

Chinese lacquerware and design dimensions of contemporary lacquerware

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ABSTRACT

The objectives of this research were 1) Study the patterns and techniques of lacquerware in Chinese culture, as well as the production methods of traditional lacquerware. 2) Analyzing the technological factors in the development of contemporary Chinese lacquerware product design, 3) Contemporary lacquerware design reflects the inheritance culture of pattern culture and contemporary technology. Using qualitative research methods, operate by studying the information in the references. Field investigation, including participant observation and non-participant observation, expert interviews, and analysis of design data through descriptive analysis.

The results indicate that the modernization of contemporary lacquerware represents significant progress in the utilization of irreplaceable raw materials such as raw lacquer. The complex and time-consuming lacquerware process requires precise refinement, which machines cannot replace. This aspect is crucial for protecting tradition, as it can be strengthened but will never be replaced. In the development process of lacquerware, these challenges were encountered because its creation is essentially product design. However, unique materials and processes often obscure its purpose, leading people to overlook its practical functions. Previous lacquerware works mainly focused on artistic forms or craftsmanship, emphasizing the display of their identity. However, as a product, its functionality holds significant importance. If we only focus on materials, processes, and other performance aspects, we may lose the true essence of product design. Therefore, the development of contemporary lacquerware needs to focus on practicality and functionality, reflecting the demands and current trends in this field.

Keywords: Lacquerware in Chinese culture, Design dimensions of contemporary lacquerware, Utility lacquerware

Introduction

Lacquerware art is a traditional art and culture with a long history in China, which has been passed down from ancient times to the present day. Through its artistic charm and practicality, it has been demonstrated in historical changes. Lacquerware art includes lacquerware, lacquer painting, lacquer carving, etc. However, in traditional lacquerware art, lacquerware is almost synonymous with traditional lacquer art, mainly presented through physical objects and literature materials.

The development of lacquerware is the focus of lacquer art development, which determines whether lacquer art can be accepted by a wider public. At present, the representative of lacquer art is lacquer painting. Although lacquerware also belongs to lacquer art, the promotion effect of lacquerware is not as good as lacquer painting, because only when the audience becomes the public can the acceptance be improved. The social awareness of lacquerware needs to be improved. The quality of lacquerware needs to develop in the right direction, and this process requires studying the artistic and cultural characteristics of traditional lacquerware. With the rise of the information society, people are paying more and more attention to imagination and creativity. In this context, traditional culture has attracted people's attention as a key element of imagination and creativity (Song&Kim, 2019). Study the

current situation of contemporary lacquerware, seek the development direction of lacquerware, and outline possible methods. Although lacquerware belongs to the category of traditional art, it can be modern in design, aesthetics, form, and function. It should pay more attention to the development of modern traditional lacquerware, using modern design concepts and aesthetics to create products that meet the needs of modern society and contribute to the development of lacquer art.

With the development of lacquer art, the practical functions in traditional arts and crafts have been neglected. The development of technology is slow, and its expression cannot reflect current aesthetic taste. The existence of these factors has led the contemporary lacquerware industry to urgently seek solutions and directions for lacquerware development.

Lacquerware art is not singular and standardized (Cui, 2016). When expressing oneself, it cannot be firmly maintained within certain boundaries. As it becomes increasingly known, it is necessary to break through traditional limitations and present a variety of visual aesthetics through graphic elements, materials, colors, and other decorative effects (Che&Lu, 2009). The technique used in this process is the creation of modern art. If traditional lacquerware wants to revive, it must constantly absorb new factors to enrich itself.

