

Study on Designing Culture of the Cyan Glazed Bottom-Water-Filling Teapot Made in Yaozhou Kiln

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Abstract—Among Yaozhou kiln of Song Dynasty, celadon bears peculiar style and exquisite craftsmanship, and it established its own series. North Song Dynasty has not only scientific designation and developed firing technique, but also adapted decorating skills and various adorning patterns plus rich cultural connotation. It can be categorized as top notch artistic work observing from no matter its shape or artistic and scientific aspect, which represents the supreme craftsmanship of celadon manufacturing in Yaozhou within the clay pot there. Studying the designing culture of this bottom-water-filling teapot can reveal the scientific achievement, artistic accomplishments and cultural background of Yaozhou kiln in Song Dynasty, and also offer a reference for the creation of Yaozhou china.

Keywords—Yaozhou kiln; bottom-water-filling teapot; craftsmanship; culture

I. INTRODUCTION

The specific manufacturing time of the bottom-water-filling celadon teapot, which was excavated in Bin County of Shanxi Province in 1968, is still disputed among this industry. Some experts believe that it was made in the Five Dynasties and others hold the time should be North Song Dynasty. For main discussion of these statements, researchers can consult Investigation on Origin of Bottom-Water-Filling Teapot [1] written by Du Wen. The author examines from the glazing color, material earth used, artistic style and its cultural appearance, it is supposedly a fine art from Yaozhou kiln in the North Song Dynasty.

Yaozhou kiln was first used during Tang Dynasty to make black, grey green and white porcelain. It was called Huangbao clay pot until Song Dynasty. Huangbao town located 20 km southeast to Tongchuan city of Shanxi Province is the center of the clay pot and 5 km around the middle point are the area of the kiln including Chenlu Town, Lidi Hill, Shangdian, Yuhuagong and several other kiln spots [2]. In ancient times, Tongzhou City was named Tongguan and belonged to Yaozhou, thus it is referred as Yaozhou kiln afterwards. Celadon making art of Yaozhou kiln manufacturing in Song Dynasty reached its peak at that time and the most outstanding among which should be carved and stamped patterned celadon. The glazing color appears as olive green that resembles the combination of cyan green with yellow brown, meanwhile the glaze looks as limpid and transparent as clear water and bears the quality like that is much similar with glasses. The glazed

earth is fine and smooth; its color appears grey and white. The line of engraved patterns looks sharp and free, and the design of these pictures is full and the density is natural, hence renders the image a vigorous characteristic and filled with sense of cadence and rhythm.

The cyan glazed bottom-water-filling teapot made in Yaozhou kiln in Song Dynasty is presently being preserved in the Historical Museum of Shanxi Province “Fig. 1”. Its height is 18.3cm, inner diameter of its bulgiest part is 14.3cm, and bottom diameter is 7.5cm. The integral shape of the teapot appears in a sphere which resembles the form of a persimmon. The hoop handle of the teapot constructs a semicircle, which is similar with a flying phoenix that spreads its wings. The lid is a fictitious one because it could never open, while it has the appearance of a double deck base of a persimmon. Spout of the teapot imitates the exterior of a pair of mother and son lion, the lioness, which is made through circular engraving, opens its mouth widely so the water could flow out from. Meanwhile, the cub is sucking its mother for milk with its back facing the front. This form of action consists its structure looks vivid and life-like. Densely arranged mastoid patterns are decorated around the shoulder, and at the center of the bottom there is a plum flower shaped spout from which fluid can be injected into the pot while not a single drop would shed when placing upright. Since the pot is designed without a mouth or lid, it has to be inverted when being used, plus the wine should be poured through plum formed spout at the bottom. On account of this reason, the pot is named as “Inverted Injecting Pot” or “Inverted Flowing Pot”.



