

Bean Sprout Process in Mongolian Jewelry

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Abstract: Inner Mongolia in northern China is a multi-landform and multi-ethnic area with great regional characteristics, where various ethnic groups live here. Existing archaeological data show that as early as 5,000 years ago, the Yangshao culture of Inner Mongolia. Before the Spring and Autumn Period and the Warring States Period, some nomadic people such as Xiongnu and Donghu lived a nomadic life here. The cultural treasures with a long history, such as Hongshan Culture, Liao Shangjing Site and Yuan Shangdu Site, are all models of traditional design. The essence of its design is that it properly expresses the innovative style of filament technology. Inner Mongolia belongs to the inland from the geographical location, in the case of less abundant materials, the craftsmen through ingenious design, for the road of regeneration. The birth and inheritance of these ornaments cannot be separated from the diligence and wisdom of the craftsmen. In Mongolian, "black black" is often used to describe excellent craftsmen. This paper will be divided into two paragraphs: material and process, structure and form, to analyze the design characteristics of bean sprout process, so as to further explore the aesthetic characteristics contained in its design consciousness. From the process production as the entry point, comb the internal connection between bean sprout process, cloisonne and diancui process. In order to carry forward the excellent design concept of the Chinese nation, it hopes to inspire the current students' learning, inheritance and innovative research in teaching practice.

Keywords: Mongolian Headdress; Dot Cui; Cloisonne (Enamel); Bean Sprout Technology; Silk Inlay.

1. Foreword

There are many nomadic people living on the grassland of northern China, and the Mongolian nationality is one of them. They have continued to grow in the long history and created a unique nomadic culture of the northern grassland. The Mongolian originated in the 7th century AD, and its origin is closely related to the northern minorities. Before the unification of the Mongolian steppe, there were nearly a hundred tribes, large and small, on the grassland, each of which had its own names. The tribes fought for a long time and had social and economic instability. The Mongols became strong from the beginning of the 13th century. In 1206, Temuzhen unified the Mongol ministries and established the Great Mongol Empire. He was elected as the supreme leader of the Mongols, named "Genghis Khan". Since then, the name "Mongolia" has become the common name of the original Mongolian ministries, and the Mongolian nation as a whole has stepped on the stage of world history. The northern region has a vast territory, rich underground resources and a long cultural history. There are many ethnic groups of prosperity, development and progress. Due to the vast territory, the Mongolian people to nomadic farming as a supplement, scattered personnel. Nomadic, hunting, migration and other production activities play an irreplaceable role in spreading civilization. From ancient times to the present, appearance representation is an important basis for interpersonal communication, and it is an additional signal of civilization in addition to language. All food, clothing, shelter, transportation, body appearance, clothing, etc., have symbolic significance. Clothing is not only the external expression of a specific nation, but also the aesthetic expression of its national culture. In the course practice, we have made a full investigation of the Mongolian headdress in the aspect of social culture. In the process of understanding, learning and inheriting the jewelry culture, we strongly realize the profound Inner Mongolia national culture. Although there are differences in grassland areas, nationalities, tribes and

counties, the culture is in the same line. Regional factors determine the mainstream aesthetic trend, which naturally affects the craft characteristics, and the craft characteristics naturally reflect the wisdom of the craftsmen.

This paper mainly focuses on the headdress of Xilin Gaole League to the west to the east of Alxa. Based on historical reasons, (1) these areas are close to the national center; (2) the Mongolian headdress styles have high similarity in these areas; (3) the Mongolian gold and silver ware have exquisite production, perfect technology, orderly inheritance and have been listed in the intangible cultural heritage list of Inner Mongolia.

