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A Probe into The Modernity of Chinese Oil Painting

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Abstract

Background: The integration of new media technologies marks a significant evolution in public art. Shifting from traditional forms to a digital and virtual environment diversifies artistic expression and transforms how art interacts with the public, fostering a more inclusive and engaging public sphere. Methods: Using a qualitative research design, this study explores the impacts and roles of new media public art within virtual spaces. Through a series of in-depth case studies, it examines how virtualization technologies enhance interactivity, immersion, and public accessibility of art, thus revolutionizing its engagement and reception. Results: Findings reveal that spatial virtualization significantly enriches the interactive potential and diversity of public art. It facilitates novel forms of artistic expression and immersive experiences, promoting deeper levels of audience engagement and participation. Challenges such as technological accessibility and the necessity for interdisciplinary collaboration are also identified. Conclusions: We advocate for a strategic and deliberate integration of virtual technologies in public art projects, emphasizing the need for a comprehensive approach that considers the perspectives of artists, patrons, and the public. We believe that addressing the digital era's challenges and opportunities can enable new media public art to leverage virtualization effectively, fostering a dynamic and participatory art landscape.

Keywords: Virtual Public Art, Interactive Art Experiences, Media Technology Integration, Artistic Expression.

1. INTRODUCTION

This paper analyzes the modernity of "Chinese style" like oil painting in the oriental art context from the two aspects of spirit temperament and thinking mode. Innovation lies in the analysis of thinking, and then the application of painting materials professional analysis. Through the analysis, the creative thinking of "Chinese-style" concrete oil painting can be clarified more clearly. There are new guidelines for exploring the new "Chinese style" concrete oil painting language.

The evolution of art has consistently mirrored advancements in media. Since the mid-1980s, the rise of new media driven by computer technology has marked a new phase in artistic evolution. From the mid-1990s, the proliferation of the Internet propelled public art into a new stage, utilizing Internet media's capabilities. The introduction of technologies like virtual reality, augmented reality, and interactive installations signifies a notable shift in public art, paralleling the transformation of media roles from traditional communication to

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active engagement in society [1]. Viewing art media's development holistically, the virtualization of space is transitioning contemporary art from traditional representations to electronic formats, evolving from simple, static forms to integrated, multimedia approaches in artistic modeling. Digital media has not only enriched contemporary art's content but also expanded its aesthetic boundaries, altering artistic themes, methodologies, and meanings, thereby profoundly transforming societal perceptions and understandings of art.

Numerous studies have explored new media technologies' impact on public art, highlighting their role in enhancing public engagement, education, and cultural dissemination. Despite these insights, gaps remain in understanding the specific effects of spatial virtualization on audience interaction and experience in new media public art [2]. This study aims to bridge this gap by proposing a model that assesses how spatial virtualization influences new media public art's development and perception. Through detailed case studies and empirical data, this research explores how virtualization enhances interactivity, immersion, and accessibility in public art, reshaping audience engagement and artistic creation [3]. The study hypothesizes that spatial virtualization significantly boosts audience engagement and satisfaction, that the integration of virtual and augmented reality in public art fosters innovative artistic expressions, and that interactive, immersive experiences in virtual spaces deepen public appreciation and understanding of contemporary art [4]. This research aims to contribute to academic discussions on new media art, offering insights into virtual spaces' transformative potential for public art. It provides valuable strategies for artists, designers, and policymakers in integrating digital technologies into public art initiatives, thereby fostering a more dynamic and participatory art landscape in the digital era.

2. Benefits of Spatial Virtualization in New Media Public Art Development

2.1 Break the Limits of Time and Space

In historical contexts, public art predominantly manifested the unique cultural ideologies and spirit of various regions through mediums like statues and murals. However, this traditional approach often posed interpretative challenges for individuals without formal art education, leading to a perception of art as an elusive, otherworldly concept unrelated to their reality. In contrast, public art utilizing digital media typically employs digital devices, imagery, and lighting, with videos and lighting being particularly integral to everyday life. This accessibility enables individuals from diverse backgrounds and social strata to engage with and comprehend the essence of these artistic creations. This paradigm shift bridges the gap between art and the public, fostering a broader understanding and appreciation of art. Compared to conventional public art forms, public art in the new media era has become more ubiquitous, familiar, and recognizable. Public art inherently embodies an open artistic form. Classical public art, situated in public spaces, primarily serves an informational role, often characterized by a singular mode of expression. The evolution of mediums has altered the channels through which the public interacts with and perceives information, leading to increasingly varied experiential responses [5].

