

# Research on the Protection and Design Application of Ming and Qing Dynasty Heraldic Porcelain under the Threshold of Product Semiotics Theory

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## Abstract

China was the first country in the world to fire porcelain, and Jingdezhen is renowned globally as a center for the development of ceramic culture. With its beautiful, practical yet durable vessels, Jingdezhen porcelain is an important link for Chinese culture to the world, highlighting China's contribution in the world's cultural history. This paper aims to realize the innovative development of Jingdezhen ceramic skills and enhance the economic value of the non-heritage culture through the systematic study of the history, decoration and techniques of heraldic porcelain in the Ming and Qing dynasties, mining the history of cultural exchange between the East and the West, and based on the theory of product semiotics. Using a combination of qualitative and quantitative research methods, we collect literature for qualitative research and use questionnaires to analyze the decorative characteristics and design directions of Ming and Qing heraldic porcelain. The results of the study show that the theory of product semiotics can effectively promote the sustainable development of heraldic porcelain in the Ming and Qing Dynasties, and enhance the cultural influence of Jingdezhen ceramic skills. The conclusion is that the product semiotics theory system provides a promotable and effective way for the inheritance and development of Ming and Qing Dynasty heraldic porcelain, and plays a constructive role as a model.

**Keywords:** Ming and Qing Dynasty Heraldic Porcelain, Product Semiotics, Cultural and Creative Products

## 1. Introduction

Heraldic porcelain is one of the main varieties of Chinese export porcelain during the Ming and Qing dynasties, which has the characteristics of Chinese exquisite traditional techniques, contains deep Chinese cultural heritage, and embodies the delicate and elegant European decorative style, which is really a fine product of export porcelain, and it has become an ideal medium for world trade and cross-cultural exchanges. The art of heraldic patterns represents

the artistic aesthetics and cultural connotations of Europe and the United States, but also a symbol of status and identity, the firing of porcelain and heraldic collision fully demonstrates the exchange of Chinese and Western cultures, is an exquisite visual feast. This study systematically explores the social and historical background, export routes and regions, styles, types and production processes of Chinese Ming and Qing Dynasty heraldic porcelains, accompanied by the product function consumption to emotional consumption era background, the transformation of user needs and product characteristics, the use of modern design concepts, which contributes to the inheritance and innovation of traditional ceramic skills in Jingdezhen.

### **1.1 Research Objective**

This research aims to systematically explore the historical background, decorative styles, and production techniques of heraldic porcelain in Ming and Qing dynasties.

## **2. Literature Review**

In recent years the research on the inheritance and innovation of Ming and Qing article porcelain continues, mainly from the following aspects:

### **1. Ming and qing dynasty export route**

Ming and qing dynasty export porcelain is mainly from jingdezhen export route, the academic community is more unified view is to poyang lake, ganjiang river system as a hub, transported out of jiangxi after distribution to the national business route. Xu Linlin (2017) believes that Jingdezhen export routes are mainly four, respectively, to the east into the Zhejiang route, to the southeast into the Fujian route, to the south into the Guangdong route, to the north into the remaining major waterways across the country, forming a network pattern of three passes and one reach. (Peng, 2010) argues that the first three routes were the main routes for export, and that Jingdezhen porcelain export was mainly concentrated in the port provinces, which belong to the eastern part of China now. Zhejiang, Fujian, and Guangdong are neighboring provinces of Jiangxi, and the transportation is more convenient, which is conducive to the transportation and sale of porcelain.

### **2. Decorative art style of Ming and Qing Dynasty heraldic porcelain**

Jiang Ling (2008), Wang Ping (2013), Guo Chao (2019) and other scholars believe that Chinese Ming and Qing Dynasty heraldic porcelain decoration is composed of thematic decoration and border decoration, which mainly includes animal, geometric, botanical, vessel and celestial motifs. Common Chinese heraldic ceramics animal motifs include fighting chickens, goldfish, clouded dragons and other types. The Chinese consider the chicken to be a symbol of good luck, and fighting chickens are most often seen in porcelain. The cloud dragon is a traditional Chinese totem, symbolizing good fortune, honor and sanctity. Goldfish symbolize wealth and good fortune. Birds and flowers include flowers, fruits and vegetables, birds and birds, and other elements, with a rich combination of styles. Botanical motifs most commonly used are golden bamboo, green cabbage and white branch plum.

Western themed decorations mainly include animal prints and geometric patterns. Animal motifs are divided into lion motifs, eagle motifs and other animal motifs. In addition to lion and eagle motifs, there are more bird motifs, such as pigeons, crows, chickens, ostriches, geese and so on. There are also animals such as deer, bears, wolves or wild boars appearing on heraldic decoration. In addition, images of monsters and mythical animals also appear.

