Analysis of Museum Cultural Relics Display Combined with Reality and Fiction

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Abstract
The article points out that since the museum opened free of charge in 2009, people have come to the museum, but most people can't see or understand it. At the same time, because of the limited space in the museum, most cultural relics can't be displayed effectively. To solve this problem, people put forward virtual museum, which breaks through the time and space constraints and effectively solves the problem of cultural relics exhibition, but it still doesn't break the traditional cultural relics exhibition mode of "focusing on things". There is no effective transition to the "people-oriented" cultural relics exhibition mode, which gives people a feeling of unreality and emptiness. Thus, the museum's cultural relics exhibition with the combination of reality and emptiness comes into being, which not only allows the museum to break through the time and space constraints but also makes people feel the real existence of objects.

Keywords
Virtual reality; Combine the void and the solid; Museum; Cultural relics display

Problems of the Museum of Traditional Cultural Relics Display

Since the realization of the “free opening of museums” in China in 2009, the number of visitors to museums has increased year by year, even bursting out. Museums around the country have become one of the popular attractions in the local area, and it is hard to get a ticket for holidays. People are scrambling to come to museums, but then the question comes. What are you doing in museums? Some people see other people going to the museum, so they go with them and join in the fun. People walk into museums, look around and learn nothing. Many people don’t know what, how and what to see in the museum. Out of the museum, what also don’t know, didn’t do my homework, can’t achieve the goal. There are still many people who say that there are too many people in the museum, so they can’t see the cultural relics.

Some museums position themselves as “cultural relics warehouses”, and do not make efforts to make a fuss about cultural relics display. According to statistics, there are about 350,000 registered cultural relics sites in China, and there are more than 2,000 state-owned museums. The collection of cultural relics has reached more than 12 million pieces (Fu, 2013), but the vast majority of cultural relics are only placed in the warehouse, and only a small part can be displayed. For example, the Sichuan Museum has more than 320,000 cultural relics in its collection, including more than 1,400 first-class cultural relics, but only more than 3,000 pieces can be exhibited for the audience to see, accounting for only 1% of the cultural relics collection (Zheng & Zhou, 2017); There are 410,000 pieces in Nanjing Museum, but only 5,000 pieces are exhibited all the year-round, accounting for less than 1.25%. Most of the cultural relics are put aside in warehouses all year round (Li & Jiang, 2014), and ordinary people can only see the tip of the iceberg of cultural heritage. Museums should be audience-oriented and should know what the audience thinks, know where the audience’s interests are, and actively meet the needs of the audience. Cultural relics are hidden in the warehouse of the museum, and it is meaningless if they are not displayed to the audience. The virtual museum is a feasible way to make cultural relics meet the public, pass on historical information, cultural information, and aesthetic information to the present people.

Advantages and Problems of Virtual Museum

To solve the problem that the cultural relics in museums cannot be displayed effectively, virtual museums came into being. The museum uses virtual reality technology to display the virtual environment of cultural relics image data, thus breaking the time and space limitations of traditional museums, enhancing the interactive ability, and meeting the diverse social needs of the masses. Virtual museum effectively solves the problem that people can’t see or touch cultural relics. Virtual technology provides a new world for the exhibition of cultural relics in museums, which allows more cultural relics to be displayed. Visitors can sit at home and enjoy the open items in an all-round and interactive way at any time. According to the local characteristics of cultural relics, they can be enlarged and carefully observed and studied. Virtual reality narrows the distance between people and museums, makes mysterious and unattainable cultural relics within reach, and enhances the interesting and entertaining experience of museums. The interaction between virtual cultural relics and visitors makes the exhibition more appealing and enriches people’s emotional experiences. Users can be immersed in the scene and manipulate every object in the system, bringing the audience a new experience of all-around comprehensive effects such as vision, hearing, touch, physiology, and psychology (Huang, 2012). It’s like a testee is in a real space, which can not only see and listen in all directions, but also feel touch, force, visual and perceptual reaction, instinctively respond in a short time through the virtual interface, and feel immersive (Sheng, 2017). Immersive feeling and small-scale personalized entertainment supported by virtual reality technology will greatly promote museums to walk out of their limited space, truly meet the cultural experience needs of the public

in a more dynamic and attractive mode, break the limitations of physical museums, greatly expand the extension space of museums, maximize the functions of museums, and meet the multi-level and multi-directional needs of the public (Liu, 2019). The Palace Museum, Capital Museum, and Sichuan Institute of Archaeology are all trying to display cultural relics with virtual reality technology.

But please don't mythologize the museum's virtual reality. There are still many problems in applying virtual reality in museums: for example, the so-called "zero distance" contact is a distance; The performance content is fabricated out of thin air and there are common sense mistakes (Liu, 2012). There are also applicability problems in the practical application of virtual reality technology in museums, and not all display contents are suitable to be expressed by virtual reality. Virtual reality technology is only a necessary supplement to museums, not all of them, otherwise, visitors' immersion and experience will be lost. Alex Benay, President and CEO of Canadian Science and Technology Museum Company, firmly believes that virtual reality technology is not only a supplement to museums but also a big part of their future. But when you can't see the real thing, you always feel that it is a virtual thing, and it is not so real because it is at a certain distance from yourself.

