

The Aesthetic Features and Digital Expression of Dunhuang Frescoes

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Abstract:

As one of the classical dance genres, Dunhuang dance is unique and has its own characteristics. The dance images behind it contain the essence of many dynasties' dance cultures over a thousand years of history. It is not only unique in form and style, but also exquisite in the presentation of imagery and artistic conception. Further analysis and discussion can be made by combining the design and aesthetic characteristics of Dunhuang's Flying Apsaras murals, while looking forward to the development of traditional culture.

Keywords:

Dunhuang, Flying Apsara Murals, Aesthetic Characteristics, Digitization, Media Innovation

1. The Formal Beauty of Dunhuang Dance

1.1. *Three bends, seeking roundness through curves.*

"The Three Curves" is a typical form in the dance of various ethnic groups in the East, such as Dai dance, Northeast Yangge dance, Yunnan Huadeng dance, etc., all of which show the "Three Curves". However, due to differences in historical culture and aesthetics, the Three Curves forms of each dance are different and have their own characteristics. In Dunhuang dance, the "Three Curves" shows an elegant and dignified temperament with a touch of mystery, and its unique features include barefoot hooking, a sinking overall posture, protruding hips, and forward-leaning body posture. The "Three Curves" of Dunhuang dance originated from Dunhuang murals, where Tang Dynasty dances accounted for two-thirds of the dance images. The dance images in Dunhuang murals combine the softness of Central Plains music and dance, the boldness of Western Regions music and dance, and the mystery of Buddhist dance. Through the creation of subsequent dance artists and the interpretation of performers, the "Three Curves" presents an enchanting and mysterious temperament, leaving the audience with endless aftertaste.

1.2. *"Feitian" image is graceful and implicit.*

Creating highly typical artistic images is the goal of dance. Dunhuang dance uses the graceful and implicit “Feitian” (flying celestial being) as a iconic dance image. According to historical records, “Feitian” originally referred to the combined name of the Buddhist sky song god “Qian Dapo” and the heavenly music god “Jinna Luo”. Their appearance was non-human and included horns, and their duty was to serve the Buddha and Emperor Shitian. Compared with other Feitian images, the Feitian images in Dunhuang murals are quite different. The thousands of postures of Feitian images on Dunhuang murals gradually formed in the rise of the Silk Road and the friction and collision of different cultures. They include “Western-style Feitian, Northern Wei Feitian Group, Southern Dynasties Feitian, Kuchean Feitian, Tang Dynasty Feitian, and the Feitian of the Middle and Late Tang Dynasty, as well as the Song and Yuan Dynasty Feitian.” The Feitian in Dunhuang dance is a variety of Feitian images from various orchestral music, which shine from the quiet caves. From static to dynamic, they are vividly presented in front of the audience, not only impressing people with their flying dance posture, but also astonishing people with their artistic value and national spirit.

2. The Stylistic Beauty of Dunhuang Dance

Style is the representative appearance of an artistic work as a whole. As a form of art, dance also possesses a distinct style with the characteristics of the times. The style of Dunhuang dance represents the beauty of dance during a specific era.

2.1. Rich in Buddhist elements

The opening of the Silk Road provided a gateway for cultural exchange and collision among different countries. Buddhism was introduced to China during the Eastern Han Dynasty and had a profound influence on China's music and dance culture. Dunhuang, influenced greatly by Buddhism, had a unique geographical location and became a pearl on the Silk Road. In the Han Dynasty, the Silk Road started from Chang'an, passed through the Hexi Corridor to Dunhuang, and then split into two routes at Yumenguan and Yangguan. The southern route started from Dunhuang, passed through Loulan, Yuecengling, and arrived in Anxi, while the northern route passed through Gaochang, Kucha, Yuecengling, and arrived in Dayuan. The musical and dance images in Dunhuang murals reflect Buddhist culture and history, with a profound foundation in Buddhism and rich and colorful artistic characteristics and strong artistic vitality. They have become an important part of Dunhuang dance.

