

# Lin'an Tianmu Kiln and the Tianmu Porcelain

Bofan Zhang

Nanjing Foreign Language School, Xianlin Campus  
 Corresponding author: Email: 3166631148@qq.com

## ABSTRACT

As black-glazed porcelain, apart from celadon, was also found in Tianmu kiln in Lin'an city, Zhejiang province. Its relationship with Tianmu porcelain has always been one of the focuses in the academic circle. This paper first introduces the porcelain-making history of Zhejiang, then introduces the origin of Tianmu porcelain, and summarizes the research status of Lin'an Tianmu kiln according to the findings of archaeological excavations, and ends up with discussions about the relationship between Lin'an Tianmu kiln and Tianmu porcelain.

**Keywords:** Tianmu kiln, black-glazed porcelain, the Tianmu porcelain.

## 1. THE PORCELAIN-MAKING HISTORY OF ZHEJIANG

Porcelain in Zhejiang has won fame both at home and abroad for its early origin, superb workmanship, and outstanding characteristics. Chen Wanli, a noted ceramic expert in China, once said that "Half of the Chinese ceramic history grows out of Zhejiang".

Chinese earliest proto-porcelain first appeared in Zhejiang. Proto-porcelain is an early form of porcelain that is made by porcelain clay as a raw material, applying thin glaze, and firing at high temperature, with its the production center located in the Dongtiaoxi basin. The existing research shows that the kiln area of the Dongtiaoxi basin, centered with Deqing, Zhejiang during the period of the Shang and Zhou Dynasties, outshines others in terms of production history, kiln scale, product variety, product quality, and the like, occupies a very important position in the Chinese ceramic history, reaches the first peak in the Chinese porcelain-making history, and is also one of origins of Chinese porcelain. After the excavation of the proto-porcelain kilns in Deqing, people were shocked at their long history, exquisite craftsmanship, and great varieties. It is safe to say that proto-porcelain in Deqing, Zhejiang deserves to be called the first development peak in the Chinese porcelain-making history, and has irreplaceable academic value for exploring the origin and early development of Chinese porcelain. [1]

In the late Eastern Han Dynasty, Shangyu (Xiaoxiantan kiln), Zhejiang was the first to successfully fire green-glazed porcelain, and set a precedent in the development of celadon in Yue Kiln. In the Three Kingdoms period, porcelain basically inherited shapes and decorations from that in the Han Dynasty, and took shapes, structures, and ornamentations much from pottery, bronze, and lacquerware. Supposedly, the firing of proto-porcelain in Zhejiang should lay a good foundation for the advent of Yue kiln in the Eastern Han Dynasty. [2]

In the Song Dynasty, the porcelain-making industry rapidly came in full flourish, and porcelain kilns scattered here and there. [3] Among them, there are five famous kilns, that is, Southern Song Guan kiln, Ge kiln, Ding kiln, Jun kiln, and Ru kiln, and there are also Yaozhou kiln and Cizhou kiln, to name but a few. The prosperity of the porcelain-making industry in this dynasty is also attributed to the social conditions at that time. As it was subjected to domestic turmoil and foreign aggression, coupled with empty coffers, the Song Dynasty could not afford a luxurious life of the previous dynasty at all, while metal resources such as copper and iron had to be used for war and economy and therefore became scarce. In this case, the royal family made great efforts to develop ceramics to substitute for metal ware, thereby meeting daily needs, which not only reduced the financial expenditure, but, more importantly, saved metal resources. Secondly, porcelain could also be traded, creating a lot of wealth for the Song Dynasty, which is proven by the Song porcelain excavated all over the world. In addition, people at that time were not content with the practicality of porcelain, and went further in the

pursuit of its ornamental value, so that the whole country set off a frenzy of porcelain. Later, under the requirement of the Court, i.e., “white porcelain in

Dingzhou has a defect in its mouth, and is unbearable in use, so Ruzhou was ordered to make celadon”, celadon experienced a great renaissance. In the Song Dynasty, high-end porcelain was characterized by excellent porcelain-making skills, perfect workmanship, and extremely high cost; the porcelain tribute made in various regions was supervised and detected by officials sent by the Court; the process was so rigorous as to not only ensure high quality, but meet the royal family’s

requirements in the model and style. This requires craftsmen to keep improving and trying, and enhancing their porcelain-making skills. This is also one of reasons why the Song Dynasty porcelain wins international acclaim. Especially in the Southern Song Dynasty, the Southern Song Court set up Xiuneisi (Department for Repairing the Interior, a government office in charge of repairing palaces and the imperial ancestral temple) and Jiaotan Xiaguanyao (Official Kiln Under Rural Altar, a government-run porcelain kiln), firing more distinctive celadon. Not only were official kilns developed vigorously, but also folk kilns such as Longquan kiln and Lin’an kiln also sprang

up all over the country. The type of porcelain was not limited to celadon, other kinds such as greenish white porcelain and black-glazed porcelain were also fired.

