



On the Artistic Expression of Traditional History Museums in the Digital Era

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Abstract. As a public institution providing historical and cultural knowledge, social education and cultural services to the public, traditional history museums are an important part of the cultural industry. With the progress of technology, in keeping with the digital era, the museum can reflect the various dimensions of art like a prism, give the audience a variety of sensory experience and enhance the sense of interaction. Combined with theoretical research and practical experience, this paper summarizes the ways of presenting art in traditional history museums under the influence of digitalization and the advantages and disadvantages brought about by it.

Keywords: Digitalization in Museums, Multidimensional Art Presentation, Museum Audience Interaction

1 Introduction

In the rapidly changing social environment and cultural context, the development of Chinese museums is confronted with two major challenges. Firstly, the rise of consumerism resulting from global industrialization has become increasingly popular. Under the cultural backdrop of commercialization and entertainment, museums have gradually transformed into a labeled consumption field. This oversimplification has led to a mode of cultural communication that is overly simplistic and oriented towards streaming, resulting in the "quantification" of cultural content. Additionally, the development of information technology, the increasing influence of the internet on human production and living environments, and the "decentralization" of social organizational structures have further challenged the core competitiveness of museums based on their physical collections. Moreover, as traditional educators of "knowledge authority", museums are struggling to adapt to the changing cultural context and the cultural structure of the mainstream mass society. ^[1]

Building on this foundation, the pandemic has prompted museums to further integrate online resources, digital technology, and virtual reality. In the future, various digital technologies will play a significant role in museums, including intelligent protection, which encompasses cultural relic scanning, digital archiving, digital restoration,

digital display, metaverse, and online monitoring of IoT exhibition halls. Museum smart management will also be a key aspect, involving audience information analysis, collection resource management, property resource management, human resource management, and curator cockpit, among others. Intelligent service will provide cloud-based virtual reality exhibitions with somatosensory interaction, 720-degree panoramic displays, and knowledge mapping platforms, among other features. The constantly evolving combination of digital technology and museums, encompassing different dimensions such as concept, technology, and ethics, presents an area that warrants exploration on how to form a sustainable and beneficial development between the two.

According to "Introduction to Chinese Museology" organized by the Cultural Heritage Bureau of the Ministry of Culture, Chinese museums can be divided into three categories: social history, natural science and comprehensive science. Among them, art museums belong to the social history category, with collections and displays including painting, calligraphy, photography, sculpture, folk crafts, ceramics, music, dance, drama, film, etc. Wang Congcong mentioned in his Analysis of the Concept of "Art Gallery" in the Context of Chinese Culture that art galleries do not belong to the museum system in practical management. As an ancient CIVILIZATION with a long history and rich cultural resources, our country is a big COUNTRY developing museums, AND various kinds of museums exist. Therefore, it is necessary to make a clear definition of the research object of this paper -- traditional history museum. This paper refers to the cultural history museum with physical space in China, that is, the narrow sense of the museum in general daily cognition. It refers to the comprehensive museum, thematic history museum and archaeological museum with local general history display. They display and disseminate traditional Chinese history and culture, and are one of the most important types of museums in China.

2 The development demand of traditional history museum

At the beginning of the exploration and practice of museums in modern China, diversified categories of museums were formed, and there was no particular emphasis on one type. With the founding of New China and the establishment of museum guidelines, the overall exhibition system of Chinese museums turned to historical exhibitions. In museum practice, it is found that due to the diversity of exhibition contents, the only way to coordinate various exhibitions to form a unified look is the historical language. In its development period, the museum management and exhibition professionals were influenced by the historical orientation for a long time. Among the employees, a large number of professional and technical staff have an academic background in history or archaeology, which corresponds to China's museum system based on historical exhibitions.

However, with the prosperity and development of The Times, some problems hidden in the exhibition of social history have gradually emerged. The exhibition outline shows traditional, old-fashioned, sameness and lack of core; The form of cultural relics exhibition is simple and inflexible; Exhibition design internal situation