2.2. The charm of the Western Regions fully displayed.

Dunhuang dance showcases a unique Western Regions style. As an important node on the Silk Road, Dunhuang's dance art has formed a distinctive style due to the fusion of Eastern and Western cultures.

The cultural exchange of music and dance between the Central Plains and the Western Regions has a long history. In the late Warring States period, the grand plan of “Qin Wang Sao Liuhe” (King Qin sweeping the Six Kingdoms) triggered a trend of Han ethnic dances. With political stability and economic prosperity, the cultural exchange of Han music and dance continued to expand during the Han dynasty. The colorful cultures of the seven states gathered in the Central Plains, forming a new comprehensive performance form called “baixi” (hundred plays). Western Regions music and dance also entered the Central Plains during this time.

The cultural exchange of music and dance between the Central Plains and the Western Regions has had a far-reaching impact. Zhang Qian brought back the music “Mahadou music” from the Western Regions, which was later made into military music. Han Lingdi also loved Western Regions culture very much, and historical records state that “Lingdi liked the Hu dress, Hu tents, Hu boards, Hu flutes, and Hu dances, and the noble families in the capital all competed to imitate them.” The “Western Liang Music” that combined elements of the Central Plains and the Western Regions during the Wei, Jin, Southern and Northern Dynasties also became a model of cultural exchange between the East and West. Seven of the ten music sections in the Tang dynasty’s “Shibu Yue” (Ten Music Sections) were sourced from the Western Regions.

Therefore, in the Dunhuang murals, we can see dance images that are extremely characteristic of the Western Regions, such as barefoot dances and colorful hand gestures, showcasing exotic styles.

2.3. Tang dance is full of charm

Dunhuang dance is a treasure of cultural exchange between the East and the West, bringing together the dance arts of ten dynasties, with the Tang Dynasty dance as the main representative. Tang Dynasty dance is the pinnacle of ancient Chinese dance, and the unprecedented prosperity of dance culture in the Tang Dynasty had a profound influence on Dunhuang wall paintings. During this period, Dunhuang dance art reached its peak as a mural carrier, with musical dance forms and dance postures reaching the highest level in history, presenting a colorful and diverse artistic style.

3. The Imagery Beauty of Dunhuang Dance

In artistic creation, imagery is divided into two categories: “imagery in the mind” and “imagery with meaning.” “Imagery in the mind” refers to the inner images that arise in an artist's mind during conception but are not yet expressed, and it is an internal image. “Imagery with meaning,” on the other hand, refers to the concrete objects that embody an artist's thoughts, emotions, and aesthetic taste in their artistic works, and it is an external image. Here, “Yi” refers to a person's will, thoughts, etc. while “Xiang” refers to concrete, perceptible objective objects. Imagery is a form of artistic expression that is refined and condensed, while “Xiang” gives the viewer a direct, three-dimensional perception based on “form.”

3.1. The aesthetic pursuit of transcending the ordinary and the mundane.

Dunhuang dance conveys the artist’s “inner images” or aesthetic pursuit and attitude through body language. In Daoist terminology, “transcendence” means being different from ordinary people, transcending the mundane and possessing an elegant aura. The essence of Dunhuang art lies not in mechanical realism, but in creating images and artistic conception, emphasizing the traditional Daoist culture that focuses on images and the cultural heritage of freehand brushwork. The aesthetic pursuit of Dunhuang dance lies in shaping an elegant and transcendent artistic image, which symbolizes reverence for gods and the world, and a yearning for a beautiful life and freedom. Since the end of the Eastern Han Dynasty, Buddhism has been introduced into China, which has had a huge impact on Chinese culture and art. To promote Buddhist culture, temples were built in southern China, and caves were excavated in the north. Therefore, Dunhuang murals were originally used to promote the “meaning” of Buddhist culture through the “form” of murals.

