

Application and Exploration of Video Art in New Media of Design

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Abstract. As a kind of visual culture, video art occupies a very important position in our life. In this paper, the relationship between video art and product design is systematically explored, studied and summarized, trying to establish a theoretical framework for understanding the importance of video art to product design, and find the application method to meet the needs of modern art progress. The design content of video art has become the value symbol of a social form, and the complementary relationship between video art and product design will become the mainstream trend in the future. This paper frames the basic theory of video art, expounds the emergence and connotation of video art, as well as its start and development, as the theoretical research basis of this paper. Secondly, the application method of video art in product design is discussed, and the application method of video art in product design is concluded by introducing Boolean operation theory. Through the application of IMAGE ART in product design, the important role of image in product design is analyzed. As a perfect combination of image art applied in product design, it is hoped that it can be realized in the future.

Keywords: Image; Photography; Product Design; Design Value; Application Research.

1. Introduction

1.1 Project Background

In today's information age, the relationship between people's survival and media is particularly close. People accept the carrier information such as images, graphics, sounds and data created by digital technology. "Digital image art", originated in the 1950s and 1960s, has experienced more than half a century of wind and rain, and now it is showing brilliant colors. In particular, "video art" began in the mid-1980s and experienced a rapid rise and prosperity in the 1990s. After entering the new century, it is entering a period of steady development and expansion. Video art, along with digital industry, new media and creative economy, has become a synonym and a key word of our time [1].

Image is the main medium of artistic creation in the 21st century, just as oil paint, a painting medium that emerged in the mid-15th century, was the main expression tool in the Renaissance. In the 21st century, public media has become the main medium and carrier of mass life and communication. In different environments in the same period, people's pursuit of art will gradually deepen, and they want to find a way to find a way of communication. At this time, art will react against the media and establish video art, which is also a corresponding development trend of the mainstream media in this era [2]. The emergence of video art is firstly attributed to the changing influence of the technological progress of The Times on the needs of art development. Science is constantly updating and creating, changing people's lifestyle, perception and ideology, and constantly innovating in the field of art. Photography, film and television are all art forms under the influence of image technology [3].

1.2 Significance of the Project

In today's era of information technology and "knowledge explosion", the development of new media such as Internet, broadband network, digital television and mobile media network and other new image technology is a rapid progress, showing great vitality and broad prospects for development. This article discusses only one branch of the vast image, media and art. This presentation image is an optical image formed through the camera lens, and the so-called image is understood as an image.

Imperceptibly, video media art is gradually infiltrating into the technical level of daily life and various industries with its amazing speed of development, and has become an indispensable part of the art form [4].

With the rapid development of society, people have increasingly high requirements for art forms. As a kind of media mainly developed in the dimension of time, video art shows flexible use and control of time. People's concept of time in the past, present and future is affected by the function of video technology equipment. Research on the application of video art in product design can inject fresh blood into the pattern of product design, the development of video art constantly creates new forms for product design, and the cooperation and integration of video art and product design can make the work richer in connotation and ideology. The application of video art in product design creates interesting works, which combines perceptual beauty and rational thinking. Through technology and rational thinking, it creates unprecedented visual experience for designers [5]. Therefore, the study of this topic can maintain a benign combination and interaction between video art and product design, so that both video art and product design can reach a higher level and have more excellent works [6].

2. Basic Theory of Video Art

2.1 Connotation of Video Art

The enhancement of the visual nature of modern technology and the increasing demand for video viewing are gradually changing people's aesthetic view of traditional art. As an important part of contemporary art, video art is different from other forms of expression tension, regardless of shooting techniques, angles and presentation methods have a certain empty relationship and composition of the environment. Simply viewing video art has no specific meaning, because you can't easily get involved in the image itself, and art is often described as a way of expression to recreate the real society. As for the word "connotation", we should look at the essence through the phenomenon. Contemporary art has gradually entered a mature stage, and the combination of peripheral products and artistic and international imaging ability affect the classification way of its application and dissemination[7].

