# Interactive Video Installation Art Under New Media Art

## Ying Zheng[1] Peng Zhang[1,*]

[1]Yunnan Arts University, Kunming, Yunnan 650000, China
*Corresponding author. Email: 562869689@qq.com*

**ABSTRACT**

**The origin of video installation art can date back to around the 1970s. As a derivative of new media technology, with the development of new media art and technological development, video installation art was born naturally. The most prominent feature of video installation art is its interactivity, which brings new interactive feelings to the audience's experience or its dramatic performance, and also creates new enlightenments for the concept of new media art. This article summarizes the development process and interactivity of video installation art, to conclude the characteristics of interactive video installation art with examples, and explore interactive video installation art.**

*Keywords: new media art, interactive video installation, interactivity*

## I. INTRODUCTION

New media installation art is an art form of new media technology that participates in installation art creation, and is the result of applying new media technology to actual installation art creation. It is the integration and unification of installation art and new media art, and it is also the inevitable trend of continuous development and evolution in the new media era. In a narrow sense, new media installation art can be defined according to the connotation of new media art and installation art. Because new media installation art has its own essential characteristics, but also possesses the content attributes of both new media art and installation art. "New media installation art" is the product of the cooperation between new media art and installation art. It is a special multi-dimensional art work based on new media technology. It can also be a transformation and audience perceptual space. It can be temporary or permanent, and can be installed in exhibition spaces such as museums and art galleries, as well as in public and private spaces. The media used include natural materials widely used in daily life, as well as new media technologies such as digital images, digital sound, virtual reality and the Internet. New media installation art is a dynamic collaborative category of new media technologies involving multiple styles of equipment creation. In addition to some works using some kind of real-time image capture technology to expand the perception of the audience, many works also use virtual reality technology to create an immersive environment. In addition, with the continuous development of new media technology, the styles of new media installation works have become increasingly diverse and novel. The development of other art has its own characteristics, and the development of new media installation art includes the common characteristics of other art developments. It is developing under the guidance of various single and composite concepts, and benefits from its own continuous accumulation of development experience. Content theme, theme selection, cultural orientation, artistic taste, value concept, emotional expression, operation mode and interactive process are the main concerns of new media installation art, so its art form is presented in different forms.

## II. THE DEVELOPMENT HISTORY OF VIDEO INSTALLATION ART

At its root, video installation art is an emerging thing created by the integration of installation art and video art on the stage. Based on this, video installation art combines the dual characteristics of these two new media arts. Before understanding video installation art, people must first understand installation art and video art. Generally speaking, installation art is to give original inanimate objects new creative thoughts and life through certain creation. Installation art has taken shape as early as 1971. Marcel Duchamp[1], an artist who has always been deviant, did something that has cross-century significance for the era at that time, that is, he signed his signature on a common porcelain urinal and solemnly named it the now-famous "Fountain", which was used as a work of art for exhibition. At that time, it caused resistance and widespread discussion in the Artworld. Even Duchamp was considered to have tarnished the Artworld. However, no matter how the

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[1]    Marcel Duchamp, 1887.7.28-1968.10.2, French artist, pioneer of experimental art in the 20th century, had an important influence on Western art before the Second World War, and was one of the representatives and founders of Dadaism and Surrealism. The creation of "Fountain" opened the way for the development of installation art.

society at that time thought of Duchamp's work, it is undeniable that Duchamp's "Fountain" is widely recognized in the art world as the first work to illustrate art with objects. It is also "Fountain" that officially marked the beginning of its historical journey for installation art. After years of continuous improvement and development, installation art also began to be applied in theatrical stage. For example, in 2011, "Bobrauschenbergamerica" (2011) created forty-three different scenes. At the same time, it integrated each scene naturally in the way of collage, thus using installation art to eliminate all the original boundaries in the drama, allowing visitors to enter the work and interact with the stage.

The early practice of video art was mainly used in movies. Fernand Leger[2] started the art dissemination of video with a single-screen projection in "Mechanical Ballet". With the development of the technological revolution, televisions, cameras and other equipment gradually spread, and video art has truly embarked on the historical stage. Early video art didn't have interactivity. However, with the continuous development of art, Tony Oursle[3] created and exhibited "The Blue Sketch of the Eye of Crime and Its Broken" in 1996, which uses projection devices and speakers to create a particularly terrifying presentation, allowing the audience to feel the scene and meaning embodied in the work, so that the audience is no longer limited to just watching, but to feel more deeply. Although the video installation art at this time is still limited to technical reasons, the audience can't really feel it, but it can also be seen that the artists' pursuit of interactivity in the works this time.

