4 Piecing Shards Together

The Uses and Manufacturing of Imperial Porcelain

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Abstract

The imperial manufacture of porcelain in the Qing dynasty was always related to the broad state economy and politics, especially ritual. As has been revealed in administrative regulations and raw material supply, porcelain production seemed to be an independent operation like other court art production. However, as evidence regarding managerial personnel, finance, quality control, and design shows, the technology for producing porcelain was integral to other material production at court. Thus, multiple productive processes were interdependent and they influenced each other. The productive processes and products of court art showcase the character of monarchical industry.

Keywords: Imperial Manufactory of Porcelain, ritual vessel, porcelain supervision, labour

Tang Ying 唐英 (1682-1756), the chief supervisor of the Imperial Ceramic Manufactory (*Yuyaochang* 御窯廠), once remarked that, 'Although ceramic production is a minor concern, it is of relevance to the affairs of the state' (*tao sui xishi, guan hu guozheng* 陶雖細事, 關乎國政).¹ Referring to this statement, many researchers have exaggerated the importance of imperial porcelain,² or focused only on its political significance, at the expense

1 'Ciwu shiyi shiyu gao xu 瓷務事宜示諭稿序 (Tang Ying's Preface to the Draft Advise on Ceramic Affairs)', in Tang Ying 唐英, *Tang Ying dutao wendang* 唐英督陶文檔, ed. Zhang Faying 張發穎 (Beijing: Xueyuan chubanshe, 2012), 13. Tang Ying uses the word 'ceramics' (*tao* 陶) here to refer broadly to any fired clay. His quote indirectly refers to a quotation from the *Chunqiu Zuo zhuan zhushu* 春秋左傳注疏. See footnote 3.

2 In modern terminology, porcelain refers to ceramics fired beyond 1300 degrees. In pre-modern Chinese terminology, many so-called porcelains would actually count as stoneware

of the technical aspects. Few have examined its actual position in the political life of the Qing empire or viewed its production sequence within the broader operating mechanism of the state. This chapter investigates the role of imperial porcelain production in the palace machine and analyses the material and other factors that restricted its production. Specifically, utilizing some common historical sources as a point of entry, the chapter examines porcelain production in relation to other goods and materials of the court, the responsibilities of the officials involved, and the relationship between porcelain production and state finance.

Porcelain as Ritual Vessels and Diplomatic Gifts

The relevance of porcelain production to state affairs that Tang Ying spoke of firstly pertained to the performance of state rituals. According to an ancient account in the *Zuo chronicles to the Spring and Autumn Annals* (Chunqiu Zuo zhuan 春秋左傳), the most important state affairs were military campaigns (*rong* 戎) and sacrifices (*si* 祀).³ Whereas the military used force to defend the country against invaders and keep order within the realm, sacrifices used rituals – and ritual objects – to establish and maintain decorum and the moral regimen, mediate between humans and the divine, the high and the low, and keep all polities (*bang* 邦) in harmonious accord with each other. Thus, sanctioned violence and ritual decorum constituted the basis of stately practice in imperial history. To understand the role and significance of the ceramic sector in Qing political rituals and how it fitted into the complex workings of the palace machine, this chapter begins by contextualizing ceramic manufacture in the Qing against the background of the long history of imperial ceramic production which had begun in the Northern Song dynasty (960–1127). This is indispensable for understanding the larger pattern of the development and specific changes to this sector that took place in the palace machine of the Qing dynasty.

The extensive use of ceramics as ritual vessels only began in the Southern Song dynasty.⁴ An imperial decision of 1143 permitted ‘the use [of objects

by modern standards. However, we choose to translate ‘*ci*’ 瓷/磁 or ‘*ciqi*’ 瓷器 literally as porcelain.

3 See for example the commented version of this canonical work by Kong Yingda 孔穎達 (574–648), *Chunqiu zuozhuan zhengyi* 春秋左傳正義, *juan* 14, 12 (‘13th year of King Chenggong 成公’) (Beijing: Wuying dian 武英殿 edition, 1739).

4 Modern scholars consider celadon wares and various other categories of ceramics produced in the middle period as being stoneware rather than porcelain, because of their level of vitrification

made from] ceramic and wood out of expedience' as substitutes for bronze and jade.⁵ This was originally meant to be a provisional arrangement in response to the fiscal strain on the country after the dynasty's loss of its northern territory to the Jurchens and relocating the court to Lin'an 臨安 (present Hangzhou), which was so named in 1129 and established as the capital of the Southern Song in 1138. Archaeological excavations in the city have shown that the majority of ritual objects unearthed in the site of the royal palace's residential areas and major religious places such as the Imperial Ancestral Temple (*Taimiao* 太廟)⁶ were actually earthen wares (*tao* 陶), even though the two kilns at Tiger Grotto site (*Laohudong* 老虎洞)⁷ and Turtle Hill site (*Wuguishan* 烏龜山) did produce beakers (*gu* 觚), wine goblets (*zun* 尊), and other imitations of ritual vessels in high-quality porcelain.

When the Mongols established rule over China in the late-13th century, they eclectically adopted various rituals of the Song and the Jin dynasties and used their remaining ritual vessels. It was not until the 4th year of the Zhizhi 至治 reign (1324) that the Yuan government ordered the various kilns in Jiangzhe province (*Jiangzhe xingsheng* 江浙行省) to start producing ceramics for ritual usage, thereby launching large-scale production of these kinds of objects. At about the same time, celadon basins (*pan* 盤), a famous product from the Chuzhou 處州 kilns of the same area, were deployed in the 'Hair and Blood' (*maoxue* 毛血) sacrifice.⁸ This further epitomized the new official status of ceramics as ritual vessels of the state.

When the Han-ethnic Ming took rule over China back from the Mongolian Yuan they claimed to establish a ritual system that was modelled on the ancient dynasties of Xia, Shang, and Zhou. But they continued some practices from the recently-ousted Yuan dynasty, such as using ceramic vessels. The

and the kiln temperature in production. Chinese historical documents, despite the many different grades of vitrification, differentiate only between the two categories of *tao* (ceramics) and *ci* (porcelain).

5 'In the 1st month of the 13th year of Shaoxing 紹興 reign (1142), the Court of Imperial Sacrifice (*Taichang si* 太常寺) and the Board of Rites (*Libu* 禮部) request to follow the ritual statute (*lizhi* 禮制) of our dynasty... In place of ritual vessels that should be bronze or jade wares we use ceramics and wood out of expedience (*jiqi yingyong tong yu zhe quan yi tao mu* 祭器應用銅玉者權以陶木)', see Qian Shuoyou 潛說友 (1216-1277), *Xianchun Lin'an zhi* 咸淳臨安志, *juan* 3: 'jiaomiao 郊廟 (Sacrifice)', in *Song-Yuan fangzhi congkan* 宋元方志叢刊 (Beijing: Zhonghua shuju, 1990), vol. 4, 3373-1.

