

Taking the Immersive Dynamic Visual Expression of "Van Gogh Alive" as an Example, Explore the Digital Expression of the City Brand Image

Zhujianghe Zhao^{1,2}, Sazrinee Zainal Abidin¹, Nazlina Shaari¹,
Meng Liu¹, Shihao li¹

¹Faculty of Design and Architecture, University Putra Malaysia, Selangor, 43400, Malaysia,

²Guangdong Aib polytechnic college, Guangdong, Guangzhou, 510000, China

Email: 90kellychao123@gmail.com

To Link this Article: <http://dx.doi.org/10.6007/IJARBSS/v14-i10/22949> DOI:10.6007/IJARBSS/v14-i10/22949

Published Date: 14 October 2024

Abstract

The article describes the exploration and thinking between the large-scale art exhibition - Van Gogh Dynamic visual digital exhibition and the digital image of the city brand. In 2023, the 170th anniversary of Van Gogh's birth, the multi-screen immersive digital light exhibition "Van Gogh Alive" Special commemorative edition of the World's 90th City will be opened to the public at the Shanghai World Expo Museum. More than 1,000 square meters of space will be used to show the short and crazy life of Van Gogh with digital images, and the immersive exhibition will bring unlimited viewing experience to the audience. These dreamlike dynamic visuals perfectly showcase themed reproductions of Vincent Van Gogh's most famous artistic creations, immersing visitors in an artistic wonderland of projections, images, music and scenes. At the same time, these images and audio and video are spread throughout the exhibition venue. How to think about these exhibitions and explore the impact of panoramic holographic ultra-high-definition representations on visual art. This paper takes digital van Gogh art as the central case, adopts the case study method, and mainly discusses whether the new immersive exhibition mode with traditional culture as the theme can be applied to the promotion of urban brand image. At the same time, it discusses how to use digital immersive expression techniques and combine local cultural elements to make the audience feel immersive and enhance the visual image of the city brand. Through the case of Van Gogh's immersive experience, the audience can feel a different artistic and cultural atmosphere. Combined with the digital light and shadow exhibition of specific large-scale public buildings and landmark buildings, the unique digital memory of the city is reproduced and the charm of the city is enhanced.

Keywords: Digital Media Art, Immersive Experience, Interactivity, Cultural Heritage, City Brand Image

Introduciton

In the digital age, in immersive large-scale themed digital exhibitions, huge digital replicas of Van Gogh's paintings are displayed in huge spaces. These paintings are projected by hundreds of cameras to form a 360-degree exhibition (Oldfield, 2024), often accompanied by dynamic music and voiceovers, giving people an immersive feeling. Van Gogh's immersive experience stimulates visitors' emotions and feelings. (África, Ruíz Gándara, et al, 2023). The "Imagination of the Mind-Van Gogh Art Experience Exhibition" held by the National Museum of China in June 2019 is an immersive exhibition that combines interactivity and multi-sensory experience. It uses virtual reality (VR) technology to reproduce scenes in Vincent William Van Gogh's works, allowing the audience to "walk into" the world in Van Gogh's paintings. Using light and shadow as a brush and music as the background, the paintings are projected on a huge screen, and the audience seems to be in the scenery in the painting, with a sense of "people swimming in the painting". (Wang Haotong, 2021) to achieve a real sense of perception. Light and shadow lighting effects not only shape the night view of the city, but also have an important impact on the audience's vision and psychology. Taking light installation art as the research object, summarize its light and shadow forms in shaping urban public spaces (Zhao Huina, 2024). The history of projection can be traced back to the 1840s (Schivelbusch, 1988). It not only projects light beams, but also pictures, texts and videos (Kronhagel, 2010). Globalization exists both in artworks and in the current public art construction objects. With the rise of new media art, globalization has enabled many major cities in the world to continuously participate in the competition for cultural, creative and commercial dominance.