is worrying, exhibition content design personnel lack, form design personnel is not professional, researchers are not enough; Subjectivity is not obvious; Display design time and space confusion, lack of coherence. Traditional history museums take history and related social humanities disciplines as the knowledge framework, and present the development of human society from the diachronic dimension. The core of the exhibition is the changes of human society at all levels, which means a diachronic narrative. The subject of the exhibition is not the "thing" that exists objectively, but the "thing" that reflects the historical development. The purpose is to seek the value identification through the interpretation of the meaning of the historical development. Narrative is no longer just a way of constructing content, but becomes content itself. Therefore, historical exhibitions have a high narrative nature, and the digital virtual non-physical exhibition is bound to be a challenge. However, from another perspective, the cognition and interpretation of history are rooted in different historical views, so it is difficult to unify the standards. Objects and documents left over by history are objective evidence of historical development, and it is difficult to see the logical relationship of historical development through historical remains in the eyes of ordinary audiences. Digitization can help solve the purpose that is difficult to be achieved by simple collection display, and make supplementary interpretation. Innovative exhibition methods can better attract the audience, so as to better improve and deepen the exhibition level, better show the excellent culture of the Chinese nation, enhance national pride and cultural confidence, and improve the public foundation for the improvement of the country's cultural soft power.

3 Characteristics of digital museum development

Undoubtedly, digitizing historical museums offers significant advantages. Collecting, analyzing, and processing data based on museum collections can help manage and protect them, reducing damage caused by frequent exhibitions, lowering costs, and enhancing public understanding of cultural relics. Virtual art museums can provide a safe space with a multidimensional and free perspective of space, allowing for continual participation in art criticism and revision. Audiences are no longer passive recipients but active participants, transcending the limitations of time and space. Museum creators can break through traditional spatial aesthetics, enabling theatrical and interactive displays of cultural relics and historical narratives^[10].

Nonetheless, there exists a substantial disparity in the provision of computer equipment services among museums. Due to factors such as scale, location, technology, capital, or management control, only certain museums have the capability to provide a comprehensive suite of digital equipment (e.g., websites, applications, and multimedia tools) to digitize cultural materials, develop analysis tools, create business activities, and connect the implementation process and activities with participating museums.^[2] As a result, the digital strategy of museums is generally not a primary focus at present, with collection protection management and social education taking precedence.

In order to promote and popularize their exhibitions, museums have turned to the Internet and various digital platforms, such as public accounts, applets, and apps. These platforms have facilitated a surge in the dissemination of art knowledge through activities such as live broadcasts, academic lectures, and artist interviews. However, due to time constraints and the limited attention spans of the public, fragmented knowledge acquisition may hinder the development of a deeper understanding of the subject matter. Furthermore, digital interventions have not necessarily led to more innovative and profound experiences. The Turkish Ministry of Culture and Tourism has established a portal to collect virtual tours of Turkish museums and archaeological sites, which has attracted 11.4 million visitors by the end of 2020. In an online virtual tour of the Troy Museum, participants' views on the contribution of virtual visits to museum experiences and whether they can replace physical visits were largely neutral (24%) or strongly negative (62%).^[3]

Museum space, sound, light, and smell participate in the construction of visitors' physical and mental feelings, even if it is just a vague sense of atmosphere or the conversation of other visitors. The role of the museum in providing a space for experiencing culture and shaping cultural identity is irreplaceable. In order to achieve psychological perception, human vision looks for a sense of order on the screen. The presentation of cultural artifacts on electronic displays is greatly influenced by the location and function of the display environment, and the overall structure may be altered due to local variations. The accuracy of cultural artifacts, which includes color relationships, primary objects, accompanying scenes, spatial relationships, as well as lines, textures, layers, and other details, is impacted by the use of electronic screens.

In the realm of museums, digitalization presents novel prospects. While traditional museums are subject to market forces and the demands of development, it is imperative that we reject exhibitions that compromise artistic and spiritual values by catering solely to digitalization and market trend^[4].

4 The artistic value of digital expression in the exhibition space of historical museums

4.1 Multi-sensory experience

Museum involves the integration of cultural concepts and artistic values, and historical relics in history museums often possess significant meaning and complex historical backgrounds. However, prolonged visits to such exhibitions may lead to boredom among visitors. To address this issue, the use of virtual reality, augmented reality, and phantom technology can provide audiences with immersive experiences of cultural scenes, making them more familiar with cultural relics and facilitating better understanding of their artistic value. This can ultimately promote the spread of culture.

