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Xiangsheng ceramics unearthed from the sites of the five dynasties and ten kingdoms and related issues

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Abstract

The Five Dynasties and Ten Kingdoms (AD 902 to 979) was a period of division that lasted for nearly 80 years after the extermination of the Tang Dynasty. With the deepening of archaeological work in recent years, 26 pieces of Xiangsheng ceramics were found in sites of the Nanhan, Qianshu, and Houshu kingdoms in Guangdong and Sichuan, all of which were in the shape of fruits. In this paper, these Xiangsheng ceramics are divided into three types, their different manufacturing techniques and origins are discussed, and their natures and uses are determined based on the literature.

Keywords Xiangsheng · Ceramics · Five dynasties and ten kingdoms period · Buddhism

The Five Dynasties and Ten Kingdoms (AD 902 to 979) was a period of division that lasted for nearly 80 years after the extermination of the Tang 唐 Dynasty. The Central Plains was controlled by the successive Five Dynasties regimes, while the south was mainly dominated by nine kingdoms: Wu 吴, Nantang 南唐, Wuyue 吴越, Qianshu 前蜀, Houshu 后蜀, Chu 楚, Nanhan 南汉, Jingnan 荆南, and Min闽. With the deepening of archaeological work in recent years, a considerable number of relics of this period have been identified and excavated. A large amount of ceramics have been unearthed, including a special kind of bionic ceramics called Xiangsheng 象生 in the literature, with "bionic" meaning that the ceramic forms imitate other objects or living things.

In 2003, 23 pieces of different fruit-shaped Xiangsheng ceramics were unearthed from the Kangling 康陵 mausoleum site of the Nanhan kingdom in Guangzhou 广 州 (Deling 2006). In 2012, another piece, a grape-shaped Xiangsheng, was unearthed from the Xianxianguan 先贤馆 site in Guangzhou (Guangzhou 2020). In 2014, three pieces of citrus-shaped Xiangsheng were found in pit H3 of the Xiatongren 下同仁 Road site in Chengdu 成都 (Xiatongren 2017). These Xiangsheng are different from the common bionic ceramics, such as figurines of the Tang and Song π dynasties. They are specially made to imitate plant forms,

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which is quite rare. Based on the systematic collection of materials, this paper aims to make a comprehensive discussion on the type, manufacturing techniques, origins, nature, and uses of the Xiangsheng ceramics found in the sites of the Five Dynasties and Ten Kingdoms period.

1 What is "Xiangsheng"?

As early as the Warring States Period, the word *xiangsheng* 象生appeared in the literary traditions, with it meaning to symbolize the state of being alive. Xunzi 荀子 uses this term when it records, "After death, the living bathed the dead, tied their hair, and put han 哈 in their mouths to imitate the condition of when they were alive" (Xun Kuang 1997). The Hou Han shu 后汉书 (History of the Later Han Dynasty), written in the Southern Dynasty 南朝, also uses this term when it records, "Inside the chamber were clothes, hats, tables, walking sticks and other things that the emperor would have used [in life]" (Fan Ye 1973). By the Song Dynasty, the word *xiangsheng* had evolved into two new meanings, one referring to Xue xiang sheng 学 像生, which was one of the Bai xi 百戏 (Hundred Plays) (Meng Yuanlao 2017), and the other referring to food or crafts in the shape of flowers and fruits. Wu Zimu 吴自 牧 (1957) recorded in his Meng Liang lu 梦粱录 that the "Xiangsheng 像生 flowers and fruits" were used as the prize of a gambling game, guan pu 关扑, in Hangzhou 杭州" (Wu Zimu 1957). "Xiangsheng flowers and fruits"

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Fig. 1 Xiangsheng ceramics unearthed from the sites of the Ten Kingdoms. Type A: (1) Grape shape. Type B: 2–4. Citrus shape, (2) Catalogue number H3:33; (3) H3:85; (4) H3:70. Type C: (5) Peach shape; (6) Arrowhead plant shape; (7) Water chestnut shape; (8) Per-

simmon shape; (9) Pineapple shape; (10) Banana shape; 11. Papaya shape. 1. from the Xianxianguan site (Guangzhou 2020); 2–4. from pit H3 of the Xiatongren Road (Xiatongren 2017); 5–11. from Kangling mausoleum of the Nanhan kingdom (Guangzhou 2020)

were also required at banquets hosted by officials or aristocrats, and there was even an institution called the *Guo zi ju* 果子局 that managed these items (Wu Zimu 1957). The Southern Song Dynasty 南宋 poet Yang Wanli's 杨万 里 poem also has a record of "Xiangsheng fruits" (Yang Wanli qing 1792).

