



Probe on the Aesthetic Conception in the Design of Bronze Lamps

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Abstract

China created a brilliant material civilization in ancient times, which had a profound influence on neighboring countries and even the world. As it were, the development of ancient material civilization in China is a microcosm of the history of material evolution in the world. It has gone through different stages of cultural relics, such as Paleolithic Age, Neolithic Age, Bronze Age and Iron Age. In different periods of material civilization, ancient Chinese people constantly explored and discovered new materials through their own hands and wisdom. Moreover, we explored the production technology suitable for different materials and utensils, and created many world-leading utensils. Take bronze ware as an example. The casting level of bronze wares in Shang Dynasty has attracted the attention of the whole world. "Simuwu Square Pod" (a cooking vessel in Shang Dynasty) is a typical representative. Judging from the material, volume and weight of its bronze tripod, it is the world's leading level at that time, so to speak. In the Bronze Age, the existence of utensils was not only the most basic meaning of their use functions, but also the social function of conveying the differences of emperors between Shang Dynasty and Zhou Dynasty. It is a ritual tool for ruling the country and bears the rituals of the Zhou Dynasty. The famous idiom "WENDING ZHONGYUAN (Covet or challenge the throne)" is such an example. It expounds the unique social function of bronze tripod as a ritual tool of ruling a state and it is a tangible symbol of imperial power. In 606 BC, the Zhou Dynasty gradually declined and the Chu State became powerful. Taking advantage of the Northern Expedition, King Zhuang of Chu State asked about the weight of Nine Tripods in the Zhou Dynasty and coveted the throne of the emperor of Zhou Dynasty. King Ding of Zhou Dynasty sent the eloquent Wang Sunmanto confront the King Zhuang of Chu State. When confronting King Zhuang who faces the north, Wang first bypassed the topic of King Zhuang and talked about the age and inheritance of the Nine Tripods. He analyzed the relationship between the weight of Nine Tripods and the virtue obedience of people, and conveyed in a tactful but firm way that the national destiny of Zhou Dynasty was not over yet and the weight of the Nine Tripods can't be asked, which discouraged the King Zhuang, who then turned to attack Zheng State.

Keywords

Bronze Lamps, Artistic Design, Cultural Artifacts

1. Main Contents of Relevant Literature Researches

1.1 Research on the Plastic Arts Characteristics of Bronze Lamps in Han Dynasty

Scholars have proposed many standpoints on plastic arts: the unique artistic expression of bronze lamps in Han Dynasty was reviewed in *On the Design Characteristics of Bronze Lamps in Han Dynasty* and Qin Han believed that it embodied the atmospheric and simple style and had outstanding aesthetic value. In the *Probe into the Design Language of Oil Lamps in Han Dynasty*, Yang Yun believed that the bionic and creative design language of oil lamps in Han Dynasty reflected the rich imagination and profound cultural heritage of craftsmen and artists in the Han Dynasty. Probe into the Design Concept of Lamps in Qin and Han Dynasties in China summed up the application of bionic technology in bronze lamps in Han Dynasty, and pointed out that its simple external shape was a model of the combination of form and function. In the *Study on the Modeling Characteristics of Traditional Lanterns in China*, Liu believed that animal-shaped lamps dramatically increased the artistic charm of bronze lanterns in Han Dynasty.

1.2 Research on the Cultural Connotation of Bronze Lamps in Han Dynasty

Xue Hongyan summarized four cultural connotations of bronze lamps in Han Dynasty, including auspicious consciousness, the concept of elaborate funeral, the implication of Buddhist culture and the display of secular life in the *Research Value for the Design of Lamps and Lanterns in China*. In the *Characteristics and Cultural Connotation of Lamps in Han Dynasty*, Li Mei believed that the lamps and lanterns in the Han Dynasty not only vividly reflected some aspects of social life in the Han Dynasty, but also reflected social contradictions and family ethics. The *On the Cultural Connotation of Chinese Traditional Lamps and Lanterns Design* put forward the harmonious beauty of “putting people first” and “harmony between man and nature” contained in bronze lamps and lanterns in Han Dynasty. The *On the Design Characteristics of Bronze Lamps in Han Dynasty* held that bronze lamps and lanterns in Han Dynasty organically combined image thinking with abstract thinking, and become the materialization carrier of national cultural and spiritual concepts in Han Dynasty. The *Auspicious Culture of Chinese Traditional Lamps* pointed out that the profound auspicious cultural connotation of traditional lamps and lanterns in China was influenced by traditional philosophical thoughts such as the unity of man and nature in China. The *Aesthetic Implication of Modern Lamps Design viewed from the Development History of Lamps and Lanterns* analyzed the influence of this superstitious fashion on the modeling of bronze lamp utensils in Han Dynasty based on the perspective that Han people believed in witchcraft.