6 Hangzhou shi wenwu kaogu suo 杭州市文物考古所, *Nansong taimiao yizhi* 南宋太廟遺址 (Beijing: Wenwu chubanshe, 2007).

7 Du Zhengxian 杜正賢, 'Laohudong nansong guanyao zhi 老虎洞南宋官窑址', *Wenwu* 文物, no. 10 (2002): 4.

8 Song Lian 宋濂, *Yuan shi* 元史 (History of the Yuan Dynasty), *juan* 72 (Beijing: Zhonghua shuju, 1976), 1798-1799, 1845-1846.

Ming government's use of ceramics as ritual and sacrificial vessels had already started in the 2nd year after the dynasty's inception, i.e. in 1369. The *Collected Statutes of the Great Ming* (*Da Ming huidian* 大明會典) recorded this among numerous other material changes, as follows: 'It was ordered in the 1st year of the Hongwu reign (1368) that utensils in the Imperial Ancestral Shrine should be exchanged with those made from gold; as for the miscellaneous items used by the emperor, such as the decorations on his attire and carriages, wherever the use of gold was originally required it should be substituted with brass. In the second year, it was determined that all sacrificial vessels should be made of porcelain'.⁹ One year later, in 1370, a memorial by the Board of Rites reconfirmed the issue, declaring that, even though the porcelain food plates and water jars used as sacrificial vessels did 'not conform with the ways of the ancients (*buhe guzhi* 不合古制); their use nonetheless accorded with the principle of 'advocating simplicity' (*shangzhi* 尚質), which had governed the use of pottery ritual vessels in the ancient dynasties; hence, the ministry petitioned to revise the ritual regulations so that the porcelain plates and jars used as ritual vessels would be named according to the ancient system. This received the Hongwu emperor's approval'.¹⁰ Thus, the institute sanctioned the use of ceramic vessels in imperial rituals and these humble ceramic wares officially acquired archaic names which carried much political weight.

Exchanges in material not only happened from bronze to porcelain, i.e. from a seemingly more precious to a more 'humble' material, but also in the other direction. In the 4th year of Hongwu (1371), the rules were adjusted further, meaning that the wooden sacrificial vessels in the Temple of Confucius were all to be replaced with porcelain ones.¹¹ The *Veritable Records of the Ming* (*Ming shilu* 明實錄) notes more generally that, 'in the twelfth month [of the same year], it was decided to substitute all [bronze] *dou* 豆, *fu* 簋, *gui* 簠, *deng* 登, *xing* 鉶 with porcelain vessels'.¹² In the

9 Both editions of the *Da Ming hui dian* contain this phrase. For the edition compiled by Xu Pu 徐溥 et al. during the Zhengde 正德 reign (1506-1522) in 180 *juan*, see *Siku quanshu* 四庫全書 (Shanghai: Shanghai guji chubanshe, 2003), vol. 618, 588; for the edition compiled by Shen Shixing 申時行 et al. during the Wanli 萬曆 reign (1587) in 228 *juan*, see *Xuxiu Siku quanshu* 續修四庫全書 (Shanghai: Shanghai guji chubanshe, 1995-2002), *juan* 201 (vol. 792), 1014.

10 Zhang Tingyu 張廷玉 et al., *Mingshi* 明史, *juan* 47 (*zhi* 志 (treatise) 23: 'li 禮 (rites)'), 1237 (Wuying dian edition, 1739; rep. Taipei: Dingwen shuju, 1980).

11 Zhang Tingyu et al., *Mingshi*, *juan* 50, 1296; *Da Ming huidian* (Wanli edition), *juan* 91 (chapter 49: 'Libu 禮部 (Board of Rites)'), 523.

12 *Ming shilu* 明實錄, Taizu huangdi 太祖高皇帝 (Emperor Taizu), *juan* 70, 1297 (12th month of the 4th year of the Hongwu 洪武 reign) (rep. Taipei: Zhongyang yanjiuyuan Lishi yuyan yanjiusuo, 1966).

subsequent years of Hongwu's reign (1368-1402) ritual regulations were amended so that eventually all official sacrificial and ritual vessels – from the Temple of Heaven to the Imperial Ancestral Shrine and the Temple of Culture, from central to local governments, from the inner court to the princes' residence – would be replaced by porcelains.

What, then, was the actual shape of these porcelain pieces that replaced the ritual bronzes? The 1370 memorial had already noted the interesting point that Ming ritual vessels had not only changed in material from bronze to porcelain, but an even more drastic change was that the archaic, ritually-charged shapes of the Three Ancient Dynasties' vessels were being replaced by everyday objects such as plates and bowls. The *Collected Statutes of the Great Ming* addressed this replacement even more clearly when it chronicled the demand that, from the 26th year of the Hongwu reign (1393) on, annual sacrifices to a wide range of deities – from the gods of wind, thunder and rain to the city god and Confucius – must be performed to a strict schedule by all prefectures, provinces, and counties throughout the country. As an authoritative reference, the *Statutes* quoted the *Ritual Code of the Hongwu Reign* (Hongwu lizhi 洪武禮制), which stated that, as far as the sacrificial vessels were concerned:

for all [bronze] *bian* 簋, *dou* 豆, *fu* 簠, and *gui* 簣, use porcelain plates (*cidie* 瓷碟); as substitutes for the *fu* and *gui* vessels slightly larger [porcelain plates] should be used; for the three wine goblets of the *zun*-type 尊, use porcelain *zun* (*cizun* 瓷尊), each equipped with one covering towel (*gaibujin* 盖布巾) and one wine-ladling spoon (*diaojiushao* 酌酒勺); for the six spouted tripod goblets of the *jue*-type 爵, use porcelain ones; to substitute for the one cauldron of the *xing*-type 鉶, use a porcelain bowl (*ciwan* 瓷碗).¹³

In the entry on 'washing utensils' (*guanju* 盥具) directly following this we find a similar directive: 'for the one *zun* [needed in the ceremony], use a porcelain urn (*ciweng* 瓷瓮)... for the one basin (*pen* 盆), use one from any material like tin, copper or porcelain'.¹⁴ Moreover: '[for sacrificial rites] at

13 *Da Ming huidian* (Wanli edition), *juan* 94 (chapter 52: 'Libu'), 533. No original copy of the *Ritual Code of the Hongwu Reign* is existent today. But chapter 7 of the *Huang-Ming zhishu* 皇明制書 (System of the August Ming) – a collectanea from the late-16th century containing various sources on law, regulations and jurisdiction of the Ming – reproduces one part of this work where the above quotation is found. See Yang Yifan 楊一凡, ed., *Huang-Ming Zhishu* 皇明制書 (Beijing: Shehui kexue wenxian chubanshe, 2013).

