

Research on Innovative Design of Tea Furniture Based on Chaozhou Woodcarving Technology

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ABSTRACT

Chaozhou woodcarving is a traditional handicraft that became popular in Chaozhou Prefecture and its surrounding areas between the Ming and Qing dynasties. Due to its rich themes and diverse carving technology, it can be seen everywhere in the various utensils used in Chaozhou people's daily lives. It is an indispensable part of Chaozhou people's lives. Although it has gone through ups and downs and has been passed down to this day, it still faces many survival problems. In response to the call of the "National Plan for the Revitalization of Traditional Chinese technology", research and redesign of Chaozhou woodcarving technology is conducted to inherit and develop the artistic charm of Chaozhou woodcarving technology. While stimulating the vitality of Chaozhou woodcarving, the creative enthusiasm of woodcarving artists will be greatly improved. This article reflects the artistic characteristics of Chaozhou woodcarving technology through tea furniture, and designs tea furniture that combines traditional craftsmanship colors with modern characteristics, promoting and disseminating Chaozhou's traditional woodcarving technology.

Keywords: *Chaozhou woodcarving, Tea furniture, Traditional technology.*

1. INTRODUCTION

Chaozhou woodcarving is a traditional handicraft popular in Chaozhou Prefecture and surrounding areas during the Ming and Qing dynasties. In the Kaiyuan Temple in Chaozhou, from the eaves and beams to the desk decorations, Chaozhou woodcarving is used, indicating its wide range of applications. Even in ordinary Chaozhou households, there are two or three pieces of Chaozhou woodcarving decorations or furniture, indicating that Chaozhou woodcarving is an important part of the daily life of Chaozhou people. Chaozhou woodcarving has gone through a long period of development and many ups and downs. Although it has been passed down to this day and many exquisite works have emerged, it still faces many survival problems.

This article aims to design tea furniture with both traditional craftsmanship and modern characteristics by studying the background, domestic and international status, development process, themes, materials, and production technology of Chaozhou woodcarving, combined with analysis of tea furniture styles and other

related materials, and to promote and disseminate Chaozhou's traditional woodcarving technology.

2. RESEARCH ON CHAOZHOU WOODCARVING

2.1 Overview of the Development of Chaozhou Woodcarving

2.1.1 Historical Origin

According to historical records, the earliest surviving Chaozhou woodcarving products appeared at the Kaiyuan Temple in Chaozhou, which was built during the Tang Dynasty. Therefore, the Tang and Song dynasties belonged to the embryonic period of Chaozhou woodcarving. However, woodcarving was proficiently used in large buildings such as temples until the mid-Song Dynasty. During the Ming Dynasty, Chaozhou woodcarving reached a new stage of refinement, entering a mature stage and forming its unique artistic style. In the Qing Dynasty, Chaozhou woodcarving entered its heyday and developed a unique style of using gold lacquer to decorate

woodcarving. Under the influence of polytheistic worship and clan beliefs, Chaozhou golden lacquer woodcarving has become an important means for Chaozhou people to decorate ancestral temples and homes. In the late Qing Dynasty and early Republic of China, the Chaoshan region experienced economic prosperity. After many Chaozhou merchants and overseas Chinese returned to their hometowns, it became popular to build temples, ancestral halls, and luxurious houses, giving rise to thousands of ancestral halls and luxurious houses, providing broad development space for Chaozhou woodcarving. In the atmosphere of striving for excellence, Chaozhou woodcarving has innovated and entered the most brilliant golden age.

2.1.2 *Current Development Situation in China and Foreign Countries*

2.1.2.1 *Current Situation in China*

The development of Chaozhou woodcarving is facing an awkward situation. Due to the deep reverence of Chaozhou people for gods and Buddhas, as well as their strong family values, Chaozhou woodcarving is often used in temples, ancestral halls, and shrines. However, current Chaozhou woodcarving cannot match the architectural decoration style of smart homes and cement bricks.

The importance of Chaozhou woodcarving has greatly decreased. Nowadays, many emerging industries have emerged, and in today's fast-paced life, there are many restless people, as well as a large number of high-tech industries that attract attention. There are fewer and fewer people willing to engage in traditional crafts.

Complexity, time-consuming production, and difficulty in carrying are important factors that have hindered the successful development of Chaozhou woodcarving. As a form of art, woodcarving is a handicraft product that combines raw materials with practicality and aesthetics. Large murals like "The Rich South China Sea"¹ were created by 9 masters over a period of 8 months. More than 30,000 pieces of genuine gold foil were used for gilding alone. From this, it can be seen that traditional Chaozhou wood carving, as a traditional folk handicraft, is complex and costly to produce,

1. "The Rich South China Sea": A large-scale wall mounted wooden carving, completed in 2001, with a height of about 3.02 meters and a thickness of no more than 15 centimeters. Collected by the Art Museum.

which is not conducive to the promotion and dissemination of Chaozhou woodcarving technology.