Xiangsheng crafts were very common after the Yuan 元 and Ming 明 dynasties. The Yuan shi 元史 (History of the Yuan Dynasty) records that people use Xiangsheng flowers as a headdress or decoration on their hat or head (Song Lian 2018). There were also poems on the theme of praising Xiangsheng flowers ("yong xiang sheng hua 咏像生华") in the Ming 明 Dynasty (Feng Mengzhen Ming 1616). After the Qing 清 Dynasty, Xiangsheng became a special category of ceramic production. Zhu Yan (1984) mentions in the section on the Raozhou Kiln 饶州窑 in his book, Tao shuo 陶说, that some Xiangsheng ceramics were modeled after melons, fruits, and flowers. In the section titled "Yang Cai 洋彩," he writes, "If Yang Cai is properly used in crafts such as Xiangsheng, antique bronze, red sandalwood, carved bamboo, and mother of pearl inlay [luo dian 螺钿], they will have good artistic effects" (Zhu Yan 1984). Chen Liu 陈浏, who lived in the late Qing Dynasty, also mentions in his Tao Ya 匋雅 that Xiangsheng ceramics have a variety of shapes, including various characters, birds, and beasts (Chen Liu 2011).

2 Archaeological discoveries

The total of 26 pieces of Xiangsheng ceramics unearthed from the sites of the Five Dynasties and Ten Kingdoms mentioned above come from sites of the Nanhan kingdom in Guangzhou, Guangdong 广东 Province, and the Qianshu and Houshu kingdoms in Chengdu, Sichuan 四川 Province. Here, on the basis of their different manufacturing techniques, we can divide these Xiangsheng pieces into three types:

Type A: Porcelain, 1 piece (Fig. 1: 1). Unearthed from the Xianxianguan site in Guangzhou. Shaped as a green glazed bowl containing 8 round black-glazed grapes. The bowl was broken except for the bottom. 7.4 cm in bottom diameter, 11.3 cm in height.

Type B: Glazed pottery, 3 pieces (Fig. 1: 2–4). Unearthed from pit H3 of the Xiatongren Road site in Chengdu. All are in the shape of citrus; grey-white body, yellow glazed, locally painted brown or green. H3:33 is 7.4 cm in diameter, 11.3 cm in height. H3:85 is 5.4 cm in diameter, 5.2 cm in height. H3:50 is 7.4 cm in diameter, 11.3 cm in height.

Type C: Unglazed porcelain, 22 pieces (Fig. 1: 5–11). Unearthed from the Kangling mausoleum of the Nanhan kingdom in Guangzhou. The species depicted include banana (5 pieces), water chestnut (*Eleocharis tuberosa*) (1 piece), peach (3 pieces), pineapple (2 pieces), persimmon (2 pieces), arrowhead plant (*Sagittaria sagittifolia*) (3 pieces), and papaya (6 pieces). The surface of these porcelains were often engraved with patterns to show the characteristics of the fruit. Except for the banana, which is 8.2 cm long, the rest are under 5 cm in diameter.

3 Manufacturing techniques and speculation on origins

Type A is mature porcelain. In the process of production, it is necessary to first make porcelain clay from materials such as porcelain stone and kaolin by pulverizing, panning, and staling, and then shape it by kneading or molding. After drying, glaze slurry made from materials such as feldspar, quartz, or plant ash is applied to the porcelain body. Finally, it is fired in the kiln at a high temperature of 1130-1200 °C (Zhang Fukang 2000). Type B is glazed pottery. In the process of its production, clay is used to make the body, then a layer of engobe is applied on the surface of the ware which is then fired in the kiln into pottery. A glaze is then applied to the surface of the pottery, using minerals such as copper and iron as colorants and lead or oxides of lead as fluxes. Finally, it is put it into the kiln again at a low temperature of about 800 °C. Type C is described as not glazed on the surface, and so should be considered to be unglazed porcelain. However, by observing images, it seems that there is a residual yellow glaze on the peach, banana, and other Xiangsheng. Although the discoloration may have been caused by the burial environment, it is not ruled out that the surface of Type C Xiangsheng was glazed but the glaze layer has peeled off.