14 *Ibid.*

any prince's estate... the production of porcelain wine *zun*, *bian*, *dou*, *fu*, and *gui* is assigned to Fuliang county 浮梁縣 in Jiangxi...' (The famous ceramic production centre of Jingdezhen was under the jurisdiction of Fuliang.)¹⁵

Not only in prince's fiefdoms and local capitals, these replacements in material and shape were also made at ceremonial sites of central importance, as suggested by the *Collected Statutes of the Great Ming* (Wanli edition). In *juan* 82, the caption to the diagram on the 'Display Plan at the Round Altar, Frontal Position (facing south)' – that is, in front of the spirit tablet of the Emperor of the Heaven – explains, that '*deng* 登-type covered dishes and *xing* cauldrons are to be substituted with porcelain bowls, and vessels of the type *fu*, *gui*, *bian* and *dou* with porcelain plates. The same applies to all other altars and temples'.¹⁶ This note explicitly pointed out that the *fu*, *gui*, *bian*, *dou*, *deng* and *xing* among the Ming ritual vessels were actually common porcelain plates and bowls. Only the porcelain *jue*, the spouted tripod goblet, retained the shape of the corresponding ritual [bronze] vessel – the others only carried the 'name' of the ancient object, even though both their material and shape had changed. This fact might also explain the massive bowls and plates from the early Ming which are often found in excavated Jingdezhen and Longquan kilns (*Longquan yao* 龍泉窯): they are actually these replacement vessels mentioned in the ritual books.

Setting up altars to offer sacrifices to heaven was considered the most important sacrificial rite in all Chinese dynasties, and rituals at the Imperial Ancestral Shrine to commemorate and offer sacrifices to the ruler's ancestors was the most important family rite of the imperial states. In using porcelains, the Ming dynasty had simply continued the practice of the Yuan, which in turn had perpetuated an expedient practice that emerged out of the national distress of the Southern Song. The fact that porcelain bowls and plates were systematically replacing bronze ritual vessels in the Ming altars and temples indicates that, by that time, porcelain had acquired the status of a top-level ritual object and, more importantly, the substitution was promulgated by state law. The dynasty's founding emperor Ming Taizu, being the son of a commoner, viewed ritual vessels with both a reverence for state institutions and with a peasant's frugality. Unsurprisingly, his policies on ritual vessels were closer to real life and he considered vessels of common

15 '凡親王之國，瓷酒尊、簋、豆、簠、簠行江西浮梁縣燒造'。See *Da Ming huidian* (Wanli edition), *juan* 208 (chapter 28: 'Nanjing Gongbu dushui qingli si 南京工部都水清吏司 (Board of Works in Nanjing, Directorate for Waterways)'), 2773-2.

16 '登、銅以磁碗代，簠、簠、簋、豆以磁盤代，凡壇廟同'。See the diagram 'Yuan qiu diyi chenshe tu zhengwei (nan xiang)' 圓丘第一陳設圖正位 (南向), in *Da Ming huidian* (Wanli edition), *juan* 82 ('Lisi er 郊祀二 (Ancestral Sacrifice, section 2)'), 1298-1.

shapes and types to be suitable to serve state sacrificial rites. He thought that most of them should be porcelain but, to comply with ancient rules, they should be named in accordance with the practice inherited from the Xia, Shang, and Zhou dynasties.

Even though these regulations on ritual vessels convey the impression that the main purpose of the imperial kilns was to produce these porcelain simulacra, in fact, scrutinizing the surviving ceramic works from the Ming imperial kilns reveals that the number of ceramics made for everyday use or decorative display there far exceeded those produced for ritual and sacrificial purposes. Ritual vessels certainly did not comprise the majority of the hundreds of thousands of imperial porcelains that were mentioned in historical records. Lu Wan'gai 陸萬垓 (1533-?) made this observation in his *Great Gazetteer of Jiangxi Province* (Jiangxi sheng dazhi 江西省大志), claiming that most of the porcelains produced during the Wanli period were everyday vessels for food and beverage.¹⁷ Archaeological excavations at the imperial kilns at Jingdezhen suggest that, as well as these kinds of utensils for daily use, bird feeding cups and playthings like cricket bowls also constituted an important line of products made in the imperial porcelain factory. But, of course, the excavations also provide indisputable material evidence of the manufacture of ritual and sacrificial vessels, including, for example, 'sacrificial vessels for official use' (*guanyong gongqi* 官用供器) that date back as far as the Hongwu reign, ritual and sacrificial vessels inscribed with the character 'altar' (*tan* 壇) from the Xuande reign (1426-1435), and ritual vessels for ancestral sacrifices from the Jiajing period (1522-1566). This indicates that, despite the small number of ritual objects created, the Ming imperial kilns were indeed in charge of producing them. Furthermore, the rules of proprieties stated that the manufacture of ritual vessels should take priority over that of banquet vessels. Although imperial kilns did not fully comply with these rules, ritual objects were unquestionably among their products. Thus, no matter how small their number might have been in comparison to 'banquet vessels', the imperial needs for – and the actual production of – these ritual vessels justified the operation of imperial kilns in the Ming dynasty, as they were needed to comply with the demands of the traditional ritual system.

The Qing imperial kilns inherited and basically continued the manufacturing system and managerial structure from the Ming. The *Precedent Cases*

17 Wang Zongmu 王宗沐 et al., *Jiangxi sheng dazhi* 江西省大志, *juan 7* ('Taoshu 陶書: Gongyu 供御 (Treatise on Ceramics: Imperial supplies)'), 32ff (edition of 1597; reprinted in *Nanjing tushuguan cang xijian fangzhi congkan* 南京圖書館藏稀見方志叢刊) (Beijing: Guojia tushuguan chubanshe 2012, vol. 107-108).

of *Statutes of the Great Qing* (Da Qing huidian shili 大清會典事例) explicitly state that ‘porcelains for the emperor’s use (*shang yong* 上用) should be produced according to the designs and in the quantities promulgated by the inner court [which probably meant the Imperial Household] and transported to Beijing under the responsibilities of Raozhou prefecture in Jiangxi (*Raozhou fu* 饒州府) [the prefecture where the porcelain town Jingdezhen is located]; sacrificial vessels for use at altars, temples and imperial tombs should be manufactured following the designs, colours, and quantities designated by the Court of Imperial Sacrifices (*Taichangsi* 太常寺) of the central government and the manufacture orders should be sent to Jiangxi to be completed and then delivered to the departments concerned’.¹⁸

