



The Inheritance and Development of Dunhuang Dance to the Musical Dance Art of Dunhuang Frescoes

Shuqin Li^{1*}, Tingting Li²

¹Gansu Institute of Culture and Art, Gannan 730030, Gansu, China

²School of Dance, Northwest University for Nationalities, Lanzhou 730030, Gansu, China

Email: 422590873@qq.com

Abstract: Dunhuang frescoes carry the essence of millennia of civilization and are rich in historical and scientific value. In the continuous progress of history, the artistic styles of different eras have merged, and finally formed the very charming Dunhuang musical dance art, which has been widely welcomed. Under the background of the information age, people integrate digital technology with the Dunhuang fresco art of musical dance, which not only improves the preservation time of Dunhuang frescoes, but also allows this art to be presented to people and allows Dunhuang culture to be spread and inherited. The elements in the Dunhuang frescoes in our country are very rich and can be applied to all aspects. Many professionals have gradually realized its importance, and by transforming its creative vehicle, users can deeply understand and further appreciate the Dunhuang musical dance art and learn the knowledge of frescoes while experiencing the product. At the same time, based on the existing frescoes and restoration drawings created by researchers, combined with the special design principles of the product, a visual interface with a sense of structural hierarchy was designed. The classic Dunhuang fresco musical dance images are sorted out to build a rich material information database. At the same time, the interactive display is divided into different modules according to the research content of Dunhuang fresco musical dance art, and the content of the characteristics of the times, music meaning and dancing image are designed. Finally, Unity3D is used to realize the interactive display design of Dunhuang fresco musical dance art.

Keywords: interactive fresco, Dunhuang musical dance, embodied cognition, emotional design

1. Introduction

Under the background of the information age, the existing frescoes of the Dunhuang Grottoes have an extremely important position in the entire fresco world, and they have great artistic value. However, judging from the current situation of Dunhuang frescoes in my country, most of the frescoes are affected by many factors, such as human factors and natural environmental factors. The integrity of the content of the frescoes has been damaged to varying degrees, such as the Moon Dance frescoes in the Tang Dynasty. The original color of the figure was flesh-colored, but at this stage it has degenerated to brown, and even the position of some frescoes has gradually changed to black. If this situation continues, it will directly pose a serious threat to the frescoes. This article is based on the current domestic research on the characteristics of Guo Huang's fresco musical dance art, and provides strong support for the inheritance and development of Guo Huang's painting musical dance art.

2. Status quo of research on the characteristics of Guo Huang's frescoes and musical dance art

2.1 Characteristics of the times

As an important part of the Guohuang Grottoes, the musical dance art of Guo Huang frescoes has a special style of the times, which is determined by the artistic carrier. The famous Chinese musical dance artist Zheng Ru divided the fresco musical dance art into four stages according to the age. At the same time, the era characteristics of Guo Huang's fresco musical dance art are mainly expressed by the musical dance in the image. According to its different content, it can be divided into Amitabha paintings, karma story paintings, Venerable paintings and so on. As the Dharma popular in Dunhuang in each period is quite different, the content on the frescoes is also different. For example, in the early days, the Hinayana Buddhism was popular, so most of the frescoes at that time were paintings of karma. It was quite different in the heyday of Tang Dynasty. The era characteristics of Guo Huang's fresco musical dance art will also be based on the image art style. In the earliest times, we can judge from the dance styles, costumes, and movements. These dancers have their own

characteristics, such as semi-naked body, deep eyes and high nose, long skirts at the waist or wearing sari. However, in the Sui and Tang Dynasties, the character modeling was quite different from the previous dynasties. The figures in the frescoes are gradually plump and graceful. In the late period, the characters in the painting are the same as the early ones, revealing mysterious colors everywhere.

