essence of a true virtual narrative experience lies in enabling participants to be both immersed in the story and actively interact with it.

This exhibition design exemplifies that concept. It builds a virtual commercial street in Guangzhou as a stage, where visitors play the role of shoppers. Historical accuracy ensures that the virtual world is both believable and educational. The narrative mechanism encourages audiences to construct their own cultural memory. First, acting within a historical setting. Then, through the animations, audience reflect on the people-place relationships and cultural differences of that time. This process turns the experience into a vivid personal memory of Guangzhou’s commercial history. In this exhibition, digital storytelling is not just a tool for sharing information—it’s a strategy for sparking historical imagination and emotional resonance.

2.2 Spatial storytelling & mediatized space

While the interactive animations give visitors a sense of traveling through time, the exhibition’s carefully crafted spatial atmosphere allows them to experience a form of physical time travel through movement [10].

The entrance animation recreates the bustling scene of porters loading goods onto boats along the riverbanks, instantly immersing visitors into a specific historical moment. As they walk into the gallery, large display panels line both sides of the corridor. These panels shift as visitors move, using animation to show what the streets looked like back then. It feels as if the visitors are merchants arriving in Guangzhou for trade, setting the tone for the entire exhibition as a reconstruction and reflection of the past. As visitors move deeper into the space, physical environments blend with digital media to create a series of compelling “memory zones” that invite people to pause and reflect.



Figure 2. Projection of a Parrot in Cage

One striking detail is a projection of a caged bird on the floor, as shown in Figure 2. Looking up, visitors see only an empty cage on a restored traditional balcony—there’s no parrot inside. This “absent presence” creates a ghost-like atmosphere of history—the parrot and its song are long gone, but through digital technology, a trace of that past life is brought back into the present.

Hirsch’s concept of postmemory suggests that later generations often experience the past through imaginative media [4]. Here, the projected parrot acts as a symbolic trigger for imagination, inviting visitors to emotionally connect with a vanished way of life. Though they don’t possess direct memories, visual cues and imagination help form a kind of memory bond with history.

Beyond the parrot projection, the exhibition further draws visitors into history by recreating shop windows and loft views that offer a first-person perspective, as shown in Figure 3. These elements break down the traditional barrier between viewer and exhibit: visitors become part of the scene, while the reconstructed streets become the setting they move through and experience firsthand.



Figure 3. Loft Window Installation

2.3 Constructed history: choices and absences

All historical narratives are selective reconstructions. While *Shopping in Canton* offers an engaging and immersive experience, it inevitably makes choices and repackages history in the process. The selectiveness of its narrative reflects both the intentions and blind spots often present in the construction of cultural memory [11].

The main storyline of the exhibition largely avoids direct discussion of the Thirteen Hongs' deeper history, such as the opium trade, colonial expansion, and the power imbalances involved. These topics are only briefly mentioned on panels like "The Last Ten Years Along the Pearl", which touch upon the Opium Wars and the opening of treaty ports. But they remain on the narrative margins and are not integrated into the immersive visitor experience.

The rationale behind this narrative choice is clear. On one hand, the exhibition avoids inserting heavy historical content into an otherwise light and enjoyable interactive setting, so as not to disrupt the visitor's engagement. On the other hand, the focus is placed on commerce and art, highlighting the positive impact of East-West exchange on Guangzhou's urban culture. Yet this approach also results in a kind of memory filtering. Colonial oppression and wartime trauma are downplayed as mere background. But the painful memories of Guangzhou residents as passive recipients of that history are left out of the exhibition's active storytelling [12].

2.4 Cultural significance and future potential of the exhibition

(1) Public History Education

This exhibition demonstrates that narrative-driven interactive experiences can strike a clever balance between entertainment and education. Traditional history exhibitions often focus on conveying knowledge through displayed artifacts and explanatory panels, which can lead to information overload and passive reception. In contrast, *Shopping in Canton* integrates historical knowledge into storytelling and exploration through role-play and immersive scenarios. Visitors naturally absorb key historical insights while enjoying the experience [13].

(2) A New Model for Spatial Reconstruction and Cultural Memory

The exhibition hall is designed as a small virtual Guangzhou street, where visitors can roam, discover, and experience a cross-century dialogue between past and present. This approach breaks away from the segmented display cases typical in museums, instead offering a cohesive environment with a continuous narrative experience. It aligns with de Certeau's idea of spatial practice—museum space should not merely serve as a container for objects, but as an environment where visitors actively walk, perceive, and give meaning to the space [14].

The exhibition plants a tangible memory marker in the minds of the public, making the memory of urban history less abstract. This echoes Assmann's point: only when "archival memory" is reinterpreted through contemporary contexts can it become "functional memory" with real-world relevance.

(3) The Potential of Digital Storytelling

Digital storytelling also opens up further possibilities for the exhibition. For instance, an online version of the virtual Thirteen Hongs district could be developed, offering a more comprehensive view of history—including the daily lives of locals, interactions between Chinese and foreigners, and more. With VR/AR technology, users around the world could explore the 19th-century streets of Guangzhou online, vastly expanding the exhibition's reach beyond the physical museum.

Additionally, the exhibition could evolve into a long-term digital platform. Online resources could be continuously enriched with more historical materials. Visitors could continue exploring related content after their visit, engage in online communities, and contribute to a growing space of public historical memory. This would offer more in-depth historical information to those eager to learn

more-filling in gaps with content on war trauma, everyday life, and social realities. In doing so, it helps build a fuller historical context for the exhibition [15].

3. Conclusions

This study examined how the exhibition *Shopping in Canton: China Trade Art in the 18th and 19th Centuries* at the Hong Kong Museum of Art uses digital storytelling and spatial design to reconstruct historical experience. The exhibition integrates immersion and participation to give visitors a sense of agency. It foregrounds the prosperity of Guangzhou's commercial streets while softening painful and complex episodes, revealing how curatorial choices shape remembering and forgetting. And it deploys media technologies to create an explorable history space that links movement with meaning.

In museum practice, this approach broadens how history can be told in the digital age and repositions visitors as co-narrators, demonstrating strong potential for public history education. At the same time, it surfaces persistent challenges: balancing entertainment with interpretive depth and incorporating diverse perspectives.

This research has limitations. It focuses on a single case, relies primarily on qualitative interpretation, and lacks systematic audience data, while the underlying technologies continue to evolve rapidly.

Future work should therefore: (1) conduct cross-site comparative studies; (2) use mixed-method visitor research (e.g., surveys, interviews, behavioral tracking) to assess learning, empathy, and recall; (3) run design experiments to test how levels of interactivity and narrative branching affect depth of understanding; (4) develop co-curation models with descendant and local communities to address contested histories; (5) evaluate accessibility and data-ethics practices; (6) undertake longitudinal studies of how such exhibitions shape cultural memory; and (7) prototype and rigorously evaluate emerging formats such as conversational agents, immersive theater–museum hybrids, and online–onsite history communities.

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