These regulations demonstrate that, during the Qing, porcelains for imperial use and for sacrifices at imperial tombs were all made by the Imperial Ceramic Manufactory, based on designs issued from the Imperial Household or the Court of Imperial Sacrifices. The *Qing Statutes* clearly juxtapose ritual vessels for altars, temples, and imperial tombs alongside everyday porcelains used by the emperor. On most occasions the Qing dynasty continued the practice of the Ming and used everyday porcelain items as vessels for rituals and sacrifices. It was not until the Qianlong reign (1735-1795) that the emperor ordered the imperial kilns to produce porcelain vessels that mimicked the shapes of ancient ritual bronzes such as *fu*, *gui*, *bian*, *dou*, *deng*, *xing* and the like. Moreover, the bodies of these porcelains were manufactured in five distinct colours – yellow, red, white, blue, and moon white (*yuebai* 月白) – and decorated with ‘Five coloured’ patterns (*wucai wenyang* 五彩紋樣), in order to distinguish their different spheres of use.¹⁹

Apart from their use in imperial rituals, the other important role porcelains played in state affairs was comprising diplomatic gifts for dignitaries from foreign countries. This became a prominent practice during the Ming and Qing dynasties.²⁰ In the early Ming, close to ten thousand items of

18 ‘凡上用瓷器，照內頒式樣數目，行江西饒州府燒造解送；凡壇、廟、陵寢需用祭器，照太常寺圖式、顏色、數目，頒發江西燒造解部’。See Yunlu 允祿 et al., *Da Qing huidian shili* (Yongzheng ban) 大清會典事例 (雍正版), *juan* 201 (*Gongbu wu*, *Dushui qinglisi*: *Qiyong* 工部五, 都水清吏司: 器用 (Board of Work 5, Directorate for Waterways: Utensils)), 13a (rep. in *Jindai Zhongguo shiliao congkan sanbian* 近代中國史料叢刊三編. Taipei: Wenhai chubanshe, 1985). This phrase is repeated from the equivalent section of the Kangxi edition of the *Precedent Cases*, *Da Qing huidian shili* (Kangxi ban), *juan* 138, 13a-b (rep. in Wang Guangyue 王光越 et al., eds., *Qingdai wubu huidian* 大清五部會典. Beijing: Shutongwen Guiji shujuku 書同文古籍數據庫, 2007; database accessed via the CrossAsia platform, Feb. 2020).

19 Wang Guangyao 王光堯, ‘Qingdai cizhi jiliqi luelun’ 清代瓷質祭禮器略論, *Gugong bowuyuan yuankan* 故宮博物院院刊, no. 2 (2003): 70-79.

20 Wang Guangyao, *Mingdai gongting taoci shi* 明代宮廷陶瓷史, 196-207.

porcelain gifts had already been lavished on other countries. Assuming that all those items were manufactured by official kilns, it is clear that the imperially-sponsored production of porcelain was considered of high political significance. The Qing dynasty continued this system from the Ming and ordered the imperial kilns to produce ceramic items that were presented to the upper classes of Tibetan and Mongolian societies – such as ewers in the shape of a Tibetan monk's cap (*sengmao hu* 僧帽壺), Tibetan nectar vases (*zangcao ping* 藏草瓶), and Tibetan-style altar bottles (*benba hu* 貢巴壺). These vessels, from their beginning in the imperial kilns to their conclusion as a gift in the hands of Mongolian or Tibetan recipients, constituted a vital part of Qing political life and state operation. This kind of material diplomacy can be traced back to the Yuan, when large numbers of ceramics were sent by the Yuan government to the Ilkhanate and other states. These gifts were also of a political nature, meant to foster friendly ties with the khans.

This brief historical overview of state porcelain in the Song, Yuan, Ming, and Qing Dynasties has shown that the manufacture of porcelain ritual vessels was regulated by official codes and records. The relatively modest quantity of these objects in relation to other luxury or everyday ceramics reveals a gap between the ostensible claim of the ritual necessity of porcelain production and the *de facto* desire for porcelain wares for daily use in the imperial and princely courts. In other words, it is likely that the assertion of the necessity of state-run ceramic production to the state ritual system was just an excuse that made the establishment of such an industry morally defensible to begin with. This discrepancy between words and deeds was characteristic of the palace machine, as outlined in the other chapters of this volume.

Unfortunately, although ceramics were manufactured in the name of ritual obligation or political diplomacy, they did not bring peace and prosperity. Even worse, during the Ming dynasty, the imperial kilns production ended up being the biggest loophole in state finance – the onerous financial and labour demands even led to popular uprisings in Jingdezhen. The Qing tried to control the production costs better by professionalizing the administration and management of the kilns as well as improving the porcelain's quality through technological advances.

Porcelain Supervision in the Qing Administrative Machine

To better understand the Qing's administrative move to establish the position of supervisor of the Imperial Ceramic Manufactory (*dutao guan* 督陶官), as

the central official in charge of porcelain production, a brief review of how the production was managed and financed in the preceding dynasties seems necessary. In the Song dynasty, two kinds of officials were concurrently related to, and in charge of, the manufacture of ceramics. This was, firstly, local officials at the various production sites who received and implemented the orders to produce ceramics for the emperor, and secondly, the officials who supervised tax matters regarding the ceramic kilns.²¹ Archaeological evidence of the responsibility of the former can be illustrated, for example, by an inscription found on numerous ceramics unearthed in the kiln site at Hutian 湖田 near Jingdezhen: 'Manufactured under the supervision of Zhang Ang, Magistrate of Fuliang County'.²² The main duty of tax inspectors, on the other hand, was, obviously, to supervise the collection of the taxes. Tax inspection was standard practice in all trades during the Song dynasty and performed mainly as a sideline job. The same held true for the officials in charge of overseeing ceramic tax matters. The mix of responsibilities was even more varied for the magistrates of counties with a kiln that produced porcelain for the emperor. To them, the supervision of ceramics production was a temporary and mostly, out of the ordinary, task as well. Thus, at that time, there was no such thing as an expert in managing ceramic production from a state perspective.

This more or less continued in the Yuan dynasty. The town supervisor (*jianzhen* 監鎮) of Jingdezhen still only managed tax matters related to porcelain manufacture and, even after local magistrates were entrusted with the task of overseeing the production of imperial porcelain in the Taiding 泰定 reign (1324-1328), it remained an ad hoc and short-term duty. The *Treatise of Ceramics* (Tao shu 陶書) contained in the *Great Gazetteer of Jiangxi Province* expresses this as follows: 'When there were imperial orders, porcelains were [manufactured and] supplied to the court; when there was none, production ceased'.²³ Moreover, although the Yuan established a special 'Porcelain Bureau of Fuliang' (*Fuliang ciju* 浮梁瓷局) in 1278, its duties were not limited to manufacturing porcelain, as it was also required to produce

21 Wang Guanyao, "Jian ciyaowu" guan kaobian "監瓷窯務"官考辨 (Clarification of the 'Supervisor of Porcelain Kilns'), in idem, *Zhongguo gudai guanyao zhidu* 中國古代官窯制度 (Beijing: Zijincheng chubanshe, 2004), 50-56.