2. Material and Process Analysis

According to the Annals of Song History, "the height of women's head is forbidden to exceed four inches, and the length of their" hanging shoulder " is forbidden to exceed three feet. The style of the pearl continues the style of the Tang and Song crowns ".[10]Ming "Fu Tai Lu" recorded that " (his) wife had a red net of beads hanging curtain covering the face to the shoulders, with bowls and bowls."(1450) to a hundred years later, tycoon Xiao (1532~1612) recorded in the marriage customs in his book:" When married, married women wore long red clothes and high hats, and women led the way in front of the bride."[11] During the Yuan Dynasty, large banquets were held every year, from the emperor to the officials. The asts in the palace must be dressed and dressed."[12] It can be seen that the Mongolian headdress in Uzhumuqin, Chahar, Siziwang, Ordos, Tumet, Bayanore, Urat and other places in western Inner Mongolia inherit the previous beaded style and size data.

The common gems in the Mongolian headdress are red coral, turquoise, pearl, agate, lapis lazuli and so on. Many beads craft jewelry will use these natural materials, agate jade in the grassland, desert gobi, lakes and other places can be picked up (commonly known as local jade). However, pine stones and lapis lazuli need to be mined, and red coral and

pearls are more scarce in the interior. Things are rare and expensive, so some materials need to be exchanged through trade. There is a Mongolian saying that goes roughly: "When a man is rich, he will decorate his lover and horse." Through the above descriptions can be obtained: the nomadic living state determines the consumption concept of clothing, food, housing, transportation, clothing, jewelry, horse harness, living appliances and so on are the embodiment of the consumption concept. A large number of gold and silver jewelry, knitted articles and exquisite vehicles and harness, all show the superb skills of the craftsmen. The proportion of red coral in the Mongolian headdress is very large. In addition to the property of cattle and sheep, the rest of the wealth is reflected in the Mongolian jewelry, gold and silver harness, gold and silver tableware, yurts and other decoration, and so on. It can be inferred that most of the precious gems used in the Mongolian plateau originated from other places and were obtained through trade exchange. The Mongols advocate green, white, red, green and yellow, which is closely related to people's concept and religious factors of advocating nature.



Figure 1. Junxi team arranged the shooting



Figure 2. Junxi team arranged the shooting



Figure 3. Junxi team arranged the shooting

Gold and silver are always hard currency, with the characteristics of gold and silver production and decoration in ancient times, and gold and silver ornaments are naturally favored by the Mongolian people. Usually gold, gems, pearls, birch bark, satin are the raw materials for making Kwu guan, at present these materials are gradually replaced by the gold and silver pinching process. During the Qing Dynasty, Manchu and Mongolia were married, and many queens came from the Mongols. In addition to the empress, many Mongolian nobles were entrusted with important tasks. At the

same time, they received many awards, which included a lot of gold and silver ornaments. The exquisite gold and silver ornaments made by the palace manufacturing offices hit the nerves of the folk craftsmen in the Mongolian area. According to my interview and research on the old silversmiths and my understanding in practical education, the audience of gold is relatively less than silver, silver storage more than gold, the price is relatively low, purity 99.9 gold a gram 480 yuan, melting point is 1064°C, boiling point 2807°C, purity 99.9 silver a gram 8 yuan, melting point is 961.78°C, boiling point 2213°C. When it comes to materials, nature is inseparable from the process, the higher the purity of gold and silver, the better the ductility.