Image can be summarized as a kind of perceptual image and is a typical cultural symbol of this era. The image is like an ongoing action at a certain moment, but it is relatively "static", but it will stay in people's mind to generate infinite reverie, but also bring the real feeling of the situation. The image produced by photography is also a kind of image, but its artistic origin is based on literature, painting, music, drama, photography and other art categories, reflecting a profound significance of visual thinking[8].

2.2 Start and Development of Video Art

Image is a branch of art. It is a kind of art style that takes camera and photosensitive materials as tools and makes it through darkroom technology to create real, vivid and concrete artistic images. It is the product of the development of science and technology. In the second half of the 19th century, video art developed very rapidly and began to form and produce artistic schools[9]. The emergence of schools generally requires three conditions: the emergence of social ideological trends and artistic trends, the continuous enrichment of video art and the diversity of modeling methods, and the cultivation and maturity of artists.

Video art has experienced the development of various early schools, forming its own unique language and aesthetic characteristics: painterism, impressionism, documentary, blairism, purism, neorealism, Dadaism, abstraction and so on. To be specific, it refers to a certain social influence group formed or composed by artists who have a certain unity of artistic concepts, aesthetic thoughts and aesthetic consciousness. Style refers to an individual's artistic behavior. To highlight its uniqueness and freshness in the expression of art, it is necessary to form a group, an artistic phenomenon, and make it become a kind of cultural thinking. Then the so-called genre art will be accepted and occupy

a place in the field of literature and art. The formation of video art has profound social factors and historical reasons [10].

3. Analysis of the Relationship between Video Art and Product Design

3.1 Analysis of Characteristics of Video Art

Have to mention in the video art aesthetic art of aesthetic theory "1; } this concept, as early as the 1930 s, a series of aesthetic schools focus on the changes made a statement, the Frankfurt school" 18 "the earliest to industrial civilization of material and spiritual response of the system theory, to re-examine the artistic and aesthetic features. For new aesthetic form of art the subtle changes have occurred, due to new things, and so did the people in the field of perception and cognitive ability, the influence of the technical requirements of aesthetics and aesthetic is greater than the requirements on the level of art, combined with the aesthetic temperament and interest and consciousness gradually into decline trend, makes the image art came into being and thrive[11]. For example, video, multimedia, network film and television works have become the most real and charming new fields in the art world, and gradually expanded to the research level of all academic circles, and have received special attention. The enjoyment of visual esthetics is the lowest layer of the sensory organs, either a form, vision is the first impression that gives a person, this also is aesthetic surface structure, support the framework of the whole work. Good image art can bring to the audience the enjoyment on the vision, let the audience resonate, and interesting, finally can give a person leave deep impression. The publicity picture of the Forbidden City in Beijing, shown in Figure.1, uses the form of a film to make people feel the charm of ancient buildings and the feelings of small town. In the world reflected by the image, the quiet sense of ancient times gives people visual aesthetic feeling, which makes them yearn for the Forbidden City[12].



Figure 1. Background Publicity picture of the Forbidden City

3.2 Characteristic Analysis of Product Design

Product design itself is a combination of technology and art, which is a form. This so-called combination is not an external random mixture. It is a process of transforming rational content into perceptual activity. The design and re-creation process of product design cannot be separated from aesthetic category. And an excellent product design work, there is no use of the unification of technology and art can also be shown from the aesthetic effect of the product. Design arises at the historic moment, because it is accepted by the object, and the audience's aesthetic taste and concept to achieve unity and resonance. With the progress of social productivity, people are constantly pursuing the pace of beauty, and the diversification of art has enriched the whole world and spread to every corner of the world[13]. The aesthetic of product design has subtly changed people's life and

way of existence. What we have said about aesthetics has gradually included a series of elements such as modeling and culture, and the aesthetics of product design can be discussed from many aspects.

