



Shipwrecks and *Qingbai* Porcelain Trade
during Song and Yuan Dynasties,
China

School of Humanities

Department of Archaeology

Xue Xiyan

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Abstract

Qingbai porcelain was a major commodity in overseas trade during the period of Song and Yuan dynasties, but the current research on export *Qingbai* wares is much less than that on celadon and blue and white porcelain. In recent years, considerable archaeological discoveries of shipwrecks carrying *Qingbai* porcelain, make it possible for a further study of export *Qingbai* porcelain and its maritime trade.

The Introduction introduces the research status of the *Qingbai* porcelain and shipwrecks. The second Chapter introduces the basic connotation of the global history theory and the re-understanding of the ocean and analyses the regional relations in marine trade and the rise of porcelain trade under the theoretical framework of global history during Song and Yuan dynasties. The third chapter discusses the overseas trade routes from the Han to the Yuan dynasties. It also analyses the reasons for the prosperity of *Qingbai* porcelain trade in and outside of China, which are the open trade policy of the Song and Yuan governments and the Chinese people's aesthetic for the bluish white glaze colour. The fourth chapter firstly investigated the archaeological excavation of *Qingbai* porcelain on sites and the shipwreck data in and outside of China. Then analyses the trade scale and economic value of *Qingbai* porcelain. The last part of this chapter analyses the technology of making *Qingbai* porcelain, including the raw materials, factors that affecting the glaze colour and decorations. The fifth chapter works on the cultural exchanges by the exportation of the *Qingbai* porcelain. The first part of this chapter investigated how the *Qingbai* wares were used in both domestic and overseas markets. In addition to meeting the needs of daily life, *Qingbai* porcelain also played an important role in the local customs and religious ceremonies in different countries and regions. The second part of this chapter studies four types of customized products for the Southeast Asia: boxes, big plates and bowls, *kendis*, small jars and bottles. The last part is the research on how *Qingbai* porcelain influenced the overseas ceramic technologies. During the Song and Yuan dynasties, Islamic white pottery, Vietnamese white porcelain, white porcelain of Goryeo and ceramic manufacturing industry in Thailand and Japan were all influenced by the technology and shape of *Qingbai* porcelain.

The last chapter is the Conclusions, which reviews the main points of this thesis, and introduces the relationship between the disappearance of *Qingbai* porcelain and the rise of egg-white glazed porcelain as well as blue and white porcelain. The whole process of production, transportation, sale and consumption of *Qingbai* porcelain in Song and Yuan dynasties is a network across Asia and Africa, involving all countries and regions along the Maritime Silk Road. *Qingbai* porcelain is a microcosm of the maritime trade that not only reflects the grandeur of the whole trade network during Song and Yuan, but also carries very small and specific cultural information of different societies and groups behind the trade.

Key Words: export *Qingbai* porcelain, shipwrecks, maritime trade, Song and Yuan dynasties, cultural exchanges.

Contents

Chapter 1 Introduction.....	1
1.1 Introduction.....	1
1.2 Chinese porcelain and shipwrecks	1
Chapter 2 Global History and Networking of Regional Relations Through Maritime Trade	9
2.1 Introduction.....	9
2.2 Global history and the re-understanding of the ocean	9
2.3 Regional relations through maritime trade	12
2.4 The rise of porcelain trade in the Song and Yuan dynasties	22
Chapter 3 The Rise of <i>Qingbai</i> Porcelain Trade.....	27
3.1 Sea routes before Tang dynasty	27
3.2 Sea routes in the Tang and Song dynasties	29
3.3 Foreign trade systems in Song and Yuan dynasties	34
3.4 The origin of <i>Qingbai</i> and the aesthetic of monochrome glaze	37
Chapter 4 Export <i>Qingbai</i> Porcelain on the Shipwrecks.....	43
4.1 Introduction.....	43
4.2 A survey of <i>Qingbai</i> porcelain from shipwrecks.	43
4.3 Unearthing and excavating <i>Qingbai</i> porcelain in and outside of China	50
4.3.1 <i>Qingbai</i> porcelain unearthed in China	50
4.3.2 <i>Qingbai</i> porcelain unearthed outside of China	52
4.4 The scale of trade and the price of <i>Qingbai</i> porcelain	57
4.4.1 Marine trade ships of Song and Yuan dynasties.....	57
4.4.2 The price of export <i>Qingbai</i> porcelain.....	61
4.5 The technology of export <i>Qingbai</i> porcelain	64
4.5.1 The raw materials.....	67
4.5.2 Factors affected the glaze colour of <i>Qingbai</i> porcelain	70
4.5.3 Decorations	72
Chapter 5 The Exportation of <i>Qingbai</i> Porcelain and Its Cultural Exchange	77
5.1 The use and value of <i>Qingbai</i> porcelain.	77
5.1.1 Relations between the tea and wine culture, and <i>Qingbai</i> wares.....	77
5.1.2 Funeral customs and <i>Qingbai</i> porcelain	82
5.1.3 Ritual value of <i>Qingbai</i> porcelain.....	85
5.2 Customized products in Southeast Asia	87
5.2.1 Boxes.....	87
Big plates and bowls	95
<i>Kendis</i>	97
Small jars and bottles	99
5.3 Influence on overseas ceramic technologies.....	100
Chapter 6 Conclusions.....	106
Bibliography.....	110

Appendix.....	118
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Figures

Figure 1: The Eight Circles of the Thirteenth-Century World System	12
Figure 2: The South China Sea (AD 1250-1500)	14
Figure 3: The Indian Ocean (AD 1250-1500).....	18
Figure 4: <i>Qingbai</i> Porcelain Kiln Sites in the Song Dynasty (AD 960-1279).....	41
Figure 5: The 12 th and 13 th Cabins of Nanhai No.1	61
Figure 6: <i>Qingbai</i> Wares from Tanjung Simpang Megayau, Sinan and Nanhai No.1 Wrecks.....	67
Figure 7: Bowls from Intan Wreck	68
Figure 8: Water Dropper from Sinan Wreck	68
Figure 9: Mangkou Plate on Nanhai No.1 Wreck	73
Figure 10: Jar from Sinan Wreck	73
Figure 11: Ewer on the Investigator Wreck	73
Figure 12: Plate on Huanghuajiao No.1 Wreck	73
Figure 13: Box Base from Nanhai No.1 Wreck	74
Figure 14: Water Dropper on Sinan Wreck.....	74
Figure 15: Small Bottles on the Breaker Shoal Wreck	74
Figure 16: Bottle from Sinan Wreck	74
Figure 17: Incense Burner on Sinan Wreck	76
Figure 18: Incense Burner on Sinan Wreck	76
Figure 19: Cup from Sinan Wreck	76
Figure 20: Ewer from Nanhai. No.1 Wreck	76
Figure 21: Ewers on Sinan Wreck	80
Figure 22: Plum Bottle on Sinan Wreck	81
Figure 23: <i>Qingbai Zhu zi</i> and <i>Zhu wan</i> in Jingdezhen Museum	81
Figure 24: <i>Qingbai</i> Soul Jar of Song	82
Figure 25 : <i>Qingbai</i> Soul Jar of Yuan	82
Figure 26: <i>Qingbai</i> Boxes from Dehua kilns on Huahuangjiao No.1.....	88
Figure 27: Box on Pulau Buaya Wreck	89
Figure 28: Box on Pulau Buaya Wreck.....	89
Figure 29: Box on Nanhai No.1	90
Figure 30: Box on Nanhai No.1	91
Figure 31: Box on Nanhai No.1	91
Figure 32: Box on Nanhai No.1	91
Figure 33: Box on Nanhai No.1	91
Figure 34: Box on Nanhai No.1	92
Figure 35: Box on Nanhai No.1	92
Figure 36: <i>Qingbai</i> Boxes Produced in Dehua Kilns in Different Periods.....	93
Figure 37: Open Mouth Plate on Nanhai No.1	96
Figure 38: Contracted Mouth Plate on Nanhai No.1	96
Figure 39: Folded Mouth Plate on Nanhai No.1	97

Figure 40: <i>Kendi</i> on Nanhai No.1	98
Figure 41: Small Jars from Shazhou Wreck, Nanhai No.1 and Jepara Wreck...	100
Figure 42: 12 th White Glazed Plum Bottle of Goryeo	102
Figure 43: White Glazed Plate of Goryeo.....	102
Figure 44: Grey Glazed Plum Bottle from Seto kiln	103
Figure 45: <i>Qingbai</i> Plum Bottle from Jingdezhen kiln.....	103
Figure 46: Grey Glazed Ewer from Seto kiln	105
Figure 47: <i>Qingbai</i> Ewer from Jingdezhen kiln	105

Tables

Table 1: Comparison of the Trading Places in Historical Documents of Tang, Song and Yuan Dynasties.....	30
Table 2: Import and Export Goods in the Song Dynasty	36
Table 3: Colour Change of the Cyan Glazed Porcelain.....	38
Table 4: Provenance of the <i>Qingbai</i> Porcelain on the Shipwrecks.....	42
Table 5: Kilns Imitated Jingdezhen <i>Qingbai</i> Porcelain	42
Table 6: The Size of Trading Ship and the Number of Crew in the Song dynasty.....	58
Table 7: The Size of Shipwrecks in Song and Yuan Dynasties	59
Table 8: Porcelain Price Records of Sugimura Yuzo Documents.....	63
Table 9: The Exchange Rates of Different Currencies during the Yuan Dynasty	64
Table 10: <i>Qingbai</i> Porcelain on the Shipwrecks	65
Table 11: <i>Qingbai</i> Porcelain from the Coastal and Underwater Sites	66
Table 12: The Chemical Composition of the Bodies (wt%).....	68
Table 13: The Chemical Composition of the Glaze (wt%).....	68
Table 14: The Firing Temperature of <i>Qingbai</i> Porcelain.....	71
Table 15: Average Contents and SD of Major Elements in Porcelain Glazes of Kejiachong Kiln in Different Periods (wt%).....	71
Table 16: Types of <i>Qingbai</i> Porcelain in Unearthed in Song and Yuan Dynasties	78
Table 17: Types of <i>Qingbai</i> Porcelain in Shipwrecks and Underwater Sites	78

Chapter 1 Introduction

1.1 Introduction

Since the beginning of human civilization, people explore the unfamiliar world for many reasons: curiosity about the unfamiliar world, the search for living space and resources, the desire to build a more advanced civilization, the conquest of other civilizations, and trade. People's pursuit of exotic treasures has driven countless merchants across the mountains and seas to engage in trade activities in foreign countries. Silk, ceramics and tea are the Chinese commodities that many foreign civilizations yearned for. Commodities, especially exotic treasures, have a close connection to the economic development of different regions, people's daily life, aesthetic taste and even cultural beliefs. In the Song and Yuan dynasties, one of most renowned and highly sought-after Chinese commodities was *Qingbai* porcelain.

1.2 Chinese porcelain and shipwrecks

After the Han dynasty (202 BC- AD 220), Chinese ceramics have slowly spread overseas along with silk,¹ and have become staple commodities in foreign trade during the Song and Yuan dynasties (AD 960-1368)². Celadon, *Qingbai* porcelain and white porcelain accounted for the largest portion of overseas porcelain trade, at the time of writing, were found in more than 20 countries and 30 regions along the Maritime Silk Road.³ *Qingbai* porcelain was first invented in the Fangchang kiln in the late Tang dynasty. In the early Song dynasty Fangchang kiln stopped produce *Qingbai* porcelain but it became a classic product of Jingdezhen kiln. Then *Qingbai* porcelain spread rapidly and products from Jingdezhen were imitated by kilns all over the country in the middle Northern Song dynasty⁴ (AD 1020-1080). A nationwide *Qingbai* porcelain kiln group was formed, and was considered to have the greatest impact, with the highest number of kilns and the largest output in the Song dynasty (AD 960-1279).⁵ From the end of the 13th century to the 15th century, Chinese *Qingbai* porcelain was exported in large quantities via multiple

¹ Tang Xinghuang, "The Spread of Chinese Ceramics between Han and Jin Dynasties", *Journal of Xiamen University* (Philosophy and Social Sciences Edition), No.3, 1998, pp. 106-110.

² Feng Xianming, "The Export of Ancient Chinese Porcelain", *Journal of Maritime History Studies*, No.2, 1980, pp. 11-13, 97-98.

³ Ren Rongxing, "A Brief Account of Chinese Porcelain Export in Song and Yuan Dynasties", *Shilin*, No.3, 1995, pp. 42-46; "The Dawn of the Porcelain Trade: White Porcelain and Bluish White Porcelain", *Southern Cultural Relics*, No.4, 2000, pp. 111-118.

⁴ When describe different historical periods or dating of the wrecks and sites, scholars or public archaeological reports do not have accurate data, but use expressions such as the early, middle and late Northern Song Dynasty, the specific time range and stages refers to historical events and the *History of Chinese Literature*, (Zhang Peiheng and Luo Yuming ed., Shanghai: Fudan University Press, 2004).

⁵ Zhong Jianhua and Chen Yuqian ed., *History of Jingdezhen Ceramics (Volume of Tang, Five Dynasties, Song and Yuan Dynasties)*, (Nanchang: Jiangxi People's Publishing House, 2016), p.94.

seaborne routes: one such route was going east to Japan and the Korean Peninsula, one continued to be shipped to the south to today's Vietnam and the Philippines, then westward to reach Southeast Asia, such as Thailand, Burma and Sri Lanka. Merchants from various regions that sailing on the Indian Ocean, took Chinese porcelain to further destinations, the longest trade route in this period exceeded 7,000 nautical miles (about 13,000 km), reaching as far as eastern Africa.

Porcelain produced for foreign market are called 外销瓷 (Waixiao ci) or export porcelain, which is the most common terminology in the study of overseas ceramic trade in Mainland China. The first use of 外销瓷 can be found to the middle of the 20th century, in Han Huai Zhun's book *Ancient Chinese Export Ceramics Left in the South China Sea*¹. Scholars from Hong Kong and Taiwan refer to it as 贸易瓷 (Maoyi ci) or trade ceramics, while Japanese scholars use the term 外贸陶磁 (Waimao taoci) or export ceramics². In recent years, some Chinese scholars have put forward the concept of 海洋性陶瓷 (Haiyangxing taoci) or oceanic ceramics in response to the changes in the porcelain industry in the southeast part of China caused by overseas trade after the late Tang and Five Dynasties (AD 836-979). This concept emphasises the production of ceramics that were strictly sold to the seaborne trade and with the export purpose³.

The first person that conducted a scientific study on porcelain in China was Chen Wanli. In the 1920s, Chen applied the archaeological theories and methods to conduct the ancient ceramics research, focusing on the ceramic study combined with field work and historical documents. Chen discovered the Longquan kiln site in May 1928, and published the first field study report of Longquan kiln *Porcelain and Zhejiang*⁴ in 1946. During 1920s to the 1960s, field investigations on kilns sites that produced export porcelain in China and relics with Chinese export porcelain outside of China started. The masterpiece of this period is *Ancient Chinese Export Ceramics Left in the South China Sea* by Han Huaizhun in 1960 and the paper "Porcelain as Evidence of Ancient Sino-African Traffic Relations" by Xia Nai in 1963⁵. Xia Nai gave a full briefing of the Chinese ceramic fragments in the Fustat site of Africa, which pioneered the study of ancient Chinese export porcelain in African relics. In 1987, "The Discovery of Ancient Chinese Porcelain in Africa" co-authored by Ma Wenkuan and Meng Fanren was published, which introduced the Song and Yuan celadon fragments that were found in Fustat, Kival, Madagascar, Mombasa and other regions.⁶ China Ancient Export Porcelain Research Association was established at "The

¹ Han Huai Zhun, *Ancient Chinese Export Ceramics Left in Southeast Asia*, (Singapore: Youth Book Company, 1960).

² As for the different appellations of export ceramics, see Meng Yuanzhao's "Review of the Discovery and Research of Ancient Chinese Export Ceramics in the Past 40 Years", *Journal of Maritime History Studies*, No.4, 2019), Note 1, p. 18; Rose kerr, *Chinese Export Ceramics*, (London: V&A Publishing, 2011).

³ Wu Chunming, "Development and Change of Trade System of Maritime Ceramics in Southeast China", *Journal of Chinese Social and Economic History*, No.3 ,2003.

⁴ Chen Wanli, *Ceramics and Zhejiang*, (Shanghai: Zhonghua Book Company, 1946).

⁵ Xia Nai, "Porcelain as Evidence of Ancient Sino-African Communication Relations", *Cultural Relics*, No.1, 1963.

⁶ Ma Wenkuan and Meng Fanren, *The Discovery of Ancient Chinese Porcelain in Africa*, (Beijing: Forbidden City Press, 1987).

Dehua Kiln Symposium” in July 1980, and Chinese Ancient Ceramics Research Association (CACRA) was established by the following year at the “First Annual Conference on Chinese Ancient Export Ceramics”. It agreed to set a new theme for each annual conference to help the in-depth study of Chinese ancient ceramics and export porcelain.¹ After the establishment of the CACRA, foreign research results were collected and translated as well as the hard work on ancient Chinese ceramics unearthed abroad were recorded to and have subsequently published, three volumes of *Research Materials on Ancient Chinese Export Ceramics*, seven volumes of *Research on Ancient Chinese Ceramics and Ancient Export Ceramics*. In addition, *The Road of Ceramics*² by Japanese scholar Mikami Tsugio 三上次男 was translated into Chinese. Meng Yuanzhao from the National Museum of China wrote “A Review of the Discoveries and Research of Ancient Chinese Exported Porcelains in the Past 40 Years” in 2016. The paper is based on the archaeological excavation of kiln sites in China, shipwrecks at home and abroad, and export ceramics that were found in overseas. He has reviewed the discoveries in detail as well as conducted research on the export ceramics at home and abroad since 1980s. Meng has also covered the latest research topics, new archaeological technologies and methodologies, and finally classified the latest research topics of export ceramics into three parts: Production, Circulation and Consumption.³

With the discoveries of the Quanzhou shipwreck and Sinan shipwreck in the 1970s, the Chinese underwater archaeological team was constituted in the 1980s. The study of export porcelain began to encompass underwater archaeology and the maritime communication history. Studies on porcelain from shipwrecks were gradually developed. In March 1987, the Underwater Archaeological Coordination Group was set up under the leadership of the National Administration of Cultural Relics. In November of the same year, the Archaeology Department of the Chinese History Museum established the Underwater Archaeology Research Office. Students were sent abroad for archaeological training and cooperating with the foreign underwater archaeological research establishments; thus, the first batch of underwater archaeological professionals in China were trained.⁴ After 30 years of hard work, Chinese archaeological team has successively conducted a number of surveys and excavations of underwater sites in the Bohai Sea, the Yellow Sea, the East China Sea, and the South China Sea.

Qingbai porcelain was a major commodity in overseas trade during the Song and Yuan dynasties, but the current research on the export of *Qingbai* wares are less detailed compared with those on celadon and blue and white porcelain. Firstly, this may be due to

¹ Ou Yang, “Retrospect and Prospect of Ancient Ceramics Research: An Interview with Ye Wencheng, Vice President of China Ancient Ceramics Research Association”, *Southeast Culture*, Z1, 1992.

² Mikami Tsugio 三上次男, Li Xijing and Gao Ximei ed., *The Road of Ceramics*, (Beijing: Cultural Relics Publishing House, 1984).

³ Meng Yuanzhao, “Review of the Discovery and Research of Ancient Chinese Export Ceramics in the Past 40 Years”, *Journal of Maritime History Studies*, No.4, 2019.

⁴ Zhang Wei, “Underwater Archaeology and Its Development in China”, Underwater Archaeology Research Centre of National Museum of China ed., *Studies of Underwater Archaeology*, Vol. 1, (Beijing: Science Press, 2012).

the fact that celadon has a longer history and it was the daily necessities of Chinese people for a long time. There were more materials and artefacts readily available for study. Secondly, *Qingbai* porcelains were mass-produced from different kilns, with different raw materials and firing techniques being applied, thus its quality varies. The glaze colour of the fine *Qingbai* porcelain is very close to white, so it is easy to confuse the two when studying white porcelain. In addition, poorer quality *Qingbai* porcelains are more greyish, yellowish or greenish, and they were often classified into other type of porcelain. Such scenario increases the difficulty for studying *Qingbai* porcelains. The first scholar that paid attention to the *Qingbai* porcelain research was Feng Xianming. His article “*Qingbai* Porcelain in the Song and Yuan Dynasties” was published in 1979. He analysed the reasons for the emergence of *Qingbai* porcelain as well as studying the relative records in historical documents. Feng has also collected archaeological data about the sites where the *Qingbai* porcelains were unearthed in China and abroad¹. Later, his student Feng Xiaoqi and himself co-authored the article “Song Yuan *Qingbai* Porcelain and Its Imitations”. The article mainly introduces the different kilns and firing processes used to craft *Qingbai* porcelain, and discussed the imitation of Song and Yuan *Qingbai* porcelain during AD 1912-1949². In 1982, the *Collections on Chinese Ancient Ceramics*, edited by the Chinese Silicate Society, was published, which included 21 papers from the Conference on Chinese Ancient Ceramics held in 1978, as well as Feng Xianming’s “Comprehensive Discussion on the *Qingbai* Porcelain in the Song and Yuan Dynasties of China”.³ In 1989, Ye Wencheng published the “Export of *Qingbai* Porcelain from Jingdezhen Kilns in Song and Yuan Dynasties”, which mainly discussed the technical characteristics of *Qingbai* porcelain from Jingdezhen Kilns and its overseas market.⁴ In 1992, the first monograph about *Qingbai* porcelain *Yingqing Ci Shuo* was published. The book introduced the origin, categories, main kilns of *Qingbai* porcelain, and carried out a preliminary study on the commercial development as well as foreign porcelain trade in Song and Yuan dynasties⁵. In 1995, the Ching Leng Foundation sponsored the publication of *Dated Qingbai Wares of the Song and Yuan Dynasties*. This book sets up the catalogue of dated *Qingbai* porcelain unearthed from the tombs of Song and Yuan dynasties, and summarises the birth, kilns’ distribution, modelling technology and historical status of *Qingbai* porcelain.⁶ In 2010, Professor Huang Yijun published a book entitled *A Study on the Historical Geography of Song Dynasty Qingbai Porcelain*, which made a detailed study of the origin of *Qingbai* porcelain in the late Tang dynasty and early Song dynasty (AD 836-1125), and the kilns that produced *Qingbai* porcelain. She believes that the production centre of *Qingbai* porcelain had gradually shifted to the southeast coast. She also discussed the production

¹ 1. Feng Xianming, “*Qingbai* Porcelain in China's Song and Yuan Dynasties”, *Journal of the Palace Museum*, No.3, 1979, pp. 30-38.

² Feng Xianming, “*Qingbai* Porcelain and Its Imitations in the Song and Yuan Dynasties”, *Collections*, No.4, 1996, pp. 5-8.

³ Feng Xianming, “A Debate on the *Qingbai* Porcelain of the Song and Yuan Dynasties”, *Collections on Chinese Ancient Ceramics*, (Beijing: Cultural Relics Publishing House, 1982).

⁴ Ye Wencheng, “Export of *Qingbai* Porcelain of Jingdezhen Kiln Series in Song and Yuan Dynasties”, *Jingdezhen Ceramics*, 1989.

⁵ Chen Dingrong, *A Study on Yingqing Porcelain*, (Beijing: Forbidden City Press, 1991).

⁶ Peng Shifan ed., *Dated Qingbai Wares of the Song and Yuan Dynasties*, (Hong Kong: Ching Leng Foudation, 1998).

and trade of *Qingbai* porcelain within the domestic market during the Song dynasty (AD 960-1276), and the trade has resulted in developments in certain regions. Moreover, she established a detailed catalogue of *Qingbai* porcelains that were unearthed in China in the Song dynasty.¹ In 2013, in order to commemorate the tenth anniversary of the excavation of the Fanchang Kiln, the first “Fanchang Kiln Site Protection and Research Forum” was held and the *Collection of Qingbai Porcelain from Fanchang Kiln* was published. It mainly introduces the product characteristics and techniques of Luochong kiln and Kechong kiln from the Five Dynasties (AD 907-960) to the early Northern Song dynasty (AD 960-1125), with a large number of *Qingbai* porcelain figures from the two kilns². In 2015, *Research on Qingbai Porcelain* edited by the Chinese Ancient Ceramics Society was published. It is a collection of popular opinions on the study of *Qingbai* porcelain in recent years. The collection was arranged into three sections: the study of *Qingbai* wares from Fanchang kiln and Jingdezhen kiln, *Qingbai* porcelain unearthed in China and abroad, and the comparative study of Fanchang kiln and other kilns. A paper from the second section introduces the main products and historical changes of the *Qingbai* porcelain kilns in the Jinjiang River Basin and Jiulong River Estuary. It focuses on the *Qingbai* porcelain products of Minnan kilns that were found in the countries and regions along the Maritime Silk Road.³ In the third section, the article “The Influence of Song and Yuan *Qingbai* Porcelain on Vietnamese White Porcelain” analyses the technological differences between the products that were produced from Jingdezhen kiln, Fanchang kiln and Nanfeng kiln and describes the development and changes of Jingdezhen firing technology from Song to Yuan dynasty. The most valuable part of this paper is that it explores the progression of Chinese immigrants and the spread of firing technology in Vietnam, including the influence of the Chinese *Qingbai* porcelain firing technology on the ivory glazed porcelain of Vietnam during the Li dynasty (AD 1009-1225) and the Chen dynasty (AD 1225-1400), as well as the Vietnamese white porcelain.⁴ “The Elements of *Qingbai* Porcelain in Islamic White Porcelain” holds that the Islamic craftsmen deliberately imitated Chinese *Qingbai* porcelain in the early and middle stages of Islamic ceramics industry. During the 9th century, with the introduction of milky white porcelain of the Tang dynasty, the “ceramic fever” in the Near East was stimulated, and the Islamic imitation of milky white porcelain resulted in milky white tin glazed products. The author believes that when the *Qingbai* porcelain of Song dynasty was introduced into the Islamic regions, Islamic craftsmen were attracted by its light texture and translucent look and began to imitate it. However, due to the limited raw materials and technology, they did not succeed. Although the imitation did

¹ Huang Yijun, *A Study on the Historical Geography of Song Dynasty Qingbai Porcelain*, (Beijing: Cultural Relics Publishing House, 2010).

² Fanchang Kiln Museum ed., *Collection of Fangchang Kiln*, (Beijing: Cultural Relics Press, 2013).

³ Peng Weibin, “The Rhyme of Sea Silk Porcelain: The Production and Export of *Qingbai* Porcelain in South Fujian in Song and Yuan Dynasties”, China Ancient Ceramics Society ed., *Research on Qingbai Porcelain*, (Beijing: Palace Museum Press, 2015), pp. 165-179.

⁴ Lin Yiqiu, “The Influence of Song and Yuan *Qingbai* Porcelain on Vietnamese White Porcelain”, China Ancient Ceramics Society ed., *Research on Qingbai Porcelain*, (Beijing: Palace Museum Press, 2015), pp. 247-267.

not produce good *Qingbai* products, but the technology of producing porcelain amongst the Islamic craftsmen has improved.¹

In recent years, more scholars outside of China have paid attention to the study of *Qingbai* porcelain. Most of the researches on the history of Chinese ceramics or Jingdezhen will contain references to the *Qingbai* porcelain. Examples include Mary Tregear's *Song Ceramics*² and Margaret Medley's *The China Pottery: A Practical History of Chinese Ceramics*³ published in 1982, Sheila Vainker's *Chinese Pottery and Porcelain: From Prehistory to the Present*⁴ published in 1991. All three publications have a practical introduction of the development history of *Qingbai* porcelain in China. The aforementioned have conducted general and basic research on *Qingbai* porcelain. Some other researches were focusing on the study of the unearthed and preserved *Qingbai* porcelain outside of China, such as Mino Yutaka's *White Porcelain*⁵ published in 1998 and *Porcelain Stories: From China to Europe*⁶ published by the Seattle Art Museum in 2000, both of which contain chapters discussing *Qingbai* porcelain. A brief Japanese and English introduction to *Qingbai* porcelain in *Song Ceramics*, was included in the exhibition catalogue of the Oriental Ceramic Museum, Osaka in 1999. A small part of those research involves trade relations and the social and cultural influence of *Qingbai* porcelain on the overseas market. Stacey Pierson is a reader of the Department of Archaeology and Art History, SOAS University of London, and has edited and published a book, *Qingbai Ware: Chinese Porcelain in Song and Yuan Dynasties* in 2011. The book presents a large number of pictures of *Qingbai* porcelain that are now preserved in Britain. It also contains four papers on *Qingbai* wares study, mainly the introduction of the historical value, shape and decoration of *Qingbai* porcelain, and its export. Catherine Teo's "Qingbai Ware for Export" discusses the different characteristics of *Qingbai* porcelain in China and overseas markets, including some *Qingbai* wares such as jarlets (small jar with rings), *kendis* and how they were used in Southeast Asia.⁷ Other works related to *Qingbai* porcelain are mostly archaeological excavation reports, and *Qingbai* porcelain is introduced as a type of unearthed ceramics. Due to the lack of documentary records and archaeological discoveries, the export of *Qingbai* porcelain before the 11th century is not very clear at present. Up to the present day, most of the *Qingbai* porcelain found overseas are products that were made post 11th century, namely after middle Northern Song dynasty (AD 1080-1207). At present, the countries and regions where *Qingbai* porcelain have been unearthed include Korean

¹ Cheng Yong, "The Elements of *Qingbai* Porcelain in Islamic White Porcelain", China Ancient Ceramics Society ed., *Research on Qingbai Porcelain*, (Beijing: Palace Museum Press, 2015), pp. 269-275.

² Mary Tregear, *Song Ceramics*, (New York: Rizzoli, 1982).

³ Margaret Medley, *The China Pottery: A Practical History of Chinese Ceramics*, (Oxford: Phaidon, 1982).

⁴ Sheila Vainker, *Chinese Pottery and Porcelain: From Prehistory to the Present*, (New York: George Braziller, 1991).

⁵ Mino Yutaka, *White Porcelain*, Vol.5, Chinese Ceramics, (Tokyo: Heibonsha, 1998).

⁶ Julie Emerson, Jennifer Chen and Mimi Gardner Gates, *Porcelain Stories: From China to Europe*, (Seattle: Seattle Art Museum, 2000).

⁷ Catherine Teo, "Qingbai Ware for Export", Stacey Pierson ed., *Qingbai Ware: Chinese Porcelain in Song and Yuan Dynasties*, (London: School of Oriental & African Studies, 2011), pp.240-251.

Peninsula¹, Japan², Malaysia³, Philippines⁴, Indonesia⁵, Sri Lanka⁶, India⁷, Pakistan⁸, and other areas in Asia and Africa⁹.

In summary, during recent years, increasing number of researchers have devoted themselves to the study of *Qingbai* porcelain in Song and Yuan dynasties. Their research include: the origin and firing technology of *Qingbai* wares, archaeological excavation of kiln sites, historical changes of kiln groups, large-scale export and circulation in domestic and foreign markets. With the improvement of archaeological excavation techniques and the development of archaeological technology, research on *Qingbai* porcelain has been gradually refined. Among them, the firing technology and decorative characteristics of *Qingbai* porcelain in different kiln sites and different periods have become a popular issue in China. In addition, more attention has gradually shifted to the circulation, consumption and the technical impact of *Qingbai* porcelain in overseas markets. With the discovery and excavation of a large number of shipwrecks and underwater sites with *Qingbai* porcelain, more *Qingbai* porcelain that were bound for export have appeared, especially within the excavations that contain thousands of *Qingbai* wares, such as Nanhai No.1, Huaguangjiao No.1, Pulau Buaya Wreck, Java Sea Wreck, Sinan Wreck. This made it possible to conduct studies that are focused on exported *Qingbai* porcelain that were found on shipwrecks. The circulations and consumptions of *Qingbai* porcelain in Song and Yuan dynasties are also worth a more detailed study. The export *Qingbai* porcelain, as a cultural carrier, often

¹ Department of Culture and Finance, National Exhibition Hall of Marine Relics ed., *Shian Ship* I, II, III (Mokpo: National Exhibition Hall of Marine Relics, 2006); The Ministry of Culture, Publicity and the Administration of Culture and Finance ed., *Shian Undersea Relics* I, II, III, 1983, 1984, 1985; *Undersea Relics in Shian* (Seoul: Korea Book Co. Ltd., 1988).

² Silicate Society of China ed., *History of Chinese Ceramics*, (Beijing: Cultural Relics Press, 1982), p. 308; Rakuten Nagaya and Imai Atushi ed., *Chinese Pottery Unearthed in Japan*, Vol. 12, Chinese Pottery, (Tokyo: Heibonsha, 1995); Hasebe Roer ed., *The Complete Works of World Ceramics 12: Song*, (Tokyo: Shogakukan, 1977); Chang Lan, *The Archaeological Study of Sino-Japanese Cultural Exchange from the 7th to the 14th Century*, (Beijing: China Social Sciences Press, 2001); Liu Lanhua, "Song Dynasty ceramics and trade with Japan", *Study of Chinese ancient ceramics*, Vol. 5, (Beijing: Forbidden City Press, 1999).

³ Aoyagi Yoko, "Chinese Export Porcelain Excavated in Southeast Asia", *Southern Cultural Relics*, No.2, 2002; Ke Jiayu, "a Preliminary Study on South China Porcelain of Song and Yuan Dynasties Unearthed from Sarong River, Sarawak, Malaysia", *Marine Archaeology and Heritage*, Vol.2, (Beijing: Science Press, 2015); Ke Jiayu, "A Preliminary Study of South China Porcelain Unearthed in Sarong River, Sarawak, Malaysia", *Selected Papers of the Second Symposium on New Progress in Marine Cultural Heritage Investigation and Research* (Xiamen University, 2014), pp. 277-280, 289.

⁴ Edis, J. M., Translated by Cao Jinyu, "Chinese Ceramics Unearthed in the Philippines", *Research Materials of Chinese Ancient Export Ceramics*, Vol.1, (Fuzhou: Fujian Yongchun Press, 1981).

⁵ Peng Weibin, "The Rhyme of Sea Silk Porcelain: The Production and Export of Qingbai Porcelain in Southern Fujian in Song and Yuan Dynasties", *Research on Qingbai Porcelain*, (Beijing: Palace Museum Press, 2015), pp. 165-179.

⁶ Ma Wenkuan, Meng Fanren, *The Discovery of Ancient Chinese Porcelain in Africa*, (Beijing: Forbidden City Press, 1987), p. 116.

⁷ Li Zhiyan, "The Development and Export of Chinese Porcelain in the Twelfth and Fourteenth Centuries", *Bulletin of the National Museum of Chinese History*, No.2, 1992, p. 32.

⁸ Ma Wenkuan, Meng Fanren, *The Discovery of Ancient Chinese Porcelain in Africa*, (Beijing: Forbidden City Press, 1987), p. 116.

⁹ Ou Zhipei, "Ancient Chinese Ceramics in West Asia", Series of Cultural Relics Materials, Vol. 2, (Beijing: Cultural Relics Publishing House, 1978); Mikami Tsugio, Li Xijing and Gao Ximei ed. *The Road of Ceramics*, (Beijing: Cultural Relics Publishing House, 1984), pp. 90-92. Ma Wenkuan, Meng Fanren, *The discovery of Chinese Ancient Porcelain in Africa*, (Beijing: Forbidden City Press, 1987); Liu Yan, Qin Dashu and Ziriama Herman, "Chinese Porcelain Unearthed from the Ancient City Site of Gedi, Coastal Province, Kenya", *Cultural Relics*, No.11, 2012; Ding Yu and Qin Dashu, "Chinese Porcelain Unearthed at Uguana Site, Kenya", *Archaeology and Cultural Relics*, No.6, 2016.

reflects the exchange and collision between different cultures in different times. This thesis attempts to describe the complete process of its production, trade, usage in overseas markets and its decline.

The first research question is: how was *Qingbai* porcelain traded to overseas markets as far as Africa in the Song and Yuan dynasties?

The second research question is: how was *Qingbai* porcelain used in different social and historical contexts and what were its economic, cultural and social values?

This thesis uses various research methods and the most common one is data studies. This thesis collects the data of 19 shipwrecks as well as 12 underwater and costal sites with *Qingbai* porcelain and gives a full description of the maritime trade routes between China and foreign countries and areas from the Han dynasty (BC 202-AD 220) to the Yuan dynasty (AD 1271-1368) after investigating a large number of archaeological data and historical documents. Also, the sales area of *Qingbai* porcelain is analysed by investigating the archaeological data of shipwrecks, the excavation sites with *Qingbai* porcelain on land and trade policies and maritime trade ships of the Song and Yuan dynasties. As previously described, there was little research on the use and circulation of *Qingbai* porcelain in domestic and foreign markets, especially in overseas markets. These questions are discussed in the thesis with interdisciplinary research methods. Mainly historical, archaeological, ethnological, sociological research methods are applied to the discussion, such as the application of *Qingbai* porcelain in daily life, religious ceremonies, funerals, banquets of domestic and foreign consumers. In addition, this thesis also uses the method of comparative study, such as the economic, cultural and ritual value studies of *Qingbai* porcelain in the markets at home and abroad during the Song and Yuan dynasties. Also, the last part of the paper is the research on how *Qingbai* porcelain influenced the overseas ceramic technologies. By Islamic white pottery, Vietnamese comparing the Islam white porcelain, white porcelain of Goryeo and white porcelain and celadon in Thailand and Japan with Chinese *Qingbai* wares, it can be seen that they were all influenced by the technology and shape of *Qingbai* porcelain.

Chapter 2 Global History and Networking of Regional Relations Through Maritime Trade

2.1 Introduction

The completion of a *Qingbai* porcelain transaction can be described as both simple or complex. Simply speaking, the buyers and sellers transact through exchanging products or barter. In a more, the complexity was the *Qingbai* wares were produced in batches according to the needs of different markets. It was transported to Quanzhou, Guangzhou and other ports by land or water. After being loaded off at the port, the ship owners from various countries would complete the registration, pay the taxes, obtain the license to set sail, and finally transport the *Qingbai* porcelain to the ports in East Asia, Southeast Asia after dozens of days of safe navigation. The local sailors exchanged the porcelain with specialised local products or currencies, or sold it locally. The Southeast Asia sailors may have transported it all the way to the Persian Gulf and Africa. People in different areas used the same or customized *Qingbai* products in their daily life, religious offerings, funerals and other scenes. This process went on continuously with customers provided feedback of their needs to the merchants. The merchants passed the requirement to the middle men, and the middle men in return passed the requirements to the kiln craftsmen. The craftsmen may or may not modify their designs, and continued to complete the increasing number of orders. The successful transaction of an order was dependent on the operation and cooperation of a trade network that involved multi-region and multi-ethnic individuals. The global history theory can explain this complexity and assist with the analysis on the role of *Qingbai* porcelain trade had played during the process of globalization.