Research objectives

1. To study patterns and techniques of lacquerware in Chinese culture and methods of producing traditional lacquerware.
2. To analyze the technical factors used in the development of Chinese contemporary lacquerware product design
3. To design contemporary lacquerware reflects the inherit culture of pattern culture and contemporary technique

Literature review

In ancient times, in the process of understanding and transforming nature, people discovered that natural resin cut from lacquer trees was a very good coating. It not only had anti-corrosion properties, but also made objects beautiful. The mulberry wood "lacquer bow" unearthed at the Kuahuqiao Cultural Site in Xiaoshan City, Zhejiang Province is a beautiful handicraft, and some of the skin was removed after physical and chemical analysis by Professor Nakamura. The remaining black part has been confirmed by Japanese archaeologists as natural lacquerware (Figure 1), which is the oldest surviving lacquerware in the world and confirms that Chinese lacquer art has a history of over 8000 years, more than a thousand years earlier than the known history. A red lacquered wooden bowl with a history of over 7000 years was discovered at the Hemudu Cultural Site in Yuyao, Zhejiang in 1978 (Figure 2). The above archaeological discoveries indicate that our ancestors began to discover and use lacquerware long before the recorded history.



Figure 1. Lacquer Bow of Cross-Lake Bridge Culture
Source: Zhejiang Collection of Cultural Relics



Figure 2. Zhejiang Hemudu Red Lacquer Bowl
Source: Zhejiang Collection of Cultural Relics

During the Spring and Autumn and Warring States periods, lacquerware began to replace bronze during the Qin and Han dynasties. The craftsmanship of lacquerware has reached a high level and

occupies an important position in the lives of the nobility during the Three Kingdoms, Wei Jin, and Southern and Northern Dynasties (Liu, 2015). The production of lacquerware became increasingly advanced, and the shapes of vessels became more diverse. With the introduction of the Sui and Tang dynasties, craftsmen transformed the lacquerware craftsmanship based on the inheritance of previous lacquerware techniques. The ruling class of the Song Dynasty established a specialized institution to supply lacquerware for the royal family. At the same time, local governments also emerged in the lacquerware industry, and lacquerware technology flourished under the joint cultivation of official and private markets, and then appeared in many works passed down from generation to generation. From the Yuan Dynasty to the end of the Ming Dynasty and then to the Qing Dynasty. The lacquerware craftsmanship has further developed, and a large number of famous masters have emerged. The outstanding artists in Huang Cheng's "Xiu Shi Lu" summarized a complete set of craftsmanship experience, which had a great influence on future generations. Lacquerware has a cultural heritage history of thousands of years, conveying a cultural atmosphere of continuous inheritance and development of tradition.

Modern theoretical research literature is more comprehensive than before. This includes not only technical research, but also various aspects of lacquerware products such as creation, design concepts, aesthetic needs, investigation of lacquerware language, and cultural properties. These theories have a guiding role in the development of contemporary lacquerware.

The related concepts of traditional lacquer art, such as the materials used in production, practical value, and aesthetic value, have had a huge impact on the design of contemporary lacquerware products. The use of traditional lacquerware techniques and materials in the design of modern lacquerware products contributes to the development of traditional handicrafts in modern society. In addition, the combination of traditional lacquer art and modern lacquerware product design brings comfortable texture and unique aesthetics to lacquerware products, enhancing the design quality of lacquerware products. Therefore, in the process of designing modern lacquerware products, there must be a concept of design aesthetics to ensure that lacquerware products are consistent with modern aesthetics.

Studying the development of traditional Chinese lacquerware is to transform the lacquerware design pattern into a combined design pattern of art and commercial products in modern society. From a design perspective, the working style, symbolic meaning, and colors of traditional lacquerware have research value. The future development trend is to combine traditional lacquerware with practical production and use and incorporate modern design concepts.

