

Study on the Application of Bronze Fantasy Animal Ornamentation in Foundry Design

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Abstract: Throughout the research process of bronze ware, as a representative of the appliances in the prosperous period of the Shang and Zhou Dynasties, the decorative patterns of glutton, Kui dragon and phoenix bird, collectively referred to as fantasy animal ornamentations, are the most popular. By collecting and arrangement of the fanciful animal patterns in the bronze casting of the Shang and Zhou Dynasties through the pattern rubbings and historical documents, this paper discusses the natural worship and artistic connotation of the fanciful animal ornamentations, which has far-reaching significance for the development of modern casting art design and bronze culture.

1. Introduction

The origin of bronzes can be traced back to the Neolithic Age. The earliest bronzes found in China were small tools or ornaments. Bronze vessels and weapons first existed in the Xia Dynasty. In the middle of the Shang Dynasty, there were many kinds of bronzes, with inscriptions and exquisite patterns. From the late Shang Dynasty to the early Western Zhou Dynasty, bronze ware was in its heyday. It was thick and dignified, with gradually longer inscriptions and rich patterns. ^[1] In the Spring and Autumn Annals of the Lv Clan, “Zhou Ding casts gluttons. It has a head but no body, and the cannibalism is not swallowed, which is harmful to his body”.

Bronze culture is an important part of Chinese civilization, and bronze ornamental art is the essence of metal processing technology. Compare to auspicious ornamentations on bronze vessels of the Ming & Qing Dynasty, bronze ornamentations of the Shang and Zhou Dynasties were more mysterious and dignified. In particular, the fantasy animal patterns of the Shang and Zhou Dynasties played an indispensable role in the study of the religion and etiquette of the people in the Shang and Zhou Dynasties. The natural worship expressed by their patterns is an important manifestation of exploring the relationship between people and people, and between people and nature.

2. Bronze Ware Ornamentation Symbol Function

2.1 Bronze Fantasy Animal Ornamentation

The animal ornamentation of bronze wares in the Shang and Zhou Dynasties can be divided into realistic animal ornamentation and fantasy animal ornamentation. Fantasy animal ornamentations include animal glutton, dragon and phoenix bird ornamentations, which usually appear in the bronze

ware in a single or combined form, and are created by ancient ancestors in combination with actual objects and real imagination. This “illusion”, “zhen xiang”, and this “true imagination” are the independent and specialized production of ideology.

2.2 Aesthetics of Fantasy Animal Ornamental Symbols and Totem Belief

Bronze ornamentations not only involves art, but also contains the aesthetic psychology of the times. Discuss its connotation to explain the social significance of bronze art in promoting the cultural and artistic exchange and integration of the Shang and Zhou Dynasties. ^[2] “Ornamentations” are the external decorative patterns of bronze ware, which are the general terms for the decorative performance of bronze ware given by ancient ancestors, or used for sacrifice, or for chariots and horses and weapons, or for decoration, or for practical life, especially in the Shang and Zhou Dynasties, thus these decorative patterns has distinctive personality and rich ideological connotation. Through the historical investigation of the ornamentations of Shang and Zhou bronze ware, we can understand their changing social factors, so as to explore the cultural principles of their creation and the cultural functions of decorative patterns. ^[3] At the same time, it also has literature Religious and artistic elements, philosophy and other elements with the color of traditional Chinese culture.

Yan Xiaolin proposed that the Shang and Zhou bronze ornamentation took the concept of Shinto as the basic belief, organized the empty space, and made people and gods unite through the transformation of religious rites. This aesthetic consciousness does not exist independently, but is an aesthetic representation of the unity of myth, history and art with regional characteristics formed by the intertwined religious, political and other cultural concepts in the “Yi ware”, which is an important part of the Chinese aesthetic process. ^[4] The ancient totem of dragon and phoenix as the continuation, development and further symbolization of witchcraft etiquette. They are just symbols and marks of the materialization of ideology, but they are frozen in and gathered in the social consciousness in this form of image symbols, the sexuality, concepts and psychology of ancient people.

