

Research on the Inheritance and Development of Traditional Crafts: Taking Cloisonné Craft in Dachang Hui Autonomous County as an Example

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Abstract. This paper summarizes the problems faced by the cloisonné industry through a visit and investigation of the cloisonné company in Dachang Hui Autonomous County and puts forward corresponding suggestions on the inheritance value of cloisonné production skills and the inheritance bottom line that should be adhered to in the future based on the protection of intangible cultural heritage.

Keywords: Cloisonné; Inherit; Traditional craftsmanship.

1. Introduction

Dachang Hui Autonomous County, Langfang City, Hebei Province, has a history of more than 600 years of cloisonné production and enjoys the reputation of "the hometown of cloisonné in China" [1]. According to the news report on the portal of Langfang Municipal People's Government on March 2, 2023, there are more than 10 large-scale cloisonné production enterprises in Dachang Hui Autonomous County, and nearly 100 workshop-type enterprises supporting processing, and the production volume of cloisonné handicrafts accounts for 50% of the total domestic market [1], with an annual income of hundreds of millions of yuan.

2. The History of Cloisonné

The historical development of Chinese cloisonné can be divided into three main stages: the primitive accumulation period, the internal and external integration period, and the local development period [2]. The original accumulation period refers to the accumulation stage of the process, this stage of our country in the precious metal forging and the use of glaze has made world-renowned achievements, some technologies far beyond other countries and regions, these technologies have become the basis of the later cloisonné production.

The second stage is the period of internal and external integration: refers to the Yuan Dynasty, the Western enamel art was introduced to China through the sea trade line [2], under the impact and inspiration of this foreign skill, China's craftsmen began to try to combine the traditional Chinese creation technology with this craft, after a period of exploration and practice, they gradually explored and innovated a new craft with Chinese characteristics, which we call cloisonné technology.

The third stage is the period of local development, during the Jingtai and Xuande periods of the Ming Dynasty[2], due to the active participation and vigorous promotion of the royal family, cloisonné has completely become an item for the royal family. At the same time, Chinese craftsmen were no longer limited by Western enamel art in the process of making cloisonné, and they began to use cloisonné as a carrier, and according to the requirements of the royal family, a large number of traditional Chinese cultural elements were integrated, and gradually formed cloisonné products with distinctive Chinese national characteristics (Fig. 1) [2]. Especially in the Ming and Qing dynasties, the cloisonné products of this period, whether it is the design of the vessel or the pattern, its purpose

is to highlight the noble temperament of the royal family and the royal demeanor of the atmosphere, as well as the glorious symbol of imperial power.



Fig.1 Cloisonné ornament, photo by Xinyu Song, 2024

3. The production process of cloisonné

The cloisonné production process is divided into seven parts, as shown in Figure 1 & 2:

Step one: design (see Fig.2-a) which can be divided into two parts: modeling design and pattern design, the two rely on each other, complement each other, the design of the shape needs the appropriate pattern to match in order to better reflect the intention of the design, and the design of the pattern needs the appropriate type to express its deep cultural connotation.

Step two: Zhitai, modeling is the basic part of cloisonné production, whether the shape is beautiful affected by the tire technology, tire making is according to the requirements of the product type, the processed copper plate according to the drawing, cut into different fan shapes or cut into different sizes of graphics with a hammer to make different shapes of copper tires, some special products, but also in the carcass chisel carved out of the concave and convex pattern.

Step three: Qiasi, which is more difficult and most difficult to master in the cloisonné process. The filigree technician uses the soft and flexible flat copper wire with live tweezers to pinch (break) a variety of patterns and patterns of different shapes according to the drawings, and then dip it with baiji (a kind of traditional Chinese medicine with adhesive effect) A wire and a wire are glued to the copper tire, this step is like a line drawing in a painting, but he does not use a pen to sketch, but uses copper wire.



Fig.2 The cloisonné production process step 1, 2, & 3, Xinyu Song, 2023

Step four: Filling glaze: The glaze used belongs to the aggregate of silicate minerals, which is made of quartz, feldspar, borax and some mineral raw materials added to a variety of precious metals, and fired at a high temperature of 1400 degrees [3].

Step five: Burning: After the blue process (the height of the glaze is the same as the height of the wire), the work is put into the relevant equipment and sintered at a high temperature of 850 degrees, which is called blue burning. However, because the glaze is fluffy and powdery, it will collapse after the sintered glaze melts and solidifies, so it is necessary to repeat the blue and sintering. This is repeated three to four times before the blue burn is completed.