Public art in the realm of new media transcends traditional spatial and temporal constraints, enhancing content appeal and diversifying expression through the use of multiple carriers, such as sound, light, and electricity. This expansion in method and medium renders the presentation of public art more integrated and visible in everyday life. The digitalization of Dunhuang represents a pivotal strategy in transcending traditional temporal and spatial barriers. This initiative's primary objective is to digitize the invaluable cultural treasures housed within Dunhuang's caves, encompassing its murals, colored sculptures, and other significant artifacts. Furthermore, it involves the comprehensive compilation of scattered Dunhuang manuscripts, scholarly research, and related materials from around the globe into a consolidated electronic archive, thereby preserving and making accessible the rich heritage of Dunhuang for future generations and global audiences.

2.2 Give a Strong Visual Effect

The allure of a city is often attributed to the visual impact generated by its diverse stylistic elements. The aesthetic or remarkable arrangement of various scenes becomes a city's distinctive emblem or representation [6]. Traditional public art, typically crafted from materials such as metal, wood, and stone, encounters limitations in its inherent visual effects. Consequently, its impact is often indirectly augmented through exaggerated forms and appearances. For instance, classic public art themed around 'industrial memory' predominantly utilizes industrial metals like steel and iron, characterized by their dark and gray hues. While these materials impart an industrial essence, their visual appeal diminishes in nocturnal settings, particularly in creations using slender materials like iron fiber and steel bars, which have low visibility at night. In contrast, public art employing new media offers a more dynamic visual impact at the carrier level. Its manifestations, incorporating photoelectricity, induction, and other expressive forms, directly engage the viewer's spiritual realm, thereby crafting a spatial environment that merges reality with imagination. This fusion provides a unique and novel visual experience. An exemplary instance is Shanghai Sinan Mansion's 'Garden of Lights,' which utilizes 3D Mapping technology to project rhythmically dynamic content onto existing landscapes and architecture. This technological intervention transforms the secluded ambiance, offering diverse immersive experiences to the audience. Although nighttime may obscure the beauty of daytime landscapes, the application of new media technology endows these settings with a distinct aesthetic allure.

2.3 Emphasis on Public Involvement and Participation

The core artistic conception of "Chinese-style" concrete oil painting is a kind of aesthetic expression beyond its appearance and constitutes its unique aesthetic characteristics. While absorbing traditional Chinese painting, combining traditional Chinese thought, it pursues aesthetic conception. The traditional interaction between individuals and artistic creations has historically been simplistic and passive, primarily characterized by static displays. For instance, in engaging with sculptures, murals, and other classical art forms, the public's communication is generally limited to viewing and unilaterally interpreting the implied meanings. Interactions such as photography and touch with these artworks, while participatory, remain largely unidirectional aesthetic activities, with audiences passively assimilating the inherent content. However, contemporary artists are increasingly focusing on the interactive dimensions of public art, incorporating elements in their works that facilitate a more profound 'understanding' of art by the public. This evolution coincides with a rise in cultural and intellectual sophistication among audiences, leading to a heightened level of sensory communication. The adoption of photoelectricity, induction, and other mediums in new media art renders the creative content more engaging, enabling individuals to actively feel and communicate with the artwork on a personal level [7]. This interactive nature of new media public art represents a paradigm shift from mere observation to active creation. It enables the public to move beyond the role of passive observers and become co-creators of the art content. Consequently, new media public art fosters a more dynamic and positive interaction between the artwork and its audience, making the engagement process more flexible and impactful.