22 'Fuliang xiancheng chen Zhang Ang cuozhi jianzao 浮梁縣丞臣張昂措置監造'. See Specimen 97F.T3③:39, in Jianxi sheng kaogu yanjiu suo 江西省考古研究所 et al., eds., *Jingdezhen Hutian yao zhi 1988-1999 nian kaogu fajue baogao* (shang) 景德鎮湖田窯址 1988-1999年考古發掘報告 (上) (Beijing: Wenwu chubanshe, 2007), 436.

23 'You ming ze gong, fou ze zhi 有命則供, 否則止'; see Wang Zhongmu et al., *Jiangxi sheng dazhi, juan 7* ('Tao shu'), 3a.

other artefacts, such as lacquer wares, hats made from horse-tails, hemp, and conical rattan (*qizao* 漆造, *mawei* 馬尾, *zong* 棕, *teng* 藤, *limao* 笠帽). The Porcelain Bureau was staffed with a chief and a vice director (*dashi* 大使 and *fushi* 副使), and the former could be as low as the sub-ninth rank (*congjiupin* 從九品), the lowest in the bureaucratic hierarchy. Even though the chief holding such a low-level post, he was charged with an array of demanding tasks.

Almost nothing had changed in the early Ming dynasty regarding local magistrates' management of ceramic production. The magistrate (*cheng* 丞) of Fuliang county was still in charge of porcelain production; hence, the management of official kilns in the early Ming dynasty very likely continued the practice of the Song and the Yuan. Supplying the inner court with porcelains was only one of the many responsibilities of the Fuliang local government and it was often temporary and sporadic, since porcelain manufacture was not yet a regular or important task.

The crucial transition of the Jingdezhen locality happened between the Yongle (1403-1424) and Xuande (1426-1435) eras of the Ming dynasty. During that time, the official kilns at Jingdezhen underwent a management reform which finally brought about a true imperial system of porcelain manufacture.²⁴ To knit the production more strictly into state politics and the court's luxury needs, officials from the Board of Work began taking part in the administration of the imperial kilns. In Xuande reign, Zhang Shan 張善 (n.d.) was the first eunuch dispatched to supervise porcelain production in the whole of Raozhou region – Fuliang was one of its counties. At that time both forms of porcelain management – both by officials from the Board of Work and by local magistrates – still persisted in parallel. But, from Zhang Shan's tenure, it became normal practice for a trusted eunuch to supervise ceramic manufacture. Ceramic production was important enough for Ming emperors to dispatch eunuchs to oversee the production, but not enough for them to create the post of a dedicated supervisor.

In the late Ming, after the Jiajing and Wanli reigns, popular resentment against eunuchs led to a slight retrenchment in the policy of dispatching these men to oversee imperial kilns, although eunuch supervisors

24 See my chapter 'Zailun Mingdai yuyaochang de jianli shijia – Mingdai yuyao yizhi de kaoguxue fenqi 再論明代御窯廠的建立時間——明代御窯遺址的考古學分期 (Re-examining the Founding Time of the Ming Dynasty's Imperial Ceramic Manufactory – Archaeological Periodization of the Ming Imperial Kiln Sites)', in idem, *Zhongguo gudai guanyao zhidu* (er) 中國古代官窯制度 (二) (Beijing: Gugong chubanshe, 2017), 122-31.

were still a common sight. On several occasions the vice magistrates of Raozhou and its seven neighbouring prefectures needed to assist one another in all sorts of affairs related to imperial porcelain production. This is proved, for example, by the relocation of the Bureau of the Police Office (*Xunyansi yamen* 巡檢司衙門) to Jingdezhen. It was also the local magistrates from Raozhou who had to discharge the eunuchs, sending them back to the capital, and during that time of vacancies they had to preside over production at imperial kilns for a considerable period. In the late Ming, a routine was set up whereby local magistrates took it in turn to manage the imperial porcelain manufacture. This meant that, once again, no personnel were specifically dedicated to porcelain affairs. This no doubt partially accounted for the inefficiencies in production and the decrease in the quality of that era's porcelains.

The turnover of dynasties from Ming to Qing did not immediately bring about many changes to porcelain production, as the imperial kilns still generally followed Ming practice.²⁵ The system of eunuch supervisors, however, was replaced early on by assigning that role to Manchu officials from the Imperial Household Department. Other management practices – from the allocation of funding to the appointment of officials – remained intact, and the local Raozhou officials still featured among those mainly responsible for imperial porcelain production. This pattern of close cooperation between the 'private' bureaucracy serving the royal house and the 'public' bureaucracy of the state was, as we see elsewhere in this book, an important feature of the Qing palace machine.

It was only about eighty years after the inception of the Qing dynasty that the administrative and managerial responsibilities for porcelain production changed drastically. Starting from the Yongzheng reign (1723-1735), the imperial kilns in Jingdezhen were placed under the direct jurisdiction of Huai'an Customs House (*Huai'an guan* 淮安關) over 500 kilometres away. The customs' income from the Grand Canal funded porcelain production costs and customs officials were charged with supervising the production remotely. At the site itself, it was the assistant director (*yuanwailang* 員外郎) from the Imperial Household Department, who served as the de facto director of porcelain manufacture. Thus, the dedicated role of ceramic production supervisor was born. Tang Ying, whose quote opened this chapter,

25 See my chapters 'Wanli zhi Yongzheng shiqi de yuyao 萬歷至雍正時期的御窯 (Imperial Kilns from the Wanli to Yongzheng Reigns)' and 'Qingdai yuyaochang shulue 清代御窯廠述略 (An Overview of the Imperial Ceramic Manufactory in the Qing Dynasty)', in idem, *Zhongguo gudai guanyao zhidu* (er), 151-64.

was the most famous and successful individual to hold this post, serving in that capacity for 26 years.²⁶

In the 8th year of the Qianlong reign (1743), the administrative duty of the kiln was transferred to the supervisor of Jiujiang Customs House (*Jiujiang guan* 九江關), while officials from the Imperial Household Department continued to assist in the kilns. That arrangement was rescinded in the 51st year of the Qianlong reign (1786), when the supervisor of the Jiujiang Customs House was appointed as general manager of the imperial kilns, and was required to perform annual inspections of all the kilns. At the production site itself it was the sub-prefectural magistrate (*tongzhi* 同知) of Raozhou stationed in Jingdezhen, along with the Bureau of the Police Office of Jingdezhen, who were jointly in charge of overseeing the manufacture and transportation of porcelains – but the latter focused mainly on its safety.

Although the task of the officials from the Imperial Household Department was ostensibly to supervise imperial porcelain production, just as with those Imperial Household officials supervising the Jiangnan Weaving Bureau or tax inspections in the Jiangnan area, that was only one of their many concurrent duties. Their primary mission, to some extent, was to serve as emperors' watchdogs in this financially prosperous region. As in the case of the production of porcelain ritual vessels, a conspicuous gap between *de jure* proclamations and *de facto* practice was a consistent feature of the operation of the palace machine.