In the 21st century, the digital field plays a key role in elevating cities to a new level of development. (Haeusler, M. H., & Barker, T. 2009). Today, as all parts of the world are working hard to build city brands, public art activities are becoming one of the important means of city branding strategies (Feng Qiao, 2014). In the digital age, people use emerging digital media to understand urban culture and experience urban life. Digitalization has become a basic condition for the shaping and dissemination of urban brand images. More and more cities are developing towards "digital cities (digital cities are the reproduction and reflection of physical cities in digital network space)" (Xu Jing, Chen Xiuwan, 2013). At this stage, the shaping of urban brand images focuses on technology rather than humanity. If we blindly copy the model of "digital technology + urban impression elements", it will be difficult to form a deep interpretation of the urban context, thus forming a homogenization phenomenon of urban images of "all cities look the same" (Li Shujie, 2023). However, the shaping and dissemination of urban brands cannot be completed overnight. It must be combined with the characteristics of the city itself and continuously shape this brand culture from the aspects of natural environment, human environment, etc. (Xu Yan, 2014).

Methodology

This study is based on the study of Van Gogh's immersive digital visual art, using a case study approach, including background, analysis, theory, and commentary. References include peer-reviewed academic journals, newspapers, magazines, and websites, exploring the main research questions. Explore the application of emerging immersive exhibition models with traditional culture as the theme in the city brand image, as well as the necessity of city brand enhancement. Centered on cultural city brands, combined with specific large-scale public buildings and digital light and shadow exhibitions of landmark buildings, explore the use of

different expression techniques combined with local cultural elements to promote the audience's empathy model. Analyze successful cases to achieve the key performance elements of how to enhance the city brand image. How to let the audience experience different artistic and cultural atmospheres. Reproduce the city's unique digital memory. Enhance the charm of the city.

Digital Immersive Scene Design

Do audiences in the 21st century need immersion and animation to appreciate the originally static 2D paintings? (Mondloch, 2022) If so, this may be due to the mode of communication networks in modern society, the diverse means of communication, and the development of digital society. The popularization and dissemination of digital technology has reduced the public's acceptance of traditional static art forms. Immersive experiences are similar to the term "flow" in psychology, which means to focus an individual's attention on a specific behavior. (Su Weilin & Ling Jie, 2024). What is the most important feature of immersion? The sense of self-loss in a certain experience or story, that is, the participants are completely immersed in the environment in the immersive experience, so that they forget the concerns and responsibilities in real life, and replace them with an immediate sense of importance and value (Zhang Zhenpeng, 2020). Immersive experience gives people a sense of being in the scene, and digital technology can better express the connotation of immersion, achieve a realistic effect, and integrate virtual visuality, experience, and interactivity, and finally achieve a feeling that cannot be described in words.

However, immersive displays do not completely abandon traditional static art forms. However, immersive 3D animations allow viewers to feel more involved and empathetic to the work. This brings new challenges and changes to art design. Through innovation and adaptation, art groups can maintain their relevance and appeal in the digital age (Wang Ping, 2023). "There has to be a way to bring people back to that discovery, even if some of us take selfies afterwards," Farago said. Even in "traditional" art museums such as the Van Gogh Museum and the Museum of Modern Art, relying on mobile phones to watch has become close to the norm (Farago, 2019). However, the Van Gogh immersive experience takes these mobile-mediated experiences to a new level, deliberately designing an environment that is screen-based and social media-centric. He added that this foreshadows our discussion of selfies, "and there is enough space to crop out other visitors and frame only yourself." (Farago, 2021). In short, traditional ways of viewing may need to be rethought to attract and retain the audience's attention, meet the needs of modern audiences and a challenge to social media.

Digital Art Immersive Scene Design

Immersive scene design for digital media art occupies an important position in the fields of experience design, sensory design, etc. The core meaning of immersive scene design for digital media art lies in the formation of the scene, which is both subjective and objective, showing integrity and ambiguity. In addition, interactivity is also one of the most prominent features of immersive scene design for digital media art. Van Gogh is one of the most ingenious and profound artists in the history of art. His works are full of mystery and fantasy, as if they were a wonderful journey to explore the inner world. Today, "Van Gogh Alive: An Immersive Visual Journey" opens a new chapter in art for us in an unprecedented way.