2.2 Global history and the re-understanding of the ocean

The literal definition of global or world history is to observe historical issues from a global perspective, as well as the events that had occurred in different areas at the same time. At present, there is no clear and unified definition for global history. Global historians deal with it using their own academic tradition and understanding, engage in a variety of global history research practices, and contend with each other. However, this does not mean that there is no consensus among the global historians, they share similar research principles. These principles include: (1) The pursuit of significant historical problems across time, space, and specialism; it seeks answers to the same question in multiple regions;¹ (2) Escape from locating economic, political or cultural ‘centres’, either in European, American or Asian regions. On the contrary, it will observe the world economy as a

¹ James Belich, John Darwin, Margret Frenz and Chris Wickham ed., *The Prospect of Global History*, (Oxford University Press, 2016).

polycentric system with no dominant place through well-defined case studies using both Asian and Western sources;¹ (3) Connectedness and networks, including transnational relationships and interactions. The research is placed in the interactive network system, and the history is understood and explained from the interaction, emphasising the intersubjectivity of the interactors.² (4) The use of interdisciplinary research methods. Among them, networks and interaction are the core concepts of global history research. As the modern world moves toward globalisation, environmental, climate, financial and other issues that go beyond the framework of national scale analysis have emerged in large numbers. Researchers begin to think about cross-regional conception and regional integration, and the word “network” was chosen. It is inclusive and can be conceptualized, which is effective in regional research.

However, when the theory of global history is applied to research practice, there are also contradictions that are difficult to reconcile. On the one hand, global history is a macro concept, researchers are not proficient in all ethnic or regional languages and it is difficult to have an in-depth understanding of each culture, thus, it is easy for the macro description is easy to become superficial. On the other hand, it becomes increasingly difficult to describe the existence of individuality without discussing the integrity of this framework in the current process of globalization. Therefore, in this research, I will mainly use the concepts of interaction and network in global history, take the *Qingbai* porcelain, one of the main commodities of maritime trade in the 10th-14th century as characteristic of interaction to clarify how globalization and regionalization are mutually integrated and developed at that time.

Looking back on history, it is accepted that the land is the coordinate axis, and the ocean is regarded as the variable of this coordinate. Through observing from the centre of the land, the ocean is regarded as the avenue connecting the continents, islands and peninsulas. The phrases such as “Age of Discovery” or “Age of Contact” in Western history, or the transportation of tea, wool and opium in the era of clippers in shipping history, means that the sea shortens the distance between lands, and the sea was seen as the means to connect land. For example, “sea routes” and “maritime silk roads” are the perfect imitation of descriptions of land. There is little recognition of the inherent regional character of the oceans in relation to the boundaries that form cultures and civilizations. This relationship between the ocean and the civilization is not immediately a definite answer, and some scholars look forward to the possibility that the ocean will be conceptualized, so that it is not analytical but comprehensive, nor comparative but integrative.³ Because of the marginal characteristics of the marine world, the power of the central regimes of the

¹ Manuel Perez Garcia and Lucio De Sousa ed., *Global History and New Polycentric Approaches: Europe, Asia and the Americas in a World Network System*, (Basingstoke: Springer Nature, 2018).

² Jonathan Shepard, “Networks” in Catherine Holms and Naomi Standen ed., *The Global Middle Ages: Past & Present*, Vol. 238, Suppl.13, 2018.

³ Hamashita Takeshi, *The History of East Asian Regional Relations from the Perspective of Global History, Eurasian Regional History Research and the Silk Road*, (Beijing: Social Sciences Academic Press, 2019), p.7.

continent it is often difficult to control the marine world, and the free movement of maritime residents and the seaborne exchange of material and culture have formed a maritime negotiation network. The ancient Chinese used the sea as a natural barrier from the outside world. Both China's and Japan's seas have historically been conceptualized as the main route used by foreigners or invaders to enter the country. As such, the concept of 'sea' in Chinese, *hai* 海, is closely linked to the concept of foreigner, *haiwai ren* 海外人.¹ Most dynasties in Chinese history carried out official monopoly on marine trade and implemented strict prohibition of non-governmental marine activities. For example, during the Tang dynasty (AD 618-907), although there was an endless stream of merchants, emissaries and monks from various regions, the Chinese people were forbidden to go to the sea; *Tang Lv Shu Yi* 唐律疏议² provides: Whoever stows away from the customs shall be sentenced to one year's detention. The stowaways' crimes from the border beyond the customs have increased. In the second year of Yongle 永乐 (AD 1404), *Zhu Di* 朱棣, the third emperor of the Ming dynasty (AD 1368-1644), in view of the fact that the residents in the coastal areas of Fujian had privately sailed out to sea for foreign trade, he issued an edict again to prohibit the construction and use of seagoing ships. Any older seagoing ships owned by the residents should be converted into flat-headed ships that could not go to sea.³ At the beginning of the founding of the Qing dynasty (AD 1616-1912), it promulgated the policy of moving people away from the sea; all the inhabitants lived within the 30 miles of coastal areas must be moved to the inland areas.⁴ Even in the so-called High Qing era 康乾盛世 (AD 1683-1799), the government implemented a strict prohibition of seafaring and was determined never to ease the policy.⁵ It was also forbidden to build double masts and large capacity ships that are capable of seagoing.⁶

Although the strict prohibition of going to sea by the government in power cannot completely prevent the regional materials and cultural exchanges, if the government implements a positive marine policy, the marine trade would achieve unprecedented development. The prosperity of the private seaborne trade and the loose overseas trade policies during the Song and Yuan dynasties seemed rare and precious for private merchants. Song and Yuan governments carried out three type of policies to encourage native residents to trade overseas, such as the establishment of *Shi Bo Si* 市舶司 (the organization of managing overseas trade in the Song and Yuan dynasties) and *rao shui* 饶税 policy (regard the return time of the trading ships as the standard of taxation). These policies were formulated by the Southern Song dynasty (AD 1127-1279) to speed up the turnover rate of merchant ships, and the *guanben chuan* 官本船 system (a mode of overseas trade in which the government pays for ships and entrusts private merchants to operate them) was established during the Yuan dynasty to expand the number of seagoing

¹ Manuel Perez Garcia and Lucio De Sousa ed., *Global History and New Polycentric Approaches: Europe, Asia and the Americas in a World Network System*, (Basingstoke: Springer Nature, 2018), p. 5.

² It is a statute book completed during the reign of Emperor Gaozong 高宗 (628-683 AD) of the Tang dynasty.

³ *Ming Cheng Zu Shi Lu* 明成祖实录, vol. 27.

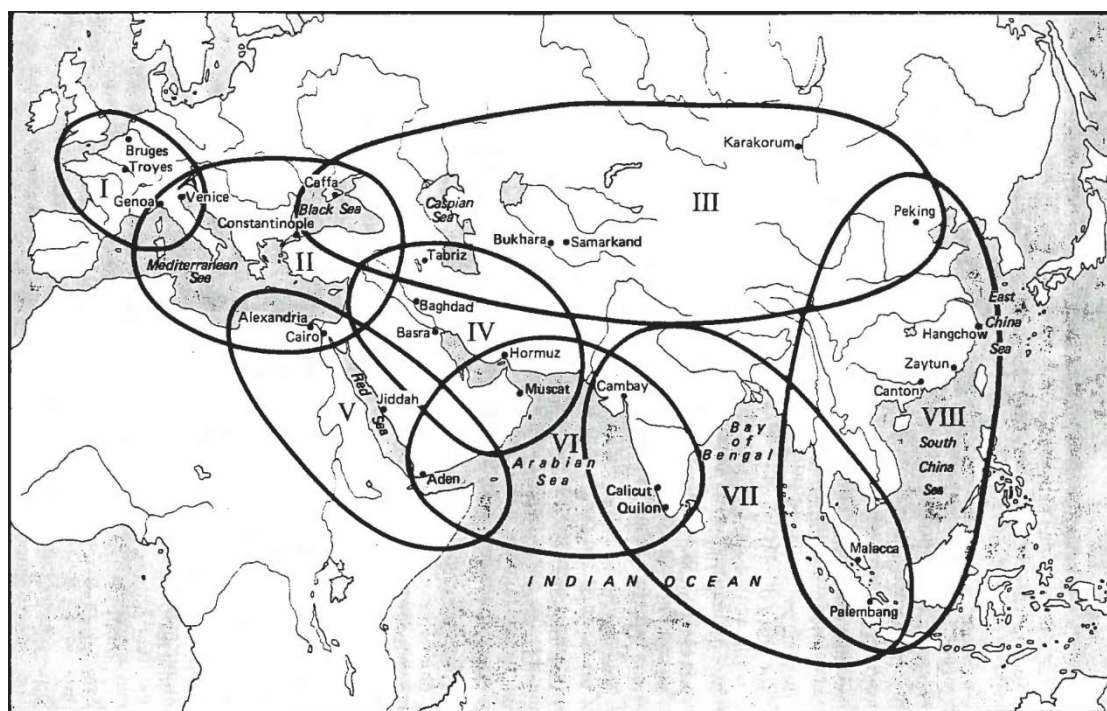
⁴ *Chong Zuan Fujian Tong Zhi* 重纂福建通志, Hai Fang Pian 海防篇.

⁵ *Zhu Pi Yu Zhi* 朱批谕旨, October 9th, the second year of Emperor Yongzheng 雍正二年十月九日.

⁶ *Guangxu Da Qing Hui Dian* 光绪大清会典事例, Vol.776.

ships and trade scale. The ocean and overseas trade are no longer filled with unknown fears and obstacles, but means of acquiring wealth and even establishing a lifeline for the country. The Han people living on the mainland and the Mongolians living on the grasslands have unprecedented close ties with the ocean, the open trade policies made them have more opportunities to utilise or even conquer the ocean. Meanwhile, merchants from other counties and regions were welcomed to come to China.

The enthusiasm of the Song and Yuan government for overseas trade directly led to the enthusiasm for trading of the whole Eurasian continent. Janet Abu-Lughod points out that there were eight trading circles in the ancient world system, and that there were three interlocking maritime trading circles in the Arabian Sea, the Indian Ocean and the South China Sea in the 13th century and even long before that.¹ In these three trade circles, Chinese merchants or Chinese goods had a significant existence that cannot be ignored.



Figure

1: The Eight Circles of the Thirteenth-Century World System²

2.3 Regional relations through maritime trade

The formation of a huge maritime trade network requires the participation of many countries and regions as well as commodities and merchants. The prosperity and decline of the economies, the rise and fall of different political forces, the encounter and collision of various cultures and types of religions shaped the maritime trade network. Before the

¹ Janet L. Abu-Lughod, *Before European Hegemony: The World System A.D. 1250-1350*, (Oxford: Oxford University Press, 1989), p.33.

² Ibid., p34.

beginning of the Christian era, during the Han dynasty (202 BC- AD 220), China had already established trading relations, not only with individuals in Southeast Asia, but also with those in India through the sea route.¹ As early as the 3rd and 4th centuries, early international trade linked China in Southern and Northern dynasties (AD 220-600) with Gupta Empires (AD 319-467) and the Sasanian Empire (AD 224-651). Because of the long route and the restriction of navigation technology, the trade at that time was completed by the sailors from various coastal areas. Among them, Funan merchants imported frankincense, myrrh, resin, perfume and incense from the Mediterranean, India, the Middle East and Africa in exchange for Chinese silk and porcelain. Sailors in the Sunda Strait and various ports in western Indonesia used their familiar trade routes to China to bring Chinese goods back to their local ports, and then shipped them to India and the West.² Malay sailors mainly use the Sunda Strait as a transit point to deal in spices from the Java Sea region and the Kingdom of Funan: aloes, sandalwood and cloves. Thanks to maritime trade, Funan became the most powerful maritime country in Southeast Asia in the 3rd-6th century, covering most of southern Vietnam, the middle and lower Mekong River, the Chao Phraya River Basin and most of the Malay Peninsula.³

At that time, maritime trade had become a regular activity. Western trade was run by Jews, Arabs and Indians, while the eastern trade was run by Malays. In the 5th century, great changes took place in the international trade: trade routes were diverted from the Strait of Malacca to China via the northwest Java Sea. In the middle of the 7th century the Kingdom of Srivijaya 三佛齐 established near what is now Palembang, the land included the eastern coast of Sumatra to the inland riverside area along the Musi River, and became the suzerain of the Strait of Malacca and the Indonesian archipelago. The Kingdom of Srivijaya existed from the 7th to the 13th century, corresponding to the three dynasties of Tang, Song and Yuan in China. Srivijaya was the leading entrepôt of the seaborne trade at that time, and this position lasted for six centuries. This is due to a number of reasons⁴, firstly because its location is strategically on the sea route to China. The Maharajas of Srivijaya fully understood the value of the tribute system which involved a recognition of China as overlord. Since Chinese emperors until the Southern Song period refused to open private Chinese trade, overseas goods could be accepted only if they came in the guise of tribute missions. Another important reason is that Srivijaya has the ability to ensure that local products meet the needs of China's trade and its own market. Not only does it have easy river access to the jungles of Sumatra and the Malay Peninsula, but it also has jurisdiction over the mangroves of the Riau Islands and nearby coasts. At the mouth of the Musi River, all types of goods were loaded and unloaded at this location. In such a favourable commercial environment, Srivijaya was fully able to meet the needs of an international market. During the interval between the southeast monsoon and the northeast

¹ Yu Yingshi, *Trade and Expansion in Han China*, (Berkeley and Los Angeles: University of California Press, 1967), p.174.

² Nicholas Tarling ed., *The Cambridge History of Southeast Asia*, Vol.1, (Cambridge: Cambridge University Press, 2008), p.186.

³ Yang Hongyun, *Maritime Trade and Chinese Entrepreneur Network Around the Sumatra Island, Indonesia*, (Beijing: Social Sciences Academic Press, 2016), p. 21.

⁴ O. W. Wolters, *Early Indonesian Commerce: A study of the Origins of Srivijaya*, (New York: Ithaca, 1967), p.15.

monsoon, all types of exotic goods from abroad can be loaded and unloaded, such as ceramics, silk, pearls, frankincense, rose perfume, gardenia, myrrh, amber, etc. and all kinds of local products need to be classified, graded, combined and loaded. Here we get to observe various technologies available that are necessary for the repair and supplies of returning merchant ships.¹

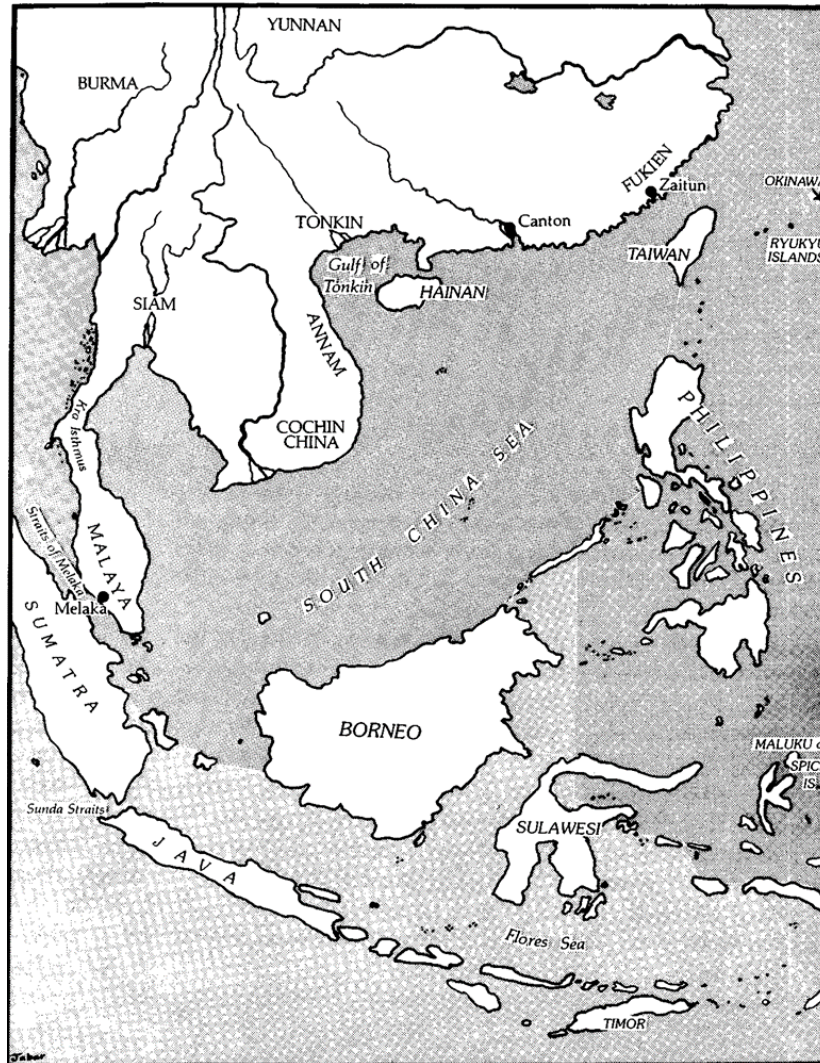


Figure 2: The South China Sea (AD 1250-1500)²

At the end of the Southern Song dynasty and the Yuan dynasty (late 12th century to mid-14th century), the policy of trade restriction, which only allowed envoys to pay tribute, came to an end. The Kingdom of Srivijaya (7th century to 13th century), once recognized as the overlord of Southeast Asia and a tributary of China, prospered under this system. However, as the trade restriction was cancelled, the private trade in China have boomed. Traders would go directly to the source of goods rather than to the trading centre, thus spurring a huge development in many small but attractive ports within the Malay world,

¹ Barbara Watson Andaya and Leonard Y. Andaya, *A History of Malaysia*, (London: Macmillan Education LTD., 1982), p.26.

² Philip D. Curtin, *Cross-Cultural Trade in World History*, (Cambridge: Cambridge University Press, 1984).

where it was more profitable to buy and sell goods directly without submitting them to Srivijaya. The benefits of economic independence continue to rise as trade with China increases in areas such as Polo Kampe in northern Sumatra — the Aru Kingdom, and Pasai, Kedah, Barus (Aceh), and Burni in northern Borneo, and throughout the Malay world.¹ During the same period, the Champa Kingdom gained profits by purchasing and transporting spices in the sea transit trade, in addition, they also plundered the seagoing trade ships, thus gaining huge profits.² Describing the port of Champa as “only one of the links in a long chain, which connected the Middle East with Africa and China,” Pierre-Yves Manguin has argued that “nothing could be more normal than this settlement.”³ Champa, as one of the most active tributary states during the Song, regularly sent tribute that consisted in large part of goods from western Asia, such as rosewater, glass and embroidered textiles.⁴ At the end of the Tang dynasty, Tang people began to immigrate to Sumatra Island, and most of immigrants came to Palembang were mainly from Fujian and Guangdong. They were escaped from the war of the peasant uprising in Huangchao Uprisin 黄巢起义 (AD 878-884) near the end of the Tang dynasty or came for trade.⁵ They called themselves Tangren 唐人 and their motherland Tangshan 唐山; their overseas habitation was called Chinatown. At that time, long-distance sea voyage mainly depended on the monsoons, travellers needed to wait for months once missed the time of monsoons. Therefore, in order to facilitate overseas trade, some Song people began to settle in the Sumatra Island and started a family, this was called *zhu fan* 住蕃. By the second half of the 14th century, at the end of the Yuan dynasty and the beginning of the Ming dynasty, there were increasing number of Chinese had settled in Palembang.⁶

The Song government paid great attention to protecting the interests of merchants from Southeast Asia. In the first year of Jianyan 建炎 of the Southern Song dynasty (AD 1127), Emperor Gaozong 高宗 issued an edict: Officials who ask foreign merchants for bribes would be punished.⁷ In the 16th year of Shaoxing 绍兴 (AD 1146), the King of Srivijaya sent a letter to the *Shi Bo Si* 市舶司⁸ of Guangzhou, saying that due to the heavy tax levied by the *Shi Bo Si* of Guangzhou, traders of frankincense had suffered great losses. After learned about it, Emperor Gaozong 高宗 reiterated that trade should be managed according to the laws and regulations of *Shi Bo Si*, and punished the officials who had accepted bribes.⁹ In order to protect the safety of maritime trade and merchants, the Song

¹ Ibid., pp.31-32.

² Zhou Qufei 周去非, *Ling Wai Dai Da* 岭外代答, Vol. 2.

³ Pierre-Yves Manguin, “The Introduction of Islam into Champa,” in Alijah Gordon, ed., *The Propagation of Islam in the Indonesian-Malay Archipelago*, (Kuala Lumpur: Malaysian Sociological Research Institute, 2001), p. 290.

⁴ See the detailed analysis of Champa tribute goods in Geoff Wade, “The ‘Account of Champa’ in the Song Huiyao Jigao,” in Tran Ky Phuong and Bruce M. Lockhart, eds., *The Cham of Vietnam: History, Society and Art*, (Singapore: NUS Press, 2011), pp. 138–167.

⁵ Li Xuemin, Huang Kunzhang, *History of Overseas Chinese in Indonesia (from Ancient Times to 1949)*, (Guangzhou: Guangdong Higher Education Press, 2005), pp. 17-18.

⁶ Yang Hongyun, *Marine Trade and Chinese Business Network in Sumatra*, (Beijing: Social Sciences Academic Press, 2016), pp. 11-12.

⁷ Wang Yingchen 汪应辰, *Wen Ding Ji* 文定集, Vol.23.

⁸ Special organizations set up by the Song and Yuan governments to supervise overseas trade.

⁹ *Song Hui Yao Ji Gao* 宋会要辑稿, Zhi Guan Si Si 职官四四, No.5.

government also set up *Wangbo Xun Jian Si* 望舶巡检司 in Guangzhou, Quanzhou and other ports, and built a maritime army that were called *zhai bing* 寨兵 to protect merchants from the pirates. There were *zhai bing* on the Naozhou Island 潯州岛 off the coast of Guangdong at that time, every time when the trade ships travelled to the waters near Naozhou Island, *zhai bing* and sailors on the ship would greet with each other.¹

Muhammad's flight from Mecca to Medina in AD 622 Hejra is traditionally regarded as the beginning of the rise of Islam. In 661, Muslims conquered the Middle East and established the Umayyad dynasty (أمويون, AD 661-750), the first Muslim empire, and Arab countries came into being. The Abbasid Caliphate (العباسيون, AD 750-1258) is caliphate of Arabs. The rise of Islam led to two main changes in trade: the weakening, if not the collapse, of the original Mediterranean economies; the other is the establishment of a new unity, Muslim diaspora, sheltered by Islamic culture and good at trading, extending from Morocco and Spain in the West to Persia and other regions in the East.² As Andre Wink has documented, by the 10th century permanent Muslim communities had established themselves in such far-flung communities as the Sind, Gujarat, Sarandib (now Sri Lanka) and Ma'bar (now Malabar) – not to mention China before AD 879³. At that time, the main goods imported from China were silk, porcelain, paper, ink, saddle, sword, musk, cinnamon, and peacock feathers. The Muslim scholar al-Tha'ālibi (AD 961-1038) wrote in *Book of Curious and Entertaining Information*: It is the custom of the Arabs to refer to all exquisitely made vessels, regardless of their origin, as Chinese⁴. After the AD 900, the politics of the Abbasid Caliphate became less centralised. Since the 11th century, the Islamic world in the Middle East had to resist foreign invasion from many sides. From AD 970 to 1250, Egypt gradually became the leader of the Muslim world after the rise of the Fatimid dynasty (الفاطميون, AD 909–1171) and the Ayyubid dynasty (الأيوبيون, AD 1171-1341). An important trading network, centred in Fatimid Cairo, was in operation as early as the 10th century and had already outgrown Fatimid rule. Both Jewish and Islamic Egyptians were particularly active in the Indian ocean trade. Before the 11th century, traders from Iran, Iraq and even Central Asia were frequent visitors to the Mediterranean. Cairo merchants were usually detained for two years as they headed east with goods to sell, including textiles, cloth, glass, paper and books, as well as decorations and containers made of brass or other materials. The most important items were gold, silver and copper, which were sold to the Indian industry.⁵ A famous geographer of the Southern Song dynasty, Zhou Qufei 周去非 (AD 1135-1189), in his *Ling Wai Dai Da* 岭外代答 also said: of all the foreigners, the most prosperous and wealthy, and with the most precious commodities at that time, were *Dashi* 大食 (Islamic empires established by the Arabs during the Middle Ages) and *Dupo* 阇婆

¹ Zhu Yu 朱彧, *Ping Zhou Ke Tan* 萍洲可谈. Vol. 2.

² Philip D. Curtin, *Cross-Cultural Trade in World History*, (Cambridge: Cambridge University Press, 1984), p.100.

³ Andre Wink, *Al-Hind, "Early Medieval India and the Expansion of Islam 7th to 11th Centuries"*, *The Making of the Indo-Islamic World*, Vol. 1, (New York, Köln: E. J. Brill, 1996), p., pp. 67–86.

⁴ Al-Tha' ālibi, *Book of Curious and Entertaining Information (Kitāb Lata'if al-ma'arif)*, Clifford Edmund Bosworth ed., (Edinburgh: Edinburgh University Press, 1968).

⁵ Philip D. Curtin, *Cross-Cultural Trade in World History*, (Cambridge: Cambridge University Press, 1984), p.107-110.

(located on the island of Java or Sumatra, or called both islands collectively), then was the Srivijaya.¹

The Song government encouraged foreign merchants to come to China for trade and they were fully respected (except that they were not allowed to carry foreign tribute without permission). Even some of the foreign merchants were awarded official position by the Song government for their great contributions to overseas trade. At that time, the whole coastline of the Song Empire, from Jiaozhou Bay in the north to Hangzhou Bay and Fuzhou, Zhangzhou and Quanzhou in the middle, to Guangzhou Bay in the south, and then to Qiongzhou Strait, was open to the outside world to develop trade with the Western and Nanyang 南洋 (now Southeast Asia) countries. In the Northern Song dynasty, there were Jewish habitations in Kaifeng 开封府², Judaism were called Yiji Leye 一赐乐业, which was the transliteration of Israel. In addition, there were a large number of Arab merchants settled in Quanzhou and Guangzhou and other port cities. During the Five Dynasties and especially the Song dynasty, numerous tribute missions from southeast Asia as well as western Asia were led by individuals identified as Pus, and then during the Song there are a reference to foreign merchants surnamed Pu 蒲 in the ports of Guangzhou and Quanzhou. The references to Pu Hesen and Pu Lo E (Pu Luoe) raise an issue of considerable importance for the assumption that the surname “Pu 蒲” was a transliteration of the Arabic “Abu” and therefore an indicator of Arabic, or at least west Asian, origins.³ Chinese people who surnamed Pu 蒲 at present, are likely to be the descendants of Arab merchants. Those foreign merchants were called Fanshang 蕃商, Fan 蕃 (番) means aliens and foreigners. The Song government also built Fanfang 蕃坊(communities for foreign merchants) in Quanzhou, Guangzhou and other port cities for foreign merchants to live in. Fanfang chose their own leaders (Fangzhang 蕃长) and have the right of autonomy, their living habits, customs, religious beliefs and even laws were respected by the Song government. In the years of Daguan 大观 and Zhenghe 政和 (AD 1107-1118) in the Northern Song dynasty, Song government set up Fan schools 蕃学 in Quanzhou and Guangzhou for the Muslim communities.⁴ Only the children of Fangzhang 蕃长 or people of high renown in the community could attend Fan schools. The main classes in the Fan schools were the Chinese classics such as the *Xiao Jing* 孝经, *Er Ya* 尔雅 and *Si Yan Za Zi* 四言杂字. Song government would award the Fan school students with official positions according to their abilities.

¹ Zhou Qufei 周去非, *Ling Wai Dai Da* 岭外代答, Vol.2.

² Kaifeng 开封府, also known as Dongjing 东京, is the capital of Northern Song Dynasty, and was called Bianjing 汴京 in during the Southern Song Dynasty.

³ John W. Chaffee, *The Muslim Merchants of Premodern China*, (Cambridge: Cambridge University Press, 2018), p.61.

⁴ Cai Tao 蔡绦, *Tie Wei Shan Cong Tan* 铁围山丛谈.

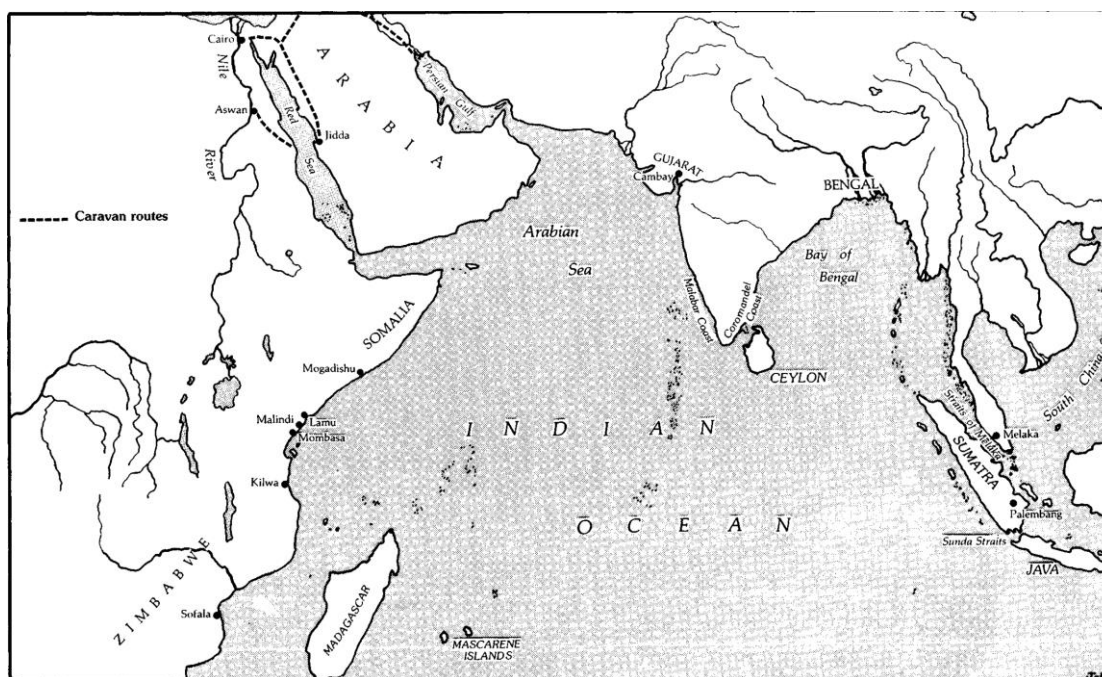


Figure 3: The Indian Ocean (AD 1250-1500)¹

In the Yuan dynasty, the aliens and foreigners were called Semu 色目 people, especially means people from all nationalities in Northwest China, Western Regions 西域² and European nationalities except Mongolian. The imperial court implemented the policy of household registration to them³. There were 31 kinds of Semu 色目 people in the records of Tao Zongyi 陶宗仪 (AD 1329-1412) 's *Nan Cun Chuo Geng Lu* 南村辍耕录, contain Huihui 回回 people, Qarluq 哈刺鲁 people, Uyghur 畏兀儿 people, Qipchaq 钦察 people and Qanqi 康里 people⁴. Among them, the Huihui 回回 in Yuan dynasty had a superior political and social status. Huihui 回回 were the Muslims that went to the Yuan Empire after the Western Expedition (AD 1219-1260). A large number of Huihui people had official positions in the court, the local government, or the army, which benefited the wide spread of Islam and the formation of the Chinese Hui nationality. During the Yuan dynasty, mosques were built in Hui people's communities and gradually became the centre of Hui people's religious and political activities. As the relationship between the Yuan Empire and Arab countries remained stable for a long time, Islamic clergymen from Central Asia and West Asia continued to enter China to preach or trade by the Maritime Silk Road, Islam flourished in China. Synchronized with the prosperity of Islam, the Hui people married Chinese Han women, Mongolian women or women from other nationalities, multiplied

¹ Philip D. Curtin, *Cross-Cultural Trade in World History*, (Cambridge: Cambridge University Press, 1984).

² Referring to the area to the west of Yumen Guan 玉门关 and Yang Guan 阳关, was first found in the *Han Shu* 汉书 Xi Yu Zhuan 西域传. It has two meanings: in a narrow sense, it refers to the area to the east of the Cong Ling Mountains; in a broad sense, it refers to the areas that can be reached the central and western Asia, the Indian Peninsula, eastern Europe and northern Africa.

³ In the early days of Genghis Khan's founding of the Great Mongolia and Kublai Khan's founding of the Yuan Empire, the term Huihui 回回 was used to refer to all people in the Western Regions 西域 (excluding Europeans), as well as refer in particular to the Muslims in the Western Regions. These two meanings are easy to be confused, so the word Semu 色目 is used to refer to all nationalities in Northwest China, Western Regions and European nationalities except Mongolian.

⁴ Tao Zongyi 陶宗仪, *Nan Cun Chuo Geng Lu* 南村辍耕录, Vol.1, Shi Zu 氏族.

their descendants. The increasing number of Chinese became Muslims and joined Hui communities during the Yuan and Ming dynasties (AD 1271-1644). Hui become a Chinese minority gradually.

The Muslim Middle East, the former world hegemony gradually less influential over time, and three emerging centres – Europe, India, and China – became the most dynamic and economically prosperous regions in the world during AD 1000 to 1250.¹ The decline of the Middle East route can be seen as the cause and result of the shift in trade routes. Whether it was the route through Iran and Central Asia, or the Persian Gulf route from the Mediterranean to the Indian Ocean, their importance was declining. In the Mediterranean, Christians and Muslims were in a state of rivalry. Eighty percent of the eastbound maritime trade took the Red Sea route, controlled by the Karimi merchants and the Egyptian government, in a form similar to Venice's control of Egypt and even Europe.² In addition, new commercial trends emerged during this period, and after about AD 1250, trade routes south to the coast of Africa took on a new importance. By the end of the 15th century, 30 or 40 separate stone-built towns, built by Arabs and Persians, dotted the coastline from Somalia to Sofala. This also provides an answer for the flow of *Qingbai* porcelain into Africa in the Song and Yuan dynasties. Prior to the year AD 1500, at least one metric ton of gold flowed into the Indian Ocean trading circle from northern Africa every year, and Africa also participated in the world economic system based on gold and silver.³ With the shift of economic centre from the Middle East to India, the mode of trade in the Arabian Sea began to change. By the end of the 13th century, as the economy of northern India began to recover from the shadow of Muslim invasion, Arab and Persian seafarers gradually gave way to the Indians. The heart of the Ganges River plain in India is located in Gujarat, specifically the west coast port of Cambay. India's economic development laid the foundation for the rise of Gujarat seafarers throughout the Indian Ocean. By the year AD 1500, Malacca was home to about 1,000 Gujarat traders, in addition to 4,000 to 5,000 Gujarat seafarers who visited every year.⁴ Hindu merchants from India carried not only their religion but also a lot of Indian secular culture to Southeast Asia. Subsequently, Indian-Muslims spread Islam throughout the islands in Southeast Asia.⁵

Dramatic geographic shifts were also taking place in Southeast Asia during the 13th and 14th century. On the mainland, Angkor, Bagan, Champa, and the Mon peoples founded Hariphunchai, and on the islands, the kingdoms of Srivijaya, Kediri, and Singhasari were all weakened and disappearing. They were replaced by new States such as the Chen

¹ Ashtor, *A Social and Economic History of the Near East in the Middle Ages*, (Berkeley: University of California, 1976); Charles Issawi, "The Decline of Middle Eastern Trade, 1100-1850" in D. S. Richards ed., *Islam and the Trade of Asia: A Colloquium*, (Philadelphia: University of Pennsylvania Press Anniversary Collection, 1970).

² Philip D. Curtin, *Cross-Cultural Trade in World History*, (Cambridge: Cambridge University Press, 1984), p.116.

³ Philip D. Curtin, "Africa in the Wider Monetary World, 1250-1850 A.D.," in John F. Richards (ed.), *Precious Metals in the Medieval and Early Modern Worlds*, (Chapel Hill, N.C.: Carolina Academic Press, 1983).

⁴ Archibald Lewis, "Maritime Skills in the Indian Ocean 1368-1500", *Journal of the Economic and Social History of the Orient*, No.12, 1973.

⁵ Philip D. Curtin, *Cross-Cultural Trade in World History*, (Cambridge: Cambridge University Press, 1984), p.12.

dynasty (AD 1225-1400) in Vietnam, Sukhothai and Chiang Mai, Bogu 勃固 established by the Mon people in Lower Burma, and Majapahit 满者伯夷 (AD 1293-1500) in Java Island. With the Yuan dynasty's expeditions into Southeast Asia, the Bagan dynasty of Burma (AD 1044-1029) and the Singhasari Kingdom of Java (AD 1222-1292) fell, and Champa suffered. The Chen dynasty of Vietnam repelled the attacks of the Yuan army three times (AD 1257, 1258, 1287-1288) and established a new government with the incorporation of traditional Chinese culture.¹

Wo 倭 (Japan, as name Japan was officially established in AD 670²), Silla (57 BC- AD 935) and Goryeo (AD 918-1392, now Korean Peninsula) were also important parts of the world trading system in the 10th-14th centuries. Unlike Srivijaya, which maintained close political ties with the Song dynasty, Wo and Goryeo did not establish “diplomatic relations” with the Song and Yuan dynasties, thus, there were no official contacts. Private trade was almost the only means by which the Song and Yuan Empires maintained relations with Wo and Goryeo, which was totally different from their attitude towards the Tang dynasty. In the face of the Song and Yuan dynasties, Japan adopted the strategy of political avoidance, economic integration and cultural absorption, ignoring or even categorically rejecting the Song and Yuan dynasties' official correspondence. When Japanese officials entered the Song territory, they would not carry any customs clearance documents; When the merchants of the Song passed the customs of Wo, they had to carry the official certificate Gong Ping 公凭 issued by the *Shi Bo Si* 市舶司 to pass the customs; When the dispatched monks entered the Song dynasty's customs, they held the 大宰府官符 (an official form of identification) issued by Japan, while the monks that sneaking across the border only needed to complete a form to show their identity. The Yuan government adopted the strategy that Japanese merchants could only enter the customs and trade as long as they come with gold 持金. During this period, Japanese monks were also merchants, and the government mostly took the private trade ships to trade during the Yuan dynasty. This made it possible to avoid the political embarrassment caused by official customs clearance documents.³ After the collapse of the Tang dynasty, the Japanese were worried that the Chinese merchants would gather Wo's information and endanger national security. This was also the reason for the Japanese officials to not establish full diplomatic relations with the Song and Yuan government.⁴ Wo was always on guard that its big neighbour Song and Yuan would endanger its national security. This was also the case with the Korean Peninsula. During the Northern Song dynasty, there was no formal diplomatic relations with Goryeo for a long time, especially in the Southern Song dynasty. The connection between Song and Goryeo also came from trade and civil exchanges until the Yuan dynasty incorporated the Korean Peninsula into its own territory.