So far, no similar Xiangsheng ceramics have been found in kilns of the Ten Kingdoms period. However, archeological typological comparison shows that the glaze and body characteristics of the glazed pottery produced by the Qiong \Im kiln in Qionglai \Im k, Sichuan, is very similar to Type B (Fig. 2) (Qiongyao 2022). The Qiong kiln is also the only kiln known to have produced glazed pottery in the Qianshu and Houshu kingdom, which is likely to be the place of origin of Type B.

The prototypes upon which Type A and Type C were based are common fruits from the Lingnan 岭南 region. A batch of vegetable and fruit seeds, including peach pits and grape seeds, was unearthed at the Yuyuan 御苑 Imperial Garden site of the Nanhan (Fig. 3: 1–2) (Gongshu 2010). A kind of mill groove engraved with a water chestnut pattern was unearthed from the No. 3 kiln of Guizhou 桂州 in Guilin 桂林, Guangxi 广西 Province (Fig. 3: 3–4) (Guizhou 1994). The upper limit of the age of this kiln site is also about the same time as Nanhan. This evidence proves that



Fig. 2 Examples of glazed pottery produced by Qiong kiln. (1) loophandled cup; (2) lotus censer. 1–2. from Qiong kiln (Qiongyao 2022)

these fruits were widely eaten in the Nanhan and became the artistic prototypes for kiln workers to recreate.

No definite ceramic kilns of the Nanhan has been found to date, but a considerable number of likely locally-produced ceramics have been found amongst the relics in Nanhan sites, which proves that there should be local ceramic production in this period. The origin of Type A and Type C is probably the local kilns in Nanhan, and their body and glaze characteristics are very similar to the products of the kilns of the Pearl River Delta area of Guangdong Province that date to the later Tang Dynasty, such as the Guanchong 官冲 kiln in Xinhui 新会 (Shiwan 1978; Guanchong 1963, 2000), the Gaogangshan 高岗山 kiln in Gaoming 高明 (Foshan 2006), and the Heshan 鹤山 kiln in Heshan (Zhang and Li 1999). Hundreds of ceramic pots were unearthed at the Zhaoling 昭陵, Deling 德陵, and Kangling 康陵mausoleum sites of the Nanhan. Some of the pots still contained chicken bones, fish bones, and cockle shells. These pots should have been be specially made for burials. The kilns around the Pearl River Delta area were under the jurisdiction of Xingwangfu 兴王府 (the capital of the Nanhan), which was located near Guangzhou and had mature porcelain making conditions, so they were likely to have undertaken the task of making funerary articles for the mausoleums (Lu et al. 2011; Niu Pei 2018). Type C was probably made like these funerary pots.

4 Xiangsheng nature and uses

As early as in the Qin 秦 and Han 汉 dynasties, Xiangsheng pottery symbolizing "six animals 六畜", pigsties, farming scenes, and other means of production appeared. During the Wei 魏, Jin 晋, and Southern and Northern Dynasties 南北 朝 periods, the custom of burying people with Xiangsheng porcelain oxcarts appeared. These Xiangsheng ceramics were originally made to be buried in tombs as symbols of the owners' wealth or status during their lifetime, reflecting



Fig. 3 Fruit seeds unearthed from the Nanhan and fruit patterns on ceramics. (1) grape seeds; (2) peach pit; 3–4. rubbings of water chestnut patterns on the mill groove. 1–2. from the Yu Yuan Imperial Garden site (Gongshu 2010); 3–4. from the No. 3 Kiln of Guizhou (Guizhou 1994)

the ancient view of burial of "in death as in life." This situation changed during the Five Dynasties and Ten Kingdoms period. Among the three types of Xiangsheng ceramics mentioned above, only Type C has been unearthed from tombs of this period, while Type A and Type B were unearthed respectively in architectural sites or a pit of Buddhist statues, which means that the nature and uses of Xiangsheng ceramics in this period were more complex than only as funerary objects.