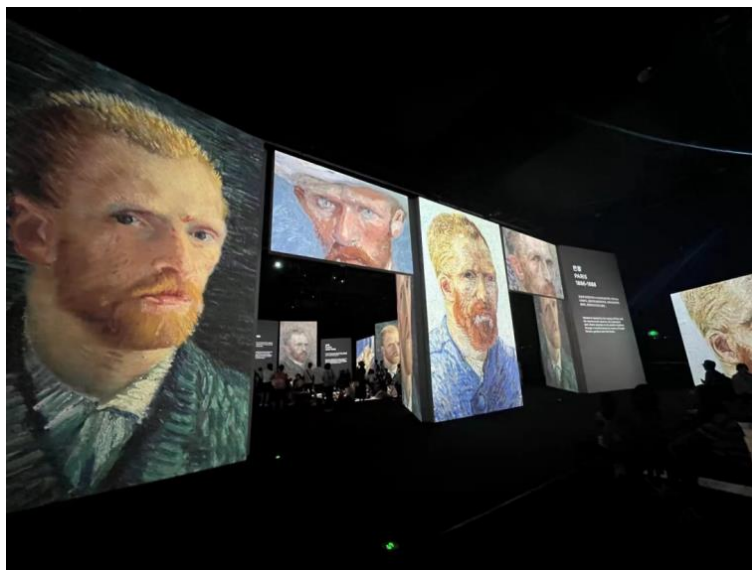


Figure 1: 2023 Van Gogh Shanghai Exhibition Picture Source: Zhao Zhujianghe/Photo

This unique experience is no longer limited to the walls of the gallery, but leads the audience into Van Gogh's visual world in an immersive way. Once you step into it, it's like traveling through time and space, immersed in the moment when Van Gogh created his works. The colors on the canvas surge like a tide, outlining the starry night, sunflowers, wheat fields, and dreamy starry sky, each of which seems to be a subtle illusion. This visual journey is not just a simple display of Van Gogh's works, but also a deep challenge to the viewer's senses. The fusion and interweaving of dynamic images, music, and changing light and shadow create a series of soul-stirring paintings. The viewer seems to be able to feel the painter's emotions, every stroke is a heartbeat, and every color is a story that reaches the empathy of the heart. Behind this visual feast is the clever use of digital technology. Through projection, sound effects, and interactive design, the exhibition breaks the boundaries of traditional art presentation and allows the audience to become part of art. The viewer is no longer just passively appreciating, but completely immersed in it, interacting with Van Gogh in the illusion, and feeling his works and his life.



Figure 2: Van Gogh Shanghai Exhibition in 2023 Photo source: Zhao Zhujianghe/Photo

This is not just an ordinary exhibition, but a perfect combination of digital technology and Van Gogh's art, and a large-scale sensory show of world famous paintings. Van Gogh's "living" here is no longer static, but presented in a vivid and dynamic form, outlining a flowing dream painting. Therefore, this exhibition is not only a tribute to this great artist, but also a

redefinition of the art experience. In this immersive world, the audience encounters Van Gogh's fantasy and embarks on a wonderful artistic journey together.

Traditional forms of expression usually rely on static images, texts, videos and other media. Viewers are guided to understand the content in a fixed order, thus getting a normalized impression. Now, SENSORY4, a multimedia interactive technology, breaks this one-way communication mode by using virtual reality technology. The virtual environment is generated by computer, and the audience can interact with the virtual world in an immersive way through multiple sensory channels such as vision, hearing, and touch, realizing a display design mode that combines virtuality and reality, breaking through the previous static display (Huang Zhiwen ,2016). By creating a virtual environment, the audience can interact with the virtual world in an immersive way through multiple sensory channels, realizing a display design mode that combines virtuality and reality. This technology breaks through the limitations of traditional static displays, combines elements such as virtual reality and interactive games, provides viewers with a platform for self-selection, and allows them to change from passive to active, from participants to leaders. Interactivity greatly enhances the fun of visiting exhibitions.