Although the government has continuously introduced new policies to promote and support woodcarving technology since the reform and opening up, and under the leadership of many outstanding wood carving masters, the current situation of Chaozhou wood carving has improved. However, compared to other periods, the entire Chaozhou woodcarving industry is still in a sluggish state.

2.1.2.2 *Current Situation in Foreign Countries*

With the increasing convenience of transportation, the number of Chaozhou overseas Chinese in various parts of the country has increased. When overseas Chaozhou overseas Chinese establish themselves abroad and become a community, there is a demand for building ancestral halls and guilds. The design of ancestral halls and guilds cannot be separated from wood carving. Therefore, the best wood carvers from Chaozhou are invited to carve, which invisibly promotes the level of Chaozhou wood carving.

With the increasing degree of opening up to the outside world, Chaozhou woodcarving can be seen in various temples in Southeast Asian countries. For example, as early as 1996, Gu Liuxi, a master of Chaozhou woodcarving, led his colleagues to carve a 12.8 meter high giant mahogany statue of Avalokitesvara on all sides of Thailand's Mercy Mountain Buddhist Temple. At that time, China's Chaozhou woodcarving technology surprised Southeast Asia and received large orders for Buddha statues from many places in Southeast Asia, so far.

Chaozhou woodcarving, with the spread of overseas Chinese and the leadership of many woodcarving masters, has gained a reputation overseas and is still popular in today's overseas woodcarving market.

2.2 *The Artistic Characteristics of Chaozhou Woodcarving*

Chaozhou woodcarving art, as a materialized form of Chaozhou's regional ethnic culture, directly expresses the artistic orientation of the Chaozhou people through its unique artistry and rich social functionality. It contains the beliefs, religion, ethics, folk customs, as well as various emotions such as

outlook on life, values, and aesthetics of the Chaozhou people. Chaozhou woodcarving master Zhang Jianxuan once summarized "miscellaneous, uniform, and interconnected" as the characteristics of Chaozhou woodcarving. The rich and diverse themes and unique characteristics of each piece of wood prompted woodcarving masters to choose various techniques and forms of expression based on different materials, achieving an aesthetic realm of "fine but not greasy, large but not empty, complex but not messy, and gorgeous but not vulgar".

2.2.1 Chaozhou Woodcarving Themes

The themes of Chaozhou woodcarving are very rich, with different choices of themes for different utensils. For example, popular stories passed down in the local area, theatrical characters with both divine and physical forms are often used for larger square objects such as screens and windows, auspicious dragons and phoenixes, and the "four gentlemen (plum blossoms, orchid, bamboo and chrysanthemum)" symbolizing nobility are often used for ornaments and furniture. The six different themes of element symbols diversify the creativity and ideas of Chaozhou woodcarvers.

They are auspicious birds and beasts, rivers, seas, and water races, Buddhas and immortals, drama and novels, trees, flowers and fruits, and life scenes.

2.2.2 Chaozhou Woodcarving Carving Techniques

Sink carving, relief carving, through carving, and round carving are four special traditional carving techniques of Chaozhou woodcarving. Among them, the multi-level through carving technique can distinguish Chaozhou woodcarving from other wood carvings. By carving different elements at different levels, it ultimately forms a complex, exquisite, and highly appreciated artwork.

2.3 Chaozhou Woodcarving Production Technology and Materials

2.3.1 Tools for Chaozhou Woodcarving Production

Chaozhou woodcarvers use a variety of tools in their carving. It is divided into four categories according to its different functions.

- Sculpture tools: hammer, wire saw, chisel, and iron pen.
- Polishing tool: sharpening stone
- Painting tools: paint brush and brush arrangement
- Drawing tools: sketching pens, drawing pens, and paint brushes.

2.3.2 Chaozhou Woodcarving Production Process

In the production process of Chaozhou woodcarving, the first step is to draft the artwork before carving. However, experienced carving masters can directly carve on the wood, and then select suitable wood based on the sketch and print the sketch on the wood. The wood then undergoes three major stages of chiseling, fine carving, painting and gilding to be completed as a woodcarving production.

2.3.3 Research on Chaozhou Woodcarving Materials

The materials used in Chaozhou woodcarving can be divided into four categories: wood, paint, pigment, metal powder foil, etc.

2.3.3.1 Research on Wood

Wooden materials are used for carving, including camphor wood, cedar wood, cypress wood, azalea wood, rosewood, and sourwood, among which camphor wood and cedar wood are the most common.