Step six: Grinding: After many times of blue and burning, the glaze has been sintered between the wires and wires of the copper tire, becoming very uneven and unsightly, and then it is necessary to enter the polishing process. That is, one-third of the glaze is ground off to make the surface of the product smooth, smooth, and polished, which is commonly known as "grinding" in the industry. First, the surface of the product is coarsely ground with sand and gravel, then finely ground with yellow stone, and finally with lime charcoal to grind out the oily luster. It is divided into: revitalizing, polishing, brightening and other steps, and each completed step must be put into a special equipment for firing.



Fig. 3 The cloisonné production process step 4, 5, & 6, Xinyu Song, 2023

Step seven: Gold plating: In ancient times, a layer of pure gold was attached to the surface of the exposed metal with gilding, which played the role of anti-corrosion, wear resistance and high temperature resistance.

4. Findings and Discussions

4.1 Technological disconnects, fewer employees

The author conducted a survey of the cloisonné production companies around the big factory, and found that at present, in the industry, the backbone of the cloisonné production technicians are about 31-50 years old, and there are many process technicians who are still sticking to their posts over 60 years old, while there is a serious fault line among employees aged 18-30 (Fig. 4).

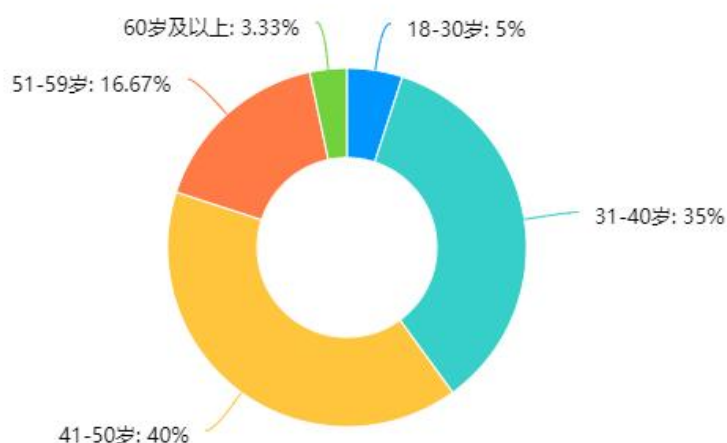


Fig. 4 Age range of employees, Xinyu Song, 2023

It is understood that the cloisonné production industry can be said to have been in short supply, with a labor gap of about 500 people per year. It is understood that in recent years, few young people want to engage in the cloisonné industry. Because it takes a lot of patience to complete this technology, it requires a lot of complicated work tasks, and it is very boring for young people. Most of them have given up because of problems such as salary and boring work. As a result, many factories are now facing the same problem. The younger generation of craftsmen, who had spent time and money to cultivate, eventually left their jobs because they could not tolerate long working hours. However, training new people costs more than other handicrafts. This is a significant expense for some small and medium-sized enamel factories. Some companies have also made corresponding reforms to improve salaries, with the salary of old employees generally around 5,000 yuan, while the salary of new employees is about 3,000 yuan (Fig. 5).

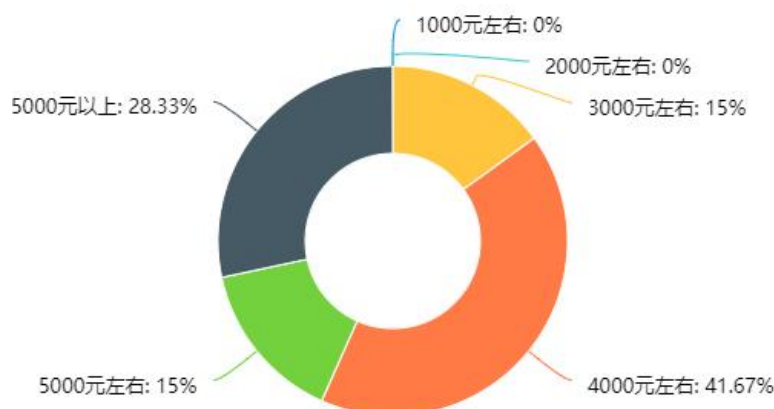


Fig. 5 The payment of employees, Xinyu Song, 2023

In addition, in order to solve this problem, the county party committee and the county government of Dachang Hui Autonomous County formulated the "Work Opinions on Promoting the Recovery of the County's Handicraft Industry" in 2014, aiming to promote the inheritance and development of cloisonné production technology through a series of measures. Among them, the Vocational Education Center of Dachang Hui Autonomous County has opened a major in folk traditional craft cloisonné, which has become an important base for inheriting cloisonné production technology. The secondary vocational schools in Dachang Hui Autonomous County began to vigorously introduce local folk handicrafts and intangible cultural heritage into the teaching of

secondary vocational schools. At the same time, well-known local folk craftsmen are also invited to give lectures in the school, and solve the professional problems that students may face after entering the enterprise with their rich work experience. Craftsmen have become corporate teachers for students, effectively expanding the construction of special course training bases and inheriting the development of craftsmanship.