2.3 Emphasis on Public Involvement and Participation

The expressive capacity and message conveyance of conventional public art, constrained by the inherent properties of traditional materials, tends to be somewhat limited. In contrast, digital media public artworks, equipped with an array of new media materials and artistic expression techniques, adeptly create vibrant urban spatial atmospheres. Utilizing sound, video, and light art, these artworks transcend traditional scenic expressions, rejuvenating audience experiences and forging unique urban landscape designs. This innovation not only captivates the audience but also significantly enhances the city's appeal and competitive edge.

For instance, on major festivals, new media technologies enable rapid and effective urban decoration, enriching the sensory experience and augmenting the festive ambiance of the city. In the context of major occurrences, this technology infuses cities with a distinct vitality. The 2023 iteration of the Vivid Sydney festival, resuming after a two-year pause, exemplified the integration of digital media in the realm of public art. Over 100 artists contributed to more than 50 diverse installations and projections, culminating in an

expansive 8-kilometer Light Walk. This event underscored the employment of new media resources and artistic techniques, utilizing a blend of sound, video, and light art to foster an engaging and vivid urban ambiance. Notably, the Sydney Opera House served as a centerpiece, illustrating the transformative potential of digital media in converting urban environments into interactive and dynamic art spaces.

3. Challenges of Spatial Virtualization in New Media Public Art Development

3.1 Limitations in Spatial Environment and Lighting

Within the realm of new media public art, as evidenced by the examples discussed, there are critical environmental prerequisites. The venue's size is paramount; it must not only be spacious and well-illuminated but also capable of supporting glass, projectors, and other projection devices. Lighting conditions are another vital factor, with darker settings often providing superior visual experiences. As a result, many installations are situated indoors, primarily within halls, galleries, and science and technology museums. Outdoor exhibitions are usually temporary and chiefly nocturnal, given the less effective visual results in daylight.

Despite the advancements in three-dimensional and laser imaging technologies, they remain susceptible to ambient light interference, rendering outdoor displays challenging currently. Hologram technology in virtual spaces, offering extensive content display possibilities, exceeds traditional public art's capabilities in certain aspects, such as replicating landmarks like the Sydney Opera House. Therefore, in holographic art, spatial dynamics offer both opportunities and constraints, requiring careful space management to attain the intended outcomes.

Historically, the introduction of new technologies has frequently encountered initial barriers due to the high cost of necessary equipment, delaying widespread adoption. For example, plasma TVs, once priced prohibitively, have become standard in homes at much lower costs. Similarly, holography's commercial adoption has been hindered by the high prices of critical components, such as advanced projectors. The MSG Sphere in Las Vegas, with its vast LED screen providing an immersive experience beyond traditional high-definition TVs, illustrates the financial implications of cutting-edge display technologies, which significantly outstrips those of standard LCD screens in cost. Furthermore, despite holography's mid-20th-century origins, it faced significant technological and application barriers, only achieving broader market penetration after 2010.

A distinctive aspect of new media public art, as opposed to traditional public art, lies in its interdisciplinary nature, typically involving extensive collaboration among a diverse array of artists and technical experts. This collaborative process extends beyond the purview of conceptualizers and modelers, encompassing creative artists, animation designers, and interactive artists. Consequently, the creative value inherent in such works is substantially amplified, often necessitating the efforts of robust artistic and social teams for successful execution.

Renee Piechocki, a distinguished figure in public art, underscores the pivotal role of collaborative dynamics in public art initiatives. She references Janet Zweig's Pittsburgh project, a commemorative endeavor rooted in community-centric collaboration. Piechocki advocates resilience against setbacks for nascent public artists, encouraging them to self-generate opportunities and engage proactively with community entities, thereby fostering a symbiotic relationship between art and its societal context.