4.1 Buddhist offerings

Pit H3 of Xiatongren Road site in Chengdu, where Type B Xiangsheng were unearthed, is a pit where Buddhist statues were buried. There are a large number of Buddha, Bodhisattva, and Arhat statues in this pit, so it is speculated that Type B should be related to Buddhist offering activities. The offering of the Three Treasures $\equiv \pm$ of Buddhism refers to offerings to the Buddha, Dharma, and monks, among which the offering to the Buddha is the most common and important. Among the ten kinds of offerings to the Buddha's compassion and purity. Offering flowers to the Buddha's compassion and purity. Offering flowers to the Buddha is thought to allow followers to accumulate merit and obtain good consequences and blessings (Sha and Li 2018).

During the Tang and Five Dynasties and Ten Kingdoms periods, not only flowers and fruits were offered to the Buddha, but also fruit and flower-shaped Xiangsheng of various materials were used (Lu Xixing 2011; Chen Dawei 2014). The literature shows that in the first year of Emperor Wu Zetian's 武则天 Ruyi 如意 reign in the Tang Dynasty (AD 692), officials used green lotus (*qing lian* 青莲) and red fruit (*cheng guo* 赪果) Xiangsheng to decorate the Obon festival (Ouyang Xun 1985). In the fourth year of Emperor Wuzong's 武宗 Huichang 会昌 reign in the Tang Dynasty (AD 844), temples in Chang'an 长安 made Xiangsheng fruit trees of various materials during the offering activities on July 15, which were described as being very exquisite (Shi Yuanren 1992).

According to archaeological discoveries, it is also common to see Xiangsheng fruits as offerings in the underground palaces (di gong 地宫) of Buddhist temples during the Tang and Song dynasties. For example, three sancai 三彩 (threecolor glazed pottery) plates were unearthed from the Qingshan Temple 庆山寺 in Lintong 临潼, Shaanxi 陕西 Province (Qingshan 2009), with a glazed pottery pumpkin placed on the middle plate (Fig. 4: 1) and four glass fruits placed on the other two plates-one, milky white in a peach shape, one, brown about the size of a walnut, and two, green. In the Jingzhi静志寺 Temple in Dingzhou 定州, Hebei 河北 Province, we also found Xiangsheng fruits such as a glazed pottery peach, stone carved peach, wooden melon and fruit, and grapes with paper rope vines and glass fruits (Fig. 4: 2-5) (Dingxian 1972). Type B should have been used for offerings similar to the Xiangsheng fruits unearthed from these temples, and the citrus shape may be related to the fact that Sichuan is a major citrus-producing area (Zeng Yunqi 2008).

4.2 Sacrifices in tombs

The custom of offering sacrifices to ancestors with "fake flowers and fruits" first appeared in the 16th year of Emperor Wudi's 武帝 Tianjian 天监 reign in the Liang 南朝梁 Dynasty (AD 517). Due to Emperor Wudi's deep belief in Buddhism, he prohibited the ancestral temple to kill living creatures for sacrifices and ordered the use of flour to make dried beasts, vegetables, and fruits instead (Sima Guang 1976). This custom became very popular through the Tang Dynasty to the Five Dynasties and Ten Kingdoms periods, and Xiangsheng gradually became sacrifices to the dead and a manifestation in lavish burials. According to the literature, in the 11th year of Emperor Taizong's 太宗 Zhenguan 贞观 reign in the Tang Dynasty (AD 637), Emperor Taizong ordered that after the death of officials above the fifth rank (wu pin 五品), fake flowers, fruits, and pavilion models were not allowed to be sacrificed (Du

Fig. 4 Xiangsheng fruits unearthed from temples of the Tang and Song dynasties. (1) glazed pottery pumpkin; (2) wooden melon; (3) wooden fruit; (4) glazed pottery peach; (5) glass grapes. 1. from the Qingshan Temple (Photographed in Lintong Museum); 2–4. from the Jingzhi Temple (Dingzhou 2014); 5. from the Jingzhi Temple (Photographed in Dingzhou Museum);