Combination of Virtual and Real Cultural Relics Display

Although the virtual museum has effectively solved the problem of cultural relics exhibition, it has not broken through the traditional cultural relics exhibition mode of "focusing on objects", and has not taken into account the psychological needs of the viewers. What the viewers see is only a virtual image, and they always feel that there is a certain distance from the real cultural relics. How to make the exhibition of cultural relics "live" and let visitors fully understand and learn the rich historical and cultural information behind the cultural relics? This is a big problem in the interface between the museum and the museum after "the museum is open for free". Although the virtual museum allows more cultural relics to meet the audience at the front desk, it has not broken the traditional exhibition mode of "focusing on objects", and has not yet transitioned to the cultural relics exhibition mode of "focusing on people". There are still many insurmountable problems in the virtual museum.

"A cultural relic is a museum." Because of this, the museum must explore the connotation of cultural relics, look at problems from the audience's point of view, understand problems, take care of the audience's thoughts and thoughts, and pay more attention to the audience's cultural and psychological needs. The role of the museum has changed, and it is no longer a simple cultural educator, but an enlightener of history and culture, which is not only a place for providing knowledge but also a place for leisure and entertainment. Museums should focus on audiences, understand their interests and hobbies, and then combine their characteristics to organically integrate the promotion contents.

How to make cultural relics alive. The museum creates a virtual simulation of cultural relics and a hall where people can enjoy watching and studying, and then enter the museum to watch the real objects. At the same time, the simulation system is supplemented next to the real objects, so that the audience can watch the cultural relics in 360 degrees, and combine virtual reality with real cultural relics organically to enhance people's viewing ability and experience. Combining static display with virtual space can provide people with a variety of choices, diversify the display of museums, greatly increase the amount of information and enhance the interaction between people and cultural relics exhibits.

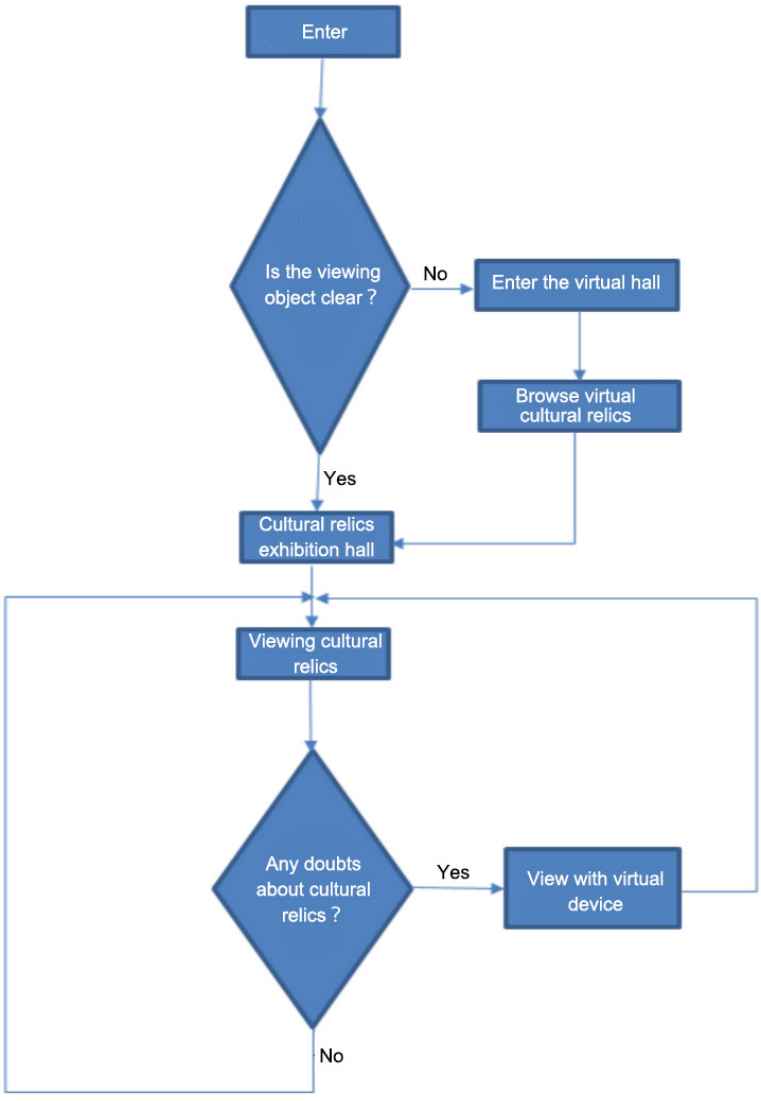


Figure 1. Visit flow chart

Specific operation and method: The virtual museum and the traditional museum are completely separated and go their own way. Now they are organically combined to give full play to the space-time breakthrough and interactivity of the virtual museum and experience the authenticity of the

traditional museum. Open up an area in the museum and move the virtual museum to the museum. Visitors can come here to enjoy the cultural relics and conduct research before visiting the real objects. If problems are found, they can watch the real objects and solve their doubts in time. On the other hand, in the process of watching real objects, you can look back at places that are not clear and inconvenient to see and look at cultural relics with the help of virtual museums. See the following figure for the specific visit process, so that on the one hand, visitors can be dispersed to avoid crowding in the physical exhibition area, and on the other hand, visitors can concentrate on studying cultural relics and savoring them, so that "a cultural relic is a museum".

In a word, by making full use of the combination of reality and reality, traditional museums and virtual museums are organically combined, which not only gives full play to the sense of the reality of traditional museums, but also highlights the view of time and space of virtual museums, so that museums can break through time and space constraints, show cultural relics to the audience, and improve the audience's sense of experience and reality.

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