3.2. Exquisitely Beautiful Aesthetic Attitude

For hundreds of years, countless Dunhuang dance artists have deeply loved and devoted their wisdom to it, and this special artistic image is still the object of their talent and energy. They are committed to creating a “spiritually beautiful” Dunhuang dance image, that is, to express the ethereal and mysterious feeling conveyed by Dunhuang dance to the extreme, making Dunhuang dance full of spirituality, as if immortals descended, and the audience’s mind is peaceful. Therefore, artists do not deliberately pursue the similarity of movements, but achieve the purpose of expression by shaping the image of gods. For example, in the dance drama “Silk Road Rain”, Yingniang danced with a pipa in order to help her father relieve his worries and stimulate creative inspiration. In this dance, Yingniang's movements are elegant and dignified, and also show the cute and shy expression of a daughter.

4. The Artistic Conception of Dunhuang Dance

The blending of scenes and the unity of reality and fantasy presented by dance images is the highest realm of dance artistic conception. Artistic conception contains profound philosophical and universal consciousness. The combination of “conception” and “realm” is the unity of the creator's emotions and ideals, and the objective reflection of living images. Wang Guowei once referred to “artistic conception” as “realm”, referring to various emotions in the human heart. “Artistic conception” is the “image beyond the image”, with a richer connotation than “artistic image”. Dance can create the highest realm like a poem or a painting with profound implications, and can also stimulate people’s imagination and association. The imagery of Dunhuang dance is mainly based on “gods”, which stems from people's respect for gods and their yearning for immortals. For example, the flying goddess in the Dunhuang dance has a graceful posture flying in the air, creating a beautiful and mysterious artistic conception. Dunhuang dance creates a dreamlike realm, arousing infinite imagination. The ethereal music, hazy stage setting, and fluttering ribbons in the opening of the dance drama “Silk Road Flower Rain” are even more enchanting.

5. The Aesthetic Features of Dunhuang Murals in Design Are Expressed in Digital Form

5.1. The application of digital technology in Dunhuang Mogao Grottoes

The Mogao Grottoes in Dunhuang witnessed the convergence of diverse cultures and are the world's oldest, most complete, content-rich, and exquisitely artistic Buddhist art site. In order to inherit and protect this valuable world-class intangible cultural heritage, the Tianjin Academy of Fine Arts held a special online exhibition activity titled “Encountering the Oldest Cave in Mogao Grottoes” in the art book ARTBOOK's “Cloud Art Museum” section. Based on the experiences of the Tianjin Academy of Fine Arts creation team’s research and cave collection in Dunhuang Institute, the team carried out panoramic 3D modeling and cave restoration of digital images applied for from the Dunhuang Institute, providing online viewers with a unique visual feast to perceive the Mogao Grottoes culture.

The creation team built a three-sided CAVE space at the Xitaihu Art Museum in Jiangsu Province as an immersive area . Using hecoos to perform a full-scale project rehearsal in advance, they designed camera positions and quantities, curtain positions and sizes, and projected video content effects. On-site, they used hecoos to control the

screen output to five Diheng DU710ST projectors to create an immersive space using back projection, and output 7.1-channel audio subtracks to create a 360-degree surround sound effect.

The immersive effect of the exhibition is presented by overlaying two layers of video image and real-time rendered image using NOTCH. The video image layer is played normally on the lower display layer of the screen, while the NOTCH real-time rendered image layer depends on hecoos and the direct connection between the radar and NOTCH to sense the audience's position. Hecoos transmits the position information to NOTCH in real-time, and NOTCH presents a real-time moving and changing rendering image at the corresponding position on the screen as the audience moves. This double-layered visual presentation undoubtedly provides a better immersive experience for the exhibition audience.

