

The Necessity of Combining Jewelry Design and Processing Technology

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Abstract. With the continuous development of social economy and the rapid development of fashion culture, people's aesthetic requirements for jewelry design style and artistic expression are also getting higher and higher. The application of jewelry is not limited to people's demand for clothing, but gradually develops into the basis of the emergence of personal aesthetic media and the aesthetic carrier of the emergence of social civilization and fashion. Although jewelry is also a kind of handicraft and art, but currently many companies in the design of jewelry products are relatively simple, blind, may not be able to really express the artistic characteristics of jewelry. Therefore, if enterprises want to highlight the artistic value of jewelry, they must organically combine the design of jewelry products with the modern processing process.

Keywords: jewelry design; processing technology; necessity

1 Introduction

With the improvement of people's cultural level and material living standards, people are no longer satisfied with the design of traditional luxury goods such as jewelry, and put forward higher requirements for the style of jewelry. Moreover, traditional jewelry is more related to decoration and clothing. Nowadays, jewelry is more prominent in human personality, and the style is also more fashionable and novel. The beauty of jewelry not only emphasizes the quality of materials, but also emphasizes the processing process and the design of jewelry. The perfect combination of the three, can present the best artistic effect. This requires jewelry practitioners not only to master the craft and technical requirements of jewelry, but also to have a certain cultural connotation, so that the designed things have artistic characteristics.

2 Jewelry design elements

The most original function of jewelry is practical, mainly small and simple jewelry, but at that time, people did not pay attention to the shape, material and color of jewelry, and it was not until the late Neolithic Age that people gradually pay attention to the color, shape and material of jewelry. Jewelry design is mainly divided into two kinds, one is its external performance, that is, the material, color and shape presented above; the other is its internal essence, it is

essentially composed of points, lines and other local shapes, as well as color collocation, color change and presentation resulting in light and shade, the appearance of texture, nuance, structure, material gloss and material. The external expression of these various elements is closely related, and their internal essence is the main principles and basic aesthetics of arts and crafts. It must be combined with its external form to form a complete aesthetic taste and artistic value [1].

2.1 Analysis of jewelry design status at home and abroad

(1) Current situation of foreign jewelry design

The overall characteristics of foreign jewelry industry designers are strong strength, strong professionalism, strong sense of innovation, clear theme of design works and different design styles. Some developed countries have frequent exchanges in jewelry design, and often hold various jewelry exhibitions. The Jewelry association regularly publishes professional publications and holds lectures irregularly. Frequent jewelry design and related communication are not only conducive to expanding the thinking of designers, but also an important reason why new products can quickly go to the market and become popular.

3 The necessity of the combination of jewelry design and processing technology

Jewelry design is a deliberate and planned creative activity, which is also a way for designers to express their thinking characteristics through creative activities. In art design, designers often create works of art to express their views on life and values by integrating technology and professional knowledge. In any piece of jewelry design art, the designer usually analyzes the subjective will according to the art model, and then with the help of artistic mastery, endows the work with shape, color, structure, culture and other aesthetic elements, as well as the designer's thoughts and feelings. At the same time, jewelry also has its artistic beauty, material beauty and craft beauty [2]. These three are unified and interrelated, and the lack of all three will weaken the overall aesthetic effect of jewelry. Due to the jewelry design materials without special treatment process, the artistic style of jewelry design will become traditional, resulting in a large loss of design resources, resulting in poor artistic effect. In order to achieve the perfect artistic effect of jewelry design, it is necessary to realize the integration of jewelry design data and special processing technology.

First of all, processing technology is an important cornerstone of jewelry design. If designers do not have certain jewelry production technology, it is difficult to design good works. Designers must have jewelry design technology, including enamel processing technology (Figure 1), jewelry casting technology, production technology, jewelry inlay technology (Figure 2), metal processing technology, etc. To accurately grasp these processing technologies, jewelry designers often need to carry out further research and experience in the jewelry design process.



Fig. 1. Jewelry enamel processing art products **Fig. 2.** jewelry inlay technology in details

Secondly, because the creative thinking of designers is often inseparable from the accumulation of practical experience and the sublimation of process design theory, so designers need to study the effective combination of design process and technology. In the early stages of learning the jewelry making process, designers can have a bold and relaxed vision. Although they often have many unique design ideas, they are not very familiar with the process. In the current work, unexpected things often happen. Such as: the immediate change of metal material status, or do not meet the processing requirements, etc. In the process of careful search and in-depth research of jewelry, it will help designers to enrich the details of design work, which can not only achieve the expected technical effect, but also achieve the artistic effect in actual use. Therefore, jewelry designers need to further summarize their experience on the basis of traditional processing technology, in order to break the problems existing in traditional processing technology in jewelry design, so as to more effectively avoid the disconnection between traditional and modern technology of jewelry design, and have a new aesthetic effect to make jewelry more practical.

4 Combine the cultural expression of jewelry with the design and processing technology

4.1 Jewelry and social life

Jewelry has existed for thousands of years, but in real life, it has been realized that jewelry has other functions than decoration. First, the content and function of jewelry dates back to the Palaeolithic axes, swords, jade, and spears. With the progress of human history, jade cups, jade articles and jade bowls, white plates, cups, white jade, ink stones, jade pens, white jade sound box and other things are also used more and more jewelry. It is widely used even today. Secondly, the medicinal value of pearls is very extensive. In ancient China, people had a certain understanding of the medicinal value of pearls. In Compendium of Materia Medica, Li Shizhen, a medical scientist in the Ming Dynasty, believed that pearls have different medicinal values [3].

4.2 Jewelry and aesthetics

Jewelry is the most important decoration for human beings to beautify and decorate themselves. Even this function has been handed down in ancient and modern China, such as jinfengzhai ladder pendants, collars, bracelets and various kinds of jewelry, which can be said to be a wide variety of jewelry. Jewelry from ancient times to the present has also been expressed in different traditional cultures and arts. For example, the mummy arm of the ancient Egyptian queen wears a gilded turquoise bracelet (Figure 3), which also makes modern people understand the ancient cultural and artistic scenes. And the side also shows the social beautiful jewelry culture and the exquisite craftsmanship of the ancients. People are also very happy when they appreciate the jewelry of various peoples in all periods of the world [4]. They can get the feeling of beauty and enjoy the artistic conception of beauty.



Fig. 3. Gold bracelet inlaid with turquoise

4.3 Using weaving technology to make jewelry

The traditional Chinese knot with the most ethnic characteristics in China, with its rich and changeable combination patterns and good meaning, has been spread in the motherland for more than a thousand years, and its simple weaving technology is widely known. This design uses the method of manually woven wire, combining wire and wire bending, and uses a new material to reinterpret the traditional method of ancient Chinese knot weaving, which has been circulating for thousands of years (Figure 4). In terms of jewelry material, pure handmade silver silk contains 99% silver, and 14K gold wire is used in the middle to highlight its value. Neck acts the role of with the metal rivets of different colors, both introduced some

western elements in the antique, and added its own primitive style, more with a little modern nifty taste, more modern [5].



Fig. 4. woven metal gold wire inlaid with colored stone ring

5 Conclusion

To sum up, although domestic enterprises often emphasize too much on the pursuit of the aesthetic value of the works in the design process of jewelry products, they ignore the processing process in the current product design process, which leads to the failure of the design work, and the design level stays more in the stage of the jewelry design process. Therefore, in the design of jewelry products, it is necessary to combine the mechanical processing technology, continuously improve the processing level of product designers in the long-term work, and update the processing process and design as far as possible, so that better works of art should be designed to promote the long-term sustainable development of China's jewelry industry.

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