

The "Ware Joint" Container: An Exploration of Chinese Cultural Meaning in Tableware Design

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Abstract: *The way to eat and the way to serve food is one of the most explicit cultural styles. Chinese food utensils and eating furniture contain the Chinese view of nature and material use. In order to reflect Chinese cultural meaning in the design of Chinese food utensils, the iconic symbols and material design should not be left to the curiosity of formal innovation, but ignore the transmission of cultural meaning in the works, so that the existing works of Chinese meaning tableware design often present Therefore, the existing Chinese tableware design works often show unsatisfactory results. The author believes that if Chinese tableware design products are to go global, they must reflect the demands of Chinese cultural experience in terms of shape, material and combination, and meet the aesthetic needs and practical functions of contemporary design. In this paper, we take the Chinese cultural symbolic element "bamboo" as the theme, and combine wood and traditional metal hammering and forging techniques to create "ware joint", which has been exhibited in many countries. As an example, an exploration is conducted on the creation of Chinese cultural meaning in tableware design by combining wood and traditional metal hammering and forging techniques.*

Keywords: *tableware design, "ware joint" container, bamboo joint, Chinese cultural meaning*

1. Understanding of the meaning of tableware in traditional Chinese culture

Chinese food culture has a long history, and food culture is synchronized with civilization, and it is a proud part of China and the most acceptable part of the world. In the development of food culture the development of food utensils plays an extremely important role.

The design of Chinese food utensils also has its own cultural lineage and cultural characteristics. As a country that values eating and food culture, food culture has been closely related to ritual culture in traditional Chinese society. The eating utensils on the table, such as tableware, tea sets, and wine glasses, represent people's attitudes toward the importance of ritual and etiquette. Food utensils from different parts of China have their own characteristics and flavors, such as porcelain, pottery, bamboo, etc., which reflect the differences and diversity of China's regional culture. Food utensils have certain aesthetic values, such as the shapes, materials, and ornaments of bowls, plates, chopsticks, etc., which reflect traditional aesthetic concepts and aesthetic values, the transmission of traditional culture and dissemination of food culture has become an The preservation of traditional culture and the dissemination of food culture have become important needs for the international development of Chinese culture[1].

Taking food containers as the design object, exploring contemporary design concepts and design techniques of Chinese cultural symbolic elements and traditional material visual arts can continue the long history of China's excellent traditional food culture, and re-trace the modern simple and elegant charm in the innovation of the times as well as the spirit of traditional culture. This tableware design practice, which is based on Chinese cultural symbols and meanings, seeks to create some experimental works in the expansion of material language, to apply traditional handicrafts and folk life wisdom to the search for contemporary lifestyle products, and to make Chinese food culture the most deeply rooted cultural message in the era of globalization.

2. Genesis and cultural genes of "ware joint" containers

2.1. The origin of the creation of "ware joint" containers

The National Art Foundation's 2016 dissemination and promotion project "Long Silk Road - Feast to the Four Directions - Chinese tableware Design and Culture Exhibition", co-organized by Sichuan Fine Arts Institute, Yalunge Culture and Art Foundation and Aminu Gullu Stone Industry, aims to showcase Chinese cultural tableware design works through The exhibition aims to promote the inheritance, innovation and sustainable development of Chinese culture in contemporary society by showcasing the design of Chinese cultural food and drink artifacts.

With the invitation and funding of this project, I conceived the design of a ware joint vessel that combines traditional metal and woodworking arts with the "bamboo" archetypal element, which is a symbol of Chinese literati. It is hoped that the contemporary design concept will be used to create tableware with Chinese cultural meaning, and to express the long history and innovative charm of China's excellent traditional food culture[2].

2.2. The history and contemporary design of bamboo container

The bamboo-shaped containers with the theme of "bamboo" have a long history. Throughout history, bamboo containers have been widely used, not only for their practical value, but also as an aesthetic and cultural embodiment. As early as in the ancient times, there are records of taking bamboo as a vessel in China, the early Chinese, especially the southern peoples in the process of survival and life practice, have made full use of the natural bamboo section itself body shape

In the early days of China, especially in the southern part of the country, all peoples made full use of the natural size of bamboo to make practical production and living tools. The jade "bamboo joint cup" from the mid to late Ming dynasty, the bamboo joint jug from the Qianlong period of the Qing dynasty (Fig. 1), and the bamboo jug from the mid-Qing period (Fig. 2) are all representative examples of vessels made of bamboo and bamboo joint. In most modern bamboo joint design works, the original intent was to highlight the design theme of bamboo, but due to an overly straightforward expression of bamboo form and a lack of understanding of bamboo culture, there is often a lack of artistic processing and a lack of precise use of material language[3].