Managing the Labour and Workflow of Imperial Porcelain Production

The management of the actual production of imperial porcelains can be explored from two perspectives: the artisans and labourers who carried out the hands-on work, and the procedures into which the whole process was structured. Before the late Northern Song, the Song court did not maintain its own production sites but instead procured ceramics through local tributes and taxes in kind. Hence, the actual producers of imperial porcelains were artisans with private kilns. Even in cases where a local government agency was commissioned to manufacture ceramics for the court, the production itself took place in selected high-quality private kilns in the area, without

26 See Tang Ying's biography in Zhao Erxun 趙爾巽 et al., *Qingshi gao* 清史稿, juan 505 ('Liezhuàn 列傳 (Biographies)' section 292, 'Yishu 藝術 (Art and Crafts)', subsection 4), 13926 (rep. Beijing: Zhonghua shuju, 1977).

a fixed body of artisanal staff. It was common practice during the Song to recruit independent artisans to undertake the production and that was how most kilns operated, from the Ru kilns (*Ruyao* 汝窯) in the Northern Song to the official kilns of Xiuneisi 修內司 that were built in the Southern Song.²⁷ People with technical expertise were officially registered as craftsmen (*jiangji* 匠籍), and were recruited and paid by the hour when the state needed their labour.

During the Yuan dynasty, a system of government craftsmen (*guanjiang zhi* 官匠制) was established and the kilns started to function as state-run enterprises. Craftsmen trades were made hereditary, thus the descendants of registered craftsmen were not allowed to change profession or de-register themselves from the official list. Specifically, ceramic artisans were employed at the kilns and they were paid in the form of daily food rations.²⁸ The official kilns in places like Cizhou 磁州, Junzhou 鈞州, Raozhou 饒州 and Chuzhou 處州 probably all operated according to this system of state-run enterprises.

Even though the names of the specific kiln workers are nowhere to be found, they were without question registered craftsmen and presumably had to work under the local government's direction.²⁹ In addition, some foreign artisans worked for the Yuan government. For instance, material evidence has corroborated textual records about Arabic 'guest artisans' (*kejiang* 客匠) joining imperial porcelain production in China: the emergence of blue and white porcelain in the Yuan dynasty can be directly associated with these craftsmen from the Middle East – mainly Persian speakers who were experts in the decorative arts of underglaze blue and underglaze red.³⁰ The system of government craftsmen highlights the Yuan government's

27 According to archaeological findings, the production history of the Ru kiln can be divided into different periods. The period of imperial monopoly was marked by the uniform destruction of inferior products. At that time, the Ru kiln existed in the form of an official kiln, just like the Laohudong kiln in the Southern Song. The Laohudong and Wuguishan kilns from the Southern Song are now commonly referred to as the Xiuneisi kiln and the Jiaotianxia 郊壇下 kiln respectively. I have pointed out the problem this different naming of kilns creates many times elsewhere, so I will not elaborate on it here.

28 See the entry on 'artisans' (*zhujiang* 諸匠) in Su Tianjue 蘇天爵, *Guochao wenlei* 國朝文類, juan 42 ('Gongdian zongxu 工典總敘 (General Preface of the Statutes on Work)'), in *Sibu congkan chubian* 四部叢刊初編 (Shanghai: Shanghai shudian, 1989), 19.

29 For the production of lacquerware in Yuan official workshops, see Yuan Quan 袁泉, 'Lue lun Song-Yuan shiqi shougongye de jiaoliu yu hudong xianxiang — yi qiqi wei zhongxin 略論宋元時期手工業的交流與互動現象——以漆器為中心', *Wenwu* 文物, no. 11 (2013): 63.

30 Huang Wei 黃薇 and Huang Qinghua 黃清華, 'Yuan qinghua ciqi zaoqi leixing de xin faxian — cong shizheng jiaodu lun Yuan qinghua ciqi de qi yuan 元青花瓷器早期類型的新發現——從實證角度論元青花瓷器的起源', *Wenwu* 文物, no. 11 (2012): 79–88.

command over artisans across its empire, while the arrival of guest artisans signifies its endeavour to produce outstanding and exceptional porcelains, by enlisting masterful craftsmen from thousands of miles away. These artisans, Chinese and foreign, were engaged in handiwork that might appear small in number from a national perspective, but their work and products were closely related to the imperial politics and embodied state control over porcelain production.

The imperial kilns of the Ming and Qing dynasties retained, to a certain degree, the organizational and economic structure established by the Mongol Yuan, while reforming some parts of it. One reform which had a substantial influence on the labour structure in the kilns was the ‘artisans shift payoffs’ (*banjiang yin* 班匠銀) that began in the Jiajing period (1522-1566), when social changes wreaked havoc on the system of hereditary status. The reform allowed registered artisans to escape from their corvée duties by commuting their shifts into a payment in silver. Whereas before this reform workers in the imperial porcelain factory mostly consisted of registered official craftsmen; after the *banjiang yin* system came into practice hired artisans (*guyong jiang* 雇佣匠) with no special status became the majority.

This substitution was possible because, by the mid- to late-Ming, porcelain production in Jingdezhen was already being organized as a production line comprising individual specializations, with each artisan attending to just one part of the process. As the saying goes, ‘engage the hand in one activity so that the mind will not be distracted’ (*yi qi shou er bu fen qi xin* 一其手而不分其心). Under the technological influence of the imperial kilns, private kilns after the mid-Ming also brought in fine divisions of labour in the form of an assembly line, where one finished product might go through the hands of seventy-two craftsmen. Each worker was therefore reduced to a small cog in a big machine, interdependent and mutually restraining. From a longue durée perspective, this change marked the last stage in the development of porcelain production in pre-modern China: from household sideline production, to family-based handicraft business, and then to specialized workshops.

With a production line entailing many steps that was robustly designed and meticulously controlled, Qing imperial porcelain production strived to guarantee a uniformity in quality and meet demands for enormous amounts of porcelain to tight deadlines. As a result, the porcelains manufactured by the imperial kilns differed from those produced in the popular kilns, as well as from those submitted as tributes by local governments. One of their main characteristics was that they were constantly under strict imperial

control – from design to production to disposal.³¹ The complete life cycle of a porcelain object designed, produced, and disposed of within this state monopoly can be broken down into the following steps:

- 1 The emperor required certain ceramic items and issued an order for their production.
- 2 Decisions were made on their designs and quantities.
- 3 Models for the items were drafted.
- 4 The drafts were sent to the emperor for approval and then issued to the imperial porcelain factory.
- 5 The various workshops in the porcelain factory undertook their specific manufacturing tasks.
- 6 The finished products received a preliminary assessment.
- 7 Unwanted and defective items were disposed of, while quality items were delivered to the capital.
- 8 The items were submitted to the Imperial Warehouse and re-appraised.
- 9 Finally, the items were distributed to the different palaces and divisions of the court.
- 10 If items were damaged, they were either repaired or disposed of.