¹ Yoshiaki Ishizawa, Trans by Qu Liang, *Southeast Asia: The Discovery of a Multi-Civilized World*, (Beijing: Beijing Daily Press, 2019), p. 39.

² *Xin Tang Shu* 新唐书, Vol.220, Dong Yi Zhuan 东夷传.

³ Zhao Yingbo, *Research on East Asian Relations in Tang, Song and Yuan Dynasties*, (Shanghai: Shanghai Academy of Social Sciences Press, 2016), p. 83.

⁴ *Lei Ju San Dai Ge* 类聚三代格, *Da Zai Fu Tian Man Gong Shi Liao* 大宰府天满宫史料, Vol.1.

Compared with official trade, private trade is more flourished in Song and Yuan Dynasties. There were two kinds of Chinese private merchants engaged in maritime trade: The first kind were those private merchants had higher political status, these people were family members or close friends of officials, they used their political privileges to conduct overseas trade for collecting rare treasures, spices and medicinal materials. They satisfied their own needs for luxury life by the overseas trade and made huge profits through the resale. The Song government had strict rules on trading costs, for example, vessels to Koryo must have a fund at least 3,000 *guan* 贯¹. One *dan* 石 (1 *dan* ≈ 60kg²) fine rice only need 500 or 600 *wen* 文³, 3,000 *guan* can buy 4,000 or 5,000 *dan* rice in Song dynasty, it really was a considerable amount. Another kind of private merchants may have no prominent social status, some of them might have enough wealth, some even were poor people, both of them were listed as a special category on the household registration, called *bo hu* 舶户 (individuals living on maritime trade)⁴. They needed to build ships, purchase a large number of goods which demand a huge amount of financial support. Although there is a risk of storm and shipwreck in the sea, the hefty profits still attracted a lot of people to be *bo hu*.⁵ Some small traders cannot afford a ship, generally choose to take ships temporarily, even may sleep on the cargo.⁶ There was a bankrupt merchant named Peng 彭, who was left with only a few thousands *wen* (1000 *wen* = 1 *guan*). In desperation, he bought some Shimi 石蜜 (sugar) and boarded a ship, holding the mentality of luck and going overseas.⁷ There also were records of private merchants in the history of the Yuan dynasty: Yang Shu 杨枢, a native of Ganpu 澈浦, went to Hulumusi 忽鲁模思 (now the Persian Gulf) during the Dade 大德 period (AD 1297-1307) for operating official trade ships⁸; Chen Baosheng 陈宝生 and Sun Tianfu 孙天富 set out from Quanzhou to trade with Goryeo, Dupo 阁婆 (now Java island) and Luohu 罗斛 (now southern Thailand)⁹.

Long-distance maritime trade involves many trading diasporas from different countries and regions, their languages and currencies may not exactly the same, and it took years to traverse the whole trade circle.¹⁰ Merchants from different religions traded with each other, often crossing the boundaries of Hinduism, Islam, Judaism, and Christianity. The spread of religions, wars and the change of governments led to the tide of immigration, material and cultural exchanges, which had an impact on maritime trade. The trading in turn affected political forces and economic level, such as Funan, Srivijaya and Majapahit 满者伯夷,

¹ *Song Hui Yao Ji Gao* 宋会要辑稿, Shi Huo San Ba 食货三八.

² Shen kuo 沈括, *Meng Xi Bi Tan* 梦溪笔谈, Vol.3.

³ For the price of rice, see *Song Shi* 宋史, Vol.182, Shi Huo Zhi 食货志, Yan 盐.

⁴ *Song Shi* 宋史, Vol.186, Shi Huo Zhi 食货志, Hu Shi Bo Fa 互市舶法.

⁵ Wu Hai 吴海: *Zhi Zhi Xuan Ji* 知止轩记, *Wen Guo Zhai Ji* 闻过斋集 Vol. 3.

⁶ Zhu Yu 朱彧, *Ping Zhou Ke Tan* 萍洲可谈. Vol. 2.

⁷ Zeng Minxing 曾敏行, *Du Xing Za Zhi* 独醒杂志, Vol. 10.

⁸ Huang Jin 黄晋, *Huang Jin Hua Wen Ji* 黄金华文集, Vol.35, Songjiang Jiading Deng Chu Haiyun Qianhu Yang Jun Mu Zhi Ming 松江嘉定等处海运千户杨君墓志铭.

⁹ Wang Yi 王彝, *Wang Changzong Ji Bu Yi* 王常宗集补遗, Quanzhou Ling Yishi Zhuan 泉州两义士传.

¹⁰ Janet L. Abu-Lughod, *Before European Hegemony: The World System A.D. 1250-1350*, (Oxford: Oxford University Press, 1989), p.8.

which were developed by maritime trade and were once powerful entities. Regardless of the changes in religious beliefs and regimes, maritime trade has never stopped.

2.4 The rise of porcelain trade in the Song and Yuan dynasties

In the middle of the Han dynasty (149-48 BC), Chinese merchants began to travel west across central Asia, in effect, opening the “silk road” as a regular, overland route between Europe and East Asia, though Chinese merchants did not necessarily travel all the way by themselves¹. By the first century, trade between India and China was extensive, and Chinese goods, mainly silk were widely sold within the Roman Empire.² It was the merchants from Transoxiana³, that carried silk and lacquerware to the Roman Empire in exchange for woollen and linen textiles and various precious stones.⁴ The large-scale porcelain trade started in the late Tang dynasty (AD 836-907), and it was welcomed worldwide. Porcelain wares produced from Changsha kiln of the Tang dynasty was traded across the Indian Ocean and spread as far as Africa. Lisbon had been a European port of entry for porcelain since AD 1499, and after the establishment of the East Indian Companies, tea and porcelain was imported in a huge number in European countries.⁵ All these trade activities have promoted regional exchanges and activities within various trade routes.

Around the AD 8th century, Abbasid dynasty (AD 750-1258) and Tang dynasty were at the height of their power. Long distance trade was almost limited to high-priced, low-volume goods. However, by the 10th century, large volume goods began to enter the field of maritime trade, such as manufactured goods (ceramics), raw materials (such as wood) and a large number of food (such as rice, wheat, sugar, salt).

Before a large number of Song dynasty ceramics were exported to overseas market, ceramic as a trade item was not valued by the people in Southeast Asia, and rarely included in the list of goods. It was not until AD 936, the fourth year of Jianlong 建隆⁶ of the Northern Song dynasty, when the Srivijaya delegation returned home that they began to bring back white porcelain, silver and lacquerware, because white porcelain (*Qingbai* porcelain) was of good quality and popular with the local upper class.⁷ Since then, the Song dynasty exported celadon in large quantities and traded with people of all

¹ Philip D. Curtin, *Cross-Cultural Trade in World History*, (Cambridge: Cambridge University Press, 1984), p.93.

² Ying-Shih Yu, *Trade and Expansion in Han China* (Berkeley: University of California, 1967), pp.151-158.

³ The region was one of the satrapies of the Achaemenid Dynasty of Persia under the name Sogdiana.

⁴ Philip D. Curtin, *Cross-Cultural Trade in World History*, (Cambridge: Cambridge University Press, 1984), p.94.

⁵ Robert Finlay, “The Pilgrim Art: The Culture of Porcelain in World History”, *Journal of World History*, Vol.9, no.2, 1998, pp.141-187; Denny Lombard, “Questions of Contact between European Companies and Asian Societies,” Leonard Blussé and Femme Gastra ed., *Companies and Trade: Essays on Overseas Trading Companies During the Ancient Régime*, (Leiden: Leiden University Press, 1981), pp.79-87.

⁶ Jianlong 建隆 is the Nianhao 年号 of the Song Taizu 宋太祖, when a new monarch ascended the throne, Chinese of old do not use the emperor's name but rather the Nianhao to recalculate the years of reign of the new emperor. An emperor may change Nianhao several times during his reign.

⁷ *Song Shi* 宋史, San Fo Qi Zhuan 三佛齐传.

nationalities in Southeast Asia, but it was also not taken seriously by the Song dynasty officials. In order to increase the financial revenue, the government of the Song generate revenue directly by means of monopoly, shipment and extraction. Thus, the government of the Song dynasty adopted a series of incentive measures and sent missions overseas to court foreign merchants. For example, in the fourth year of Yongxi 雍熙 (AD 987) of the Northern Song dynasty, the government sent four trade missions overseas.¹ At that time, silk was mainly exchanged for spices, and ceramics had not yet become staple commodity. It was not until the outflow of copper coins in the Song dynasty that attention began to be paid to the export of ceramics. The government set up the *Shi Bo Si* 市舶司 to supervise and manage trade activities, control smuggling activities in the southeast coastal area, and have made 10 edicts to prohibit the outflow of copper coins. In AD 1216, the ninth year of Jiading 嘉定, the government declared that ceramics could be exported as a commodity.² From then on, Chinese porcelain began to be exported on a large scale. In the twelfth year of Jiading 嘉定 (AD 1219), Song government issued a decree that foreign goods should not be exchanged for money, but only silk, porcelain and lacquerware could be used for trade.³

Chinese ceramic manufacture technology was first developed in the southern part of China (the dividing line between the north and the south is the Qinling and Huaihe River). The first mature green glazed ware can be traced back to the late Eastern Han dynasty (AD 92-159)⁴. Around the end of the 4th century, the firing technology of celadon was introduced into the north in the late Northern Wei dynasty (AD 386-534). By the Northern Qi dynasty (AD 479-502), white porcelain had been produced in the north. After the development of the Sui dynasty and the Tang dynasty (AD 518-907), the geographical layout of China's porcelain manufacture industry appeared as *nan qing bei bai* 南青北白⁵, which means the kilns in the south produce celadon and the kilns in the north produce white porcelain. The

¹ *Song Shi* 宋史, *Shi Huo Zhi* 食货志.

² Wei Yuehan, "The Oriental Ceramic Trade in Southeast Asia", Chinese Ancient Export Ceramics Research Association ed., *Research Materials of Chinese Ancient Export Ceramics*, Vol.1, 1986, p. 60.

³ *Ibid.*, p63.

⁴ China Ceramics Association, ed. *History of Chinese Ceramics*, (Beijing: Cultural Relics Publishing House, 1987), p. 127.

⁵ Archaeological data of white porcelain in Tang Dynasty and Five Dynasties: Guo Yanyi, Li Jiazhi, *Famous White Porcelain in the North and South of China in History*, (Shanghai: Shanghai Science and Technology Publishing House, 1985); Feng Xianming, "Investigation Briefs of Ancient Kiln Sites in Gongxian, Henan Province", *Relics*, No.3, 1959; Feng Xianming, A Survey of Ancient Kiln Sites of Tang and Song Dynasties in Mi Xian and Dengfeng of Henan Province, *Relics*, No.3, 1963; *Collection of Cultural Relics Unearthed in Jiangsu Province*, (Beijing: Cultural Relics Publishing House, 1963); "Excavation of Nan Tang Tombs in the Western Suburbs of Hefei", *Cultural Relics References*, No.3, 1958; Zhejiang Institute of Cultural Relics and Archaeology, *The Tomb of Qian Kuan and His Wife in Late Tang Dynasty*, (Beijing: Cultural Relics Publishing House, 2002). Archaeological data of celadon in Tang Dynasty and Five Dynasties: Guo Yanyi, "Celadon in North and South China", *Scientific and Technological Achievements of Ancient Chinese Ceramics*, (Shanghai: Shanghai Science and Technology Publishing House, 1985); Chen Wanli, *A Brief History of Chinese Celadon*, (Shanghai: Shanghai Renmin Publishing House, 1958); Xinjiang Reservoir Archaeological Team, "Excavation of Ancient Tombs in Chun'an, Zhejiang", *Archaeology*, No.3, 1959; Jin Zuming, "Investigation Report on Zhejiang Yuyao Celadon Kiln Sites", *Journal of Archaeology*, No.3, 1959; Xiao Xiang, "Investigation of Tongguan Kiln Site in Changsha in Tang Dynasty", *Journal of Archaeology*, no.1, 1980; Quanzhou Museum of Overseas Traffic History, "Excavation of Tang Tombs in the Southwestern Suburb of Quanzhou, Fujian," *Archaeology*, No.12, 1961; Shao Churong, "Tang kiln site discovered in Jiangle County, Fujian Province", *Relics*, No.9, 1959.

most intuitive difference between white porcelain, celadon and *Qingbai* porcelain is the colour, obviously, the colour of white porcelain is white, the colour of celadon is blue-green, and *Qingbai* porcelain is between the two colours. The earliest exported porcelain was the white porcelain from the Xing and Ding kilns and some other kilns in the north during the Tang and early Northern Song dynasties (AD 618-1020). Celadon and *Qingbai* wares joined the ranks of trade in the 11th century and quickly became the most important export type in the Song and Yuan dynasties. The kilns that produced these wares were located in the south and along the coast, where it is easier and faster to transport products to the main export ports. According to today's political geography, white and *Qingbai* porcelain have been found in more than 30 regions spread across over 20 countries along the sea route from archaeological excavations¹. Subsequently, blue and white porcelain appeared in the first half of the 14th century, and soon occupied the dominant position in the ceramic trade. Shipwreck data shows that the first peak of porcelain trade was in the late Tang dynasty. The Batu Hitam wreck² sank in the waters off Belitung in Indonesia. It was discovered in 1998, and most of the cargoes were porcelain from Changsha kiln: the total number of the porcelain is around 67,000. One bowl has an exact date on its surface, which shows the second year of Baoli 宝历 (AD 826), indicating that it might be a ship that departed during the late Tang dynasty (AD 836-907). There were nearly 80,000 items³ related to porcelain on the Nanhai No.1 Wreck of the Southern Song dynasty and over 20,000 items⁴ on the Sinan Wreck of the Yuan dynasty. During the Ming and Qing dynasties (AD 1364-1912), western ships always had huge capacity. The Gotheborg that had sank in 1745 carried 500,000 items⁵ related to porcelain and the Tek Sing that sank in 1822 in Indonesia waters had more than 350,000 items on its cargo⁶.

There are many reasons for the large-scale export of porcelain. The first is the

¹ Li Jiazhi, ed. *Science and Technology in China: Ceramics*, (Beijing: Science Press, 1998).

² Michael Flecker, "A 9th-century Arab or Indian Shipwreck in Indonesian Waters", *The International Journal of Nautical Archaeology*, Vol.29, No.2, 2000, pp.199-217; Michael Flecker, "A Ninth Century AD Arab or Indian Shipwreck in Indonesia: First Evidence for Direct Trade with China", *World Archaeology*, Vol.32, No.3, 2001, pp.335-354; Michael Flecker, "A 9th-century Arab or Indian Shipwreck in Indonesian Waters: Addendum", *The International Journal of Nautical Archaeology*, Vol.37, No.1, 2008, pp.384-386.

³ National Centre of Underwater Cultural Heritage, Guangdong Provincial Institute of Cultural Relics and Archaeology, Chinese Academy of Cultural Heritage, Guangdong Museum, Maritime Silk Road Museum of Guangdong ed., *Archaeological Report I of Nanhai No.1: Excavation from 1989 to 2004*, I, II, (Beijing: Cultural Relics Press, 2017); National Centre of Underwater Cultural Heritage, Guangdong Provincial Institute of Cultural Relics and Archaeology, Chinese Academy of Cultural Heritage, Guangdong Museum, Maritime Silk Road Museum of Guangdong ed., *Archaeological Report II of Nanhai No.1: Excavation from 2014 to 2015*, I, II, (Beijing: Cultural Relics Press, 2017); Guangdong Institute of Cultural Relics and Archaeology ed., *Archaeological Excavation of Nanhai No.1*, (Beijing: Science Press, 2011); Nanhai No.1 Archaeological Team, "Excavation of the Shipwreck of Song Dynasty in 2014", *Archaeology*, No.12, 2016.

⁴ Department of Culture and Finance, National Exhibition Hall of Marine Relics ed. Sinan Ship I, II, III (Mokpo: National Exhibition Hall of Marine Relics, 2006); The Ministry of Culture, Publicity and the Administration of Culture and Finance ed., *Sinan Undersea Relics I, II, III*, 1983, 1984, 1985; The Ministry of Culture, Publicity and the Administration of Culture and Finance ed., *Undersea Relics in Sinan*, (Seoul: Korea Book Co. Ltd., 1988).

⁵ Berit Wastfelt, Bo Gyllenevard, Jorgen Weibull, *Porcelain from the East Indiaman Götheborg*, (Götheborg: Förlags AB Denmark, 1991).

⁶ Fritz Nagel, Nagel Auctions, *Tek Sing Treasures*, (Stuttgart: Stuttgarter Kunstauktionshaus, 2000); Nigel Pickford and Michael Hatcher, *The Legacy of the Tek Sing*, (Cambridge: Granta Editions, 2000).

characteristics of the porcelain itself, hard, waterproof, lightweight, resistance to high temperature and its beautiful shape, which not only have changed the lifestyles of Chinese society¹, but also have influenced lifestyles outside of China. There are some products specially made for the foreign market, such as the sutra box, which are especially cherished and treasured by the Japanese. Shaped like a straight cylinder with a lid, these sutra boxes were often made of white or *Qingbai* porcelain, they were considered especially suitable for containing sutras and used in burial. This may be due to the white colour, which is a representative of “purity”².

Another reason for the prosperity of the porcelain trade was China’s long-standing monopoly of the ceramic manufacturing technology. During the Song and Yuan dynasties, there were many kilns setup in other countries including the Korean Peninsula, Japan, Southeast Asia and Central Asia that attempted to replicate the firing technique to produce the white or *Qingbai* porcelain³. However, they have not been successful due to the ignorance of the raw materials in making porcelain bodies as well as difficulty in controlling the temperature of the firing technique. The third reason for the prosperity of ceramic trade is the advanced seamanship techniques, including the use of the compass, the emergence of ships with larger capacity and durability for ocean navigation. It is recorded that the weight of the ships built at that time reached *wan dan* 万石⁴. *Wan* means ten thousand, 1 *dan* is about 60 kilograms, and the weight of *wan dan* is therefore approximately 600 tonnes. Although these *wan dan* vessels only appeared in a few special cases, they still reflect the improvement of shipbuilding technology of this period which had improved significantly compared with previous dynasties. *Meng Liang Lu* 梦梁录 recorded that the size of maritime trade ship varies, the largest load was 5000 *liao* 料 (equal to *dan* 石), can accommodate 500 people, medium ships 1000 to 2000 *liao* 料, can accommodate between 200 to 300 people. The rest of the boat is called *zuan feng* 钻风, which could carry about 100 people.⁵

After the An Lushan Rebellion 安史之乱 (AD 755-763) in the Tang dynasty, the economy of the north was seriously damaged, and a large number of immigrants moved to the south. The relatively stable social environment has developed the southern economy; and the economic and cultural exchanges between the north and the south increased greatly. During the Five Dynasties and Ten Kingdoms period (AD 907-979), some kilns in the south began to fire white porcelain, and one of the results of the early development of white porcelain in the south led to the emergence of *Qingbai* porcelain. *Qingbai* porcelain is a variety between celadon and white porcelain. Its body is solid and delicate, the glaze is white and elegant. The only place where glaze accumulates may reflects the colour of *qing*

¹ Ye Wencheng, Ding Jiongchun, “Reasons for Chinese Ancient Ceramics Selling Well Abroad”, *Fujian Wenbo*, No.1, 1991, pp. 91-95.

² Metoku Kamei, “Song Dynasty Porcelain Exported to Japan”, in *World Porcelain*, (Tokyo: Shogakukan, 1997), p. 128.

³ See Chapter 5 of this thesis.

⁴ Hong Mai 洪迈, *Rong Zhai Bi Ji* 容斋笔记, Vol. 19, Nan Zhou Bei Zhang 南舟北帐.

⁵ Wu Zimu 吴自牧, *Meng Liang Lu* 梦梁录, Vol.12, Jiang Hai Chuan Jian 江海船舰.

青, there is an opinion that *Qingbai* porcelain is the white porcelain produced in the south¹. Exported *Qingbai* ware were mainly from the following regions across the various period: Anhui Fanchang kiln from the late Tang dynasty (AD 875-907) to the early Northern Song dynasty (AD 960-1020), Jingdezhen kiln and Guangdong kilns from the middle Northern Song dynasty (AD 1020-1080) to the early Southern Song dynasty (AD 1127-1164), then the Fujian kilns like Dehua after the middle Southern Song dynasty (AD 1164-1207). The manufacturing centre of *Qingbai* porcelain in the Yuan dynasty was still in Jingdezhen, but also produced in other parts of Jiangxi, Fujian and Guangdong.

¹Mikami Tsugio, Li Xijing and Gao Ximei ed. *The Road of Ceramics*, (Beijing: Cultural Relics Publishing House, 1984).

Chapter 3 The Rise of *Qingbai* Porcelain Trade

3.1 Sea routes before Tang dynasty

Today's Maritime Silk Road has experienced a long historical period; it combines many ancient sea routes. Prior to the Tang dynasty (AD 618-907), there were very few records regarding the opening of sea routes and maritime trade. Only the records and recollections of official envoys and monks who travelled westward to seek Buddhist doctrines, may show us a very small part of the maritime trade. The details or the shapes of the private trade were still unknown. Maritime trade routes in ancient China can be roughly divided into two, one is the East China Sea route, linking inland China to the Korean Peninsula and Wo 倭; The other is the South China Sea route, which linked to Southeast Asia, South Asia, West Asia and even further Africa. The scope of the South China Sea route is very large, it almost encompassed all the sea routes except for Japan and the Korean Peninsula.

The trade between China and the Korean Peninsula can be traced back to the Warring States Period (475-221 BC). Records at the end of the 3rd century BC show that the Korean Peninsula had connections with Yan 燕 (now Beijing, northern Hebei and western Liaoning Province) and had a close economic and cultural relationship with Ji 蓟 (now the southwest suburb of Beijing), the capital of Yan at that time¹. After wiping out Wiman Joseon (195-108 BC), Emperor Wu 武帝 established four prefectures in the northern and central parts of the Korean Peninsula and western part of now Liaoning Province in 108 BC, which has included part of the Korean Peninsula into the Han Empire's territory. At that time, with the exception to the road crossing the Yalu River to northeast China by land, another Sino-Korean sea route was opened up from the Yellow Sea and the Bohai Sea to the southern part of Korean Peninsula². This was where Chinese ideology, technology and materials spread to the Korean Peninsula, including the manufacturing crafts of celadon. The Korean Peninsula is the first area outside China to master the manufacturing technology of high-temperature ceramics. During this time, Korean domestic porcelain industry has been imitating Chinese ceramic products for a long time, such as using low temperature lead-glazed pottery to imitate tri-coloured pottery in the Silla period (AD 688-935) and Koryo celadon's imitation of celadon from Yue kiln in the 9th century³. When the Song and Yuan

¹ Shen Guangyao, *History of Foreign Trade in Ancient China*, (Guangzhou: Guangdong Renmin Publishing House, 1985), p.25.

² Chung Yang-mo, "The Art of Korea Potter: From the Neolithic Period to the Choson Dynasty" in Judith G.Smith, ed. *Arts of Korea*, (New York: The Metropolitan Museum of Art, 1998), p.226.

³ G. St. G. M. Gompertz, *Korean Celadons and Other Wares of the Koryo Period*, (London: Faber and Faber ,1962); Yotaka Minio, "Koryo and Choson Dynasty Ceramics," in *The Radiance of Jade and the Clarity of Water: Korean Ceramics from the Ataka Collection(exh.cat)*, (New York: Hudson Hills Press,1991); Wu Xiuting, "Analysis on the Similarities and Differences of Korean Celadon and Yue Kiln Celadon Decoration", *Ceramic Research*, No.5, 2019; Ren Fangqin, "A Discussion on the Origin Time of Koryo Celadon", *Hangzhou Wenbo*, No.1, 2018; Wu Jing, Fu Yarui, "Summary of Koryo Celadon Unearthed in China and Related Research", *Research on Regional Culture*, No.1, 2018.

dynasties were exporting porcelain to Southeast Asia and Japan on a large scale, the Korean Peninsula only imported Chinese porcelain on a small scale and even exported fine porcelain to China because they have mastered the ceramic manufacturing technology. Therefore, it can be surmised that the ship carrying a large number of celadon and *Qingbai* wares that sank in Sinan waters during Yuan dynasty was destined for Japan, not the Korean Peninsula. During a long period, Japan was establishing contact with China through using the Korean Peninsula as the intermediary. It was not until the Wei and Six Dynasties Period (AD 222-589) that Wo opened up a sea route from the Korean Peninsula to the Shandong Peninsula through the Yellow Sea¹.

The earliest and more complete record of the South China Sea route in ancient Chinese documents came from the *Hou Han Shu* 后汉书. The annexation of the Nanyuguo 南越国 (Guangxi and Guangdong Province of China and northern Vietnam) in 111 BC opened up the main sea routes to the coastal countries of the South China Sea. The official trade envoys sent by Emperor Wu 武帝 of the Han dynasty arrived in Huangzhiguo 黄支国², which is today's Conjevaram, a coastal city in southeast India, was a famous commercial port that was mentioned in the *Períplous tis Erythrás Thalássis* (*The Periplus of the Erythraean Sea*) written by an anonymous merchant during the Roman Empire (27 BC-AD 476).³ It would have been an intermediary port for the Roman Empire to trade with China. Also, another precise record of the South China Sea route came from an eminent monk, Faxian 法显, who travelled westward to seek Buddhist scriptures during the Eastern Jin dynasty (AD 317-420). He sailed from Ceylon to Nativa (Java, Indonesia), where he returned home on a merchant ship and sailed for Guangzhou in 50 days under good weather conditions⁴.

Though the entire trade routes at that time cannot be completely recorded, assumptions can be made based on the limited literature materials that show prior to the official trade, private trade must have already begun. At that time, the main port of foreign trade was Panyu 番禺 (now Guangzhou). In 1974 and 1995, the remains of shipbuilding workshops of Qin and Han dynasties (221 BC-AD 220) were excavated in Guangzhou inner city⁵, which shows that China had a high shipbuilding capacity and advanced seamanship techniques during the Qin and Han dynasties. The technology during the Roman Empire and Han dynasty have made three routes possible between India and the Mediterranean: the overland route through Parthia⁶, sea routes on the Persian Gulf and overland route to

¹ Ma Duanlin 马端临, *Wen Xian Tong Kao* 文献通考, Vol. 324, Si Man Yi, Wo 四蛮夷·倭.

² Fan Ye 班固, *Han Shu* 汉书, Vol.28, Dilizhi Xia 地理志下.

³ The book is a Greco-Roman periplus written in Koine Greek that describes navigation and trading opportunities from Roman Egyptian ports like Berenice Troglodytica along the coast of the Red Sea, and others along Horn of Africa, the Persian Gulf, Arabian Sea and the Indian Ocean, including the modern-day Sindh region of Pakistan and southwestern regions of India. The English translation can see Schoff, Wilfred Harvey, ed., *The Periplus of the Erythraean Sea: Travel and Trade in the Indian Ocean by a Merchant of the First Century*, (New York: Longmans, Green, & Co., 1912).

⁴ Faxian 法显, *Fo Guo Ji* 佛国记; *Gao Seng Zhuan* 高僧传, Vol. 3, Shi Faxian 释法显.

⁵ "Trial Excavation of the Site of Qin-Han Shipbuilding Workshop in Guangzhou", *Relics*, no.4, 1977, pp.5-21, pp.86-89.

⁶ Parthia roughly corresponds to a region in northeast Iran, though part is in Turkmenistan. It was bordered by the Karakum desert in the north, included Kopet Dag mountain range and the Dasht-e-Kavir desert in the south.

the Mediterranean, sea routes on the Red Sea and overland route, either to Egypt or to some part of the Fertile Crescent.¹ The Indian Ocean Sea routes were already in competition for conducting trade between the eastern and the western world.²

3.2 Sea routes in the Tang and Song dynasties

During the 7th century, three states named Silla (57 BC- AD 935), Paekche (18 BC-AD 660) and Goguryeo (37 BC-AD 668) were established on the Korean Peninsula. During the Sui (AD 581-618) and Tang (AD 618-907) dynasties, Silla ships mostly berthed at Yangzhou and Chuzhou 处州 (now Huai'an, Jiangsu Province), while ships to Goguryeo mostly came from Mizhou 密州 (the southern edge of Jiaozhou Bay, Zhucheng, Shandong Province) and Dengzhou 登州 (now Penglai, Shandong Province). Japan was on bad terms with Silla because of its friendship with Paekche, which was an opposition to Silla. The Yellow Sea Route to China through Silla had been blocked. Therefore, Japan opened up another route from Kyushu, to sail west through Tanegashima and Amami Island, which crossed the East China Sea to Yangzhou, Chuzhou or Mingzhou 明州 (now Ningbo, Zhejiang Province). After the opening of sea routes, the contact between Japan and China reached its peak during the Tang dynasty. Japan learned many aspects of Tang society, during the Song and Yuan dynasties, a large number of Korean and Japanese ships began to travel to Quanzhou with the rise of Quanzhou Port.

During the late Tang dynasty (AD 836-907), the records on Guangzhou to South China Sea route were relatively complete. A geographer called Jia Dang 贾耽 (AD 730-805) has published a book *Huang Hua Si Da Ji* 皇华四达记, which recorded seven external roads in the Tang dynasty, five of which were overland passages, the other two were sea routes named Bohai dao 渤海道 and Guangzhou tonghai yidao 广州通海夷道³. The former is from Dengzhou to Koryo, the latter is divided into two sections, from Guangzhou to Baghdad, called Haidongan 海东岸, then to the east Africa, called Haixian 海西岸. The first leg of the Haixian route was to cross the South China Sea from Guangzhou, then sail southward along the eastern side of the Indochina Peninsula to the Malacca Strait, stopping at Palembang in Shilifoshi 室利佛逝 (now Sumatra, Indonesia). Subsequently, Palembang was taken as the starting point, where the route was divided into two, with one sailing eastward from Sumatra to the Helingguo 诃陵国 (east of the Indonesian Java). The merchants exchanged various handicraft products for forest goods and spices such as clove oil and nutmeg, and connected with the eastern islands of the Greater Sunda Archipelago. It was the most important trade route. The other route was along the Straits of Malacca to Shiziguo 师子国 (Sri Lanka), which was also an important transit point in the Indian Ocean trade circle and an important link between Southeast Asia and West Asia, the

¹ Philip D. Curtin, *Cross-Cultural Trade in World History*, (Cambridge: Cambridge University Press, 1984), p.96.

² Ibid., pp. 119-127.

³ Qin Dashu, the first peak of export of ancient Chinese ceramics: The scale and characteristics of export of ceramics in the 9th and 10th centuries, *Journal of Palace Museum Academies*, no.5, 2013, p. 32.

Middle East and East Africa. From Sri Lanka, there were two other routes, one across the Indian Ocean to the Red Sea or the Gulf of Aqaba coastal areas. This route is not clearly documented, it may be difficult for the earlier ships to travel such a long distance, therefore it is possible that the route was opened later. The other route is from the Shiziguo to the southern tip of the Indian subcontinent, then along the west coast of the Indian subcontinent, to the Wulaguo 乌剌国 (now Opora, east of Basra, Iraq) at the mouth of the 𐤆𐤍𐤔𐤕 (Euphrates River), and then to Fudacheng 缚达城 (Baghdad) by boat. In all, it took 87 days to travel from Guangzhou to Basrah¹.

30 ancient states and 31 regions were specially mentioned in the *Xin Tang Shu* 新唐书², including today's Southeast Asian countries except Singapore. Although some documents of the Song and Yuan Dynasties later recorded more places and more detailed descriptions, such as *Zhu Fan Zhi* 诸蕃志 by Zhao Rushi 赵汝适 (AD 1170-1231) of the Song dynasty and *Dao Yi Zhi Lue* 岛夷志略 by Wang Dayuan 汪大渊 (AD 1311-?) of the Yuan dynasty, in fact, the scope covered has not changed much, and this situation did not change in essence until Zheng He 郑和 (AD 1371-1433)'s voyage in the early Ming dynasty (AD 1405-1430).³

Table 1: Comparison of the Trading Places in Historical Documents of Tang, Song and Yuan Dynasties⁴

Region	Tang Dynasty	Song Dynasty	Yuan Dynasty	Now
East Asia	Silla 新罗	Goryeo 高丽	Goryeo 高丽	Korea
	Baekje 百济			
	Koguryo 高句丽			
	Woguo 倭国	Wo 倭	Wo 倭	Japan
	Maorenyidan 毛人夷亶			
Southeast Asia	Linyi 林邑	Champa 占城	Champa 占城	Central region of Vietnam
		Cochin 交趾	Cochin 交趾	North region of Vietnam
	Pentuolang 奔陀浪	Bintonglong 宾瞳龙	Mingduolang 民多朗	Phan Rang, Vietnam
			Kanthana 古答奴国	Nha Trang, Vietnam
	Menduguo 门毒国			Quy Nhon, Vietnam
	Gudaguo 古笪国			Thành phố Nha Trang, Vietnam
	Huan Kingdom 环王国			Vietnam
			Pugam 蒲甘	Burma
	Chenla 真腊	Chenla 真腊	Chenla 真腊	Cambodia
	Phnom 扶南			

¹ *Xin Tang Shu* 新唐书, Vol.34, Dilizhi Seven xia 地理志·七下.

² *Xin Tang Shu* 新唐书, Vol.222, Nanman Zhuan xia 南蛮传下.

³ Qin Dashu, "the first peak of export of ancient Chinese ceramics: The scale and characteristics of export of ceramics in the 9th and 10th centuries", *Journal of Palace Museum Academies*, No.5, 2013, p. 37.

⁴ The data are collected from Huang Chunyan, *Overseas Trade in the Song Dynasty*, (Beijing: Social Sciences Academic Press, 2003), pp. 31-33; Yu Changsen, *Overseas Trade in the Yuan Dynasty*, (Xi'an: Northwest University Press), pp. 14-30.

		Mait 麻逸	Mait 麻逸	Mindoro, Philippines
		Sanyu 三屿	Sanyu 三屿	Philippine Islands
	Jiamayan 加麻延			Calamian Islands
	Balaoxi 巴佬西			Palawan
	Bajinong 巴吉弄			Busuanga
	Pulilu 蒲哩噜	Malilu 麻里鲁		Manila
		Sulu Guo 苏鲁国		Sulu archipelago
		Siam 暹		Thailand
	Luohu 罗斛	Luohu 罗斛		Southern Thailand
		Shangshui 上水		Chiengmai, Thailand
	Zhenlifu 真理富	Zhenlifu 真理富		Chanthburi, Gulf of Siam
Luoyueguo 罗越国				Southern Malaysia
Foshiguo 佛逝国	Srivijaya 三佛齐	Srivijaya 三佛齐		Sumatra
	Balinfeng 巴林冯	Bulianba 不怜八		Palembang
		Sumudula 苏木都刺		Lower Bati River in Sumatra
		Falila 法里刺		Coast of Malacca, Northern Sumatra
	Bincu 宾卒	Bancu 班卒		Panchor, Sumatra
Gegesengqi 葛葛僧祇				One of the Islands in the Southern Strait of Malacca.
Geluoguo 简罗国				Kedah, Malaysia
Geguluoguo 哥谷罗国				Ranong Province, Thailand
	Tambralinga 单马令	Tambralinga 单马令		Central Malay Peninsula
	Xunfan 浔番	Rong 戎		Chumphon, Northern Malay Peninsula
Langjiaxu 郎加戌	Lingyasjia 凌牙斯加	Longyaxijiao 龙牙犀角		Pattani Malay Peninsula
	Luoyue 罗越	Luowei 罗卫		Kathari, Northern Malay Peninsula
	Gulandan 古兰丹			Southern Malay Peninsula
	Dengyayi 登牙依	Dingjiafalu 丁伽访庐		Southern Malay Peninsula
	Pengfeng 蓬丰	Pengkeng 彭坑		Southern Malay Peninsula
	Foluoan 佛啰安			Klang, Malaysia
	Maluonu 麻罗奴			Southern Malaysia
		Molayou 没刺由		Southern Malay Peninsula
	Shang Xia Zhu 上下竺	Dong Xi Zhu 东西竺		Pulau Aur, Malaysia
		Shali 沙里		Phuket Island
Helingguo 诃陵国	Dupo 阁婆	Zhaowa 爪哇		Java
	Sujidan 苏吉丹	Wenlaogu 文老古		Central Java
	Xintuo 新拖			Western Java

		Daban 打板		Eastern Java
		Rongyalu 戎牙路	Chongjialuo 重加罗	Java Surabaya
			Bajiejian 八节涧	
			Suntuo 孙陀	Sunda Strait
			Banongji 巴弄吉	Balanga, Philippines
		Mali 麻篱	Pagao 琶高	Bali
		Diwu 底勿	Dal 大力	Timor
		Pujialong 莆加龙		Central Java
			Pentan 宾丹	Bintan, Indonesia
			Wendan 文诞	Banda Islands
		Burni 淳泥	Burni 淳泥	Southern Kalimantan
			Qianba 乾八	Tangorkampoe, Sumatra
		Danrongwuluo 丹戎武罗	Dongchonggula 东冲 古刺	Lower Pavan River, Kalimantan
			Jialimada 假里马答	Karimate Islands
		Lanwuli 兰无里	Nanwuli 南巫里	Northwest Sumatra
			Mada 马答	Northwest Sumatra
			Harwa 阿鲁	Aru Harbour, North Sumatra
			Tanyang 毯阳	Tamjang River estuary
		Lingyamen 凌牙门	Longyamen 龙牙门	The Inca Islands
		Nanhai Bosi 南海波斯		Mergui Archipelago
India and the coastal areas of Bay of Bengal	Poluguo 婆露国			Boros, Indonesia
	Qielanzhou 伽兰洲	Mantuoman 曼陀蛮		Nicobar Islands
		Pengqieluo 鹏茄罗		Bangladesh
		Tianzhu 天竺	Tianzhu 天竺	India
		Zhunianguo 注犍国		Southeast coast of India
		Nanpi Guo 南毗国		Malabar Coast
			Julan 俱蓝	Quilon, India
		Fengyaluo 冯牙罗		Southwest India
		Maluohua 麻罗华		Central India
		Ganpayi 甘琶逸	Jilimuzi 急里模子	West Kampai, India
		Hurongla 胡荣辣	Huchala 胡荅辣	Western India
	Molaiguoguo 没来国	Kulam 故临		Quilon, India
			Fangbai 放拜	Bombay
			Xumenna 须门那	Sopara, India
	Bafanguo 拔帆国			Bharuch, India
		Maluoba 麻罗拔		Malabar Coast
			Xincun Matou 新村 码头	Palayakayal, India
			Pengjiala 朋加刺	Bangladesh
	Shiziguoguo 师子国	Xilan 细兰	Sengjiala 僧迦刺	Sri Lanka
			Dafoshan 大佛山	Adam's Peak, Sri Lanka
		Nannihualuo 南尼华罗		Somnathpur, India
			Gaolangbu 高郎步	Colombo
			Dabadan 大八丹	Periyapattinam, Coromandel Coast

			Da wdda 大乌爹	Drissa, India
			Xiali 下里	Calicut, India
			Mabaer 马八儿	West India
			Fanderaina, 梵答刺 亦纳	southwest coast of India
			Beiliu 北溜	Male
	Tifanguo 提帆国			Karachi, Pakistan
			Malujian 马鲁润	Maragha, Iran
	Tiluoluhe 提罗卢和			Abadan, Iran
		Mujulan 木俱兰		Makran
	Ubullah 乌剌国	Wuba 勿拔		Bagdad
	Moluoguo 末罗国	Bisiluo 弼斯罗		Basra
	Fudacheng 缚达城	Baida	Bajida 八吉打	Bagdad
	Persia 波斯	Persia 波斯		Iran
		Yilu 伊祿		Iraq
			Bosili 波斯离	Basra, Iraq
		Jisi 记斯	Qieshi 怯失	Qais, Persian Gulf
		Bailian 白莲		Bahrain
		Wengman 翁蛮		Oman
			Yajisi 押济思	Hejaz, Saudi Arabia
		Daqin 大秦		Syria
		Silian 思莲		Syria
		Ganmei		Southeast Iran
		Jiji 积吉		Shiraz, Iran
Areas around the Red Sea and the coast of East Africa		Majia 麻嘉	Tiantang 天堂	Mecca
		Misr 勿斯里		Egypt
		al-Iskandariyah 遏根陀		Alexandria
		Tuopandi 陀盘地		Damietta, Egypt
		Maliba 麻离拔		Southern Arabian Peninsula
		Maluoba 麻罗拔	Mixier 密昔儿	Cairo, Egypt
		Meilugunchun 眉路骨淳		North Africa
		Mulanpi 木兰皮	Diaojier 吊吉儿	Morocco
		Cishiye 毗侍耶		Tunisia
		Mojialie 默加猎		Northwest Africa
		Jialiji 伽力吉		Ethiopian coast
		Zhongli 中理		Southern coast of Somalia
		Kunlun Cengqi 昆仑层 期		Tanganyika Coast
		Bipaluo 弼琶罗		Mogadishu, Somalia
Areas around Mediterranean		Cengba 层拔	Cengyaoluo 层摇罗	Zanzibar
			Fulang 拂郎	Constantinople

The expansion of overseas trade routes during the Tang dynasty laid a solid foundation for a larger scale of overseas trade during the Song and Yuan dynasties. Due to the rise of the Quanzhou Port, there were some changes in the trade routes. A new eastward route was developed, sailing eastward from Quanzhou to today's Taiwan and Penghu areas, and these areas were used as a transit point to Japan, the Philippines and other places southward. These areas were also a big market where porcelain from Fujian Province kilns was consumed. This can be further evidenced by the sunken ships and a large number of

porcelain pieces found in the East China Sea. The second was the northward route, starting from Quanzhou Port, sailing northward along the offshore route to Qingyuan 庆元 (Mingzhou in Tang dynasty), making a brief stop before continue to sail northeast to the Japanese islands. The third was the southbound route, which is also the longest and most complex route. Starting from the port of Quanzhou and sailing southward, some vessels stopped briefly at Guangzhou, then departed for the Philippines and Vietnam. It would continue southward and reach the southwestern ports of Sumatra, Java and Sarawak, and subsequently towards the southern Indian ports via the Strait of Malacca, or sail directly westward through the Indian Ocean to the Arabian Sea. The route would pass the port cities along the Persian Gulf before dispersing to Africa and the Middle East. It is roughly the same as the South China Sea route that was recorded during the Tang dynasty.