You 2018). In the seventh year of Emperor Daizong's 代宗 Dali 大历 reign in the Tang Dynasty (AD 772), Emperor Daizong ordered a ban on the custom of lavish burial and prohibited the manufacture of fake flowers and fruits for sacrifice (Liu Xu 1975). When the Empress Zhaode 昭德, wife of Emperor Dezong 德宗, died of illness, her mother, Lady Cheng Guo 郕国, requested a memorial ceremony for the Empress. Emperor Dezong ordered that fake flowers and fruits should not be used for the ceremony (Liu Xu 1975). In the first year of Emperor Taizu's 太祖 Xiande 显 德 reign in the Houzhou 后周 Dynasty (AD 954), Emperor Taizu created a kind of Xiangsheng flower and fruit made of incense, which was specially used for the decoration of the mourning hall (Tao Gu [Qing] 1792). It can be seen that from the Tang Dynasty to the Five Dynasties and Ten Kingdoms period, "fake flowers and fruits" were very common sacrificial offerings, and Type C Xiangsheng were probably used in the same way as these "fake flowers and fruits."

Kangling is the mausoleum of Liu Yan 刘龑, Emper Gaozu 高祖 of the Nanhan. The royal family of the Nanhan believed in Buddhism. Liu Yan once built seven Buddhist temples on each of the four sides of Guangzhou City, which were collectively called the "twenty-eight temples" to correspond to the Twenty-eight Mansions (*xing xiu* 星宿) in the sky. The Kangling mausoleum has an unprecedented layout of brick-clad mounds, shrines, and altars, probably in imitation of an Indian stupa (Zhang Qianglu 2009). Type C Xiangsheng were found at the back of the middle chamber, the back of the back chamber, and the front of the coffin bed. The positional relationship between the coffin bed and Type C Xiangsheng is quite similar to the layout of the sarira and offerings in the underground palaces of Buddhist temples during the Tang and Song dynasties. In the Qingshan Temple in Lintong, three plates and two bottles were placed in front of the bed where the sarira was placed. On the floor in front of the bed, various offerings were placed centered around a censer. A similar arrangement can be seen in Famen Temple 法门寺 in Fufeng 扶风, Shaanxi Province (Famen 2007), where a box containing sarira is placed in front of the censer and *xiang bao zi* 香 宝子, surrounded by various offerings. After the reign of Emperor Xuanzong 玄宗 of the Tang Dynasty, the placement of offerings gradually changed from inside to outside the containers containing sarira, and finally, were placed so that they were centered around a censer (Ran Wanli 2013).

Kangling has been robbed many times. Although no censer was found in Kangling, 108 ceramic pots were unearthed. These pots were of poor quality, but they were mostly glazed inside, suggesting that they might have contained food or wine at the time of burial. Both Type C Xiangsheng and these pots can be regarded as offerings to Liu Yan. Type C Xiangsheng are flower offerings, and the food and wines in the pots are dish offerings.

The changes in the burial of sarira and placement of offerings during the Tang Dynasty may have been influenced by Chinese traditional burial culture (Ran Wanli 2013). However, judging from the context of Type C Xiangsheng in Kangling, the types and arrangement of burial objects are inevitably influenced by Buddhist culture.

4.3 Furnishings

A Type A Xiangsheng was unearthed from the Xianxianguan site in Guangzhou, which is an architectural foundation of the Nanhan. Relevant materials have not been fully published, so the property cannot be deduced. However, from the phenomenon of the grapes sticking to the bottom of the bowl, it can be seen that the two were made together: that is, when making this Type A Xiangsheng, the maker consciously made it into an unpractical furnishing.

There may be two possibilities for the nature of Type A Xiangsheng: the first would be that they are the same as Type B and were Buddhist offerings. There were also models of pagodas and censers in the Xianxianguan site, which may also have Buddhist properties. A second possibility is that they were furnishings used for decoration. In the Tang and Song dynasties, it was common to use Xiangsheng as decorative items. During the Kaiyuan 开元 years of the Tang Dynasty, there was a custom to celebrate the Han shi 寒食 Festival by carving various Xiangsheng flowers, fruits, and pavilions to use as decorations. Emperor Xuanzong of the Tang Dynasty banned these because they became seen as an excessive extravagance (Wang Pu 1955). During the Song Dynasty, officials and aristocrats hired Si Si Liu Ju 四司六局 to prepare banquets (Nai Deweng 耐得翁 1957), and Xiangsheng flowers and fruits were essential decorations for these.