Figure 1: Green jade bamboo joint cup (mid to late Ming Dynasty)



Figure 2: Bamboo joint jug (Qing Dynasty, Qianlong Period)

With the development of modern design and technology, the design of bamboo container has also been innovated and changed, and has become a kind of cultural and creative product. By fusing traditional and modern technology, designers have created various kinds of bamboo containers, which not only preserve the heritage of traditional culture, but also adapt to the development needs of modern production and life. From the design history of bamboo container, bamboo container shape has experienced the aesthetic characteristics of the times from single structure to combined form, from local details carved to overall meaning expression, design techniques and modeling language updated

and enriched; in terms of material use, due to the continuous emergence of new technologies and materials, the choice of materials for bamboo container is wider, such as metal, ceramic, stone, wood, bamboo, etc. Ceramic, stone, wood, bamboo, glass, acrylic, etc., have been taken into account. In addition, the organization of modern material language is more expressive, such as the composite use of materials such as bamboo and porcelain, wood and glass makes the bamboo-themed vessels appear to be simpler and simpler, and the shapes and material languages are becoming richer[4].

3. The research difficulties of "ware joint" container and the process of promotion

3.1. The basic modeling and difficulties

3.1.1. Design shape characteristics

Although bamboo is often portrayed by literati as an image of steadfast, unyielding, and full of the spirit of the rising sun, in fact, its greatest characteristic is precisely its toughness, the work takes bamboo joints as the characteristic element, the abstract form of "curve" and "straight" is used to express the toughness and integrity of bamboo through the flexibility of curves and the steadfastness of straightness the visual beauty of the form and meaning together is expressed, and as well as the character and artistic sublimity of bamboo.

The design works with bamboo as the theme naturally highlight its freshness, elegance and gentlemanly temperament. The so-called gentleman, that is, not to drag the water, spontaneous and noble, so in the embodiment of the design elements are abstract and simple, fully highlighting the originality and simplicity of bamboo style. (Fig. 3)



Figure 3: "Ware joint" hand-drawn modeling scheme

3.1.2. Difficulties of design modeling

The shape of the "ware joint" container is based on the "bamboo joint" as the core element among many images, the design challenge was to retain the characteristics of the bamboo joint form while combining it with other woods; It was necessary to retain the functional shape of the joint for the later combination design, but also to consider adding modernity to the work--i.e. the design challenge was to retain the functional shape of the joint for the later combination design, but also to consider adding modernity to the work - that is, using metallic luster materials with certain decorative features. Therefore, under these premises, it is necessary to consider the aesthetics of the combination of the two materials, but also to maintain the independence of the shape after the separation of the rustic and metallic materials. And in the insert and combination of form design of the shape of the difficulty mainly involves bamboo joint structure, combination, production technology and simplicity and aesthetic balance and other issues.

The author in the shape design focus on the shape of the "section" and "section" of the separation, so that the shape structure to achieve the plug combination function, bamboo joint up and down can also do two materials with. Since the design of bamboo joint edible plug products require combinability, it is necessary to consider how different bamboo joints fit into each other, how to achieve an effective structure of the bayonet and connection. The bamboo joint has a multi-layer structure, and the design needs to consider how to use these structural features to enhance the stability of the product. And in the design of bamboo joint appliance plug products, need to consider how to achieve a balance of

simplicity and aesthetic appearance, to ensure that the product is not only practical, but also artistic and ornamental[5].

3.1.3. The design of the joint

In order to achieve the copper wood modeling structure of the plug and combination of form, the author considers two plugging scheme:

Option 1: In order to maintain the aesthetic and creative integrity of the "bamboo" shape after the combination, the outside of the wood tray to maintain the bamboo section "waist" curve shape, the inner wall of the wood tray design into a straight form, so that the copper can be inserted into the wood tray, of course, the copper and wood tray plug combination size must be standard and tightly fastened, more than one point cannot be plugged, less than one point will be easy to fall off. In addition, the wall of the wooden tray should be as thin as possible, if it is too thick, it will affect the aesthetics of the copper cups and the integrity of the bamboo joint (Fig.4).

