

# Application of New Media Art in Jewelry Display Design

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**Abstract:** Nowadays, the display design of jewelry plays an increasingly important role in the business profit model. Through a variety of display designs, businesses bring visual impact and spiritual enjoyment to the audience, so that the audience can understand different kinds of jewelry. The display design plays a vital role in the popularization and sales of jewelry, and thus the display design of jewelry has been paid more attention. Some common means are mainly physical display, photos, videos, etc., which have their own advantages and disadvantages. With the innovation of technology, the improvement of public aesthetic and the vigorous development of new media art offers a new form of display for jewelry.

## 1. Jewelry Display Design

### 1.1 The characteristics of jewelry

Jewelry refers to an art with unique wear and decorative functions that combines natural gems and precious metal materials or by having natural gems polished and carved. It is an important social etiquette to wear suitable jewelry according to different occasions, which will also benefit the jewelry wearer's own temperament. The daily jewelry is simple and elegant, and the inlay of gems is simple and delicate. Jewelry worn on special occasions, such as catwalks and formal parties, focuses more on the decoration of gems. The more solemn the scene is, the more appropriate jewelry should be worn to meet the decoration needs of these scenes.

### 1.2 The display way of jewelry

The most intuitive way to show jewelry to customers is to show the product in front of potential customers through the form of display entity. However, the traditional way of jewelry display using real objects and photos is basically still in two dimensions, which can not fully express the design concept and characteristics of jewelry products. However, this way has been unable to meet the audience's pursuit of information collection with the change of times and the explosion of information.

## 2. Overview of New Media Art

New media refers to the media form different from the traditional newspaper and TV media. It is a new media form developed with the rapid development of Internet technology, including computers, distributed interactive devices, digital devices, 5G Internet, etc. Compared with traditional media, new media is characterized by interaction, dynamic, etc., which plays an increasingly important role in people's life and work.

New media art is based on digital technology, even digital art. New media has diversified forms of expression in the way of existence, which has undergone qualitative changes beyond traditional art and greatly subverted the expression forms of traditional art. In fact, the scope of new media art is expanding at an unimaginable speed. At present, it mainly uses 5G network, digital technology, virtual reality, real-time rendering and other latest technological achievements to create multimedia art works. Therefore, new media art has been quietly applied to many scenes in modern art, and has gradually occupied a pivotal position.

## **2.1 New media art types**

### **2.1.1 Network art**

With the advent of 5G era, the era of Internet is getting closer and closer, and Internet technology is becoming increasingly important. As a new media, it has also entered the art field, broadened the new aesthetic field, and changed the modern art landscape. Internet has the functions and advantages of multimedia integration platform that other electronic media do not have, and it is characterized by real-time interaction and globalization. In the form of expression, it exceeds the limit of a single media, and exceeds the comprehensive media effects of characters, images, video, sound, audio, media, etc.

### **2.1.2 Virtual reality**

Virtual reality is the use of computer software and hardware to simulate a three-dimensional virtual scene. Users can simulate the actual user's feelings through various special sensors such as vision, hearing, touch, etc. In this environment, users can operate "projection" through various special devices to achieve the special purpose of building a real jewelry display environment (i.e., people dominate such an environment). Augmented reality (AR) is a technology that uses relevant algorithms to predict some imperceptible information of the real world, so that the viewer can get unprecedented unique jewelry wearing experience.

### **2.1.3 Device art**

Digital image device is developed based on video art. It first appeared in the TV set placed in the glass window of Paris department store, showing a beautiful image after folding and deformation. With the continuous breakthrough of science and technology, the production of image works is becoming increasingly complex, with more emphasis on interaction and multimedia effects. As a new comprehensive art, digital image device art has become an inevitable trend of art development and application.

## **2.2 New media art features**

### **2.2.1 Interactivity**

Interactivity is the most prominent feature of new media art, which provides a new way for creators to pass on their design ideas to recipients. In new media works of art, the public attitude and the psychological and physiological contact of the works are expressed through the interactive relations between the works and the viewers, and between the viewers and the authors. According to the different works, the image, sound, shape, color, meaning and other aspects have changed. At this time, interactivity serves as the connection way point between the works and the public.

### **2.2.2 Dynamics**

Different from the one-way communication of modern media, new media not only completes the digital integration, but also realizes the organic interaction between artistic elements. The new media art connects the creator of beauty with the actual user more closely, giving viewers an immersive wearing experience. Also, it has produced new aesthetic characteristics completely different from the traditional art. This aesthetic way is not only contemplation, but also diversified and dynamic interactive communication.

## **3. The Unique Display Advantages of Jewelry in New Media Art**

### **3.1 Obtaining intuitive effects**

At present, customers' vision is affected by many factors in many forms of jewelry exhibition, such as lighting, props, etc. Due to the short exhibition time in the form of network, more details are not displayed, and customers lack of understanding on the actual works, and lack of communication and interaction with the works. Using new media art exhibition, viewers can wear virtual devices to

understand all kinds of jewelry. This vivid and all-round display gives the audience a new audio-visual experience, which is more effective than the traditional display.