5 Conclusion

The Five Dynasties and Ten Kingdoms period was a transitional period between the Tang and Song dynasties. A large number of wars brought about the multi-directional flow of the population between regions, which gave birth to the exchange of porcelain technology, the spread of religion, the exchange of funeral customs, and even communication at the superstructure level. These archaeologicallyrecovered Xiangsheng ceramics from this transitional period add important physical evidence to the history of porcelain making of the Five Dynasties and Ten Kingdoms which is not recorded in the literature. They also provide us with a new perspective to reconstruct the history of this period.

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Declarations

Competing interests (include appropriate disclo-sures) There are no conflicts of interest.

References

Chen, Liu 陈浏. 2011. Tao Ya (Qing) 匋雅 (清) (Tao Ya). Beijing: Jin cheng chu ban she.

- Chen, Dawei 陈大为. 2014. Tang Hou qi Wu Dai Song Chu Dunhuang seng si Yan jiu 唐后期五代宋初敦煌僧寺研究 (the study of Buddhist monasteries in Dunhuang in the later Tang, five dynasties and the early song period). Shanghai: Shanghai gu ji chu ban she.
- Deling. 2006. Guangzhou Shi wen wu kao gu yan jiu suo 广州市文物 考古研究所. 2006. Guangzhou Nanhan Deling, Kangling fa jue jian bao 广州南汉德陵、康陵发掘简报 (An excavation report on the Deling and Kangling mausolea of the South Han Dynasty located in Guangzhou City). Wen wu 文物 2006.7: 4–25.
- Dingxian. 1972. : Dingxian bo wu guan 定县博物馆. 1972. Hebei Dingxian fa xian liang zuo Song dai ta ji河北定县发现两座宋代 塔基 (Two Song Dynasty pagodas were found in Dingxian, Hebei Province). *Wen wu* 文物 1972.8: 39–48.
- Dingzhou. 2014. Zhejiang Sheng Bo Wu Guan, Dingzhou Shi Bo Wu Guan. In Xin Fang Su Wai: Dingzhou Jingzhi Jingzhong fo Ta Di gong Wen wu心放俗外——定州静志、净众佛塔地宫文物 (the cultural relics unearthed in the underground palace of Dingzhou Jingzhi and Jingzhong Buddhist Pagoda), Beijing: Zhongguo shu dian.
- Du, You 杜佑. 2018. Tong Dian (Tang) 通典 (唐) (Tong Dian). Beijing: Zhonghua shu ju.
- Famen. 2007. Shaanxi Sheng Kao Gu Yan jiu yuan, famen si bo Wu guan, Baoji Shi Wen Wu Ju and Fufeng Xian bo Wu guan. In *Famen si kao gu fa jue bao gao* 法门寺考古发掘报告, Report of archaeological excavation at Famen Temple Beijing: Wen wu chu ban she.
- Fan, Ye 范晔. 1973. Hou Han Shu (Liu Song) 后汉书 (刘宋) (history of the later Han Dynasty). Beijing: Zhonghua shu ju.
- Feng, Mengzhen 冯梦祯 (Ming). 1616. *Kuai xue tang ji* 快雪堂集 (明) (Kuai Xue Tang Ji). Ming wan li si shi si nian ke ben 明万历 四十四年刻本.
- Foshan. 2006. : Guangdong Sheng wen wu guan li wei yuan hui 广东省文物管理委员会. 1959. Foshan zhuan qu de ji chu gu yao zhi diao cha jian bao 佛山专区的几处古窑址调查简报 (Brief survey of several ancient kiln sites in the Foshan area). Wen wu 文物 1959.12: 53–57.
- Gongshu. 2010. Nanyue wang gong bo Wu guan 南越王宫博物馆. 2010. Nanyue Guo gong shu Yi Zhi: Lingnan Liang Qian Nian Zhong Xin Di 南越国宫署遗址: 岭南两千年中心地 (the Nanyue Kingdom palace: the center of the Lingnan region for two thousand years). Guangzhou: Guangdong ren min chu ban she.
- Guanchong. 1963. : Guangdong Sheng wen wu guan li wei yuan hui 广 东省文物管理委员会 and Guangdong shi fan xue yuan li shi xi 广东师范学院历史系. 1963. Guangdong Xinhui Guanchong gu dai yao zhi 广东新会官冲古代窑址 (Xinhui Guanchong ancient kiln site in Guangdong Province). *Kao gu* 考古 1963.4: 221–223.
- Guanchong. 2000. : Guangdong Sheng wen wu kao gu yan jiu suo 广 东省文物考古研究所 and Xinhui Shi bo wu guan 新会市博物 馆. 2000. Guangdong Xinhui Guanchong gu yao zhi 广东新会 官冲古窑址 (Xinhui Guanchong ancient kiln site in Guangdong Province). Wen wu 文物 2000.6: 26–43.
- Guangzhou. 2020. : Guangzhou Shi wen wu kao gu yan jiu suo 广州 市文物考古研究所 and Nanhan er ling bo wu guan 南汉二陵 博物馆. 2020. Han feng Tang yun: Wu dai Nanhan li shi yu wen hua 汉风唐韵——五代南汉历史与文化 (History and culture of the Five Dynasties of the Nanhan). Beijing: Wen wu chu ban she.
- Guizhou. 1994.: Guilin bo wu guan 桂林博物馆. 1994. Guangxi Guizhou yao yi zhi 广西桂州窑遗址 (Ruins of the Guizhou porcelain workshop in Guangxi). *Kao gu xue bao* 考古学报 1994.4: 499-525.
- Liu, Xu 刘昫. 1975. Jiu Tang Shu (Houjin) 旧唐书 (后晋) (Jiu Tang Shu). Beijing: Zhonghua shu ju.
- Lu, Xixing 陆锡兴. 2011. Xiang sheng hua yu zan hua, gong hua 像生花与簪花、供花 (Xiangsheng flowers, head-pinned flowers and flower offerings). *Nan fang wen wu* 南方文物 2011.4: 89–98.

