Exploration on the Form of the Multi-interaction of Public Art from the Perspective of New Media

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Abstract: Contemporary art shows the trend of popularization. Examples of art intervening in ordinary people's life can be seen everywhere. Everyone can contact art and even create art. Art is no longer sacred to ordinary people, and the boundary between art and ordinary people is blurred gradually. This trend has contributed to the flourishing development of public art in recent years to some extent; secondly, diversified art. The emergence of art forms and schools as well as the change of aesthetic trend of the masses have made the traditional visual form of appreciation unable to meet the aesthetic needs of the contemporary public. The masses are eager for the experience and interaction of visual, auditory, tactile and other sensory aspects. More and more abundant forms of public art emerge in the public field of vision. At the same time, the advancement of science and technology has promoted the emergence of new media. With its scientific and technological connotation, new media art makes people's access to information more interesting and innovative than traditional art media, and gradually affects people's aesthetic habits and Aesthetic thinking, the interaction of new media is its most important feature, and the core of public art is precisely the participation and interaction of the public. Under the characteristics of this era, new media art has also flourished as a new form of artistic expression, and has been involved in the field of public art along with various other forms of art. This paper first combs the interactive forms of traditional public art, the way in which new media intervenes in public art and the interactive features of public art. Taking the popular public art works of new media in recent years as an example, this paper combs the application forms of new media intervention in public art, and explores the influence of new media intervention on the interaction of public art.

1. Interaction of Public Art and New Media

1.1 Public Art and Its Interaction

Public Art, the English word "public" means "commonality", which means citizen. In the book Public Art Design, it is pointed out that "in a narrow sense, public art refers to taking people as the core and taking urban public communication, public facilities and public art as the main objects." The use of comprehensive modern design means to create the artistic design behavior of living space beauty, life beauty, lifestyle beauty and information communication.

Public art mainly explores the relationship between the public and the urban space in which they live, and uses art as a medium to establish or shape new relationships between people and the space environment. Public participation is the core of public art. People living in cities have the need for communication. Interactivity has also become one of the main features of public art, which makes the public experience in the urban space. Interaction can be expressed as benign interaction, communication, choice and influence among works, designers, the public and the environment. In addition, some scholars have proposed that the interaction is also manifested as "the result of public art is open", that is to say, whether public art works are successful or not is that the public completes the meaning and evaluation of the works in the interaction with the works, and the public is the appraiser of the works.

1.2 Overview of New Media

Media (or media) refers to the materials and tools used by people in disseminating information

and communicating. In the narrow sense, "media" such as paper, drawing paper, tape, CD-ROM, hard disk and so on; in the broad sense, "media" refers to all tools, facilities and institutions for the exchange and dissemination of information, such as newspapers, magazines, radio stations, television stations, the Internet and so on. In a broad sense, newspapers, magazines, radio and television are called traditional media, while new media is relative to these traditional media forms. New media is "a form of media that appears and influences on the basis of computer information processing technology." New media is an ever-changing concept that cannot be understood as an emerging medium. Professor Huang Mingfen from the Chinese Department of Xiamen University defined the new media as "the media using contemporary digital technology". It can also be called digital media, stored, processed and digitally transmitted through computers. The new media in this article is based on this concept.

2. Formal Exploration of New Media Intervention in Public Art

2.1 Interactive Forms in Traditional Public Art

Domestic scholars divide public art into traditional public art and public art under the condition of new media according to whether new media technology means are adopted or not. According to the external forms of interaction between works of art and the public, public art interaction forms are divided into implicit interaction and explicit interaction. This article also discusses this classification. Whether it is traditional public art or public art under the conditions of new media, there is a form of explicit interaction and invisible interaction.

The form of implicit interaction is that the public interacts with the art by watching or touching the artwork, and the public accepts the artwork from the heart. The art can trigger the public to think about some issues and resonate with the public, but the works and the public The interaction did not change the shape of the work itself. The dominant form of interaction means that the work not only has psychological interaction with the public, but more importantly, the public can change the original form of the work through their own participation, and the public interaction becomes a part of the work.

Most of the traditional public art is invisible interaction. Taking some public art in Xiamen as an example, most of the current public art interaction in cities is psychological and emotional interaction with the public through appreciation and viewing works. Although this kind of implicit interaction is not easy to express externally, the success or failure of public art works is directly related to whether it can generate such implicit interaction with the public.

2.2 New Media's Intervention in Public Art and Its Interactive Characteristics

2.2.1 New Media's Intervention in Public Art

The involvement of new media makes public art have more abundant means of design expression and ways of presentation of works. Traditional artistic creation is mostly based on hand-painted models. With the intervention of new media, creators can comprehensively evaluate the actual effect of the design work in the actual scene through the powerful functions of the design software. And the design works in the form, color, material and other aspects of the direct, visual adjustment, after many modifications to show the best results.

In addition, the new media has given new forms of public art. Image art, installation art, new material art, sound and light art, etc. appear in the public's field of vision. Compared with traditional media, new media has virtual characteristics, namely, non-material characteristics. . Traditional public art, such as ready-made art, earth art, etc., all have material attributes, and their shapes should be expressed by means of material media that can be perceived in reality. New media art is the use of digital information processing technology, using digital media to present virtual visual elements in front of people, giving a new visual experience and sensory stimulation, enriching the traditional visual form, providing unlimited expression space for creation. Advanced scientific and technological means and new materials can express the intention of the creator more intuitively and from different angles, make the audience enjoy and experience the multi-senses, and add vitality

and creativity to public art.