During the Song and Yuan dynasties, the export of Jiangxi porcelain products mainly depended on waterway shipping, followed by overland routes. One of them flowed from the Changjiang River 昌江 to Ganjiang River 赣江, then from Poyang Lake 鄱阳湖 to Yangtze River 长江, before setting off to the sea through Mingzhou (now Ningbo), Quanzhou and other ports. This route was used to export goods to Japan, South China Sea Islands and Arabia, which was the main transportation route at that time; Another route passes through the mouth of the Yanshan River 铅山河, through Chongan, Wuyi and Jianyang in Fujian Province, that is, from the upper reaches of the Minjiang River 闽江 to Fuzhou before arriving in Quanzhou; There was also a route from Ruijin to Tingzhou (now Changting, Fujian), then by land to Zhangzhou, Tongan to Quanzhou. These three routes utilized a combination of water and land, Jingdezhen products were carried by people and livestock. The goods were transported to Quanzhou before sailing out to the sea. The alternate route was from Ganzhou Gongjiang River 贡江, shipped via a short land route into the Zhen River 浚江 to Guangzhou to the sea.¹

3.3 Foreign trade systems in Song and Yuan dynasties

During the Song and Yuan dynasties, the authority in responsible for the ports and overseas trade by *Shi Bo Si* 市舶司, implemented the *Shi Bo Rules* 市舶法; the equivalent to today's import and export regulations. Guangzhou *Shi Bo Si* was established in the fourth year of Kaibao 开宝(AD 971) of Song Taizu 宋太祖. By the second year of Xianping 咸平 (AD 999) of Song Zhenzong 宋真宗, Hangzhou and Mingzhou *Shi Bo Si* was set up alongside Quanzhou *Shi Bo Si* during the second year of Yuanyou 元佑 of Song Zhezong 宋哲宗 (AD 1087). At the same time, some *Shi Bo Wu* 市舶务 and *Shi Bo Chang* 市舶场 were built in new small ports to assist the work of *Shi Bo Si* in larger ports. Most of these new ports were located in the Yangtze River Delta. In the first year of Qiandao 乾道 (AD 1165) of Song Xiaozong 宋孝宗, Hangzhou and Mingzhou *Shi Bo Si* were abolished, leaving only the *Shi Bo* departments in Fujian and Guangdong provinces, concentrated in

¹ Yu Jiadong, *History of Jiangxi Ceramics*, (Zhengzhou: Henan University Press, 1997), pp. 340-341.

One of the main functions of those departments was to issue official certificates, or trade licenses named *gong ping* 公凭. All merchants need the license issued by *Shi Bo Si* for overseas trade regardless of whether the merchants were from overseas or local. Ships that wanted to go to Southeast Asia and the Indian Ocean needed to apply from Guangzhou *Shi Bo Si* and ships going to Japan and Korean Peninsula needed to apply from Mingzhou *Shi Bo Si*². The second function was to collect import and export duties, named *chou jie* 抽解. The basic tax rate during the Song dynasty was one tenth of the value of goods at the beginning³. Then the goods were divided into two types, *cu se* 粗色 and *xi se* 细色, the former referred to the general import goods, such as pepper and sulphur, the latter included valuable goods, such as gold, silver, ginseng, musk etc. *Xi se* goods were taxed at a rate of one tenth, while the *cu se* were at a rate of one fifteenth.⁴ However, here were no clear definition on the classification of *cu se* and *xi se*. Since the price of *xi se* goods was higher, and the Song and Yuan governments continued to expand the scope of *xi se* goods. Another important responsibility of *Shi Bo Si* is *jin que* 禁榷(monopoly) and *bo yi* 博易 (barter with silk, Lacquerware, porcelain). In the seventh year of the Taiping Xingguo 太平兴国 (AD 983), only eight types of goods could be sold by the empire government: hawksbill turtle, ivory, rhinoceros' horn, *bin tie* 宾铁 (a type of steel), tortoiseshell, coral, agate, and frankincense. Later, butea gum and ingots of brass were added.⁵ In the Southern Song dynasty, weapons and military supplies were included in the empire's monopoly.⁶ Goods, whether exclusively owned by the empire or permitted to be traded by private merchants, were to be *chou jie* in accordance with the regulations when the ships entered the port. *Bo yi* means bartering, also conducted by the empire official. According to the records of *Zhu Fan Zhi* 诸蕃志, the regions where foreign merchants exchanged porcelain in the Song dynasty were the Champa Kingdom 占城(now central region of Vietnam), Chenla 真腊 (now Cambodia), Srivijaya 三佛齐 (now Sumatra), Tambralinga 单马令 (now central Malay Peninsula), Lingyasjia 凌牙斯加 (now Pattani Malay Peninsula), Foluoan 佛啰安 (now Klang, Malaysia), Xilan 细兰 (now Sri Lanka), Dupo 阁婆 (now Java), Nanpi 南毗 (now Malabar coast of southwestern India), Kulam 故临 (now Quilon, India), Cengba 层拔 (Zanzibar), Burni 淳泥 (south Kalimantan), Mait 麻逸 (Mindoro, Philippines), Sanyu 三屿 (now Philippine Islands), Pulilu 蒲哩噜 (Manila). The types of porcelain involved were celadon, *Qingbai* porcelain and white porcelain⁷. The commodities bartered with porcelain during the Song dynasty were incense and medicine. More specific information is shown in the following table.

¹ A detailed record of the *Shi Bo Si* system can be found in *Song Hui Yao Ji Gao* 宋会要辑稿, Zhi Guan Si Si 职官四四.

² *Song Hui Yao Ji Gao* 宋会要辑稿, Zhi Guan Si Si 职官四四, No.5.

³ *Song Hui Yao Ji Gao* 宋会要辑稿, Zhi Guan Si Si 职官四四; Fan Zhongyan 范仲淹, Wang Jun Mu Biao 王君墓表, *Fan Wenzheng Gong Ji* 范文正公集, Vol.14.

⁴ *Song Hui Yao Ji Gao* 宋会要辑稿, Zhi Guan Si Si 职官四四, No.19.

⁵ *Song Hui Yao Ji Gao* 宋会要辑稿, Zhi Guan Si Si 职官四四, No.3.

⁶ *Song Hui Yao Ji Gao* 宋会要辑稿, Zhi Guan Si Si 职官四四, No.17.

⁷ Zhao Rushi 赵汝适, *Zhu Fan Zhi* 诸蕃志, Zhi Guo 志国.

Table 2: Import and Export Goods in the Song Dynasty¹

Partner	Imports to Song	Exports from Song
East Asia	gold, silver, lacquerware, copper, sulphur, mercury, drugs, lumber, pearls, steel swords, fine furniture, silver, matting, copper ware, celadons, pongee, linen, fur, musk, dyes, ginseng, and medicines	porcelains, silk, silk brocade, cotton, cloth, aloe wood, sandalwood, ambergris, materials for fine furniture, books, dyes, and copper cash myrrh, incense, spices, rhinoceros' horn, ivory, rare birds and flowers (all from Africa and Southeast Asia), mercury and books
Southeast Asia	aloe wood, incense, spices	Porcelains, silver and gold, silk, silk brocade, lacquerware, parasols, ironware, matting, silk, fans, leather drums, glass and pearl ware, cochineal, wine, rice, sugar, salt, Indian red

During the Yuan dynasty, the first *Shi Bo Si* was set up in Quanzhou, and then in Guangzhou, Qingyuan 庆元 (now Hangzhou), Mingzhou 明州 (now Ningbo), Wenzhou, Ganpu 澈浦 (now Haiyan, Zhejiang Province) and Shanghai², all of which were located in the south of the Yangtze River. The foreign trade management system of the Yuan dynasty was the continuation of Song, and the tax system also imitated the Song dynasty to levy one tenth of the price³. The market policies during the Yuan dynasty were not complex, but the detailed rules of management were more rounded compared to Song dynasty. For example, those merchants that were engaging in overseas trade could be exempted from taxation and labour, and their families could also be benefited (*Zhanyi* 沾益)⁴. In the Yuan dynasty, the official capital trade system was called *guan ben chuan* 官本船 and was implemented in AD 1284. This means that the government invested in the marine trade by building or buying trade ships, and the interest was divided into 70% by the official government and 30% by the private merchants.⁵ But it was soon abolished, and overseas trade was completely opened to bureaucrats.

There were two types of merchants that engaged in marine trade during the Song and Yuan dynasties: official dispatched envoys and private merchants. Envoys were dispatched in the form of *chao gong* 朝贡 (tribute) or *jiao pin* 交聘 (send emissaries to each other), and sometimes the government also send official merchants directly to overseas to purchase local products from the respective overseas countries⁶. Some of the fine porcelain found in overseas markets might have come from official merchants in the Song and Yuan dynasties. During the Song dynasty, people in official positions will be punished for being involved in private trade.⁷ The repeated promulgation of such prohibitions⁸ shows that it was very

¹ The data are collected from Zhao Rushi 赵汝适, *Zhu Fan Zhi* 诸蕃志; *Song Hui Yao Ji Gao* 宋会要辑稿, Zhi Guan Si Si 职官四四.

² *Yuan Shi* 元史, Vol.17, Shizu Ji 14 世祖纪一四; Vol. 91, Bai Guan Zhi 7 百官志七, Shi Bo Ti Ju Si 市舶提举司.

³ Wang Qi 王圻, *Xu Wen Xian Tong Kao* 续文献通考, Vol.26, Shi Di Kao 市舶考.

⁴ *Yuan Shi* 元史, Vol. 94, Shi Huo Zhi 食货志, Shi Bo 市舶.

⁵ *Yuan Shi* 元史, Vol. 94, Shi Huo Zhi 食货志; Vol.205, Lu Shirong Zhuan 卢世荣传.

⁶ *Song Hui Yao Ji Gao* 宋会要辑稿, Zhi Guan Si Si 职官四四.

⁷ *Song Shi* 宋史, Vol.186, Shi Huo Zhi 食货志, Hu Shi Bo Fa 互市舶法.

⁸ *Song Hui Yao Ji Gao* 宋会要辑稿, Zhi Guan Si Si 职官四四.

common at that time for bureaucrats to send their associates to engage in overseas trade. In the Southern Song dynasty, a famous military general Zhang Jun 张俊, who gave an old soldier 500,000 *guan* as capital, recruited sailors and clerks to trade overseas. When he set out from home, the goods on board were silk, brocade, delicacies and yellow-white ware (should refer to yellow-glazed and white-glazed porcelain). Zhang returned with tenfold profits after a year¹. The huge profits made some Song officials willing to risk being punished to engage in overseas trade. The Yuan government had a different attitude towards the bureaucrats engaged in overseas trade, they only needed to pay taxes like other private merchants.² It was more common for powerful bureaucrats to operate overseas trade during the Yuan dynasty, especially after the *guan ben chuan* 官本船 was abolished.

Although the Song and Yuan governments encouraged overseas trade, both officials and private trade activities had to be carried out under the supervision of the *Shi Bo Si*, which ensured the sustainability and normalization of individual overseas trade as well as receiving a huge amount of tax. *Chou jie* and *jin que* were the major income of *Shi Bo Si*, and their contribution to the entire tax revenue during the Song dynasty varied with the change of political situation. When the Northern Song dynasty (AD 960-1127) was destroyed and the Southern Song dynasty (AD 1127-1279) was just established, the revenue from overseas trade accounted for about 20% of the fiscal revenue³. After the society was relatively stable in the middle Southern Song dynasty (AD 1164-1207), the economy further developed, and at this time, the revenue from overseas trade accounted for about 3% to 5% or even less of the fiscal revenue⁴. There is no precise record of the proportion of revenue from overseas trade records in the Yuan dynasty, but a record indicates that the income of *Shi Bo Si* can support the military campaigns of the empire⁵, thus it must be sizeable.

3.4 The origin of *Qingbai* and the aesthetic of monochrome glaze

There is no determined definition of *Qingbai*, all the porcelain with glaze colour between *qing* (青, cyan) and white can be called *Qingbai* porcelain, which are represented by Jingdezhen products in Song dynasty (AD 960-1279). There are two views on the origin of *Qingbai* porcelain, one is “the imitation of jade”⁶, which holds that ancient kiln artisans created the bluish-white glazed porcelain studiously in order to constantly improve the

¹ Luo Dajing 罗大经, *He Lin Yu Lu* 鹤林玉露, Vol.3.

² *Tong Zhi Tiao Ge* 通制条格, Vol. 18, Guan Shi 关市, Shi Bo 市舶.

³ Bai Shouyi 白寿彝, “Islam's Incense and Medicine Trade in Song Dynasty”, *Yu Gong*, Vol. 7, No.4, 1937; Lin Tianwei, *A History of the Incense and Medicine Trade in Song Dynasty*, (Hong Kong: China Society, 1960).

⁴ Guo Zhengzhong, “The income of overseas trade in the southern Song Dynasty and its ratio in fiscal revenue”, *Collections on the History of Chinese Literature*, (Shanghai: Shanghai Classics Publishing House, 1982); Kuwabara Jitsuzo 桑原鹭藏, *Ho Jukōno jiseki* 蒲寿庚 no 事蹟, (Tokyo: Kazama Shobo, 1935), translated into Chinese by Chen Yujing 陈裕菁 as *Pu Shougeng Kao* 蒲寿庚考, (Beijing: Zhonghua Book Company, 1954), p.4.

⁵ *Yuan Shi* 元史, Vol. 169, Jia Xi La Zhuan 贾昔刺传.

⁶ Feng Xianming, “*Qingbai* Porcelain in China's Song and Yuan Dynasties”, *Palace Museum Journal*, No.3, 1979.

process to create a jade texture on the porcelain. Many literati in the Song dynasty praised the jade-like glaze of *Qingbai* porcelain. Hong Mai (AD 1123-1202)'s *Rong Zhai Sui Bi* 容斋随笔 recorded the poem Song Xu Tuntian Shi 送许屯田诗: porcelain fired in the Fu Liang (Jingdezhen), the colour is more beautiful than *qiong jiu* 琼玖 (Jade). In Li Qingzhao 李清照 (AD 1084-1155)'s *Zui Huayin* 醉花阴, she wrote that the pillow is smooth like a jade, and the pillow here refers to the *Qingbai* porcelain pillow¹. The other view is the theory that the *Qingbai* porcelain is a result of “the imitation of white porcelain”². In the porcelain craft industry of Tang dynasty (AD 618-907), celadon and white porcelain were the dominant products, and their geographical distribution was characterized by *nan qing bei bai* 南青北白, which means the south mainly product celadon, while the north mainly fire white porcelain. However, many kilns in the south began to and fire *Qingbai* porcelain in the Song dynasty. The “imitation of white porcelain” theory holds that in order to imitate the white porcelain, southern kilns produced *Qingbai* porcelain by coincidence during the firing process because of the high iron content within the raw materials that were used to produce the southern ceramic.

I believe that the origin of *Qingbai* porcelain can be analysed comprehensively by combining two views. In ancient China, *qing* 青(cyan) is one of the five traditional colours (cyan, red, white, black and yellow)³, which is a colour between blue and green, and has been treasured and valued by Chinese people. Around the mid-Shang dynasty in the 17th century BC, ancient Chinese craftsmen created primitive porcelain by improving the selection and treatment of raw materials constantly, as well as raising the firing temperature and glazing of the surface⁴. The primitive porcelain, also known as primitive celadon, belongs to the cyan glazed porcelain series with iron as the main colourant. That is to say, cyan was the original glaze colour of the porcelain. With the passage of time and the continuous progress of porcelain firing technology, ancient Chinese craftsmen constantly dilute the glaze colour from dark green, yellow-brown to light blue.

Table 3: Colour Change of the Cyan Glazed Porcelain⁵

Dynasty	Glaze Colour
Shang and Zhou dynasties (1600~256 BC)	Cyan-green, doulv 豆绿 (bean-green), dark green, yellow-green
Warring States Period (770-221 BC)	Cyan-brown, cyan-green, yellow-green, greyish green, dark green
Han dynasty (202 BC-220 AD)	Cyan-green, yellow-brown, <i>mihuang</i> 米黄 (rice-yellow)
Jin Dynasty (266-420 AD)	Cyan, cyan-green, light cyan, yellowish cyan, greyish cyan
Northern and Southern dynasties (420-589 AD)	Cyan, light cyan, yellowish cyan, <i>mihuang</i> 米黄 (rice-yellow), 豆青(bean-

¹ Zhong Jianhua and Chen Yuqian ed., *History of Jingdezhen Ceramics (Volume of Tang, Five Dynasties, Song and Yuan Dynasties)*, (Nanchang: Jiangxi Renmin Publishing House, 2016), p.156.

² Huang Yijun. *A Study on the Historical Geography of Song Dynasty Qingbai Porcelain*, (Beijing: Cultural Relics Publishing House, 2010).

³ *Zhou li* 周礼, Kao Gong Ji 考工记.

⁴ China Ceramics Association, ed. *History of Chinese Ceramics*, (Beijing: Cultural Relics Publishing House, 1987), p. 76.

⁵ Data collected from Chen Dingrong, *Yingqing Ci Shuo*, (Beijing: Forbidden City Press, 1991); China Ceramics Association, ed. *History of Chinese Ceramics*, (Beijing: Cultural Relics Publishing House, 1987).

	cyan), <i>aiqing</i> 艾青 (wormwood-cyan), white porcelain appeared.
Tang dynasty (618-907 AD)	Cyan, light cyan, light green, light yellow, yellowish cyan, green, greenish yellow, greenish brown
Song dynasty (960-1279 AD)	<i>Cuiqing</i> 翠青 (green-cyan), <i>tianqing</i> 天青 (sky-cyan), <i>dongqing</i> 东青 (winter-cyan), <i>douqing</i> 豆青 (bean-cyan), <i>danqing</i> 蛋青 (egg-cyan), <i>xiaqing</i> 虾青 (shrimp-cyan), <i>xiejia qing</i> 蟹甲青 (crab shell cyan), <i>zhanqing</i> 毡青 (felt-cyan), <i>fenqing</i> 粉青 (light greenish blue), <i>miqing</i> 米青 (rice-cyan), <i>huqing</i> 胡青, <i>shuiqing</i> 水青 (water-cyan), <i>meizi qing</i> 梅子青 (plum-green)

The above table lists the glaze colours of Chinese celadon products in the relevant dynasties. After thousands of years of development, the cyan 青绿色 glaze has developed a variety of products with many colour shades, and *Qingbai* is the lightest shade of cyan, where it is between cyan and white. The glaze is translucent, where a slight hint of cyan only appears in the pattern or where the glaze is accumulated, while the rest is almost white. Such colour shading is not unique to the *Qingbai* porcelain, but the products of the five famous kilns (Ru, Guan, Ge, Jun, Ding) of the Song dynasty were also in a light tone. The pursuance of the light-colour-glazed porcelain during the Song dynasty is considered by some scholars as having the highest level of beauty¹. The name 青白 (*Qingbai*) first found in the literature was in the first year of the Emperor Yingzong (AD 1064) of the Northern Song dynasty, Cai Xiang (AD 1012-1067) mentioned *Qingbai zhan* 青白盏² in his book *Cha Lu* 茶录, which is a type of tea drinking utensil with a bluish-white glaze. In the early Northern Song dynasty (AD 960-1020), the *Qingbai* porcelain produced by the Jingdezhen kiln were used in the court of Kaifeng Fu 开封府. Subsequently, the remaining part flowed into the private market for sale³. Qingming Shanghe Tu 清明上河图, a masterpiece of Zhang Zeduan 张择端 (AD 1085-1145) which vividly captured the thrilling life of people from Bianjing 汴京(Kaifeng Fu 开封府) in the late Northern Song dynasty (AD 1080-1126), also depicts shops that specialized in selling *Qingbai* porcelain. In the Southern Song dynasty (AD 1127-1279), Nai Deweng 耐得翁's *Du Cheng Ji Sheng* 都城纪胜 (AD 1234)⁴ and Wu Zimu 吴自牧's *Meng Liang Lu* 梦梁录⁵ both mentioned that there were shops that specialise in selling *Qingbai* ware in Lin'an City (Hangzhou) at that time. These sources show that *Qingbai* porcelain was a common commodity used in people's everyday living.

In addition, Jiang Qi 蒋祁's *Tao Ji* 陶记⁶ in the Southern Song dynasty records that bluish-white coloured glaze porcelain from the Jingdezhen kiln was adored by the people in Jiang,

¹ Zhong Jianhua and Chen Yuqian ed., History of Jingdezhen Ceramics (Volume of Tang, Five Dynasties, Song and Yuan Dynasties), (Nanchang: Jiangxi People's Publishing House, 2016), p.157.

² Cai Xiang 蔡襄: *Duanming Ji* 端明集, Vol. 35, *Cha Lu* 茶录.

³ *Song Hui Yao Ji Gao* 宋会要辑稿, Shi Huo Wu Er 食货五二.

⁴ Nai De Weng: *Du Cheng Ji Sheng* 都城纪胜, Pu Xi 铺席. The date of birth and death of Shi Nai Deweng 耐得翁 is unknown. *Du Cheng Ji Sheng* is a description of the prosperous city scene of Lin'an (Hangzhou), the capital of the Southern Song Dynasty, which is included in *Yong Le Da Dian* 永乐大典.

⁵ Wu Zimu 吴自牧, *Meng Liang Lu* 梦梁录, Vol.13, Pu Xi 铺席. The date of birth and death of Wu Zimu 吴自牧 and is unknown.

⁶ The date of birth and death of Jiang Qi 蒋祁 is unknown, *Tao Ji* 陶记 is recognized the earliest records in China that comprehensively recorded the production of Jingdezhen ceramics in the Southern Song Dynasty.

Hu, Chuan, Guang (now Jiangxi, Hubei, Hunan, Sichuan, Guangdong and Guangxi Provinces) and he compared the *Qingbai* porcelain to Rao Yu 饶玉 (Jade). Zhao Rushi 赵汝适 (AD 1170-1231) described the export of porcelain in his book *Zhu Fan Zhi* 诸蕃志. At that time, he explicitly mentioned that *Qingbai* glazed porcelain was traded to 15 countries and regions, such as the Champa Kingdom 占城 (now central region of Vietnam), Chenla 真腊 (now Cambodia), Srivijaya 三佛齐 (now Sumatra), Tambralinga 单马令 (now the central Malay Peninsula) and so on. There are three references in *Dao Yi Zhi Lue* 岛夷志略 by Wang Dayuan 汪大渊 (AD 1311-?) of the Yuan dynasty (AD 1279-1368) and four references in *Xing Cha Sheng Lan* 星槎胜览 by Fei Xin 费信 (AD 1388-?) of the Ming dynasty (AD 1368-1644) that has referenced the exportation of *Qingbai* porcelain.¹ The change of glaze colour from dark to light, the acceptance and preference of *Qingbai* porcelain in all classes, and the huge volume of overseas porcelain trade have all show that *Qingbai* porcelain is the result of the craftsmen's studied pursuit.

The history of the incipient production of *Qingbai* porcelain is not clear. The earliest dated *Qingbai* porcelain found so far is a plate unearthed from the tomb of the third year of Yongxi 雍熙 (AD 986) in the Northern Song dynasty². Archaeological discoveries in Jingdezhen Gongren Xincun kiln found a *Qingbai* bowl that was recognized as a product of the late Five Dynasties³. This means that in the middle of the 10th century that *Qingbai* porcelain had already appeared. The early kilns producing *Qingbai* porcelain in South China included the Jingdezhen kiln, the Ganzhou kiln and the Jizhou kiln in Jiangxi Province, the Fanchang kiln in Anhui Province, the Yan Gong kiln in Jingxian and the Qingshan kiln in Wuhan.⁴ Amongst scholars, Professor Huang Yijun believes that the Fanchang kiln may be the earliest kiln for the mass production of *Qingbai* wares⁵. However, the countrywide *Qingbai* porcelain kiln groups flourished and formed after the 11th century. This view can also be verified from the archaeological results of *Qingbai* porcelain from shipwrecks.

¹ In his article "My Views on Blue-white Porcelain", *Cultural Relics Reference*, No.6, 1959, Chen Wanli summarized the records of cargo porcelain in *Dao Yi Zhi Lue* 岛夷志略 and *Xing Cha Sheng Lan* 星槎胜览.

² Yu Shaoxian, "Northern Song Tomb in De'an, Jiangxi Province", *Cultural Relics*, No.9, 1990, p. 95.

³ Peng Tao and Shi Fan, *The Discrimination and Identification of Qingbai Porcelain*, (Nanchang: Jiangxi Fine Arts Publishing House, 2004), p.145.

⁴ Huang Yijun, *A Study on the Historical Geography of Song Dynasty Qingbai Porcelain*, (Beijing: Cultural Relics Publishing House, 2010), p.64.

⁵ Ibid., pp.56-64.

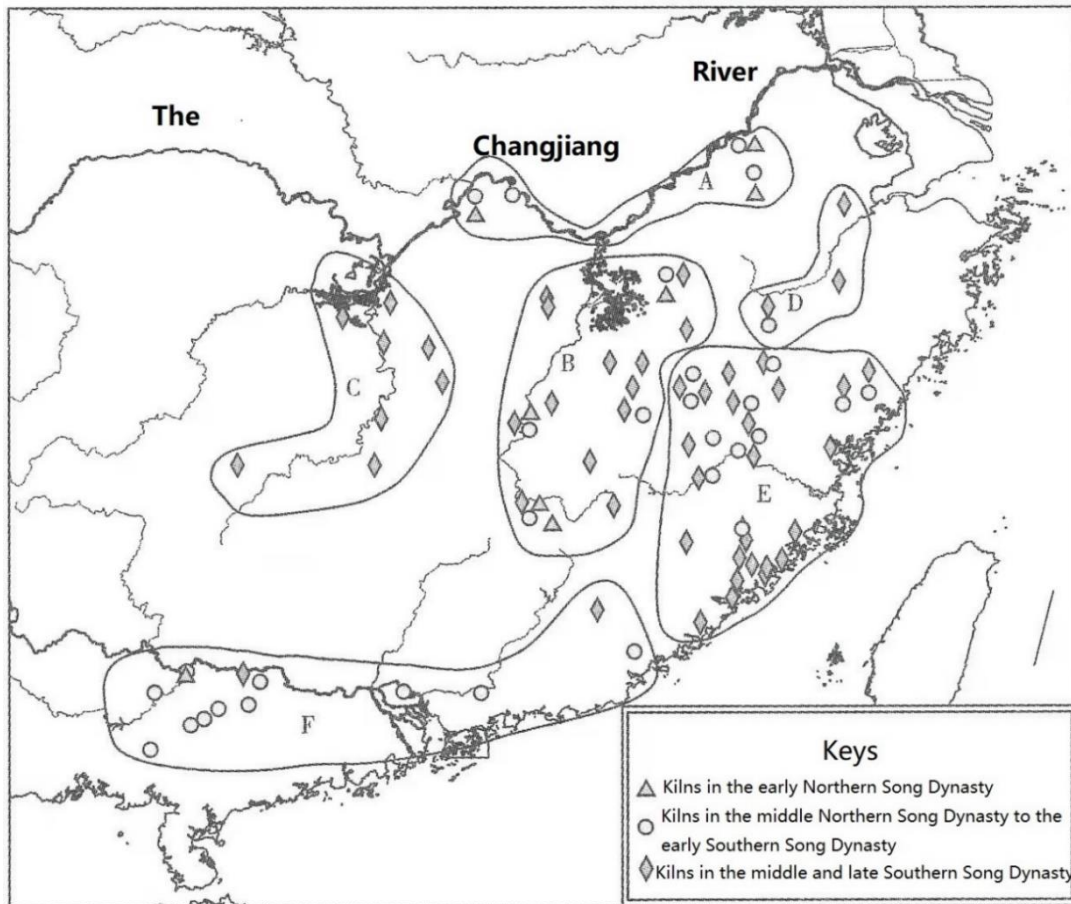


Figure 4: *Qingbai* Porcelain Kiln Sites in the Song Dynasty (AD 960-1279)¹

The archaeological data from 19 shipwrecks consist of 12 coastal and under water sites with *Qingbai* porcelain were collected (See Table 4 and 5). These are all the information about the *Qingbai* porcelain of the shipwrecks during the Song and Yuan dynasties that have been published. The figure above shows that during the early stage of the overseas *qingbai* porcelain trade, *qingbai* wares from Fanchang kiln were the main products. The latest research suggests that the Fanchang kiln was built during the Five Dynasties (AD 907-960) and gradually declined after the mid-Northern Song dynasty (AD 1020-1080)². And with the rise of Jingdezhen, trading *Qingbai* porcelain from the Fanchang kiln disappeared. That may lie into the superior quality of the Jiangdezhen *Qingbai* porcelain, which was rapidly popularized in the middle of the Northern Song dynasty (AD 1020-1080) as soon as it was produced. This led to a wave of craftsmen to try to replicate the fine

¹ Huang Yijun. *A Study on the Historical Geography of Song Dynasty Qingbai Porcelain*, (Beijing: Cultural Relics Publishing House, 2010), P87.

² Cui Mingfang and Zhu Jianhua, "The Origin of the Technology of *Qingbai* Porcelain in Fanchang Kiln, Anhui Province", *China Ceramic Industry*, Vol. 27, No.1, 2020.

Jingdezhen *Qingbai* porcelain (Table 5). Professor Huang classified these kilns into 6 large groups¹ (Figure 4).

Table 4: Provenance of the *Qingbai* Porcelain on the Shipwrecks

Wrecks and Sites	Time Range	Kiln	Province
2	AD 960-1020	Fangchang	Anhui
11	AD 960-1368	Jingdezhen	Jiangxi
12	AD 960-1368	Dehua	Fujian
1	About AD 1060~1100	Xicun	Guangdong
15	AD 960-1368	Others	Fujian

Table 5: Kilns Imitated Jingdezhen *Qingbai* Porcelain²

Province	Kilns
Jiangxi	Nanfeng, Jizhou, Ningdu, Ganzhou, Jinxi, Guixi
Fujian	Dehua, Quanzhou, Tongan, Yongchun, Anxi, Nan'an, Putian, Fuqing, Mingqing, Xianyou, Lianjiang, Pucheng, Chongan, Guangze, Jianning
Guangdong	Chaozhou, Guangzhou, Huizhou
Guangxi	Tengxian, Rongxian, Guiping, Beiliuyao
Hubei	E'cheng, Wuhan
Hunan	Yiyang, Hengyang
Zhejiang	Jiangshan, Taishun

Most of the traded *Qingbai* porcelain found on the shipwrecks was from the Jingdezhen kiln and Fujian kilns represented by Dehua. There is only a small proportion of the products that were made from the Fangchang and Xicun kilns. This is particularly evident in Fujian kilns, because of the prosperity that happened due to foreign trade in Quanzhou Port. Many kilns began to specialize in the production of porcelain for overseas markets. The *Qingbai* porcelain trade to overseas markets are quite different from the finer porcelain that were used by the royal family. The majority of which are daily utensils with huge quantity, and varied in quality. This is closely related to the raw materials and firing technology that used in different kilns.

¹ Ibid., pp.86-94, A is area along the south bank of the middle and lower reaches of the Changjiang River, B is the Ganjiang River basin, C is the Xiangjiang basin, D is the Qiantangjiang River basin, E is southeast coastal areas such as Minjiang River and Jinjiang River basins, F is Lingnan area (include Guangdong, Guangxi, Hainan, Hong Kong and Macao).

² Data collected from Feng Xianming, *Chinese Ceramics*, (Shanghai: Shanghai Classics Publishing House, 2001), p. 406.

Chapter 4 Export *Qingbai* Porcelain on the Shipwrecks

4.1 Introduction

The *Qingbai* porcelain produced during the Song and Yuan Dynasties can be roughly divided into three types: one is *yu ci* 御瓷 made for the royal families with exquisite quality without taking consideration into the cost of production. A second is the daily-use porcelain, the third is those that were produced in large quantities exclusively for export. Among them, the quality of *yu ci* is the best, and the quality of the latter two are simply the same. However, those made for the people in Song and Yuan dynasties had more varieties compared to those made for exportation. Although the export of *Qingbai* porcelain cannot represent the highest level of all the *Qingbai* porcelain in Song and Yuan dynasties, it can represent Chinese influence on the ceramics being circulated in the world. This is evidenced by increasing number of Song and Yuan *Qingbai* porcelain has been found abroad on shipwrecks and on underwater sites on the Maritime Silk Road, as well as archaeological discoveries on land in various countries.

4.2 A survey of *Qingbai* porcelain from shipwrecks.

At present, there is a total of 19 shipwrecks and 12 sites that contain *Qingbai* porcelain were found according to the public archaeological data¹, and a brief list of basic information about them in chronological order is given below.

Bibliography of wrecks with *Qingbai* porcelain

Intan Wreck

Date: late 10th century.

Location: Java Sea, Indonesia.

Vessel type: Southeast Asian (lashed-lug hull)

Ceramic artefacts: A total of 7,309 ceramic artefacts were excavated, these consist of Yue or Yue-type ware, white ware, *Qingbai* ware, brown or green ware, fine paste ware, Middle Eastern ware, and a few unusual coarse wares possibly of Indonesian origin. Over half of the recovered ceramic cargo (4,855 pieces) consists of small brown/green glazed pots, each weigh approximately 300 g. *Qingbai* porcelain only made up of small part of all the ceramics, which came from kilns in Anhui Province.

Qingbai products: covered boxes, box base, very small dishes.

Tanjung Simpang Megayau Wreck

¹ Statistics are from Appendix of Archaeological Data on Shipwrecks and Sites.

Date: AD 960-1127.

Location: Tanjung Simpang Megayau, northern coast of Borneo, Malaysia.

Vessel type: Chinese (hull constructed of temperate climate wood).

Ceramic artefacts: 303 ceramic items; 250 kilograms of ceramic sherds, the majority of pieces were celadon bowls and dishes from the kilns of Anxi, Nanan, and Putian; *Qingbai* wares from Dehua and Anxi kilns; brown-glazed items from kilns near Quanzhou.

Qingbai products: covered boxes, ewers.

Pulau Buaya Wreck

Date: late 12th–early 13th century.

Location: Coast of Pulau Buaya Island, Lingga Archipelago, Riau Province, Sumatra, Indonesia.

Vessel type: unknown.

Ceramic artefacts: More than 32,000 Song period Chinese ceramic items made in kilns from Guangdong with a few pieces from kilns in other areas such as Fujian and Jiangxi Province; Small quantity of Southeast Asian fine paste earthenware ceramics.

Qingbai products: Bowls, boxes, dishes, vases, ewers, *kendis*.

Xicun Riau Wreck

Date: AD 960-1020.