Fig. 1. Celadon Glazed Bottom-Water-Filling Teapot Made in Yaozhou Kiln in Song Dynasty

II. THE DESIGNING PHILOSOPHY OF BOTTOM-WATER-FILLING TEAPOT

Water can be trickled into the bottom-water-filling teapot from the mouth in the center of the bottom. Placing upside down, wine is poured into the teapot, while placing normally, not a drip of water could be leaked. This is because two tubes are designed inside the pot, among which one is an injecting mouth tube that connects the mouth at the bottom, and the other is a flowing mouth tube that prolongs downside from the pouring mouth at the pot spout “Fig. 2”. This exact structure applies the physics theory of “liquid level equals in communicating vessels” and thus constructs such ingenious designing conception. When the pot is placed upside down, if wine or water trickles from spout of the pot while the wine or water is injected through the bottom, it means the pot is full. It is because that level of the liquid is determined by length of the flowing mouth tube (on the left side in the picture). For another situation, place the pot upright. If the liquid level is under those of the flowing mouth tube and the injecting mouth tube, the fluid would not outflow. As in the case of Song Dynasty bottom-water-filling teapot made in Yaozhou kiln, plum shaped mouth at the bottom is linked with injecting mouth tube, with separates the infusing channel with liquid inside the pot. So the wine is poured from the pot, it flows from the flowing mouth tube [4].



Fig. 2. Two Tubes inside Bottom-water-filling Pot

III. FIRING CRAFTSMANSHIP OF BOTTOM-WATER-FILLING TEAPOT MADE IN YAOZHOU KILN

Manufacturing and preparation for semi finished material and elutriating technique for porcelain clay are rather developed in the case of Yaozhou kiln of Song. Iron particles in the material are removed to large extent thus the raw earth has strong deformation resistance and deform-ability, which makes them extremely suitable for artistic embellishment process by patter carving skill with knife for porcelain made in Yaozhou kiln. Porcelain without glazing shows light gray and white color that represents superior quality of the material, and the texture is tough and compact. While a further development for porcelain vehicle which is a tool to make pottery has been made. The reel on the pottery wheel has changed from the original wooden ones into stone, and iron bearing has added to the base of the reel in order to rotate easier and to prolong its spinning period of time, this alternation is beneficial for artisans to make regular shape of ware. Color blending of cyan glazing is reasonable and its fusibility is relatively better and more balanced. It is glittering and translucent, and the phenomenon of sagging, piling and clotting is rarely the case. The main body of cyan glazed bottom-water-filling teapot made in Yaozhou kiln in Song Dynasty is tough with gray and white overall texture and exquisite decoration and patterns, plus olive green glazing that is glossing. Besides, it has mellow exterior structure and subtle designation which reveals the superior artistic achievement. And all these are the result of developed pottery making artistry in that era.

Song Dynasty bottom-water-filling celadon teapot Yaozhou kiln has no spout or lid, the interior structure is complex and exquisite. The craftsmanship of complete molding follows steps below: the first step is making the main body of the pot. Then flowing spout tube and injecting spout tube is manufactured. And for the next, flowing tube is affixed to inward of the pot bottom “Fig. 3”. The end of injecting tube is the spout of the pot, so the manufacturer uses the injecting tube to seal the pot up “Fig. 4”. At last, the shape of a lion spout and phoenix hoop handle are molded and plastered to their corresponding position. The complicated molding and structuring workmanship of bottom-water-filling pot requires consummate skills and rich experience of the workman. Otherwise, merely a bit difference would cause the tube be blocked or injecting water or pouring water inside could not flow out of the pot.



Fig. 3. Affixing Flowing Tube



Fig. 4. Affixing Injecting Tube

Yaozhou kiln in Song Dynasty used coal as the fuel for molding the porcelain. Furnace of the kiln consists of parts of combustor, fire path, furnace bottom and flue. The bottom of the furnace is in U shape which is usually referred as horse hoof shape so it is also called horse hoof kiln pronounced as “Matiyao” in Chinese language. Flame of coal is shorter than that of firewood. And during Song Dynasty, the development of science and technology is not as it is nowadays. Thus manipulating fire in the kiln depends on worker’s experience completely, this is hardly easy to control the restoring atmosphere of the flame inside U shaped bottom kiln. Raw material used to make Yaozhou kiln molding bottom-water-filling pot in Song Dynasty is crucible earth containing high volume of aluminum and iron. The earth is heated till the temperature rises above 1300 Celsius. After a long period of time grilling, the extent of ceramic changing of the earth would become higher and its texture gets tougher and compacter. The glaze would be fully melted and degree of glassing is much higher, the exterior glazing looks glittering and glossy.