Through the use of virtual three-dimensional model for jewelry display, it can not only fully display the information and details of jewelry, but also can view it more comprehensively in the form of shrinking, expanding, rotating, etc. Using virtual reality technology for jewelry display, viewers can observe jewelry products more carefully and deepen their understanding through the interaction under the unique virtual reality scene, thus improving the purchase rate and bringing higher added value at the same time.

### **3.2 Breaking traditional shackles**

The use of traditional methods to display jewelry can be affected by a variety of factors such as location and lighting. For example, Chinese buyers can not easily buy the local jewelry in Paris, France. It also takes a lot of time and effort to go to several department stores to compare products when customers only need to buy jewelry. If the virtual reality technology can be rationally used to combine the network platform with the jewelry display, the jewelry display can break the constraints of the traditional time and space and other adverse conditions. Virtual jewelry display can make customers choose jewelry at home, which is of great help to product sales.

Moreover, the model used in the traditional jewelry display is not only expensive to produce, but also the photos used in the display will be affected by the resolution and other factors. The use of new media art to display jewelry is not affected by various external factors and always shows its best side. It not only improves the efficiency of the exhibition, but also increases the audience's experience and their enthusiasm for jewelry.

Usually, jewelry display must be carried out in a specific and harsh environment. Therefore, jewelry design will be affected by various factors. However, jewelry designers will digitize their jewelry with the application of new media art, and then upload the designed jewelry to the network platform. The seller only needs to digitize the product at home and upload it to the Internet through the mobile electronic device, and it will be seen by more interested people. With the promotion of information technology, jewelry display has been expanding and its popularity has also been improving.

### **3.3 Meeting customized requirements**

In recent years, the technology is increasingly developed. New media art is also rapidly accepted by more art practitioners, and the actual scene of new media art application is also expanding. New media display makes jewelry display more futuristic and fresh. Also, jewelry designers can more clearly express their unique creative ideas and styles through this novel display form. The novel display form deepens the design concept of jewelry, and also deepens the audience's impression and resonance of the works.

The physical display of jewelry usually only shows the jewelry that has been mass-produced, and the reaction of jewelry market can only be known after a large number of jewelry are put into the market. However, the display objects of new media art can not only display the models before mass production, but also customize the works according to the needs of customers.

## **4. The Application of New Media Art in Jewelry Display Design**

Nowadays, the design of jewelry requires a wide range of jewelry. In order to further grasp the enthusiasm of the audience, the new media technology combines video, text and other information through a complete computer operation output to form a new information display platform. Therefore, a comprehensive and multi-level realistic display of jewelry in front of the viewer's eyes can be achieved.

### **4.1 Jewelry model holographic projection display**

Holographic projection technology, which has been used in science fiction movies and widely praised in the past, can reproduce the three-dimensional image of jewelry without real jewelry.

Compared with the traditional two-dimensional method, holographic projection can be used for a depth observation without object model. However, it also has the disadvantage of insufficient interaction between the display image and the viewer. The demonstration of holographic projection is simple and easy to use. Based on this feature, holographic projection has a wide range of display and application.

#### **4.2 Building virtual reality scenarios**

Virtual reality technology can achieve the jewelry buyers' expectation of pursuing more real jewelry display and viewing. Jewelry designers use professional software, such as Virtools, Vega, etc., to construct VR virtual reality jewelry display scene first, and then carry out modeling operation on the jewelry works. The virtual jewelry display scene sets off a more realistic atmosphere. After the jewelry display scene is set off, the unique virtual reality file format of jewelry display is completed. The viewer only needs to wear VR helmet, earphone, handle and other equipment required by the virtual display to join the 5G network, and then the real scenes such as wearing jewelry can be reproduced in the virtual scene. The display needs to be operated directly through the VR handle, which has a stronger authenticity and makes the audience have the immersive feeling. It can not only observe in an all-round and multi-level way, but also simulate the real feelings of the wearer. At the same time, it also reduces the display and security costs of precious jewelry.

#### **4.3 Modeling software outputs VR model**

Modern jewelry design usually has too many details, such as the "Tie & Dior" series launched by Dior in August 2020, which integrates nearly 20 kinds of gems. Due to the large number of details, the viewer needs to get a full range of visual and tactile experience. Designers and virtual reality architects cooperate to use professional modeling software to carry out three-dimensional modeling of the more than 20 gems. First, they get the model file after modeling the jewelry, and then render the gems in detail through VR format software. Finally, the finished file will be uploaded directly to the designated Dior official display website. The viewer can see the details of the jewelry by selecting or viewing the mobile electronic device, and can zoom in and out by sliding his fingers. Although the effect of this method is very good, it has higher requirements for the designer's modeling software proficiency.

### **5. Conclusion**

To sum up, new media art is a display mode with unique interactive characteristics in jewelry display. It can make jewelry design more advanced, highlight the design content of its designers, break more shackles, and achieve more efficient communication and interaction among all parties. Under the application of new media technology in jewelry display scene, it not only offers new display methods and display ideas for jewelry, but also expands the practical application scope of new media art. Therefore, new media art and technology can be used in more display scenes. Even if the new media art wants to be widely used in the display of jewelry under the current environment, it still faces a lot of difficulties and challenges. However, it will be realized in the near future.

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