Research methodology

The researcher studied relevant research and literature in this research project and used a qualitative method appropriate for art research to examine the current situation of lacquerware display design. In addition, descriptive analysis is used to examine ancient Chinese art forms. In the following order

Descriptive analysis. The researcher collects and analyzes traditional lacquerware and contemporary lacquerware in museums, private studios, exhibition halls and other places. To study the special characteristics, characteristics of the era, materials, and traditional techniques. Lacquerware has made a great contribution to the study of art. These data can be followed to get theoretical support. The steps are as follows:

1. Gather and study literature and books about the design of lacquerware. Learn and gather information from research.
2. Fieldwork to collect the data. Most field surveys and research are in universities with outstanding lacquerware products, lacquerware representative studios, related institutions etc.,. The most direct data were obtained from these places, whether it was the artistic creation of lacquerware in universities or folk lacquerware produced mainly from handicraft materials. The following methods were used for field surveys:

2.1. Interview method. Based on expert interviews, using inviting experts and insiders to examine the process techniques of lacquer art, development trends, design concepts, product design, product relations, beauty and lacquer art, and other aspects in the form of content discussions. Such interviews in order to provide more direction can provide a more in-depth analysis of the research project.

2.2. Observation method. For example, field investigation method, literature review method, and data method. Simultaneously using observation methods, mainly observing lacquerware and image materials.

2.3. Data analysis. Most of the information is conceptual, comparing concepts and theories.




3. Summarize the research results on the role of modern art concepts in contemporary lacquerware design.

Findings

This research analysis indicates that China was the first country in the world to create and use lacquerware. Lacquerware works have a long history and come from archaeological discoveries of different eras. The traditional lacquerware of the Han Dynasty gradually improved, reflecting the creations of different historical periods and introducing different regional cultures and technologies, indicating that lacquerware craftsmanship is deeply rooted in Chinese history and culture. The development of modern lacquer art cannot be separated from the foundation of tradition and traditional craftsmanship, and must be carried out on the basis of inheriting traditional lacquer art. However, it is important to note that it should not be limited to tradition (Qi&Liu, 2014).

Contemporary lacquerware has added modern concepts to modeling, which is relatively simple, whether it is lacquerware or bamboo lacquerware, it depends on the succession of materials and techniques and changes according to design requirements, For example: the surface of the flower device is pushed and painted, to process the geometric plane, and the colored cup deliberately maintains the fluctuation of the bamboo. Finally has a variety of texture effects when grinding the paint box is not coated. And the traces of bamboo roots are preserved after lacquering, there will be a massive color change. These works are based on inheritance and are not bound by tradition (Table 1).

Table 1. Analysis of lacquerware product design dimensional




Analysis of lacquerware product design dimensional				
Lacquerware Figure	Material	Shape	Production	Usage
 Figure 1 Liang Yuan Lacquerware Works	<ul style="list-style-type: none"> - raw lacquer - linen - transparent black lacquer 	A circle in the middle of the table and there is a traditional Chinese model creation element.	<ul style="list-style-type: none"> - paint - drawing - decoration - crush - push 	<ul style="list-style-type: none"> - flower - decoration
 Figure 2 Wang Boyang's Lacquerware Works	<ul style="list-style-type: none"> - raw lacquer - bamboo - transparent lacquer 	Simple shape, no too much decoration	<ul style="list-style-type: none"> - paint - cloth / mashed / push - clean 	<ul style="list-style-type: none"> - colored cup
 Figure 3 Wang Boyang's Lacquerware Works	<ul style="list-style-type: none"> - raw lacquer - transparent lacquer - bamboo root 	the shape of the box is strange and original.	<ul style="list-style-type: none"> - paint - wrinkle/ - crush/push/wash 	<ul style="list-style-type: none"> - color box

Lacquer art has been influenced by thousands of years of traditional lacquer art techniques, which have been inherited from traditional development, continuity, and respect for ancestors. In recent years, there has been a growing interest in cultural and artistic education (Marie, Arnold Thi&Nina, 2022). This provides great continuity and similarity for Chinese art and design. Usually, certain shapes, forms, or artistic designs that have appeared in history will be used by future generations. This phenomenon also exists in contemporary Chinese lacquerware, but there has been almost no progress in terms of design and decoration. The art of contemporary lacquerware artists requires a more complete medium and expression form to reflect and convey the design and creation of lacquer artists. In recent years, the industry has recovered. Traditional lacquerware art is flourishing and becoming more colorful. Lacquerware art is diverse and comprehensive, and the concepts of the works are novel and have been elevated under the guidance and design concepts of lacquer art industry experts. Appreciating the aesthetic and technological advancements of practitioners has become an important trend influencing the development of modern art concepts in lacquerware, mainly reflected in the following aspects.

