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The Reading of Art in Virtual Reality in the Postmodern Period

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Abstract

Postmodernism, a mid-20th-century cultural movement reacting against modernism, challenges grand narratives and absolute truth, emphasising fragmentation. Virtual Reality (VR), simulating real or alternative experiences, has become an accessible artistic medium. Postmodern art in VR is self-referential and interactive, exploring reality-simulation dynamics.

Artists like Gibson/Martelli's "The History of the Future" transport users to a dystopian future, emphasising activism and choice. Jacolby Satterwhite employs VR for performance, blurring virtual and real through digital sculptures and live presentations.

VR in postmodern art prompts questions about reality and viewer-artwork relationships. As users immerse in virtual environments, the line between reality and simulation blurs, challenging traditional ideas of authorship and interpretation. Multiple perspectives emerge, aligning with a postmodern emphasis on plurality.

The abstract concludes by asserting VR's role as a platform for postmodern exploration, enabling new forms of expression and interaction, and pushing artistic boundaries.

Keywords: postmodernism, art, virtual reality, interaction, plurality

1. Introduction

Postmodernism in art has significantly influenced the evolution of art in the 21st century, leading to a transformation in artistic forms and expressions (Alexander & Tomanek, 2017). Postmodern art emphasises the recognition and critique of social conditions, reflecting the cultural and philosophical shifts brought about by postmodernism (Wu, 2014). This influence is evident in various art forms, including choral art, contemporary art, and music, where postmodern ideas find visual embodiment (Havrylenko et al., 2022; Chistyakova, 2018; Oriekhova et al., 2022). Furthermore, postmodernism has led to a reevaluation of traditional artistic practices, resulting in the fusion of different styles, ethnic characteristics, and psychological manifestations in art, reflecting the global needs of an integrated society (Oriekhova et al., 2022).

In the postmodern era, art has embraced openness and indeterministic diversity, allowing for the exploration of new artistic expressions and perspectives (Zuhro et al., 2020). Postmodern artists have also redefined the subject matter of art, incorporating mass media and utilising forms, tropes, and materials such as video monitors and found art as focal points for their artistic creations (Zohdi & Oroskhan, 2015). Moreover, postmodernism has challenged traditional narratives and artistic norms, leading to the absolutisation of the game foundation of art and

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activity in postmodern theory (Меньшиков, 2019).

The use of virtual reality has also become a significant aspect of art, providing new avenues for artistic expression and learning. Virtual reality offers opportunities for immersive experiences in art, including the exploration of virtual art galleries and the use of virtual environments for learning artistic movements and martial arts without the risk of physical injury (Wongso & Istiono, 2023).

The influence of postmodernism on art in the 21st century has been profound, leading to a reevaluation of traditional artistic practices and the emergence of new artistic expressions and perspectives (Alexander & Tomanek, 2017). Postmodern art emphasises the recognition and critique of social conditions, reflecting the cultural and philosophical shifts brought about by postmodernism. This influence is evident in various art forms, including choral art, contemporary art, music, and literature, where postmodern ideas find visual embodiment (Alexander & Tomanek, 2017). Postmodernism has also challenged traditional narratives and artistic norms, leading to the absolutisation of the game foundation of art and activity in postmodern theory (Меньшиков, 2019).

Integrating postmodern ideas and philosophy has led to a redefinition of art, embracing openness and diversity and utilising new mediums such as virtual reality to expand artistic experiences. Virtual reality offers opportunities for immersive experiences in art, including the exploration of virtual art galleries and the use of virtual environments for learning artistic movements and martial arts without the risk of physical injury.

Furthermore, postmodernism has led to the fusion of different styles, ethnic characteristics, and psychological manifestations in art, reflecting the global needs of an integrated society. Postmodern artists have redefined the subject matter of art, incorporating mass media and utilising forms, tropes, and materials such as video monitors and found art as focal points for their artistic creations.

Lastly, regarding methodology, informed by the transformative influence of postmodernism on art, particularly in virtual reality, this research primarily draws its data from an extensive literature review. The review encompasses a diverse range of sources, including academic journals, publications, and relevant multimedia content, ensuring a comprehensive understanding of the intersection between postmodern artistic practices and virtual reality technologies.