In addition to celadon, Zhejiang is also rich in black porcelain, which dates back to the Shang Dynasty. Though it deals with a very ancient and mastered skill, people tend to forget its existence in the big family of ancient Chinese porcelain. When describing the characteristics of Chinese porcelain, people often mention green (porcelain) in the south (China) and white (porcelain) in the north (China). It is not difficult to find that, in many cases, black porcelain is ignored by people. The Shang and Zhou dynasties saw the rollout of black porcelain. In the Eastern Han Dynasty, black porcelain fired in the Shangyu kiln in Zhejiang was featured with thick and uniform glaze. In the Eastern Jin Dynasty, black porcelain made in the Deqing kiln, with a layer of glaze as thick as fat and in a color as black as pitch, had a fine texture. Since black porcelain, along with celadon and white porcelain, is an important part of the porcelain family, but is often ignored, it is the top priority in the research of this paper. [4] [5]

## **2. TIANMU KILN AND TIANMU PORCELAIN**

Tianmu kiln in Lin’an city of Zhejiang province is one of folk kilns in Zhejiang, mainly firing celadon and black-glazed porcelain. In the 1980s, when archaeologists in Hangzhou carried out a general survey of cultural relics,

they accidentally found porcelain specimens of the Song and Yuan Dynasties in the Tianmu Mountain area of Lin’an, which confirms the existence of ancient kilns in

this area. Tianmu kiln sites are mainly distributed in a region equal to 6 square kilometers in the western mountain area of Lin’an, which region originally belonged

to Linkou Township, Shaolu Township, and Xitianmu Township, is now in the territory of Qianzhen Township, and specifically is named as the Shijiekou (urban street), Yaochangbian (kiln edge), Aogangshuiku (boiling-dry reservoir), etc.

According to the current preliminary investigation, Tianmu kiln began in the Northern Song Dynasty, flourished in the Southern Song Dynasty, and declined in the early Yuan Dynasty. Why it came into the world in this historical period depends on the historical background at that time. During the Five Dynasties period, a state named Wuyue, located in the area that is Zhejiang now, had a strong national strength and implemented policies to protect its land and people. Wuyue created an economic boom, bred a large number of talents and scholars, and enjoyed an unprecedented prosperity in literature and art. This is the foundation of the development of the Tianmu kiln. After the unification of the Northern Song Dynasty, the state of Wuyue originally rivaled the Northern Song regime. However, to avoid the loss of life and property, the state of Wuyue “yielded to the Song”. It is a

great attempt in the Chinese history and a shining example of the peaceful reunification of the Chinese nation. During the Southern Song Dynasty period, as Hangzhou was the political, cultural, and economic center, the production in Tianmu kiln reached its peak. During the Song and Yuan Dynasties period, several natural and military disasters caused a sharp decline in population and serious economic losses, economic production was greatly weakened, and Tianmu kiln also faded away.

In Japan, there is a collection of national treasures, that is, black-glazed porcelain articles, also known as “Yaobiantianmu”. As for their origin, there are different theories in the academic circle. At present, their origin still lacks direct and clear evidence. Some speculate that they were produced in Jian kiln, while others presume that they were made in Jizhou kiln, and different views are numerous. Among them, the relationship between “Tianmu porcelain” and Tianmu

kiln always solicits ideas. It is recorded that Japanese monks brought this kind of porcelain from Tianmu Mountain in Zhejiang to Japan during the Kamakura Period (1192-1333), and named it Tianmu porcelain.

This is relevant to the prevalence of Buddhism in southern China from the Southern Dynasties to the Tang, Song, and Five Dynasties. [6] The relationship between

the religion and the Chinese ceramic culture is really inseparable, and in particular, the introduction of Buddhism exerts a profound influence on the life of ancient Chinese people. After Buddhism was introduced into China, missionaries conducted a lot of propaganda about the core ideas and ideologies of Buddhism. To ensure the wide range, speed, and efficiency of the propagation, the missionaries laid their eyes on porcelain, since porcelain served as daily necessities of ancient Chinese people. At that time, people in the society were obsessed with Buddhism and had a taste for tea. On this basis, people derived tea contests. Buddhist monks also hoped to improve their Buddhist dharma by means of the practice of tea ceremony. Under the circumstances, Zen and tea were closely combined with each other. People hoped to judge the quality of tea by virtue of tea appreciation. In the Song Dynasty, people of all classes, regardless of their status, enjoyed tea fighting. Similar to many ball games nowadays, tea fight was popular in the Song Dynasty. People judged the quality of tea by observing whether the tea soup was bright and white. However, this also gave rise to a problem. Since celadon and white porcelain largely were too light in color, people could not clearly observe the color of tea soup. Subsequently, black porcelain perfectly solved this problem. To meet the public needs, black porcelain had an irreplaceable position. From the royal family to common people, almost everyone needed porcelain to meet their daily needs. What's more, these

porcelain articles were fragile and needed to be replaced quickly. Accordingly, domestic demand for porcelain also increased. To make more people understand and accept Buddhist thought, Buddhists asked craftsmen to print some patterns with Buddhist characteristics, such as Buddha statues, on porcelain directly. This is also the reason why Japanese monks found "Tianmu porcelain", vessels related to Buddhism, in Chinese Buddhist temples and brought them to Japan.