The release of relevant policies of the Ministry of Education also provides policy support for the inheritance and development of cloisonné production technology. For example, it is necessary to deepen the reform of secondary vocational education, strengthen the "combination of work and learning", and relatively increase the proportion of professional skills courses in secondary vocational education schools according to the talent training model and basic teaching mode of secondary vocational education schools [4]. Although through the cooperation of education and enterprises, the cloisonné production process has been inherited, providing strong support for the development of the industry. However, in the protection of traditional crafts, it is still necessary to increase the welfare and other benefits of practitioners, so as to form a stable team, which is very beneficial to the development of the industry.

To sum up, we can know that the technical fault problem currently faced by the cloisonné industry is not only the problem of technology inheritance, but also the training and salary of employees. In order to solve this problem, we must pay attention to talent training and improve salary, and at the same time use piecework and other methods to improve the work efficiency of employees, so as to make the cloisonné industry revitalize.

4.2 The design content does not adapt to the development of the times

The author (Xinyu Song) discovered through communication with the factory's technicians and designers that many of the cloisonné works are traditional handicrafts, serving purposes like furnishing, appreciation, and collection, based on Song Xinyu's internship there from September 2022 to September 2023. Therefore, traditional crafts must improve their aesthetic skills, broaden their range of spatial expression, and gain market share in order to further penetrate the market's circulation link.

Traditional handicrafts' practical use and spiritual significance are frequently correlated. Although it has many uses with original porcelain, bronze, and even religious statuary, cloisonné has never been entirely divorced from utilitarian purposes. Its aesthetic logic stems from the fact that, once spiritual and material civilizations reach a certain level, people tend to seek out the subtleties and perfection of things' beauty and usefulness, and their primary goal is to give all of life's objects aesthetic value [5]. Just as the emperor of the Qing Dynasty admired the bronze craftsmanship of the Qin Dynasty and the corresponding ritual shapes, the cloisonné was attached to the colors and ornaments of the Qing Dynasty on the basis of the craftsmanship of the Qin Dynasty; Another example is cloisonné bronze ware includes not only tableware, pots, basins, boxes, candlesticks, but also jewelry, dressers, mirrors, combs and other aspects that can be used; It also shows more functions in the splicing and "inlay" with other crafts, such as screens, furniture (the plane of a table or chair, or the corner of a table and bed, etc.) [6][7]. This kind of practicality shows that the development of artistic function lies in the fact that its design itself is supported, and on the basis of participating in life, it really plays a role in setting off the atmosphere and beautifying the meaning of life. In order to achieve this goal, it is necessary to adopt novel creative ideas and new utensils modeling, and combine modern technology to innovate and break through the past craft production methods and procedures in the expression of the theme, and present new works that adapt to the times. For cloisonné innovation, the redesign of ornamentation is one of the core elements of cloisonné art. At the same time, there can be modern space in line layout, specific modeling, texture and other aspects.

5. Summary

Cultural entities (artifacts) from various eras display their own distinctive cultural characteristics in a lengthy and intricate process that forms cultural tradition. In this way, traditional crafts are a distinct cultural entity that blends craftsmanship and culture, pays attention to fine craftsmanship and careful design, and is dedicated to reshaping shape, function, and cultural archetype. It also incorporates modern and contemporary cultural elements to revitalize it based on the tradition it inherits. Three areas of traditional craft innovation and heritage must be addressed in order to accomplish this goal: public direction, form flow, and functional development. Functionality development should be viewed as a means of strengthening cultural identity and extending tradition rather than as a means of destroying it or producing subpar work. Therefore, in order for traditional culture to be inherited and perpetuated, it is imperative that the core of traditional culture be protected while developing functions. Second, the revival and flow of culture are reflected in the modeling process. In order to meet the demands and aesthetic preferences of contemporary society, Chinese craft design should prioritize innovation and modeling reform while preserving the distinctiveness and stability of traditional culture. Traditional culture can only be revived in this way, giving contemporary society fresh life and appeal.

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