Research on the Influence of the Integration of Public Art and Computer on Urban Culture from the Perspective of Media Ecology

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Abstract. With the deep integration of computer technology and public art, the digital characteristics of public art become more and more obvious[1]. The digital public art takes the public environment of the city as the carrier, which occupies every corner of the city and develops steadily. The diversified performance media and all-round sensory experience make it an alternative public art with unique expressive force. At present, the manifestation of digital public art tends to be diversified, and its influence on urban culture is more and more profound and complex. Therefore, from the perspective of Media Ecology, this paper explores the characteristics of public art in the computer age. On this basis, this paper analyses the impact of public art integrated with computer technology on urban culture, which provides a new thinking direction for the harmonious development of public art and urban culture.

Keywords: Media Ecology, Computer Media, Public Art, Urban Culture

1. Introduction
Public art has been distributed in every corner of society since its birth. The diversified artistic forms of public art influence the urban culture imperceptibly. It is the embodiment and follower of the changes of social forms. Public art has shaped the mainstream civilization image of the society and simultaneously reflected the change of social form and human thought. Under the influence of new thinking, the traditional expression, manifestation and the social force of public art are developing in another direction, and the digital public art with new era characteristics is born. The new generation of digital public art gradually shows great influence due to the alternative judgment and artistic demand of the public for beauty. With the development of digital public art theories and the rise of digital public art works in various regions of the world, public art has become an important driving force that cannot be ignored in the process of social and cultural development[2].

2. Overview of Media Ecology

2.1. The origin and Development of Media Ecology
As we all know, the empirical school and the critical school are two schools of communication. The Empirical school focuses on empirical research, the core of which is how to spread information or how
to spread it effectively [1]. This school pays attention to the specific content of communication and its influence, and its goal is in the effect of communication. The critical school is concerned with the issue of why and for whom to spread. It focuses on political and economic interests and ideological hegemony behind the dissemination, and its purpose is in the sense of dissemination. In recent years, the school of Media Ecology is rising day by day, which is called the third University School of communication.

2.2. The connotation of Media Ecology
The core issue of Media Ecology is how the interaction between human and media promotes or hinders human development. Media environmental studies are concerned with the important role of the media in defining the nature, structure and results of human communication [2]. From the perspective of this study, we can see that the different media embody different formal structure and communication structure, which urge people to influence each other in different ways, and the nature and results of people's communication are quite different. From this perspective, media environmentalists study social environment as a medium, or more broadly, they study the symbiotic relationship between media and society or between media and culture. In other words, people are not outside the media they use, they are integrated with the media. At this level, media environmental scholars study media as a symbolic environment and a perceptual environment. More broadly, media environmental scholars study the relationship between media and consciousness.

3. The fusion of computer technology and public art from the perspective of Media Ecology

3.1. Overview of Public art
As the product of the expression of urban space art form, public art pays more attention to convey its internal value orientation. Public art deeply expresses the connotation and overall image of the city [3]. It not only constructs the overall image of the whole city, but also conveys the characteristics of the city. In a sense, it also carries the relevant functions of the inheritance of the city's history and culture. The public art of every city is the landmark architectural product of urban culture, which evolves and develops under the environment of the city. Under the background of urban culture, public art successfully reflects the urban public culture by using the natural and artificial environment, which not only highlights the relevant local characteristics, but also makes the unique image of the city appear colourful.

3.2. Public art in the environment of computer media

3.2.1. The urban sculpture creation under the environment of computer media. Sculpture is an ancient art activity in the history of human art. The earliest sculpture art creation was limited to the image representation of the human body itself, and its thinking creation was based on the people-oriented body, which resulted in the single characteristic elements [4]. Nowadays, digital media technology has brought a great impact on sculpture art. It has changed the creation space of sculpture art and changed the creation space of sculpture art from the original two-dimensional space to three-dimensional space, which makes the work more three-dimensional and the expression level more clear. In addition, digital media technology has also changed the creation mode of sculpture art. In the creation process of traditional sculpture art, clay and stone are generally used as materials and solid sculpture tools are used to create works. However, under the influence of digital media technology, the sculptor put down the sculpture knife and began to use the system software to design the initial model of sculpture. Because of the powerful function of the system software, it can provide various models, colours and tools for creators [5]. This way of creation also indirectly expands the designer's design ideas, making the works no longer single, and easier to coordinate with the urban environment.