- Lu, Xiaoke, Li Weidong 鲁晓珂, 李伟东, and 罗宏杰 Luo Hongjie. 2011. Wu dai Nanhan guo wang ling chu tu tao ci qi de te dian he lai yuan tan xi 五代南汉国王陵出土陶瓷器的特点和来源 探析 (Characteristics and source analysis on the ceramic wares unearthed from the emperor tombs of the Southern Han kingdom in the Five Dynasties). *Journal of the Chinese Ceramic Society* 硅酸盐学报 2011.5: 818–824.
- Meng, Yuanlao 孟元老. 2017. Dongjing Meng Hua Lu (song) 东京 梦华录 (宋) (Dongjing Meng Hua lu). Zhengzhou: Zhongzhou gu ji chu ban she.
- Nai, Deweng 耐得翁. 1957. Du Cheng Ji Sheng (Song) 都城纪胜 (宋) (Du Cheng Ji Sheng). Shanghai: Gu dian wen xue chu ban she.
- Niu, Pei 牛沛. 2018. Nanhan Zhaoling chu tu qing ci de te dian ji chan di chu bu fen xi 南汉昭陵出土青瓷的特点及产地初步分 析 (A preliminary analysis of the provenance and the technological characteristics of the celadon unearthed from the Zhao Mausoleum of the Southern Han kingdom). Wen bo xue kan 文 博学刊 2018.1: 88–93.
- Ouyang, Xun 欧阳询. 1985. Yi Wen lei Ju (Tang) 艺文类聚 (唐) (Yi Wen lei Ju). Shanghai: Shanghai gu ji chu ban she.
- Qingshan 2009. : Lintong Xian bo wu guan 临潼县博物馆. 1985. Lintong Tang Qingshan si she li ta ji jing shi qing li ji 临潼唐庆山 寺舍利塔基精室清理记 (A cleaning record of Tang Qingshan Temple in Lintong). Wen bo 文博 1985.5: 12–37.
- Qiongyao. 2022. : Chengdu wen wu kao gu yan jiu yuan 成都文物 考古研究院. 2022. *Qiongyao chu tu ci qi xuan cui* 邛窑出土瓷 器选粹 (Selected porcelain from Qiong kiln). Beijing: Wen wu chu ban she.
- Ran, Wanli 冉万里. 2013. Zhongguo Gu Dai she Li Yi Mai Zhi Du Yan jiu 中国古代舍利瘗埋制度研究 (a study on the system of sarira burial in ancient China). Beijing: Wen wu chu ban she.
- Sha, Wutian, 沙武田, and 李玭玭 Li Pinpin. 2018. Fo jiao hua gong yang zai Tang Wu Dai Dunhuang di qu de biao xian 佛教花供 养在唐五代敦煌地区的表现 (The present of Buddhism flower enshrined in the Dunhuang area during the period of Tang and Five Dynasties). *Dun huang xue ji kan* 敦煌学辑刊 2018.3: 130–148.
- Shi, Yuanren 释圆仁. 1992. Ru Tang Qiu Fa Xun Li xing ji jiao zhu 入 唐求法巡礼行记校注 (Ru Tang Qiu Fa Xun Li xing ji jiao zhu). Shijiazhuang: Hua shan wen yi chu ban she.
- Shiwan. 1978. : Foshan Shi bo wu guan 佛山市博物馆. 1978. Guangdong Shiwan gu yao zhi diao cha 广东石湾古窑址调查 (Investigation of Shiwan kiln site in Guangdong). *Kao gu* 考古1978.3: 195–199.

