

日本爱知大学博士论文摘要

题目：明清近代景德镇的陶瓷生产与自然生态

Title: Jingdezhen's ceramic production and natural ecology in Ming,
Qing and modern times

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摘要

景德镇现被誉为世界瓷都，其真正兴起应当在宋代，明清趋于繁盛。在景德镇发展的过程中，受到了南窑、吉州窑以及北方名窑技术的影响，参考、借助这些比较成熟的技术才一步步成为产瓷名区，明清时期景德镇瓷业的繁荣也离不开众多区域的共同支撑。而在景德镇陶瓷发展史上，技术等固然重要，其发展的基础仍然是自然界的土、火、水以及人。

在景德镇制造陶瓷的过程中，最早应当是使用单一瓷石，宋代景德镇陶瓷发展是建立在瓷石的基础上。但随着地表较佳的瓷石逐渐被消耗，陶瓷质量出现下滑后，高岭土逐渐进入陶瓷的原料中，高岭土与瓷石互相搭配混合，构成了明清时期的瓷坯，造出了享誉世界的明清景德镇瓷器。景德镇最初的瓷石和高岭土主要来自景德镇本地，至少从明清开始，逐渐依赖周边，到民国时期，开采的范围进一步扩大，甚至已经远及抚州。由于景德镇瓷业对瓷石、高岭土存在刚性需求，这一行业变得有利可图，为了争夺其中的利益，无论是在景德镇本地，还是在其他生产瓷石、高岭土的地区，都产生过较大纠纷。这些纠纷有的是争夺矿产的所有权或者开采权，有的围绕矿产是否应开采展开。瓷石、高岭土的开采破坏了山体和植被，增加了河流的泥沙含量，破坏了农田，堵塞了港堰，对自然生态产生了一定的影响。

火是土坯变成瓷器的关键。古代景德镇烧瓷窑的燃料主要有松柴和槎柴，在景德镇燃料史上，应经历了以槎柴为主到以松柴为主的转变，到了近代，松柴已经远远超过槎柴，景德镇的柴窑数量大大超过了槎窑。松柴的燃烧温度更高，烧出的瓷器普遍质量更好，这意味着在这次燃料变化过程中，景德镇的瓷器质量也得到提升。但松柴相比槎柴，生长周期更长，自然更新速度慢，景德镇本地的松柴很快耗尽，大致从明清时期开始，整个赣东北都逐渐被纳入到景德镇的燃料市场当中，大量的松柴从更远的地方，通过肩挑水运到达景德镇。但燃料产地越来越远，加上长距离运输的不确定性，景德镇对松柴的管理愈发严格，近代已不允许将松柴用于充当生活燃料。燃料的大量消耗使得景德镇以及周边出现不少童山，森林植被遭到破坏，大量燃料的堆积和瓷窑的存在又给当地增加了火灾风险，燃

烧产生的灰尘和浓烟更影响到了景德镇的空气质量。但回到民国时期的时空，当时人面对景德镇的滚滚浓烟时，反而充满欣喜，因为这在当时是经济发展以及现代化的幻象。

水在景德镇制瓷过程中无处不在，洗炼原料需要大量水，粉碎原料同样需要利用水力。至少从清朝开始，景德镇已经用水碓粉碎瓷石和瓷土，在靠近瓷石矿、瓷土矿的河流中，时常出现水碓，水量大的河流水碓数量甚至惊人。水也是承载古代乃至近代景德镇对外交通的主要要素，原料、燃料进入景德镇，瓷器走出景德镇，都十分依赖水运。但在景德镇瓷器发展的过程中，大量瓷业垃圾进入昌江河道，整个昌江河道不断出现瓷业垃圾堆积的滩涂。到了近代，情况已经发展到比较严重的地步，在径流量大的季节，大船也很难直接到景德镇，平常大船只能到饶州，再换小船行至景德镇。在枯水季节，小船也经常搁浅。这样的交通对景德镇瓷业发展十分不利，疏通景德镇至鄱阳湖的水道成为近代有识之士的共识，他们也为此努力过，但效果应当有限。1949年以后，党和国家在疏通景德镇至鄱阳湖水道上仍然花费了巨大的人力和物力。

人在本质上也是自然界的一部分，人在广义上也是自然资源，但一般我们不会这样去关注人。景德镇的工人主要来自于本地、江西其他地区及安徽，充满机遇的景德镇吸引着他们来到景德镇，这里确实可以改变命运。景德镇近代工人的工资待遇总体上一一般，多数瓷业工人的生活并不富裕，教育水平也不高，徽州的徽商在明清时期可能属景德镇文化水平较高的群体。对于近代景德镇的工人，其所处的社会环境并不平和，械斗、抢劫、杀人、拦路抢劫等事时有发生，疾病也在不断折磨着他们。但在后人的记忆和追溯中，景德镇的疾病出现了“失忆”的奇怪现场。整个景德镇的社会风气也存在极其负面的情况，暴力、偷窃、舞弊、娼妓、赌博之风明清时期就有，卫生状况也不甚被关注。

景德镇的繁荣发展是建立在这些自然资源的基础上，这一直是被忽略的方面。但从明清开始，这些自然资源相继出现问题，景德镇支撑瓷业的本地资源逐渐耗尽，需要其他地域的资源继续支撑，但这不仅增加了风险，更提高了制瓷的成本，水运道路日益不便更雪上加霜。这些不利条件使得景德镇瓷器在面对外来瓷器竞争时，更缺乏竞争力。在近代景德镇瓷业衰落中，自然也发挥了不可忽略的作用。

关键词：明清近代；景德镇；陶瓷；自然生态

Abstract

Jingdezhen is now known as the world porcelain capital. It rose in Song dynasty and flourished in Ming and Qing dynasties. In the process of its development, Jingdezhen's ceramics was influenced by the technology of south Kilns, Jizhou kilns and these famous kilns in the north. Relying on these mature technologies and the support of numerous regional resource, Jingdezhen became a famous ceramic producing area. In the development history of Jingdezhen's ceramics, technology is of course important, but its development is still based on nature, which like earth, fire, water and human.