3.2.2. The creation of the city mural under the environment of computer media. The influence of
digital media technology on murals is far greater than that of sculpture. It not only changes the space and way of mural creation, but also enriches the expression of murals. It can transform the ready-made works into numbers, which makes the murals have audio-visual effect and improves the affinity of murals.

With the increase of creation media, the expression forms of murals are more abundant, and the significance of murals is more obvious [6]. Under the premise of deep integration of computer technology, the distance between mural art and other arts is gradually reduced, and creative ideas, creative ideas and creative grammar of various arts start to learn from each other. This kind of deep integration also promotes the creative technology and techniques of mural art to develop in a diversified direction, and the content of mural art is more abundant.

4. The influence of public art integrated with computer technology on urban culture

4.1. The reconstruction of urban culture by public art integrated with computer technology
The so-called urban culture, which exists in every city, is the soul of a city. From the perspective of communication science, the promotion and change of digital public art to urban culture is the inevitable result of its white body media characteristics. The mission of digital public art is not to be placed in a corner of the city as a quiet work of Art. Quiet is not the main characteristic of digital public art. Different forms, such as lighting art and interactive installation art, are expressing the interpretation of beauty. At the same time of expressing beauty, these ways of expression have become new artistic means of constructing, promoting and reshaping urban culture. Figure 1 shows the world map exhibition board of Beijing Metro, which exerts a subtle influence on urban culture through various artistic forms.

![Figure 1. The world map exhibition board of Beijing Metro](image)

Through the great influence of digital public art in urban space, urban material culture and spiritual culture have been greatly developed and evolved, and urban culture has also been modified and reshaped. Therefore, the hot development momentum of digital public art and the diversified needs of urban culture are inseparable. On the one hand, the construction of urban culture needs the participation of digital public art. On the other hand, the splendour of digital public art promotes the development process of the city, enhances the spiritual connotation of the city, and perfectly reshapes the urban culture.

4.2. The influence of public art integrated with computer technology on urban residents
The ability of digital public art to "confuse the real with the false" and "build a virtual world" reflects the virtual expression ability of digital technology in the era of digital media. Based on digital technology, artists use multi-media language to express themes and create an unrealistic media illusion. The audience can get the feeling that the real world can't match from the multi-sensory stimulation environment created by digital public art. This kind of media illusion can temporarily free the audience from the real society and come to an atmosphere full of sensory stimulation, where they can enjoy the digital Utopia brought by digital art. Figure 2 shows the public art works of interactive...
lighting, which has obvious digital characteristics.

![Image of interactive lighting](image)

**Figure 2.** The public art works of interactive lighting

Traditional public art pays attention to the normal information exchange between works and individual audiences in promoting urban cultural communication, which is a one-way information transmission process. This way ignores the interactive feelings of the audience, and digital public art makes up for the shortcomings of traditional public art through its own multi-media technology advantages.

4.3. **The influence of the integration of computer technology and public art on urban environment**

As a part of urban cultural image, digital public art reflects artists' artistic perception and emotional sentiment through various digital means, and constantly displays complex and diverse elements and social forms in urban image in various ways. Although digital public art has not yet become the main force of urban environmental decoration, the high-profile display mode and great influence have played an important role. Digital public art with different themes is creating real and colourful scenes and virtual "digital situations" in all corners of the world through various artistic expressions, which will inevitably affect the nature of urban space environment and change the development direction of urban space art.

5. **Conclusion**

The deep integration of computer technology and public art makes urban culture more diversified, and the public art with digital characteristics has become a new type of urban public information communication platform. In our daily life, digital public art can not only transfer the artistic concept of art works, but also become an important part of building a modern civilized city. Although there are still many unknown problems in the future development of digital public art, it can be predicted that the digitalization of public art will provide continuous and powerful power for the construction and development of urban culture.

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