2.2.2 The Multi-interactive Characteristics of New Media Intervention in Public Art

The involvement of new media brings more diversified interaction to public art. The audience no longer plays a passive and bystander role in the process of visiting, but becomes a real participant. Because of the different individual, different people participate in the production of different artistic effects, so reconstruct a different brand-new artistic experience. Its multivariate interaction presents the following important features: first, the enhancement of the presence, the virtual reality system (VR system), through the computer generated lifelike three-dimensional vision, hearing, smell and other senses, to produce a new meaning that each independent media alone does not have. The user can experience and interact with the virtual world naturally through appropriate devices, creating an immersive feeling. The sense of presence refers to the result of the experience brought by the new media art to the audience. The audience effectively and quickly exchanges words, sounds, images, expressions, etc. in the process of appreciation to achieve emotional communication with artistic creation, and the public even becomes the creation of public art works. At the same time, they are also engaged in the creation of art, and to some extent activate the interaction between the audience and the works of art.

Secondly, the involvement of new media in public art makes the interaction more diversified: creators and audiences, creators and technical experts, creators and works, audiences and audiences, audiences and works, etc. are all likely to interact. Under the condition of new media, the dissemination of public art is different from the traditional one-way and static display, but tends to produce different ways of multi-dimensional communication and contact with the audience, forming a kind of interactive process of direct intervention and dialogue.

In addition, the publicity of art works has also been broadened. In the process of linking, integrating, interacting, transforming and presenting new media, the public participates in it, interacts with the media and other audiences, and derives a whole new way of human activities. It also opens up a new space for the publicity of public art, so publicity is actually the dissemination of public art works.

2.3 Multiple Interactive Forms of Public Art from the Perspective of New Media

2.3.1 Interactive Experience of Art Installation

Individuals living in cities have less and less self-expression and more and more exports of expression, but for various reasons, less and less real expression. Many urban people are in a state of lively life and loneliness in their hearts. SeekLab, Xiamen New Media Art Creation Group, takes this as a starting point, regains the urban people's thinking of "expression" with art installations, and achieves an artistic co-creation of urban groups through a fully open and threshold-free interactive experience of urban public art. The art installation is located at the pedestrian bridge of the SM shopping mall in the downtown area of Xiamen. The whole installation consists of a handwriting device, a balloon generating device in the background and balloons of different colors. The device retains the handwritten interactive mode when the public writes what they want to say. At the time, the device will automatically generate a bubble to restore the handwriting to the bubble. After the written bubble is sealed, it will pop up and float to the sky above the venue. Pedestrians can read the voices of others and express their own voices. Together with the voices of others, individuals encourage and influence the interaction of people and people in public space, and bring people closer to people, and the relationship between people and public space.

2.3.2 Synergistic Presentation of High-tech New Media

In September 2018, a project funded by the National Art Foundation, "All Things Are Spiritual - Research Achievements Exhibition on Cultural Heritage Protection and Innovation of Tsinghua University" was exhibited at the Academy of Fine Arts of Tsinghua University. The exhibition exhibits the protection and innovation of cultural heritage through the expression of new media. It reproduces and innovates the charm of cultural heritage by using interactive experience, 3D video,

VR virtual reality, holographic projection and other new media technologies. During the exhibition, the public was immersed in it and interacted with various exhibitions to experience the new effects and reflections brought about by the integration of new media art, technology and cultural heritage.

"All Things and Spirits Exhibition" uses virtual reality technology to restore the physical space of cultural heritage and increase the virtual digital content of the immersive experience to achieve a magical experience. The immersive experience method presents a full range of digital virtual space in front of the audience through the head-mounted device. The audience does not need a wide range of movements. As long as the control handle is used for a small range of viewing and moving, the immersive cultural heritage can be felt. Charm. The collaboration of high-tech multimedia has provided infinite possibilities for the protection, structural reinterpretation, dissemination and promotion of cultural heritage. Faced with the limitation of space and the power of time, cultural heritage has been truly and eternally inherited.

Fig.1

2.3.3 Implementing Immersive Experience Across Media

Team Lab, a new media team founded in Tokyo, Japan, has not only exhibited new media art in Paris, London, Tokyo, Singapore and other places, but also held two large-scale art exhibitions in Beijing and Shenzhen in 2017. It uses new media technology to interact with viewers to form an imaginative immersive exhibition experience. It perfectly combines sound, light, electricity and art, and virtual and realistic immersive exhibition hall, which enables viewers to have a more direct and rich experience of the works. Expanding the work from the plane to the space, the communication from one-way to two-way, more immersive experience. Lighting, scenery, interpretation, and music allow the audience to further appreciate the creator's intentions and feel the meaning behind the work. (See figure above.)

In addition, the "Rain House" new media art exhibition created by the British Random Internatinal Design Studio, which is dedicated to contemporary experimental art, replaces the previous "viewing mode" with "experience mode", paying more attention to the position and role of the audience in the exhibition. The interaction between them and the author and the work. The audience can freely shuttle through a field of constant precipitation but never get wet. With "ground interactive projection", sensors and projectors achieve their final results. Multiple 3D sensors are installed indoors. The sensors detect the movement of the human body and allow the raindrops to stop at the location of the human body. When the man left, the rain continued to fall. Audiences no longer rely on a single sense to perceive, but fully mobilize the viewer's visual, auditory, touch, smell and other sensory functions into the world of works, to achieve full integration, immersion and emotional communication. Guiding the audience to think in a deeper sense: because of the existence of human beings, rainwater stops falling, this idea creates a special atmosphere, through the new media to inspire the public to think about the relationship between people, people and nature.

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