Examining this operation sequence from the perspective of history of technology, the first six steps of imperial porcelain production can be viewed as being concerned with ceramic technology – from designing to shaping the bodies, glazing, and controlling the firing temperature. But, whereas only the fifth operation, i.e. the various workshops' participation in the actual manufacture, belonged to technology in the narrow sense, the whole life cycle can be considered technologies in a broader sense, as they pertain to relevant knowledge that is not strictly speaking ceramic in nature.

Certainly, for imperial porcelain production, technology in the narrow sense was extremely important. Yet, throughout Ming and Qing China, many kilns mastered these techniques – the necessary expertise was not limited to artisans in Jingdezhen kilns alone. It was the patronage of the court that made Jingdezhen into the official provider of imperial porcelains. Presumably, had the blueprints and design drafts been sent to other kilns, the same kind of high-quality imperial porcelains would have been produced there. Indeed, this was the case for the Cizhou, Junzhou and Longquan kilns in

31 Li Ji 李季 et al., 'Gugong bowuyuan Nan Daku cipian maicang keng fajue jianbao' 故宫博物院南大庫瓷片埋藏坑發掘簡報, *Gugong bowuyuan yuankan* 故宮博物院院刊, no. 5 (2016): 24.

Chuzhou during the Yuan and early Ming.³² The imperial kilns at Jingdezhen precisely followed the instructions on shape, pattern, colour, and number that were conveyed by official drafts and orders, and thereby carried out the emperor's intent. They were the hands that performed tasks triggered by a remote mind. Thus, officials and artisans alike followed the blueprints and mechanically completed the tasks given, without any opportunity to add their own creativity or initiative into the process.³³

This point, that workers on Qing imperial porcelain were merely tiny yet indispensable component elements linked together into a production line, can be seen in the decoration of bowls with the design of a reign mark and dragon among clouds. Not only were the dragons and clouds painted by different artisans, but the circles at the rim and the base were also each completed by different workers. Even the task of making the reign mark at the bottom of the bowl was divided into two steps: Certain artisans wrote the characters of the reign name while others painted the circular or square frame around it.³⁴ This extreme division of labour was also evident in several other production steps – such as selecting, purchasing and preparing the raw materials, modelling the clay bodies, applying the glaze, decorating, placing the clay bodies into protective saggars, and firing the kilns.

If one looks at the technologies of porcelain production in the broader sense, from design to transportation, however, the situation appears to be somewhat different. Even though the design drafts were completed in specialized departments, the designers needed to understand closely and intimately the intentions and the preferences of the emperor because he had the final say over the designs and dominated the whole process. Thus, it was not possible for this part of the production line to function as a purely mechanical and unchanging workflow. Transporting the porcelains back to the imperial palace – a step one might not necessarily consider an important technology relevant for the production of imperial porcelain – was also strictly controlled, to avoid logistical and technological difficulties as far as possible. But, of course, a smooth transport of the finished goods was

32 See the section 'Gongbu: Yaoye, ciqi 工部: 窯冶, 陶器 (Board of Work: Kiln Firing, Ceramics)', in *Da Ming huidian* (Wanli edition), *juan* 194, 2631-1.

33 See my chapter 'Qianlong shiqi yuyaochang de guanli tizhi yu guanyang zhidu 乾隆時期御窯廠的管理體制與官樣制度 (Administration and the Yang Design System of the Imperial Ceramic Manufactory during the Qianlong Period)', in *idem*, *Zhongguo gudai guanyao zhidu (er)*, 199-200.

34 This is discussed in more detail in chapter 4: 'Mingdai gongting yongci de shengchan yaochang 明代宮廷用瓷的生產窯場 (The Kiln Sites of Production of Court Ceramics in the Ming Dynasty)' in my *Mingdai gongting taoci shi*, 136-38.

not always achieved. For example, in the Xianfeng reign (1851-1861), when the Taiping army occupying Nanjing blocked the waterways in the Yangzi, the porcelains could not be transported to Beijing, so had to be stored in the government repository (*fanku* 藩庫) at Nanchang 南昌. In another case, in the 28th year of the Guangxu reign (1902), new means of transport were employed to save time, reduce costs and adapt to modern needs and standards. The porcelains were carried by steamers from Jiujiang to Tanggu 塘沽 near Tianjin and then onwards to Beijing by train. However, the train caught fire near Yangcun 揚村, resulting in an accident.³⁵

The design of the production procedure fostered the consolidation of state control over the imperial porcelain production, but also promoted technological advances and increases in product quality. Even more importantly, the evolving workflows transformed not only the production process, but the whole economic modes and social structure of the city of Jingdezhen and the Chinese porcelain industry in general. Meanwhile, porcelain production in private kilns came under the control of commercial capital and similarly changed its character in late Ming and Qing times. Viewed in this light, porcelain production was only one part of the broader changing economic system of the time, where different historical forces acted upon each other.

Financing Imperial Porcelain Production

So far this chapter has demonstrated that imperial porcelain production in the Ming and the Qing was a vast business run by an orderly administrative system. However, putting its political significance – discussed in the first part of this chapter – aside, ceramics were merely one among the many goods that the palace machine needed and acquired. To gain a better view of porcelain's role in the court's mobilization of resources, it is instructive to investigate the cost of manufacturing porcelain.

During the Song and the Yuan dynasties, when Jingdezhen or other kilns received official commissions to produce ceramics for the court, the production outlays were very likely paid for out of local tax revenues. This was probably a continuation of regulations inherited from the Tang and the Song, and were actually substitutes for tax payments to the central government which could be contributed in the form of local product tributes. Since ceramics as local products could cancel out part of the taxes owed in silver,

35 Wang Guangyao, *Zhongguo gudai guanyao zhidu* (er), 199-200.

they were produced with local funds to satisfy some of the tax debt, so can be thought of as a tax in kind. The ceramic tributes were, in other words, no different from local ceramics that remained in the area or were sold to other customers. However, for the period from the early monopoly of the Ru kiln to the time of the official Xiuneisi and Jiaotianxia kilns in the Southern Song dynasty, evidence about how they funded their production is yet to be found.

In the Ming dynasty, porcelain production incurred tremendous expenses. Together with textile production, it was the most exploitative state enterprise of the time and faced constant opposition from government officials. No cost estimate or budget was set for the production outlays, and whatever resources were needed were just taken out of Jiangxi's ordinary tax revenues. For large-scale bulk productions, additional taxes were collected throughout the province to make up for insufficient funds.³⁶ The severity of this burden of additional taxes led to the outbreak of riots, with people demanding the suspension of porcelain production and the reform of relevant policies.