The third unit of the Forbidden City's exhibition "Seeing the Heart of Heaven and Earth: The Meaning and Image of Chinese Study," known as "Jieqi Frost and Snow," employs new media projection and interactive technology to transport the audience into a fantastical world beyond the millennium history. As part of this exhibit, the

"Xiangxue," originally built by Emperor Qianlong, was moved into the exhibition hall using new media. The relocation of the Changchun Library of the Heart Nourishing Hall to the West cubicle under the Immortal Building in the 11th year of Emperor Qianlong's reign in 1747 has created a quiet, small space that adheres to the traditional Chinese design principle of "the hall should be large and the study should be small." Concurrently, Emperor Qianlong installed a series of large mirrors on the north and south walls of the throne bed in the south room of the Changchun Library. Similarly, a large mirror was also incorporated into the west wall of the north room, resulting in multiple reflections that created a new, transparent and open space. When sunlight passes through the west window, the mirrors blend and highlight each other, generating a remarkable visual experience. In the 39th year of Emperor Qianlong's reign (1774), a West Ear Room called "Meiwu" was added adjacent to the Changchun Library, near the West Warm Pavilion of the Heart Nourishing Hall. The presence of plum trees outside the Meiwu and visible through its windows expands the spatial experience of the Changchun Library, enhancing its artistic essence. The construction of the Yangxing Hall in the 41st year of Qianlong's reign (1776) also led to the creation of the Yangxing Hall Changchun Library, modeled after the original. The rockery, constructed using white Xuan stones, is a prominent feature of the Xiangxue room, occupying a significant portion of the interior space. This reflects Emperor Qianlong's admiration for the gardening interests of Jiangnan literati in the late Ming Dynasty. The Matsutake plum, standing proudly amidst the snow, is the true embodiment of the "Three Friends in Winter". The immersive atmosphere of the fragrant snow world, both real and imagined, is conveyed through the Xiangxue plaque, the plum blossom and ice crack patterns on the wooden doors and windows, the cushion, and the pine bamboo plum stickers, which all closely signify the arrival of spring. As a symbol of benevolence, spring showcases Qianlong's pursuit of "benevolence in the style of a gentleman in the Qianyuan Dynasty".^[5]

4.2 Sense of interaction

In their static and cold display state, cultural relics often fail to pique the interest of audiences, leading to one-way information dissemination and passive audience participation. In contemporary museum exhibitions, there has been a shift from a "chart type" to an "image type" and from a "narrative type" to a "participatory experience type". The skillful use of new media technology breaks away from the traditional single mode of transmission and allows for the efficient and comprehensive transmission of audio, text, video, pictures, and other content. This enhances sensory stimulation in hearing, vision, touch, and other aspects, continually optimizing and improving the audience's experience and significantly increasing their interest in various information exhibitions. In addition, the development of network technology breaks the information barriers of traditional museums, providing audiences with more diversified information choices and improving the efficiency of information dissemination.^[6] By establishing a connection between the exhibits and the audience and seeking spiritual resonance, the audience can experience the artistic value of the exhibits. The audience of the museum is interested in the beautiful form of the museum, and on this

basis, they will carry on further thinking and learning. While understanding the content of the exhibition, they are also receiving subtle aesthetic education. Thus, science, history and art are constantly deepening the integration.

4.3 Emotional acquisition

In the planning of exhibitions, there is an ongoing tension between emphasizing the historical context of objects versus their intrinsic qualities, as well as between showcasing items of historical importance versus those that are curious or aesthetically pleasing. The challenge lies in prioritizing these various elements appropriately. Merely highlighting the objects' aesthetic appeal or catering solely to the audience's interests through design and visual effects is insufficient. Rather, the "correct approach" is to extract the "narratives behind the cultural relics" through a thorough understanding of the collections' underlying significance.^[7] To meet the demands of visitors, certain museums are constantly exploring innovative modes of cultural communication, such as documentary films and variety shows, as vehicles for cultural education, patriotic instruction, social science research, and the promotion of public welfare culture.^[8] Henan satellite TV has gained popularity with its national-themed programs such as Tang Palace Banquet and Longmen King Kong, which are highly acclaimed. The performers in the Tang Palace Banquet hold musical instruments and walk through the ancient paintings with a charmingly naïve expression and exaggerated dance postures. The application of advanced stage technology creates a realistic depiction of the original Tang Palace Music painting, providing the audience with an immersive experience and a glimpse into the life of the ladies in the palace.

In essence, museum visitors assess a museum based on their exhibition viewing experience, which encompasses emotional, experiential, and cognitive dimensions. Such an exhibition can be interpreted from various levels and perspectives. To satisfy the needs of art appreciation and enable cultural interpretation to become part of the audience's experience, a combination of these dimensions is preferable, even if it entails greater challenges.