Option 2: In order to reduce the difficulty of the design and the overall vision of the combined form, the design considers the combination of "bamboo joint" shape, the use of bamboo sections flat in two sections of the plug design. Unlike option 1, option 2 is more comprehensive: on the one hand, the design is designed to realize the second joint combination, thus increasing the interest of the joint design and the dynamic sense of the combination shape; on the other hand, the relationship between the "bamboo joint" design idea and the composition of the form, the proportion of copper and wood and visual experience is presented more holistically and harmoniously (Fig. 5).

The design of bamboo joint eating utensils with copper-wood structure not only has the design characteristics of fusion of bamboo culture and metal material, but also reflects the diverse combination of forms, both practical and artistic cultural and creative products. Copper and wood shape structure of bamboo joint eating utensils plug products with its unique material combination and shape design, highlighting the aesthetic characteristics of the product. Its exquisite decorative effect not only enhances the product's sense of artistry, but also enhances people's experience of use.

Finally, the author combined the advantages of the two programs, the comprehensive use of the two programs in the final combination of design, so that its uniqueness can be reflected.

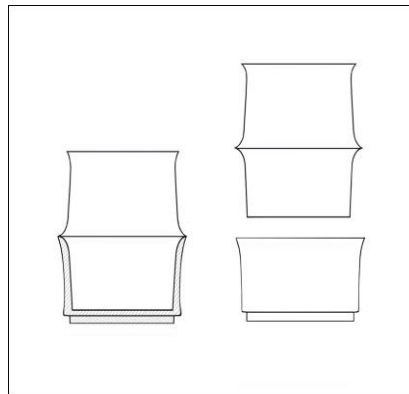


Figure 4: Plugging scheme one

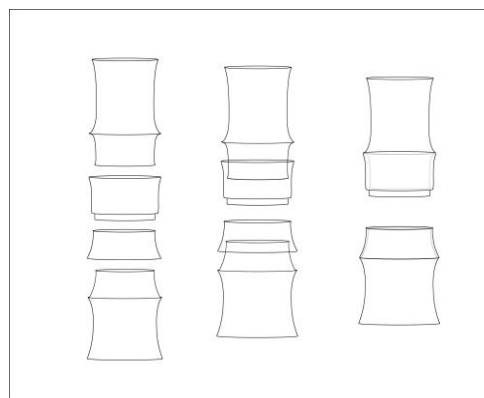


Figure 5: Plugging scheme two

3.2. The design and advantage analysis of the combined form system scheme

3.2.1. Design and advantages of the shape

The "ware joint" tableware plug-in products use the natural form and structure of bamboo and adopt innovative design and material application methods to make the products have a unique sense of appearance and texture. At the same time, the use of plugging technology also brings more colorful forms and functions. And bamboo because of the nodes so there is a combination of shape advantages, according to the number of bamboo joint, the shape can be very rich changes. The design is based on the function of the vessel, and the size and shape of the vessel can be varied. There are seven pieces of "ware joint" in the form of a combination, and there are 15 pieces that are completely disassembled: eight copper cups, three wooden cups, three cup covers, and one cup lid. The design of the "ware joint" copper and wood vessel is characterized by the fact that it can be repeatedly inserted twice, and can be combined with two cups and three bamboo joint cups, among which the two bamboo cups can be separated into three combinations: copper cup and wood tray, copper cup and cup sleeve, copper cup and cup sleeve and cup lid. The design starts from the form, and through the combination of design, the shape presents a staggered height and a harmonious proportion of size, creating a chic Chinese cultural atmosphere. The design features of "ware joint" tableware plug-in products are mainly manifested in its innovative material application, unique shape design, and integration of ancient and modern culture, which reflect the heaviness and uniqueness of Chinese traditional culture and enhance the quality of life and ecological environment concerns today.

3.2.2. Functional design and advantages

bamboo joint food ware joint products use a simple, smooth, natural design style, focusing on the comfort and practicality of the shape, the use of different shapes of bamboo joint, through different ways of insertion and combination of form, to create a variety of different shapes and functions, reflecting the pursuit of modern people on the daily life supplies and attention. The "ware joint" set is rich in shape and storage, and has a strong decorative aesthetic and contemporary design features. This set of ware is multi-functional, with the combination of copper ware, wooden tray and wooden lid very flexible, copper ware can be used as serving ware, wooden tray can be used for snacks and tea, and lidded ware can be used as storage jars. In addition, the bamboo joint shape of the thin waist curve shape, making the shape of the vessel is very comfortable to hold and feel, and the surface of the copper material hammering texture design, increasing the friction of the metal surface, so that the container feel more stable and textured.