4. Three Trajectories for New Media Public Art in Virtual Spaces

Since 2015, the rapid advancement of virtual reality technology coupled with groundbreaking progress in artificial intelligence has been unmatched. These developments call for a reassessment of the roles of creators and designers within contemporary society. The shift from two-dimensional to three-dimensional expressions, from oil paintings to sculptures, and from isolated objects to composite materials underlines virtual reality's capacity to forge new paths for public art. The increasing presence of virtual art in the public domain emphasizes the necessity for artists to adapt to and leverage these evolving technologies. As AI and related

technologies progress, tasks that are repetitive and lack creativity are becoming outdated. Artists, as pioneers of innovation and thought, must embrace these new instruments, transitioning from traditional artisans to modern 'technologists' who utilize technology to unlock new creative potentials [8].

The move from the industrial revolution to the information age powered by computing has led to a transformation in public art forms. The integration of digital technology into public art, a defining characteristic of the digital era, promises to bring about significant changes. The evolution of this trend can be articulated through the following three key dimensions.

The conceptual framework of an artist significantly influences their methodologies and thought processes. Throughout different eras, public art has continually evolved, with its expression and connotation undergoing constant change and expansion. The digital age has brought about substantial shifts in human living patterns, emotional perceptions, and cognitive processes, which, in turn, have transformed the thinking patterns and creative approaches of art designers. Dating back to the 1980s, Western artists contemplated the fusion of public art with technology. The advancement of modern technology has since given rise to new artistic forms.

With the incorporation of digital imaging, interactive technology, the Internet, and holographic photography, new media materials have become pivotal in artists' arsenals. These advancements have democratized art, facilitating universal access and communication. The digitalization of public art has reduced barriers to appreciation, fostering a more positive reception. Contemporary public art transcends the traditional confines of museum display; it is envisioned as an interactive entity, integrating public behavior with the artwork, inviting interaction, touch, and integration into its environment. Thus, from an art designer's perspective, the future of public art is marked by the integration of abundant digital technologies. TeamLab's design approach exemplifies this perspective. They integrate advanced digital methods to create immersive, interactive experiences, aligning technology with artistic expression. This methodology not only enhances the aesthetic appeal of public art but also deepens audience engagement, making art more accessible and experiential. TeamLab's work represents a paradigm shift in public art, where technology becomes an integral part of the creative process and the viewer's experience.

Cities, as the quintessence of civilization, reflect the evolution of societies. Public art embodies a city's ideological spirit and cultural philosophy, serving as both a medium for communal aesthetics and a symbol of urban identity. Consequently, urban public art is predominantly managed by municipal authorities and city administrators, recognizing it as a vital element of a city's identity. The unique positioning of a city influences the thematic content and connotations of its public art.

The progression of public art is inextricably linked to the support of government entities, private capital, and community engagement. In developed countries, where public art systems are more mature and democratic, there is a closer synergy between creators, governments, and the public. For instance, in the United States, a pioneer in public art, there has been a shift from classic and monumental sculptures towards artworks that resonate with everyday life and are intimately connected to the public's daily experiences. Mark Favermann, an urban designer and public artist, significantly contributes to enhancing the urban landscape. His approach integrates functional public art into civic design, as evident in projects like the "Art on the Signage" at the Boston Convention and Exhibition Centre. Initiated in 2012, this project amalgamates public media art with commercial and informational content, creating a novel digital platform for artistic expression. Favermann's work underscores the role of innovative public art in stimulating civic discourse and community involvement, leveraging technologies such as augmented reality and virtual reality to enhance interactivity and accessibility [9].

As cities experience a surge in scientific, humanistic, and economic development, and host an array of biennials and technology exhibitions, public enthusiasm for large-scale digital public artworks is set to rise. This trend compels city administrators to favor artworks that engage directly with the public in cultural creation. Simultaneously, as many urban centers evolve into hubs of advanced manufacturing and high-tech innovation, there is a growing impetus to incorporate their unique spiritual identity into digital urban public artworks, reflecting the distinctive ethos of these cities.

The Yellow Crane Tower in Wuhan embodies a significant artistic methodology in representing urban landscapes, employing various light shows in conjunction with local architecture. This extensive outdoor public art installation effectively harmonizes digital content with the physical environment, signifying a

contemporary approach for the artist and their team to articulate urban memory. The installation serves as an exemplar of a paradigm shift in public art, wherein digital innovations intricately interweave with the urban landscape, fostering immersive and profound experiences.

