

Research on the Design of Miao Jewelry Based on Cloisonne Enamel Technology

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Abstract:

In order to promote the living inheritance and innovative design development of intangible cultural heritage in the current social environment, this study focuses on the cross-border integration practice of cloisonne enamel technology and Miao jewelry. Through systematic sorting and in-depth analysis, the research first interprets the cultural significance of cloisonne enamel technology and Miao jewelry; then it is explored in detail from the three dimensions of modeling form, production material and technology, and verified by design practice. The results show that this fusion method can not only give new color presentation effect and artistic expression tension to the Miao jewelry. It also meets the aesthetic pursuit of modern people for the combination of cloisonne enamel craftsmanship and Miao jewelry style. In this way, it provides a practical path and theoretical idea of reference value for the transformation and development of traditional technology in contemporary times.

Keywords:

Cloisonne Enamel, Miao Ethnic Minority Jewelry, Process Integration, Innovation of Intangible Cultural Heritage

1. Introduction

In the context of global cultural diversity and the “living inheritance” of intangible cultural heritage, the contemporary innovation and transformation of traditional technology has become an important issue. As a national intangible cultural heritage, cloisonne enamel is famous in the world for its unique artistic charm of gold and splendor, crystal and luster; the Miao jewelry carries profound historical memory and ethnic culture, and its exquisite silver jewelry craftsmanship and rich totemic imagery constitute a unique visual language. The cross-border integration of courtly and colorful cloisonne enamel with simple and powerful Miao jewelry is not only an innovative way to expand the contemporary application value of the two, but also a positive practice of the concept of “creative transformation and innovative development”. This study aims to systematically explore the convergence of the two in terms of technology, aesthetics and culture, and to construct feasible design strategies, in order to inject new vitality into the field of jewelry design, and provide new ideas for the inheritance and development of traditional technology.

2. The Development of Cloisonne Enamel and Miao Jewelry

2.1. The development of cloisonne enamel technology

In today's society, the intaglio enamel, a traditional handicraft of intangible cultural heritage, is in a transition period of deep integration between tradition and modernity under the dual drive of cultural revival and consumption upgrading. There are complex trends of industrial agglomeration, innovation breakthrough and market restructuring, but the industrial development still faces multiple structural challenges, which restrict its sustainable development. In terms of industrial structure, flexible production is realized by relying on digital design and 3D printing technology; in terms of product innovation, it is transforming from traditional display collections to practical and life-oriented products. At present, most cloisonne enamel technology is used in daily necessities such as water cups and tea sets, and innovative products such as enamel dial have emerged. In terms of market ecology, the audience is limited, the market and practicality are limited, and there is not enough influence to achieve the effect of promotion; in terms of pure manual production, cloisonne enamel requires a lot of time and energy to prevent it from being preempted by mass, fast and low-cost handicrafts in the era of mechanization. With the improvement of people's aesthetic ability in the new era of socialism, it is urgent to promote this intangible cultural heritage craft to find a balance between commercialization and cultural, and realize the sustainable development from "living" to "becoming popular" [1].

2.2. The development of Miao jewelry

As an important part of the national intangible cultural heritage, Miao jewelry, especially silver jewelry, is undergoing a significant transformation from traditional folk products to cultural consumer goods popular across the country. In terms of industrial layout, it has shown the significant characteristics of "production in western regions and sales in eastern regions"; in the field of innovation practice, traditional production technology is deeply integrated with modern design concepts and elements; in terms of design innovation, it is no longer limited to traditional usage scenarios such as weddings and festivals, but transforms traditional totem elements with Miao characteristics, such as "Butterfly Mother" and bronze drum sun pattern, into daily practical items such as necklaces in light luxury style and lamps to create atmosphere.

Through the above-mentioned various changes and innovative measures, the translation of traditional symbols in the modern context can be further promoted, and the cross-border integration with other fields can be promoted, so as to effectively enhance the added value and market competitiveness of Miao jewelry products.