When the Qing government resumed porcelain production at Jingdezhen, they initially adopted the policies of the Ming. During the Kangxi reign (1662-1722), the production of imperial porcelains was still funded by Jiangxi's ordinary tax revenues. In the 5th year of Yongzheng reign (1727), however, the responsibility for production outlays and costs moved into the hands of the Imperial Household Department. From then on, funds to pay for porcelain production were allocated from the Huai'an Customs House surpluses.³⁷ Consequently, the nature of manufacturing imperial porcelain fundamentally changed, since it was no longer part of the state finance, but was funded entirely out of the emperor's private pocket. After this change to the funding structure, the Yongzheng emperor spent roughly 8,000 taels of silver per year to cover the costs of porcelain production.³⁸ About ten years later, in the 2nd year of the Qianlong reign (1736), that amount had increased to 20,000 taels per year,³⁹ although this trend was halted and, in the fourth year (1738), the annual amount was reduced to 10,000 taels. Moreover, the source of the money changed from being the surplus from

36 See the entry on 'Material Prices' (*liaojia* 料價), in Wang Zongmu et al., *Jiangxi sheng dazhi*, *juan* 7 ('Tao shu'), 17.

37 See the entry on 'Producing porcelain vessels' (*shaozao ciqu* 燒造磁器) in *Zongguan Neiwufu xianxing tiaoli: Guangchusi* 總管內務府現行條例: 廣儲司 (Current Regulations of the Imperial Household Department: The Grand Storage Office), in *Jindai Zhongguo shiliao congkan* 近代中國史料叢刊 (Taipei: Wenhai chubanshe, 1972), *juan* 1.

38 Fu Zhenlun 傅振倫 et al., 'Tang Ying ciwu nianpu changbian' 唐英瓷務年譜長編, *Jingdezhen taoci*, no. 2 (1982): 18-67.

39 Ibid.

the customs house at Huai'an to that of Jiujiang, where it remained until the end of the dynasty. The expenditure on porcelain production further shrunk drastically from the 4th year of the Jiaqing reign (1799) on.⁴⁰

In addition to imposing a strict control on porcelain expenditure, Emperor Qianlong took up an idea first proposed in the late-Ming, issuing an edict to sell off second-rate porcelains in the 7th year of his reign (1742).⁴¹ Prince Yi 怡親王 (Yinxiang 胤祥 1686-1730) and Haiwang 海望 (?-1755) further set down the rules that second-rate products should be sold off at no less than 50% of their production costs and demanded that the damage rate in imperial kilns should not exceed 30%. The supervisor would have to pay for the loss of any damaged goods above that rate. These rules were further elaborated in the 12th year of the Qianlong reign (1747). 'The Memorial of Provisional Regulations for his Majesty's Approval Regarding the Production of Porcelain Vessels' (*Zouwei yiding shaozao ciqi zhangcheng* 奏為議定燒造瓷器章程) revised the rules so that the cost of every article, 'which was converted into the volume of clay slabs in the size of one *cun* in width and one *chi* in length, should then be computed by calculating the itemized costs of clay, glaze and labour in making the clay bodies and in decoration, etc. one by one'.⁴² It further decreed that the production failure rate should not exceed 20% and that the discount on second-rate porcelains 'should not exceed 30%' of the original production costs.⁴³

The applicability of this rule was facilitated by supervisor Tang Ying, who renewed the list of the necessary costs for all 25 working steps in porcelain production by adjusting the respective items and amounts based on actual situations. This list provided a functional guideline for cost computation. In practice it became clear that the sales prices calculated by that method were relatively high and unappealing to customers; as a result, the expected sales revenues were always in arrears. Therefore, in the 36th year of the Qianlong reign (1771), it was decided that the price calculated from the production costs should be reduced by 30%,⁴⁴ in the hope that this would recover at least some of the costs by selling more rejects on the open market.

40 Ibid.

41 Tie Yuan 鐵源 et al., eds., *Qing gong ciqi dang'an quanji* 清宮瓷器檔案全集, vol. 2 (Beijing: Zhongguo huabao chubanshe, 2008), 209-230.

42 '經過折寬一寸、長一尺，應用泥土、釉料、做坯、做細等項銀兩，逐一分析'，see *ibid.*, vol. 3, 73.

43 Fu Yuhong 傅育紅, 'Shaozao ciqi zhangcheng zhiding hou yuyao shaozao jingfei de hexiao 燒造瓷器章程制定後御窯燒造經費的核銷', *Gugong bowuyuan yuankan* 故宮博物院院刊 = Palace Museum Journal, no. 2 (2006): 73-80.

44 Tie Yuan et al., eds., *Qing gong ciqi dang'an quanji*, vol. 11, 126-127.

Conclusion

Initially, in the Ming and early Qing, there was neither a fixed budget for porcelain production nor a statutory specification about the sources of finance for it. Particularly during the Ming era, porcelain production was financed in an extremely arbitrary manner. Even after the Yongzheng emperor had changed the source of funding from regional treasury to the superfluous revenue from customs duties, the scale and requirements of production in any specific year were entirely at the emperor's whim. Even under Qing rule, with their elaborate reporting routines and controlling workflow procedures, porcelain production could never become a constant, indispensable project in state budgeting and expenditure, because it remained tied to the emperors' changing desires and preferences. In this sense, imperial porcelain was different from commercial operations by its very nature, even though both sectors shared workers and techniques. At the same time, the sales of second-rate products – sanctioned in the Qianlong reign – indicate that even the so-called imperial porcelains were treated as simply one among the many goods produced and managed by the court. Porcelain production was not only subject to constraints caused by the economic conditions of the state, but its organization was also reformed to better fit into the government's financial organization and lessen the burden on the state's expenditures.

In the dynastic histories of pre-modern China, peace, prosperity, and longevity resulted from maintaining the balance between numerous interacting and interlocking forces that were simultaneously interdependent and mutually restrictive. The production of imperial porcelains was only one tiny thread amongst the tens of thousands of strands which wove the huge web of the state. This chapter has demonstrated how marginal imperial porcelain was on various levels: in the role porcelain actually played in state politics and the ritual system, in the minor hierarchical position held by the officials involved, and their lack of a recognized ceramic supervision profession and, last but not least, in production expenditures and management. Hence, even though Tang Ying's remark quoted at the beginning of this chapter does have a point, to stay faithful to the historical reality of imperial porcelain production we should shift its emphasis by reversing the two clauses to create the amended assertion that: 'Ceramics, although of concern to state affairs, was nevertheless a trivial matter' (*sui guan hu guozheng, tao reng xishi* 雖關乎國政，陶仍細事).

Translated from Chinese by Yanqing Shen

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