2.3.3.2 Research on Paint, Metal Powder Foil, and Pigments

Chaozhou woodcarving, due to its unique artistic characteristics of painting, gilding, and painting, uses special paint materials other than wood in its production process. ("Table 1")

Table 1. Other materials used in Chaozhou woodcarving production (self-made)

Classification	Subdivision
Paint material	Raw lacquer
	Mature lacquer
	Gold ground lacquer
Gold subsidy	Metal powder foil, mainly including gold, silver foil, and gold, silver powder, etc.
Painted decoration	There are various pigments such as cinnabar, copper green, and earth yellow.

2.4 Brief Summary

As a traditional handicraft with practicality and aesthetic appeal, Chaozhou woodcarving has developed into today's unique production process and techniques through the long-term exploration, experimentation, and continuous accumulation of experience and inheritance by many woodcarving artists, and has given rise to a series of unique production tools. In the long river of history, Chaozhou woodcarving artists have integrated their aesthetic consciousness and exquisite craftsmanship to create countless amazing works. They not only meet the needs of Chaozhou people in beautifying their homes, worshipping ancestors and gods, but also leave us a precious cultural heritage.

3. INNOVATIVE DESIGN PRACTICE OF TEA FURNITURE BASED ON CHAOZHOU WOODCARVING TECHNOLOGY

3.1 Design Positioning

3.1.1 Environmental Positioning

Home space is the main usage environment for tea furniture. As a tea drinking country in China, the current domestic environment is characterized by high housing prices and rent, which make young people prefer small-sized properties ("Figure 1"). Due to the influence of the layout area, large tea tables that imitated the Ming and Qing dynasties in the past could not meet the needs of some users.

In the case of limited space, the area of tea space is also limited. On the basis of the original tea table, its footprint is reduced, and drainage and storage functions are optimized.

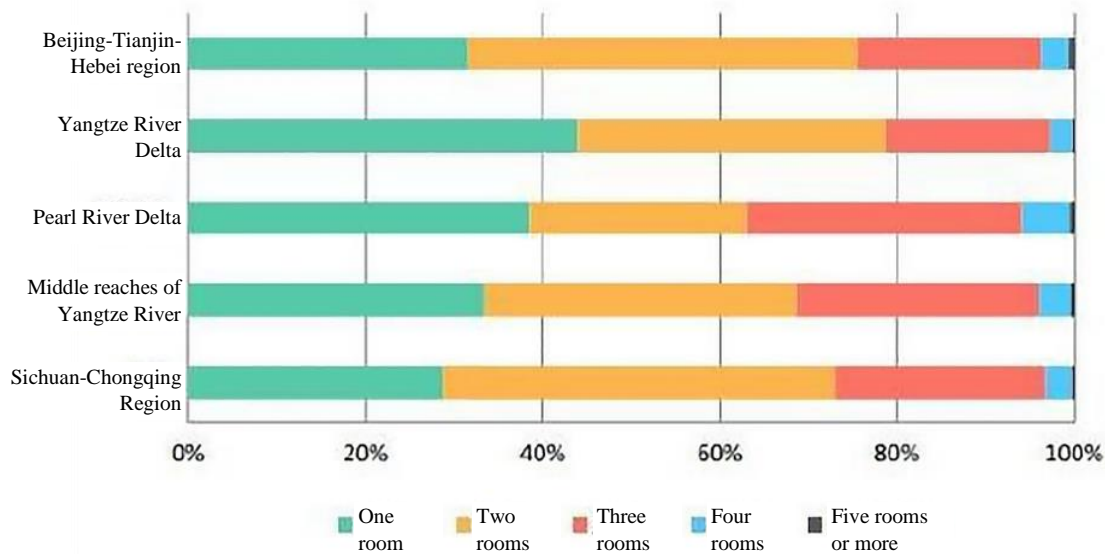


Figure 1 The proportion of rental housing supply in different urban agglomerations from January to November 2018.

a Image source: 58 Anjike Real Estate Research Institute.

3.1.2 Product Positioning

The product configuration consists of a tea table, a master chair, and two guest chairs. Starting from the needs of tea table area, drainage, and storage, in order to maximize the user experience within the limited tea space, and a reasonable storage space can facilitate non tea activities while also ensuring its hygiene and safety.