3. Design and Analysis of Miao Jewelry Based on Cloisonne Enamel Technology

Cloisonne enamel, Commonly known as "Jingtai", it is a highly representative special metal craft in China's national intangible cultural heritage. Its name comes from the blue enamel glaze commonly used during the heyday of art and crafts in the Jingtai period of the Ming Dynasty. Its historical origin can be traced back to the Tang Dynasty, and it reached its peak during the Ming and Qing Dynasties. In modern times, it won international awards with works such as "Baoding Furnace". This process is based on copper, which needs to go through six core processes, such as making a body, pinching wire, dotting blue, burning blue, polishing and gilding, and

integrates metallurgy, carving, inlay, glass melting and other technologies; the finished product combines the texture of metal with the brilliance of glaze, featuring delicate and smooth lines of patterns, rich and harmonious colors, and a lustrous finish [2].

Miao jewelry is mainly silver jewelry, which is an important carrier of Miao culture. There are many kinds of ornaments, including head ornaments, neck ornaments, chest ornaments, etc., almost from head to foot. The silver ornaments are unique in shape, with the beauty of size, weight and quantity. For example, the large silver horn is almost half the height of the wearer, and the combination of silver clothes in the Qingshui River basin can reach hundreds. The exquisite production process includes more than 30 processes such as casting, hammering, engraving and welding, and includes engraving and braiding techniques. The patterns are mostly dragon, phoenix, butterfly, bird, fish, flowers and so on, which contain the totem worship of the Miao people and their yearning for a better life. For example, silver phoenix crown and silver flower hat are important symbols to distinguish the different branches of the Miao people. The shape of the big silver horn is derived from the image of the ancestor Chi You “with horns on the head”, which has the meaning of driving away evil spirits.

This article analyzes traditional Miao ethnic jewelry designs, drawing inspiration from the butterfly mother motif in Miao folklore. An analysis of the design concepts, materials, craftsmanship principles, and techniques of Miao silver ornaments, with a focus on the characteristics of cloisonne enamel. The traditional cloisonne enamel and Miao silver jewelry techniques are expressed in a modern language to meet the aesthetic needs of contemporary people for cloisonne enamel and Miao silver jewelry techniques.

3.1. Butterfly and flower shapes of Miao jewelry

Butterfly is the “ancestral” totem of the Miao people, symbolizing the origin of life, endless reproduction, and the continuation of the ethnic group and the prosperity of the family. The floral designs draw inspiration from the Miao people’s traditional motifs like azaleas, peonies, and honeysuckle, embodying their aspirations for a fulfilling life. Their combination creates a protective symbolism. We are the flowers of our motherland, and the butterfly mother symbolizes our motherland, forming the motherland’s protection over us. The design emphasizes both exaggeration and realism, with butterfly wings often depicted in symmetrical, spread-out forms. Flowers feature layered petals, frequently rendered through openwork and overlapping techniques to create a three-dimensional effect.

3.2. Miao jewelry materials

Aluminum wire, steel sheet or aluminum sheet is the main material of Miao jewelry, followed by enamel glaze and a small amount of pearl as decorative color filling and decoration. The wire serves to outline the pattern’s contours, defining the area for enamel glaze application. Its high malleability and ease of shaping make it suitable for techniques like hammering and welding. The enamel glaze is dominated by pink and blue, with yellow and white as the secondary color, showing a romantic and warm atmosphere, close to the center of the guardian. The smooth texture of the metal and the rough texture of the enamel, the heaviness of the metal and the brightness of the enamel, form a strong contrast, making the jewelry more lively and alive.

