Research on the Application of "Water Media" in Media Art

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ABSTRACT
With the development of science and technology, digital technology, and the deep cooperation between art and science and technology, this paper studies the state and influence of water as a medium in the development of media art by combining with the case of digital media installation art related to "water curtain projection", and gives examples of the advantages and application scenarios of water media in the creation of media art. The development of cross-media in media art, including water media, is also discussed.

Keywords: media art, water media, "water screen projection"

I. INTRODUCTION

With the continuous development and progress of science and technology, the carrier form in the field of design is developing from the main two-dimensional plane to the three-dimensional and spatial aspects outside the two-dimensional plane, and the design media are constantly developing and changing. The development of digital technology also makes the demand for design content more and more abundant, resulting in many new media industries. With the deeper combination of science and art, image generation, interactive media, virtual reality, augmented reality, mixed reality and so on, media art has changed from a single traditional media to a more possible cross-media narrative art form. We can control water, light, sound and other media accurately through digital means, which enriches the expression language of artistic creation and greatly exerts their dynamic charm. But at the same time, we are also thinking about the future development of art media closely integrated with science and technology, and how to balance the relationship between market demand for sensory pleasure and artistic spiritual value, which will be led by water media and talk about the future development of media art across multi-media.

II. THE EVOLUTION AND DEVELOPMENT OF MEDIA IN MEDIA ART

Visual communication has become a very important mode of communication in the information society, the emergence of digital media art, whether it is the communication and creation of designers or the experience of consumers have undergone tremendous changes, with the development of digital media technology, designers combined with the media, creative way is also constantly innovating. In the book "Talking about the Future of Media", it is pointed out that as a tool for communication between people, media has about six forms: voice, image, text, music, animation and image, and the comprehensive transformation of these six forms by digital technology represents "the future of media". Today, with the rapid penetration of digital technology into every corner of life, "sound, image, text, music, animation, image" is almost no media form that can achieve new development independent of digital technology. With the emergence of digital media, digital technology continues to challenge and enrich the traditional visual form. At the same time, the visual communication has also changed from the previous form of plane and static to the dynamic and comprehensive direction, from the dimension of two-dimensional plane to the dimension of multidimensional three-dimensional, the expansion from a single media to a combination of multiple media, and from the traditional printing design products to virtual information dissemination. The media vocabulary is very rich.[1]

Design is a purposeful creation activity, and the realization of design depends on appropriate materials and technology. Every excellent design work contains the designer's consideration of materials, technology and so on. In design, the material is the medium.[2] It is the media carrier of designers' design ideas and design concepts. Media through its own characteristics and expressive influence reaction in the design works, the

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[1] Shiren Wen. The Future of Media [M]. Reading. Xinzhi Sanlian Bookstore, 1999.
[2] Ming Zhu. Design art education events [M]. Shandong Education Press, 2002

media use their own design language, to help designers present the design ideas and ideas to increase emotional exchange. It can be said that the choice of media for design works is the expression of designer's thought. Marshall McLuhan put forward the view that "the medium is the message", believing that the medium is not only the form, but also the carrier of information and content. It is not empty, negative and static, but has a strong reaction to information and content. The medium is everything, and everything is the medium. Any matter that can make people and people, people and things or things and things have a relationship or relationship between them is a generalized medium.[3]

For designers, as a "medium" material is the material "carrier" to transmit designers' ideas. In different categories of design art, different media have different ways of expression in different categories of design art. Just as in architecture, the use of material media is not only a way to reflect the designer's style and thought, but also a way for designers to learn the latest material media, understand and pay attention to the development of materials, and achieve high-quality and safe modern architecture. For example, in industrial product design, the use of materials is closely related to the audience, performance and other factors.

The media art has obvious technological, media and public participation art forms and categories in artistic creation, dissemination and acceptance.[4] The current rapid development of science and technology for public space media art to expand a broader creative space, so that designers can accurately control the digital means of water, light, sound and other special materials. Nowadays, media art across various media stimulates the senses of the audience, and the term "water curtain projection" has begun to appear more and more in the public eye, and has been widely praised.

III.   ADVANTAGES AND APPLICATION OF WATER MEDIA IN MEDIA ART

With the support of science and technology, the development of modern science and technology not only brings us the expansion of creative media, but also the related digital technology has led art from entity to virtual. Virtual reality (VR), augmented reality (AR) and mixed reality (MR) technology also greatly promote our artistic creation of the combination of reality and virtual. "Water Screen Projection" is a kind of media art that usually combines music or sound effects to project images on water screens or water curtains. And different from water fog projection or 3D

projection, the carrier of water curtain projection is a real water body.

