

Research on the Integration and Application of Regional Culture in Digital Media Art Design

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Abstract: Currently, digital media art and design are widely used in various industries. Combining regional culture with digital media art design can add a rich cultural heritage, improve design quality, enrich design content, and promote the dissemination and development of regional culture. This paper explores the application of regional culture in digital media art design from the perspectives of its current status, value, and principles. The more important, the paper thinks that the integration and application of regional culture in digital media art design is to combine unique cultural elements of the region with digital media art, and create works with unique style and significance. Therefore, it is necessary to optimize the integration of digital media art and regional culture. Digital media art designers should use digital media technology to actively explore regional cultural content, integrate the spirit of the times into design, and continuously expand the development space of digital media art design.

Keywords: Regional Culture; Digital Media Art Design; Fusion Application

1. Introduction

Digital media art design refers to a new art form that is based on digital technology and modern media technology, integrating human rational thinking and artistic perceptual thinking. The combination of regional culture and digital media art design is conducive to highlighting the unique charm of regional culture. However, there have been issues with excessive emphasis on technical rendering in the current fusion process of them, which requires complementary advantages in the fusion application process.

2. The Value of Integrating Regional Culture into Digital Media Art Design

Regional culture is a unique traditional culture and art within a certain region, which is a concentrated reflection of regional history, culture, and folk customs. China's regional culture has undergone a long historical sedimentation, containing rich cultural elements, and the development of cultural content tends to be stable. Digital media art design takes digital technology as the carrier. Therefore, the combination of regional culture and digital media art can better present regional cultural content and disseminate regional culture. [1]

2.1. Having a Good Cultural Interaction Experience can Enhance the Public's Sense of Participation

The emerging digital media art has strong technicality and interactivity, which helps to achieve direct transmission of cultural information, and can eliminate external information interference, interact well with the audience, and make the effect of cultural transmission better. By utilizing digital media technology, regional culture can truly achieve "immersive" display, increase interaction with the audience, promote better inheritance and development of regional culture, and achieve "resonance" between regional culture and the audience. For example, the China Grand Canal Museum in Yangzhou uses NFC projection technology to create an immersive digital exhibition hall, utilizing modern technologies such as AR and body sensory interaction. In another exhibition hall called "Boats on the Canal", the staff of the Grand Canal Museum meticulously restored the luxurious passenger ship "Sandspaceship" from the Kangxi era in a ratio of 1:1.4. The outer side of the cabin is a 360 ° circular screen with a height of about 9 meters and a circumference of about 62 meters. 19 NEC Louis series laser projectors, CN5550QL (5000 lumens, 4KUHD), restore

the prosperity of the Grand Canal to tourists at that time. The CN5550QL supports 360 degree free rotation installation, with flexible installation methods that easily achieve 360 degree circular projection. At the same time, through fusion technology, it presents a smoother and more realistic view of the canal. Tourists take a cruise ship from bustling Suzhou to the vast Central Plains. Accompanied by the sound of rippling water, they embark on an immersive journey that combines reality and emptiness, truly experiencing the prosperity of the past. Boating on the water, the waves sparkle. Under the "reflection" of six CW5700UL, the ground around the sand spaceship directly "transformed" into a canal channel, further enhancing the visual enjoyment of tourists. [2] This design deepens visitors' understanding of the Grand Canal culture and promotes its dissemination and development.

2.2. Enriching Cultural Dissemination Methods and Promote Regional Cultural Dissemination

The arrival of the Internet era has made cultural dissemination increasingly convenient and rapid, with richer dissemination content. In this regard, regional culture can combine digital media art to create excellent new media cultural projects, and the public can receive cultural information anytime and anywhere through Tiktok, Kwai, Weibo and other network platforms. These new forms of cultural dissemination have broken the boundaries of time and space. With the support of 5G information technology, it is possible to freely share, disseminate, and communicate around the world. This can promote better dissemination of regional culture and a wider range of dissemination. The online museum created by the Beijing Museum relies on 3D technology and VR holographic technology to create a digital exhibition space. The public can visit and tour online through any electronic media client, and can also appreciate cultural relics online through digital media technology. Ancient paintings can be "brought back to life" through digital technology, making the appreciation of cultural relics more interesting. [3] At the same time, it maximizes the avoidance of damage to cultural relics, ensuring safety and integrity.

2.3. Adding Cultural Expressions and Creating a New Sensory Experience

Regional culture has mainly been presented to the public in the simplest and most ordinary way throughout the long history. For example, oracle bone inscriptions and Hanfu use turtle shells, cloth, and silk as cultural carriers. The public perceives cultural information through viewing and experiencing. This form of cultural expression is traditional and singular, and is the most direct form. However, with the widespread application of digital media art, various new media digital technologies have emerged. These technologies, combined with regional cultural elements, can bring more cultural expressions and enhance the public's sense of experience. The underwater dance *Qi (Rhapsody on the Luo River Goddess)* broadcasted by Henan TV broke through conventional dance performances and boldly innovated on the stage and ground. By combining new media technology with underwater light to create a beautiful stage background, it successfully achieved innovative forms of underwater dance. This unique expression perfectly showcases the beauty of Tang Dynasty dance culture, spreads regional culture, creates a new sensory experience, and enhances the charm of regional culture.