Bronze Fantasy Animal ornamentation not only has symbolic connotation, but also has the meaning of totem worship. As a special form of artifacts, bronze ware not only has practical functions, but also carries rich historical information, thoughts and emotions, and symbolic significance. The ancient people had a decisive influence on the development of bronze civilization. They often took images by observing objects, took the images of common animals around them as the description objects, distorted their images through abstract, exaggerated and imaginative methods, and finally presented them on bronze ware in a pattern. Although there are some patterns that cannot be interpreted today, let alone the specific images they depict, the origin of such patterns will ultimately be attributed to the ancient human belief and worship of God. The various cultures of ancient times are the result of selective inheritance and conscious development through the passage and evolution of time. Therefore, it is necessary to understand the regularity and patterning of the bronze patterns through the symbolic meaning of the original thinking.

2.3 Natural Worship of Fantasy Animal Patterns under Social Influence

In the Shang and Zhou Dynasties, the gluttonous, dragon and phoenix patterns represented by the fanciful animal patterns were the most popular. The method of line composition was used to make the outline of the bronze ware smooth or clear, so that its structure was complete. Fantasy animal ornamentation inherits the original totem, but is also strongly influenced by the religious rule of etiquette in the Shang and Zhou Dynasties. Its beauty is religious, weird, mysterious, horrible, and awe inspiring, but it does not lose the flexibility of life. ^[5]

The objects of nature worship are deified natural phenomena, natural forces and natural objects, namely, deified heaven, earth, sun, moon, mountains, rocks, water, fire and other mountains and

rivers. In ancient times, human understanding of nature was a long and gradual process. Since it was impossible to explain nature, they expressed their will by imagining and deifying objects. Nature worship is an important part of primitive religion. The original nature worship of human beings is to directly worship the natural entity, rather than the personified natural god. This kind of worship was caused by the extreme social productivity at that time and people's abnormal poverty of natural knowledge.

There is a great difference between modern people and the original ancestors. The most important difference is the art in material life. As people's pursuit of material life continues to improve, the way of thinking of the public will change, and the feelings carried by the bronzes will also change. Thus it can be clear that the animal images of bronze ware patterns are often deformed and patterned. In the Bronze Age, both fantasy animal patterns and realistic animal patterns were inseparable from the animal kingdom, human beings and animals at that time. Along with the changes of historical times, the evolution of the function of bronze decoration is inevitable.

3. Artistic Characteristics of Fantasy Animal Patterns

3.1 Glutton Ornamentation



Figure 1: Beast Face Pattern (1. m-Shaped Sheep Horn 2. Foot 3. Leaf Shaped Ear 4. Tail 5. Trochoid 6. Tooth 7. Nose)

Another name of the animal face ornamentation in the academic circle is the glutton ornamentation. The most representative one we see in the museum is the “taotie ornamentation” in Lu's Spring and Autumn Annals. Generally, the glutton ornamentation is mainly based on the front image of the animal, plus the trunk, wings, feet and other parts, as shown in Figure 1. In these lines, the head on the front is the most conspicuous. The head in the animal face lines is much larger than the trunk, wings and claws. Some of them can't even see whether they have body parts. From the perspective of the center line of the bronze ware, it depicts the nose with animal face lines. On the whole, the eyes are exaggerated, weakening the claws and body, and more highlighting the outline of the animal face.

Most of these glutton ornamentations are the patterns on the head of bulls, sheep, etc. According to historical records, ancient humans were not allowed to use female creatures in sacrifice, especially those who were pregnant. Therefore, these glutton ornamentations were created by people in ancient times according to the phenomena they could not explain and the animals they had seen. They were also created by ancestors to please the gods. Of course, there are also bronze cauldrons with human faces as the theme, which means that there were still some places that kept the tradition of worshipping gods with slaves and prisoners at that time.

The glutton ornamentations in the Shang and Zhou Dynasties are actually a collection of various fantasy animals. Its obvious feature is the contour of the eyes. If it is carved on a huge bronze ware, it

will be daunting. This also echoes the exaggerated faces of the figures unearthed in Sanxingdui later, and the eye proportion is inexplicably feared. The traditional glutton ornamentation adopts the “five part face”, as the saying goes, “one diagonal, one eye, one pair of ears, one mouth, and one face”. The natural worship of animal face patterns lies in the depiction of eyes, which represents our ancestors' exploration of the world, and also implies the vision of the future. The eyes are the sun, and the sun is light and hope.