In the history of ceramic making in Jingdezhen, porcelain stone should be used alone in the early days, the development of Jingdezhen's ceramics in Song dynasty was built on the basis of porcelain stone. However, as the better surface porcelain stone was gradually consumed and the quality of ceramics declined, kaolin gradually entered the raw materials of ceramics. Kaolin and porcelain stone were mixed with each other to form the ceramic body and produced the World-famous Jingdezhen porcelain of Ming and Qing dynasties. The early porcelain stone and kaolin mainly came from Jingdezhen itself. But, at least from the Ming and Qing dynasties, it gradually depended on the surrounding area. In modern times, with the extension of mining scope, the area even covered Fuzhou. Because Jingdezhen's ceramic industry had rigid demand for porcelain stone and kaolin, In order to compete for the interests, conflict erupted both in Jingdezhen and other regions where producing porcelain stone and kaolin. Some of these conflicts were over the ownership or mining rights of minerals, and some revolved around whether minerals should be mined. The exploitation of porcelain stone and kaolin damaged the environment, such as destroyed mountains and vegetation, increased the sediment content of rivers, destroyed farmland, blocked weir and so on.

Fire is the key of turning adobe into ceramic. In Jingdezhen's ancient kiln, the main fuels were pine wood and Cha wood. However, in the history of Jingdezhen's kiln fuel, it should experience a transition from the Cha wood to the pine wood. In modern times, the pine wood had far exceeded the Cha wood, and the number of Jingdezhen's pine kilns greatly exceeded the Cha kiln. Pine wood created a higher temperature and generally produced better ceramic, which meant that the fuel change improved the quality of Jingdezhen's ceramic. But pine wood's growth cycle was longer, Jingdezhen's local pine wood soon exhausted, the whole northeast of Jiangxi were gradually incorporated into the fuel market of Jingdezhen roughly from Ming and Qing dynasties, a large number of pine wood through water transport to Jingdezhen from far and far places. However, the long-distance transportation increased the risk of Jingdezhen's fuel market. In modern times, pine wood was no longer allowed to be used as domestic fuel. A large amount of fuel consumption led to the destruction of hill's vegetation in Jingdezhen and its surrounding areas. The existence of large amounts of fuel and ceramic kilns increased the risk of fire in Jingdezhen, and the dust and smoke from combustion also affected the air quality. But back to the modern time, when people faced the smoke of Jingdezhen, they were filled with joy, because it meant economic development and

modernization at that time.

Water is ubiquitous in the process of ceramic making in Jingdezhen. Washing raw materials required a lot of water, and crushing raw materials also required water power. Jingdezhen had used water mills to pulverize porcelain stone and kaolin no later than Qing dynasty. In rivers near porcelain stone and kaolin, water mills often appeared, and in some great rivers, the amount of mills was even surprising. Water was also the main transportation of Jingdezhen in ancient and modern times. Raw materials and fuels entered Jingdezhen and ceramic moved out of Jingdezhen were all depended on water transportation. However, during the development of Jingdezhen's ceramic, a large number of ceramic wastes entered into Changjiang River, more and more mud flats came into being. In modern times, the situation became more serious, even in the monsoon, it was difficult for large ships directly reached Jingdezhen. They could only reach Rao Zhou, and then changed boats to Jingdezhen. Little boats also run aground during dry seasons. The terrible traffic was very unfavorable to the development of Jingdezhen's ceramic industry, dredging the waterway from Jingdezhen to Poyang Lake had become the consensus in modern times. Someone made efforts, but the achievement might be limited. After 1949, our government still made large efforts on dredging the waterway from Jingdezhen to Poyang Lake.

People are essentially part of nature, but we don't read people in that way. Jingdezhen's workers mainly from the local area, other areas of Jiangxi and Anhui, they came to Jingdezhen, and someone changed life there. The wages of the workers in Jingdezhen of modern times were generally not much, most of the workers in the ceramic industry did not live a rich life. They had a low level of education, Huizhou merchants probably belonged to the group with a high level of education in Ming and Qing dynasties. For the workers of Jingdezhen in modern times, the social environment they lived in was not peaceful, such as fighting, robbery, murder and road robbery happened from time to time, diseases also tortured them constantly. But in the memory and retrospection many years later, Jingdezhen's disease seemingly disappeared. Violence, theft, fraud, prostitution and gambling had been prevalent since the Ming and Qing dynasties, sanitary conditions were also unnoticed in that time.

Jingdezhen's prosperity was built on these natural resources, they had been ignored all the way. Since the Ming and Qing dynasties, these natural resources appeared problems one after another. The local resources gradually couldn't supporting the ceramic industry in Jingdezhen, and resources from other regions were needed to continue to support it. It not only increased the risk, but also increased the cost of ceramic making. These disadvantages combined with inconvenient transportation made Jingdezhen's porcelain lack of competitiveness when facing the competition of foreign porcelain. Nature also played an important role in the decline of Jingdezhen's ceramic industry in modern times.

Key words: Ming, Qing and modern times; Jingdezhen; ceramics; natural ecology