3.2.3. Refinement of cultural meaning and advantages

The combination of form closely follows the theme of "bamboo", the overall momentum seems to have a gentleman's temperament, the layout is tight and measured, the lines are simple, the straight section is strong, the steel is soft, showing the noble character and temperament of bamboo. From ware to artifact culture to traditional cultural temperament, from material to ritual spiritual sublimation connotation, the combination design fully demonstrates the spirit of traditional culture and the charm of meaning.

Through the creation of "ware joint" container, we explore the contemporary design concept and new dimension of design that expresses Chinese cultural symbolic elements and traditional material visual art, and continue the long history of Chinese excellent traditional food culture, the meaning of Chinese culture and living cultural symbols. "bamboo joint" understanding, the work is dedicated to the expansion of material language, through traditional handicrafts and folk life art, so that more people in the world through the work to know and identify with Chinese culture.

3.3. Surface material test and selection

3.3.1. Abandonment of bamboo material and selection of wood

The initial consideration for the surface material is the combination of bamboo and copper, which is based on the "bamboo" idea in the design idea, according to the requirements of the design plan, the bamboo tray has a tight copper cup shape design, to maintain the smooth curve of the surface shape, the wall tire should be thin, which requires the bamboo tube raw material for making the bamboo tray to be thick and thick wall, for this reason, the author visited many woodworking workshops and masters to conduct craftwork. After visiting many woodworking workshops and communicating with masters, I went to Chongqing Yongchuan, which is rich in bamboo materials, from ordinary moso bamboo to top

quality nan bamboo, after searching I found some good bamboo materials with thick walls, but after repeated processing experiments, these nan bamboo with 0.2-0.3 mm wall thickness also meet the requirements of the modeling process. The author eventually gave up bamboo, and chose wood with bamboo has a similar rustic beauty, choose wood has many advantages: for example, the wood processing process is mature, wood color, texture more rich. According to the process characteristics and modeling program needs, I communicate with the master, in many woods choose to use the goldenrod, goldenrod texture straight and dense structure, not easy to deformation and cracking is the best material for design needs, plus goldenrod material rustic, rich visual aesthetics and wood elegant fragrance, more design to add a rich sense of visual, tactile and olfactory experience.

3.3.2. Experimentation with metal materials and final solution

1) Selection of metal materials

The design of copper is mainly based on the cultural value that copper carries, in a sense, copper is a very representative Chinese element. The design also tries to convey the spiritual connotation of the work through the process and material: the craft of "hammering up copper", which represents the tough spirit and integrity of bamboo.

The design is made of copper because it is the most flexible of all copper materials and is more suitable for the traditional hammering and forging process, and because of its lustrous red texture and symbolic meaning of nobility and peace. Unlike other metals that are mechanical and cold, the gentle color of copper can be better integrated into the home living environment. The reason for choosing wood is that wood is the most simple and rustic, like the nobility of the real, and the contrast with the red texture and luster of the purple copper has the beauty of nobility and peace, but also the simplicity and elegance. The design connotation in the collision of the two materials is particularly appropriate.

2) Metal handicraft test and surface treatment

In order to fully express the design and restore the traditional metal handicraft art, I learned through investigation that Xinhua Village in Heqing County, Dali Bai Autonomous Prefecture, Yunnan Province, still inherits the more primitive metal processing methods and techniques, and the village is known as the "hometown of folk crafts", "small hammer The village is known as "the hometown of folk crafts" and "the small hammer has been knocked for a thousand years", and has been named "the hometown of Chinese folk art" by the Ministry of Culture. Then the author took the design to Xinhua Village, after three field craft visits, to visit a famous local master metal forging master Li, master Li skillful with rich experience in metal craft practice, through the design and craft technology communication, and finally determine the production process, master Li led his disciples to work together, with super high forging technology combined with the local traditional metal forging Master Li led his apprentices to work together to finalize a 1:1 bronze model (Fig. 6) by combining local traditional metal forging techniques, from hand-forging initial shape, hand-forging forming, welding of parts, grinding and polishing processes (Fig. 7).