Location: In the Riau Archipelago, North of Karimun Island, Indonesia.

Vessel type: unknown.

Ceramic artefacts: Some brown glazed wares from the Xicun kiln in Guangdong, white wares and a few *Qingbai* wares. A large apart of the cargos remain on the seabed, left unexcavated.

Qingbai products: bowls.

Xicun Belitung Wreck

Date: AD 960-1020.

Location: Near Belitung Island, in the Banda straits, Indonesia.

Vessel type: unknown.

Ceramic artefacts: Grey glazed stoneware dishes with a light Yue-type glaze or light olive glaze; *Qingbai* wares from Fanchang kiln which are similar to the bowls on Intan Wreck.

Qingbai products: big bowls and jars.

Baijiao No.1 Wreck

Date: AD 1010-1100.

Location: Dinghai Bay, Lianjiang County, Fujian Province, China.

Vessel type: unknown.

Ceramic artefacts: A total of 2678 items of Chinese porcelain, including 2251 items of black-glazed *zhan* (盞, small cup) from kilns near the estuary of Minjiang River , 415 items of *Qingbai* bowls from Lianjiang kilns, as well as a very small number of celadon, white and, blue and white porcelain pieces.

Qingbai products: bowls.

Huaguangjiao No.1 Wreck

Date: Mid-Southern Song dynasty (AD 1164-1207)

Location: Huaguang Reef, south of Yongle Islands, Xisha Islands, China.

Vessel type: Chinese (*Fu Chuan* 福船)

Ceramic artefacts: Nearly 10000 pieces of porcelain were excavated, majority of them are *Qingbai* porcelain from Jingdezhen, Dehua and Mingqing Yi kilns, followed by celadon from Longquan kilns, and a small amount of brown-glazed porcelain from Cizao kilns.

Qingbai products: bowls, boxes, plates, dishes, vases, jars, *kendis*.

Java Sea Wreck

Date: Early 13th century.

Location: Java Sea between Bangka and Jakarta, Indonesia.

Vessel type: Southeast Asian (Bornean ironwood dowels; lashed-lug hull).

Ceramic artefacts: 12,000 pieces of South Chinese stoneware ceramics. The original cargo is estimated to contain 100,000 pieces. Rare Cizhou type ware was found in small quantities. The remainder of the ceramics are monochrome wares with green, brown, black, white or *Qingbai* glaze. There are only a small number of very finest pieces, which are *Qingbai* wares from the Jingdezhen kilns. All other wares appear to have been made in Fujian province.

Qingbai products: covered boxes, vases, bottles, holding pot, jars, small dishes.

Breaker Shoal Wreck

Date: early Southern Song dynasty (About AD 1140~1180.)

Location: Breaker Reef, Palawan, Philippines.

Vessel type: unknown.

Ceramic artefacts: *Qingbai* porcelain from Jingdezhen kiln and Dehua kiln, bluish-grey glazed porcelain from Fujian kilns such as Mingqing Yiyao kiln, and black-glazed porcelain from Fujian kilns. The composition of the cargo is similar to that of Huaguangjiao No.1 and the Java Sea Wreck.

Qingbai products: bowls, plates, ewers, boxes, *kendis*, jars and vases.

Nanhai No.1 Wreck

Date: about 12th~13th century.

Location: Near Shangchuan and Xiachuan Islands, China.

Vessel type: Chinese (*Fu Chuan*).

Ceramic artefacts: There were nearly 80,000 ceramic items on the wreck, *Qingbai* wares from Jingdezhen and Dehua kilns account for the majority of the total, followed by celadon bowls and dishes from Longquan kilns, black-glazed porcelain, green-glazed porcelain and brown-glazed porcelain from Cizao and Mingqing Yi kilns.

Qingbai products: bowls, dishes and covered boxes from Jingdezhen; covered boxes, bowls, pots, ewers, kendis, ground-shaped jar, tripod censers, small dishes, big plates, vases from Dehua kilns.

Jepara Wreck

Date: late Southern Song dynasty (About AD 1220~1270).

Location: Near Jepara, north coast of Java, Indonesia.

Vessel type: unknown.

Ceramic artefacts: A total of some 33,340 pieces are said to have been recovered from the wreck, including *Qingbai* and white porcelain from Dehua kiln, the bluish-gray glazed porcelain from Mingqing Yi kiln, Lianjiang Pukou kiln and Putian Zhuangbian kiln, the celadon from Longquan kiln, the green and yellow glazed porcelain of kilns in Fujian Province and the brown-glazed pottery from Jinjiang Cizao kiln. The Composition of cargos is close to that of Nanhai No.1, with a high possibility that it is of the same period.

Qingbai products: vases, jars, covered boxes, kendis, ewers, bowls, jars with covers, plates, urn.

Investigator Shoal Wreck

Date: late Southern Song dynasty (About AD 1220~1270).

Location: Investigator Reef, Spratlys or Kalawan Group of Islands, Philippines.

Vessel type: unknown.

Ceramic artefacts: *Qingbai* porcelain from Dehua kiln, the bluish-gray glazed porcelain from Mingqing Yiyao kiln, Lianjiang Pukou kiln and Putian Zhuangbian kiln, the celadon from Longquan kiln, the green and yellow glazed porcelain from kilns in Fujian Province and the brown-glazed pottery from Jinjiang Cizao kiln. The Composition of the cargo is almost the same with that on the Japara Wreck. Only the *Qingbai* lotus petal pattern bowls from Dehua kilns are not seen on the Japara Wreck, which is popular during the late Southern Song dynasty¹.

Qingbai products: bowls, plates, ewers.

Quanzhou Wreck

Date: AD 1272-1278.

Location: East beach of Houzhu Village, Quanzhou City, Fujian Province, China.

Vessel type: Chinese (Iron-nail fasteners; compartmentalized bulkheads).

Ceramic artefacts: a small number of Chinese ceramic were found on the wreck, including celadons from Longquan kilns, black-glazed porcelain from Jian kilns, white porcelain and *Qingbai* ware from Dehua kiln.

Qingbai products: a fragment of a bowl.

Banyangjiao No.1 Wreck

¹ Liu Wei, "Trade Porcelain of Song and Yuan Dynasty Found in Shipwrecks in Southeast Coast of China and Southeast Asia", *Archaeology and Cultural Relics*, No.6, 2016.

Date: AD 1127-1279.

Location: Southeast beach of Zhenhai Village, Longhai City, Fujian Province, China.

Vessel type: unknown.

Ceramic artefacts: The remains of the porcelain are mainly black-glazed bowls from Dongzhang kilns in Fuqing, with a small amount of *Qingbai* wares.

Qingbai products: bowls, big plates, small dishes.

Beijiao No.1 Wreck

Date: Yuan dynasty (AD 1279-1368).

Location: East of the Xinghua Bay, Putian City,

Vessel type: unknown.

Ceramic artefacts: The unearthed wares are mainly blue and white porcelain, followed by *Qingbai* porcelain from Dehua kiln. The least amount are celadon ceramics. The *Qingbai* wares are similar to the artifacts found in Huaguangjiao No.1 shipwreck.

Qingbai products: Bowls, small cups, ewers.

Beituguijiao No.1 Wreck

Date: early Southern Song dynasty (AD 1127-1164).

Location: East of Xiaori Island, Xinghua Bay, Fujian Province.

Vessel type: unknown.

Ceramic artefacts: With the exception of a piece of *Qingbai* porcelain, the rest of the unearthed porcelain are celadon from Longquan kilns.

Qingbai products: 1 bowl.

Beituguijiao No.2 Wreck

Date: Yuan dynasty (AD 1279-1368).

Location: North of the Beituguijiao, Xinghua Bay, Fujian Province.

Vessel type: unknown.

Ceramic artefacts: The 28 unearthed relics are all *Qingbai* porcelain from Putian Zhuangbian kiln and Lianjiang Pukou kiln.

Qingbai products: bowls, plates, small dishes.

Shazhoudao Wreck

Date: Yuan dynasty (AD 1271-1368.).

Location: The east of Gulei Peninsula, Fujian Province, China.

Vessel type: unknown.

Ceramic artefacts: Collected objects are celadons, *Qingbai* wares, brown-glazed porcelain, which were from Jingdezhen kiln and kilns in Fujian.

Qingbai products: The *Qingbai* wares can be divided into two categories. The first batch consists of are 11 items include bowls, plates and incense burners from Jingdezhen kiln; The second batch contains 17 items including ewers, water droppers, Zhong (盅, very small cup), cups, jars and incense burners from Dehua kiln.

Shiyu No.2 Wreck

Date: Yuan dynasty (AD 1279-1368).

Location: The east of Shiyu, Xisha Islands, China.

Vessel type: unknown.

Ceramic artefacts: All relics are porcelain, including blue and white porcelain, egg -white glazed porcelain, *Qingbai* porcelain, grey glazed and brown glazed porcelain of Yuan Dynasty. These porcelains were produced in Jingdezhen kiln in Jiangxi, Dehua kiln in Fujian, Cizao kiln in Jinjiang and other kilns in Fujian.

Qingbai products: bowls, brush-washers, boxes, plates.

Sinan Wreck

Date: Yuan dynasty (AD 1279-1368).

Location: Sinan Sea, Korea.

Vessel type: Chinese, (*Fu Chuan*).

Ceramic artefacts: The majority of the cargo, which is more than 20,000 pieces of ceramics excavated were produced in China, including celadon from Longquan kiln, Tiedian kiln, Laohudong kiln, Jun kiln and Qilizhen kiln, white porcelain and *Qingbai* porcelain from Jingdezhen kiln and Mingqing Yiyao kiln, black glaze porcelain from Jian kiln, Yixing kiln and Mingqing Yiyao kiln, and white ground and black flower porcelain from Jizhou kiln and Cizhou kiln. In addition, there are seven Korean celadon and two green glazed plum vases from Seto kiln in Japan.

Qingbai products: bowls, plates, vases, ewers, stemmed cups, water-droppers, incense burners, pillows, Buddha figures, portraits.

Coastal and underwater sites with *Qingbai* porcelain

Allaippidy Site

Date: late Northern Song dynasty (About AD 1060~1100)

Location: Allaippidy, Jaffna District, Northern Province, Sri Lanka

Qingbai products: More than 160 examples of *Qingbai* and white wares were found, which were bowls and small dishes from Xicun and Jingdezhen kilns. The vessels were broken and covered with pure sand. There is a possibility that these cargoes were abandoned.

Beijiao No.1 Site

Date: early Southern Song dynasty (AD 1127-1164)

Location: North of the Xisha Islands, China.

Qingbai products: 1 jar from a kiln of Fujian Province.

Beiriyuan No.1 Site

Date: Southern Song dynasty (AD 960-1126)

Location: North of the Xiaori Island, Xinghua Bay, Putian, Fujian Province, China.

Qingbai products: The 12 pieces of porcelain unearthed are all *Qingbai* porcelain, which are bowls, plates and vases from Lianjiang Pukou kiln in Fujian Province.

Shiyu No.1 Site

Date: Southern Song dynasty (AD 960-1126)

Location: Yongle Islands, China.

Qingbai products: 14 *Qingbai* wares including plates, ewers, cups, jars, vases.

Yinyu No.1 Site

Date: Song dynasty (AD 960-1279)

Location: East of Yongle Islands, China.

Qingbai products: 17 small dishes from kilns in Quanzhou.

Xiaolian Island Dongjiao Village Site

Date: Song and Yuan dynasties (AD 960-1368)

Location: Southeast of Dongjiao Village, Xiaolian Island, Pingtan, Fujian Province, China.

Qingbai products: In total 31 *Qingbai* wares were excavated, 24 bowls, 6 plates and 1 ewer from Mingqing Yi kiln or the kilns in the northern Fujian Province (Late Northern Song to the Middle of Southern Song dynasties, AD 1080-1207), Jingdezhen kiln (Late Southern Song dynasty, AD 1207-1279) and Lianjiang Pukou kiln (Yuan dynasty, AD 1279-1368).

Beijiao No.2 Site

Date: Song and Yuan dynasties (AD 960-1368)

Location: North of the Xisha Islands, China.

Qingbai products: 1 bowl, 1 plate and 1 box from Dehua and Anxi kilns were found, which similar to those found on the Huangguangjiao No.1 Wreck.

Meizhou Bay Wenjiadayu Site

Date: late Song to the Yuan dynasties (AD 1207-1368)

Location: Meizhou Island, Putian, Fujian Province, China.

Qingbai products: 88 *Qingbai* bowls, plates and small dishes that were possibly from northern Fujian kilns attempting to imitate Jingdezhen kiln.

Meizhou Bay Menxiyu Site

Date: Yuan dynasty (AD 1279-1368)

Location: North of Meizhou Bay, China.

Qingbai products: 8 *Qingbai* bowls from Putian Zhuangbian kiln and Lianjiang Pukou kiln.

Beiriyuan No.4 Site

Date: Yuan dynasty (AD 1279-1368)

Location: North of the Xiaori Island, Xinghua Bay, Putian, Fujian Province, China.

Qingbai products: 18 bowls from Lianjiang Pukou kiln.

Beiriyuan No.5 Site

Date: Yuan dynasty (AD 1279-1368)

Location: Southeast of Beishanyan, Xiaori Island, Xinghua Bay, Putian, Fujian Province, China.

Qingbai products: 6 bowls from Putian Zhuangbian kiln.

The first sunken ship was in the Tang dynasty and the proportion of *Qingbai* porcelain contained in it was relatively small. The other nine shipwrecks dated back to the Song and Yuan dynasties and they demonstrate the large scale of the *Qingbai* porcelain trade during those periods. The Nanhai No.1 and the Sinan shipwreck represent the largest trading scale in Song and Yuan dynasties respectively. The sunken ships in the Northern Song dynasty (AD 960-1127) and the early Southern Song dynasty (AD 1127-1164) were mainly found within the southeast coastal areas of China, while those in the late Southern Song dynasty (AD 1207-1279) were mainly concentrated in the coastal areas of Fujian Province. This illustrates the important position of Quanzhou Port for foreign trade during the Song and Yuan dynasties, and a large number of ships that were carrying trade ceramics sailed directly from Quanzhou Port. It also reflects the early days of major productions of *Qingbai* porcelain from the Fanchang kilns in Anhui Province to the kilns in Jingdezhen and subsequently to other various kilns located in Fujian Province during the Southern Song dynasty. *Qingbai* made up of the largest part of the cargo in Nanhai No.1, the Breaker Shoal Wreck, the Huaguang Reef No.1 and the Shiyu No.2.

4.3 Unearthing and excavating *Qingbai* porcelain in and outside of China

In order to conduct a more comprehensive study of the export of *Qingbai* porcelain on the sunken ships, the unearthed and excavated information of *Qingbai* porcelain at home and abroad have also been collected for auxiliary research. In particular, the investigation of *Qingbai* porcelain unearthed overseas can show the distribution and use of export *Qingbai* porcelain in the Song and Yuan dynasties more detailed.

4.3.1 *Qingbai* porcelain unearthed in China

There are two main methods that contributed to the spread of *Qingbai* porcelain during the Song dynasty. One is called *tu gong* 土贡, a system in which subjects or vassals pay tribute, the local products, to the court. In the Northern Song dynasty (AD 960-1126), there were special warehouses in Kaifeng Fu 开封府 that receive tribute, including the porcelain warehouse in Jianlongfang 建隆坊¹, which contained Raozhou 饶州 (now Poyang County, Jiangxi Province) white porcelain², and probably *Qingbai* porcelain that were produced in Jingdezhen. *Tu gong* porcelain gradually became a mere formality in the middle and late Northern Song dynasty (AD 1020-1126), and the number of porcelains became very small.

¹ In the Northern Song Dynasty, Kaifeng Fu 开封府 implemented the Xiangfang 厢坊 system, there were no longer strict boundaries between residential and commercial areas. Kaifeng Fu was divided into 8 Xiang and 120 Fang.

² *Song Hui Yao Ji Gao* 宋会要辑稿, Shi Huo San Qi 食货三七.

This is because the government has set up official large kilns with direct intervention of the design of the porcelains being produced, which directly intervened in the design of porcelain. The result was that the porcelains produced by official kilns were often more exquisite than that of unofficial kilns. The second way of *Qingbai* porcelain circulation is that it was being traded as a commodity, which is the main way in the spread of *Qingbai* porcelain.

The main types of *Qingbai* porcelain unearthed dating to the Song dynasty consist of bowls, boxes, jars, vases, ewers, incense burners, plates, dishes, zhan-cups 盞, *bo* vessels 钵, porcelain sculptures, cups and cup stands, water droppers and water containers, *zhadou* vessels 渣斗, lamps, granary models, *tang'ou* 汤瓿, *tanggu* 汤鼓 and *shuijiao* 水浇.¹ There was a large quantity of *Qingbai* porcelains unearthed from Song tombs in Jiangxi and Jiangsu Provinces, as well as in Hubei, Hunan, Anhui, Zhejiang, Guangdong, Guangxi, Henan and Sichuan Provinces². *Qingbai* porcelain was also found in the areas ruled by the Liao, Jin, Xi Xia and Dali dynasties, that had previously confronted the Song dynasty³. Especially in the Liao dynasty (AD 907-1125), where the use of *Qingbai* porcelain was widespread with many *Qingbai* porcelain being unearthed in Liao tombs and city sites. Most of the users were upper class with high social status⁴. The process of getting the porcelain out of the kiln and onto the market was as follows: the craftsmen, or selected workers would classify the porcelain according to its quality, then the middleman would negotiate a price with the merchant, and after the merchant had proof of payment of trade duties which was called *fei zi* 非子, he can ask a *jian fu* 肩夫 (porter) to take the porcelain away.⁵

Some scholars estimated the specific number of *Qingbai* porcelain unearthed in China. To date, there are 15 provinces and autonomous regions, 150 tombs and 580 pieces of *Qingbai* porcelain with a definite date being unearthed belong the Song and Yuan dynasties⁶. There are 1988 *Qingbai* wares which were unearthed dated back to the Northern Song dynasty and 1,491 dated back to the Southern Song dynasty. These do not include those with poor dating and those that lack exact statistic⁷. In the early Northern Song dynasty (AD 960-1020), the production centre for *Qingbai* porcelain was the Fanchang kiln in Anhui Province. At that time, the places where *Qingbai* porcelain was unearthed was Fanchang, Lianyungang, Changsha, Huangpi, Zhenjiang, Haining, Pengze and Jiujiang.⁸ There were two transportation routes: eastward and westward along the Yangtze River. After the mid-

¹ Peng Shifan ed., *Dated Qingbai Wares of the Song and Yuan Dynasties*, (Hong Kong: Ching Leng Foudation, 1998).

² Ibid..

³ Ibid..

⁴ Huang Yijun, *A Study on the Historical Geography of Song Dynasty Qingbai Porcelain*, (Beijing: Cultural Relics Publishing House, 2010), p.128.

⁵ Liu Xinyuan, "A Study of the Time of Jiang Qi's *Tao Ji*", *Jingdezhen Ceramics* (Special Issue on *Tao Ji*), No.4, 1981.

⁶ Peng Shifan ed., *Dated Qingbai Wares of the Song and Yuan Dynasties*, (Hong Kong: Ching Leng Foudation, 1998), p.27.

⁷ Huang Yijun, *A Study on the Historical Geography of Song Dynasty Qingbai Porcelain*, (Beijing: Cultural Relics Publishing House, 2010), pp.127-138.

⁸ Ibid., p.127.

Northern Song dynasty, because of the discovery of a large amount of kaolin clay and the advancement of porcelain making technology, the production centre of *Qingbai* porcelain shifted from the Fanchang kiln to Jingdezhen kiln. Thus, the peak of *Qingbai* porcelain sales was in the late Northern Song dynasty, ranging from the AD 1060s to the collapse of the Northern Song dynasty (AD 1126). According to some scholars' statistics, there were 384 tombs during this period, and 1,006 *Qingbai* porcelains were unearthed¹.

Statistically, there are 36 tombs of *Qingbai* porcelain unearthed in Yuan dynasty, 19 of which are located in Jiangxi Province, others are in Beijing, Sichuan, Shaanxi, Jiangsu, Hubei, Chongqing, Shandong, Liaoning, Guangzhou, Gansu and other places; There are 21 cellars that where *Qingbai* porcelain has been found, 5 of which are located in Jiangxi, and the others are distributed in Zhejiang, Jiangsu, Inner Mongolia, Shandong, Hebei, Shanxi, Beijing and Xinjiang.² The unearthed sites containing *Qingbai* porcelain from the Yuan dynasty are often concentrated in the distribution area of kiln sites, especially in the vast areas south of the Yangtze River, such as Jiangxi, Zhejiang and Anhui Province. On the one hand, the *Qingbai* porcelain of the Yuan dynasty inherited the shapes of those of the Southern Song dynasty, mainly including soul jars, prunus vases, *mangkou* bowls 芒口碗 (no glazing around the rim of the bowl) with stamped patterns, boxes. On the other hand, they also possess the characteristics of this period, mainly the *zhefu* bowls 折腹碗 (The mouth of the bowl is open, the body converge inward), tube furnaces, round-foot bowls 饼足碗, high foot cups, and so on. The *Qingbai* soul jars with applique techniques and urns unearthed from Yuan tombs in Jiangxi and Hubei provinces contain local characteristics, which are based on the burial customs of the Song dynasty to shrink the statues of gods used as a burial companion and prior to piling them up on the *Qingbai* jars. Some tombs from the Yuan dynasty still contain separate burial figurines, most of which are replaced by one or two pairs of soul jars. Some tombs of the Yuan dynasty still have separate burial figurines, most of which are replaced by one or two pairs of soul jars. The *Qingbai* porcelain unearthed in the northern region are concentrated in the political centre of the Yuan dynasty, such as several Yuan tombs in Beijing and the pits of the Yuan dynasty in Inner Mongolia and Xinjiang, which contain the characteristics of nomadic culture³.

4.3.2 *Qingbai* porcelain unearthed outside of China

The *Qingbai* porcelain from the Song dynasty started production around the 10th century and the *Qingbai* bowls produced in Fanchang Kiln were found on the Intan shipwreck⁴. White porcelain dated before AD 1020 have been found in Brahminabad, Pakistan, and

¹ Ibid., p.128.

² Chen Yang, "A Preliminary Study of Qingbai Porcelain in the Yuan Dynasty", The Chinese Society of Ancient Ceramics ed., *Research on Qingbai Porcelain*, (Beijing: The Palace Museum Press, 2015), pp. 41-45.

³ Ibid., p.53.

⁴ Michael Flecker, *The Archaeological Excavation of the Tenth Century Intan Shipwreck, Java Sea, Indonesia*, (Oxford: BAR International Series 1047, 2002).

Qingbai specimens with lotus petal patterns were unearthed in Bhambore, which were produced in the Guangdong kilns during the early Northern Song dynasty¹. *Qingbai* potsherd of 10th century were found in Makulan District during AD 1931-1932.² Due to the lack of documentary records and archaeological discoveries, the export of *Qingbai* porcelain before the 11th century remains unclear at present. Up to now, most of the *Qingbai* porcelain found overseas are products of the mid-11th century, which was after the mid-Northern Song dynasty (AD 1164-1207). This is same with the *Qingbai* porcelain of the sunken ship, most of which were made in the Southern Song and Yuan dynasties (AD 1127-1368).

1) East Asia

① Korean Peninsula

After the 1930s, Chinese porcelains were unearthed in the Korean Peninsula quite often, mainly in Yongmaedo, Kaesong and Chuncheon in Gangwon Province. *Qingbai* porcelain accounts for the majority unearthed amongst the Song dynasty porcelains, some of them can be identified as the products of the Jingdezhen kilns. Many *Qingbai* boxes with stamped patterns were found and more than 30 pieces were unearthed in a tomb in Chuncheon alone.³ More than 16,100 pieces of porcelains were found in the Sinan shipwreck in 1977, of which 5,100 pieces (31.6%) are *Qingbai* porcelain, with majority of them being produced in Jingdezhen. Some special types such as *wonü* 卧女枕 (pillow shaped like a lying woman), plum vase with dragon patterns, fish-ear vase with peony patterns, pear-shaped vase (玉壶春瓶) and phoenix handle vase, are the similar to the *Qingbai* wares that were unearthed from the site of Ningbo, which indicate that the ship was probably set off from Ningbo⁴.

② Japan

The discovery of Song dynasty porcelain in Japan shows that by the end of the 11th century, the main types of porcelains sold in Japan were of *Qingbai* porcelain, white porcelain and celadon from Longquan kiln. A large number of these types of porcelain were found in more than 40 counties from Kyushu, Honshu to Shikoku, and the majority of the products were produced in Jingdezhen. In the late 12th century and 13th century, *Qingbai* bowl with *mangkou* 芒口 made up of the majority of the Chinese ceramics imported into Japan and is one of the most widely found varieties of ceramics in Japan.⁵ Most of the *Qingbai* wares

¹ China Ceramics Association ed., *History of Chinese Ceramics*, (Beijing: Cultural Relics Publishing House, 1987), p. 309.

² Ibid..

³ Peng Shanguo, "Porcelain Exchange between China and the Korean Peninsula in the Song and Yuan Dynasties", *Cultural Relics of Central China*, No.2, 2001.

⁴ Department of Culture and Finance, National Exhibition Hall of Marine Relics ed., *Sinan Ship* I, II, III (Mokpo: National Exhibition Hall of Marine Relics, 2006); The Ministry of Culture, Publicity and the Administration of Culture and Finance ed., *Sinan Undersea Relics* I, II, III, 1983, 1984, 1985; *Undersea Relics in Sinan* (Seoul: Korea Book Co. Ltd., 1988).

⁵ Silicate Society of China, *History of Chinese Ceramics*, (Beijing: Cultural Relics Press, 1982), p. 308; Rakuten Nagaya, Imai Atushi ed., *Chinese Pottery Unearthed in Japan*, Vol. 12, *Chinese Pottery*, (Tokyo: Heibonsha, 1995); Hasebe Roer, ed. *The Complete Works of World Ceramics 12: Song*, (Tokyo: Shogakukan, 1977); Chang Lan, *The Archaeological Study of Sino-Japanese Cultural Exchange from the 7th to the 14th Century*, (Beijing: China Social Sciences Press, 2001); Liu

unearthed at the Hataka Site are products of the 12th century. About 10 *Qingbai* porcelain bowls, plates and jars produced in the Tong'an kiln were found in the wells of Gionchu Railway Station. Hakata, as an important gateway to the Sea of Japan, is the reason of large number of Chinese porcelains being found. Hakata is also known as: the city where Chinese traders live and the sleeping place of ancient and medieval relics.¹

2) Southeast Asia

① Malaysia

Since the 20th century, excavations have been made at Santubang and nearby caves of Sungai Buah, Suangai Jagong and Great Cae at Niah in Sarawak, yielding a staggering quantity of Chinese porcelains. There are many *Qingbai* potsherd of the Song dynasty, including pots, bottles, boxes, *xi* 洗 and bowls, most of which were produced from Dehua, Quanzhou, Chaoan and Xicun. At Bukit Batu Lintang, specimens of *Qingbai* porcelain produced in Jingdezhen and Dehua kilns were also unearthed.² In the Bujiang Valley, *Qingbai* porcelain bowls, dishes and covered jars of the 11th-13th centuries were found at the site of Tanjong Dawai; Santubong, an ancient Chinese port in Sarawak. It is a rich burial place of Song and Yuan ceramics, and a large number of *Qingbai* porcelain bowls, pots, jars and boxes produced by Dehua kiln and Quanzhou kiln during the Song dynasty have been found in many Chinese cemeteries.³ According to an ethnographic study of the indigenous people of Borneo by the Sarawak Museum, Chinese porcelain is often regarded as a treasure, even as a symbol of wealth and social status, along with gold and other valuables, because it is difficult for indigenous people to obtain it. The wealth and social status of an individual or a family is directly proportional to the amount and type of porcelain they own, and some indigenous groups in Borneo still retain this tradition today. Part of the Sarawak Museum's collection of ancient Chinese porcelain was collected from wealthy indigenous families.⁴

② Philippines

The number of Chinese porcelains unearthed in the Philippines is more than 40,000 pieces. However, there were not many Song porcelain being unearthed, with majority of them dated after the Yuan dynasty. Song porcelain is mainly celadon, *Qingbai* ware is relatively

Lanhua, "Song Dynasty ceramics and trade with Japan", *Study of Chinese ancient ceramics*, Vol. 5, (Beijing: Forbidden City Press, 1999).

¹ Liu Lanhua, "Ceramics of the Song Dynasty and Trade with Japan", *Studies in Ancient Chinese Ceramics*, Vol. 5, (Beijing: Forbidden City Press, 1999), p. 162.

² Aoyagi Yoko, "Chinese Export Porcelain Excavated in Southeast Asia", *Southern Cultural Relics*, No.2, 2002; Ke Jiayu, "a Preliminary Study on South China Porcelain of Song and Yuan Dynasties Unearthed from Sarong River, Sarawak, Malaysia", *Marine Archaeology and Heritage*, Vol. 2, (Beijing: Science Press, 2015).

³ Wu Chunming, *Shipwrecks in the China Sea: Ancient Sailing Ships, Ship Technology and Cargo*, (Nanchang: Jiangxi University Press, 2003), p. 26, p.199.

⁴ Ke Jiayu, "A Preliminary Study of South China Porcelain Unearthed in Sarong River, Sarawak, Malaysia", *Selected Papers of the Second Symposium on New Progress in Marine Cultural Heritage Investigation and Research*, (Xiamen University, 2014), pp. 277-280, 289.

rare in the findings in the Philippines, mostly from Fujian Dehua, Quanzhou kilns.¹ The largest number of *Qingbai* ware unearthed in the cultural sites and tombs of the Philippine Islands were produced in Dehua kiln, which are lifelike, exquisite, pure white. There are no iron impurity-shaped spots, only occasional rust spots on the bottom of the products. The objects are moulded, unglazed at the bottom. The glazed surface is generally slightly light yellow. However, there are some types are almost bluish-white in colour. Since 1964, thousands of complete or restorable pieces of Dehua porcelain have been found in the Philippines, most of which are found in the ruins of Port Calais at the western end of Lake Santa Ana Bay in Manila. The unearthed utensils include pots, *kendis*, jars, lid boxes, bowls, dishes, cups. The rim of the utensils can be divided into glaze and non-glaze, with lotus petal pattern, rolled leaves, peony, dragon and phoenix, money pattern, swastika symbols, aquatic plants, roses and so on. Other forms of objects have also been found in Port Calais, Nahan Lake and Mindoro in the Philippines, as well as in Malaysia, such as jar-shaped ewers, pear-shaped vases with glazed lip, water dropper, bowls and dishes. In addition, some wares of carved decoration and brown spot that are found are produced by Quanzhou kiln and Dehua kiln *Qingbai* during the Song dynasty.²

③ Other Countries and Regions in Southeast Asia

Chinese ceramics found in Indonesia are dated from the Han to the Ming and Qing dynasties. Products belonging to the 12th to 14th centuries are mainly celadon from Longquan kiln, white and *Qingbai* porcelain from Dehua kiln. Moreover, the quantity and quality of Song and Yuan ceramics collected in Jakarta Museum are comparable to those found in Malaysia.³ The porcelain of the Song and Yuan dynasties found in Java and other places are mainly imitation products of Longquan celadon and *Qingbai* porcelain of Jingdezhen or Dehua kiln.⁴ Those unearthed in Brunei are dated from the 12th century to the 16th century, including *Qingbai* porcelain with carved decoration of the Song dynasty, which was a product of the coastal areas of Fujian and Guangdong.⁵

3) South Asia

① Sri Lanka

Since the AD 1920s, archaeologists have discovered a large number of high-quality ancient Chinese export porcelain in Anuradapura, Sigiri, Polonnaruwa. Majority of them consist of white and *Qingbai* porcelain from Dehua kiln, carved comb pattern celadon of Tongan kiln. Among the many examples of *Qingbai* porcelain from the Song dynasty found outside a

¹ The Oriental Ceramic Society of the Philippines, *Chinese and South-East Asian White Ware Found in the Philippines*, (Singapore: Oxford University Press, 1993).

² Edis, J. M., Translated by Cao Jinyu: "Chinese Ceramics Unearthed in the Philippines", *Research Materials of Chinese Ancient Export Ceramics* Vol.1, (Fuzhou: Fujian Yongchun Press, 1981).

³ Peng Weibin, "The Rhyme of Sea Silk Porcelain: The Production and Export of Qingbai Porcelain in Southern Fujian in Song and Yuan Dynasties", *Research on Qingbai Porcelain*, (Beijing: Palace Museum Press, 2015), pp. 165-179.

⁴ Sulaiman, "Chinese Export Porcelain Unearthed in Southeast Asia", *Research Materials of Ancient Chinese Ceramics*, No.1, 1981.

⁵ Huang Yijun. *A Study on the Historical Geography of Song Dynasty Qingbai Porcelain*, (Beijing: Cultural Relics Publishing House, 2010), p.146.

stupa built in 12th to 13th century in Dadigama are small orange-shaped pots and four-legged ovens. In the Yapahuva city site, a *Qingbai* bowl with elegant glaze dated back to Song dynasty was found.¹

②India

In Korimedu, Kayal and other sites in Madras, India, *Qingbai* porcelain jars produced in Fujian kilns from the Southern Song dynasty to the Yuan dynasty were unearthed. Longquan celadon, white and *Qingbai* porcelain dated back to the 12th and 14th centuries were found at the site of Jodravili. In addition, the Mysore State Museum also preserves *Qingbai* and white porcelain that were produced in Fujian and Guangdong Province in the 11th to 13th centuries.²

③Pakistan

Qingbai porcelain of the Song dynasty was found along the coast of Mokran, Pakistan. Before and after the Yuan dynasty, Chinese porcelain was relatively rare in Pakistan. This is because Chinese ships began to sail more directly across the Arabian Sea during the Yuan dynasty, and docked less frequently at the ports along the coast.³

4) West Asia and North Africa

The Persian Gulf, the Arabian Sea and the Red Sea in the Middle East are important waterways connecting the Arab world to the far end of the Western Ocean route. Therefore, the number of Song and Yuan ceramics found in West Asia and North Africa was large. *Qingbai* porcelain bowls, plates, cups and jars produced by Dehua kiln and Jingdezhen kiln were found in Suhar, an ancient port in Oman at the southern tip of the Arabian Peninsula.⁴ An oblate *Qingbai* porcelain box with plain surface was unearthed at the Karat Bahrain site in Bahrain State. It has a greyish white and coarse body, and the glaze colour is greenish-grey which only covers part of the inner wall and the edge of the outer wall. And there is no glaze on the rim of the box which was called *mangkou* 芒口. *Mangkou Qingbai* wares were produced by Jiangxi or nearby local kilns in the Southern Song dynasty or the early Yuan dynasty.⁵ Along the Tigris River, the excavation of the Samarra Palace ruins has also unearthed Song and Yuan *Qingbai* porcelain, celadon and white porcelain. On the passage to the Red Sea, Aidhab in Sudan is an important unloading port for ships to dock at the Nile water. There are more than a thousand pieces in Sudan, including the *Qingbai*

¹ Ma Wenkuan , Meng Fanren, *The Discovery of Ancient Chinese Porcelain in Africa*, (Beijing: Forbidden City Press, 1987), p. 116.

² Li Zhiyan, "The Development and Export of Chinese Porcelain in the Twelfth and Fourteenth Centuries", *Bulletin of the National Museum of Chinese History*, No.2, 1992, p. 32.

³ Ma Wenkuan , Meng Fanren, *The Discovery of Ancient Chinese Porcelain in Africa*, (Beijing: Forbidden City Press, 1987), p. 116.

⁴ Michel Pilazoli, "Chinese Ceramics Unearthed from the Suhar Site in the Sultanate of Oman", *Journal of Maritime History Studies*, No.2, 1992.

⁵ Zhao Bing, "The East Asian and Southeast Asian Porcelain Unearthed from the Karat Bahrain Site in Bahrain State", *A Study on Ancient Export Porcelain*, (Beijing: The Palace Museum Press, 2003), p. 451.

porcelain of the Song and Yuan dynasties.¹ In addition, 17 countries and regions in Africa have produced Chinese ceramics in more than 200 locations, such as Fustat, Edhab, Malindi, Kivar and Madagascar. According to the decorative techniques, these *Qingbai* porcelain can be divided into plain glaze, engraved designs and stamped designs. There are not many *Qingbai* wares here, which mainly consist of bowls, plates and jars.²

In summary, most of the *Qingbai* porcelain unearthed overseas consists of bowls, plates, cups, pots and other daily utensils. *Qingbai* porcelain produced in Jingdezhen is found in East Asia, Southeast Asia, West Asia and Africa, while the products produced in Fujian kilns represented by Dehua kilns were mainly exported to the Southeast Asia market. While being responsible for the production of export porcelain, Jingdezhen also had to meet the needs of the domestic market and the royal family of Song and Yuan dynasties, it has a remarkable production capacity. As Jingdezhen porcelain was very profitable, it attracted the attention of the royal family, and Jingdezhen porcelain, together with tea and wine, were monopolized by the government at that time. In August of the fifth year of Yuanfeng 元丰 (AD 1082), the imperial court set up a tax authority in Jingdezhen, named 景德镇瓷窑博易务, appointed officials 督陶 there and every link of ceramics from firing to sales have been carried out under the supervision of the government.³

4.4 The scale of trade and the price of *Qingbai* porcelain

4.4.1 Marine trade ships of Song and Yuan dynasties

Prior to the Song dynasty, those who went to Arabia must stop their ships at Gulin 故临 (Quilion)⁴. At the end of the 12th century, during the Jiading 嘉定 period (AD 1208-1224) of the Southern Song dynasty, China's navigation technology has improved. Chinese ships were sailing to Sumatra, Java and the Gulf of Siam. During the Yuan dynasty, Chinese merchant ships no longer needed to make a stop halfway to the Persian Gulf and Arabia, but could sail directly to the Persian Gulf from Quanzhou port. This was the decisive factor in this transformation in terms of the development of sea navigation technology. The main aspect of such development was the expansion of ship size, where they would sail to the Indian Ocean and could carry 100-400 tonnes of cargo. The ships' capacities were essential in terms of ability to carry large number of people and cargoes. Evidently, the amount of profit made were dependent on the amount of cargoes the ships could carry. Therefore, the

¹ Ou Zhipai, "Ancient Chinese Ceramics in West Asia", *Series of Cultural Relics Materials*, Vol. 2, (Beijing: Cultural Relics Publishing House, 1978); Mikami Tsugio, Li Xijing and Gao Ximei ed. *The Road of Ceramics*, (Beijing: Cultural Relics Publishing House, 1984), pp. 90-92.