2. Analysis to the Artistic Modeling of Bronze Lamps and Lanterns

After years of development, bronze lamps and lanterns in Han Dynasty have made great progress in artistic modeling besides the most basic practical functions. Through the said analyses, we found that the original lamps and lanterns had often a simple external form only. This simple and easy-to-use form was greatly welcomed at that time and would be used for a long time in the future. However, in the aristocratic society at that time, they were not very interested in these monotonous utensils, which therefore caused the significant improvement of the appearance of bronze lamps and lanterns. Our present findings show that these lamps are often pictographic.

For example, the figurine lamps, a kind of lamp designed according to the image of people at that time, have different sizes for different places of application, and they have also different physiques, which increase the aesthetic feeling of lamps. Object-shaped lamp was a kind of popular lamp at that time, mainly dominated by bean-shaped lamps, and lamps of this kind was widely used, especially in the circles of middle and lower classes. The other is the branch-connecting lamp, which has good appearance characteristics, which first appeared in the period of Warring States. After years of development, the production technology of branch-connecting lamp became more mature in the Han Dynasty, and gradually replaced the single-form lamps in the upper class at that time.

The said analyses reveal that these lamps have changed from a single form to a variety of forms after years of development, and most of them are designed and manufactured by imitating the animals, people and plants around them. At that time, it was a great progress in technological design, and complicated shapes would inevitably increase the difficulty of designing and manufacturing lamps. However, a large number of lamps with various shapes could be manufactured in the Han Dynasty, which was not only an affirmation of bronze smelting technology, but also a kind of praise or commendation for ancient art design in China.

3. Technology Property of Bronze Luminaires and Lamps in Han Dynasty

3.1 Focus on the Design of Environmental Protection

Bronze lamps in Han Dynasty paid great attention to energy conservation and environmental protection. Through ingenious and reasonable structural design, the problem of indoor smoke and dust caused by insufficient burning of animal fat was solved. Taking Changxin Palace Lamp for example, its overall shape is designed as a kneeling palace maid holding the lamp with both hands. The inside of the lamp is hollow. The maid's left hand holds the lamp holder, her right hand holds the lampshade, and the right arm is connected with the flue of the lamp. The sleeve of the hand is used as the smoke exhaust pipe. After the candle on the center of the lamp panel and the puncheon is burned, the smoke will enter the body along the sleeve of the maid, which can keep the room clean (LU, 2007). Such exquisite design, smooth curve shape and organic integration of scientific environmental protection concepts reflect the wisdom and elegant life interest of the ancients.

3.2 Focus on the Application of Physical Science

The physical science was skillfully applied in the design process of bronze lamp utensils in Han Dynasty. For example, the bronze phoenix lantern in Han Dynasty had a lamp panel placed on the back, a hollow neck connected by a sleeve, water in the abdominal cavity, and a trumpet-shaped lampshade held in the mouth, just above the lamp panel. Based on the analysis of physical viewpoint, this design skillfully uses the siphon effect principle of physics discipline, changes the original trend of smoke and dust, and makes them finally dissolve in water to ensure the clean air, which not only prevents smoke and dust from polluting indoor air, but also reduces energy waste.

3.3 Reasonable Ergonomic Size

As the most widely used appliance in daily life, lamps also enjoy a very prominent rationality of structural size. For example, the famous Changxin Palace Lamp in the Han Dynasty enjoyed a height of 48 cm, which adapted to the living habits of people sitting on the floor in the Han Dynasty, and completely met the lighting needs of people at that time. The lampshade can be opened and closed from left and right directions, and the lighting direction, lighting area and luminous beam intensity of the light can be adjusted arbitrarily.

4. Artistic Feature of Bronze Lamps in Han Dynasty

The Han Dynasty has entered the Iron Age, and the mass production and commercialization of bronze wares make bronze art in a secondary position in the culture of Han Dynasty. However, the arts and crafts achievements and unique style of bronze ware in Han Dynasty made it an important stage in the history of bronze development. The development history of bronze ware can be divided into three stages. The first stage was the Longshan period, which belongs to the formation period of bronze ware development. The second stage was the Xia and Shang Dynasties, the Western Zhou Dynasty, the early Spring and Autumn Period and the Warring States Period, which is the heyday for the development of bronze wares. The third stage was the late Warring States period, and Qin and Han Dynasties, which belongs to the transition period of bronze ware development. In Qin and Han Dynasties, the design transformation of bronze wares occurred mainly in Han Dynasty. With the private ownership of land, the clan system replaced the patriarchal system, great changes took place in the politics, economy and ideology of the society and Confucianism became the mainstream thought of the society. All these have influenced the development of bronze art in Han Dynasty, and its artistic style has retained the legacy of the Warring States and some of them have also been affected by the style of Qin Dynasty. Bronze wares in Han Dynasty were mainly dominated by living utensils, with exquisite and practical shapes and structures. At that time, the manufacture of lamps, stoves, bronze mirrors and hooks for lighting purpose was at its prosperous stage, especially in the abundant form of lamps and lanterns, such as, Swallow-foot lamp with its handle like swallow foot, bronze-cow lamp with cow-shaped lamp holder, and geese-fish lamp with geese and fish as its main image. They have very realistic images and totally like independent bronze statues. Compared with the bronze wares in Shang and Zhou Dynasties, the bronze art in Han Dynasty transformed from mysterious imaginations to realistic portrayal (SHANG, 2007).