3.2 Sources of Inspiration

Since ancient times, Chaozhou woodcarving has had countless famous works, among which the most distinctive element symbol is the "shrimp and crab basket". This theme vividly depicts the scenes of river and sea ethnic groups such as shrimp, crab, and fish when they emerge from the water using the technique of continuous carving, which is in line with the ethnic characteristics of Chaozhou's

developed fishing industry. Therefore, the characteristic element of "shrimp and crab basket"

will be used as a decorative element in the design of this tea furniture. (See "Figure 2")

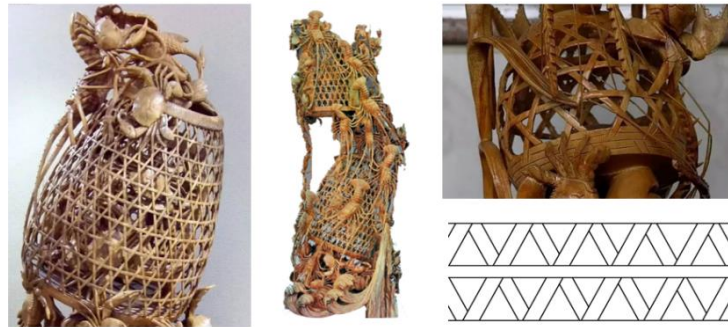


Figure 2 Chaozhou woodcarving "shrimp and crab basket" and pattern extraction.

a Source: Self-made.

3.3 Scheme Design

3.3.1 Style Design

The product is divided into three parts: tea table, master chair, and guest chair ("Figure 3"). The appearance of the product adopts the image of "basket" in the "shrimp and crab basket", with intersecting lines and different density structures on different main objects.

The load-bearing design of the tea table has abandoned the original square shaped coffee table design and replaced it with a combination of one inclined surface and one cylindrical surface, visually making the overall effect of the product lean towards modernization. The middle part of the cylindrical load-bearing column has added the element of a carved "basket" without affecting the load-bearing effect ("Figure 4").

The master chair and guest chair need to be distinguished between primary and secondary, with a spacious seating surface and a semi enclosed backrest to highlight the feeling of "primary". The upper part of the backrest adopts the technique of carving through, reducing the sense of heaviness caused by the owner's chair's width, and echoing the overall theme of the "shrimp and crab basket". ("Figure 4")

When designing the guest chair, combining the shape of the waist drum stool and bamboo woven seat cushion, the prominent curvature can better showcase the characteristics of the "basket", and at the same time consider the weight bearing issue of the product. Reduce the area of the partial carving in the load-bearing position to maintain aesthetics and ensure the effectiveness of use.



Figure 3 Overall positive effect of the product.

a Source: Self-made.



Figure 4 Presentation of the master chair and tea table.

a Source: Self-made.

3.3.2 Function Settings

In addition to serving as the master chair and guest stool, the main functions of a tea table are drainage and storage ("Figure 5").

The height of the tabletop of the tea table is lowered to serve as a tea tray during tea brewing. A small hole is set at the overlapping part of the cylindrical load-bearing part and the tabletop to

facilitate the discharge of wastewater during tea brewing. The cylindrical load-bearing part of the lower tea table opens an opening on the side that is suitable for picking up items, and two partitions are added inside to place a water bucket for recycling wastewater, as well as a storage part for tea sets and tea leaves ("Figure 6").



Figure 5 Overall function display of tea table.

a Source: Self-made.

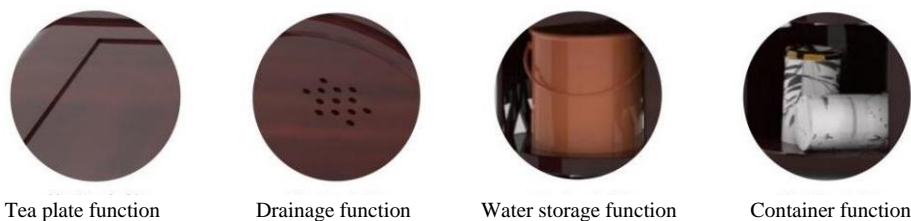


Figure 6 Specific function display of tea table.

a Source: Self-made.

3.4 Brief Summary

This design extracts elements from the Chaozhou woodcarving theme of "shrimp and crab baskets", combining the appearance of the product with through carving and relief. Considering the load-bearing structure of the product, solid wood is selected as the material for production, paired with

waterproof paint, and connected with mortise and tenon joints to ensure the stability and usability of the product while also having the charm of woodcarving furniture. The product has a lot of curves on its appearance, combined with the carving technique of through carving, giving an overall feeling of lightweight and smooth. Therefore, it is not suitable to do too many

complicated storage designs, but still retains space for storing tea sets and drainage systems.

4. CONCLUSION

This design has gained a deeper understanding of Chaozhou woodcarving technology and tea furniture through preliminary literature search and data analysis. Chaozhou woodcarving and tea furniture occupy a very important position in the lives of Chaozhou people. For modern society, more people have solved the problem of food and clothing and pursued a higher level of living. The combination of Chaozhou wood carving and tea furniture can bring a touch of ancient charm to people in today's technologically advanced world.

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