2. Virtual Reality

It is stated that the human-technology relationship is going through a period of profound change in the information age. It is mentioned that the main reason for this change is that human beings started walking on two legs and started using their hands as tools belonging to their body. It is the starting point for human beings to start touching other objects using their hands. As human beings began to take control of other objects with their hands, they began to reveal some differences outside the natural flow around them with the intuitive desire to transform inside (Artut, 2014, p. 9).

The desire to use phenomena such as technique and technology that arise due to this intuitive transformation in every field he wants to experience is valid in artistic practice. Because according to Fischer; Man has become human through vehicles. Man made himself by making tools and creating them, created man. Therefore, since the earliest cave paintings, art history has benefited from the potential of technological developments—for example, 15. Jan Van Eyck started a new era of painting with the discovery of oil-based pigments (oil paint) in the century. With the invention of the camera and 19. its widespread use towards the end of the century, artists' perspectives on the world have undergone a radical change (Ballı, 2021, p. 68).

In virtual reality, communication with the real external world in which we all live is completely cut off, and only a representation of virtuality (numericality) is presented to the experiencing user (Ballı, 2020, p. 64).

The field of virtual reality has continued to be used and developed for training and simulation in the US Army and the National Aeronautics and Space Administration (NASA) since its first

appearance. It has been possible to find the possibility of individual use and to go into mass production. This serial production started in the early 1990s with the use of the Virtuality company in the entertainment industry in the playground. (Geron, 2011).

It is possible to see virtual reality applications, which are still new to use in the context of industrial products, in many areas today. The first area in Turkey to use virtual reality is Kale Seramik's "Kale 360" application, which offers realistic environments with virtual reality technology to those who want to change their bathroom (Başar, 2020, p. 623).

Although virtual reality art projects are a kind of installation, they are distinguished from installation works as we know them. In virtual reality, there is much interaction between the viewer and the artwork through special equipment, even so, that the viewer can Decipher the artwork (Başar, 2020, p. 631)

With the increasing development of today's technology in contemporary art, it is thought that virtual reality has an important place to be considered as a form of artistic expression.

3. Examples of Artists Creating Works in Virtual Reality in Contemporary Art

The integration of virtual and augmented reality technologies in the field of arts has opened up new possibilities for artistic expression and experience. These technologies have been actively applied in various art forms, including body painting, visual arts, and performance art Choi et al. (2020) (Soccini, 2016; Lichty, 2014; Efrat, 2020; Lichty, 2000). The use of virtual and augmented reality in art has allowed for the creation of immersive experiences that expand beyond the physical limitations of traditional art forms, enabling artists to explore new dimensions and perspectives (Efrat, 2020; Lichty, 2000). Additionally, virtual reality has been utilised in the context of martial arts, providing users with the sensation of being in a virtual world and offering new avenues for learning and experiencing art forms such as Muay Thai (Wongso & Istiono, 2023).

The exploration of virtual and augmented reality in art has also extended to the realm of fashion, with designers envisioning the future of haute couture passing through the virtual worlds of the metaverse (Armitage, 2022). This rethinking of haute couture demonstrates the potential for virtual and augmented reality to redefine and revolutionise traditional art forms, offering new platforms for artistic creation and expression.

The artist Zhilyaeva, who received an art education, works as a designer, illustrator, and art director in a publishing house after her art education. During his professional activities, he also received training in visual arts, architecture, filmmaking, and sculpture at various universities in Russia and France. The artist, who initially made paintings in a traditional context, began to work on virtual reality technology by combining his art with technology. He discovers that because virtual reality technology offers the ability to create volume and violate the laws of gravity, in the words of the artist, original productions can be performed in a simulation environment using the techniques of painting and sculpture disciplines. Today, he only makes artistic productions with Virtual reality technology. (Zhilyaeva, 2018).

Figure 1. Anna Zhilyaeva "Ephemeral", Installation, 2017. (Source: https://www.annadreambrush.com/tiltbrush/ephemeral/)

Perhaps the most significant element of virtual reality that brings innovation and contributes to art production is that it provides the opportunity to create in a digital, three-dimensional world. According to the laws of physics, these possibilities that enable the virtual creation of objects or fictions that are difficult or impossible to create at the level of concrete reality are realised in cyberspace (Tuğal, 2018).

The ability to simulate the basic elements of plastic art in the digital field and this feature, which offers significant potential for creative production, is very convenient for making experimental productions (Ballı, 2021).

