

# Analysis on the Shaping of City Image by Digital Media Public Art

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**Abstract:** In the process of urbanization in the 21st century, the image of a city is no longer defined by its history, architecture or culture, but is increasingly influenced by emerging technologies and creative industries. Digital media public art, as an important form of expression of this change, the fusion of technology and art behind it has injected new vitality and image into the city. In view of this, this paper mainly discusses the definition, characteristics, technical practice and its actual effect on the image of the city. Through the analysis of various technologies such as interactive technology, projection mapping, wireless network and sensor technology, this paper reveals how digital media art can strengthen urban tourism attraction, brand communication and interaction between citizens and cities. In addition, the case analysis of digital art exhibition in Beijing 798 Art District further proves the important value of digital media public art in shaping and enhancing the image of the city.

**Keywords:** Digital media; Public art; City image

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## Introduction:

With the increasing popularity and progress of digital technology, digital media public art has gradually become a part of urban public space, which has a profound impact on the image of the city. The purpose of this paper is to explore this phenomenon in depth and analyze its role in shaping the image of modern cities.

## 1. Definition and Characteristics of Digital Media Public Art

### 1.1 Analysis of the Concept of Digital Media

Digital media, as the name suggests, is a form of media that relies on digital technology for creation, storage, transmission, and presentation. Unlike traditional analog media, digital media offers greater flexibility, interactivity, and customization. This includes, but is not limited to, digital imagery, digital audio, three-dimensional simulation, web art, and various computer-generated art forms. These forms are characterized by their digital nature, which can be programmed, algorithmically or data-driven to provide creators with unlimited space for expression.

### 1.2 The Combination of Public Art and Digital Technology

Public art, as an art form displayed in public space, has always been an important manifestation of urban culture and aesthetics. With the progress of science and technology, especially the increasing popularity of digital technology, public art and digital technology began to produce a close combination. This combination presents the following characteristics:

**Interactivity:** The introduction of digital technology makes public art no longer a one-way display, but can interact with the audience in real time, such as through touch screens, sensors and other technical means to enhance the audience's participation and immersion.

**Dynamic:** Unlike traditional static works of art, digital technology allows artistic creation to present dynamic and changing characteristics, such as dynamic images, sound, etc., making works of art more vital.

**Multidimensionality:** Through digital technology, public art can integrate multiple media forms, such as images, sounds, light effects, etc., to provide a multi-dimensional aesthetic experience for the audience.

## **2. Technical Practice of Digital Media Public Art**

### **2.1 Interactive Technology: Touch, Sound and Action Response**

Touch interaction: Modern touch technologies such as multi-touch screens, interactive projections and sensor panels provide real-time feedback mechanisms for public art. The audience can directly interact with the artwork, such as changing the color, form or moving the elements of the work, so that the artwork is no longer a passive display, but an active interactive experience.

Sound interaction: Sound recognition and sound response technologies allow viewers to interact with the artwork through vocalizations or music. For example, some installation art may adjust its expression according to the audience's sound frequency or tone changes, creating a unique sound-visual fusion experience.

### **2.2 Application of Projection Mapping Technology in Public Space**

First of all, projection mapping technology, also known as “three-dimensional mapping” or “spatial enhancement”, is a technology that maps dynamic images or videos to complex three-dimensional objects or architectural surfaces. This technique aligns pre-designed images or videos to the shape, size and structure of the target object or space to create stunning visual effects. Compared with the traditional plane projection, the artistic experience displayed by projection mapping technology is more vivid, three-dimensional and immersive.

Secondly, the application of projection mapping in public space is particularly extensive, which injects new vitality into the city night scene and festival celebration. For example, a large-scale projection mapping performance on the outer wall of a building can present the history, culture or creative display of a certain theme of the building. In addition to architectural surfaces, projection mapping can also be applied to public sculptures, landmarks, bridges and even trees, bringing different visual feast to the public <sup>[1]</sup>.

### **2.3 Integration of Wireless Network and Sensor Technology**

First of all, wireless network technology has become an indispensable part of modern life, which provides the basis for the rapid transmission of information and real-time interaction. In the field of public art, wireless networks allow works of art to be connected in real time to the cloud, data centers or remote servers for remote updates, content management and multi-device synchronization.

Second, when wireless networks are combined with sensor technology, they open up new creative and display spaces for digital media public art. This integration makes the work of art not only a static display, but can be adjusted and responded to in real time according to the scene, the interaction of the audience or other external factors. Such interactivity and flexibility bring a richer and more varied artistic experience to the public.

For example, based on the digital art installation on the public square, the density, direction and speed of the flow of people on the square can be captured by sensors, and then transmitted to the background server for analysis through the wireless network. Based on the results of the analysis, the art installation can adjust its expression in real time, such as changing the color, music rhythm or animation speed, in order to interact and resonate with the audience. This immediate feedback and response not only enhances the attractiveness of the artwork, but also makes every viewer a part of the artistic creation <sup>[2]</sup>.

## **3. The actual impact of digital media public art on the image of the city**

### **3.1 The Enhancement of Tourist Attraction: Translating into New Tourist Attractions**

First of all, digital media public art, because of its unique interaction, visual effects and innovation, it is easy to attract the attention of the public. Compared with traditional art forms, digital media art is often more vivid, interesting and easy to spread, making a large number of tourists willing to come to experience.

Secondly, this art form has high news value and communication value. Whenever a new digital art project in a city is launched or completed, it usually causes widespread media coverage and public debate, which significantly improves the city's popularity and image <sup>[3]</sup>.

### **3.2 The Dissemination of City Brand and Cultural Image**

First of all, as an innovative form of artistic expression, digital media public art can effectively present the characteristics, history and culture of the city to the public in a new way. This is not only the inheritance and development of traditional culture, but also the innovation and exploration of modern urban culture.

Secondly, through this form of artistic display, the city can shape and spread its unique brand image more accurately and pertinently. Different from traditional advertising or publicity activities, digital media public art is more attractive and infectious, which can make the audience understand and feel the charm of the city more deeply.

## 4. Case Analysis of Digital Media Public Art in Chinese Cities-Digital Art Exhibition in Beijing 798 Art District

### 4.1 Background

798 Art District, located in Chaoyang District, Beijing, is an old factory district with a long history. Since 2000, many artists and cultural enterprises have been stationed here, gradually building it into a comprehensive area integrating art, design, culture and creativity. In recent years, with the rise of digital technology, 798 Art District began to explore and try digital art.

### 4.2 Features of Digital Art Exhibition

In the digital art exhibition in the 798 Art District, the audience can see a variety of works of art created using advanced technology, including virtual reality, augmented reality, interactive installations, digital projection, etc. These works are not only static exhibits, but also tools for interaction with the audience, providing an immersive artistic experience for the audience<sup>[5]</sup>.

### 4.3 Influence and significance

The digital art exhibition in the 798 Art District not only brings novel and shocking art experience to the audience, but also improves the popularity and influence of the 798 Art District. Through these exhibitions, more people begin to understand and pay attention to digital art, and at the same time provide an important platform and opportunity for the development of digital art in our country.

## Conclusion:

In general, the application of digital media public art in the city provides people with a new perspective to re-examine and understand the image of the city. This art form not only provides innovative technical solutions, but also injects new cultural, social and economic values into the city. With the further development and popularization of technology, we have reason to believe that digital media public art will have a broader and deeper impact on more cities and become an important part of urban culture and image construction in the future.

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