The Enlightenment of Chengdu Lacquerware Carved Silver Silk Halo Design to Modern Furniture Design

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ABSTRACT
Chengdu silver inlay lacquerware not only embodies the local culture and local humanistic feelings of Chengdu, but also is an excellent carrier of traditional crafts and culture. Analysis the production techniques and functions of the carved silver silk halo design of Chengdu silver inlay lacquerware, as well as the characteristics of decorative patterns, texture carving craft and the halo color craft in carved silver silk halo design, not only can better understand the cultural symbols and cultural connotations of lacquerware, but also apply the lacquerware culture to modern design and life. It provides new methods for the innovative design of furniture, and also enables the inheritance and development of excellent traditional culture and craftsmanship.

Keywords: Chengdu lacquerware, furniture design, carved silver silk halo design, traditional craftsmanship

1. INTRODUCTION
With the exchange and discussion of design concepts and works from all over the world, the style category of furniture design has been continuously expanded, and the furniture industry has matured rapidly. On the one hand, the maturity of the furniture industry limits the development of furniture design to a certain extent. On the other hand, while maturity restricts development, it also encourages designers to find new ways to explore new methods for innovative furniture design. At the same time, traditional handicraft are also approaching modern aesthetics in terms of materials and expression techniques. In such an environment of the times, modern furniture design combines traditional handicraft and makes it glow with new splendor, which can not only provide new methods for furniture design, but also carry forward traditional culture.

2. OVERVIEW OF CARVED SILVER SILK HALO DESIGN
Chengdu lacquerware is well-known in China, among the many lacquerware craftsmanship, the carved silver silk halo design is especially unique. The carved silver silk halo design is similar to the gold and silver flat process of the Tang Dynasty, and going back to the source, the gold and silver foil decal lacquerware of the Shang Dynasty is the predecessor of the gold and silver flat lacquerware. It is found that the decals are too thin and the adhesion is not strong enough, and the gold and silver foil decals are easily worn off or fall off after a long period of wear. Therefore, people began to use thicker gold and silver flakes inlaid on lacquerware, which is the original gold and silver flat process [1]. Although the origin of the gold and silver flat process can be found in the Shang Dynasty, but the gold embedding and the gold sticking process are different, it is a new lacquer art invented in the Tang Dynasty. So, the art of silver mercerization originated from the Tang Dynasty.

3. THE PRODUCTION PROCESS AND DECORATION TECHNIQUES OF CARVED SILVER SILK HALO DESIGN

3.1. Production Process
Because of the production cost, the silver flakes in carved silver silk halo design lacquerware can be replaced by tin flakes or other metal flakes, so it is also called “carved tin silk halo design” . First stick the tin flake on the base of lacquerware, and then use a carving knife to carved the shape of the pattern along the outline of the pattern, remove the excess tin flake, and the lacquer will be polished to make the lacquer surface and the tin flake flat. After these processes use fine sandpaper to smooth the carved tin surface and then use a needle to sculpt the inside of the tin flake to make a rough texture that does not penetrate the tin flake, this process is “silk halo”. At last, use a brush to dipped the lacquer of various tones and paint on the silk halo tin flake, the main coloring method in this process is the same as the shading technique in Chinese painting, so it is called “halo color” (Figure 1) [2]. Due to the particularity of the material, the silver flakes wrapped in the outermost transparent lacquer not only have a rich luster, but also a visual sense of three-dimensional because of the surface carving, and the tactile impression is still...
smooth and shiny. These ingenious designs give the carved silver silk halo design lacquerware a rich sensory experience.

![Figure 1 The production process of carved silver silk halo design](image)

### 3.2. Decoration Techniques

#### 3.2.1. Pattern

In the choice of pattern themes, the gold and silver flat lacquer of the Tang Dynasty used ancient beasts in a large number. In ancient times, decorative patterns had their symbolic significance; the ancients not only adopted a rigorous attitude towards decorative patterns, but also infused their expectations and wishes for a better life. The mirror of four phoenices carry ribbons of the Tang Dynasty contains the meaning of happiness, longevity and eternal union. While modern carved silver silk halo design lacquerware mostly chooses themes such as plants, flowers, birds and beasts, it’s tends to express the regional culture and the exquisite craftsmanship of continuous progress. In addition, compared to the symmetrical composition and indispensable decorative patterns that were used in ancient times, modern lacquerware is made more fashionable by free choice of patterns and large areas of blank (Figure 2).