2.2 Characteristics of musical art

Music is a special kind of sound art, but the charm of music is not only transmitted by sound, but also by sight. The musical and artistic characteristics of Dunhuang frescoes are mainly manifested in the image of musical instruments, imitation of musical instruments, and restoration of ancient music. The first is the restoration and imitation of musical instruments. A large number of music images are drawn in the entire Dunhuang frescoes, which involve a very wide range, such as musical arrays and musical instruments. Relevant personnel statistics found that there are more than 40 musical instruments in the entire Dunhuang music frescoes, of which there are more than 510 groups of bands. Relevant research departments conducted in-depth research on Dunhuang frescoes by designing professional topics, and at the same time imitated the sounds of musical instruments and held special performances so that those who love frescoes can truly realize the true charm of Dunhuang ancient music. To study Dunhuang ancient music, it is necessary to have a deep understanding of Dunhuang music style. Dunhuang music is basically divided into two stages: innovation and imitation. In the early days, Western-style music was welcomed by most people in Dunhuang, and it had a profound influence on the content of the frescoes that followed. After the Sui and Tang Dynasties, the music style gradually changed from the Western style to the court style. After continuous optimization and innovation, diversified Dunhuang musical dance art was formed in the Tang Dynasty^[1].

2.3 Characteristics of dance art

The domestic research on the dance characteristics of the Dunhuang fresco musical dance art is mainly carried out from two aspects: the restoration of the Dunhuang dance and the analysis of the connotation of the Dunhuang dance. The body movements of the Dunhuang dance image have a strong sense of melody and rhythm. Therefore, in the process of imitation, the emotions can be used as the basis, and then the heart power in the body can be fully exerted, the joints of each limb can be adjusted, and the dance in the fresco can be displayed perfectly. In addition, the gestures of the solo dancer in the Dunhuang frescoes also have unusual meanings, and most of the gestures can be found in Buddhist classics. Restoration of Dunhuang dance usually adopts the S-shaped three-way bend form, which is quite different from the general dance style. It not only acts on the waist, but also involves various parts of the body, such as legs, shoulders, and hips. In other words, head movements usually involve some facial expressions. The dance art attaches great importance to both form and spirit, so the position and angle of the head are very important^[2].

3. Interactive Dunhuang fresco musical dance art exhibition design

3.1 Frame design of interactive fresco art display

The interactive Dunhuang fresco musical dance art display design is based on information technology, allowing users to further understand the unique charm of Dunhuang fresco musical dance art during the operation process. Therefore, when choosing objects for display, one should not only choose Dunhuang fans, but also those who do not know much about Dunhuang frescoes, so that they can be guided and enlightened. The display design is mainly carried out through mobile terminals, such as mobile phones, computers and other tools. This allows users to watch Dunhuang frescoes at any time without being restricted by region and time, thus deepening their memory of Dunhuang frescoes. However, this design style has strong limitations. For some beginners, the content of this fresco work is difficult to understand, which can cause users to be unable to find the artistic beauty of the moon dance of the fresco in the first time, and gradually develop art. The bored mentality even completely sinks into the interface and buttons, causing the effect of cultural communication to be superficial and unable to play its true role. Therefore, relevant personnel need to scientifically design their display content, interface style and other content^[3]. According to the actual situation, this design adopts a combination of click switching and sliding switching for hierarchical interaction design. First design the logo as shown in Figure 1. Click on the logo to enter the home page interface. The home page also plays a welcoming role. Figure 2 uses the layout style of the book cover, as if the fresco is wrapped under the cover, waiting for users to experience it; through the home page The button allows users to enter the second-level page. The second-level page is mainly composed of the two parts of Dunhuang Appreciation and musical dance fresco Appreciation. The former will enter the graphic introduction interface to introduce some musical dance knowledge of Dunhuang fresco, and help users do a simple introduction.