First of all, we should melt the metal, pour into the mold, the mold has a rectangular column, rectangular, square, round, cylindrical. We screened the molds according to the production needs. For example, if a linear workpiece is needed, choose rectangular bars of cylindrical gold and silver for forging and extension. If the required workpiece is required in width and thickness, the remaining shapes can be selected for forging and extension to make silver pieces or silver plates. Silk pinching process is also known as (filament process), is a kind of expression of gold and silver fine work. First, the wire drawing process first needs the wire drawing board, the early wire drawing board is made by craftsmen, in the hard iron board drilled in the shape of the funnel, from large to small arrangement, most of the holes are round. Due to the development of modern handicraft industry, the holes of this wire drawing board are more and more fine, and the types of holes are circular, semicircular, square and triangular. Compared with the holes made by hand, the diameter of the hole between the large hole and the small hole is much higher. For example, there are 39 channels in section 0.26mm~2.80mm of circular drawing plate (holes). The use of wire drawing board makes the expression language of gold and silver work more rich and diverse. Round silk, also known as plain silk, is usually made of two to three round silk threads twisted into one single silk thread. The pattern of two silver thread is relatively clear, and the pattern of three silver thread is relatively compact, which confirms the time cost of silk process. For example: I need the same 2.80mm diameter filament, two 1.50mm filament can be twisted into one, then three silver wire, you need to pull out the diameter of 0.95mm three silver wire twisted into a silver thread. Why are they all about 1.50mm and 0.95mm? Because in the process of compiling, making and twisting a filament, the gold and silver thread produce a subtle extension. After making the finished product, in the beauty of the late wearing process can be slowly felt, different from person to person. In the early years to describe the handmade goods craft with "fine as thin as hair" and other words to describe, today's technological means can achieve the accuracy, are fast with the naked eye. Second, the silk pinching process in the production project, according to the figure drawn by the craftsman, the filament according to the size of a one to one ground pinched into the desired graphics. Various kinds of pinched flowers are arranged on the silver plate for welding. After welding, the workpiece is cut off, reorganized and shaped and welded together to form the desired shape. For example: flowers, plants, insects, birds and animals and other patterns rich color, three-dimensional lifelike.



Figure 4. Junxi team arranged the shooting



Figure 5. Junxi team arranged the shooting



Figure 6. Junxi team arranged the shooting



Figure 7. Junxi's team arranges the shooting

The kingfisher feather craft, a part of the intangible cultural heritage, belongs to the traditional Chinese jewelry-making craft. In "kingfisher feather craft", "kingfisher feather" refers to the feathers of the Blue-eared Kingfisher. The kingfisher feather inlay technique originated from the use of kingfisher feathers. In "Chuci Jiu Ge Dongjun" from the "Chuci" poems, it is said, "The swift flight of the kingfisher, the dance of poetry unfolding." Kingfishers are known for their fierce nature and are not easily domesticated. Nature gives birth to all things: we are merely the porter of nature. Kingfisher feather craft developed rapidly during the Ming and Qing dynasties, with kingfishers being caught in large numbers by people (using sticky trap technology, with the primary goal of not damaging the natural form and color of the kingfisher feathers). 1. The selection of kingfisher materials is quite strict, with significant differences in the value of kingfisher feathers from different parts of the bird. The soft kingfisher feathers (cui rong)[13] from the back of a single kingfisher are produced in very small quantities and are considered top-

quality. The texture of the wing part is relatively hard, and the color is not as bright as the soft green, but it is easier to process. Its aesthetic and economic value is slightly lower than that of the soft green. Feathers from different parts of the body display colors such as bright moon, deep purplish blue, lake blue, and purple under natural light. Among them, the finest are those made with turquoise and lavender colors. Jewelry crafted with highly distinctive colors and textures that evoke wonder at the artistry of nature. 2. There are two types of bottom tires, usually made of precious metals and paper materials. Gold and silver materials are of superior quality, with filigree inlay designs, embedding kingfisher feathers onto the base. The base of the kingfisher feather decoration needs to be light, shaped with wirework according to the design requirements, and welded onto the gold and silver sheet on the mirror surface. The border of these filaments has certain proportional restrictions; the height and thickness of the edges must be moderate. Excessively high or thick borders will affect the overall proportion and reduce aesthetic appeal. The contrast between the natural gold and silver base and the natural kingfisher feathers maximizes the display of the color and texture of the feathers. The paper base is supported by an iron wire frame, with black silk thread woven in a mesh pattern over the iron wire, creating a hat-shaped support (a type of headwear called Dianzi[14]). The black silk thread blends seamlessly with the hair, making the emerald feathers, gold, silver, pearls, and gems stand out even more against the black backdrop. The ancient idiom "buying the box and returning the pearl" already documented the art of kingfisher feather decoration. In "Han Feizi, External Storehouse, Left Upper," it is said: "There was a man from Chu who sold his pearls in Zheng. He made a box of sandalwood, scented it with cinnamon and pepper, adorned it with pearls and jade, decorated it with rose quartz, and inlaid it with kingfisher feathers. The people of Zheng bought the box and returned the pearls. This can be said to be good at selling the box, but cannot be said to be good at selling the pearls." "Inlaid with kingfisher feathers" refers to "kingfisher inlaying." 3. The Kingfisher[15], also known as the "Paicui" The Blue-eared Kingfisher is no more than 20 centimeters in length. Before ordering kingfisher feathers, one must select them. Generally, only about twenty usable feathers can be chosen from one kingfisher. The selected feathers are then sorted, mainly to remove those that do not meet the standards. During the production process, if the kingfisher feathers are damaged or slightly contaminated, the contaminated feathers are cleaned by applying warm vegetable oil with a brush to the surface, while the damaged ones are removed. After sorting the peacock feathers, Tsuiyu began to dip the writing brush into deer glue or Bletilla striata to evenly apply the adhesive to the back of the feathers, being careful not to use too much glue. The purpose of using glue is to prevent the feathers from scattering and excessively affecting the kingfisher feather effect. After the glue and kingfisher feathers have dried, "inlay with kingfisher feathers" is done by embedding or sticking them, which is the process known as "kingfisher blue." Cut and trim with a flat scraper according to the pattern of the base tire, making it fit the shape of the base tire.