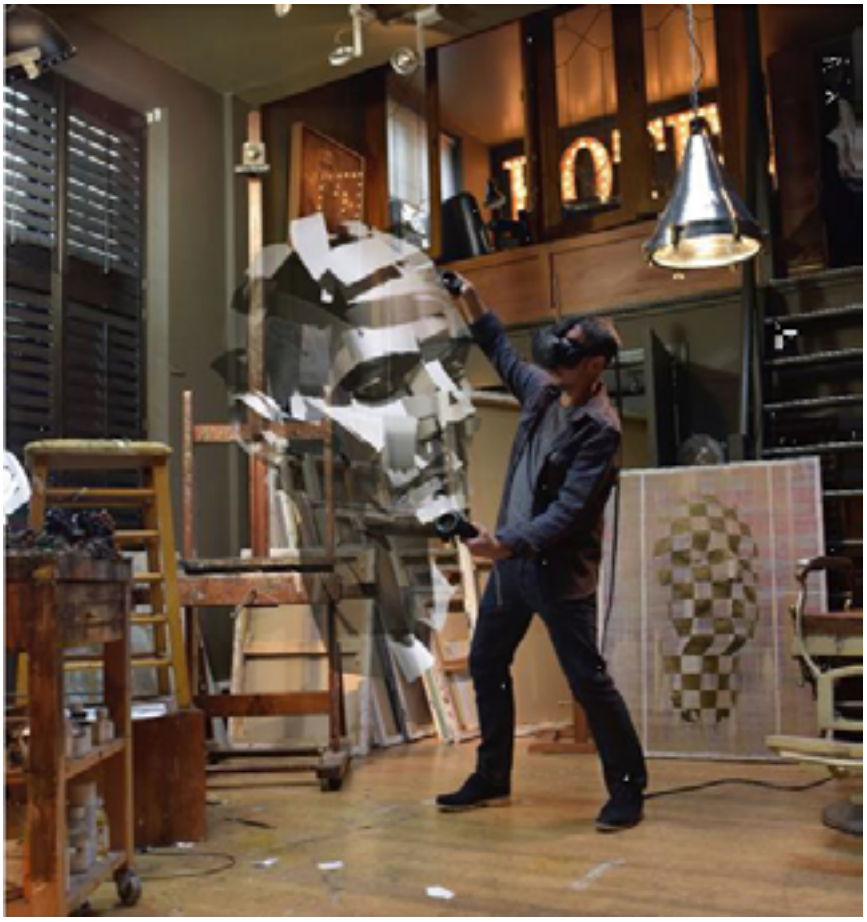

Figure 2. Jonathan Yeo's digitally produced virtual self-portrait, Installation, 2017. (Source: https://www.jonathanyeo.com/from-virtual-to-reality)

One of the examples of artists who discovered that virtual reality technology enables experimental art production is Jonathan Yeo, one of the leading contemporary portrait painters in England. In his work titled 'Self-portrait' under the title of "Virtual Reality and Art", the artist aims to transform formal aesthetics into concrete in his works by combining virtual reality technology with an experimental approach to traditional portraiture in painting. In his 'self-portrait' work, Yeo produced a production on the target of virtual reality technology as a potential new tool for the artistic production process and to contribute to art production by developing this potential (Ballı, 2021).

Thanks to the Titl-Brush software and SG hardware, which simulates the brush strokes used by the artist in traditional painting, the formal work called "self-portrait", which he has produced, has been organised with a different software by dividing the data into virtual parts. The artist embodied these data decomposed into pieces using 3-dimensional printing devices, performed the moulding process using the techniques used in the traditional sculpture method, and then completed it by casting bronze (Ballı, 2021).

The role of the viewer in postmodern VR art is a multifaceted and evolving aspect that encompasses various dimensions of interaction, perception, and experience. The references provided offer valuable insights into the viewer's role in the context of virtual reality art, shedding

light on the dynamic relationship between the viewer and the artistic content. These references provide a comprehensive understanding of how technological, psychological, and artistic factors influence the viewer's engagement and interaction with postmodern VR art.

Rizzo and Koenig (2017) discuss the immersive nature of VR environments, highlighting how users become immersed within synthetic computer-generated virtual environments. This immersive quality of VR has a profound impact on the viewer's engagement with art, as it allows for a heightened sense of presence and interaction within the virtual space.