1. Expand and explore lacquer painting materials and techniques.

The use of lacquer materials does not exist in isolation, as it allows contemporary lacquer artists to express their artistic concepts more freely and examine the spiritual essence of lacquer hidden within the art of lacquer. Lacquer art began to explore various materials, and "covering" lacquer art is made from various paintable materials, emphasizing the modernity of lacquer language style. For example, the lacquer works created by lacquer artists Cheng Xiangjun, Tang Mingxiu, Zhang Zeguo, and Huang Weizhong have made lacquer materials the core of reviving the language of lacquer art. The creations of these lacquer artists have played a good exemplary role in the integrity and diversity of lacquer art. In the language of lacquer art, this change is not only reflected in lacquer paintings, but also in lacquerware works (Table 2).




Table 2. Xiangjun lacquer, Tang ming xiu jinyi, Huang weizhong mountain and water

Lacquerware Figure	Material	Craft	Lacquer language performance
 Figure 1 Cheng Xiangjun, Paint Language	<ul style="list-style-type: none"> - linen - raw lacquer - transparent lacquer 	<ul style="list-style-type: none"> - scrape - painted 	Promote the freedom of expression of abstract principles. Completing the structure and restructuring of lacquer art from the basic language of lacquer painting to the comprehensive language of lacquer painting, the image was transferred to the thick lacquer, and a large amount of wax silver foil was used as a surface, breaking the aesthetic limitations of traditional flat lighting and experimenting with the abstract expressionism of lacquer painting.
 Figure 2 Tang Mingxiu, Brocade Clothes	<ul style="list-style-type: none"> - linen - raw lacquer - black lacquer pigment - aluminum foil 	<ul style="list-style-type: none"> - painted - wax silver foil - crush - scrape 	Lacquer painting scope division and painting introduction, extensive material and extensive humanistic emotional factor. Focuses on rendering the beauty and spirit of the extensive material in lacquer painting, and form its own personality from aspects of technique, material and artistic conception.
 Figure 3 Huang Weizhong, Mountains And Water	<ul style="list-style-type: none"> - plank - black - clear lacquer - silver foil - wood chips - pigment 	<ul style="list-style-type: none"> - painted - wax silver foil - polished - grind - wash 	High refinement, generalization, bold exchange, deformation, enrichment in simplicity, pursuit of change in monotony, strengthening the expressiveness of lacquer painting.

2. Shape design and development.

Art should inherit tradition, but not be too rigid. It also needs to draw on other forms of art, imitate but not simply imitate. It must have its own ideas and innovations in lacquerware design. Shape design is the main element of this form. According to the function of lacquerware, it is necessary to meet the requirements of comfort and safety. If contemporary lacquerware can make the shape perfect and original, it depends on the designer's understanding, preference for beauty, and imagination of the shape. And it is necessary to maximize artistic creativity, express personal emotions through appropriate processes, and convey a sense of modernity and traditional emotions to people. (Table 3).

Table 3. Lacquerware products.

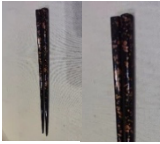


Lacquerware Figure	Characteristics of shape
 Figure 1 Works By Guo Xiaoyi	Plane shape and three-dimensional shape. Consider the utility and art together with the design of contemporary lacquer art which has a beautiful shape.
 Figure 2 Works By Anna	Understand the characteristics of beauty and change the structure of the object. Use general methods to make the body shape easier.
 Figure 3 Works By Zhong Sheng	It is characterized by the transfer of pictograms by filtering out the original object and transferring it to the shape of lacquerware. Feel the meaning, then understand the shape of the object and create a meaningful shape.