Since Emperor Wu of the Han Dynasty in the middle of the Western Han Dynasty, great changes have taken place in the politics, economy and thought of the society. Confucianism has become the mainstream thought of the society. The theory of "Benevolence loves others" makes the design of utensils pay more attention to people themselves, all of which are affecting the development of bronze lamps and lanterns art in the Han Dynasty. Bronze

ware in Han Dynasty, represented by daily-use lamps, began to move towards the road of realism from Emperor Wu of Han Dynasty. After 300 years of development, it has developed into the surreal realm of expression, and its design ideas and exquisite degree reached the peak of the development history of bronze wares.

5. Expression of Practical Functions of Bronze Lamps

Bronze ware is an important chapter in the history of arts and crafts in China, with a long history and unique national style. Its casting began in the Xia, and reached its peak in Shang and Zhou dynasties, and it developed in Qin and Han dynasties. Bronze ware is widely used, including sacrificial vessels, drinking vessels and stone vessels. During this period, the bronze craft reached its peak, and the design of bronze lamps and lanterns also entered a prosperous stage. The wide application of bronze lamps in Qin and Han Dynasties shows that it has made great achievements in function, shape, decoration and manufacturing technology. Bronze lamps have the following practical functions: (1) Scale. In the Qin and Han Dynasties, palace buildings and noble houses were generally large in appearance because of the pursuit of grandeur, so the indoor space was very empty, and people in this period still kept the custom of sitting on the floor. In order to give full play to the illuminating function of lamps and lanterns, the scale of bronze lamps and lanterns is generally small to suit the visual space of people. According to the mode of use, it can be divided into floor lamps, stand lamps, portable lamps, pendant lamps, lanterns and other styles. Floor lamp refers to a branch-connecting lamp, and its height is roughly equal to that of people kneeling on the ground, which meets the needs of local illumination. Stand lamp is the most common type of bronze lamps, which is usually placed on low/short furniture or on the ground. Therefore, stand lamps were made into bean-shaped lamp, ear cup-shaped lamp, animal-shaped lamp and figure-shaped lamp with complex shape and luxurious decoration due to their abundant shapes. Portable lamps are used for lighting at night and can also be placed. It is characterized by small size, short size and light weight, which accords with the function of portability. The chain is designed on the pendant lamp to ensure that the lamp can be hung and moved, which is not only convenient to use, but also adds a lot of life interest. (2) Cleanliness. The structural design of lamps and lanterns is very important. In the design of bronze lamps and lanterns in Qin and Han Dynasties, attention was paid to the cut-down of materials, and they were characterized by easy processing, easy maintenance and easy carrying, simple and ingenious design, reasonable structure and beautiful appearance. This is closely related to the technological civilization and plastic arts in China at that time, which reflects the progress of science and technology and the fashion of aesthetics at that time. The lamp panel and the lamp body of bronze lamps in Qin and Han Dynasties adopted the conjoined structures, and the common connection methods include cast joint, tenon joint, and so on. In addition to the connection between the lamp panel and the lamp body, some large, complex and hollow lamps also adopt the form of split-casting and nesting assembly, so that it is easy to disassemble, wash and carry the lamp body. (3) New Technology. Most lamps and lanterns in Qin and Han dynasties were oil lamps, while they were also the earliest/longest-used lamps in China. The fuel is mainly animal fat, so it will produce smoke to pollute the indoor environment. To solve this problem, people installed a lampshade that can block wind and light and a smoke-guiding pipe that can eliminate smoke and dust for the lamp at that time. This also shows that China took the lead in investing and using lampshades in the world, and meanwhile solving pollution of lamp smoke. For example, a siphon lamp is equipped with a smoke guide pipe, and its limbs and body cavity are hollow for storing clean water. Another example, geese-fish lamp, a lamp in Han Dynasty, was unearthed in Dianta Village, Shenmu County, Shaanxi Province in 1985. It has a height of 54 cm, a length of 33 cm, a width of 17 cm, a wall thickness of 0.1-0.2 cm and a weight of 4.25 kg. It consists of four parts: the head and upper neck of goose-fish shape, the lower neck connected with the body, two copper tiles, and a lamp panel with curved-handle round feet. It has an exquisite and unique shape, and it can stand firm only when the goose-fish looks back, which complies with the principle of mechanics.