### **3. The value of Ming and Qing Dynasty heraldic porcelain**

Heraldic porcelain embodies the history, culture and art of the set. Ming and qing dynasties domestic production of heraldic porcelain most for export, few domestic remains. In recent years, heraldic porcelain in foreign countries increasingly high price, the domestic collection also began to turn their attention to export porcelain boutique. Therefore, the reality of the art market needs to make a systematic and comprehensive study of the art of heraldic porcelain. This on the one hand can make the majority of readers recognize it in the history of art and the important position of art works of great value, thus promoting heraldic porcelain works of art faster in the art market transactions and circulation, to achieve its value; on the other hand, the buyers and sellers engaged in market transactions, through the heraldic porcelain Ming and Qing dynasty works of art style to understand and grasp, to improve the ability to heraldic porcelain connoisseurship, will guide the recognition of heraldic porcelain works of art. Lushan true face, recognize the real work, reduce the investment risk of heraldic porcelain works, avoid buying fakes, reduce economic losses. Such a benign transaction, the development of the art market, prosperity, investment, identification play a great role in promoting economic development.

### **4. The concept of value enhancement through design**

In recent years, countries have attached great importance to the protection of their intangible cultural heritage, and have made very many attempts in the inheritance and innovation of intangible cultural heritage passed on from fire to fire to realize the sense of recognition of culture and history, and the living protection and inheritance has become a cultural phenomenon in the global context. Academic research on the application of cultural heritage in design has been mainly cultural creative products, and cases oriented by product semiotics theory have shown a rising trend. It is a commonly accepted view in the design world that user-centeredness and meeting users' needs and expectations are the magic weapons for product success. With the spread of economic globalization, the people and scenes where products are used are no longer constrained and limited by factors such as geography, race, and culture, and the batching and standardization of products lead to the homogenization of people's culture, which is usually considered to have fulfilled the user's needs excellently if evaluated from the point of view of the product's function. In fact, people will find social and cultural connections gradually forgotten, replaced, or even disappeared. To cope with the homogenization phenomenon of globalization, there is a trend towards a culture-oriented approach in design methodology, emphasizing cultural identity and highlighting local cultural characteristics and values. As a result, cultural self-confidence triggers people to think about the protection and innovation of traditional culture. Facing such a trend, designers need to consider the integration between local culture and visual product aesthetics.

## 5. Design Cases of Product Semiotics Theory

As a cultural symbol, ceramics convey beauty and artistic value through form, texture and color. Special materials and textures display visual and tactile cultural symbols. Through modern design means, the optimization and extraction of design symbols are realized, and they are transformed into design elements and reasonably and appropriately used in ceramic products. For example, Figure 1, the design inspiration comes from Dunhuang Mogao Caves Cave 257 - Deer King Benson, the nine-colored deer in the mural symbolizes beauty, love and health, implying auspicious happiness and longevity. The designer extracted the image of the nine-colored deer from the frescoes and painted it on the bottom of the teacup, with the pattern color adopting Dunhuang's highly saturated clashing color design, coupled with the gold tracing process. Cultural symbols carry visual effects as well as important meanings and functions, and the strategy of non-heritage cultural design is to maximize the reflection of the product's regional cultural characteristics and values.

*Figure 1: Dunhuang Cultural Creation Firing Tea Set*



Source: Taobao <https://www.taobao.com/> (Retrieved on January 7, 2025)

Figure 2, the source of the design is the Samsungdui bronze figure wearing a gold mask, hair combed back, hair braid hanging behind the head, eyes, eyebrows hollowed out, giving people a sense of authority and sacredness, the designer will be portrait modeling to the incense burner, the body part of the combination of the incense burner placed in a seated position, concave and convex, it is a collision of modern craftsmanship and the ancient culture of the ancient long.

*Figure 2: Sanxingdui incense burner*



Source: Taobao <https://www.taobao.com/> (Retrieved on January 7, 2025)

Figure 3 below, the four gods of auspiciousness is a representative work of early Chinese mural painting, mural de four gods are green dragon, white tiger, Zhuquan, Xuanwu, the picture is magnificent, delicate techniques, flowing lines, the designer after secondary processing to extract the essence of the elements applied to the bookmark, giving auspiciousness.

