To Explore the Inheritance of Computer Multimedia Art Design Based on Traditional Chinese Cultural Elements

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Abstract. With the development of computer digital media technology, computer multimedia art has emerged as a new art form. In China, it is very important to embed multimedia art in traditional Chinese culture, draw nourishment from traditional Chinese cultural elements, and give it a national character. This paper uses computer multimedia technology to discuss how to inherit and realize multimedia art design based on traditional Chinese cultural elements by analyzing the opening ceremony of the Beijing Olympic Games and the China pavilion of the Shanghai World Expo, because they are the perfect combination of Chinese traditional culture and multimedia art.

Keywords: Chinese Traditional Cultural Elements, computer multimedia art, Multimedia Art, Inheritance

1. Introduction
With the continuous development of digital media technology, many applied arts now use multimedia mode for display[1]. Along with the emergence of new media such as smartphones and mobile data platforms, many art forms and cultures have new display platforms[2]. Some of the multimedia arts are “painting arts” that use visuals as the medium of communication, and some are “music arts” that use music works, cell phone ringtones, and so on[3]. These can be classified as new types of media art. In the continuous development of digital media-based art varieties, unique aesthetic value and a new category of digital art have been formed[4]. Digital artworks refer to the use of digital multimedia technology in the whole or part of the creative process[5]. There are many forms of digital artwork, including network art, cartoons, computer animation, digital illustration, digital music, and electronic multimedia.

2. Inheritance of Chinese traditional culture in modern digital multimedia art
Chinese traditional culture is the miniature of China’s long history and civilization and the inheritance of national characteristics and national customs, generally reflecting the culture of China at all historical stages[6]. It is the cornerstone and core of the inheritance of Chinese civilization. Traditional culture plays a vital role in the development of modern digital art, mainly in the following aspects.
2.1. Modern multimedia digital art is rooted in Chinese traditional culture  
The development of Chinese civilization has a long history with many legends and folk customs, which has produced a lot of auspicious ornamentation and symbolic elements of traditional Chinese culture, which are the most basic and direct form for realization of traditional Chinese culture. Modern multimedia digital art is produced under a rapid electronic consumption model. Therefore, a large number of symbols are needed to express artistic connotations quickly and directly to target young people. There is a series of symbolized and patterned cultural elements in traditional Chinese culture. They allow modern multimedia art to make good use of this advantage to quickly express their artistic ideas. Modern digital multimedia art can present these traditional cultures with new forms of artistic expression, embodying the cultural connotations from a new perspective. Digital multimedia art can express the visual communication and auditory tradition of traditional culture in a unified and harmonious manner.

2.2. Chinese traditional cultural elements are the source of the development of modern multimedia art  
Multimedia art is now mainly used in consumer art, and its main application direction is the art design. Designers can use digital multimedia to carry out daily art design and innovation. When creating, they often have to refer to a lot of other art design forms, among which there are many traditional cultural elements. Along with the extensive use, they gradually grasp the cultural connotation of these symbolized elements and then reprocess the entire art symbol through digital multimedia technology, such as the traditional blessing character “fu” in 3D form. Combining the national culture contained in traditional culture with the aesthetic perspective of modern multimedia art, designers can continue to come up with creative ideas and enhance creation inspiration. It can be said that traditional culture is the source and fertile ground for modern digital multimedia art to absorb nutrition.

3. The embodiment of Chinese traditional culture in modern multimedia art  
Multimedia digital technology products have been combined with the traditional culture to create many digital artworks based on humanity and creativity. In this part, three typical examples will be presented.

3.1. Opening ceremony of the 29th Beijing Olympic Games  
The opening ceremony of the 29th Beijing Olympic Games is full of the perfect combinations of Chinese traditional culture and modern multimedia art. First of all, in the countdown display, numbers are presented in both internationally used Arabic letters and Chinese characters with the beating of Fou, a traditional Chinese musical instrument, which is set with LED light, showing that this idea combines multimedia technology with traditional culture and international culture. Secondly, in the core stage of the entire performance, a huge scroll of light slowly unfolded as a prelude. This huge LED screen is 147 meters long and 27 meters wide. It embodies the four themes of “The Ancient Legacy,” “Four Great Inventions,” Chinese characters and opera, and the splendid culture of China. During the entire performance, there were traditional queues and large group performances by actors and physical displays by a few dancers. However, these performances were demonstrated using
multimedia technology, especially the perfect combination of actor performance and multimedia technology, which results in an unprecedented visual and auditory feast. The digital media display technology for the opening ceremony of the Beijing Olympic Games is more in line with the traditional aesthetic concepts of the Chinese people and combines the splendor of Chinese culture with the values of Chinese people. The success of the opening ceremony of the Beijing Olympics is the epitome of digital art in China.

Figure 2. Countdown in the opening ceremony of the 29th Beijing Olympic Games by beating “Fou”

3.2. The China Pavilion at the Shanghai Expo

The Shanghai World Expo is by far the largest and most visited in the history of the World Expo. At this event, many pavilions made full use of multimedia art to show their cultures. Decorated by the Luohe River in the “Along the River During the Qingming Festival," the pavilion waterscape of “A Journey of Quest," and the “Spring of Enlightenment” of the “Low Carbon Action," the China Pavilion makes full use of digital art intending to inspire people to think about the relationship between people and the city. These multimedia artworks are very close to the actual situation, especially the “Along the River During the Qingming Festival” in the first exhibition zone. In this exhibition area, the designer displayed China’s national treasure-Chinese painting “Along the River During the Qingming Festival” with a brand-new multimedia technology, making the characters in the original painting move so that people can feel as if they were in the lively capital of the North Song Dynasty. Seeing citizens in this ancient painting coming and going, the audience can get extraordinary visual and feeling impact. The audience not only appreciates the work through sight and hearing but also can truly perceive it with their hearts so that they can enjoy the contagiousness of the work of art to the largest extent. Reasonable design and use of multimedia technology can make the audience feel the charm of traditional culture, and the expression of traditional cultural elements and connotations vivid.

Figure 3. “Along the River during the Qingming Festival” in China Pavilion
4. Summary
Multimedia art is a new form of artistic expression that is undergoing rapid development. Chinese traditional culture is vast and profound, with profound cultural connotations and details. How to combine traditional culture with modern digital multimedia technology is not only a matter of developing multimedia art, but also the need to inherit and develop Chinese traditional culture. Some designers rely too much on digital technology and high-tech when they are creating, which makes artworks deviate from people’s needs and erode the artists’ creative power. Multimedia art must be rooted in traditional Chinese culture, reasonably inherit and use traditional Chinese culture, and reorganize and construct new forms of traditional Chinese art expressions. Only in this way can China’s multimedia art have its characteristics and traditional culture and development. Digital art is the trend of the entire art development, but traditional culture cannot be abandoned. As long as the relationship between the two is well dealt with in specific works, artworks that are in line with historical trends and enhance traditional culture can be created. It is a key point to correctly understand the relationship between traditional cultural elements and digital art.

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