3. To fulfill the needs of modern aesthetics and practical.

The development of lacquerware should be adapted to modern society. The design of lacquerware products should start from the concept of modern art design and meet the needs of modern aesthetics and practicality. For art, modernism is an aesthetic principle. When all types of art follow these principles, they become contemporary lacquerware. Therefore, lacquerware has a certain aesthetic similarity with other types of art, which provides the possibility for mutual learning. Lacquerware originated from the folk, and it has both practical functions as daily necessities and surface decoration. The beauty of handicrafts is the standard for measuring 'tools', but beauty also comes from people. Ultimately, it is about measuring people. However, this is just an infinite corner of human vision, which is very complex and not the focus of contemporary artistic spirit. It strongly emphasizes the review and integration of all cultural heritage and spiritual resources according to contemporary standards (Liu, 2005).

Its practicality is also a primitive beauty. Through experience, it can be observed that true practice is rooted in nature. Therefore, when people experience the practicality of a product, it creates a primitive sense of relationship, a sense of beauty (Table 4).


Table 4. Fashionable and practical lacquerware

Lacquerware Figure	Material	Processing	Creative concept
	<ul style="list-style-type: none"> - bamboo rubber - raw lacquer - black lacquer - silver foil 	<ul style="list-style-type: none"> - crushed - silver foil - paint / press / clean 	<p>Through the unique use of lacquer materials and the variety of craftsmanship, many artworks can be produced on the surface of the chopsticks.</p> <p>It produces a mottled and gorgeous visual effect, and the repetitive push of light gives the rough surface a delicate luster and contrasting beauty. The plant lacquer's corrosion resistance, high temperature resistance, non-oxidation, environmentally friendly and healthy make the lacquer have great advantages in practicality.</p>
	<ul style="list-style-type: none"> - rubber - raw lacquer - black lacquer - snail - gray lacquer 	<ul style="list-style-type: none"> - enamel - snail crushed - cinder / scrape - paint / mashed / push-clean 	
	<ul style="list-style-type: none"> - black resin - transparent snail powder 	<ul style="list-style-type: none"> - paint - mashed - snail powder - mashed / push / clean 	

4. The concept of modern art design plays an important role in lacquerware decoration.

Regarding lacquerware decoration, it has important functions in itself, and lacquerware decoration should also become an art form (Li, 2016). The emphasis is on the art of contemporary lacquer artists, most of whom come from higher art institutions. They acquire experienced craftsmanship skills through traditional techniques and embrace modern art design concepts. The work focuses on aesthetics, art, and practice, mainly from an individualistic perspective, combined with modern aesthetic concepts, using materials, colors, and techniques. These artists are more flexible in their creations, and many lacquerware have moved away from the concept of containers and become beautiful works of art. The creation of these lacquerware cannot be separated from higher art and design education. As shown in Table 5, artists have greater flexibility in their creations, and many lacquerware have moved away from the concept of utensils and become truly aesthetically valuable works of art (Table 5).

Table 5. Lacquerware works with modern artistic concept

Lacquerware Figure	
	Works by yang peizhang, works by guo xiaoyi, works by zhong shen
Creative concept	Contemporary lacquer works pay more attention to modern lifestyles, focus on beauty and art and practical coexistence, most works from an individual point of view pay attention to the author's personal feelings, combining aesthetic concepts. Modern and personal design style, masterpiece creation techniques, highlighting the expression of thought and taste, reflects the symbolism of traditional Chinese style of allegorical thinking.