(2) Immersive Interactive Design for Digital Art

The Van Gogh digital art immersive interactive design project is creative, and the user experience can be more infected and inspired by Van Gogh's paintings. When viewing the exhibition, users draw their own ideas based on Van Gogh's works of art and combine modern digital technology to make their paintings part of the exhibition. This method is to explore how to combine Van Gogh's art paintings with immersive interactive design to provide users with a new art experience.



Figure3

Figure4

Figure5

Figure3: Van Gogh Singapore Exhibition in 2023 - Immersive Interactive Experience

Figure4: Van Gogh Singapore Exhibition in 2023 - Immersive Interactive Experience of Painting Your Own Works

Figure5: Van Gogh Singapore Exhibition in 2023 - VR Experience

Source: <https://www.shicheng.news/v/Lw3jR>

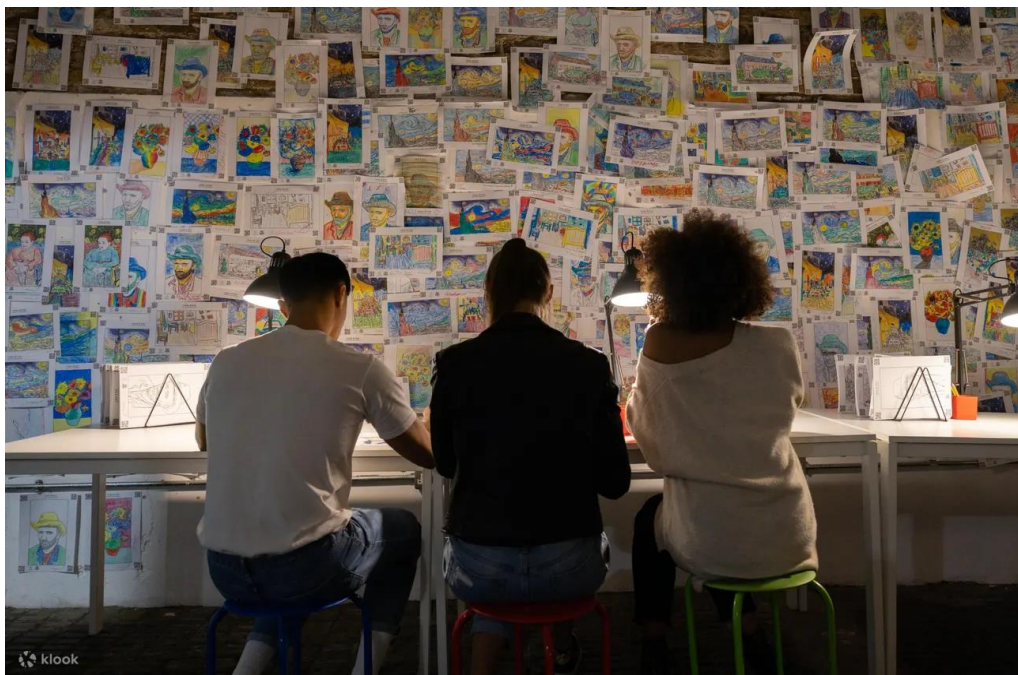


Figure 6: Van Gogh Singapore Exhibition 2023 – Immersive Interactive Experience

Source: <https://www.klook.com/zh-CN/activity/82605-van-gogh-immersive-experience-admission/>