IV. DECORATING TECHNIQUES OF BOTTOM-WATER-FILLING TEAPOT MADE IN YAOZHOU KILN

The Song Dynasty bottom-water-filling celadon teapot Yaozhou kiln is shaped up, then it need being decorated. The main decoration methods include carved designs, engraved designs, kneading model, embossed decoration and so on. The peony pattern and lotus pattern in the abdomen of teapot are finished by the carved design technology, and using knife is flexible, the nick is powerful and trenchant with the sense of power and rhythm. The specific process of carved design is that: Firstly using straight knife profoundly carves contour line, and then profoundly carves the outskirts of the contour line; Secondly using inclined knife carves off a layer of the surface of carcass, and makes the pattern convex in the green body with third-dimension and relief effect. The technology of carving a layer of tread is called cutting decoration. The projecting peony pattern in the bottom- water-filling is lined out the stripe by using the technology of engraved designs, and then uses the abundant leaf vein and petal to improve the decorative effect. The elastic sharp tool is used in the technology of engraved designs, and carves some lines or stripes in the surface of semi-finished body ,which is always the auxiliary technique of carve the rough sketch of flowers and leaf veins. The stripes on the fake lid of double-deck kaki

calyx teapot are always designed by the means of engraved designs. The technology of kneading model is that making use of the plasticity of pug moulds the shape of vessel by hand. It exists all the time since the pottery is produced, and is one of the most ancient ceramic forming techniques. The spout of lion shape and the handle of phoenix shape in the bottom-water-filling teapot are fabricated by using the method of kneading model, and then the details in the lion and phoenix are depicted with the help of simple tools. The technique of embossed decoration named “Plastics sticking”, “Relief decoration”, “Paste and paste decoration”, is that: the molded three-dimensional emblazonry is attached on the ceramic semi-finished body, with the result of shaping the effect of emboss. The mastoid pattern on the shoulders and handle of bottom-water-filling, and the double-deck kaki calyx on the fake lid are fabricated by using the technique of embossed decoration.

The main decorative patterns of Song Dynasty bottom-water-filling celadon teapot Yaozhou kiln is peony, lotus, lion and phoenix. The image of decoration not only has a vivid model, smooth lines, and full composition of a picture and is magnificent and elegant, but also has much higher artistic values and contains deep cultural connotation. The peony is the symbol of thrive and prosperity, wealth and luck in the Chinese culture. The peony pattern as a decorative design is widely use in embroidery, costume, furniture, building and other practical art ware. The peony on the bottom-water-filling teapot is wealthy and elegant, which embodies people the pursuit of happy and good life. The lotus is always regarded as the gentleman of the flowers, which is use as the symbol of the characteristic of nobility and the official honest and clean cultivations; lotus is also called “he”, homophonic to “和

(he) ”, so the lotus pattern is regarded as the metaphor of that peace reigns over the land; Lotus is hallowed as the sacred and clean flowers by the Buddhism, so it contains the spirit of innocence and holiness; The lotus pattern on the bottom-water-filling teapot is dignified and elegant, and becomes the embodiment of holy, harmony and lofty humanistic spirits. Lion is an auspicious beast used to exorcise the evil spirits in China, on the behalf of prosperity and thriving descendants. On the both side of sacred way in ancient tomb and on the gate of palace and mansion, there are the stone lions served as the roles of guarders or tomb guardian beasts; the image of the mother and son lion in the bottom-water-filling teapot is vivid and expresses the harmony between mother and son, and it also stands for the prosperity of descendants. The phoenix is an imaginary guardian angel in the primitive society, and its head looks like golden pheasant, body like mandarin duck, leg like crane, and tail like peacock, which is the top of birds, an auspicious beast in the eye of human beings, and is also on the behalf of that peace reigns over the land. Phoenix is the symbol of imperial power and authority in ancient China, used for queen and concubines. The form of phoenix in the bottom-water-filling teapot is abstracted, concise and vivid. It raises the head and lifts its body, ready for flying, which is full of power and momentum of despising all things. In Chinese traditional culture, peony is the king of the flower, lion is the king of all beasts and phoenix is the king of the bird. “Three kings” is jointly decorated in one vessel, showing that the bottom-water-filling teapot is extraordinary; History of the Song Dynasty. Records of Geography write the Yaozhou

porcelain is regarded as a royal tribute. Based on the record, we can deduce that the bottom-water-filling teapot could be the royal tribute to the Song Dynasty. The teapot has no equal in this world with fine earth texture, glamorous glaze, grave modeling and unparalleled strip decoration.