Figure 1. Show design logo

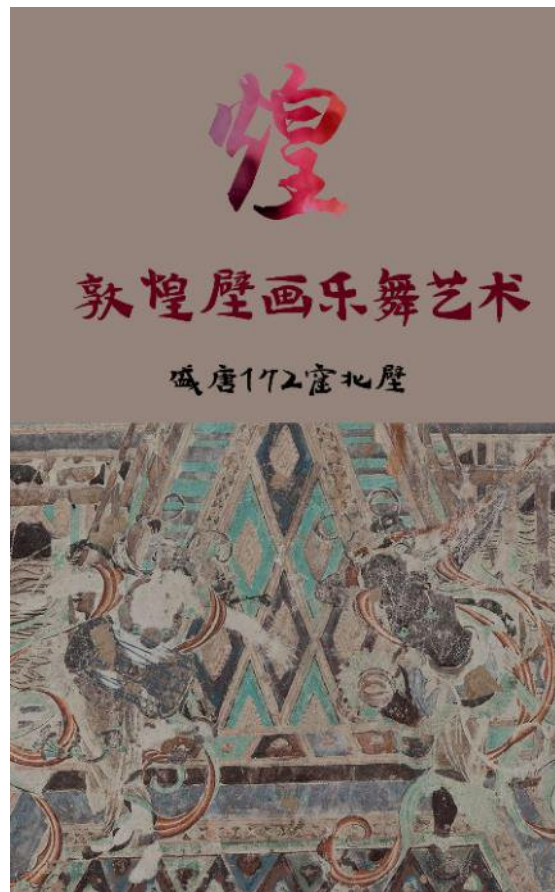


Figure 2. Presentation design navigation page

3.2 Interactive design based on the artistic characteristics of fresco music

The types of musical instruments in the Dunhuang frescoes are diversified, and the relevant departments of the Chinese government have restored the shapes and sounds of the original musical instruments. And there are more than 20 ancient

music in Dunhuang music scores that still exist in modern times. These are all worked hard by professional researchers^[4]. Therefore, it is not difficult to find that there are many musical instruments in the Dunhuang frescoes, and these musical instruments have been restored to the greatest extent, that is, the two elements of sound and vision of ancient music have been restored. The sound effects and musical instrument styles in the frescoes are fully restored through digital technology. Users can feel the charm of Dunhuang at any time. At the same time, the ensemble is added, allowing users to participate in the viewing. The main steps are as follows: First, identify the musical instruments. In the frescoes in the Tang Dynasty, due to various natural disasters, it is difficult to find the types of musical instruments in the hands of the singer. Therefore, it is necessary to further search for corresponding restoration maps. Finally, through the unremitting efforts of the researchers, the basic picture of the fresco was finally drawn successfully. By comparing with the original fresco, the names of more than 10 musical instruments have been successfully identified and recorded. The second step is to restore the sound elements. The more than 10 musical instruments restored by the researchers are all common types at this stage, such as konghou, pipa, etc. The solo sound of each instrument can be intercepted by interception, but here it is worth noting that the sound of these solo music must be short, once the sound is too large, it will directly affect the performance of the instrument, and even destroy the sense of coordination of the music. Although some musical instruments have found their written records and names at this stage, they can only imitate shapes and cannot replicate their sounds. The third step is to design the Dunhuang ancient music ensemble. This aspect has always been complicated by the national professional Dunhuang musical dance Ensemble. It can choose the tune of the music at will. At the same time, it will remove the tunes of modern instruments and the suona tunes, and finally get three pieces. Dunhuang ancient tunes "Water Guzi", "Jijizi", "Slow Tuning Xijiangyue"^[5].

3.3 Interactive design based on the artistic characteristics of fresco dance

Among the musical and dance artistic images of Dunhuang frescoes, the most popular among the audience is the rebounding pipa in Cave 112 in the Mid-Tang Dynasty. Its movements are very soft and full of imagination. All maiko is in an S-curved shape, but although the entire body is in a slanted shape, but the center of gravity did not sink, as if hovering in her body with a single breath, she has been unyielding for a long time, and her aura drives Shen Yun to make people feel deeply stuck in it. It is not difficult to see from the above that the image of rebounding pipa has very high requirements for the flexibility of the body, which is also an important factor for elegant and beautiful movements. Therefore, relevant personnel can use this aspect to give full play to the essence of the rebound pipa, thereby completely copying this classic dance music, giving the rebound pipa a flexible image. To reproduce the rebounding pipa, we need to go through the following steps: First, we must find the key points of the rebounding pipa movement and portray the static image of the rebounding pipa. The image of Ji is the foundation, which contains very high professionalism and artistry, so by extracting this dance drama, we can clarify the key points of rebounding the pipa^[6]. In the end, we can find a total of 10 key points. For example, the design can bind two different elements, and the dancer's left hand has not left the pipa. The second step. Rebound pipa reproduction, which is mainly using Photoshop technology, grasping its key points, and repeatedly contacting^[7].

4. Summary

In summary, with the continuous development of science and technology, various information technology has been integrated into various industries, and people have gradually combined digital technology with traditional culture and art, innovated protection methods, and adopted digital display methods. This not only avoids the historical boring phenomenon, but also introduces the time when the frescoes appeared and the background of the characters to the audience through images, combining the senses and knowledge. On the premise of ensuring that the frescoes are not damaged in any way, it plays a role in disseminating art and culture.

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