- Sima, Guang 司马光. 1976. Zi Zhi Tong Jian (Song) 资治通鉴 (宋) (history as a mirror). Beijing: Zhonghua shu ju.
- Song, Lian 宋濂. 2018. Yuan Shi (Ming) 元史 (明) (history of the Yuan Dynasty). Beijing: Zhonghua shu ju.
- Tao, Gu 陶穀 (Qing). 1792. Qing yi lu (Song) 清异录 (宋) (Qing yi lu). Qin ding si ku quan shu ben 钦定四库全书本.
- Wang, Pu 王溥. 1955. Tang Hui Yao (Song) 唐会要 (宋) (Tang Hui Yao). Beijing: Zhonghua shu ju.
- Wu, Zimu 吴自牧. 1957. Meng Liang Lu (song) 梦粱录 (宋) (Meng Liang Lu). Shanghai: Gu dian wen xue chu ban she.
- Xiatongren. 2017. : Chengdu wen wu kao gu yan jiu yuan 成都文物考 古研究院. 2017. Chengdu Xiatongren lu fo jiao zao xiang keng ji cheng shi sheng huo yi zhi fa jue bao gao 成都下同仁路——佛 教造像坑及城市生活遗址发掘报告 (Xiatongren Road site in Chengdu: the excavation report of Buddhist statue pits and urban life remains). Beijing: Wen wu chu ban she.
- Xun, Kuang 荀况. 1997. Xun Zi (Zhan Guo) 荀子 (战国) (Xun Zi). Shenyang: Liaoning jiao yu chu ban she.
- Yang, Wanli 杨万里(Qing). 1792. Cheng zhai ji (Song) 诚斋集 (宋) (Cheng zhai ji). Qin ding si ku quan shu ben 钦定四库全书本.
- Zeng, Yunqi 曾云琦. 2008. Zhongguo Gan Ju Li Shi Yu Wen Hua jia Zhi Yan jiu 中国柑橘历史与文化价值研究 (study on historical and cultural value of citrus in China). Fuzhou: Fujian Agriculture and Forestry University.
- Zhang, Fukang, and 张福康. 2000. Zhongguo Gu Tao Ci De Ke Xue 中国古陶瓷的科学 (the science of ancient Chinese ceramics). Shanghai: Shanghai ren min mei shu chu ban she.
- Zhang, Qianglu 张强禄. 2009. Nanhan Kangling de ling qin zhi du 南 汉康陵的陵寝制度 (The mausoleum system of Kangling in the Nanhan). Sichuan wen wu 四川文物 2009.2: 60-64.
- Zhang, Baoshao, 张宝玿, and 李锦飞 Li Jinfei. 1999. Heshan kao gu de xin fa xian 鹤山考古的新发现 (New discoveries of Heshan archaeology). *Ling nan wen shi* 岭南文史 1999.S1: 23-28.
- Zhu, Yan 朱琰. 1984. Tao Shuo (Qing) 陶说 (清) (Tao Shuo). Beijing: Qing gong ye chu ban she.

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