3.The Application Status of Regional Culture in Digital Media Art Design

3.1. Lack of Novelty in Creative Content, Homogenization of Artistic Design Content

In recent years, with the proposal of the concept of "Beautiful China, Cultural China", traditional culture in China has received increasing attention, and more designers are using regional cultural elements to design their works. However, some problems were also exposed during this process, as the creative content lacked novelty and a large amount of regional cultural elements were piled up. Regional culture has strong regional characteristics. Without in-depth investigation and understanding, art designers mechanically stack cultural elements in their works, which makes the designed works unable to connect vividly. Moreover, digital media art in China started late and developed rapidly, which leads to the phenomenon of excessive imitation of

others' works and theft of their creativity in artistic and cultural design. This has led to a proliferation of common cultural material works and a lack of innovation in cultural design works. The above-mentioned issues not only hinder the dissemination of regional culture, but also make it difficult to enhance regional cultural competitiveness and form regional cultural characteristic symbols. [4]

3.2. Excessive Emphasis on Digital Technology and Neglect of Cultural Content Expression

The original intention of digital media technology in regional cultural integration is to spread local culture, drive the development of local cultural industries, and enrich the connotation of artistic and cultural design works by integrating regional cultural elements, enhancing the infectivity of the works. However, in reality, our country excessively renders technology in regional cultural design, disregarding the accumulation of content technology to pursue the ultimate visual and color experience. This makes the public dizzy in the experience, unable to appreciate the rich connotations expressed by regional culture, and reduces the appeal of cultural design works. Therefore, in the process of integrating regional culture and digital technology media, it is necessary to make some choices and highlight the cultural connotations of the work, and not confuse cause and effect.

3.3. Creation Works Lack the Spirit and the Connotation of the Times

The lack of contemporary spirit in the creation of digital media art and design is a problem that needs to be seriously faced and solved. In digital media art design, the spirit of the times is one of the key factors, which can make works more profound, influential, and attractive. The spirit of the times is often closely linked to social problems and challenges; Digital media art and design endow the era with connotations that can be used to reflect and explore current social issues, such as environmental issues, social inequality, technological ethics, etc. Digital media art and design are a part of contemporary society, closely linked to the times. From social media to virtual reality, digital media technology plays a huge role in shaping our culture and communication methods. Digital media art

design should reflect the impact and changes of these societies that endow the works with contemporary connotations. [5] In this way, art and design works can become a part of social dialogue and change, better conveying regional cultural knowledge and values.

4.The Optimization Method of Regional Culture in Digital Media Art Design

4.1. To Actively Explore Regional Cultural Content and Highlight Regional Cultural Characteristics

Firstly, digital media art designers need to conduct in-depth research on the historical and cultural aspects of various regions, including local customs, historical events, and celebrity stories. Secondly, we should collaborate with local residents and cultural inheritors to provide designers with authentic cultural information and special cultural interpretations, and help them create works with more cultural depth.

4.2. To Grasp the Principle of Moderate Integration of Technology and Pay Attention to the Integration Method of them

Designers can use digital media technology to reinterpret traditional cultural elements in a more attractive way, but they should not break through the cultural bottom line and excessively change the cultural essence. They should maintain the characteristics and integrity of regional culture. Designers can choose appropriate digital media technologies, such as virtual reality, interactive devices, digital painting, etc., and comprehensively utilize multimedia elements such as vision, sound, interaction, and text to better present regional culture. For example, the animated film *White Snake* uses 3D modeling technology and virtual reality technology to showcase the cultural characteristics of West Lake and the elements of ancient Yin and Shang cultures, allowing the audience to fully and truly experience the beauty of regional culture. While grasping the theme of regional culture, appropriate digital media technologies have been selected, resulting in the success of the series of national style animations. Therefore, the integration of regional culture and digital media design should not only respect tradition but also demonstrate a sense of modernity. [6]

4.3. To Integrate the Spirit of the Times Into Creative Design, and Deeply Processing Cultural Content Design

The integration of digital media art and design into the spirit of the times is to better reflect the current social situation and public needs of the work, and also to endow the work with deeper connotation and value. When creating works, designers should first understand the spirit of the times and recognize that the social, cultural, and political backgrounds of different eras are constantly changing. [7] Digital media art designers need to constantly update their knowledge system and expand their horizons, reasonably select regional cultural elements and integrate them into their works for precise modern and diversified processing, so that design works can more vividly express the style of the times, truly achieving the charm innovation of regional culture and digital media art design.

5. Conclusion

Integrating regional culture into digital media art design can provide designers with design inspiration and creative ideas, present regional culture to the public in a more three-dimensional and full manner, achieve digital transformation of regional culture, promote the inheritance and development of regional culture, and stimulate the vitality of regional cultural industry. With the continuous development of society, there will be even broader development space for the integration and innovation of regional culture and digital

media art design in the future.

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