Accordingly, a novel attempt was undertaken in the exhibition "See the Heart of Heaven and Earth" at the Forbidden City. Contemporary art, being a form of art that exists in the present, can occupy a leading position in the art world by utilizing the latest technology, materials, and language to express unique modes of expression and convey cognitive understandings. Contemporary artists possess a distinct mode of cognition regarding ancient and contemporary studies, which departs from traditional modes of consciousness and employs novel systems of language expression, such as installation, new media, and interactive art. Despite the unconventional expression methods and concepts of contemporary art, it is essential to acknowledge and embrace tradition rather than severing ties with it. For instance, Xu Bing's "Book from the Sky" and "Book from the Ground" integrate the study scene, thereby creating an unexplored space of imagination that highlights cultural burdens and promotes awareness. Additionally, the artwork deconstructs the iconic "Lantingji Xu" calligraphy with contemporary popular symbolic language, thereby paving the way for a more multidimensional and sensible approach to the study in the future.

4.4 Cultural and creative economy

Over the past few years, several prominent museums including the National Museum of China, Suzhou Museum, Sanxingdui Museum, British Museum, and Dunhuang Research Institute have established a presence on major online shopping platforms. The sales of diverse cultural and creative products available through these channels have been significant, highlighting the emergence of the "Museum +" phenomenon in the 2.0 era. Notably, the branding of a museum's intellectual property (IP) has become a critical driver of traffic and interest in its cultural creations. One illustrative example is the popularity of the British Museum's iconic collection, "Kanagawa Surfing," which has become an important IP asset for the institution. An instance of such cooperation is the popular "Kanagawa Surfing" collection at the British Museum, which has emerged as a significant intellectual property (IP) asset^[4].

Additionally, there have been several other successful joint ventures and collaborations between museums and external entities. For example, in 2019, Airbnb, a global homestay application, collaborated with the Louvre to offer a unique opportunity for two individuals to stay in the museum for free and enjoy an exclusive, luxury experience. Interested participants were required to register on the official website of Airbnb, and the winners were offered a chance to enjoy a drink beside the Mona Lisa painting, dine in front of the Venus statue in Milo, and listen to a small concert in the opulent palace of Napoleon III. Spending the night in the glass pyramid and indulging in an authentic Parisian breakfast in bed the next day were also included in the package. Such collaborations not only enable users to gain deeper insights into the brand by signing up through Airbnb's website but also provide consumers with an alternate avenue to engage with museums.

In order to execute the IP authorization project, the museum must systematically and rationally utilize cultural resource information while balancing the competing demands of cultural preservation and rapid development. The process is multifaceted and includes cultivating awareness of IP authorization, integrating cultural resources, digitization and evaluation, managing content intellectual property rights, marketing authorized objects, negotiating and signing contracts, transforming products and managing production circulation, supervising and managing post-authorization, and collecting royalties^[10]. The execution of this process presents a complex and challenging test of human resources, material resources, and efficiency. Currently, domestic museums are still in the nascent stages of developing their IP authorization capabilities. In order to fulfill its dual role of intellectual property (IP) authorization, a museum must establish a department with unified management and ensure that relevant departments collaborate effectively in order to develop professional knowledge related to risk assessment of laws, property rights, markets, and values. In addition, the museum should conduct a systematic analysis of industry factors and make dynamic adjustments during the follow-up IP authorization process. To accomplish this, the museum must focus on innovation in the market, integrate market-oriented professional services, digitize cultural resources for gene extraction, and establish a vast library of cultural resources.^[9]

5 Conclusion

The mission of museums in the 21st century is to participate in the creation and development of cultural landscapes. Based on the geographical and social significance of museums, their mission is to assist in the adaptation and preservation of cultural and historical connections with previous times and cultural heritage in the new virtual cultural landscape. With the advent of the virtual experience era, the academic community has taken a keen interest in the development of traditional museums and the "meta-universe." Traditional historical museums must capitalize on digitalization, improve their technical, innovation and exhibition capabilities, explore new ideas, create new business models, enhance new mechanisms, and excel in artistic expression. In doing so, they can align with the public's interests and lead the direction of public artistic expression.

In the present era of highly developed information civilization, the value of museums lies in liberating people from the material nature. The Internet industry and digital virtual technology constantly update the concept construction, narrative mode and communication mechanism of museums, enabling contemporary museums to complete the leap from the writing of "objects" to "images", and vividly tell the history of art history and world civilization. As a cultural link between art and social ecosystem, contemporary museums have become a public, open and interactive media field. Exhibits in museums come to life through the gaze, interaction and experience of countless viewers. ^[11] However, despite the huge development prospect of digitalization, it is necessary to adhere to the principle of development and design centering on historical relics. If the value and characteristics of traditional history museums are abandoned in pursuit of artistic transformation, it will become a matter of looking at the sky from the well.

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