![Figure 2 The mirror of four phoenices carry ribbons versus modern carved silver silk halo design lacquerware](image)

#### 3.2.2. Texture carving craft

Because the texture carving craft needs to express the sense of texture, so in the choice of patterns, plants and animals are popular due to their own texture. There are generally three types of line forms of texture carving craft:

- **The first form** is long and short lines carved following the arc of the object, they are commonly found in furry animals, ginkgo leaves, lotus and other flora and fauna that have texture on their surface. The second form is short lines carved inward along the edge of the pattern for the purpose of embellishment, they are commonly found in plants with no obvious texture on the surface such as peonies. The third form is long lines flat in one direction, they are suitable for any pattern, this method is just to give the pattern a special gloss, its purpose is not to express the texture. In addition to the direction and length of the lines, the sense of density and the angle of the knife are also the performance content of texture carving craft, which emphasizes the perfect combination of points, lines and planes.

#### 3.2.3. Halo color craft

There are generally two ways to express the halo color craft: shading the local area by dot coating, or cross-painting with multiple colors. The former has a lot of blank, which can stimulate people's imagination, it can express the changes of the color when the plant is about to bloom; or it can be a rough freehand representation, this implicit expression is mysterious and profound, and it makes people want to explore the meaning. The latter is more realistic, aiming to reflect the true phenomenon of nature or make the color expression more layered. The luster reflected by the combination of silver flakes and transparent lacquer looks dreamlike and makes people indulge in it. The halo color craft combines carved silver silk halo design and traditional Chinese painting, which not only inherits and promotes China culture in another way, but also makes lacquerware more ornamental and storytelling.

### 4. THE INNOVATIVE APPLICATION OF CARVED SILVER SILK HALO DESIGN IN MODERN FURNITURE DESIGN

#### 4.1. Innovative Design Method Inspired by Silver Inlay

The purpose of embedding silver in lacquerware is to combine two materials to form a new visual effect. In contemporary times, this method has been widely used in furniture design. The combination of different materials in modern furniture products has become a normal form. Under the premise of complying with the principle of economy and meeting the requirements of structure and function, the combination of materials is very diverse. In addition to the combined application of different wood materials, there are also common mixed applications of wood and metal, fabric, leather, glass, straw, etc., or metal and leather, glass, etc. [3]. The material splicing of furniture can not only improve its functionality to a certain
extent, but also improve the ornamental value of the furniture, this method makes the furniture style become unique.

4.2. Innovative Design Method Inspired by Texture Carving Craft

The texture carving craft aims to express the texture and make the lacquerware more textured and shiny. The innovative designs that want to give the surface texture of furniture should not be created on materials with texture, but through change the modelling of material to make it have other textures. Only by changing the modelling to change the texture of the material can it be regarded as a design innovation.

The original intention of adding texture to the furniture and texture carving craft is to enrich the surface effect and texture of the decorated objects. However, furniture and lacquerware are essentially different. Lacquerware is a product whose decorative performance is more important than its use. However, the main purpose of furniture is to satisfy its practicability. Therefore, the practical performance of furniture should be put first place when carrying out surface decoration or modeling innovation of furniture. If the surface texture only satisfies the aesthetic function without practical function, then the practical significance of furniture innovation cannot be realized.

4.3. Innovative Design Method Inspired by Halo Color Craft

The most intuitive expression applied to furniture design inspired by halo color craft is gradient. The gradient innovative design can be the color gradient that gives the furniture new functions. Applying the gradient colors of nature such as sky, sunset and sea water are used in the color of the furniture can satisfy people’s emotional needs and visual experience. This innovative design method can widely used in the design of children's furniture to cultivate children's imagination and aesthetic taste. In addition, the gradient design of furniture can also be applied to materials and modelling. Reflected in the material can be the splicing of materials, the splicing of opaque and transparent materials with gradual changes can achieve unique aesthetic effects and functional requirements. Reflected in the modelling can be the splicing conversion of the original form of the material and the processed form, which makes people intuitively feel the collision between the original and the modern. In this way, the theme of “environmental protection” and “evolution” can be expressed, and the material can be transformed into emotional furniture.

5. CONCLUSION

The design innovation of Chinese modern furniture must find the most original, core and irreplaceable part of Chinese design, that’s the excellent traditional culture. So we can innovate by reinterpreting traditional elements to reflect the unique style of Chinese design [5]. The style of Chinese furniture should not be limited to the existing Chinese style. After thousands of years of inheritance, when referring to Chinese style, the elements that come to mind are ink, carving, solid wood, and vermilion. However, beyond the above elements, China has other excellent traditional cultures that need to be inherited and developed. In order to achieve the reform and innovation of furniture design, it’s necessary to let furniture with modern modelling and materials have traditional spirit and connotation, so as to inherit and carry forward Chengdu lacquerware and other excellent traditional culture and national spirit.

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