From the survey results, it can be seen that studying the patterns and techniques of lacquerware in Chinese culture, as well as the production methods of traditional lacquerware, can help us learn the artistic aesthetics of traditional lacquerware and explore the design principles of practical lacquerware. Analyze the technological factors in the development of contemporary Chinese lacquerware product

design, explore lacquerware materials, attempt to break through the limitations of traditional technology and materials, and use modern design concepts to create lacquerware products that meet modern aesthetic needs. Such lacquerware design can reflect the cultural heritage of contemporary technology.

Conclusions and Discussion

- a) Contemporary lacquerware from the point of view of use is mainly divided into two categories: decorative lacquerware and practical lacquerware.
- b) lacquerware has practical and aesthetic value, its shape can also be divided into practical shape and artistic shape, most of contemporary lacquerware is a work of art, and practical lacquerware is rare.
- c) Researching and exploring material language is a necessary method for the development of lacquerware.
- d) Modern design concepts play an important role in the design of lacquerware, and e) lacquerware with a modern art design concept is a trend of development.

From the point of view of product design, there must be two factors: practicality and beauty, to be called excellent, and lacquerware is a combination of practicality and beauty (Meng, 2006). Furniture design and packaging design are rare in design products. Therefore, there is a high design and research value in applying lacquerware shapes and materials to products and exploring the practical value of lacquerware in modern theoretical research literature. It is more complete than before, not only technical research, but also research on creation, design concept, aesthetic requirements, and exploration of lacquerware language, cultural nature, and other aspects of these theoretical lacquerware products. This has had a guiding effect on the development of contemporary lacquerware.

Contemporary lacquerware tries and uses the artistic language of other types of art, which makes contemporary lacquerware evolve along with its modern nature. Therefore, it is of great importance to analyze traditional lacquerware work through tradition and modernity, form and content for the development of modern lacquerware, a conceptual art, form and aesthetic design that is indispensable to one another. Learn the techniques of artistic expression through various forms and modern designs that blend seamlessly with modern art and the concept of creating contemporary lacquerware. These will give modern lacquerware a higher added value and unique appearance.

Chinese lacquer art has a long history and is unique to traditional Chinese culture. The ancients of every dynasty have left a large number of exquisite lacquer art works, which are clear evidence for the study of ancient lacquer art (Wang, 2015). It is very convenient to inherit the lacquerware art, can learn the shape technique of the object, the color from the object, analyze the use of the material, by learning can realize the natural beauty of the lacquer art material, the beauty of the artificial handicraft and result. To the researcher's opinion, the artistic achievements reflecting the all-encompassing nature of this aesthetic feature gave rise to the appearance of a new era. From the study, the recommendations are summarized as follows.

1. The legacy traditional lacquerware should be combined with modern aesthetics, that means to recreate traditional crafts and to transform, refine and incorporate some elements of traditional culture into modern aesthetic concepts. The art of lacquerware should not be expressed by skill but should contain the spiritual content behind the technology in order to have the traditional humanist spirit of the cultural characteristics and characteristics of lacquerware. The creation must conform to modern design concepts, aesthetic concepts as well as reflect the artistic and creative expression of the era.
2. The use of lacquerware first focuses on practicality. Therefore, the so-called 'practicality is beauty' will only enhance research and practicality (Xu, 2018). The reason why traditional crafts are more vivid is because practicality precedes aesthetics, and practicality and aesthetics are unified. This made ancient China famous for the practical level of lacquerware. Lacquerware art is mainly applied to kitchen and bathroom materials, furniture, interior decoration, ornaments, industrial products, etc. The pursuit of practicality can provide a more complete expression for the development of traditional crafts and other

fields. Using beautiful forms and modern design concepts to make the design of lacquerware products more in line with the aesthetic requirements of contemporary society.

3. The development of lacquerware products should focus on design. Product design should be combined with modern artistic concepts to create lacquerware artworks that are more in line with contemporary aesthetics, more suitable for decoration and styling. In addition, the innovative function of lacquerware products also needs to improve the artistic aesthetic requirements of the products, and the improvement of artistic aesthetics requires long-term cultivation.

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