3.3. The making of cloisonne jewelry of Miao people

The first step in the production of cloisonne enamel is the preparation of the body, which is the basis of cloisonne enamel. Its quality directly determines the stability and service life of the object. First of all, high hardness steel sheet is selected as the raw material, through conception, design drawing, drawing and cutting, and then through hammering, rolling, sanding and other techniques to shape; the second step is to start the wire pinching, which is the most distinctive process of cloisonne enamel and is known as the “soul of the craft”. In this step, the metal is drawn into a thin wire with a diameter of 0.3-0.5 mm. According to the designed pattern, the copper wire is bent into corresponding lines with tweezers, whether it is a complex winding branch pattern or a lively auspicious animal shape. Whether it is a regular geometric pattern, the silk strip should be smooth and natural in curvature. The uniformity of the thickness of the silk thread and the accuracy of the line directly affect the artistic effect of the final object; the third step, the bonding of wire is the key link to closely combine the pinched aluminum wire with the steel sheet, the core is “accuracy” and “firmness”. During the operation, the adhesive is evenly applied to the bottom of the aluminum wire and the corresponding pattern lines of the steel sheet. Then, the aluminum wire is clamped with tweezers and accurately attached to the surface of the steel sheet. The wire is gently pressed to make the strip and the steel sheet adhere seamlessly. For large or complex patterns, it is necessary to paste step by step in different areas. After completing each part, carefully check whether the position of the silk strip is offset or the interface is tight, so as to avoid the problem of silk strip lifting or pattern deformation. After the completion of the paste, the object should be placed in a ventilated and dry place to dry in the shade. Wait until the adhesive is completely cured and the aluminum wire is stable before entering the next process. Finally, the dotting blue part, the dotting blue is the core process of giving color and vitality to the cloisonne enamel object, that is, filling the enamel glaze into the “glaze grid” drawn by copper wire. According to the color requirements of the design pattern, the glaze is sucked up with a special blue dot tool and carefully filled into the glaze grid. When filling, follow the principle of “from light to dark, from small to large”, fill the small glaze grid first, and then deal with the large area; the same color should be filled in several times. After each filling, ensure that the glaze is level with the copper wire and evenly distributed to avoid unevenness. For patterns with complex color transitions, the boundary of different glazes should be accurately controlled to ensure a natural color transition. After completing the dotting, gently tap the body to ensure the glaze fills the grid more evenly, reducing air bubbles. This completes the dotting process.

Finally, the jewelry is assembled through metal techniques such as wrapping, weaving, cutting and inlaying of Miao silver jewelry. With the help of tools, the silver bars of different thicknesses are tightly wrapped. Sometimes it spirals into a lively spiral, sometimes it crosses into a stable base; the soft silver wire is carefully woven to link the fine metal elements; the precise cutting according to the design requirements makes each piece of metal present a perfect shape, either round and full, or sharp; it is further embellished with delicate inlay, with pearls dotted in between, which contrast with the luster of silver. These processes do not exist in isolation, but cooperate with each other and progress step by step, and finally condense the scattered silver jewelry parts into a complete work, which not only retains the brilliant texture of silver jewelry, but also contains the unique aesthetic taste and cultural culture of the Miao people [3].

4. Introduction of Innovative Design Concepts

In order to explore how the silver jewelry technology and cloisonne enamel technology of Miao people can be effectively inherited and promoted in the modern context, this paper will start from the process of myopia and cloisonne enamel process, and sort out and analyze the characteristics of metal and cloisonne enamel forms, materials and processes. Through an in-depth exploration of form, material, and color, this work aims to fulfill the aesthetic demands of modern and contemporary audiences for Miao ethnic craft jewelry design. To enhance the market value and practical value of Miao jewelry as much as possible. To realize the inheritance and innovation of Miao silver jewelry technology and cloisonne enamel, and call on people to promote and protect the intangible cultural heritage technology [4].

4.1. Structure in innovation

Deconstruction is a common design method in modern design. Traditional Miao jewelry has a strong folk art atmosphere, but it is too complicated and redundant, so the market acceptance is low and it can not be recognized by the general public. Therefore, modern design concepts should be added to deconstruct and re-create the shape. Drawing on the traditional Miao jewelry forms and styles, combined with cloisonne enamel elements and modern design aesthetics, the innovative design is created. Transform the concrete into the abstract, remove the trivial, and make it more modern design beauty, in line with modern design aesthetics. This design is more everyday and more in line with the public aesthetic, elegant and compact but not without rhythm.