From the vantage point of the audience, the interactive functionality of public art is paramount. A prime example is the Crown Fountain in the United States, epitomizing a classic communicative form of public art. This installation comprises two 50-foot glass blocks, each featuring a central fountain outlet. Equipped with portrait capture technology in the park, it captures facial images of people and projects them onto large screens. These screens display dynamic and engaging scenes of faces with water spouting from their mouths, enhanced by constantly changing lights. One notable element is an image of a child urinating, adding a layer of artistic intrigue. The central join of the screens, crafted from marble, features flowing water, creating an interactive space for water-play enthusiasts [10].

Many cities are increasingly focusing on public art, predominantly exploring the integration of sound, light, and electricity. However, it is anticipated that public art, with interactivity at its core, will become increasingly prevalent in urban settings. Public art is a key aspect of urban planning, considering factors such as spatial atmosphere, local culture, and regional identity. In the digital society context, the incorporation of digital technology and tools in the planning and creative process of public art aligns with contemporary creative thinking. The infusion of digital technology into artistic creation is expected to enhance public participation, effectively blending concepts of engagement, interactivity, technology, and cross-disciplinary collaboration.

5. The Construction Strategy of Virtual Space Context of Public Art

The concept of 'scale' in public art, pertaining to dimensions like circumference, width, height, and spacing, is critical in artistic creation. In the context of public art, scale primarily engages the visual sense before extending to other sensory experiences. For example, when an individual perceives an oncoming car while crossing the street, they instinctively move to avoid it, understanding the potential physical and psychological harm. This reaction is underpinned by an awareness of pain, which humans use as a metric to evaluate experiences. The greater the pain, the higher the perceived danger. This progression from visual stimuli to sensory experience forms a 'scale' in human perception, with the visual system playing a pivotal role.

In March 2021, the Magenta Virtual Interactive Platform exemplified the intersection of technology and cultural exploration by presenting the historical and cultural landscapes of Lisbon and Nice. This platform enabled individuals to virtually experience the scenic beauty of these European cities from the comfort of their homes, utilizing VR glasses or smartphones. This innovation represents a significant advance in digital cultural dissemination, allowing for borderless exploration of global heritage sites. The exhibition "Uncanny Valley: Being Human in the Age of AI" examines the emerging impacts of AI across ecological, social, and economic domains, showcasing the work of fourteen artists who scrutinize AI's influence on human-machine integration. Their works probe AI mechanisms and discuss ethical issues raised by technological progress, emphasizing the need for thoughtful AI development. The exhibition also explores the construction and deconstruction of scale in virtual reality, drawing parallels with ethical dilemmas in genetic cloning, where the boundaries between reality and illusion blur. In virtual reality, similar to the early stages of genetic modification, there is a critical need to establish new guidelines.

In art and design, creating rules for virtual reality involves defining entry points and managing visual scale. One method is controlling "realism" by adjusting shapes, colors, physical laws, and light and shadow portrayal, shifting from near-reality to controlled environments. This strategy ensures immersive experiences without confusing reality, encompassing symbolic, auditory, and tactile elements.

6. CONCLUSIONS

The integration of public art into virtual environments through new media is inherently complex, offering multiple communication channels. This allows the public to interact with art on various levels, promoting

active engagement and rich aesthetic experiences. The scope of artistic expression now extends beyond individual artists to encompass broader social layers and collectives. Audiences increasingly desire more than emotional narratives; they seek environments and frameworks that facilitate interaction. This shift requires artists to move from expressing personal beliefs to creating an 'architecture' that allows individuals to shape their own experiences, emphasizing the importance of data-driven interactive networks as the essence of digital transformation. In digital media art, the combination of varied media types and interactive information-sharing modes opens new possibilities for artists. We believe these developments provide artists with a vast array of tools and materials, prompting them to consider the role of new media public art as a catalyst for creative innovation. We recognize that this evolution not only opens new creative avenues but also challenges artists to reflect on how their works can metaphorically elevate public art to new heights in the digital era.

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