The two copper tiles can be freely rotated to adjust the lighting and wind protection at will. The goose's belly is filled with clear water, and the lamp smoke is dissolved into the water from the fish's belly through the goose's neck, which can reduce the pollution of smoke to the environment. The lamp body is mainly painted with red and white paint. Image-shaped lamps skillfully made use of organic parts such as human arms, horns, etc. as smoke-guiding pipes. Users can also adjust the opening and closing direction and opening degree of the screen plate arbitrarily according to the wind direction and requirements, so as to achieve the purpose of wind blocking and dimming. The Changxin Palace Lamp unearthed from the tombs of Liusheng (King of Zhongshan) and his wife Dou Wan in the Western Han Dynasty in Mancheng, Hebei Province is such an example.

Some lampshades even have some hollowed-out holes to dissipate heat. Wind-blocking and dimming,

smoke-eliminating and fog-eliminating are the most advanced inventions in the Qin and Han Dynasties. Appropriate scale, cleaning convenience, use of new technologies and other humanized designs all reflect the “people-oriented” design thought and its powerful practical function in Qin and Han Dynasties. The appropriate scale, cleaning convenience satisfy the practical functions of people. Designs of different types of lamps based on different environments, reasonable structure and easy disassembly and maintenance all showed the wisdom of craftsmen at that time. The development and utilization of new technologies have eliminated the pollution of smoke & dust and protected the indoor environment. All these reflect the green design in modern designs, which indicates that people at that time had begun to have the environmental protection awareness as what we now call.

6. Conclusion

The modeling design of bronze lamps in Han Dynasty is closely associated with religious culture. The cultural identity of the Han Dynasty is a harmonious unification of Confucian ethical code and Taoist life spirit, and its aesthetic features are manifested as heroic and powerful image creation, so as to express the modeling thinking and figurative forms as what we know and feel. Through the technique of sculpture, conception was transformed into pictures and attention was paid to manifesting the essential characteristics of things and religious culture. This surreal subjective treatment skill, on the one hand, reflects people’s strong idea of becoming immortals in the Han Dynasty, and on the other hand, it also shows that artists attach importance to the manifestation of artistic conception and the expression of subjective feelings of their works, rather than just stop at the truthful description of reality.

With the help of the principle of arts and crafts, the posture characteristics and arts and crafts attributes of bronze lamps and lanterns in Han Dynasty were deeply explored, and the regeneration design of bronze lamps and lanterns in Han Dynasty was examined from a new perspective. Based on the profound accumulation of traditional culture and in combination with modern cultural characteristics, the creative elements were deconstructed and reconstructed artistically to promote the cultural implication missed in the design of modern lamps and lanterns. From the selection of cultural artifacts at the very beginning to the embodiment of arts and crafts in the final products, the artistic expression of bronze wares in Han Dynasty was deeply studied by using the attributes of arts and crafts, so as to reproduce their own artistic features in modern products. This will be in favor of designing cultural and creative products that not only conform to the spirit of the new era, but also highlight the cultural connotation (XIAO, 2016).

To stand tall in the world, China must have its own characteristics for the artistic designs. The Chinese civilization is profound and long-lasting. The scientific integration of the design concept full of Chinese cultural connotation into modern designs can make the designs have the characteristics of oriental culture, and be innovative and scientific at the same time. Designers should attach importance to the advanced creative ideas of local traditions and apply them to modern designs.

The bearing or inheritance of culture and the respect for nature and people shall be taken into consideration in the modern designs. We should think more deeply about how to apply the cultural connotation and the harmony between people and nature into practice, and clarify the purpose of designs. We must understand the essence of design so as to create a better design. Modern products meet the use functions of people in an all-round manner, but this is not the only pursuit. Attention shall also be paid to the needs of aesthetic psychology developed and accumulated by long-term national traditions and habits. Therefore, the artistic design of modern products must seek its own language from traditional culture, and in the design of daily products, the cultural implication can be embodied like the artistic design of bronze wares in Han Dynasty. This is the goal for which the design shall strive.

References

- GAO Feng, SUN Jianjun. Brief History of Chinese Lamps and Lanterns. Beijing: *Beijing Arts & Crafts Publishing House*. 1997.
- LU Yongxiang. Complete Works of Traditional Chinese Arts and Crafts. Zhengzhou: *Elephant Press*. 2007.
- SHANG Gang. Heavenly Creations: Ancient Arts and Crafts. SDX Joint Publishing Company. 2007.
- XIAO Wei, SUN Zhiyi. Appreciation of Ancient Chinese Artworks. *Hefei University of Technology Publishing House*. 2016.