Figure 8. Silver plated jewelry flower hairpin (a pair)

Clotax is also called enamel in history. The process is called "copper tire wire pinching enamel". Because it flourished in the Ming Jingtai years, and then widely blue glaze as the background color, so that name. Its name was first recorded in the Yongzheng period "Internal Affairs Office". The cloisonne process of the tire (floor), gold, silver, purple copper, brass, white copper can be used, the material and size determine its value. Cloze and enamel technology are often called (copper wire enamel): 1. The price of copper is lower than gold and silver, but enamel is still valuable, so its value is high not because of the price of raw materials but because it carries the history and culture of the Chinese nation and the crystallization of the superb wisdom of the craftsmen. The storage volume of the copper tire enamel ware on the market is large, but it is not cheap, and the people who can play with it must have a certain consumption power. 2. The volume of cloisonne ornaments is not small, and a pair of Aquarius, Fulu shou related ornaments, three-dimensional pine crane, tripod furnace, complete set of tableware, four treasures of the study, etc. Its size, volume, shape and style are all related to the difficulty coefficient of the process, the amount of materials and the length of the working hours. 3. Silk pinching process is the most important process in cloisonne process. Tire making, silk pinching, connection, and blue glaze filling require great patience, which is extremely challenging for the physical strength and energy of the craftsman. To master the complete cloisonne skills, from the drawings to the finished product engineering, itself is both the designer and the producer, but also, in order to break through the barriers from finished products to art. 4. The production process of cloisonne is complex, and the production process includes: construction drawing design, tire making, silk pinching, point blue, baking blue, grinding, gilding, etc. The advantages of cloisonne art are thick and rich colors, resplendent, perfect process system, exquisite technology, noble and elegant shape, exquisite material, complex production process, glaze extraction (quartz mineral) grinding sieve, and need to fire for many times, the use of natural mineral glaze, not easy to oxidation and change color. 5. In terms of skill inheritance, in ancient times, mentoring and family inheritance from generation to generation. As the so-called heaven and earth, king, "teacher, father", "apprentice, son". In many aspects, the master teaches his skills to the students by words and deeds, by active demonstration, and by mouth. However, it is also necessary to teach students in accordance with their aptitude, teaching and learning, and students need to step by step, perseverance, learning and practice, learning to apply. 6. In 2006, the cloisonne production process of Beijing Enamel Factory was listed in the first batch of representative items of national intangible cultural heritage. At the same time, Beijing Enamel Factory was named by the Ministry of Culture as the national intangible cultural heritage of

cloisonne production process protection base. Since then, the trend of cloisonne craft protection, inheritance and innovation has been set off in China. The 19th National Congress of the Communist Party of China included "strengthening the protection and utilization of cultural relics and cultural heritage" as a part of a strong cultural confidence. Inheritance needs live inheritance. As the core of the national talent training strategy, the form of school-enterprise cooperation, the form of craft masters and inheritors into the campus of colleges and universities, with various forms of cooperation, and the key development of regional characteristics. With the help of the functional departments of provinces and cities, universities actively advocate, in the corresponding course: professional investigation, professional study, professional practice, etc, and with local enterprises, cultural centers, museums, practice base, studio, inheritance to establish good relations of cooperation, in Inner Mongolia normal university, for example.