The theoretical foundation of interactive art stems from postmodernism = reception aesthetics, hermeneutics, and the viewer participation is considered as part of the creation of the work (Zhang Haitao, 2021). Adopting Hailes's framework and terminology, we can interpret the unfettered enthusiasm of these art-themed exhibitions for various animations (painting, emotions, multi-sensory experiences, user-generated videos) as a symptom of a broader cultural shift. (Mondloch, 2022). Many immersive and interactive art experiences promote active learning, whether about art and technology or through shared experiences. Take the Van Gogh immersive experience as an example. The exhibition space often hosts couples, families or groups of friends. As popularized by the Netflix show *Emily in Paris*, where Emily and her friends Gabriel and Camille laugh at the ethereal projections of Van Gogh's masterpieces, these exhibitions are seen as ideal group activities or date places. These exhibitions often feature dark or extremely bright environments, creating a space without boundaries (Liu Di, 2024). Both in the audience's experience and the atmosphere of the space, it gives people a sense of immersion and brings people a wonderful artistic enjoyment.

Integration Of Digital And Architecture

Macau Light Festival

The main characteristic of the city light festival is that it uses the main buildings, squares, mountains, etc. of the city as carriers and is closely integrated with the important artificial and natural landscapes of the city (Li Guang, 2016). The Macau Light Festival was founded by the Macau Cultural Affairs Bureau and the Tourism Bureau in 2015. Its purpose is to attract tourists to visit more areas in Macau and let them understand the history and culture of Macau through the light and shadow festival, thereby promoting the development of Macau's cultural industry. (Xiao Daibai & Wang Shuhe, 2019). The light and shadow performances performed at the Ruins of St. Paul's Archway show the history of Macau's opening, the exchange of Sino-Portuguese culture, the rise and fall of the Green Church of St. Paul's, and

the Maritime Silk Road. Tourists can understand the cultural connotation of Macau through light and shadow performances. (Chen Jing. 2013). In the Macau Light Festival, the main form of expression is the combination of digital media and architectural projection, projecting the pattern elements with Macau characteristics onto the outer surface of the building. Therefore, during the Light Festival, tourists can better understand the historical culture with Macau characteristics through these communication methods (Jia Zhidan & Xing Yalong, 2022).

In the wave of the digital machine age, we have ushered in a new immersive experience. Through the fusion of virtual reality and interactivity, the optical and environmental effects created completely attract the viewer into the image space. In the fusion of architecture and digital, let us feel different regional cultures and experience new art and entertainment experiences.



Figure 7



Figure 8

Figure 7 and Figure 8: Macao's 20th anniversary light festival
Source: https://www.gclhgc.com/Article/gczkdngghgk_1.html

By using light and projection technology on the facade of a building, the building can be transformed into a huge 3D advertising canvas, creating a striking urban landscape. Another example is the Notre Dame de Paris 3D projection show, a perfect combination of ancient civilization and modern technology. In conjunction with the lines of the building and the sculptures on the wall surface, the image interaction of projection mapping creates a three-dimensional perspective beauty (Wang Hongxian, 2020). The Light Festival well demonstrates the use of architecture as a carrier in the urban environment, combining light, digital technology and art to create striking visual effects and moving picture stories, thereby enriching the city's night landscape and providing viewers with a novel interactive experience.

Building Urban Brands Through Digital Cultural Heritage

Building A City Brand Through Cultural Heritage

Urban historical and cultural heritage refers to the historical and cultural heritage formed in the city, carrying the historical memory and civilization memory of the city, highlighting the cultural traditions and folk characteristics of the city, and is a distinctive cultural symbol of the city (Tao Chengbin, & Liu Chunyan, 2023). As Tan Yingni said, a large number of historical stories are waiting to be told, a large number of world sites are waiting to be excavated, and a large number of cultural connotations are waiting to be expressed. Adhering to the basis of protecting historical characteristics, enhancing the cultural atmosphere of the city, promoting diversified and integrated culture, and using modern methods and technologies to shape and promote the modern "Cultural Macau" image (Tan Yingni, 2021).

