



Research and Exploration on the Application of Dynamic Art Video Installation Based on New Media Context

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Abstract. With the continuous transformation and optimisation of China's economic structure, the new media industry is continuously integrating into all areas of China's socio-economic and livelihood life, becoming an important factor hindering China's progress in the future. New media platforms have become a new driving force for economic progress, and national strategies continue to fuel the progress of the new media industry, with traditional media and emerging media complementing each other's strengths and "integrated" progress deeply impeding the progress of Chinese society at all levels. Under the strengthening of China's top-level design to vigorously promote the progress of the network and information technology business, new media has connected multiple industries and fields of progress, becoming a key factor in the new period of China's social transformation, with all kinds of new technologies, new ideas, new forms and new models competing. In recent years, digital, network and communication technologies have intervened in the composition of the media, creating new forms of media that are significantly different from traditional media. This paper examines and analyses video art in the context of new media and provides a more comprehensive study of video art in the context of today's multimedia trends.

Keywords: Artistic images; Dynamic devices; New Media Background

1 Introduction

Today, the contemporary image has become an organised collection of visual information, often appearing as a visual symbol. As an art form that uses the image as a medium for artistic creation, video art is essentially a visual art that is about time, an art form that "codifies" visual symbols around "seeing". When a three-dimensional image derived from nature is paired with the dimension of time, the image gains a vitality and tension that no medium has ever had before. In addition, the reproducibility of the image makes it an important vehicle for the rapid dissemination of information in the media [1]. This combination of 'temporality' and 'reproducibility' has brought a different way of thinking about the construction of space in installation art, thus establishing the importance of the image in video installation art [2]. The rapid advances in information networks and communication technologies around the world have brought the

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media industry into a new era, with a plethora of new online media growing rapidly [3]. In order to better explore the issue of spatial construction in video installation art, it is first necessary to sort out and clarify the relevant concepts discussed in the text. Video installation art is not a recent phenomenon; a group of artists created exploratory video sculptures as early as the 1960s and 1970s, which can be regarded as an early prototype of today's video installation art. In terms of its name, video installation art consists of the key words 'video' and 'installation', which indicates that video installation art is a combined art form, and that it must be traced back to its roots in both video and installation [4].

2 Presentation characteristics of multimedia images

2.1 The real-time nature of generative art in video installations

Generative art, when combined with computers, has developed some of the characteristics of its unique medium; it is a kind of art in which the machine takes over the completion of our ideas, and almost all works of generative art are not viewed at the moment of completion, but rather as they evolve through the process, showing not the final result, but the process that the program has worked out for us [5]. This process happens in real time, and sometimes the generating artist is willing to incorporate factors that are already changing themselves, such as the temperature outside or the number of people in the audience, which can become a variable parameter in the generation of the artwork, leading to a process in which the image we see is generated by several of these changing parameters, evolving in real time within the overall complex system [6].

2.2 The randomness of generative art in video installations

When generative art takes place, the images that are produced simultaneously, are not predicted accurately, because one of the greatest characteristics of generative art is its randomness. There are generally two sources of randomness in generative art, the first being pure randomness, such as the small elemental changes of live real-time sound changes or some physical characteristics of throwing, tossing, and such. This random, episodic element played an important role, for example, as early as the beginning of Johann Philipp Kernberg's musical dice game, where the randomness within physical properties was used, and then later when Mozart also used this method to compose music [7]. The first option of interacting with sound is also a common mode of interaction, and this mode of interaction is also very common; the sound of the exhibition space, the sound of the audience or the sound of the waves thousands of kilometres away can be used as a variable factor in generating art.

2.3 The uniqueness of generative art in video installations

In contrast to traditional video art, the uniqueness of generative art is not found in traditional video art and is seen as an inevitable characteristic, a combination of real time and randomness [8]. This means that there is only one chance for the image to appear, after which it will almost never appear the same. While traditional images can be set up to repeat themselves according to the time and place, generative art is a combination of the first two characteristics, namely randomness and real time, resulting in each segment of the generated image being unique, and this unique image does not have a repeat mechanism, which also results in each viewer seeing only what they see in the time period shown to them, and the images before and after are completely different, so each person in generative art can only see part of it, not the whole process. The source of this data, and the variations in it, are a source of uncertainty due to coding operations, or web-based crawling of information data. Randomness has a very particular quality of chance, and generative art is an endless operation, so that the images produced at every moment in time and space can no longer be reproduced [9].

3 Breaking the traditional concept of art

3.1 Generating artistic images generated by machine

With the advent of technology came the age of data, and the computer, a representative of technology that has been invented for over 70 years now, is a relatively new medium for creative expression. Computers are often used only as display devices for digital art, or to automate processes or paradigms that preceded them. Many respected traditional works of art rarely involve digital computer intervention in the creative process [10].