With the development of modern times, the explosion of computer technology has led to a blowout development of video installation art, and interactive video installation art has also been born. It can be described as the most widely integrated art among all the arts. It includes not only communication, but also aesthetics, informatics, chemistry, mathematics, physics, biology, etc., creating a new art form with "integration". At the same time, as the history of interactive video installation art continues to advance, a large number of video installations have also been produced and used in various places. For example, in the drama, the Canadian video interactive drama "Nufonia Must Fall" (2016) tells the story of a robot that is about to be scrapped because it produces human emotions and falls in love with a human girl, and it wants to compose a story for the girl in order to express

its love. The plot may be a bit ordinary, but its special feature is that there is no dialogue in the whole drama, and it needs to be filmed and screened on site. Therefore, KK Barrett, the art director in charge of the film, abandoned the idea of using expensive special effects and chose to use real-time controlled puppets as the protagonist to interpret the story. At the same time, it combined 13 different scenes to transform and cooperate with the camera to create the whole drama. Finally, on the stage of the performance, this drama uses BMP-CC (Pocket Cinema Camera) camera and ATEM (ATEM Production Studio 4K) switcher to perfectly complete the photography and scene switching, and uses real-time projection to put the plot on the screen for the audience enjoy. This is an important enthusiasm collision between modern technology and interactive video installations in drama, which also indicates that the integration of the two arts has entered a new stage. ("Fig. 1" "Fig. 2")
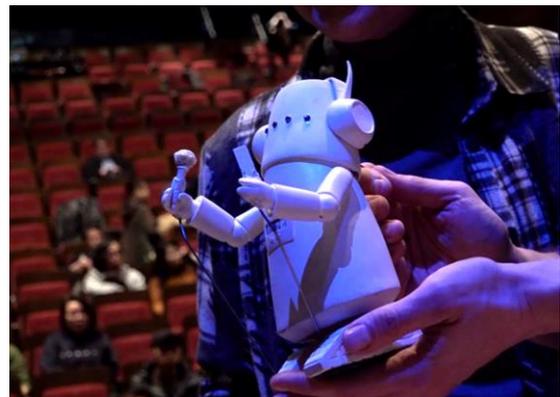


Fig. 1. Avant-garde puppets in the video interactive drama "Nufonia Must Fall", 2006, location: Shanghai.
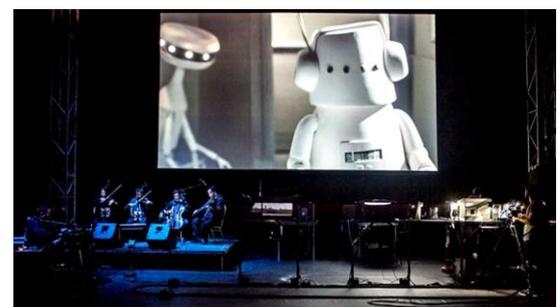


Fig. 2. Video interactive drama "Robot White and Girl" Director: K.K. Barrett. Screenwriter, Arranger: Kid Koala, 2006, [Canada].

## III. FEATURES OF INTERACTIVE VIDEO INSTALLATION ART

### A. Interactivity

Traditional installation art is one-way for visitors and participants. The breakthrough of interactive video installation art is that it breaks the original closed mode

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[2] Fernand Leger, 1885-1955, was born in Argentin, France. His work "Mechanical Ballet" expresses the artistic sense of the movie with abstract graphics.

[3] Tony Oursle, 1957- , American multimedia and installation artist. His works cover media, sculptures, installations, performances and paintings, and use humor, satire and imagination to explore the relationship between individuals and mass media.

and is more open and communicative. Modern interactive video installation art is more not about the form of creation and expression, but about creating a new atmosphere in which both performers and visitors can participate, so that they can enter and participate in the work with a more active attitude. Most of the dramatic works of interactive video installation art need to go through five stages. The first stage is "connection", followed by "fusion and penetration", then "interaction", then "change and transformation", and finally "presentation". Among them, "connection" and "interaction" are the most important and indispensable part, which makes the interactive video installation art have the characteristics of interaction, that is, the audience's self-consciousness completes the drama work, giving the audience new positive meaning.

For example, there is a very important form in interactive video installation art — shadow interactive installation. For video installation art, light and shadow are the foundation of all stage vision. The corresponding images are projected by using light and shadow under the light to concretize and symbolize the performance. The American philosopher Charles Sanders Peirce[4] (1839-1914) divided symbols into three elements: image, sign and symbol. That is, light and shadow brought the first intuitive experience to the audience, and then it is the intuitive experience triggering the connection between the image and the concrete expression. Finally, it refers to determining the specific things represented by the image, and the resonance and interaction between the audiences is generated in this process. In the interactive drama "Ava/Ada" (2013), its creative art troupe cleverly combined the expressions of Chinese shadow puppetry, using light and shadow to make various changes on the screen, thus combining animation, drama and even film, shaping a new model. This drama tells the story of a pair of twin sisters named Ada and Ava who have been with each other for the rest of their lives. After Ava's death at the age of 70, Ada embarks on an adventure because of missing her sister. The entire theater stage is shrouded in a Gothic atmosphere, using various elements to create a wonderful experience beyond life and death. At the scene of this play, projection installations and montage film techniques are combined with live performances and soundtracks, combining traditional Chinese craftsmanship "shadow puppetry" with modern technology, thereby creating a magical fantasy comparable to "magic" for the audiences.