Figure 9. Junxi's team arranges the shooting



Figure 10. Junxi's team arranges the shooting

3. Structure and Morphology

After practical inspection and improvement, the filament technology in Inner Mongolia has formed an independent artistic appearance, and has a clear structure in style and craft. In the production process of the first half, the bean sprout process is the same as Diancui and cloisonne (enamel). Due to the lack of geographical environment and materials, Inner Mongolia will learn from other techniques and integrate them into the genes of local culture, so as to produce qualitative changes in style and arrangement. (1) In terms of technology, due to the lack of region and materials. In the process of production, after welding the silver board, some shapes need to knock the drum from the back of the silver board, and the arc surface appears in the blank wrapped by the filament. When watching the workpiece alone, the style resembles bean

sprouts, hence the name "bean sprout process". This means of starting the drum fills the blank in the center, seeks the change in the shape, filling the blank of inlaid green feathers and enamel. From the plane to three-dimensional, from color contrast to structural relationship, this approach on the one hand is the development of a breakthrough from the technology, on the other hand, shows the wisdom and innovation of the craftsman.(2) In the expression style, the form and structure of ethnic patterns are integrated. The pattern of the pattern is divided into three categories, the separate pattern, the suitable pattern and the continuous pattern. Symmetrical, bipartite continuous, quartet continuous (repeated pattern arrangement form), scatter arrangement and continuous arrangement and other five arrangement forms. With bean sprouts as the basic prototype, the leaf type, vine type, flower type, petal shape, etc., the shape is relatively realistic, so the arrangement is naturally inclined to the growth law of plants, interweaving and stacking. In the process of sorting, pay attention to hide the starting point, which can be hidden on the back of other bean sprout artifacts in the form of superposition. Side by side by welding the silver beads, hiding the starting point of the interface, so that the interface can be done tightly seam is the best.(3) Art comes from life and nature. There are many kinds of fermented black beans, and the tender buds growing naturally must be rich and varied. Through the creation of the craftsman and the practice of the jewelry, the structure and form of the jewelry workpiece are basically formed, and the appearance presented is attributed to nature. Long-term practice and use process is known and recognized by the public, forming an independent technological form with regional characteristics. We draw the following graph through a large amount of physical induction.