In addition to its cultural attainments, Chinese porcelain frequents in foreign trade. Just like in ancient China, people in foreign countries also needed porcelain in their daily life. Moreover, porcelain products are not only very practical, but also exquisite in shape, complex in structure, and gorgeous in design, and therefore loved by foreigners so deeply that they were willing to spend heavily on porcelain from China. According to research, in the Tang Dynasty, China exported a large number of porcelain products overseas. Although the porcelain trade was developed not so widely, just mainly in Asia, it still had a huge influence on the world. Afterwards, the opening of the "Maritime Silk Road" deepened China's trade with other countries, broadened the scope of trade, extended all the way to Africa, and made great contributions to diplomacy. It can be confirmed that the porcelain trade abounded on this trade route. Tianmu

porcelain, the top porcelain, was most likely circulated abroad as a trade commodity, which also needs to be explored by the academic circle. [7]

To sum up, so far, we have not been able to confirm the origin of Tianmu porcelain that appears in Japan. However, there is another way to think about its origin, which does not necessarily start from an object itself. Instead, the known origins can be utilized to verify whether the object was produced there, thus it is necessary to focus on the Tianmu porcelain kiln site in Lin'an, Zhejiang.

### **3. THE RESEARCH HISTORY OF TIANMU KILN SITE**

In China, many scholars have studied and published their investigations and reflections on the Tianmu porcelain kiln site. This paper will introduce China's

exploration on the Tianmu kiln site from the perspectives of literature, archaeology, science and technology. Throughout the current research status of Tianmu porcelain in China, it is not difficult to find that there are only a few historical documents about the Tianmu kiln site. In spite of this, many excellent scholars in China have made unremitting efforts to carry out a lot of archaeological investigations as well as their research, and yielded a series of scientific research achievements, such as "High Resolution Electron Microscopy Study on

Imitation Southern Song Dynasty Yohen Temmoku Glaze" [8] and "Scientific Inquiry into Black-glazed Porcelain from the Tianmu Kiln in Lin'an, Zhejiang". [9] [10]

Moreover, the research spanned a long period of time, from the 1980s to a decade before the 21st century. While the archaeological fieldwork for the temmoku kiln has never been stopped, the archaeological excavations also began in earnest last year. Replenishment, exploration, and perfection are still under way. To restore Tianmu porcelain at that time, researchers have also tried copying cultural relics and repeating the casting process, in hope of finding out how ancient people accomplished such human artistic treasures, just as the scholars such as Huang Ruifu did. These scholars referred to a Yohen Temmoku calyx exhibited in Japan, tried many imitation glaze materials that are originated from Jingdezhen, and finally determined the appropriate glaze type and imitation process. In the process of imitation, they also faced a great test in determining the sintering temperature, and accomplished the imitation through one experiment after another. Of course, with the development of science and technology, people have more advanced measurement means and new exploration methods. Nowadays, scholars do not limit their research to the Tianmu porcelain treasures per se, further have conducted geological investigations on the kiln site where Tianmu porcelain was cast, and attempt to carry out interdisciplinary and multi-faceted

research. Additionally, as time goes by, the elders gradually perfected the typological analysis of various kinds of vessels. For example, in "Brief Report of

Archaeological Investigation into Lin'an Tianmu Kiln in Hangzhou City in 2003", [11] Hangzhou Institute of Cultural Relics has expressly categorized each specimen of the excavated cultural relics according to such types as calyx, basin, pot, washer, case among others.

Therefore, based on the efforts of predecessors, modern archaeologists can better study the precious heritage from ancestors and solve the historic mystery of the relationship between "Tianmu porcelain" and Tianmu kiln in the future.

#### 4. CONCLUSION

This paper briefly analyzed the process how kilns in Zhejiang developed through the history. In the past, there were not only green-glazed porcelains but also black-glazed porcelains produced in Zhejiang province. In addition, compared between Tianmu kiln and the Tianmu porcelain, the paper tried to find the relationship between them and utilized reversal thinking to provide a rational guess. In order to ascertain the relationships between them, it was necessary to recall the research history of Tianmu kiln site.

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