² Ma Wenkuan, Meng Fanren, *The discovery of Chinese ancient porcelain in Africa*, (Beijing: Forbidden City Press, 1987); Liu Yan, Qin Dashu and Ziriama Herman, "Chinese Porcelain Unearthed from the Ancient City Site of Gedi, Coastal Province, Kenya", *Cultural Relics*, No.11, 2012; Ding Yu and Qin Dashu, "Chinese Porcelain Unearthed at Uguana Site, Kenya", *Archaeology and Cultural Relics*, No.6, 2016;

³ *Song Shi, Shi Huo Zhi xia*, 宋史·食货志下, No.8.

⁴ Yu Changsen, *Overseas Trade in the Yuan Dynasty*, (Xi'an: Northwest University Press), p.36.

shipwrights were working to build increasingly bigger ships.¹ The number of crew members on the ship varied depending on the size of the trading ships. In the Song dynasty, Fujian recruited private trading ships. The size of the ships and the number of crew members are shown in the following Table 6.

Table 6: The Size of Trading Ship and the Number of Crew in the Song Dynasty²

Keel Width	Keel Width/m	<i>Shaogong</i> 梢工	<i>Zhaotou</i> 招头	<i>Dingshou</i> 碇手	Sailor	Total
1 <i>zhang</i> 丈 and 2 to 3 <i>chi</i> 尺	3.77~4.08	1	1	1	13	16
1 <i>zhang</i> 丈 and 4 <i>chi</i> 尺	4.4	1	1	1	15	18
1 <i>zhang</i> 丈 and 5 to 6 <i>chi</i> 尺	4.71~5.02	1	1	2	17	21
1 <i>zhang</i> 丈 and 7 to 8 <i>chi</i> 尺	5.34~5.65	1	1	2	20	24
1 <i>zhang</i> 丈 and 9 <i>chi</i> 尺	6.00	2	1	3	27	33
2 <i>zhang</i> 丈 and 1 <i>chi</i> 尺	6.60	2	2	3	33	40
2 <i>zhang</i> 丈 and 4 <i>chi</i> 尺	7.53	2			40	42

Note: *shaogong* 梢工 (helmsman), *zhaotou* 招头 (navigator), normally work next to the helmsman; the *zuotou* 作头 (crew leader), and the *dingshou* 碇手 (deck officer responsible for the anchor). One *chi* 尺 = 31.4 centimetres, and one *zhang* 丈 is equal to 10 尺, which is about 3.14 meters.³

As for the overseas trade ships, the large ships can accommodate hundreds of people, small ships can carry more than 100 people.⁴ The captain of a ship is called the *gang shou* 纲首, and some ships have an assistant captain as the *fu gang shou* 副纲首. Under the *gang shou*, there are *za shi* 杂事 (handling daily affairs), *zhi ku* 直库 (responsible for the management of weapons), *bu lin* 部领 (boatswain), *huo zhang* 火长 (navigator), steersman, *ding shou* 碇手.⁵ Before a ship departs, the cargo, personnel, departure time and destinations, should be reported to *Shi Bo Si* and marked on the *gong ping* 公凭 (official certificates and trade licenses). Anyone who did the overseas trade without *gong ping* will be punished with a fine of half the value of the cargo, and all crew members would be beaten 80 times with sticks⁶. The Song government once stipulated the time limit of the return journey. If the return journey can be kept within 5 months, the government can reduce the customs duty, called *rao shui* 饶税. Ships that return after 5 months to a year will not enjoy the tax

¹ Discuss of ship size in the Song and Yuan Dynasties, see Introduction, The Rise of Porcelain Trade in Song and Yuan Dynasty.

² The data are collected from *Chun Xi San Shan Zhi* 淳熙三山志, Vol. 14, Ban Ji Lei Wu 版籍类五: *Song Hui Yao Ji Gao* 宋会要辑稿, Bing Er Jiu 兵二九.

³ Qiu Long, "The Table of Chinese Measurement Unit and Explanation in History", *China Metrology*, No.10, 2006.

⁴ Zhu Yu 朱彧, *Ping Zhou Ke Tan* 萍洲可谈. Vol. 2.

⁵ Mori Kokki 森克己, *Research on the Trade between Japan and Song Dynasty*, (Tokyo: Bensei. JP, 2008), p. 41.

⁶ Song Hui Yao Ji Gao 宋会要辑稿, Zhi Guan Si Si 职官四四, No.8; Su Shi 苏轼, Qi Jin Shanglv Guo Waiguo Zhuang 乞禁商旅过外国状, *Dongpo Zouyi* 东坡奏议, Vol.8.

reduction¹. The government was using the tax relief as an incentive for outgoing vessels to return as quickly as possible to increase the amount of cargo brought in from overseas. However, this regulation does not have much effect, because the duration of the voyage depends entirely on the monsoon and weather conditions, it was difficult to make a precise return plan. The Song government also stipulated that when a ship has returned, it should return to the original port of departure, then turn in the *gong ping* of departure, and pay tax according to the regulations.

In the third year of Chongning 崇宁 (AD 1104), Li Yun, a merchant from Quanzhou, applied for a *gong ping* 公凭 from Mingzhou and wanted to go to Japan for trade. There were 69 people on the ship, including one captain, one helmsman and one *za shi* 杂事. Judging from the above table, this is a medium-sized seagoing ship with about 20-30 sailors. Then the rest should be businessmen accompanying them to Japan for trade.² According to Marco Polo, ships plying between the South China Sea and the Indian Ocean had more than one deck and 60 small cabins below the deck, each of which could carry a merchant. Such ships employ 200-300 sailors, and the ship's service life is about 6 years.³ According to Marco Polo's description, these ships were more likely to be made in China, each of which has a capacity of about 300 tonnes.⁴ Furthermore, Ibn Battuta's recorded that there were three types of Chinese trading ship sailing on the Indian Ocean: The greatest is called a junk, the middling sized a zaw, the least a kakam. They are called junk, zaw and kakam for the large, middle and smallest size respectively. The sails of these vessels are made of cane-reeds, woven together like a mat; which they put into port and left it standing in the wind. Some of these ships will employ a thousand men, six hundred sailors and four hundred soldiers. Each of the ships is followed by three others, a middle-sized, a third, and a fourth sized. There are no other places that made such ship except in Quanzhou and Guangzhou, China. Sailors row these vessels with big oars, which can be compared to a huge mast with five or twenty men on it, who work standing up. The commander of each ship is a great Emir. On the big boat, they also seeded the garden with herbs and ginger, which they cultivated in cisterns (built for this purpose), and placed on the sides of them. There were also wooden houses in which the high officials lived with their wives, but they were not rented to the merchants. Therefore, each ship is like an independent city. Due to the Chinese being the richest people in the world during that time, generally, there were usually higher number of Chinese that travel in these ships.⁵

Table 7: The Size of Shipwrecks in Song and Yuan Dynasties

Wreck	Date	Type	Length/m	Width/m	Capacity	Ceramic Artefacts
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¹ *Song Hui Yao Ji Gao* 宋会要辑稿, Zhi Guan Si Si 职官四四, No.27.

² *Chao Ye Qun Zai* 朝野群载, Vol.2, Yi Guo 异国.

³ *The Travels of Marco Polo*, translated by Liang Shengzhi, (Beijing: China Literature and History Publishing House, 1998), pp.341-349.

⁴ Chen Xinxiong, "The Ocean-going Trading Ships of the Song and Yuan Dynasties", *Proceedings of the Chinese Marine Development History*, Vol. 2, (Taipei: Institute of the Three Principles of the People, Academia Sinica, 1985).

⁵ *The Travels of Ibn Battuta in the Near East, Asia and Africa 1325-1354*, Translated and Edited by Rev. Samuel Lee, (New York: Dover Publications, INC., 2004), Chapter XXIII.

Pulau Buaya	late 12th–early 13th century	Similar to the balanghai ship.	15	3	unknown	More than 32,000 items
Baijiao No.1	AD 1010-1100	Medium ship with 9 or 11 compartments	19-20	5-6	unknown	2678 items
Huaguangjiao No.1	AD 1164-1207	<i>Fu Chuan</i> with 11 compartments	20	6	A displacement of 60-100 tonnes	Nearly 10,000 items
Nanhai No.1	AD 12-13 century	<i>Fu Chuan</i> with 15 compartments	22.1	9.85	A displacement of 800 tonnes and a 400 tons load capacity.	Nearly 80,000 items
Quanzhou	AD 1272-1278	<i>Fu Chuan</i> with 13 compartments	24.20	9.15	Over 200 tonnes load capacity.	428 items
Sinan	AD 1279-1368	<i>Fu Chuan</i> with 8 compartments	34	11	Over 200 tonnes load capacity.	More than 20,000

As a sunken ship is buried deep in the sea bottom all the year round and is seriously corroded by the sea water, many sunken ships' basic outline were not intact. The most complete hull found so far is the Nanhai No.1, and there are several sunken ships whose original size can be inferred from the remains of a rough outline, as listed in the Table 7. According to Ibn Battuta's record, the largest junk is the Chinese *fu chuan* and the founded ship wrecks that belong to this category include Huaguangjiao No.1, Nanhai No.1, Quanzhou and Sinan Wreck. Baijiao No.1 may belong to the Zaw, which is a middle-sized ship. Pulau Buaya Wreck is a balanghai ship, a type of lashed-lug boat built by joining planks edge-to-edge using pins, dowels, and fibre lashings. Due to its small size and flexibility, it has been active on the Maritime Silk Road.

The Nanhai No.1 is a well-preserved ship with a wooden hull of about 22.1 meters in length, a maximum hull width of about 9.35 meters, and a distribution area of about 179.15 square meters. There are 14 transverse partition panels, which are divided into 15 cabins. There is a certain similarity between the various compartments of the ship or the variety of goods. Nanhai No.1 carries a wide variety of cargo, the remaining 14 compartments are full of porcelain and ironware. Most of the cabins are stacked with various export porcelain, some large utensils are covered with small utensils, which had made the full use of the limited narrow space in the cabin (Figure 5). The wooden ship is wide and flat, with slightly raised bow, slightly curved sides, and a certain depth. This means that it is a short and wide ship with small length-width ratio, high safety factor, fit for seafaring and have large loading capacity, similar to the structure of Quanzhou Shipwreck in Quanzhou Bay and Huaguangjiao No.1 wreck in Xisha, Hainan Province.¹

¹ National Centre of Underwater Cultural Heritage, Guangdong Provincial Institute of Cultural Relics and Archaeology, Chinese Academy of Cultural Heritage, Guangdong Museum, Maritime Silk Road Museum of Guangdong ed., *Archaeological Report II of Nanhai No.1: Excavation from 2014 to 2015, I*, (Beijing: Cultural Relics Press, 2017), p108.



Figure 5: The 12th and 13th Cabins of Nanhai No.1¹

According to historical records and archaeological data of sunken ships, the ships trading in the Indian Ocean are of different sizes, the largest of which is China's *fu chuan*, with a standard load of more than 300 tonnes, such as Nanhai No.1, which mainly transported porcelain, and can carry up to 80,000 items of porcelain. Ship that trade in many commodities such as the Sinan Wreck and Huaguangjiao No.1 are usually loaded with 10,000 to 20,000 pieces of porcelain.

4.4.2 The price of export *Qingbai* porcelain

There are few historical records of the price of *Qingbai* porcelain exported in the Song and Yuan dynasties. However, we can find some records of their prices for some daily-use porcelain at that time from historical documents. There are many types of currency in Song and Yuan dynasties, which can be divided into three categories: metal currency, paper currency and a mixed use of the two. With the exception of silver and gold, metal currency of Song dynasty is divided into copper coins, iron coins and copper-tin alloy coins (夹锡钱) and there are different types of currency value.² The countries and regions around the Indian Ocean mainly use gold and silver currencies, other metal coins made by their own countries and *bei bi* 贝币 (a form of money made of cowry shells). As porcelain was a daily necessity, it is mostly valued by the minimum currency: *wen* 文 in the Song dynasty. However, there is no clear explanation on the historical records regarding the type of coins that one *Wen* actually refers to. According to Professor Cheng Minsheng's research, the average daily income of a lower-class individual in the Song dynasty was about 100 *wen*³. And at that time, the minimum cost of maintaining life per capita was 20 *wen* per day, calculated according to the average daily consumption of 1.5 *sheng* 升 of japonica rice 粳米 or *su* rice 粟米.⁴ In the late Northern Song dynasty (AD 1180-1126), a piece of sugar

¹ Ibid..

² *Song Shi* 宋史, Vol.186, Shi Huo Zhi 食货志, Qian Bi 钱币.

³ Cheng Minsheng, *A Study of Prices in the Song Dynasty*, (Nanchang: Jiangxi People's Publishing House), p.433.

⁴ Ibid., pp. 434-442.

could be bought in Suzhou for 1 *wen*¹. In the period of Emperor Huizong 徽宗 of the Song dynasty (AD 1082-1135), 1 *wen* could buy seven steamed dates in Kaifeng Fu 开封府².

There were some porcelains handed down from the Song dynasty with prices written on them. Two white glazed bowls with carved lotus design in the second year of Taiping Xingguo 太平兴国 (AD 977) were unearthed at the basement of Jingzhi 静志 Temple Pagoda of the Song dynasty in Ding County, Hebei Province. Both bowls have inscription at the bottom. A man named Wu Chengxun 吴成训 bought the bowls with 30 *wen* and donated them to the temple.³ The brown glazed Gualeng covered jar of Song dynasty was unearthed from Song tomb in Jian'ou, Fujian Province. There is a record on the lid that this jar was purchased with 30 *wen* in the third year of Qingli 庆历 (AD 1043).⁴ A white glaze ewer from Cizhou kiln is collected by Cleveland Museum of Art in the United States, the bottom is written that on February 29th, the fourth year of Chongning 崇宁, this ewer was bought with 70 *wen*. A red glazed bowl from Cizhou kiln in the second year of Daguan 大观 (AD 1108) with 30 *wen* written on the bottom was unearthed in Julu Gucheng 巨鹿古城 (now Julu County), Hebei Province. Therefore, it can be concluded that the price of a piece of porcelain for daily use in Song dynasty is tens of *wen*. As a type of daily use porcelain, the price of *Qingbai* porcelain should also be similar.

In the Yuan dynasty, with the exception of *bei bi* 贝币 that could be legally circulated in Yunnan, paper money was the single legal tender in other areas. *Bei bi* 贝币 or shells are a type of popular currency in Southeast Asia and is widely used in overseas trade. Since many *Se mu* 色目 merchants came to Quanzhou port for trade, so the *Shi Bo Si* 市舶司 in Quanzhou earned a large number of shells. The Yuan government transported those shells to Yunnan in exchange for local horses and gold.⁵ According to the historical documents, shells were used in many countries and regions: Luohu 罗斛 (now Southern Thailand), Dawudie 大乌爹 (now Drissa, India), Wudie 乌爹 (now Burma), Penjiala 朋加刺 (now Bangladesh), Zhenlu 针路 (now Mergui Archipelago), Siam (now Thailand), Beiliu 北溜 (now Maldives), Fangbai 放拜 (now Bombay), Yemen and Sudan.⁶ *Bei bi* was called *boli* in Maldivian, *bia* in Malay, *beya* in Javanese, *beer* in Thai, *kaparda* or *kap-ardaka* in Sanskrit, *kauri* or *kaudi* in Sintustan, and 贝 and 蚬 (蛎) in Chinese seem to originate from Hainan.⁷ After the first year of Zhongtong 中统 (AD 1260) of Kublai Khan, the Yuan government issued four types of paper money, of which the *zhongtong chao* 中统钞 was the most popular currency. Its face value was defined according to the unit of copper coins (1000 *wen* 文 = 1 *guan* 贯 = 1 *liang* 两)⁸. According to the porcelain price records of

¹ Hui Hong 惠洪, *Leng Zhai Ye Hua* 冷斋夜话, Vol.8, Qian Ru Mi 钱如蜜.

² Hong Mai 洪迈, *Yi Jian Zhi • Bing Zhi* 夷坚志 • 丙志, Vol.18, Zhang Gong Yu Xian 张拱遇仙.

³ Dingxian Museum, "Two Song Dynasty Towers Discovered in Dingxian, Hebei Province", *Cultural Relics*, No.8, 1972.

⁴ Jian'ou Museum, "Northern Song Dynasty Chronological Tomb at Dikou, Jian'ou City, Fujian Province", *Archaeology*, No.4, 1997.

⁵ *Tong Zhi Tiao Ge* 通制条格, Vol. 18, Guan Shi 关市.

⁶ Ma Jianchun, Xu Linlin, "Bei bi in the Shi Bo Trade and Its Circulation in Yunnan in the Yuan dynasties", *Jinan Shi Xue*, No.3, 2018.

⁷ Su Jiqing, *Dao Yi Zhi Lue Jiao Shi* 岛夷志略校释, (Shanghai: Zhonghua Book Company, 1981), p.117.

⁸ *Yuan Shi* 元史, Shi Huo Zhi Yi 食货志一.

Sugimura Yuzo Documents (Table 8), the price of the bowls and small dishes for daily use is about 300-500 *wen* during the Yuan dynasty.

Table 8: Porcelain Price Records of Sugimura Yuzo Documents¹

Type		Price/ <i>liang</i>	Type		Price/ <i>liang</i>
bowl	Dashi bowl 大师碗	0.9	Small dish	Duyuan dish 杜元碟	0.3
	Duyuan bowl 杜元碗	0.3		Xiaoyu dish 小寓碟	0.5
	Dayu bowl 大寓碗	1		Fruit dish 菓碟	0.2
	Xiaoyu bowl 小寓碗	0.5	cup	Stemmed cup 高足盏	0.5
Vase	Xiao vase 小花瓶	2		Plum cup 梅花盏	0.1
	Dabao vase 大宝瓶	30		Tea cup 茶盏	0.15
	Wubai vase 伍佰瓶	7.5	basin	Fen basin 粉盆	3
	Jin vase 筋瓶	0.5		Wubai basin 伍佰盆	0.5
	Tea bottle 茶瓶	5		Linghua basin 菱花盆	2.5
Wine gang 酒缸		15		Dazan basin 大暂盆	2
Big weng 大翁		25	Lion-shaped ewer 狮子注		5
Jingshui yu 净水盂		1	Wine ewer 壶瓶、Cup with stand 台盏、Big yu 马盂		7

Due to the difference of monetary value in Song and Yuan dynasties, we can only make estimated price comparison of rice in Zhejiang area between Song and Yuan dynasties in order to judge the value of porcelain. In the fourth year of Chunxi 淳熙 (AD 1177), the price of japonica rice purchased by the Song government in Zhejiang was 2,500 *wen* per *dan* 石 (1 *dan* $\approx$ 60 kilogram)². While in the mid-Yuan dynasty, the price of japonica rice in eastern Zhejiang was 30,000 *wen* per *dan* 石 (1 *dan* $\approx$ 76 kilogram)³. Therefore, a porcelain bowl in AD 1177 is equivalent to the price of 1.4 kilograms of japonica rice. At around AD 1340, the same bowl is equivalent to the price of 1.3 kilograms of japonica rice. Of course, this is an estimated pricing. It also indicated that the price of porcelain was relatively stable and cheap in the Song and Yuan dynasties.

In addition, foreign travellers in the Song and Yuan dynasties also lamented that Chinese ceramics were cheap and good. Jacob D'Ancona, an Italian Jewish businessman who came to Quanzhou Port at the end of the Southern Song dynasty (AD 1207-1279), repeatedly referenced Quanzhou's high-quality porcelain in his manuscripts. China, he said, was as

¹ Li Chunyuan, The Price, Taxation, and Fiscal Systems under Yuan China, doctor degree dissertation of Fudan University, 2014, p.119.

² *Song Hui Yao Ji Gao* 宋会要辑稿, Shi Huo Si Yi 食货四一.

³ Li Chunyuan, The Price, Taxation, and Fiscal Systems under Yuan China, doctor degree dissertation of Fudan University, 2014, p.119.

fine as a glass flagon, “These are the finest pieces of porcelain in the world. This type of goods will make me rich, and you can buy 600 exquisite bowls with only 200 Venetian silver groats”¹. When Jacob left Erythrina with a large number of Quanzhou porcelain and other fashion items, he made a lot of wealth overseas.² Italian Marco Polo praised Dehua porcelain due to its low price and readily available to be purchased in the city. A Venetian silver groat can buy 8 porcelain cups in Quanzhou.³

Table 9: The Exchange Rates of Different Currencies during the Yuan Dynasty

Date	Area	Currency	Shells	Exchange Rate/ wen	References
AD 1271-1368	Yachi (now Kunming)	2 Venetian silver groat	80	40	<i>The Travels of Marco Polo</i> , Chapter 48.
AD 1271-1368	Wudie 乌爹 (now Burma)	10 <i>liang zhongtong chao</i> 中统钞	11,520	1.15	<i>Dao Yi Zhi Lue</i> 岛夷志略, Wudie 乌爹.
AD 1271-1368	Luohu 罗斛 (now Southern Thailand)	24 <i>liang zhongtong chao</i> 中统钞	10,000	0.41	<i>Dao Yi Zhi Lue</i> 岛夷志略, luohu 罗斛.

Table 9 shows that shells in different countries have different values. According to Jacob D’Ancona and Marco Polo’s records, the price of a porcelain bowl was about 13.3 shells in the Song dynasty and 5 shells of a cup in the Yuan Empire. However, taking the plum cup in Table 8 as the example, the price of it was between 41 and 115 shells. It can be seen that the value of shells in different countries and regions was very large. Ibn Battuta also said that “Chinese porcelain is only made in El Zaitūn (Quanzhou) and ^hSīn Kīlān (Guangzhou). The price of porcelain in China is as cheap as or cheaper than that of pottery in China. This type of porcelain was transported and sold to India and other regions until the Maghreb.”⁴ The porcelain that was produced in Quanzhou and referenced in these records was likely to be bluish white porcelain. In short, regardless of domestic or overseas market, daily use of *Qingbai* porcelain was seen as a good and inexpensive choice.

4.5 The technology of export *Qingbai* porcelain

Although all the porcelain with glaze colours between cyan and white is called *Qingbai* porcelain, the best products were produced in Jingdezhen kiln in the middle and late Northern Song dynasty (AD 1020-1126)⁵. The firing technology during this period has become mature. Artisans mastered strong reducing atmosphere technology resulting in the

¹ Groat is a very old currency in the real world in England, Scotland and Ireland, one groat is equal to four pence. It existed around the 13th and 19th centuries.

² Jacob D’Ancona, *The City of Light*, English version translated and edited by David Selbourne, Chinese version translated by Yang Min, (Shanghai: Shanghai Renmin Publishing House, 1999), pp. 203-204.

³ *The Travels of Marco Polo*, (New York: W. W. Norton & Company, Inc., 2003), Chapter 82.

⁴ *The Travels of Ibn Battuta in the Near East, Asia and Africa 1325–1354*, Translated and Edited by Rev. Samuel Lee, (New York: Dover Publications, INC., 2004), Chapter XXIII.

⁵ Zhong Jianhua and Chen Yuqian ed., *History of Jingdezhen Ceramics (Volume of Tang, Five Dynasties, Song and Yuan Dynasties)*, (Nanchang: Jiangxi People's Publishing House, 2016), p.118.

glaze to display a pure bluish white hue with the texture to be as glossy as jade. The body of *Qingbai* porcelain was white, dense and thin. However, due to the differences in raw materials, firing and decoration technology in various kilns from different periods will impact the appearance and characteristics of *Qingbai* porcelain. This is evidenced by a large number of archaeological data in shipwrecks as well as coastal and underwater sites. The following tables generalise the characteristics appearance of the *Qingbai* porcelain found on the shipwrecks, coastal and underwater sites in the Song and Yuan dynasties.

Table 10: *Qingbai* Porcelain on the Shipwrecks¹

Shipwreck And Proposed Date	Type	Glaze Colour	Provenance
Intan Late 10th century	Covered boxes, box base, very small dishes	The glaze colour is yellowish white, close to green or brown.	Fanchang kiln
Xicun Riau AD 960-1020	Bowls.	The glaze colour is light bluish.	Unknown
Xicun Belitung AD 960-1020	Large bowls, jars	The body is white, the glazes are transparent or greyish.	Fanchang kiln
Tanjung Simpang Megayau AD 960-1127	Covered boxes, ewers.	The glaze is bluish-white <i>Qingbai</i> in colour.	Dehua and Anxi kilns
Pulau Buaya late 12th–early 13th century	Bbowls, boxes, dishes, vases, ewers, <i>kendis</i> .	The glaze is bluish-white <i>Qingbai</i> in colour.	Jingdezhen kiln
Baijiao No.1 AD 1010-1100	Bowls	The bodies are greyish white or grey in colour. The glazes are bluish-white <i>Qingbai</i> and greyish white.	Lianjiang kiln
Huanguangjiao No.1 Mid-Southern Song dynasty (AD 1164-1207)	Bowls, boxes, plates, dishes, vases, jars, <i>kendis</i> .	The body is greyish white in colour, and has a thin glaze, most of the glaze colour is light grey with blue or light grey with yellow, but also a part of bluish-white <i>Qingbai</i> .	Jingdezhen, Dehua and other kilns in Quanzhou
Java Sea early 13th century	Covered boxes, vases, bottles, holding pot, jars, small dishes.	The glaze colours are whitish, greyish and bluish-white <i>Qingbai</i> .	Jingdezhen kiln
Breaker Shoal early Southern Song dynasty (About AD 1140~1180)	Bowls, plates, ewers, boxes, <i>kendis</i> , jars and vases.	The bodies are greyish white or white in colour. The glaze colours are greyish green, bluish grey and bluish-white <i>Qingbai</i> .	Jingdezhen kiln and Dehua kiln
Nanhai No.1 12~13 century	Bowls, covered boxes, pots, ewers, <i>kendis</i> , ground-shaped jar, tripod censers, small dishes, big plates, vases.	The body is white, the glaze colour is bluish white with green, and the glaze colour of Dehua kiln products are bluish-white <i>Qingbai</i> .	Jingdezhen and Dehua kilns
Jepara Late Southern Song dynasty (About AD 1220~1270)	Vases, jars, covered boxes, <i>kendis</i> , ewers, bowls, jars with covers, plates, urn.	The glaze colours are bluish white, greyish white or yellowish grey.	Dehua kiln
Investigator Shoal Late Southern Song dynasty (About AD 1220~1270)	Bowls, plates, ewers	The body is white in colour. The glaze is bluish white with grey.	Dehua kiln
Quanzhou AD 1272-1278	A fragment of a bowl	Unknown	Dehua kiln
Banyangjiao No.1 (AD 1127-1279)	Bowls and plates.	The body is greyish white in colour, the glaze colour is bluish white with grey.	Kilns in northern Fujian Province.
Beijiao No.1 Yuan dynasty (AD 1279-1368)	Bowls, small cups, ewers.	The body is greyish white in colour, the glaze is bluish-white with grey.	Dehua kiln

¹ Statistics of Table 4 and 5 are from Appendix of Archaeological Data on Shipwrecks and Sites.

Beituguijiao No.1 Early Southern Song dynasty (AD 1127-1164)	A bowl.	The body is white, the glaze is bluish white with iron brown spots.	Unknown
Beituguijiao No.2 Yuan dynasty (AD 1279-1368)	Bowls, plates, small dishes.	The body is greyish white in colour, the glaze is greyish white with green.	Putian Zhuangbian kiln and Lianjiang Pukou kiln.
Shazhoudao Yuan dynasty (AD 1271-1368)	Bowls, ewers, water droppers, jars.	The body is white, the glaze colours are bluish-white <i>Qingbai</i> and greyish white.	Jingdezhen kiln and Dehua kiln.
Shiyu No.2 Yuan dynasty (AD 1279-1368)	Bowls, brush-washers, boxes, plates.	The body is white, the glaze colours are bluish-white <i>Qingbai</i> , greyish white and off-white.	Dehua kiln and kilns in southern Fujian Province.
Sinan Yuan dynasty (AD 1279-1368).	Bowls, plates, vases, ewers, stemmed cups, water-droppers, incense burners, pillows, Buddha figures, portraits.	The glaze is bluish-white <i>Qingbai</i> and bluish white glaze with iron brown spots.	Jingdezhen kiln

Table 11: *Qingbai* Porcelain from the Coastal and Underwater Sites

Sites and Proposed Date	Type	Glaze Colour	Provenance
Allaippidy Late Northern Song dynasty (About AD 1060~1100)	Bowls and small dishes	The glazes are bluish-white <i>Qingbai</i> and bluish grey.	Xicun and Jingdezhen kilns
Beijiao No.1 early Southern Song dynasty (AD 1127-1164)	A jar	The body is greyish white, the glaze is bluish-white <i>Qingbai</i> in colour.	A kiln in Fujian Province.
Beiriyao No.1 Southern Song dynasty (AD 960-1126)	Bowls, plates and vases	The body is greyish white, the glaze is greyish white with green.	Lianjiang Pukou kiln
Shiyu No.1 Southern Song dynasty (AD 960-1126)	Plates, ewers, cups, jars, vases.	The body is greyish white in colour, the glaze is bluish-white <i>Qingbai</i> .	Jingdezhen, Dehua and other kilns in Quanzhou
Yinyu No.1 Song dynasty (AD 960-1279)	Small dishes	The body is greyish white in colour, the glaze is bluish-white <i>Qingbai</i> .	Kilns in Quanzhou.
Xiaolian Island Dongjiao Village Song and Yuan dynasty (AD 960-1368)	Bowls, plates, an ewer	The bodies are white, grey and greyish white in colour. The glazes are bluish-white <i>Qingbai</i> , greyish white, greyish white with blue and greyish white with brown.	Minqing Yi kiln or the kilns in the northern Fujian Province; Jingdezhen kiln, Lianjiang Pukou kiln
Beijiao No.2 Song and Yuan dynasty (AD 960-1368)	A bowl, a plate and a box.	The body is greyish white in colour, the glaze is bluish-white <i>Qingbai</i> .	Dehua and Anxi kilns.
Meizhou Bay Wenjiadayu Late Song to the Yuan dynasty (AD 1207-1368)	Bowls, plates and small dishes	The body is greyish white in colour, the glaze is bluish-white <i>Qingbai</i> or greyish white.	Jingdezhen kiln, Or the kiln in northern Fujian imitates the products of Jingdezhen kiln.
Beiriyao No.4 Yuan dynasty (AD 1279-1368)	Bowls	The body is greyish white in colour, the glazes are bluish grey, bluish yellow or greyish white.	Lianjiang Pukou kiln.
Beiriyao No.5 Yuan dynasty (AD 1279-1368)	Bowls	The body is grey in colour. The glaze is bluish grey.	Putian Zhuangbian kiln.

4.5.1 The raw materials

The Table 10 and 11 show that the glaze of the *Qingbai* porcelain on the shipwrecks and sites can be classified into 4 types, which are the bluish-white *Qingbai* (Figure 6), bluish white glaze with a grey tone (Figure 8), a yellow (brown) tone or bluish white glaze with iron brown spots (Figure 7). The colours of the porcelain body are mainly greyish-white and white. The outcome of the variety of body colours are dependent on the raw materials used as well as the firing technology. *Qingbai* porcelain in Song dynasty is made of porcelain stone. As such, the body and glaze made out of the same raw material, which is the porcelain stone. The minor difference is that slightly weathered stones were used to produce the glaze. Porcelain stone had a low content of alumina, generally less than 20%, thus, the products are easy to deform in the firing process¹. This is the reason for majority of the *Qingbai* porcelain in Song dynasty were with very few large ones. Take Jingdezhen as an example, the porcelain stone produced in Jingdezhen in the Song dynasty contains a large amount of silica. It is formed by alteration of feldspar, in which feldspar alters to quartz, sericite and a small amount of kaolinite to give porcelain stone. Therefore, Jingdezhen porcelain stone has strong plasticity after being crushed by the water-powered trip-hammer. The sericite contained in the porcelain stone is used as a flux, and after being sintered and melted at high temperature, a glass phase with high viscosity and high transparency is formed.²



Figure 6: *Qingbai* Wares from Tanjung Simpang Megayau, Sinan and Nanhai No.1 Wrecks

¹ Zhong Jianhua and Chen Yuqian ed., *History of Jingdezhen Ceramics (Volume of Tang, Five Dynasties, Song and Yuan Dynasties)*, (Nanchang: Jiangxi Renmin Publishing House, 2016), p.105.

² Ibid..



Figure 7: Bowls from Intan Wreck



Figure 8: Water Dropper from Sinan Wreck

Chemical and microstructural comparison of the *Qingbai* porcelain on Nanhai No.1 have been analysed using EDXRF analysis and microscopy (Table 12 and 13).

Table 12: The Chemical Composition of the Bodies (wt%)¹

Kiln		Na ₂ O	MgO	Al ₂ O ₃	SiO ₂	K ₂ O	CaO	TiO ₂	MnO	Fe ₂ O ₃
Dehua	min	1.37	0.38	16.08	72.50	2.47	0.19	0.03	0.01	0.38
	max	1.49	0.64	21.27	76.75	3.89	1.09	0.07	0.07	0.94
	mean	1.45	0.49	18.89	74.68	3.25	0.44	0.05	0.03	0.72
Jingdezhen	min	1.51	0.42	14.91	75.66	2.95	0.56	0.03	0.03	0.82
	max	1.56	1.16	16.62	77.76	3.67	1.55	0.08	0.07	1.12
	mean	1.52	0.57	15.84	76.63	3.32	1.00	0.05	0.05	1.01

Table 13: The Chemical Composition of the Glaze (wt%)²

Kiln		Na ₂ O	MgO	Al ₂ O ₃	SiO ₂	K ₂ O	CaO	TiO ₂	MnO	Fe ₂ O ₃
Dehua	min	1.23	0.37	11.78	57.24	2.21	7.48	0.04	0.06	0.45

¹ Yihang Zhou, Kai Wang, Yuewen Jin, Jian Sun, Yong Cui, Dongbo Hu, "Chemical and Microstructural Comparison of the Export Porcelain from Five Different Kilns Excavated from Nanhai I Shipwreck", *Ceramics International*, No. 45, 2019, p. 12885.

² Ibid..

	max	1.57	1.42	15.76	74.18	2.71	20.68	0.10	0.28	1.58
	mean	1.40	0.72	14.02	66.09	2.80	13.70	0.06	0.06	1.04
Jingdezhen	min	1.39	0.39	10.88	64.94	1.57	11.13	0.02	0.05	1.41
	max	1.54	1.41	12.83	69.64	4.48	17.99	0.06	0.13	2.07
	mean	1.44	0.74	11.86	67.18	2.44	14.52	0.04	0.08	1.70

Table 12 shows that the contents of SiO₂ and Al₂O₃ in the *Qingbai* porcelain body of the Nanhai No. 1 wreck are 72.50% -76.63% and 10.88% -15.18% respectively, which indicates that the porcelain bodies were made only from porcelain stone. In the Southern Song dynasty, the exhaustion of the porcelain stone in the upper layer of the mine led to the decline of the Jingdezhen porcelain industry. The artisans of the Yuan dynasty introduced a new raw material, kaolin, into the porcelain body. After the addition of kaolin, the content of SiO₂ in raw materials decreased to about 70%, and the content of Al₂O₃ increased to more than 20%, with the highest at 23.08%, which opened up a new era of transition from soft porcelain with lower temperature to hard porcelain with high temperature.¹ It was possible to fire large objects without deformation.

The main substances of *Qingbai* porcelain glaze are glaze mud and glaze ash. Glaze mud is the mud obtained after the processing of porcelain stone. The procedure is the same as the porcelain stone used for making the porcelain body. It needs to go through the steps of mineral processing, crushing, elutriation, precipitation, concentration to finally become glaze mud. Using glaze ash as flux is the characteristic of Jingdezhen traditional technology in making porcelain. It is also the key to incur bluish white colour in the final product. The glaze ash is obtained by simmering *chaye* 槎叶 (small branches cut from trees) or *mushi* 木柿 (wood chips or sawdust) with hydrated lime. The process is as follows: firstly, the limestone is calcined into quicklime. The quicklime is then submerged into water to be dissolved. Once it dries, it becomes powdered hydrated lime. Subsequently, the *chaye*, *mushi* and the firewood are crosswise placed to form a flat firewood lay. The firewood is stacked by layer with the hydrated lime, before simmer and burnt. The main component of glaze ash is calcium carbonate, with a small amount of quartz and potassium- sodium compounds.² After the glaze ash is burned, it should be processed into *shuihui* 水灰 (ash slurry) before it can be used. The *shuihui* is made of fired glaze ash and slag by retting³, aging, crushing and elutriation. Its colour is white with less than 0.5% fineness of the screen residue of ten thousand holes with 50% - 60% water content. After the *shuihui* is processed, it can be mixed with glaze mud of the same concentration according to a predetermined proportion to form the glaze.⁴ From Table 13, it can be seen that the content of CaO in the *Qingbai* glaze of the Nanhai No.1 Wreck is as high as

¹ Liu Xinyuan and Bai Kun, "A Research on the History of Kaolin", *Chinese Ceramics*, Suppl., 1982.

² Zhong Jianhua and Chen Yuqian ed., *History of Jingdezhen Ceramics (Volume of Tang, Five Dynasties, Song and Yuan Dynasties)*, (Nanchang: Jiangxi People's Publishing House, 2016), p.109.

³ The principle of urine retting is to carbonate the residual calcium hydroxide in the glaze ash and generate ammonium hydroxide, so that the prepared glaze slurry can be coagulated.

⁴ Fang Lili, *Jingdezhen Folk Kilns*, (Beijing: People's Fine Arts Publishing House, 2002), p. 270.

20.68%, much higher than the 10.90%¹ of the white porcelain in the Five Dynasties (AD 907-960). There are relatively few bubbles, crystallization, residual quartz, mica and other residues not melted in the glaze layer, and the glaze surface is smoother compared with the products in previous dynasties.

4.5.2 Factors affected the glaze colour of *Qingbai* porcelain

The reasons for the changes of glaze colour firstly lie in the amount iron. With the continuous development and progress of science and technology, the optimum proportion to produce the right mix of elements has been determined. When the iron content in the glaze reaches 5-9%, the resulting colour is brown (or black) glaze. When the iron content is 1-3%, it produces a green glaze, and when the iron content is less than 1%, the result is a light green glaze². Generally, the iron content in the white porcelain glaze is less than 0.6%.