In the beauty of product design, the most should be mentioned is the beauty of color and proportion of product design. Because the color has distinct characteristics, in the whole image of the product, has the first key role. This impact on people is also the first to seize people, color is the first to act on people's visual feelings, has a strong visual inspiration and expression. In modern society, people interact with products almost all the time. When we face all kinds of products with unique appearance and bright colors, we have not been able to carefully consider its shape, more easily moved is its color beauty[14]. The color of product design is used properly, not only can make up for the deficiencies in the design and modeling, but also can add icing on the cake. Such works are often more able to get people's attention and love[15]. On the contrary, no matter how perfectly designed a product is, if the color is dealt with in an irrational or even vulgar way, it will not only affect the aesthetic value of the whole product, but also easily make people feel disgusted, so that the functionality of the product will also be severely affected. It can be seen that in the aesthetic characteristics of product design, the embodiment of color beauty is crucial.

4. Research on the Application Method of Video Art in Product Design

Product design is inseparable from video art, the development of video art promotes the promotion of product design. This chapter systematically discusses the application methods of video art in the field of product design, introduces Boolean operation theory, and concludes the application methods of video art in product design.

4.1 Product Design

Product design reflects the economy, technology and culture of an era. The importance of product design because the product design stage should comprehensively determine the whole product strategy, appearance, structure and function, so as to determine the layout of the whole production system [3], therefore, product design is of great significance, which has the important significance of "pulling one step and moving the whole situation". If a product is designed without a production perspective, it will be costly to adjust and replace equipment, materials, and labor during production. On the contrary, good product design, not only in the functional superiority, but also easy to manufacture, low production cost, so that the comprehensive competitiveness of the product can be enhanced. Many of the dominant enterprises in the market competition pay great attention to the details of product design, in order to design a low cost and has a unique function of the product. Companies in many developed countries see design as a hot strategic tool, believing that good design is the key to winning customers. Especially in the category of design art, the feeling presented by any work and the audience degree of innovative thinking have different forms.

4.2 The Demand Law of Video Art in Product Design

Photography or image in video art is a complex of time art and space art, which must be presented in the form of theoretical research and empty inquiry. It is a comprehensive art to tell stories, express emotions and elaborate philosophy through the means of modeling expression -- composition, tone and tone composed by light, color and lines. So the application of video art in product design needs to meet various requirements. These requirements are related to social development, function, quality and efficiency, as well as use. This is called the law of demand. Some people believe that designing products is function first, shape second; While others believe that design should be colorful, whimsical and interesting. As such, the application of video art in product design should take due account of the law of demand.

4.3 Application Analysis of Boolean Operation in Product Design

In this paper, Boolean operation theory is introduced to explore the formal rules of Boolean operation theory for the application of video art in product design [16]. In 1847, Gorge Boole, a British mathematician, invented the logical and mathematical calculation method to deal with the relation between two values. The analysis diagram of Boolean operation of planar graph is shown in Figure. 2.

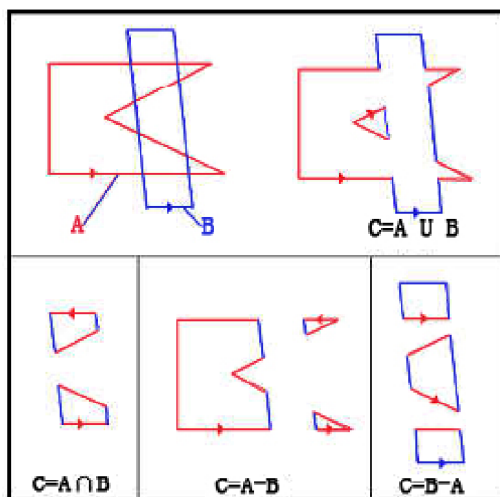


Figure 2. Analysis diagram of Boolean operation of planar graph

4.4 Boolean Operation Method of Video Art in Print Advertising Design

Print advertising design to convey information as the primary purpose, the final performance of the communication must not get rid of the media, graphics, images, words, and color. The relationship of their mutual arrangement is the information carrier of print advertising design, and the carrier of print advertising design also grows with the constant diversification of media. With the development of digital media in the 20th century, the development environment of print advertising has also been affected. Digital art, digital film and television, multimedia advertising and all other forms of image art constantly impact the form of expression of print advertising. Print advertising is more combined with video art, slowly becoming a broad form of cooperation.