3.2 Kui Dragon Ornamentation



Figure 2: Dragon Pattern (1. Bristles 2. Hollow Shaped Ears 3. Eyes 4. Feet 5. Wings 6. Tail)

Kui dragon ornamentation is a very typical traditional ornamentation. The appearance of dragon ornamentation generally symbolizes feudal power or auspicious wealth. These ornaments were used by people at that time to describe gods or spirits with simple and primitive figures. The origin of the dragon is very early. It was first discovered in the Xinglongwa cultural site with a history of 8000 years. The dragon shaped animal image has appeared since the Neolithic Age. With the improvement of social civilization, people are more and more interested in this shape. Moreover, the dragon patterns in Shang and Zhou bronzes are different from our common figures. The dragons on early bronzes usually have arc-shaped or triangular patterns on their heads, that is, the glutton ornamentations and dragon ornamentations we see now. They are also imaginary animal lines. The main features of these dragons are still their faces, their noses as lines, their eyes exaggerated, their bodies coiled, and their shapes are different, as shown in Figure 2. After the Han Dynasty, this dragon shape gradually disappeared and was replaced by various deformed patterns, such as snake ornamentations. Although scholars have many guesses about where the dragon ornamentations come from, they cannot be unified.

Among the patterns of bronze wares in the Shang and Zhou Dynasties, the dragon ornamentation is the most popular pattern with a large number of people and the most complicated pattern evolution. Since the Song Dynasty, it has been named as “Kui ornamentation”, which originated from the legend of “Kui with one foot”. In classical China, there are chaotic and even contradictory descriptions of Kui, a legendary animal: drum, monkey, cow, dragon; With or without corners; Scaled, scaleless; The color is pale or red; The main wind or rain, the main drought and so on, but these descriptions have the same thing, that is, one foot. Examining the numerous and complicated “Kui ornamentations”, we can see that there are often a few other ornamentations mixed with them, such as bird ornamentations for beaks, elephant ornamentations for long noses, and most of the real Kui ornamentations retain pictographic features in oracle bone inscriptions and bronze Inscriptions left over from the Bronze Age, and the various “dragon” characters that have been interpreted are very similar.

In ancient times, the dragon was a special imaginary animal. Its symbol would change with the weather, such as the main wind, the main rain and the main flood. From this point, it can be seen that

the dragon shaped pattern of the Shang and Zhou Dynasties bronzeage is a kind of spiritual wealth left by human beings in the process of fighting against nature and a symbol of natural worship of the resistance force.

3.3 Phoenix Bird Ornamentation

Compared with the Kui dragon ornamentation, phoenix bird ornamentation is a common decorative pattern. Most phoenix have plump wings and beautiful body. They often look up, as shown in Figure 3. The hooked beak and wings are the most prominent, but the hooked beak is the primary feature. Some phoenix patterns have no obvious wings.



Figure 3: Phoenix Pattern (1. Crown or Horn 2. Hook Bill 3. Foot 4. Wing 5. Body Tail)

There are obviously two types of phoenix bird ornamentation on the Shang and Zhou bronzes: one is bird head and animal figure with many changes and deformations, and the other is bird head and bird figure basically consistent with realistic animal patterns. Compared with “realistic bird ornamentations”, the two are also different in the age prevailing on the Shang and Zhou bronzes: the former is mainly reflected in the Shang Dynasty, and a small part is reflected in the early Western Zhou Dynasty, which is difficult to find since then; the latter mostly appeared in the Western Zhou Dynasty, which was only seen in a small part of the late Shang Dynasty.

Phoenix bird worship comes from primitive totem and is inseparable from nature worship. Although we now collectively call it “phoenix bird” or “divine bird”, the image of phoenix bird on bronze ware at that time is very different. The image of phoenix bird is much more complicated than that of “dragon”. According to historical records, “phoenix” not only represents “wind”, but also has the meaning of “auspicious” for a long time. Phoenix, as the spiritual symbol of Zhou etiquette, since the early Western Zhou Dynasty, the glutton ornamentation on the bronzes has gradually decreased, while the phoenix bird ornamentation has gradually increased, which is called the “phoenix ornamentation era” by the academic community.

3.4 Application of Fantasy Animal Ornamentation in Modern Casting

The application of glutton ornamentation on porcelain products breaks up the patterns in the fantasy animal ornamentation of bronze ware, and selects some specific elements for reasonable reconstruction, thus changing the combination mode of its elements, reorganizing and rearranging them, so as to generate new modern decorative ornamentations. Although the workload of deconstruction and reconstruction is large, the new ornamentations formed after the reorganization have a strong visual impact, as shown in Figure 4.