*Figure 3: Four Gods Auspicious Bookmark*



Source: Henan Provincial Museum <https://www.chnmus.net/> (Retrieved on January 7, 2025)

### 3. Research Methodology

#### 1. Literature Analysis

Through the domestic and international literature review, the social and historical background of Ming and Qing dynasty heraldic porcelain, export routes and regions for comparative study, sort out the flow trajectory of heraldic porcelain sold to the West during the Ming and Qing dynasties, literature analysis of traditional cultural protection related research, and reference to domestic related cultural creative product design product semiotics theory and method, trying to find suitable for the Ming and Qing dynasty heraldic porcelain decoration in modern ceramic cultural creative product design. We are trying to find out the feasibility of modern ceramic cultural creative product design.

#### 2. Field investigation

The researchers conducted field survey visits to the Jiangxi Provincial Museum, Nanchang University Museum, Jingdezhen ceramic market, mainly through the way of research and interviews, museum managers, visiting tourists, ceramics production and practitioners to obtain first-hand information. This field survey is mainly carried out from three aspects, on the one hand, the museum visitors to carry out in-depth research, mainly to understand the cognition of the young group of ceramic culture, the demand for cultural and creative products, etc.; the second part of the main museum management and university teachers to carry out field surveys; the third part of the main ceramics production and practitioners of the Jingdezhen area, to understand the current stage of the ceramics market conditions and sales trends, through the shooting recording the production scenes. In addition, the design expression and feasibility of product semiotics theory for ceramic cultural and creative products are discussed, and the consumers' experience of the innovative design is evaluated.

### **3. Case Study**

Collective case study is to excavate more than one about the effect of product semiotics theory in modern design, to verify the importance and systematicity of product semiotics theory in ceramic cultural and creative product design, as a way to promote the product semiotics theory with positive significance in the context of the era of emotional consumption of products. The symbolic visual analysis method is used to analyze images with conceptual meanings or how such meanings are generated through images, to establish the basis of the known content of the researcher and the participant, to explore the expression and presentation of ideas and values through images, and to construct the ideas and directions of ceramic cultural and creative product design.

### **4. In-depth interviews**






The researcher develops an interview outline to explore the theme of inheritance and innovation regarding Ming and Qing export porcelain and to pose specific open-ended questions to the interviewees. The interview process will be unstructured and interactive. Interviewees include Ming and Qing ceramic culture research experts, university teachers and administrators, consumer groups, ceramic production and stakeholders. Focus group interviews were conducted by the researcher through the use of open-ended questions to trigger group discussions and collect qualitative data from the remarks of group members to provide research guidance for this study.

## **4. Research Results**

### **1. The open light decoration characteristics of Ming and Qing Dynasty heraldic ceramics**

The most typical form of traditional ceramic decorative composition is open light decoration. The shape, size, quantity and position of the open light decoration are determined by stylized features of object and decorative theme. The open decoration can be divided into two parts: the theme decoration and border decoration. Switching decorations have a complete border, seemingly closed graphics, single open light between the graphics to leave a moderate space, and the contour line of the artifacts reserved position, the composition of space is moderate. Open light decoration of graphic type is rich, common square, round, oval, fan, rhombus, begonias, plum blossom shape, etc., usually location of the open light will be selected in conspicuous, open position, such as the center of the porcelain plate, the belly of the bottle, some placed on the rim of the plate, the ratio of the open light border will be readjusted. Open borders in the number of four openings, six openings, eight openings, up to twelve openings.

Table 1: Heraldic porcelain open decoration analysis

Number of enlightenments	Porcelain	Content
Double enlightenment		A Qianlong famille-rose and gilt heraldic dish. In the center of the dish is a begonia-type opening with a central motif painted with a riverside scene, the coat of arms is on the top and bottom of the dish, and on the left and right sides are open landscapes and flowers.
Fourth enlightenment		A Qianlong famille rose gilt and gilt medallion dish. Painted with the miller family coat of arms, the inner rim with an arrow-toothed linear border, the four openings of the border with a sailboat motif in a seascape.
Fourth enlightenment		A large Qing Yongzheng famille rose enameled dish with crest and floral motifs. The walls of the dish are painted in green with four large openings and four small openings with floral motifs, the center of the dish is painted with the Dutch family coat of arms and initials in floral script, custom made circa 1730, diameter 39.5 cm.
Six enlightenment		Bissell Family Heraldic Porcelain Plate. This is a custom made porcelain plate for a wedding, with six open sides decorated with floral and butterfly motifs, and a heraldic design painted on the plate.
Twelve enlightenment		England Coat of Arms Porcelain Plate. Porcelain plate side decoration for twelve open light, composed of figures, flowers, the picture is vivid and lively, reflecting each other, the composition is full. The center of the plate is painted with the England coat of arms and the inscription "ENGELANDT".