The impression of water screen projection is a transparent water screen, you can see the scene behind through the water screen, now the largest water screen projection is July 26, 2018, the world's first 5D high-tech live interpretation drama "Zun Dao Xing Yi". The traditional performance mode with many real actors and overburdened performances is abandoned, and the projection resolution is as high as 4K under the objective condition of uneven lake water medium by combining water, sound, lighting and even fragrance with digital technology. It narrates the development history of Zunyi from ancient times to the present, shows the magnificent humanities and nature of Zunyi, and is a media art drama that conveys Zunyi's cultural self-confidence. The 1582 square meters of water curtain projection show won the Guinness World Record for the largest water curtain projection in the world, breaking the 893 square meters record set by Dubai in 2016. We can see that the domestic control of digital technology and natural media has been very mature.

Artist Mihai Baba and his team installed a "Ghost Ship" at the Amsterdam Light Festival. Using two intersecting images projected on a vertical water screen, this media art installation projects a ship that is a reference to the Dutch East India Company ship, the Amsterdam, which was wrecked in a storm on its maiden voyage to Batavia in 1749. This water screen projection is different from the usual short-term video mapping display, which can even be called sculpture or public art, and can last for weeks or months.

The water curtain projection of the work "Beyond the Dream" , which adds the element of fire to the previous media participation, is placed on a wild lake near Nagano Prefecture, Japan, with a water curtain as high as 18 meters and 40 meters wide, equipped with UAVs and remote control systems, and water fog lights and flames on the calm lake. To bring the audience a unique audio-visual feast.

It can be seen that the water curtain projection can be infinitely high, the high ductility of water with the control of digital technology gives this kind of media art great space to play, no longer subject to the traditional projection curtain or digital screen size, material restrictions, in the case of space permitting, water media can freely play its characteristics as the carrier of media art projection. There is also a kind of "water fog projection" in life, which is different from "water Mu projection", and the media art conveyed by water can be projected in a strong light environment, while water fog projection is more suitable for projection in a weak light environment.

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[3]   Marshall McLuhan, Understanding Media: The Extensions of Man [M], translated by He Daokuan, Yilin publishing house, 2011

[4]   Zhifeng Hu, Jun Liu. Modern communication [M]. The first issue of what is media art 2014

Certainly, the water screen projection is very important to "falling into water" and the selection of projection, the water body of the water screen projection needs to pass through the generator, water divider, proper treatment of the jet device, add the water body into the air, make the waterline wrap up the air and fall down, this is also the prerequisite combination of forming transparency and imaging, and the projector, it also has special requirements on lumens, light sources, light beams and so on.

Postmodern hypertexts attach importance to the audience's participation, collage, parody, juxtaposing, appropriation and other postmodern texts are trying to subvert the classics and originality of modernism, break the closed narrative system, create a wider space for the audience's aesthetic participation, and seek for multiple interpretations of meaning in the hyperlinks of texts. In addition, the aesthetic experience in the digital age has changed from the contemplation and speculation of traditional art to browsing and interaction, and from the handed down classics to the superficial. Such "improvisation" and "randomness" artistic effects have brought about "fragmentary" aesthetic experience.[5] The combination of interactive technology in media art is the feature of this work Periscopista, where the audience stands in front of the right position to do action, the water curtain will appear cool animation effect, and if the sound is made to the "horn" on the device, the water curtain will change accordingly. This work allows participants to control the visual effect of projection by themselves, the controllability of the work is very high, the visual content of the work has a great relationship with the activities and voices of participants, which fully stimulates the participation of the masses, making the atmosphere on the spot very active and lively.

The use of water curtain projection scene is rich, combined with the current appropriate technology can bring a new experience. The Front Pictures team showed a combination of water projection and dance on America's "Got Talent" in 2015, Freckled Sky. Water screen projection of the story of animation with music, combined with the hero and heroine dance, very exciting innovative about a love story. We can see that the combination of water screen projection and new technology in many fields can collide with many sparks. Digital technology liberates art from the material world and transcends boundaries.

IV. CONCLUSION

The media is the foundation on which art lives. Art and media have been closely related since ancient times. In a sense, media history is the history of new

media from artistic imagination about new media to artistic practice in application of new media, and then to the history of artistic criticism in reflection of new media. The corresponding achievements are embodied in new media art.[6] The development speed of contemporary science and technology is obvious to all, such cross-media and multi-sensory media art is becoming more and more popular, more and more artists devote their enthusiasm and research to digital media art, and the public is also very addicted to such sensory impact. While affirming the positive combination of art and technology, we also need to think about what media art can precipitate after such instantaneous sensory experience, how to avoid the modelization and singularity of media art in order to serve the market, and how to balance artistic value and market value, which inevitably arouse our thinking. Just like "Water Screen Projection", looking at the existing works of art, affirming the splendor of its visual experience, we can also find that this kind of media art also has the same tendency, how to make the combination of art and technology more valuable, rather than a "colorful light show" is what every designer needs to consider.

In the future, the media we choose to convey the designer's ideas will also be very important, as we learned in the class that human beings constantly extend their biological senses in order to develop and control more information, and try to make the transmission of information easier. All things are media, the development of science and technology, so that our choice of media diversification.

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