The image of print advertisement is not only a kind of image in the mind of the communicator, but also a kind of fantasy in the mind of the receiver. First of all, the graphic advertising design is a kind of innovation and development of the design concept and thinking. In short, this is the innovation and summary of past design experience and knowledge. This kind of thinking consciousness has too many manifestations in video art works and theoretical research in our life, whether in thinking guidance or emotional expression. In a sense, print advertising is "graphic language" and "linguistic graphics", which are inseparable from our video art. At present, in many domestic and international photography competitions, hand-painted works and video works, or computer-made works, have occupied the position of each white, however, the use of software Photoshop to process photos into a variety of novel picture effects of the work has been unbeatable. It shows that the innovation of science and technology is another expansion of the innovative thinking of the impact image to the visual field. It is not so much an application as a means of expression or innovation. Early print advertising to print image media expression as the backbone, the general poster design, advertising books are with creative images for the purpose of publicity. Although also realized the aesthetic and functional unity, but unavoidably will feel a little monotonous. Combined with video art, the static image can be moved to convey the information better and more efficiently. This dynamic picture and interactive form more attracts the audience.

5. Conclusion

The birth and development of image has great influence on product design. In the 21st century, modern science and technology continue to develop at a high speed, which not only brings the opportunity of video art, but also has the possibility of creating infinite value for the future. The progress of modern science and technology is an irresistible force, and the ways of information dissemination are becoming more and more broad and diversified. The relationship between video art and product design will continue for a long time. This paper takes the relationship between video art and product design as the research object, and puts forward that product design cannot be separated from video art, and the development of video art promotes the promotion of product design, and the progress and development of product design make the continuous progress of video art. The two permeate and interact with each other. This paper studies the connotation of video art, the beginning and development of video art, and the artist Paik Nam-jun who plays an important role in the development of video art. Through the above theoretical research, the overall structure of video art is clarified. This paper systematically and comprehensively expounds the aesthetic and functional features of video art and product design. The relationship of their questions is summed up as commonality, fusion and superposition, which is not covered by the existing data and literature. This paper introduces three laws of Boolean operation and concludes the application method of video art in product design, which is of great significance to product design.

References

- [1] The influence of the development of new media art on art design [J]. Zhao Zhenhua. Science and Technology Innovation Review. 2019(35).
- [2] Research on the Influence of new media on art design [J]. Du Yilin. Western Radio and Television. 2019(22).
- [3] Localization Exploration of new media Art [J]. Pan Xiaoe. Science and Technology Communication. 2018(10).
- [4] Analysis of the influence of digital media art design on traditional art design [J]. Song Hernan. Future Fashion. 2018(02).
- [5] The impact of the development of new media art on art design [J]. Zhu Hongjin. Southern Entrepreneurs. 2018(01).
- [6] Discussion on New media Art Design combining digital and art [J]. Research on Art Education. 2014(04).
- [7] The influence of new media image art on the construction of rural cultural system [J]. Zhao Yahong. Fruit Trees of China. 2022(05).
- [8] On the application of new media image art in urban public display [J]. Tian Jinliang. China Architectural Decoration. 2021(02).
- [9] Research on the diversified expression of video art in the context of new media [J]. Fu Qian. Ceramic Science and Art. 2022(09).
- [10] Digital Turn of video art under the background of algorithm [J]. Chen Yongkang. News Lover. 2022(07).
- [11] Interpretation of major themes by means of images [J]. Deng Kai. China Journal of Radio and Television. 2021(02).
- [12] Time and History in Video art [J]. Yin Shuangxi. Art Work. 2019(01).
- [13] Ghosts, humanoids, Phantoms: Self-Reflection in Asian Video Art [J]. Dong Bingfeng. World Fine Arts. 2019(01).
- [14] Diversified expression of video art in the context of new media [J]. Zhang Hui, Shen Yaoyao. Packaging Engineering. 2019(10).
- [15] Analysis on the development of video art in China and its role in cultural inheritance [J]. Gao Dongmeng. Art Education. 2018(01).
- [16] "Fake as Real" -- Discussion on Video Art [J]. Wu Yunyun. Western Leather. 2018(06).