3.2 Generating artistic images as a process

Throughout the generative art images, there is no end to the process once it has begun, it is a process-based installation, including the viewer's participation in or viewing of the generative art images, where every sense of change is relative to the process of the scene. The work produced by the path from science to electronic media art is an excellent example of the interplay between stochastic and generative processes. Virtual environments are sometimes data simulations of real space, but can also be abstract worlds generated by computational rules. What these systems have in common is that they interact in lower level laws [11].

4 The historical lineage and origins of video installation art

In order to better explore the issue of spatial construction in video installation art, it is necessary to first sort out and clarify the relevant concepts discussed in the text. Video installation art is not a recent phenomenon; a group of artists created exploratory video

sculptures as early as the 1960s and 1970s, which can be regarded as an early prototype of today's video installation art. In terms of its name, video installation art consists of the key words 'video' and 'installation', which indicates that video installation art is a combined art form, and that it must be traced back to its roots in both video and installation.

Today, the contemporary image has become an organised collection of visual information, often appearing as a visual symbol. As an art form that uses the image as a medium for artistic creation, video art is essentially a visual art that is about time, an art form that 'codifies' visual symbols around 'seeing'. When the three-dimensional image of nature is combined with the dimension of time, the image acquires a vitality and tension that no other medium has ever possessed before. In addition, the reproducibility of the image makes it an important vehicle for the rapid dissemination of information in the media. This combination of 'temporality' and 'reproducibility' has brought a different way of thinking about the construction of space in installation art, thus establishing the importance of the image in video installation art.

4.1 Definition and status of video installation art

It can be seen that video installation art is not simply a superimposition of video art and installation art. Video installation art is an art form in which video technology intervenes in the creation of installation art, and can also be said to be the result of the application of video technology in the creation of installation art. Video installation art is an inevitable trend in the development of installation art in the new media era, as it has the respective content attributes of video art and installation art, and at the same time has its own irreplaceable essential characteristics, so video installation art can be defined based on the narrow connotation and form of both. However, video installation art is a product of the blurring of the boundary between video and installation, so it cannot be defined in a brutal one-size-fits-all manner, and such a research method and approach is not the starting point, let alone the ultimate goal, of this article. At this point we must take a backwards approach to defining video installation art, that is, if the video element or installation element is removed from a video installation artwork, the artistic concept and formal expression of the work is no longer valid, then we can consider the work to be a video installation work, and such a work is the main objective and focus of this research.

With the continuous development and application of new technologies, the boundaries between video installation art and other types of art are no longer clear, and the choice of video and installation forms for art creation has become the first choice of many artists, especially young artists, which is inseparable from the inherent inclusiveness and diversity of video installation art, thus becoming the best carrier for artists' conceptual and emotional expression. Along with the ever-generalising concept of video installation art, many artists' works are often categorised as new media installation art or interactive multimedia installation art because of their use of new technologies. In fact, their concepts and forms are still part of video installation art, and can even be directly categorised as video or installation art. The new connotations that stem

from within the work are a combination of mediated conceptual semantic expression and digital formal language presentation.

5 Conclusion

Throughout the history of video installations based on video art, along with the continuous upgrading of technology, video installations have constantly combined with technology and crossed over with other art forms, greatly expanding the artistic connotation and expression of video installation art on the one hand, and the exploration and expansion of its spatial construction on the other. Prior to this, the boundaries between installation and sculpture, the basis of video installation, had become increasingly blurred. The boundaries between installation and sculpture, the basis of video installation, have become increasingly blurred, and the mixing with other art forms has resulted in a 'generalisation' of video installation art. The "generalisation" implies the blurring of various materials, and the mix of ready-made, handmade and natural objects expands the scope of the installation, while technological advances and iterations also generalise the boundaries of the image, making both more complex in terms of aesthetic presentation and spatial construction. The interpenetration of the boundaries between video installation and other forms of artistic expression is evident to all. As artists frequently use it as a form of linguistic expression in their artistic creations, on the one hand, the use of video installation as a form and as an independent style is becoming less and less meaningful; on the other hand, the combination of video installation with other art forms has become a trend. At the same time, video installations continue to be presented in various contemporary art exhibitions as a means of display and to enhance the expressiveness of the work. Contemporary video installations have gradually transitioned from the anomalous state of the past to the everyday state in the artist's work. But what this everydayness brings is still a presentation of blurred boundaries, which is perhaps the true home of video installation art as a form of expression in the construction of space.

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