Shadow interactive installations require actors and producers to have a strong ability to control the scene, because there is only one scene, and any mistakes will be magnified in front of the audiences. The shadow method means that in the performance, the performer needs to integrate the body with the stage and communicate with the stage. The core technical requirement of the shadow interactive device is to recognize the image and grasp the characteristics of the created image, and activate the performance by analyzing the movements and sounds of the participants. At this time, stage performers can interact with the stage through sounds and actions. Not only shadow interactive installations, the basic feature of all kinds of interactive video installation art is that it can guide the audiences and performers to join the performance more easily and naturally and become one of them by creating atmosphere and special forms.

*B. Experienceability*

What is "experience"? It is the sum of emotions and realizations that arise when encountering certain things. Therefore, to determine whether the audiences participate when watching a drama, the key to the experience is whether the audiences change or feel psychologically based on the work while appreciating the work. For interactive video installations, when it has experienceability, it means that the audiences can choose to interact with it or not, instead of forcing the audiences to participate in it. However, if a drama uses the art of interactive video installation and it does not make waves in the audiences' mind, the interactive video installations must be able to combine the existing experience of driving the audiences to join the stage to make the audiences actively interact, thereby mobilizing the four senses of the audiences — sight, touch, hearing and smell, so that the audiences can have a feeling of being in it and produce a sense of immersion.
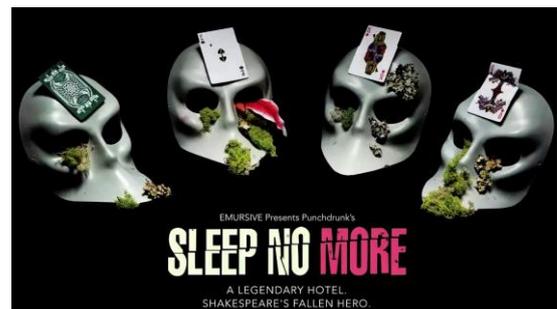


Fig. 3. Punchdrunk's immersive drama representative work "Sleep No More", 2011, [U.S.].

For example, the Western immersive drama "Sleep No More 2" (2011) ("Fig. 3"), combined with lighting, sound effects, smoke, etc., built more than 90 rooms, with super-realistic details that allow the audience to clearly feel the true story. It made the audiences believe in the drama, believe in the plot, and stimulate the audiences' sense of substitution from the senses. At the same time, "Sleep No More 2" is no longer the same as the traditional drama in the past. It needs to follow the

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[4] Charles Sanders Peirce, C S Peirce: On Signs [M]. Zhao Xingzhi, trans. Sichuan: Sichuan University Press, 2014 (12), p242.

plot to understand the plot. It is more for the audience to choose by themselves. As the artistic director of the British Punchdrunk Theatre Company Felix Barrett said that, "I hope to use immersive drama to give audiences a power, allowing them to choose freely in the entertainment experience and be responsible for their own choices." [5] "Sleep No More 2" abandons the traditional boundary of the stage. The audiences can use the applications to explore on their own, and feel the development of the plot together with the actors, so that the right to choose will return to the hands of the audiences, allowing the audiences to actively explore the story line and actively feel the character emotions.

Therefore, the interactive video installation is to reposition the relationship between the audience and the performance in a sense, giving the audience the right to choose freely and explorable time and space plots, allowing the drama and the audience to achieve multiple interactions, and leaving the individual unique memory.

## IV. CONCLUSION

As a part of new media art, interactive video installation art has gradually been recognized by society and audiences with the development of immersive drama and technology. Through the analysis of its development process and characteristics, it can be seen that the interactive image installation art has a broad prospect, which has a qualitative influence on the development of the audience's mode of watching the drama. It not only can the right of independent choice be returned to the audience, but at the same time make the audience watch the plot of multiple time axes, promote the communication between the audience, and increase the audience's experience and acquisition. "As far as installation art is concerned, they are just containers. They can contain any content that the 'author' and 'reader' wish to put in. Therefore, installation art can be used as the most convenient medium to express social, political or personal content." [6] To a certain extent, interactive video installation art is not only a change in multimedia techniques, but also an ideological development, that is, to promote openness and autonomy, and to promote communication and exchanges, so that more consumers can accept the environment that has been changed by technology. Therefore, as a new way of drama creation, its infinite possibilities are waiting for us to explore, and interactive video installation are will certainly promote the innovation of drama creation thought.

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