Rothe et al. (2019) emphasise the shift in control from the filmmaker to the viewer in cinematic virtual reality, where viewers have the agency to decide where to look. This shift in control redefines the viewer's role, empowering them to actively engage with the artistic content and shape their own narrative experiences within the virtual environment.

Figure 3. Laule Anderson, Hsln-Chlen Huang, "Chalkroom", Installation, 2019. (Source: https://www.shine.cn/feature/art-culture/1908240781/)

Co-created by American artist and musician Laurie Anderson and Taiwanese new media artist Hsin-Chien Huang, Chalkroom offers the audience something that has never been experienced before. The artwork showcases the narrative and visual aesthetics consistent with the two artists working together. A mix between the physical and virtual senses, the work of art provides a new range of sensory experiences. "Chalkroom" is said to have emerged to discuss the weakening of human consciousness based on both artists' experiences of losing loved ones (Başar, 2020).

Figure 4. JON Rafman, "Transdlmenslonal Serpent", VR Installation, 2016. (Source: https://samuelwalker.xyz/friezelondon, 2021)

Figure 5. JON Rafman, “Transdlmenslonal Serpent”, The virtual environment appearance of the VR Installation2016. (Source: https://samuelwalker.xyz/friezelondon)

Born in 1981 in Canada, artist Jon Rafman has made a name for himself by creating important works in the field of digital art and virtual reality. The artist’s archival, artistic, and curatorial works, often presented from the perspective of humour, irony, and melancholy, capture the moral dimension in ambiguous contexts. In this sense, he questions what it means to be human on the border between aesthetics and ethics.

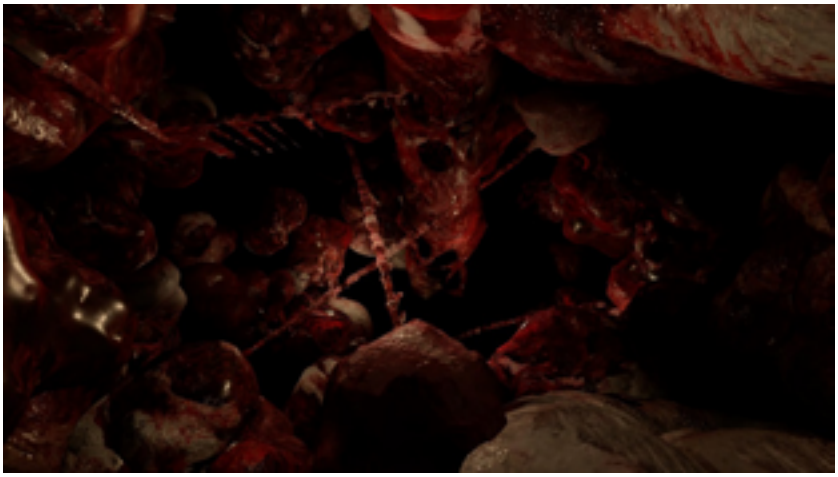

Figure 6. Anısh Kapoor, “Into Yourself, Fall”, VR Installation, 2018. (Source: https://acuteart.com/artist/anish-kapoor/)

Kapoor’s “Into Yourself, Fall” allows viewers to experience a journey through their body but also guides them into a world that is both abstract and disturbingly familiar.

Serrano et al. (2017) and Tong et al. (2021) delve into the viewer’s attentional behaviour and interaction in VR, highlighting the viewer’s ability to freely choose the viewing direction and develop a feeling of presence within the virtual scenes. These insights underscore the active role of the viewer in shaping their perceptual experiences and navigating the virtual artistic landscape.

Ganczarek et al. (2022) and Muth & Carbon (2016) explore the impact of titles, semantic violations, and aesthetic fluency on the viewer’s perception and art experience. These factors demonstrate how the viewer’s cognitive and affective states play a significant role in shaping their engagement with postmodern VR art.

Furthermore, Liu (2019) and Marañes et al. Zhang (2022) discusses the transformation of the viewer from passive observer to active participant and experiencer in the context of digital media art and VR exhibitions. This shift in the viewer’s role reflects the evolving nature of artistic engagement, where viewers are invited to participate and interact with the artwork actively, contributing to a more immersive and personalised experience.

4. Future Directions for Postmodern VR Art

The integration of virtual reality (VR) in the field of art has opened up new possibilities for artistic expression and experience. As we look towards the future, it is essential to consider the potential research directions and advancements that can further enhance the intersection of postmodernism and VR art. Several references provide valuable insights into the future directions for postmodern VR art, offering a glimpse into the potential areas of exploration and development.