Using holographic digital projection technology to recreate the millennium-old murals and cave scenes of the Mogao Grottoes in a panoramic view, and through immersive scene reproduction and interaction, it deepens the contemporary audience's interest and understanding of Dunhuang culture. The holographic digital projection technology allows the audience to perceive the ancient Buddhist kingdom in an unprecedented technological way, and have a novel and interesting dialogue with the ancient and profound Chinese civilization, transcending time and space.

5.2. The development of traditional culture and art in the field of digitalization

With the research on the global presentation media by creators, their modes of expression have gone beyond direct representation of phenomena. The viewer's participation has also evolved from the "outside the picture" period to the virtual reality "inside the picture". Works also place more emphasis on the textual representation of the mediums sense of space brought about by new media, and the artistic language characterized by holographic and immersive experiences is becoming more mature.

The "globalized creation" of art is an important process for humans to understand themselves, to better interpret the spiritual and material world. Especially under the background of artificial intelligence, the collaboration between humans and machines will become the norm, and the era of the Internet of Things will follow. How to improve the independence and uniqueness of artistic creation in the industrial chain, including issues related to digital copyright in the future, are urgent problems to be solved after art works tend to become industrialized. "Globalized art creation" will make us more accustomed to switching identities in the "virtual" and "real" worlds, and feel the incomparable charm of art from more diverse perspectives.

Another innovative industrial form that has gradually grown with a series of digital works is the Japanese art group called "TeamLab". Their works are mostly created through large "light and shadow interactive installations" to create an "immersive experience" space (Figure 1). Founder Toshiyuki Inoko began creating and exhibiting under the name of TeamLab in 2001. The team has grown from the initial five people to more than 400 people, bringing together artists, computer engineers, programming designers, animation designers, experts in mathematics and architecture, and other fields. They are good at connecting art, science, design, and traditional culture through team collaboration, and forming a brand new way of viewing and experiencing. From their development status, it can be seen that as a creative team, they are no longer just focusing on the short-term experience and communication of

works, but establishing a series of cultural industry forms based on works. TeamLab creates multiple art museums based on original works, has a large number of exhibition derivatives, and customizes and disseminates exhibition content with traditional cultural IP in museums. This move has given the team a professional perspective and appeal internationally. It can be seen that technological art creation provides a unique way of presenting traditional culture, which is conducive to better creating traditional cultural IP and diversified creation of traditional culture. With the development of the “post-digital era” industry, this new media form will not only have an impact on the creation and transformation of traditional culture but also bring about a change in people’s thinking and promote social change, making cultural consumption not limited to traditional art museums, concert halls, or physical public spaces. Cultural content can also be transmitted through virtual signals on more paths, and people can choose how they receive it. As for the content creation of cultural dissemination by artists, they are no longer confined to the single symbolic expression of language, text, sound, or body language, but can use media more excitingly and creatively, greatly enriching people’s spiritual and cultural life (Figure 2).



Figure 1. Immersive experience "space".



Figure 2. Post-digital era exhibition.

6. Conclusions

In summary, the beauty of Dunhuang dance can be seen in four aspects: form, style, imagery, and artistic conception. In terms of form, the most notable aspect of Dunhuang dance is the “Three Curves” movement and the “Flying Deity” imagery, which embody the graceful and dignified qualities of the “divine”. In addition, the distinct Buddhist and Western Regions’ cultural influences, as well as the Tang Dynasty style, bring the figures to life with a vivid and mysterious quality. Dunhuang dance also places great importance on conveying imagery and creating an artistic conception. In terms of imagery, the “form” and “shape” blend together seamlessly, resulting in a unity of form and spirit. In terms of artistic conception, the dance creates a dreamy and romantic atmosphere, conveying people's aspirations for beauty and goodness.

Each era has its own form of art, and immersive reproduction and interactivity are unique forms of artistic presentation in today's era. They are more conducive to the better inheritance and development of outstanding Chinese traditional culture in contemporary society.

Conflicts of Interest

The author declares that there is no conflict of interest regarding the publication of this article.

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