V. CULTURAL ORIGINS OF BOTTOM-WATER-FILLING TEAPOT OF YAOZHOU KILN

Yaozhou kiln is a kiln factory influenced by Buddhist culture. The site of Yaozhou kiln is dispersed among the Tong Chuan city in Shan Xi province. So far, hundreds of Buddhist steles built from the Northern Wei dynasty to Tang dynasty in the Tong Chuan city, and there are over twenty stone carved temples and bas-reliefs on precipices preserved intact., some pagodas remained, and the Southern Temple existed in Huang Bao kiln. The relics and remains left over by history about Buddhist cultures demonstrate that Buddhism was widely spread in Tong Chuan and it has a great influence on porcelain about Buddhism sintered by craftsmen in Yaozhou kiln. As early as the Northern Wei period, Buddhism had been spread in Tong Chuan, and it still had a huge impact in the Song dynasty. Specially, the Southern Temple located in Huang Bao kiln (one kiln factory of Yaozhou kiln) is an important place which was used to promote Buddhist culture, and lays a foundation for the creation that craftsmen produced the porcelain containing Buddhist cultural connotations. Lotus flower is respected as sacred and clean flower by Buddhism, and the lion is Manjusri's mount. The lotus pattern and the image of lioness in the Bottom-Water-Filling Teapot are influenced by the vignette and the statue tablet in the Buddhist culture from the Northern Wei dynasty to Tang dynasty, which contains strong characteristics of Buddhism.

The Neo-Confucianism in Song dynasty occupies the dominant position in the field of thought, which is ideological system integrated with Buddhism, Confucianism and Taoism. It was called "Taoism" in Song dynasty. The Neo-Confucianism emphasizes heavenly principles and denies human desires. Under this kind of atmosphere, the aesthetic culture, rigorous and implicit, stoic and naive, graceful and elegant, appeared in the Song dynasty, and this culture directly affects the artistic style of the Yaozhou porcelain. Unlike the restraining and implicit jade senses pursuit in the Ru kiln, Guan kiln, Longquan kiln and other famous kilns, the glazing color in Bottom-Water-Filling Teapot keeps limpid and transparent, displaying its stoic artistic style. Its model is rigorous and steady, and manifests the dignified artistic feeling; its principle of work and power is scientific and practical, according with rational spirits in the Song dynasty.

In the Song dynasty, commodity economy is developed and civic culture is greatly thriving, which bring up the artistic prosperity. Landscape painting, flower-and-bird painting, and figure painting make a great progress compared to the previous generation, and genre painting gets unprecedented prosperity. Secularization is an important characteristic in the Song dynasty's spiritual culture, and even in the literati-official class, the quietly elegant culture has the character of secularization. The art of painting and aesthetic taste of secularization have affected the style of Yaozhou porcelain. The plump and

substantial decorative pattern in Bottom-Water-Filling Teapot has a proportion of balance and symmetry, and the layout suits the shape of vessel, rigorous and harmony. Compared with other kiln mouth with simple strips, the Yaozhou porcelain is distinctive with free and plain verve. It was well accepted by the popularity. Yaozhou porcelain in the Song Dynasty both represents reserved esthetic and extravert beauty with graceful and restrained temperament and elegant characteristic. Though the features are contradictive, they are fully embodied on the teapot. The glaze and modeling of the teapot are reserved and restrained, but the strip decoration are extravert and graceful, which symbolizes a style of "rationalism tranquility", i.e. a low-profile elegance with combined beauty accepted by the scholar of letters and other common people.

Yaozhou kiln is located in the northern mountainous area in the Guanzhong region of Shan Xi province, where the coal and porcelain clay are rich. And it also provides favorable conditions for porcelain making. But the location is remote and transportation is inconvenient, and it is in the forefront of fighting between the Southern Song dynasty and the Western Xia regime. So the craftsman in Yaozhou kilns fused the pursuit of settled life and beautiful things into the production of the porcelain. Both in the elaborate high-grade porcelain or in the ordinary daily-life porcelain, there are richly plump decorative patterns symbolized lucky. The lotus pattern, peony pattern, lions and phoenix in the Bottom-Water-Filling Teapot embody people in the pursuit of wealth and well-being, the harmony and happy life. And these patterns are the perfect combination of energetic folk art and refined tastes of rational literati.

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