However, the improvement of the city's brand image needs to evoke people's emotional memory, cultural identity and symbolic symbolism. The city's brand image has gradually shifted from physical cultural heritage to virtual image. Through digital technology, cultural heritage, cultural relics, landmark buildings, and artworks are accurately recorded. The digital age has brought new challenges to cultural heritage. In the city, people's sensory experience can be extended by creating a fusion medium where real and virtual coexist in the form of interactive installations of urban public facilities (Wen, 2022). The public can participate in the digital media narrative design of interactive media, so that they are no longer on the sidelines but "immersed" in the context. With a real experience and interactive sense of reality, they will strengthen their deep identification with their own national traditional culture, thereby effectively spreading traditional excellent culture (Jipeng, 2024). In general, the combination of cultural heritage and modern digital technology can well promote the city's cultural brand image and create a charming city.

At the same time, the branding of world heritage cities is a comprehensive urban development strategy. The perception of urban brand image and personality shaping are important factors in building urban brand development strategies, and are also an important part of the urban branding process that cannot be ignored (Wang Yifan, Shen Min & Zhou Yongbo, 2018). The relationship between cultural heritage and digital technology is a topic of great concern in the world's cultural field today. Using digital interactive technology, the vivid and perfect display of intangible cultural heritage can be achieved, the audience's sense of participation can be improved, and a good human-computer interaction environment and natural display effect can be created (Rihong, 2015). Cultural heritage is a precious treasure left to mankind by history. It not only vividly tells the past, but also profoundly affects the present and the future (Jie, 2022). It plays a key step in enhancing the city's brand image.

(1) Promote Local Culture Through Digital Cultural Heritage Sites

The city is a treasure house of human memory. It contains rich history and culture, and is also a space full of emotions. (Pan Haican, 2021). As shown in Figure 9, the 3D Mapping effect of "Impression of Guangzhou" creates a variety of uncommon visual effects (Feng Qiao, 2014). The Guangzhou Light Festival integrates a large number of Lingnan cultural elements, with night display as the main method, combining sound, light, electricity and other dynamic effects with new media platforms to achieve integration. Figures 11 and 12 are designed with Guangzhou arcade culture as an element. The arcade is a common scene in the lives of Cantonese people and a memory of market life. In the creation of the story, the group images of Cantonese culture, "Dongshan Young Master" and "Xiguan Miss", will be combined as the content creative theme, and the love story of the two will be deeply created, so as to evoke the memory of the masses while also showing the Cantonese culture that has been passed down to this day. Regional culture is an important part of urban culture. Different regions have their own development history, inheritance experience, cultural connotation and core spirit (Li Xiaozhi, 2019). At the same time, we can use social media to share excellent stories of Cantonese culture, stimulate the public's interest and cognition of Cantonese culture, and promote the inheritance and development of traditional Cantonese culture.

Digital technology will provide rich and diverse means and paths for the protection of historical and cultural heritage. In the integration of technology and culture, culture is always

the core and soul, and digital technology is only a tool and carrier. (Guangzhou Heyi Exhibition Planning Co., Ltd., 2022)

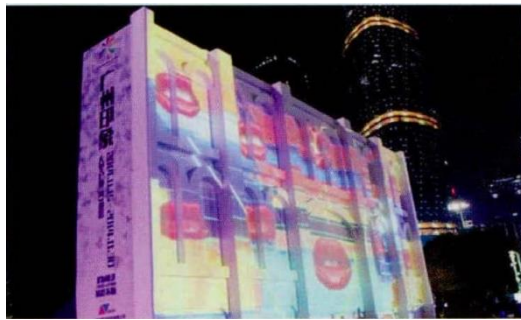


Figure 9



Figure 10

Figure 9: "Impression of Guangzhou" Large Arcade 3D MAPPING Interactive Work 2014 Image Source: Sohu Network

Figure 10: Vivitek D8900 projects the logo image of the 4th Guangzhou Light Festival Image Source: Projection Window



Figure 11



Figure 12

Figure 11: "Our South Window". Photo source of the arcade on Beijing Road North section at the 2020 Guangzhou Light Festival; Source: https://www.sohu.com/a/432351905_120152148

Figure 12: "Our South Window". Photo source of the arcade on Beijing Road North section at the 2020 Guangzhou Light Festival; Source: https://www.sohu.com/a/432351905_120152148

In the digital age, the improvement of the city's brand visual image does need to consider the application of modern science and technology, but it also needs to maintain a balance between science and technology and humanities. Too rigid digital presentation can easily lead to the homogenization of the city's image. Instead, in the process of digitalization, we should focus on the city's personality, the inheritance and innovation of the city's historical context, and form a richer and deeper city cognition.