Figure 4: Glutton Ornamentation on Porcelain Products

The application of Kui dragon ornamentations on stone carvings, the facial elements of Kui dragon ornamentations in the bronze fantasy animal patterns are extracted, and a new continuous pattern is generated by using the method of continuous two sides. The pattern is repeatedly arranged upward and downward, and finally a column is enclosed in the form of silhouette and carved on the stone products, from which the stone products with new decorative patterns are cast, as shown in Figure 5.



Figure 5: Roman Stone Column with Kui Dragon Ornamentation

The application of phoenix bird ornamentation in modern furniture art design, as shown in Figure 6 is to extract, simplify and redesign the phoenix bird ornamentation in the bronzes to form new abstract phoenix bird ornamentations. The new phoenix bird ornamentation is the main design element, and it is presented on the new castings through the decorative techniques of painting and carving.



Figure 6: Phoenix Bird Ornamentation Flat Head Case

4. Inspiration of Fantasy Animal Ornamentation on Modern Graphic Innovation

In the stage of nature worship, the subject depends on and is subject to the object. The subject occupies the object of activity through material activities, projects the subject into the object, and

displays it by virtue of the relationship between subject and object, subject and subject. The nature worship emphasizes “advocating nature and integrating nature and man”, which is reflected in the attributes of fantasy animal patterns, the relationship between human beings and society, and the relationship between human beings and nature. The inheritance and development of the spiritual character of “integration of Taoism and artifacts” in modern design is particularly critical.^[6] The artistic characteristics of fantasy animal ornamentations give inspiration to modern casting art design. Modern casting art design should consider from the way of integrating ancient and modern times, caring for natural ecology and social forms.

First, the inheritance of the traditional art of fantasy animal ornamentations in modern casting. The Chinese traditional culture is broad and profound, and there are many excellent elements that we can learn from. These factors will make the art design in contemporary Chinese casting show different characteristics from the past. At the same time, traditional culture has a certain impact on designers and ordinary people in terms of ideas, as well as on the expression of connotation of design. In addition, it will also affect people's final evaluation of design. It can be seen from this that the influence of the inheritance of Chinese culture on modern foundry art design is ubiquitous. The inheritance and innovation of Chinese traditional culture is the key to the harmonious identification of people, society and nature.

Second, the traditional culture of fantasy animal ornamentations is reflected in the casting of green ecology. The connotation of the ecological concept of modern casting art design has been expanding, and the concept of “man and nature” has become the central content of the ecological concept. Man and nature are the foundation of social harmony. Harmonious culture is the unity of harmony between man and man, between man and society, and between man and nature. The study of modern foundry art design from the ecological perspective is to explore the dialectical unity of animals and environment. Its content involves the interaction and mutual influence between natural ecology and social ecology, nature and society. The sense of social responsibility of art design and environmental ecological protection are constantly awakened and spread.

Third, the natural worship of fantasy animal ornamentations activate the nationality of modern casting. Foundry art can express its idea through design culture, which can directly reflect the overall psychology of a nation. Different countries and different environments will form different cultural concepts. The cultural essence and connotation it carries can be displayed in different ways and different design styles, which will directly or indirectly affect their design characteristics. After the decomposition and reconstruction of traditional bronze patterns, various design techniques can be flexibly used to promote the unity of formal beauty and internal beauty of composition elements. The promotion of living inheritance should reflect the artistic characteristics embodied in the traditional art in the actual casting or production, which not only forms a typical national design style, but also activates the national character of modern casting imperceptibly.

5. Conclusion

The secret of the Shang and Zhou bronze ornamentation is that its decoration reflects the nature worship and religious belief of ancient ancestors. If we want to create a modern design that conforms to Chinese characteristics in the casting process, we must inherit the concept of traditional patterns and combine the national character with modern technology. At the same time, designers must constantly explore, develop and innovate. They should not only maintain respect for traditional culture in the contemporary design trend, but also not abandon the tradition. They should protect and inherit the fantasy animal ornamentations, organically combine the form and meaning of the fantasy animal patterns with the modern casting art design, so that they will be evergreen in the development of casting design.

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