The colour of the glaze is also dependent on the fire within the kiln as well. In addition to the glaze colour, it also influences the quality of the porcelain and the amount of waste generated. Even with the same type of ceramic would have different properties and appearance due to the many variables while being produced such as, sintering temperature, vitrification range, maximum sintering shrinkage, over-sintering expansion, shrinkage velocity and porosity.³ Other variables that may also influence the appearance include their different positions while being held inside the kiln thus even with the slight change of atmospheres, the final outcome would be different. The sintering temperature's range of *Qingbai* porcelain is between 1180°C and 1250°C (Table 14). The glaze colour is easily changed as a result. In *Qingbai* porcelain, the appearance of cyan appears when the flame is reducing during the firing process, which reduces the small iron oxide of the body into ferrous oxide, and subsequently reacts with dioxide to form bluish white ferrous silicate, resulting the porcelain to have a bluish white tone. When the reducing atmosphere during the reducing stage is too weak, and there is not enough reducing gases, the Fe_2O_3 in the body cannot be fully reduced to FeO , and the resulting glaze colour will be yellowish and dark (grey). Since the dragon kilns (an elongated kiln built on the hillside, from bottom to top, shaped like a dragon) appeared in the Shang dynasty (1600-1046 BC) in Jiangxi Province, it has been used to fire porcelain. In the Song dynasty, many changes and innovations have taken place in dragon kiln, such as setting doors on the side of the kiln, which is more convenient for transporting porcelain; In order to adapt to the terrain and wind direction where the kiln is located, the length, width and slope of the dragon kilns of

¹ Xiong Chunhua, "Discussion on the Origin and Development of Jingdezhen *Qingbai* Porcelain", *China Ceramics*, No.11, 2007.

² Chen Dingrong, *Yingqing Ci Shuo*, (Beijing: Forbidden City Press, 1991), p. 8.

³ Xiong Liao, *Ceramic Aesthetics and the National Characteristics of Chinese Ceramic Aesthetics*, (Hangzhou: China Academy of Art, 1989), p. 22.

the Song dynasty were more reasonable, which makes it easier to control the firing temperature and atmosphere.

Table 14: The Firing Temperature of *Qingbai* Porcelain¹

Number	Category	Date and Kiln	Firing Temperature	Condition	Porosity %
S9-2	<i>Qingbai</i> porcelain in the south	<i>Qingbai</i> fragment from Hutian kiln of the Song dynasty	1100±150°C	Slightly under-sintering	0.48
S10-1	<i>Qingbai</i> porcelain in the south	<i>Qingbai</i> fragment from Hutian kiln of the Song dynasty	1250± 30°C	Over-sintering	0.36

Another reason for the yellowish tone in *Qingbai* porcelain may be due to the colour of the porcelain body. Take the *Qingbai* porcelain produced from Fangchang kiln that were found on the Intan Wreck (Figure 7) as an example, the chemical composition of similar products produced in the Fangchang Kejiachong kiln were analysed by EDXRF (Table 15). The average contents of Fe₂O₃, MnO and TiO₂ in the *Qingbai* glazes produced in Kejiachong kiln have changed little in three different periods. The and the average content of TiO₂ did not change, thus, the change of glaze colour should not be caused by the change of the 3 colouring oxides content in the glaze. It is due to the increase of Fe₂O₃ content in the porcelain body from the Five Dynasties to the middle of the Northern Song dynasty, which has deepened the colour of the body and evidently has an impact on the colour of glaze².

Table 15: Average Contents and SD of Major Elements in Porcelain Glazes of Kejiachong Kiln in Different Periods (wt%)³

Period	SiO ₂	Al ₂ O ₃	K ₂ O	Na ₂ O	CaO	MgO	Fe ₂ O ₃	TiO ₂	MnO	P ₂ O ₅
FD	68.05±1.09	13.65±1.42	1.30±0.32	1.04±0.81	11.81±1.94	1.79±0.20	1.25±0.26	0.11±0.01	0.18±0.04	0.32±0.05
ENS	69.77±5.34	12.07±2.99	1.19±0.36	1.37±0.49	11.65±3.68	1.63±0.63	1.23±0.39	0.11±0.03	0.20±0.06	0.34±0.14
MNS	65.67±3.35	12.66±1.30	1.19±0.32	1.11±0.50	15.18±2.69	1.91±0.41	1.15±0.44	0.11±0.03	0.24±0.07	0.42±0.07

The last factor that influences the colouration is the placement of the porcelain in the kiln before firing. In the past, there were three ways ⁴ in total. The first is *yangshao* 仰烧, which was used in the early Northern Song dynasty (AD 960-1020). This is the process where the porcelain body is placed in a funnel-shaped saggar, each saggar would contain one piece of porcelain, and all the saggars are subsequently stacked and fired. During the mid-Northern

¹ Institute of Cultural Relics and Archaeology of Jiangxi Province and Jingdezhen Minyao Museum, *Archaeological Excavation Report of Hutian Kiln Site in Jingdezhen in 1988-1999*, (Beijing: Cultural Relics Publishing House, 2007), p. 489.

² Yang Yuzhang, Zeng Lingyuan, Wang Fazhi, Cui Wei, Xu Fan, Zhang Juzhong, "Study on the Chemical Composition and Processing of *Qingbai* Glaze of Kejiachong Kiln in Fanchang, Anhui Province", *Spectroscopy and Spectral Analysis*, Vol.37, No.4, 2017, p.1012.

³ Yang Yuzhang, Zeng Lingyuan, Wang Fazhi, Cui Wei, Xu Fan, Zhang Juzhong, "Study on the Chemical Composition and Processing of *Qingbai* Glaze of Kejiachong Kiln in Fanchang, Anhui Province", *Spectroscopy and Spectral Analysis*, Vol.37, No.4, 2017, p.1012.

⁴ Zhong Jianhua and Chen Yuqian ed., *History of Jingdezhen Ceramics (Volume of Tang, Five Dynasties, Song and Yuan Dynasties)*, (Nanchang: Jiangxi People's Publishing House, 2016), p.111.

Song dynasty and the early Southern Song dynasty (AD 1020-1164), the way of *fushao* 覆烧 was created. This refers to the method of turning and inverting the porcelain bodies so that there is no glaze on the edge of the bowls. During this period, both *yangshao* and *fushao* were adopted, but, the former method was more popular. By the middle and late Southern Song dynasty (AD 1164-1279), *fushao* method was more popular than *yangshao*.

In the Song dynasty, kiln owners had to pay kiln tax to the government when they were producing porcelain. According to the *Tao Ji* records¹, the government collected taxes according to the size of the kiln at the stage of loading and burning products into the kiln. In addition, the miscellaneous taxes in the Southern Song dynasty (AD 1127-1279) were far heavier than those in the Northern Song dynasty (AD 960-1126). Each kiln has a ruler; the size and volume of the kiln was officially recorded and a kiln was not allowed to expand without permission. In order to reduce the tax, the producer could only increase the stacking density within the kiln, resulting in the increased popularity of *fushao* method during this time where the stacking density is 4.6 times that of the *yangshao* method. This means that the loading capacity of a kiln in the Southern Song dynasty is 4 to 5 more compared to the kilns in the Northern Song dynasty. However, producing the porcelains through such method resulted in limitations of *fushao* method. The first limitation is that the moisture removal and heat transfer become more difficult due to the increased load within the kiln. The slower heating and cooling speed resulting in unstable firing atmosphere in the kiln means that the products are more susceptible to yellowish and dark tone glaze. The other limitation is that, in order to avoid adhesion, the glaze along the rim of the bowl and plate must be scraped off (*mangkou* 芒口). This is neither appealing nor practical, thus, after the Song dynasty, the *fushao* method was seldomly used.

4.5.3 Decorations

There were various decorative techniques of *Qingbai* porcelain in Song and Yuan dynasties, such as incised decoration (Figure 10), carving (Figure 12), comb pattern (Figure 11), cut decoration, stamping (Figure 9), engraving, kneading moulding (Figure 13), stippling (Figure 8), paste-on-paste decoration (Figure 14) and applique. Two or more techniques were often used on a vessel to achieve luxuriant decorative effects. In order to meet the needs of a large number of exports, there are a large number of stamped pattern and moulding products which is mostly a combination of incised, carving and combed decorations. This is evident on the *Qingbai* porcelain items that were found on the shipwrecks.

In the early Southern Song dynasty, the porcelain body was throwing by hand. However, during the middle and late Southern Song dynasty, in order to meet the large demand for *Qingbai* porcelain in both domestic and foreign market, Jingdezhen kiln used the *fushao*

¹ Liu Xinyuan, "A Study of the Time of Jiang Qi's *Tao Ji*", *Jingdezhen Ceramics* (Special Issue on *Tao Ji*), No.4, 1981.

method to increase the amount of porcelain fired in each kiln and each production batch. In order to ensure the same shrinkage of the porcelain, it is required that the porcelain body is standardised, resulting in the stamped and moulding body (Figure 15). The moulding integrates the forming and the decoration of the porcelain. The stamping, forming and the decoration are start and finished at the same time, products which used to be gradually engraved and decorated by hands in the past can be produced in batches only by stamping on a master mould. With the emergence of moulding technology, the labour cost was reduced, as well as enabling rapid and mass production.



Figure 9: Mangkou Plate on Nanhai No.1 Wreck

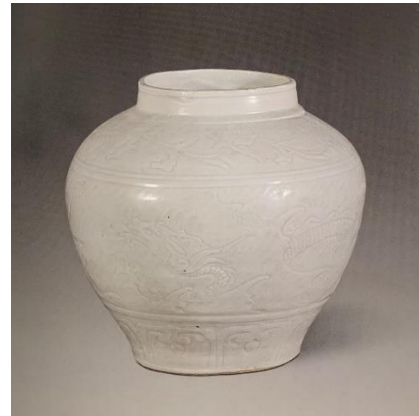


Figure 10: Jar from Sinan Wreck

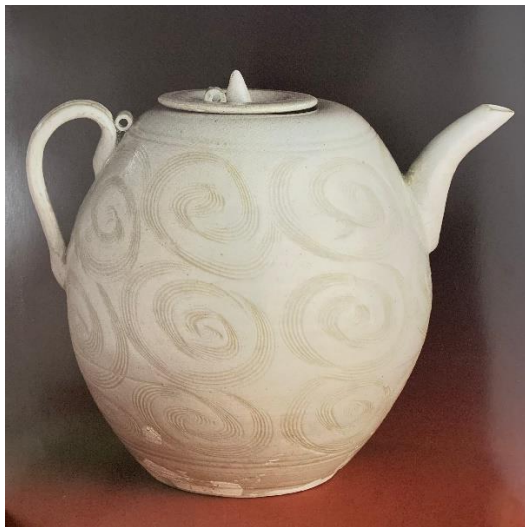


Figure 11: Ewer on the Investigator Wreck



Figure 12: Plate on Huanghuajiao No.1 Wreck



Figure 7: Box Base from Nanhai No.1 Wreck



Figure 14: Water Dropper on Sinan Wreck



Figure 15: Small Bottles on the Breaker Shoal Wreck



Figure 16: Bottle from Sinan Wreck

In the early Northern Song dynasty (AD 960-1020), the decoration of *Qingbai* porcelain was simple. Most had no patterns, and very few of them had carved patterns. After the middle and late Northern Song dynasty, the decorative patterns and shapes of *Qingbai* porcelain began to develop. These decorations present a diversified state in the composition and layout. The shapes and patterns of *Qingbai* porcelain of the shipwrecks in the Song and Yuan dynasties could be divided into six categories:

1) Simulation wares

Type: plants, animals

Products: lids with the shape of an animal head; gourd-shaped bottles and ewers; pumpkin-shaped boxes, bottles and ewers; petal-shaped bowls, dishes and cups; animal-shaped water droppers; bamboo-shaped pen holder.

2) Plant patterns

Type: flowers, grasses, leaves

Products: lotus, peony, chrysanthemum, orchid, plum blossom; water grass, reed, curly grass, fulva; flower leaves, trifoliate, banana leaf, curly vine, twisted vine patterns on almost all the types of *Qingbai* wares.

Meaning: Lotus symbolizes a gentleman, noble and pure, out of the mud and not dyed, which is the realm pursued by the literati and upper class. Peony is a symbol of happiness,

wealth and prosperity. Chrysanthemums symbolise noble sentiments. It is also known as a hermit, which means natural and unrestrained seclusion. Its flowering period in September, and its long homophonic property signifies longevity and auspiciousness. The symbolic meaning of orchids is mostly noble, elegant, patriotic and unswerving. Plum blossom is a Chinese spiritual symbol, symbolising the spiritual quality of perseverance, courage and self-improvement. Fulva is a cultural epitome of the mother-flower, it reflects the sincere and implicit affection between a Chinese mother and a son.¹

3) Animal patterns

Type: deer, wild goose, phoenix, dragon, bird, crane, fish.

Products: these patterns were seen on plates, bottles, vases, jars, incense burners, ewers.

Meaning: Deer is homophonic with the word *Lu* 禄, a symbol of good luck, longevity and promotion. The wild goose symbolises faithful love. Phoenix is a symbol of luxury, greatness, progress and peace. Phoenix is an auspicious bird in Chinese people's minds and the symbol of peace in the world. The dragon is a symbol of power, nobility, honour, luck and success. Crane is a symbol of auspicious, loyal, longevity moral. Fish veins have the meaning of reproduction worship in ancient times, implying the continuation of descendants²

4) Geometric patterns

Type: string, beads, abstract clouds, thunder and lightning patterns.

Products: almost always appear on all types of *Qingbai* wares.

5) Chinese characters patterns

Type: *fu* 福、*lu* 禄

Products: on an ewer from the Nanhai No.1 Wreck (Figure 20)

Meaning: 福 means blessings, lucky, happiness and all the good wishes; 禄 means power and wealth.

6) Reproduction wares

Type: imitations of bronze wares

Products: Incense burners that imitate the bronze *Gui* 簋 (Figure 17) and *Ding* 鼎 (Figure 18).

It is worth noting that, in the Yuan dynasty, the shape and decorative technology of *Qingbai* porcelain changed considerably. In addition to the various decoration and modelling methods mentioned above, the Mongolian rulers of the Yuan dynasty also brought their own elements that are different from the traditional Han culture to be incorporated into the *Qingbai* porcelain. Take the Sinan Wreck in the Yuan dynasty as an

¹ Hu Xizhen, "A Discuss on the Decorative Art of Porcelain in Song Dynasty", master degree dissertation of Chongqing Normal University, 2007, pp. 43-44.

² Zhong Jianhua and Chen Yuqian ed., *History of Jingdezhen Ceramics (Volume of Tang, Five Dynasties, Song and Yuan Dynasties)*, (Nanchang: Jiangxi People's Publishing House, 2016), p.121.

example, it is loaded with many *Qingbai* wares that have distinctive patterns or shapes that were unique to Yuan dynasty, such as S-shaped ears bottles (Figure 16), seats under the vessels (Figure 16 and 18). Furthermore, the beaded pattern is a unique decoration on the *Qingbai* porcelain of the Yuan dynasty. Kiln artisans used the ceramic paste to make a decorative line such as a series of pearls in several areas of the ware itself such as the edge line of the body, the outline of the medallion design, as well as being used to form patterns or characters for decorative purpose. This type of decoration is common on *Qingbai* wares produced in the Yuan dynasty, which is a combination of religious symbol and ceramics decorative art (Figure 19).



Figure 8: Incense Burner on Sinan Wreck



Figure 18: Incense Burner on Sinan Wreck

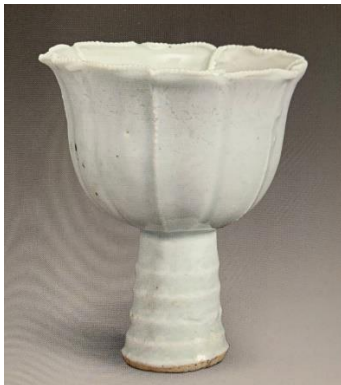


Figure 19: Cup from Sinan Wreck



Figure 20: Ewer from Nanhai. No.1 Wreck

Chapter 5 The Exportation of *Qingbai* Porcelain and Its Cultural Exchange

During the Song and Yuan dynasties, various merchants were actively trading in the Indian Ocean. In order to avoid civil war or to facilitate trade, many Chinese merchants emigrated overseas, while foreign merchants emigrated to China. This notion has gradually formed trading diasporas in other countries, people from different countries and regions could share different cultures, religions and lives. As *Qingbai* porcelain underwent mass production during the Song and Yuan dynasties, they have produced many types that can be used in daily life, entertainment, religious ceremonies, wedding and funeral rituals scenes, whether at home or abroad. Exported *Qingbai* ware integrated with different cultures and habits perfectly and in turn affected the development of foreign ceramic industry.

5.1 The use and value of *Qingbai* porcelain.

Although the Song government was devastated by the war and lost a large area of land, the pace of cultural development did not stop. *Qingbai* was more or less responsible for the higher pursuit of material and spiritual life after China's division in the Song. Due to the abolition of the Tang dynasty's square market system and curfew policy, urban commerce had flourished, and the citizens' standard of life had become higher and richer, forming a unique civic culture in Song dynasty. The development of cities was closely related to the development of the ceramic industry. On the one hand, due to the increased popularity and demand for tea, wine and food, the demand for the associated utensils will inevitably increase thus they were produced in large quantities. Such increased demands and productions meant that manufacturers would strive to improve the porcelain products further. Tianmu *zhan* from Jian kiln and the paper-thin *Qingbai* bowl from Jingdezhen kiln were renowned for their remarkable products.

5.1.1 Relations between the tea and wine culture, and *Qingbai* wares

There are various types of unearthed *Qingbai* porcelain that were produced to accommodate all aspects of life as shown in Table 16. In contrast, *Qingbai* porcelain found in shipwrecks and underwater sites are not the more luxurious items as most of them are bowls, plates, dishes, boxes, jars and other basic daily necessities (Table 17). However, some of the exported *Qingbai* porcelain wares were not common or often used in China, but they were very popular overseas, such as larger plates and bowls, smaller bottles and jars, and *kendis*, usually used in a religious ritual.

Table 16: Types of *Qingbai* Porcelain in Unearthed in Song and Yuan Dynasties

Dynasty	Type
Northern Song	bowl, cup stand, statue, <i>zhan</i> 盞, cup, jar, small dish, alms bowl, plate, water dropper, brush washer, box, spittoon, ewer, incense burner, <i>xiao</i> 簫, tomb figure, animal models, vessel models, bottles, soul jar, pillow, lamp, paper weight
Southern Song	bowl, <i>zhan</i> 盞, cup, jar, small dish, alms bowl, plate, water dropper, brush washer, box, spittoon, ewer, incense burner, jar, barn, tomb figure, animal model, vessel models, bottle, soul jar, pillow, <i>zun</i> 尊, stationery accessories, bucket
Yuan	incense burner, soul jar, <i>zhan</i> 盞, bowl, jar, small dish, cup, vase, <i>yi</i> 匱, box, tomb figure, ewer, big bowl, barn, <i>duo mu</i> ewer 多穆壺

Table 17: Types of *Qingbai* Porcelain in Shipwrecks and Underwater Sites

Wrecks/Sites	Location	Type
Intan	Indonesia	Covered boxes, box base, small dishes
Tanjung Simpang Megayau	Malaysia	covered boxes, ewers
Pulau Buaya	Indonesia	bowls, boxes, dishes, bottles, ewers, <i>kendis</i>
Xicun Riau	Indonesia	bowls
Xicun Belitung	Indonesia	large bowls and jars
Baijiao No.1	China	bowls
Huaguangjiao No.1	China	bowls, boxes, plates, dishes, bottles, jars, <i>kendis</i>
Java Sea	Indonesia	covered boxes, bottles, bottles, ewer, jars, small dishes
Breaker Shoal	Philippines	bowls, plates, ewers, boxes, <i>kendis</i> , jars and bottles
Nanhai No.1	China	covered boxes, bowls, pots, ewers, <i>kendis</i> , ground-shaped jar, tripod censers, small dishes, big plates, bottles
Jepara	Indonesia	bottles, jars, covered boxes, <i>kendis</i> , ewers, bowls, jars with covers, plates, urn
Investigator Shoal	Philippines	bowls, plates, ewers
Quanzhou	China	a fragment of a bowl
Banyangjiao No.1	China	bowls, big plates, small dishes
Beijiao No.1	China	bowls, small cups, ewers
Beituguijiao No.1	China	a bowl
Beituguijiao No.2	China	bowls, plates, small dishes
Shazhoudao	China	bowls, plates, ewers, water droppers, Zhong (盅, very small cup), cups, jars and incense burners
Shiyu No.2	China	bowls, brush-washers, boxes, plates
Sinan	Korea	bowls, plates, bottles, ewers, stemmed cups, water-droppers, incense burners, pillows, Buddha figures, portraits
Allaippidy	Sri Lanka	bowls and small dishes
Beijiao No.1	China	a jar
Beiryan No.1	China	bowls, plates and bottles
Shiyu No.1	China	plates, ewers, cups, jars, bottles
Kurakizaki	Japan	bowls, plates, ewers, boxes
Yinyu No.1	China	small dishes
Xiaolian Island Dongjiao Village	China	bowls, plates, ewers
Beijiao No.2	China	a bowl, a plate and a box
Meizhou Bay Wenjiadayu	China	bowls, plates and small dishes
Meizhou Bay Menxiayu	China	bowls
Beiryan No.4	China	bowls
Beiryan No.5	China	bowls

The bowl-shaped ware can be traced back to the pottery bowl of the Neolithic Age in China. The date and location of the bowl is unknown, but it was not until the Neolithic Age

that the bowl was invented as a food container and being part of Chinese history to become a commonly used utensil. The use of bowls was a product of social and economic development, reflecting people's pursuit of practicality and convenience in the use of utensils, and subsequently develop a certain aesthetic appeal upon the utensils, gradually being part of the culture of the Chinese cuisine.¹ Since the Neolithic Age, the materials for bowl productions have been constantly developing and changing, such as pottery, porcelain, bamboo, wood, lacquer, jade, metal (copper, gold, silver, iron, lead, tin, etc.). By the time of the Song dynasty, the ceramic industry had achieved remarkable development and prosperity, and both the official kilns and the folk kilns were very prosperous. As a daily utensil, the production of porcelain bowls was widespread, and was part of everyday objects in ordinary homes used for eating and drinking as well as being exported.

Tea drinking began during the Tang dynasty. Song dynasty was the prime development of the Chinese tea culture where people during this period often drink tea, eating rice and using salt every day². They regarded tea as an indispensable necessity in life. Emperor Huizong 徽宗 of the Song dynasty once wrote *Da Guan Cha Lun* 大观茶论, advocating tea drinking. Literati and official scholars regarded tea drinking as a leisure activity of self-cultivation. Ordinary citizens treated guests with tea and tea drinking became a custom³. Tea drinking had penetrated into all aspects of the people's daily life during Song dynasty. Methods for making tea is different in Song and the Tang dynasty. The people during Tang dynasty would simmer the tea which was similar to cooking porridge. This process is called *jian cha* 煎茶. During Song dynasty, people prepare tea by using a process called *dian cha* 点茶 and this consists of several steps. First, fresh tea leaves are dried and grounded into powder. Then, the tea powder would be put into a teacup and a small amount of boiling water is added to make a paste. Then, the boiling water is added to the teacup. At the same time, the tea powder is stirred with a tea stirrer until the powder floats up. The end result is a combination of the tea colour, patterns that the floating tea powder formed and the steam produced by the hot water thus forming a beautiful picture for the drinker.⁴ The change of tea drinking method results in new requirements for tea sets. The people during the Song dynasty prefer to use the black *Jian zhan* 建盏 (tea cups made by Jian kiln, Fujian Province). When a group of people prepare the tea, they would try to compete with one another to observe which person forms the best artistic conception. This is known as *dou cha* 斗茶. Since the *Qingbai* porcelain tea set can clearly see the colour of tea water and the ups and downs of tea powder, so it is very popular. The *Qingbai* porcelain tea sets produced by Jingdezhen kiln mainly include bamboo-hat-shaped bowl, tea cup, cup holder and tea pot. Among them, *zhan* 盏 (tea cup) is the most distinctive tea set, which is actually a small bowl. The tea cup should be put on the cup holder, when pouring tea, both the cup

¹ Kong Yu, "The 'Beauty and Beauty' of Chinese Traditional Instruments", master degree dissertation of Qingdao University of Science and Technology, 2018.

² Wang Anshi 王安石, *Wang Wengong Ji* 王文公集, Vol.31, Za Zhu 杂著, Yin Cha Fa 饮茶法.

³ Zhong Jianhua and Chen Yuqian ed., *History of Jingdezhen Ceramics (Volume of Tang, Five Dynasties, Song and Yuan Dynasties)*, (Nanchang: Jiangxi People's Publishing House, 2016), p.141.

⁴ Zhao Ji 赵佶, *Da Guan Cha Lun* 大观茶论, Dian Cha 点茶.

and the holder were held in the hand together, and the fingers are never burned.

Chinese tea culture was introduced into Japan during the Heian period (AD 794-1185). While in Japan, it was only available to the aristocratic society that has close tie to the emperor before evolved into a medicinal beverage in monasteries. Zen temples have increased during such time and Zen monks carried out tea tasting sessions rituals, which is known until today as tea ceremony, and almost all the teacups and banquet decorations used at that time came from China.¹

Jiu lou 酒楼 is a very common shop in Song cities. Small *jiu lou* 酒楼 only sold wine with several tables. While some large-scale *jiu lou* 酒楼 are large restaurants and entertainment places, where people could enjoy music while drinking and tasting delicious food. They had luxurious decorations and sometimes even imitate palaces in order to attract customer. For example, Fengle Lou 丰乐楼, the most famous restaurant in the capital of Song dynasty, made great efforts in decoration, environment, service, brewing, cooking and utensils. In August of the fifth year of Tiansheng 天圣 (AD 1027), the imperial court issued an edict to 3,000 wine shops in Bianjing 汴京 (Kaifeng) to purchase their stocks from Fengle Lou on a daily basis in preparation for the Mid-Autumn festival. This is because people would visit these *jiu lou* to drink during the festival. This shows that the quality and output of Fengle Lou liquor were very high.² People during the Song dynasty do not just have a good taste when it comes to wine but also food. According to Professor Yi Yongwen's rough statistics, there were more than 500 types of food sold in Lin'an restaurants. This estimation does not include items that were not listed on the menu and requested spontaneously. If snacks are included in the estimation, the number of food and snacks can reach up to 1,031. This means that a large number of porcelain tableware were needed.



Figure 21: Ewers on Sinan Wreck

Before the appearance of distilled liquor in the Yuan dynasty, people needed to use hot water to heat the wine. The process are as follows: firstly, the ewer, which is filled with wine is placed onto a pouring bowl. Afterwards, hot water was poured into the bowl thus

¹ Shen Qionghua ed., *Sailing from the Great Yuan Dynasty: Relics Excavated from the Sinan Shipwreck*, (Beijing: Cultural Relics Press, 2012), p.29.

² Yi Yongwen, *The daily life of citizens in the Song Dynasty*, (Beijing: Chinese Gongren Publishing House, 2018), p.198.

the wine inside the ewer is warmed up and can be drunk at any time during a banquet. It can be used to hold wine or water. *Qingbai* porcelain ewer of the Song dynasty, also known as *zhu zi* 注子, with long meandering handles and bell mouth, melon shaped appearance were the typical products of Jingdezhen kiln.¹ *Zhu zi* 注子(ewer) and *zhu wan* 注碗 (big bowl to take the *Zhu zi*) is a group of utensils (Figure 23) for holding wine and warming wine, which prevailed from the Five Dynasties to the late Northern Song period (AD 907-1126). They are suitable for more luxurious and formal banquets. Plum bottle 梅瓶, also known as the plum vase (Figure 22), first appeared in the Song dynasty. It was first used as a wine bottle rather than a vase initially. Shanghai Museum has two pieces of plum bottle from the Cizhou kiln in the Song dynasty. The bottle's belly is inscribed with *Qinggu Meijiu* 清沽美酒 (a fine wine) and *Zuixiang Jiuhai* 醉乡酒海 (describes that the container can hold a large amount of wine), which shows that the plum bottle is a vessel for wine.² The mouth of the plum bottle is small and the neck is narrow, which is more suitable for capping and sealing. There is a clear shape transition between the shoulder and abdomen, which makes it easy to maintain and control of the wine during pouring.

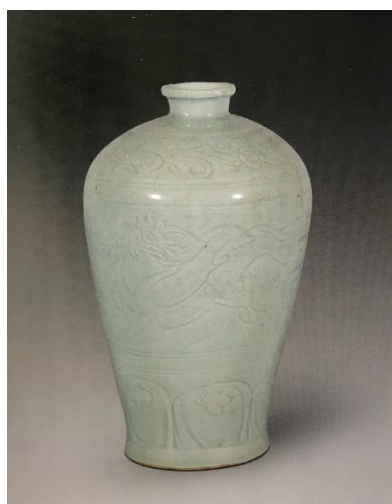


Figure 22: Plum Bottle on Sinan Wreck

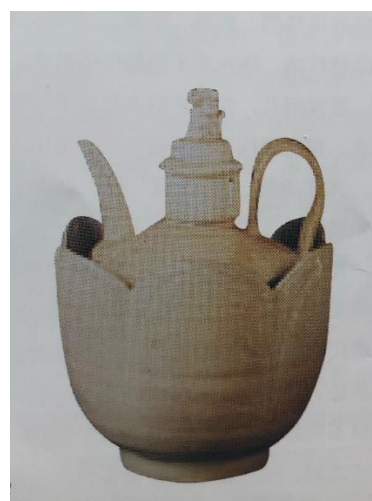


Figure 23: *Qingbai* *Zhu zi* and *Zhu wan* in Jingdezhen Museum

On the sunken ships of the Song and Yuan dynasties, there were also drinking utensils, such as cups, ewers, plum bottles and pear-shaped bottles. The different functions determined by the shape of the drinking utensils. Wine is also one of the most important beverages in Southeast Asia. Southeast Asian people use palm leaves, sugar palms, coconuts and other raw materials to make wine. Similar to eating utensils, prior to the introduction of Chinese ceramics, people in Southeast Asia often used pots made of baked clay to store wine, while plant stems, leaves and shells were used as the drinking utensil. When people drink, they sit on the ground and fold the leaves to make a cup. One person

¹ Zhang Yingying, "Research on the Evolution of the Ewer Molding from Tang Dynasty to Qing Dynasty", master degree dissertation of Jingdezhen Ceramic Institute, 2014.

² Chen Yuqian, Jingdezhen *Qingbai* Porcelain and Aesthetics in Song Dynasty, (Nanchang: Jiangxi University Press, 2006), P.45.

would be responsible for scooping wine in the pottery urn and distributing it to others.¹ The pre-Muslim Javanese had a particular reputation for their drinking habit. In eastern Indonesia and the Philippines, the most popular form of alcohol was a tuak (Tagalog tuba) derived from one of the coconuts, or sugar (arenga).² In Borneo and Sulawesi, it is believed that there is a subconscious link between the emergence of spirits from decaying corpses and the brewing of wine from fermented rice. In the Danueluowa area of Balaowan Island, the local residents believe that the taste of wine is related to the age of the pottery jar, thus, they use the oldest pottery urn to store wine.

5.1.2 Funeral customs and *Qingbai* porcelain

Taoism was very popular during the Song dynasty, and it has significant influence on the funeral procession. *Da Han Yuan Ling Mi Zang Jing* 大汉原陵秘葬经 is a classic pursued by Taoists in the Song and Yuan dynasties, which mentions that if no funerary objects are placed in the tomb after burial, the souls of the dead will be disturbed, and the gods in heaven and earth will not receive the souls thus their spirit will wander. Thus, families of the dead will suffer. The appearance of a large number of *Qingbai* porcelain funerary objects in the tombs of Song and Yuan dynasties was the result of this Taoist thought.

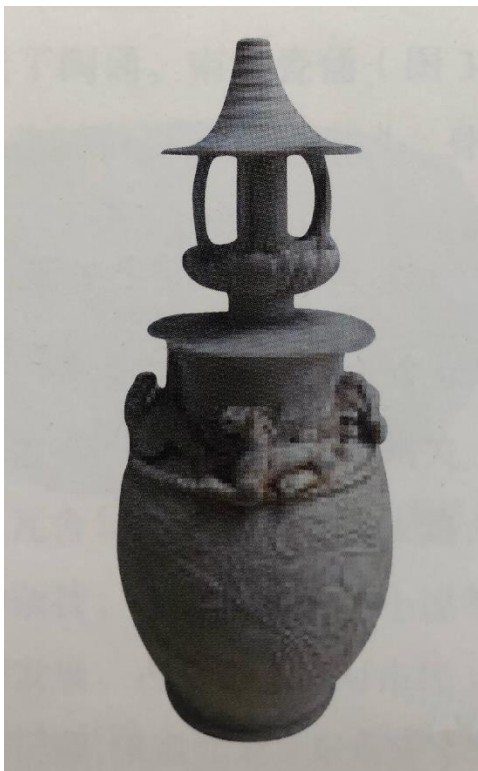


Figure 24: *Qingbai* Soul Jar of Song³



Figure 25: *Qingbai* Soul Jar of Yuan⁴

¹ Gong Zhen 巩珍, *Xi Yang Fan Guo Zhi* 西洋番国志, Java 爪哇.

² Anthony Reid, *Southeast Asia in the Age of Commerce 1450-1680*, Vol. 1, (New Haven: Yale University Press, 1988), p.39.

³ This soul jar is collected in Jingdezhen Museum.

⁴ This soul jar is collected in Jiangxi Museum.

Soul jar, also known *dui su ping* 堆塑瓶 was a popular funerary vessel in Jiangxi Province. *Dui su* 堆塑 describes the craft of soul bottles, which consists of various miniature figures that are to be placed on the shoulders of soul bottles. It appeared in pairs and the first dated *dui su ping* 堆塑瓶 of the Song dynasty was a pair of *Qingbai* soul jar unearthed from the earthly tomb of the second year of Jiayou 嘉佑 (AD 1057) in Nancheng, Jiangxi Province¹. Soul jars were produced and prevailed after Jiatai 嘉泰 (AD 1201-1204), Emperor Ningzong 宁宗 of the Southern Song dynasty, and most of them were buried in tombs in Jiangxi. As Taoism was prevalent in Jiangxi at that time, these jars are a reflection of the Taoist believe regarding the spirits. This custom lasted until the Yuan dynasty. In addition to miniature gods, birds and animals, there are also twelve zodiac signs, turtles and snake statues, all of which were heaped on the soul jar. Some tombs dated back to Yuan dynasty still had large tomb figure, most of which were replaced by one or two pairs of soul jars.² The objects heaped inside the soul jar often symbolise the social treatment and family status of the deceased before death. Grains were stored in the soul jar, indicating that they can still filled themselves up when they arrive to the underworld after death. Many figures heaped inside a soul jar signifies that the dead is of higher social class or a very rich. If the decorations on the soul jar is simple, it means that the dead is from a lower-class tomb, some were even buried with empty five-tube bottles.

There are abundant forms of burial customs in Southeast Asia, the main methods included ordinary inhumation, urn burial (one or two burials), coffin burial and mummification.³ The inhabitants of northern Kalimantan did not begin to use porcelain until they began to trade with China, and they were very fond of Chinese porcelain urns decorated with dragon patterns. Instead of burying the dead in wooden coffins, they were buried in urns in order to perpetuate them.⁴ These utensils were generally made of stone, pottery and copper, among which the pottery urn coffin was the most typical. The custom of urn burial is widespread, dating from about 2000 BC to around the Christ era, and in some areas, it lasted until the 16th century. In Northeast Asia and South Asia, there was also the custom of urn coffin burial. It has appeared in Japan, Korea, India and Sri Lanka.⁵ In Japan, urn coffins are associated with rice-farming peoples, and in South India they were related to the various megalithic tombs and iron cultures. Some scholars attributed this to the activities of Austronesian seafaring traders, who brought the custom of urn burial to South India and brought the Indian cultural elements back to Southeast Asia.⁶ The specific process of urn burial is: when a person dies, the objective is to put the corpse into an urn. As the urn is only four feet high and the rim of the urn is small, the corpse cannot be put

¹ Xue Yao, "Song Tombs in Nancheng, Qingjiang and Yongxiu, Jiangxi Province", *Archaeology*, No.11, 1965.

² Chen Yang, "A Premier Study of Greenish White Porcelain in Yuan Dynasty", *A Study on Qingbai Porcelain*, (Beijing: Palace Museum Press, 2015), p. 53.

³ Wu Jiewei etc., *A Study on Religious Art in Southeast Asia*, (Beijing: Peking University Press, 2019), p.29.

⁴ Zhang Xie 张燮, *Dong Xi Yang Kao* 东西洋考, Wen Lang Ma Shen 文郎马神.

⁵ Wu Jiewei etc., *A Study on Religious Art in Southeast Asia*, (Beijing: Peking University Press, 2019), p.29.

⁶ Da Gang, "Ancient Human and Culture in the Philippines", *Southeast Asia*, No.4, 1986.

into the urn. Therefore, the urn will be lowered into the river. It will then be filled with water. Two people would hold the two ends of the urn body horizontally while it is immersed in the water, while the third person would use an axe to strike down the widest part of the urn. This action turns the lower body of the urn up, and the third person would strike it again at the other side of the edge. The urn will then be split into two parts. The corpse was then folded, the feet placed under the cheeks, bound, covered with an urn on the upper half. The urn's cracks will be sealed with wax or rosin. The rim of the urn will be tightly covered with a porcelain bowl, and the jar is coated with a colloidal liquid. A small hole will be chiselled at the bottom of the urn, and a bamboo tube is placed in it so that the liquid of the corpse could flow out. After a few years, the body melts away, leaving only the bones. A ceremony is then held at a chosen day to open the urn containing the body or bones. The bones would then be washed and be placed inside a smaller urn before burying it in the tomb.¹

Urns decorated with dragon motif that are recorded in *Dong Xi Yang Kao* 东西洋考 are the products of Cizao kiln. However, on the Jepara Wreck, a *Qingbai* burial urn made in Dehua kiln was found. This is a restored porcelain urn after being broken, no photos were published. The only record is that is served as a funeral container and it is decorated with carved fish scale.² This is the only *Qingbai* burial urn found on all the shipwrecks and underwater sites. There are two possible reasons for the limited number of *Qingbai* burial urns. Firstly, the raw materials for the production porcelain were limited. It was difficult to fire large pieces of *Qingbai* ware during Song dynasty, and the technique was not improved until Yuan dynasty. Secondly, although the custom of urn burial was preserved in some areas until the 16th century, it gradually declined in the Yuan dynasty of the 14th century, and the export of large pottery pots and urns was more likely to be used for other purposes. In addition to the aforementioned uses related to burial, more urns or jars were noble storage container in the daily life of the indigenous people. It can be used to collect precious clothing, and gold and silver treasures as well as being used as a wine storage or banquet container for celebrations.³

From May 1958 to June 1961, 1,300 Tagalog tombs were excavated at 11 burial sites in Calatagon, Batangas. A total of 1135 pieces of foreign export ceramics from South China, Siam and Annam were found, of which 80% came from China. In the tombs, porcelain bowls and dishes were found to cover the mouth, throat and pubic area of the corpse, which was a kind of witchcraft using porcelain to protect the safety of the deceased's descendants.⁴

¹ Zhu Jieqin, "The Spread of Chinese Ceramics and Porcelain Technology to Southeast Asia", *World History*, No.2, 1979.