Source: Author

## 2. Ming and Qing Dynasty crest porcelain glaze color evolution

The end of the 17th century to the early 18th century, Chinese export porcelain experienced two peaks: one is the Ming Jiajing, Wanli period; the second is the Qing Kangxi, Yongzheng, Qianlong period. Heraldic porcelain is one of the main varieties of export porcelain.

Ming dynasty jiajing period, Portugal began to order heraldic porcelain in China. Initially made of blue and white heraldic porcelain, with the development of ceramic technology and innovation, European heraldic particularity, the emergence of colored porcelain transformed to blue and white heraldic porcelain as the mainstream situation. From the Kangxi period of the



Qing dynasty, the glaze color form of heraldic porcelain to occupy the mainstream. The development and innovation of colored porcelain, reflecting the export porcelain through the process of transformation from the local style-oriented Western style. In the porcelain exported a large number of export background, the Chinese overseas markets in Western Europe spread to the world. Exported to Europe's heraldic porcelain loved by the Westerners, set off a frenzy of ordering. Qing Kangxi period is mainly five-color heraldic porcelain and blue and white heraldic porcelain. Pastel is borrowed from the production method of enamel to create burned, the late Kangxi Qing dynasty appeared in the early pastel heraldic ceramics and enamel heraldic ceramics. Yongzheng period, the decorative subject matter involves a wide range of raw materials required for the pastel can produce their own, the pastel technique has matured. Since then, pastel replaced the status of five colors, jumped to the top of the list of glaze painting. From the Yongzheng period onwards, pastel-colored coat-of-arms porcelain occupies the mainstream, other forms gradually reduced.

Guangzhou merchants in order to adapt to the needs of export, heraldic ceramics painted place to transfer, produced by the Jingdezhen plain white porcelain shipped to Guangzhou to be painted. Guangcai is produced in Guangzhou, low-temperature firing made of glazed porcelain. Europeans special custom, with a distinctive style of Western art, strong colors, Guangcai heraldic porcelain popular in Europe. Guangcai for “Guangzhou gold-colored porcelain” for short, the use of gold is very common, or in the pattern of sporadic embellishments, or with his colorful lively and colorful cleverly coordinated together, and some simply decorated in the mouth of the artifacts along the edge or the cover knob, the formation of a unique style. European countries to produce porcelain technology is increasingly mature, after the Qianlong Chinese heraldic porcelain gradually weakened.

Table 2: Types of glaze colors for heraldic porcelains in the Ming and Qing dynasties

		
Blue and white	Multicolored	Pastel
		
Pastel and gold	Enamel	Enamel painting and gold



		
Ink and gold	Green and gold	Blue and gold
		
Cantonese Color	Blue and white enamel	Blue & white alum red with gold

Source: Author

### 3. Ming and Qing Dynasty heraldic porcelain production process

The production process of a piece of porcelain in the Ming and Qing dynasties, you need to go through the mining and refining clay, molding and decorating porcelain, and then put into the kiln at high temperature firing and become, the whole process at that time need to go through more than seventy craftsmen's hands. (David S. Howard, 1974) Over time, the modern Jingdezhen ceramics technique has developed a basic set of fixed steps, including practicing clay, pulling blanks, printing blanks, making blanks, sun-baking blanks, engraving, glazing, kiln-firing, painting, packaging, and transportation.

### 4. Product Semiotics Theory System and Application

The construction of product semiotics theory is based on the combination of Soprano linguistic semiotics and Pierce's pragmatic instrumentalization of logical rhetorical semiotics to form a symbolic language between users and products. Designers use the principles of semiotics to create text, inspired by the user's perception, experience, the user's cultural background for the interpretation of the design of the product to form a diversity, so the user's cultural definitions and constraints is the premise of the construction of the product design system. Product semiotics system thinking helps designers to form a complete and effective framework and structural system through skillful design methods. At the same time, with the perspective of symbols, we can re-examine the cultural attributes and ways of thinking of the user's environment, providing a multi-angle vision for design.

## 5. Conclusion

Ceramic cultural and creative products are produced in a new era context, emphasizing more on traditional cultural connotations, skills and creative products. The inheritance and innovative design of heraldic porcelain in the Ming and Qing dynasties tries to propose a new design idea and perspective, taking cultural and creative products as a carrier, interpreting regional cultural symbols and refining them, proposing design strategies, and providing users with a visual experience. The application of product semiotics theory in cultural and creative product design is studied through real cases, providing useful references for ceramic product design. Capturing and mining product aesthetics, the integration of visual symbols and local culture reflects the relationship between the user and society, highlights cultural confidence, and brings a humanistic new vision to ceramic cultural and creative products.

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