For example, Figure 13 and Figure 14 are the most popular online celebrity cultural tourism projects in Sichuan Province. They are located in the famous Jianmengan Scenic Area. Ultra-clear giant screen 3D movies are played on the cliff. With the blessing of advanced projection technology, the Guanlou transforms into various shapes like Lego blocks. At the same time, the cliff with an area of 10,000 square meters next to the Guanlou becomes an ultra-large giant screen theater at night. Ultra-clear 3D movies are presented clearly and absolutely shockingly, expressing ancient history in the form of digital media. The grand scenes such as Qin Shihuang leading his army to attack the pass and the heroic generals of the Three

Kingdoms are reproduced. It is not only full of a sense of the future and technology, but also can feel the historical humanities and innovative genes of Shu Road, leaving a deep impression on the audience of the local city's historical context. Immersive performances, breakthrough modes, combined with 3D projection technology on the stone wall, allow you to experience the thousands of years of history of Shu Road in person. From the perspective of digital city construction, digital technology can be fully utilized to reshape the city's unique memory, empower urban scene life, and create an urban experience space. (Yang Yuting & Jin Zengke, 2023) The digitization of cultural heritage should be done selectively. To lay a solid foundation for this, it is necessary to conduct value research projects on the entire cultural heritage, including contemporary culture. Such research is also helpful for feasibility studies related to globalization (Rab, 2007).



Figure 13



Figure 14

Figure 13: "Jianmen Changge" Live Cliff Lighting Performance Show, Cliff IMAX

Figure 14: "Jianmen Changge" Naked Eye 3D Image from
https://www.sohu.com/a/464634205_120145243 Image from
https://www.sohu.com/a/464634205_120145243

Connecting "ancient" and "modern", immersively displaying ancient scenes, thereby opening up the connection between urban historical context and modern urban life. This innovative digital art technique not only enriches the expression of the city's image, but also gives new vitality to the urban context.

Conclusion

In the context of the digital age, digital media has become a form of expression that efficiently conveys the cultural context of the city. It uses multi-dimensional immersive expression methods to show the historical culture of the city. The audience immerses themselves in the landscape provided by the virtual reality scene, immerses themselves in it, and constructs an imaginary sense of reality and sensory experience. At the same time, the memory of the city's history is reproduced with the unique elements of local traditional culture. Urban digital media provides new possibilities for the construction of the city's brand image.

Findings of the Study

This study shows that the construction of digital cities needs to use digital technology combined with traditional local culture to reshape the city's unique memory and create a city brand image and experience space. In the process of disseminating digital cultural heritage constructed by virtual reality, the immersive expression method makes the cultural heritage no longer feel separated from its time, space and environment, but returns to its overall environment. Its purpose is to allow the audience to achieve an immersive urban cultural experience in a short period of time. The value of traditional culture is immeasurable, but the

overly rigid digital presentation is likely to lead to the homogenization of the city image and fail to highlight its urban personality. How to focus on the expression of urban personality requires further thinking and research.

Suggestions for Future Research

The inheritance and innovation of the city's historical context need to be refined. For groups of different identities (locals, tourists, and outsiders working locally), whether they can understand the city faster and resonate with the city from the background of different audience groups, whether it conforms to their own impression of the city, and the charm of attracting this city, all of these need to be investigated and analyzed in detail in subsequent research. And make relevant data basis for the subsequent improvement of the city's image.

In the future, one of the challenges facing designers is how to better use contemporary digital media technology to express traditional culture in creative design, and the second is how to create a suitable context for different audiences, convey cultural heritage experience, and promote communication, interaction and exchange between different cultures.

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