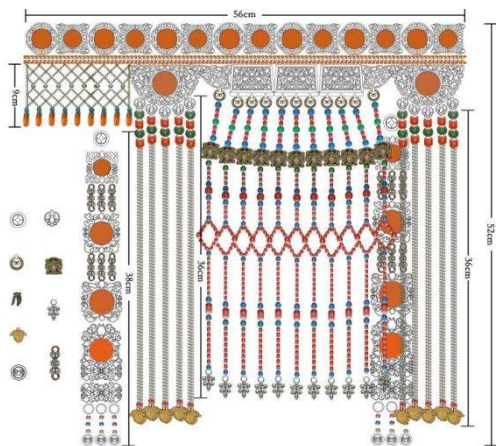


Figure 11. Breakfigure of Mongolian headdress

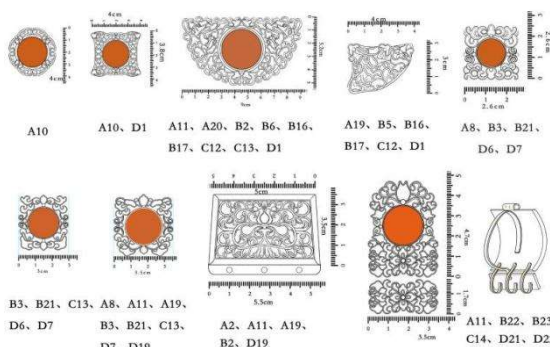


Figure 12. Mongolian headdress- -breakdown of silver accessories

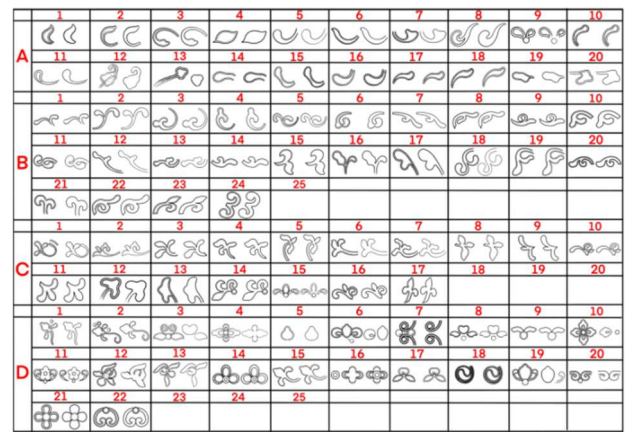


Figure 13. Mongolian headdress- -breakdown of silver accessories

4. Extension and Revelation

The bean sprout process is represented by the Chahar region of central Inner Mongolia. The significance of sorting, copying and designing the bean sprout craft works in Mongolian jewelry lies in that it greatly enhances students' learning enthusiasm. Copying is the most direct and effective way to learn from the classical works of arts and crafts. In addition, you can also learn from your contemporary excellent predecessors. Copying is not a simple imitation, but a bridge of communication with the craftsman and the soul of the object. The "transfer of mold writing" in the "Sheikh Six methods" is the generalization of the copying theory. As an innovative expression of honeysuckle silk technology, the ornaments created by bean sprouts are loved by the local people in Inner Mongolia, reflecting the technological level of gold and silver fine in Inner Mongolia. In addition to a few typical headdresses in the eastern Inner Mongolia, a large number of gold and silver ornaments appear in the women's headdresses in the central and western Inner Mongolia, and the shadow of bean sprout technology also appear in the women's wedding headdresses. This shows that bean sprouts technology gold and silver ornaments are especially popular with Mongolian women. With the change of times, the craftsmen are slightly broken, the pace of life is changed and the process and materials are expensive. Nowadays, the use of jewelry materials is more lightweight, the process is more simple, the decorative language is more simple, no design, no characteristics, low price. Even though the process of Mongolian jewelry is complicated and fine, beautiful and generous in shape, it has also received limited attention due to regional occlusion, aesthetic consensus and other reasons. However, the unique design ideas and technological characteristics of Mongolian jewelry are still rich in value under the current conditions.

5. Conclusion

Modern design, cultural and creative products and urban buildings will take the headdress as the core of the design, and refine the shape to make derivative innovative applications. Regardless of the achievements of its design concept, exploring the process, developing and changing forms of its process, materials, function, shape and core are constantly updated, and the process production method is naturally open to see the moon. It can be seen that there are still some excellent traditional designs of the northern nomads that have not been fully explored, explored, inherited, studied and

studied.

We should focus on the exploration of local design resources, on this basis to absorb the beneficial elements of modern design, the nomadic culture, design ideas and modern products, integration and innovation of organic unity. Through careful combing and analysis, the shapes, patterns and shapes representing the characteristics of nomads are summarized. And as far as possible to follow the following requirements: First, from the long history of universal design objects to grab inspiration (physical objects as the basis) because of its wide audience group, high cultural identity. Second, extract design value from regional culture and find skills with outstanding technical content from specific objects, which can provide a steady stream of power for Chinese design in the future. Third, through the myriad complex appearance, looking for the typical case, through multi-level research means, mining nomadic areas in northern China representative cases, conveying nutrients for Chinese design, the future design students provide knowledge reserves, provide basis for design professional research support and practical evidence of practical application.

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