Wang et al. (2018) critically reviewed the use of VR in construction engineering education and training, highlighting future research directions, including the integration of VR with emerging education paradigms and visualisation technologies. This emphasis on integrating VR with educational paradigms can be extended to the field of art education, exploring how VR can revolutionise art learning and appreciation in the postmodern era.

Lyu et al. (2023) focused on design-thinking skill enhancement in VR, emphasising the expectation for future studies to explore arts and art thinking using VR to enhance design-thinking skills. This points towards the potential for VR to not only enhance artistic creation but also to foster innovative and revolutionary designs through the integration of art thinking in VR-based design processes.

Hacmun et al. (2018) delved into the principles of art therapy in VR, highlighting the immersive and creative experiences offered by VR, including three-dimensional painting, dynamic scaling, and embodied expression. This suggests a potential future direction in leveraging VR for therapeutic art interventions, expanding the application of VR art beyond traditional artistic expression.

Xu and Zhu (2021) discussed the implementation of artistic colour VR based on similarity image restoration, emphasising the development of art in space and the hybrid path of virtual reality art. This points towards the potential for VR to redefine spatial and environmental art, offering new dimensions for artistic exploration and creation.

Yun-Xuan Yun-xuan (2022) explored the application of artificial intelligence within VR to produce digital media art, highlighting the expectations for the combination of VR and art and analysing essential factors for their integration. This suggests a future direction in leveraging AI-driven VR technologies to push the boundaries of digital media art, offering new avenues for creative expression and innovation.

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VR technologies to push the boundaries of digital media art, offering new avenues for creative expression and innovation.

5. Conclusion

In conclusion, the advent of postmodernism within the 21st-century art world, particularly through its integration with virtual reality (VR), represents a profound transformation in the realm of artistic expression and theory. This amalgamation not only reshapes the methodologies and philosophies of art but also redefines its very essence. The principles of openness, diversity, and interactivity, fundamental to postmodernism, find a resonant medium in VR, making it an increasingly pivotal tool in the arsenal of contemporary artists.

Artists such as Gibson/Martelli and Jacolby Satterwhite are at the forefront of this revolution, exemplifying the dynamic and multifaceted nature of postmodern art in the VR sphere. Their works, marked by self-referentiality, interactivity, and an exploration of the boundaries between reality and simulation, invite viewers into a realm where these concepts are not just observed but actively experienced and questioned. This immersion blurs traditional lines, challenging long-standing notions of authorship, interpretation, and the viewer's role in the artistic process.

The impact of postmodern VR art transcends the boundaries of traditional aesthetic appreciation, venturing into the realms of viewer engagement and experience. This involves a nuanced understanding of how such art forms transform the viewer's interaction with the artwork, emphasising personal agency, immersive engagement, attentional behaviour, and cognitive-affective responses. These elements highlight the interactive and personalised nature of postmodern VR art, fostering a deeper connection and dialogue within virtual environments.

The future directions of postmodern VR art are as diverse as they are promising. Potential applications in educational settings, design thinking, art therapy, and spatial art development point towards a rich and varied landscape of possibilities. Moreover, the anticipated synergy of VR with cutting-edge technologies such as artificial intelligence (AI) opens the door to unprecedented levels of creativity and innovation. These advancements are not merely extensions of current artistic practices but are transformative in their own right, offering new horizons for artistic expression and engagement.

This evolving landscape of postmodern VR art also reflects broader societal, cultural, and technological shifts. As society grapples with rapid changes and increasing digital integration, VR art becomes a mirror and a lens, reflecting contemporary issues and offering new perspectives on them. Therefore, VR's role in art extends beyond the creation of immersive experiences. It becomes a medium for critical reflection, a tool for social commentary, and a platform for exploring the complex interplay between reality, perception, and technology.

In sum, integrating postmodernism and VR in art is not just a trend or a fleeting experiment; it represents a significant shift in the artistic expression and theory paradigm. It challenges artists, viewers, and critics alike to rethink the boundaries of art, engage with new modes of expression, and embrace the endless possibilities that this fusion presents. As we move forward, the exploration and development of postmodern VR art will undoubtedly continue to surprise, challenge, and inspire, marking its indelible impact on the art world and beyond.

Conflict of Interests

No potential conflict of interest was reported by the author.

Endnotes

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