The last process of bronze production is the expression of metal surface texture, which not only adds rich visual and tactile aesthetics to the design as a whole, but is also key to the sublimation of bronze craftsmanship and the expression of handcrafted artistic charm. From the original color and image of bamboo, the author chose the more simple and delicate hand hammering head pattern (Hammered head pattern is also called "hammering point" in Chinese folklore). According to the simplicity and introverted temperament of the styling. The design of the hammer point requires neat and even. according to the proportional relationship between the shape of the vessel, the hammering point must be small and precise. During the production process, master Li only relies on manual hammering to control the sparseness and uniformity of the hammering point, the rhythm and strength of the hammering is based on the hand and the skill of the craft, which is natural and not artificial.

3) Difficulties of metal handicraft modeling

The difficulty of the production of bronze craft link is bamboo joint, to achieve the bamboo joint partial outward shape, through forging technology is not possible, through repeated communication with the forging master, and finally decided to use welding technology to complete the shape of the joints, of course, from the height of traditional handcrafted art and skill, one-piece molding is more rare and quality. however, since the design is still in the model making stage, the technology of processing at the bamboo joints mouth is still in the research and experimental stage, the process should be improved when the design is put into batch processing in the later stage, and a combination of hydraulic machining and traditional craftsmanship should be applied, in this way, we can solve the technical

difficulties of the bamboo knot opening and adapt to the efficient demand of mass production.



Figure 6: 1:1 model of "ware joint" container



Figure 7: "Ware joint" metal handicraft processing miniature

The work combines wood craftsmanship and traditional metal hammering and forging craftsmanship to create a tableware design practice based on Chinese cultural symbols and meanings, striving to create some experimental works in the expansion of the material language at all times, applying traditional craftsmanship and folk wisdom to the search for contemporary lifestyle products.

4. Attempts of mass production and social reactions of the works

The "ware joint" containers were invited to the "Silk Road Long - Feast - Chinese tableware Design and Culture Exhibition", which traveled to Paris, France, Brussels, Belgium and Istanbul, Turkey from 2017 to 2018. The exhibition, which traveled to Paris, Belgium, Brussels and Istanbul, Turkey, showcased Chinese cultural innovation, traditional craftsmanship and contemporary design along the Silk Road, expanding the influence of Chinese culture in the world and giving the audience a formal channel to understand Chinese culture through the exhibition and academic exchange. The exhibition and exhibits have been reported and promoted by more than 100 media, including the State Council Information Office, the Ministry of Culture, People's Daily Online, Xinhua Online, and the China Culture Industry Association, and received good social response. Later, it will continue to integrate the advantages and resources with educational research and training institutions, strengthen the training and learning of modern design for handicraft artists, handicraft enterprises and universities, encourage and support the participation of social welfare institutions, marketing institutions and design institutions in the cause of handicraft inheritance and development, and use the Internet to establish convenient communication channels in the fields of culture, art and exhibition to prevent the production and market, value and art from being cut off, which has been widely praised by the society, has formed a certain social communication effect.

The work is applied in practice and is now recognized by enterprises to enter mass production preparation. The proposed plan combines two production methods of handcraft and machine manufacturing, so that the traditional handcraft craft and mechanical processing complement each other's advantages. On the one hand, machine processing can substantially improve labor productivity and reduce the production cost of products, and also solve the problem of insufficient craftsmen, on the other hand, combining traditional handcraft is conducive to enhancing the cultural and artistic value of the works, and also the revitalization and inheritance of characteristic handcraft skills. Of course, traditional handicraft combined with mechanical processing technology is supposed to adapt to the needs of modern production methods, and is also a process of exchange and integration of modern production methods with modern design and traditional handicraft culture and art.

5. Conclusion

The creation and exploration process of the "ware joint" bamboo and copper container is rather tortuous, and the work expresses the author's understanding of the Chinese cultural meaning and the living cultural symbol "bamboo joint", and is dedicated to the expansion of the material language. The work expresses the author's understanding of the meaning of Chinese culture and the living cultural icon "bamboo joint", and is an attempt to expand the material language and apply traditional craftsmanship and folk wisdom to contemporary design. Through the exhibition and academic exchange, the exhibition also gives the audience a formal channel to understand and appreciate Chinese culture, so that more people in the world can recognize and identify with Chinese culture through the works, and realize the creation of "Taste China, Hand in Hand with the World". The purpose of the project is to make more people in the world know and identify with Chinese culture through the works, and to realize the creation of "Taste China, Hold the World".

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