4.2. Innovative use of materials

Because the silver used in the silver jewelry of Miao ethnic group has too high value cost, it can not meet the consumption needs of most consumers; made of metals such as aluminum, copper or steel, the metal luster is combined with materials such as pearls and beads, and the color of the cloisonne enamel itself to add layers and texture to the Miao silver ornaments. The addition of jewelry inevitably exposes copper (or iron) wires. Traditional Miao jewelry is too heavy, while modern jewelry designs tend to appear overly heavy [5].

4.3. Color expression

The traditional cloisonne enamel process uses high purity, high saturation and high brightness, while the silver ornaments of the Miao people are also generally metallic colors, which are closely related to the aesthetic of the makers and the materials provided by the social environment at that time. With the development of industry, the color of silk thread has become more and more rich, which also provides a prerequisite for the innovation of Miao jewelry, and the development of enamel glaze also creates the possibility of innovation for Miao jewelry. With the popularity of Chinese style, Morandi color has also become a trend in the fashion circle, becoming one of the aesthetic standards of the new generation. The enamel glaze manufacturer, spotting a business opportunity, followed suit by offering Morandi-colored enamel glaze, which creates jewelry that is calm and elegant with a fashionable, rich and low-key color palette, adding a touch of tenderness and showcasing a kind, soothing and restrained beauty.

5. Miao Jewelry Design with Cloisonne Enamel

Inspired by the legend of the Miao butterfly mother, this set of jewelry incorporates the art of filigree and Miao silver jewelry to convey the profound meaning of “love and protection”. In the legend of the Miao people, the butterfly mother has an extraordinary significance, symbolizing conception and protection. The set comprises four accessories: a hairpin, earrings, a necklace, and a brooch, all ingeniously designed with butterfly motifs to symbolize maternal protection akin to a butterfly’s nurturing care. What is particularly unique is that the children are presented in the form of flowers in the ornaments, and there are a total of 12, symbolizing the growth of many lives under the protection of the butterfly mother. Just as the motherland is our mother, we are the flowers of the motherland. The cloisonne technique delicately outlines the butterfly’s contours, showcasing its graceful beauty; the Miao silverware craftsmanship adds an ancient and luxurious quality to the overall texture. Wearing this set of ornaments is not only a way to inherit and show the culture of the Miao people, but also to carry the endless love of the butterfly mother, so that this protection is always with you, highlighting the unique national cultural flavor and emotional attachment [6].



Figure 1. Miao jewelry design display.

In order to ensure that each piece of jewelry can be highly matched with the actual wearing scene and personalized needs of consumers, we specially invited professional models to carry out a comprehensive display activity for jewelry adaptability in a specific situation. When jewelry is transferred from the display device to the living human body, the exquisite conception and unique creativity contained in its design are fully displayed on the skin.



Figure 2. Miao jewelry display.

6. Conclusions

Miao silver jewelry and cloisonne enamel are derived from folk folk handicrafts and have strong characteristics of folk art. In order to be reborn and keep alive in the

modern context, Miao jewelry cannot be separated from innovation and practice. Designers are required to take human aesthetic needs as the cornerstone, extract and summarize the essence of Miao silver jewelry and cloisonne enamel technology, and design innovative Miao jewelry with modern design consciousness from the aspects of shape, material and color in modern jewelry design. Miao jewelry should not be limited to the form of national costume or hanfu, such as headgear and necklace. Daily forms such as earrings, brooches, hair clips, necklaces and hairpins are also worth innovative experiments for designers. In a word, continuous theoretical and practical research on Miao silver jewelry and cloisonne enamel technology is the key to the successful transformation of Miao jewelry and cloisonne enamel technology, and also the key to the elimination of Miao jewelry.

Conflicts of Interest

The author declares that there is no conflict of interest regarding the publication of this article.

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