² Atma Djuana and Edmund Edwards Mckinnon, "The Japara Wreck", Pei-Kai Cheng ed., *Proceedings of the International Conference: Chinese Export Ceramics and Maritime Trade, 12th —15th Centuries*, (Hong Kong: Chungwa Publishing, 2005), p.131.

³ Qiu Xinmin, *A History of Cultural Communication in Southeast Asia*, (Singapore Asian Studies Association Literature Bookstore, 1984), p. 198.

⁴ Jin Yingxi ed., *The History of the Republic of the Philippines*, (Zhengzhou: Henan University Press, 1990), p.38.

5.1.3 Ritual value of *Qingbai* porcelain

The Song dynasty lasted 319 years with 18 emperors. Although the Emperor Huizong 徽宗 Song dynasty wanted to replace Buddhism with Taoism in a very short period of time. However, Buddhism has deep roots within the society in Song dynasty the other rulers of the Song dynasty have adopted Buddhism.¹ Therefore, the scale and influence of Buddhism was still great. When the Mongols entered the Central Plains, on the one hand, they maintained the traditional Shamanism belief. On the other hand, they also accepted Tibetan Buddhism when they have conquered Tibet. In order to manage and stabilize the multi-ethnic society with the Han as the majority, the Mongolian nobles implemented the policy of recognizing the status quo and inclusiveness in religious beliefs, and tolerated Buddhism, Taoism, Islam, Christianity and others. This has thus formed a situation in which various religions and cultures coexisted and developed simultaneously in the Yuan dynasty. Quanzhen Taoism 全真道 appeared in the Jin and Yuan dynasties, and reached its peak in the Yuan dynasty. With the opportunity of Qiu Chuji(丘处机)'s westward journey to meet Genghis Khan, the Quanzhen Taoism has come into vogue.²

In Taoism, the act of offering sacrifices to the deities was called *zhai jiao* 斋醮. Before the fasting ceremony, the Taoist priests must first clean their bodies and minds, wear specific clothes and headpieces, and arrange the Taoist temple according to the theme. There were also fixed requirements for the layout of the Ashram, such as lamps, incense, flowers, fruit wine, tea, green towels 青巾, crimson seats, hanging banner (幢幡) and so on, and they must be placed in a fixed position.³ All the wares needed in the *zhai jiao* 斋醮 have *Qingbai* products unearthed (Table 16), flower vases, plates used for fruit, tea cups and incense burners. All these kinds of products are found both home and abroad. The same situation also applies to Buddhist rituals, *Baizhang Qinggui* 百丈清规 stipulates that monks must carry 18 kinds of necessities for life and practice, including porcelain products such as *jing ping* 净瓶, *bo* 钵 (bowls) and incense burners⁴; In the *Dharani Sutra*, it is said that there should be 21 types of utensils used for offering. If twenty-one types cannot be offered, the following five would suffice: perfume, flowers, incense, food and beverages, and candlesticks. Vases, candlesticks and incense burners are called *san ju zu* 三具足.

In both the Buddhist and Taoist faiths, the only purely religious object is the incense burner. On Nanhai No.1, there is a *Qingbai* incense burner with three animal feet at the bottom, which is produced in Dehua kiln. There was only one, and incomplete, but the basic shape is still visible. The origin and development of incense burner were closely correlated to the history of incense evolution. In the Song dynasty, a new type of incense was used, where it

¹ Mou Zhongjian, *Zhang Jian. General History of Chinese Religions*, (Beijing: China Social Sciences Press, 2007), pp.452, 479.

² Ibid., p.521.

³ Gang Xiangyun, "A Study on Aesthetic Problems in the Ceremony of National Culture—Taking the Taoist Ritual as an Example", *Journal of Hubei Minzu University (Philosophy and Social Sciences)*, No.3, 2020.

⁴ *Baizhang Qinggui* 百丈清规, Vol. 5, Ban Dao Ju 办道具.

could be ignited directly and placed into the ashes.¹ There were more incense burners found in the Sinan shipwreck, which were made of celadon, white porcelain, *Qingbai* porcelain. It can be inferred that incense burners were very popular products Japan and South Korea. There are three types of *Qingbai* incense burners, the first is *Qingbai* censer in imitation of archaic bronze *ding* 鼎 with stand, the second is *Qingbai* censer in imitation of archaic bronze *gui* 簋 with lotus design, and the third is *Qingbai* censer in imitation of archaic bronze *ding* 鼎 with lotus design.²

Since porcelain was a valuable item in Southeast Asia, the local people focused on the porcelain's material rather than the shape or the function when they're using these products to complete their religious ceremonies. The earlier religious beliefs in Southeast Asia include the worship of natural phenomenon, natural object, totem, ancestor and traditional gods. Southeast Asians believe that everything is spiritual, not only plants and animals, but also city walls and paddy fields.³ The Maguindanao people believed in animism, ancestor and elf worship, and they also worshipped Chinese ceramics. They believed that Chinese ceramics had some magic power, not only to cure diseases, communicate and create a harmonious relationship with gods, but also to protect them. When the Maguindanao people in Mindanao fell ill, in addition to using various herbs and praying to the gods for protection, they also used amulets with the help of Chinese porcelain. For example, when they have a cold, they wrote some scripture on an amulet, which would be placed on a *Qingbai* porcelain plate or cup. Then, they would pour water on it, and drink it. They think this is a very effective method in treating colds.⁴ In the mountains of the Philippines, residents hold religious ceremonies with rice, chestnuts and other offerings on porcelain or porcelain dishes, and tap them with their hands. The porcelain worked as a ringing bell, which they believe can invite the gods to participate in the celebration by beating the porcelain ware with a string of shells or a wood mallet.⁵ There is a similar practice in Tagbannua, Palawan. When the local aborigines removed the konjac's husks, they placed the offerings on bowls and plates, tapped them five or ten times, and called on the ghosts and gods to enjoy them as dinner (this ritual was still used in the 15th century). They believe that porcelain dishes are very expensive and have the sound of gold and stone, which is easy for ghosts and gods to hear.⁶

In Kalimantan on the island of Borneo, Indonesia, the shaman masters of the Diak tribe, used porcelain wares in all religious rituals and formal settings. The shaman master must

¹ Zhu Xirui, "The Characteristics of Song Dynasty Ceramic Smoke Incense Burners", master degree dissertation of Jingdezhen Ceramic Institute, 2011.

² Shen Qionghua ed., *Sailing from the Great Yuan Dynasty: Relics Excavated from the Sinan Shipwreck*, (Beijing: Cultural Relics Press, 2012), pp.69, 74, 81.

³ Chen, Jiongchang, "A Cultural History of India and Southeast Asia", (Taipei: Da'an Publishing House), 2005, p. 146.

⁴ Tang Xinghuang, "The Contribution and Influence of Ancient Chinese Ceramics on Foreign Social Life", *Seeker*, No.2, 1988.

⁵ Fuss, "Chinese Ceramics Discovered in the Philippines", *Research Materials on Ancient Chinese Export Porcelain*, Vol. 1, (Quanzhou: Yongchun Press, 1981), p. 57.

⁶ M. Suleiman, "Chinese Export Porcelain Unearthed in Southeast Asia", *Research Materials on Ancient Chinese Export Porcelain*, Vol. 1, (Quanzhou: Yongchun Press, 1981), p. 68.

comply with the practice of the use of porcelain. They can only use porcelain wares; other objects were prohibited, because they believe that non porcelain objects would fail to communicate with the gods. Kalimantan people often grinded the rim of Chinese celadon dishes or bottles into powder, and they take the powder as medicine. This is because Kalimantan people believed that this could cure their illness. Nowadays, kaolin is still used for medicinal purposes, and apothecaries in Jakarta use kaolin as an important formula for the treatment of dysentery.¹

Porcelain is valued by the people of Southeast Asia. It was not only a symbol of social status, but also a precious bride price in weddings and an important heritage after death. Even when disputes arose between the two villages, the gift of porcelain could also play a role in settling disputes and avoiding war.²

5.2 Customized products in Southeast Asia

This part mainly analyses four product types: *Qingbai* box, *kendi*, large plates and small jars.

5.2.1 Boxes

Strictly speaking, the *Qingbai* box is not a product specially customized for overseas markets. However, it has a large demand in both domestic and foreign markets. Due to its overseas popularity, it is not only a type of daily necessities, but also a type of feminine products that warrants an in-depth investigation. Porcelain boxes were popular in China during the Tang and Song dynasties, especially in the Song dynasty. The production and demand for ceramic boxes during Song dynasty were far higher compared to Tang dynasty. At that time, almost all the porcelain kilns in China produced such utensils. Jingdezhen kiln even had workshops that specialised in box production. A large number of *Qingbai* porcelain boxes with moulded motifs were unearthed in Dehua kiln in Fujian Province. The lid of the boxes has more than 100 types of decoration, thus, it can be inferred that there were professional workshops for making boxes and the employed specialised craftsmen to design them³. Most of the boxes unearthed from chronological tombs in China were the product of the Southern Song dynasty, as well as those *Qingbai* porcelain boxes unearthed abroad.⁴

Porcelain boxes were closely related to everyday life during the Song and Yuan dynasties. Firstly, it is used to hold women's cosmetics. Facial makeup was very popular at that time. Face directly displays human emotions; thus, women from all classes would go to great

¹ New Vision Documentary Channel, *Ceramics*, 2018, <https://www.bilibili.com/video/BV1JW411q7nd?p=2>.

² Jin Yingxi ed., *The History of the Republic of the Philippines*, (Zhengzhou: Henan University Press, 1990), p.38.

³ Fujian Museum ed., *Dehua Porcelain* (Beijing: Cultural Relics Publishing House, 1990), p. 35.

⁴ China Ceramics Association, ed. *History of Chinese Ceramics*, (Beijing: Cultural Relics Publishing House, 1987), p. 269.

lengths to do face make up in order to look presentable. There were various types of cosmetics products such as forehead yellow 额黄 (painting the forehead with yellow pigment), eyebrow Dai 眉黛 (a black dye for drawing eyebrows), tea oil 茶油, flower seed oil 花子油, red powder 红粉, lip oil 口脂, and vermilion for lip¹. The *Qingbai* porcelain boxes were used for holding these cosmetics products, thus increasing the demand. Secondly, they were used to hold spices. This was due to the development of overseas trade and the introduction of a large number of spices, which were used both in the court and among the common people. There are more than 200 records that have referenced 30 types of exotic spices in the *Song Shi* 宋史. Guangzhou was the major place for spice trade and ships specialising in spice trade named *xiang bo* 香舶 appeared. Quanzhou was also a major spice trading port, which imports more than 100,000 kilograms of spices every year.² In 1974, more than 4700 kilograms of pedunculata acronychia, aloes and sandalwood were unearthed from the Quanzhou shipwreck of the Song dynasty, accounting for the largest spices being unearthed of all unearthed relics.³ Dozens of spices from various countries require boxes to store them. This led to the production of gold, silver, jade, agate and lacquerware spice boxes as required, while porcelain boxes were cheap and have a wider audience. Porcelain boxes also have other uses, such as storing women's floral headbands, mirrors, medicine and oil for combing and washing. Even the custom of sumptuous wedding ceremonies had increased in popularity, and a wide range of porcelain boxes were also used as a woman's dowries in the Song dynasty.



Figure 26: *Qingbai* Boxes from Dehua kilns on Huahuangjiao No.1

¹ Xu Jijun, *Clothing, Food, Housing and Transportation in Song Dynasty*, (Beijing: Zhonghua Book Company Press, 2018), p. 107.

² *Song Shi* 宋史, Vol.186, *Shi Huo Zhi* 食货志.

³ Quanzhou Maritime Museum ed., *A Report on the Excavation of the Song Boat in the Quanzhou Bay*, (Beijing: China Ocean Press, 2017), p79.

With the expansion of domestic and foreign markets after the middle Southern Song dynasty (AD 1164-1207), craftsmen in Dehua kiln designed large, medium and small boxes, which was known as *Zi Mu* 子母 boxes (large boxes with small boxes in it). There were other shapes including circular, octagonal and Chrysanthemum petal shapes¹ in order to meet the variety of demands from different customers. The export of porcelain wares had various designs including lotus petal, lotus, peony, chrysanthemum, cloud, phoenix and grass leaf motifs. Some of them also have inscriptions with auspicious characters.

A large number of *Qingbai* porcelain boxes were found on the shipwrecks of the Song and Yuan dynasties. Evidently, they were a popular ware in the overseas market. Hundreds of pieces were found on the Pulau Buaya shipwreck, with only two that were complete with covers. The others only consist of either just the box or the cover. Of the two complete wares, one is in a shape of a pumpkin or mangosteen (Figure 27). The *Qingbai* glaze encompasses the lid and the lower part to the edge of foot. The other is an octagonal (Figure 28) shaped box with a moulded floral design under a *Qingbai* glaze. There are five characters on the base of both boxes, moulded in relief which read “□ □ 合子记 Hezi Ji” and “陈家合子记 Chen Jia Hezi Ji” respectively. The first two characters of the pumpkin shaped box are unreadable but it would be the name of a family. Similar boxes were found with numerous inscriptions. Typically, the inscriptions would be the family’s name that produced or commissioned the boxes along with a description of the shape of the object. This suggests that there were a number of small workshops that specialised in one particular type of ware, possibly for export.

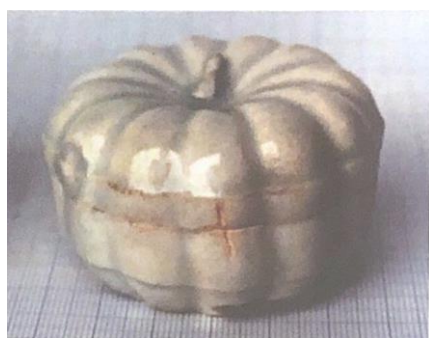


Figure 27: Box on Pulau Buaya Wreck

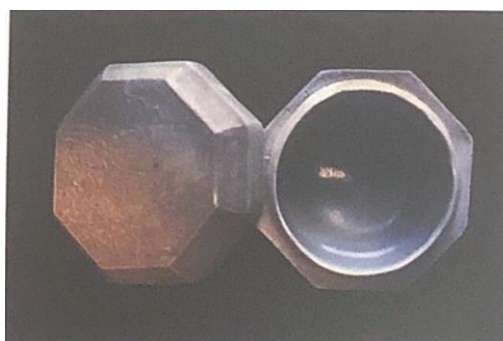


Figure 28: Box on Pulau Buaya Wreck

There were 158 *Qingbai* boxes from the wreck of Huaguangjiao No.1 in total. The boxes’ common features are two sections with straight sides, moulded floral or grass designs on the lid. The entire piece is under *Qingbai* glaze except the edge and foot. These *Qingbai* porcelain boxes are similar to the products made in Dehua kiln during Song dynasty in Fujian Province and can be divided into three types. The first type is a circular box (Figure 26), which is has an asymmetrical shape, gently carved sides and a flat top and base. This is usually referred to as chrysanthemum petal box, because the patterns of the outside wall look similar to chrysanthemum petals. The top section is decorated with a floral design and

¹ Fujian Museum ed., *Dehua Porcelain*, (Beijing: Cultural Relics Publishing House, 1990), pp. 35-47, 97-107.

the sides of both sections are densely lobed. The box and cover have been covered with a *Qingbai*-tinged, heavily crackled glaze, except for the base which is unglazed. There are 155 pieces of such box found.¹

The second type is similar to those found on the Pulau Buaya shipwreck. It is a popular form, which has been variously described as a squash or pumpkin. The piece is fully glazed except for the base which turned reddish at the edges during the firing process. The third type is the octagonal powder box; only one was found and it is incomplete. The body colour is greyish white and with *Qingbai* glaze. The surface of the cover is embossed with peony flowers, and the design for the side is a circle of twisted-branch flower leaf motifs (Figure 29).²



Figure 29: Box on Nanhai No.1

The *Qingbai* porcelain boxes found on Nanhai No.1 is larger in terms of both the quantity and the variety. It can be categorised into five different types of shapes. The first type is *Qingbai* glazed octagonal powder box (Figure 30) what is very close to a circular shape. The body is inclined and straight, with a concave bottom. The unglazed underside is solid and is white in colour. The surface of the cover is stamped with a group of double-circle string motifs. The inside circle is stamped with a four-petal flower pattern and the outside circle is stamped with four groups of curly grass designs. The diameter of the box is 9.9 cm and the height is 2.4 cm.

¹ Underwater Archaeology Centre, National Museum of China, Hainan Provincial Cultural Relics Protection and Management Office, ed., *Xisha Underwater Archaeology 1998 ~ 1999*, (Beijing: Science Press, 2006), p. 103.

² Underwater Archaeology Centre, National Museum of China, Hainan Provincial Cultural Relics Protection and Management Office, ed., *Xisha Underwater Archaeology 1998 ~ 1999*, (Beijing: Science Press, 2006), pp. 103-111.



Figure 30: Box on Nanhai No.1



Figure 31: Box on Nanhai No.1

The second is a *Qingbai* glaze box used for storing powder with a circular shape (Figure 31). The surface of the box cover is moulded with a floral motif, and the unglazed underside has a white solid body. The inner side of the boxes remained unglazed.

The third is the *Qingbai* glazed powder box with various heights. The circular taller powder box (Figure 32) has a much smaller cover than the body, the entire box including the cover is shaped like a melon. It has a circular top and bottom with a width of about 0.6 cm 0.7 cm wide respectively. It has a white solid body with *Qingbai* glazing. However, the glaze in its inner wall and bottom is incomplete. The cover surface is moulded with three layers of eight-petal flower, and the inner part also has a flower pattern. The diameter of the top and bottom is 6.9 cm and 4.8 cm respectively, and the height is 5.4 cm. The other porcelain box (Figure 33) has the same appearance as the first one, but it has a longer diameter, and it also has more exquisite decoration on the surface of the porcelain. The whole piece is under *Qingbai* glaze including the inner side, but the outer bottom is not glazed. The cover is printed with a phoenix flower motif in the centre and three groups of bat pattern along the cover. There are embryo marks on the bottom of the cover. The top and bottom diameter is 9.9 cm and 8.3 cm respectively and the height is 5.2 cm.



Figure 32: Box on Nanhai No.1



Figure 33: Box on Nanhai No.1

The fourth type of the *Qingbai* box (Figure 34) is *Zi Mu* 子母 boxes (large boxes with three small boxes). The whole piece is under *Qingbai*-tinged glaze including the inner side. The bottom centre is slightly concave. The porcelain body is white and solid. There is a circle of lotus pattern outside wall. The box is divided by lotus and branch design into three compartments. A small cup is stuck in the middle of each part. The diameter of the top and bottom is 15.3 cm and 8cm respectively and the height is 3.5 cm.



Figure 34: Box on Nanhai No.1



Figure 35: Box on Nanhai No.1

The fifth type of the *Qingbai* box (Figure 35) on Nanhai No.1 shipwreck has a circular shape with vertical stripe on the outside wall. The edge of the cover surface is slightly bulged, and the outside centre of the cover is concave. The entire body of the box is glazed except the bottom. The top and bottom diameter of the box is 3.8 cm and 2.7 cm respectively, and the height is 2.2 cm.

The chrysanthemum petal box is similar to the *Qingbai* chrysanthemum petal box collected by Taipei Palace Museum. Both should be produced in the Jingdezhen kiln during the Song dynasty¹. Similar artifacts can be found at archaeological sites in South Sulawesi². In Borneo, a porcelain box from the 陈家合子记 Chen Jia He Zi Ji³ was also unearthed (Figure 36). In the Sutra Tombs of Japan from the late Heian period to the Kamakura period (AD 784-1333), the porcelain boxes of the Song dynasty from Wanpinglun kiln in Dehua were unearthed in Nagasaki, Saga, Ehime, Tokushima, Yamaguchi, Osaka, Kyoto, Wakayama, Shizuoka, Nagano, Kanagawa and Saitama. This means that the porcelain box was a best-selling product at that time.⁴ It is not clear how the large number of *Qingbai* porcelain boxes unearthed abroad were used. Most of the *Qingbai* porcelain boxes

¹ Hu Shuyang, "Ceramic Trade between China and Southeast Asia in the Song Dynasty: Focusing on the Pulau Buaya Wreck", ed. *China Navigation Museum, Ocean and People: The Ocean World of the Chinese*, (Shanghai: Shanghai Classics Publishing House, 2014), pp. 48-67.

² Abu Ridho & E, Edwards McKinnon, *The Pulau Buaya Wreck: Finds from the Song Period*, (Jakarta: The Ceramic Society of Indonesia, 1998), p. 60.

³ China Ceramics Association, ed., *History of Chinese Ceramics*, (Beijing: Cultural Relics Publishing House, 1987), p. 269.

⁴ China Maritime Museum Professional Committee of China Museum Association, Shanghai China Maritime Museum ed., *Ren Hai Xiang Yi 人海相依: Chinese Ocean World*, (Shanghai: Shanghai Classics Publishing House, 2014), p. 19. Tokyo National Museum ed., *Special Exhibition on Ancient Chinese Ceramics Unearthed in Japan*, 1975.

unearthed in Japan were found in sutra tombs. A sutra tomb has written sutras being placed inside a cylinder before being buried underground. This is the practice of protecting the scriptures so that they can be passed onto the world forever, and also praying for oneself or for the souls of ancestors. While most of the *Qingbai* boxes were found in domestic tombs in Southeast Asia, their uses were obviously different.

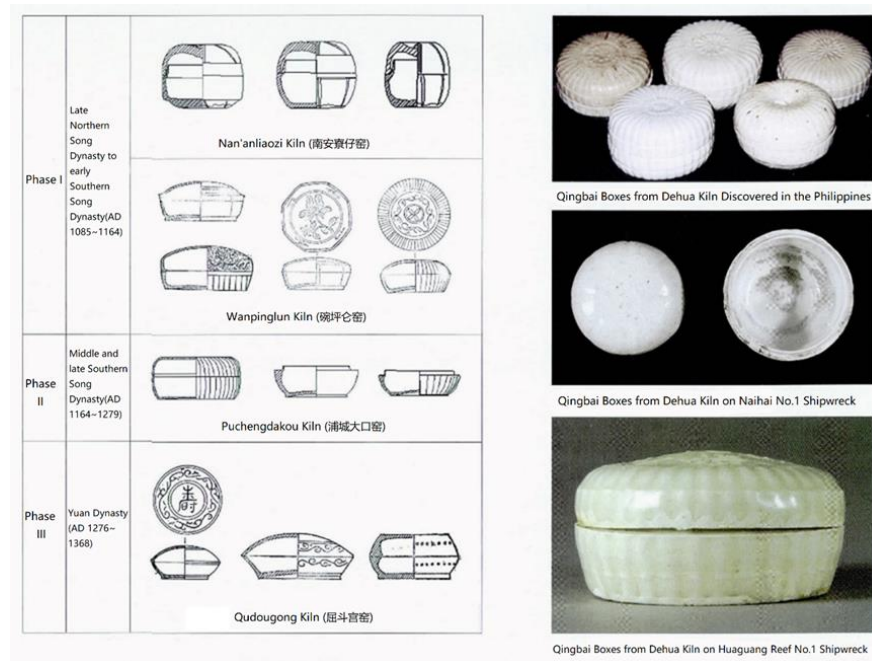


Figure 36: *Qingbai* Boxes Produced in Dehua kilns in Different Periods¹

The sizes for porcelain boxes specifically designated for export are different. The earlier markets were mainly in Southeast Asia, Manila in the Philippines and Java, Indonesia. Some porcelain boxes were used for containing spices or women's cosmetics products exactly like how the people used it during the Song dynasty in China. The powder box was a popular feminine product, and the reason behind this is thought-provoking. The analysis has shown that one of the factors affecting the rise of porcelain boxes popularity in the Song dynasty was the women's status. Generally speaking, women in Asia have a lower social status. However, the social status of women varied across different historical stages. Scholars generally believe that women status was at its peak during the Sui and Tang dynasties (AD 581-907) in ancient China as evidenced by the presence of Empress Wu Zetian 武则天 (AD 624-705). Although in the Song dynasty, where men were considered superior to women, women had certain rights, such as divorce and remarriage, property inheritance and family management.²

Early Confucian classics prescribed strict gender segregation in physical and functional terms. The canonical statement was that "men should manage the outside; women manage

¹ Liu Xiuping, "Qingbai Porcelain Boxes from Fujian during the Song and Yuan Dynasties", *Fujian Wenbo*, No.2, 2013.

² Feng Luyuan, *Research on Qingbai Porcelain Box of Jingdezhen in Song Dynasty*, master degree dissertation of Jingdezhen Ceramic Institute, 2015, p. 44.

the inside”, which was reiterated by Confucian revivalists in the Song dynasty for the sake of reconstructing an orderly society after the tumultuous Five Dynasties era. Although recent scholarship has largely explored the complexity of women’s lives in the inner quarters in the Song dynasty, in reality, there was never a unified and dominant ideology of female seclusion or confinement at that time.¹

Against the traditional Confucian idea, women in the Song dynasty did not only stay at home but they were able to venture outside and engaged in a variety of occupations. In Quanzhou of Song dynasty, besides the peasants, officials, nobles and scholars, there was also a very special group, the women that were participating in the seaborne trade. Jacob, an Italian Jew, has made references to these women in the book *City of Light*², and some of them even sailed to Java to trade. This is remarkable and anti-traditional. However, under the inspiration of strong commercial atmosphere and values, Quanzhou women were not willing to show weakness and bravely devoted themselves to business. This made me suddenly understand the case of two Quanzhou women that became rich that was mentioned by Li Guangjin 李光縉 during his work of mercantilism. He have always been curious why Sima Qian 司马迁 did not made any references to chaste women in the biography but put the women biography together with merchants, that may because women can also make money and become celebrities.³

There are also a number of women who work as middlemen and brokers. The eighth year of Zhenghe 政和 (AD 1118), there was a man named Meng Guangwei from Hubei. His wife gave birth to a boy, eager to find a postpartum nurse, who must be a beautiful woman. Meng invited the Ya Kuai 牙侩 to fulfil this request with the assistance of the woman brokers 女侩, and they finally found a postpartum nurse in line with the standard of Meng.⁴ In the lower-class families of Lin’an 临安 city, there was a preference of giving birth to a girl because she could be taught with skills in accordance to her appearance and quality⁵. These girls could earn money by singing, dancing, performing musical instruments, embroidery, cooking, tea art, painting, reciting poems and storytelling. Such women were called Nu Ji 女伎, and they usually have a variety of talents and skills. Li You 李攸’s *Song Chao Shi Shi* 宋朝事实 records that there was a very popular women’s sport in the city at that time, which was *da lvqiu* 打驴球, which means hitting a ball while riding on a donkey. More than 100 women were divided into two teams. They would hold a painted stick while riding a donkey to hit the ball. This sport is very similar to today’s polo in terms of clothing, venues to competition rules.

¹ Man Xu, *Cross the Gate: Everyday Lives of Women in Song Fujian (960-1279)*, (New York: State University of New York, 2016), p.8.

² Jacob D’Ancona, *The City of Light*, translated and ed. by David Selbourne, (London: Kensington Publishing Corp., 2003), 127.

³ Li Guangjin 李光縉, *Jing Bi Ji* 景璧集, Vol.11.

⁴ Yi Yongwen, *The daily life of citizens in the Song Dynasty*, (Beijing: Chinese Gongren Publishing House, 2018), p.6.

⁵ *Ibid.*, p.43.

The status of women in Southeast Asia was higher than the general perception. The contribution of women in Southeast Asia to the economy and the public sphere was greater than that of women in other pre-industrial societies in history, which is a direct contradiction to the highly patriarchal orthodoxy of Asian civilizations. Until the 19th century, women in Southeast Asia enjoyed the same economic status as men, so they had a wider range of activities and greater rights than women in Europe, China, India and Arab countries. They monopolised the production of textiles and ceramics, shared the agricultural duties with men (in which they dominate planting, harvesting and foraging) and most importantly, did most of the work in markets and commerce. Such phenomenon occurred precisely because of the maritime trade activities during the AD 1000-1400, where Asian women would venture out from their traditional role as housekeeper and engaged in maritime trade and related industries, which improved their social status. Women occupied high positions in early Philippines society, and there were tribal rules and customs that state both women and men are equal. Women could own and inherit properties as well as getting involved in industry and trade. If a viceroy has only daughters, then the daughters can inherit the position of chief and rule the whole of Barangay.¹

In summary, the discoveries of *Qingbai* porcelain boxes in China, shipwrecks and various countries and regions in Southeast Asia and East Asia show that porcelain boxes were in great demand. In Japan, it was used to contain Buddhist scriptures, and in China and Southeast Asia, in addition to be used as an everyday storing utensil, porcelain boxes were a type of feminine product. The varieties of women's cosmetics indicated a relatively high social status of women. Regardless the Song dynasty of China or in Southeast Asia, women can venture out of their homes and engaged in commercial trade or industrial production. They are wise and capable, creating their living space as they desire and their existence was significant within the patriarchal society.

Big plates and bowls

According to Singaporean scholars' study, Southeast Asians in the Middle Ages waited for the arrival of Chinese ships to exchange goods such as silk, porcelain and iron pots carried by Chinese ships. The porcelain they exchanged varied according to their needs. Most of them are large plates, large and small bowls, wine sea, small jars, water bottles and water storage pottery urn and so on, especially the large plates are most valued. Because there are no tables and chairs in Southeast Asian banquets, rice with yellow ginger is placed in a large plate on the ground, and according to the size of the plate and the number of visitors, four or eight people sit around the ground and rub the rice into a ball with their hands to eat. However, this kind of large plate is mostly in the hands of the headman, which was borrowed by civilians at banquets and returned after the banquet. Therefore, most of the

¹ Li Mou, ed., *Collection of Historical Materials of Southeast Asian Ancient History*, Vol. II, (Beijing: Thread-Binding Books Publishing House, 2021), p.221.

porcelain unearthed in Southeast Asian countries are large plates and small bowls.¹ In order to meet the requirements of Southeast Asians at that time to use large bowls and large plates as the main tableware, many kilns in Quanzhou area designed all kinds of super-large bowls and plates, large bowls produced by Dehua Wanpinglun kiln, the calibre of which is mostly between 25 and 30 cm, some even more than 30 cm, and the calibre of large plates is more than 25 cm, which is rare in domestic kilns.

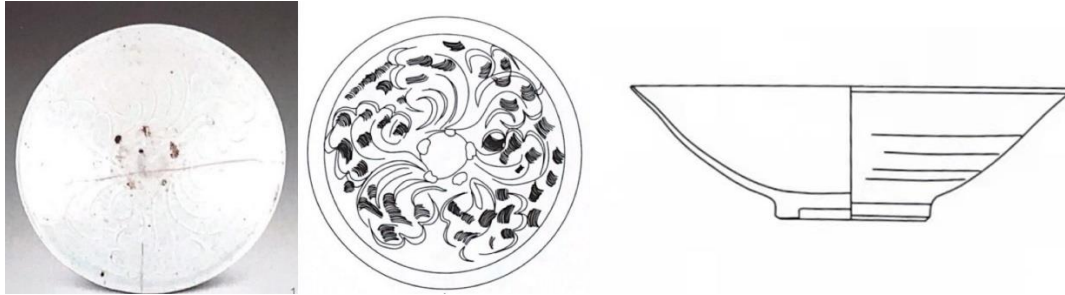


Figure 37: Open Mouth Plate on Nanhai No.1

The Chinese porcelain body was fine and smooth, the glaze colour was transparent, the sound was clear and crisp, as an eating utensil to hold food and beverages. It does not change the taste of food like the plant utensils, and the surface of the porcelain utensil is fine and smooth, easy to clean, could effectively prevent bacteria breeding. Porcelain was superior to other materials made of eating utensils, so as to improve people's quality of life. Therefore, porcelain eating utensils are highly respected by people in Southeast Asia, gradually replacing the original natural plant stems and leaves and earthenware utensils and becoming a new type of local popular utensils. On the Nanhai No.1, there are a large number of big *Qingbai* plates from the Dehua kilns, which with a calibre of more than 30 cm. Since the height of those big plates is around 8-10 cm, they are also called big bowls. According to the characteristics of the mouth can be divided into three types: open mouth (Figure 37), contracted mouth (Figure 38) and folded mouth (Figure 39) plates.



Figure 38: Contracted Mouth Plate on Nanhai No.1

¹ Qiu Xinmin, *A History of Cultural Communication in Southeast Asia*, (Singapore Asian Studies Association Literature Bookstore, 1984), p. 198.

Before the spread of Chinese ceramics to Southeast Asia, the local people's dietary utensils mainly relied on local natural gifts, using the stems, leaves and shells of tropical plants for simple processing. *Zhu Fan Zhi* 诸藩志 recorded that the people in Sujidan 苏吉丹 (now central Java) did not use utensils to eat and drink, but used palm leaves or bamboo-woven container to do it, and discarded them after eating.¹ Only in some of the more developed areas of the upper class, can metal materials be used, such as gold and silver, copper and tin containers of food. In Cambodia, people use some crude earthen vessels. When cooking, they used an earthen kettle, and when making a thick soup, they used an earthen bowl. Three stones are buried in the ground for the stove, coconut shells are used as scoops, and Chinese earthen plates are used to hold the rice.² It is also recorded that the people of Wenlang Mashen 文郎马神 (now the Machen area in the south of Kalimantan Island, Indonesia) always used banana leaves as containers for food, and later began to use ceramic tableware after trading with the Chinese.³ In Borneo, local kilns provide residents with drinking and boiling vessels and containers, while food and wine vessels are imported from China, including bowls, cups, pots, plates, bottles, as well as various vessels, especially large pots and boxes, as containers for vegetables, fruits, sauces, wine, spices, tea and so on during the Song and Yuan dynasties.⁴



Figure 39: Folded Mouth Plate on Nanhai No.1

Kendis

Kendi is a transliteration of *kundikā* in Sanskrit, meaning water bottle. It was originally a kind of daily life utensil of the Indian nation, used not only by Buddhists, but also by Brahmins. However, there is no detailed description of the shape and usage of the military support in the Indian Buddhist scriptures, only in the commandments in the scripture *Gen Ben Shuo Yi Qie You Bu Pi Nai Ye* 根本说一切有部毗奈耶, which stipulates that no dirty hands should be used to hold the water bottle.⁵ The earliest detailed description of the *kendi* is by the monk Yi Jing in the Tang dynasty, he put forward in the *Nanhai Ji Gui Nei*

¹ Zhao Rushi 赵汝适, *Zhu Fan Zhi* 诸藩志, Zhi Guo 志国, Su Ji Dan 苏吉丹, Deng Liu Mei 登流眉, Bo Ni Guo 渤泥国.

² Zhou Da Guan 周达观, *Zhen La Feng Tu Ji* 真腊风土记, Qi Yong 器用.

³ Zhang Tingyu 张廷玉, *Ming Shi* 明史, Vol.323, Wai Guo Si 外国四.

⁴ Dai Guohua, "A Summary of the Study of Ancient Ceramics in Southeast Asia", *Journal of Maritime History Studies*, 1990, No.1, p.69.

⁵ *Gen Ben Shuo Yi Qie You Bu Pi Nai Ye* 根本说一切有部毗奈耶, Vol.5, Dazheng Zang 大正藏, Vol. 23.

Fa Zhuan 南海寄归内法传¹ that there are two kinds of water, *jing* 净 (clean, pure) and *chu* 触 (touchable); the *jing* bottles, that is, *kendi* is made of pottery or porcelain, the *chu* bottles made of copper and iron. *Kendi* must be placed in a clean place, hands should be very clean when taking, the *chu* bottles can be taken at will. Many words in Buddhism are preceded by the word *jing*, such as those who serve monks and nuns named *jing* people (净人), and the meat that monks and nuns can eat is *jing* meat (净肉), so *kendi* initially represents a religious pursuit of pure in Buddhism.



Figure 40: *Kendi* on Nanhai No.1

The greatest characteristic of the *kendi* is that it has no handle. The earliest *kendi* found in China was from the Sui dynasty, developed greatly in the Song and Yuan dynasties, and was still visible in the Ming and Qing dynasties. The small mouth on the top of the *kendi* in Tang dynasty was used for drinking water, while the mouth on the shoulder was used for catching water. This shape had a great change in the Southern Song dynasty, the top of the bottle mouth shortened and thickened, became a place to add water, the shoulder mouth became a water outlet, more like a slender tubular flow. The scope of use is more extensive, *kendi* had three main uses at that time. The first is as a water reservoir for monks and nuns to drink water from or wash their hands, which emphasises the great attention needed to the cleanliness of water quality. Second, the *kendi* is also a Buddhist instrument. In the hand of a statue of Guanshiyin Bodhisattva in Southern and Northern dynasties, preserved in the Sichuan Museum, there is a *kendi*. In addition, the *kendi* became a dharma-vessel in Buddhist rituals, placed on the altar. By the Southern Song dynasty, the function of the net bottle began to secularize, not only as a Buddhist vessel, but also as a vase, ordinary people sometimes arrange flowers in the *kendi*.

Later, *kendi* was also widely used by Muslims, who used it to clean their hands before reciting the Koran. During the Song and Yuan dynasties, Islam has spread in Southeast Asia. Islamic culture gradually became the dominant local culture, and Muslims in Southeast Asian countries needed to use *kendis* in religious activities. To meet the demands

¹ Yi Jing 义净, *Nanhai Ji Gui Nei Fa Zhuan* 南海寄归内法传, Vol.1, Liu Shui You Er Ping 六水有二瓶, Dazheng Zang 大正藏, Vol. 54.

of overseas purchasers, the Chinese at first made *kendi* of stoneware and later of porcelain¹, Dehua and Jinjiang Cizao kilns produced large quantities of *kendis* for export.

Indonesians also like Chinese *kendis*, which are easy to drink and carry. Muslims use water many times a day, such as washing their hands before prayers and after meals. It is also a good tool for storing fresh water at sea.² Mountain residents in Southeast Asia use split bamboo to bring clear spring water from mountain streams to their homes, while coastal and riverside residents have to drink river water, while some small island residents mainly drink well water. It is worth noting that Southeast Asians drank raw water until the 17th and 18th centuries. Pure water is their daily drink; They only like to drink natural water. Because when the flood recedes, there will be many corrosive substances, which can cause dysentery and diarrhoea if drunk. The river water should be put in a jar or a water tank for three weeks or a month before it can be safely drunk. Adding lemon, cinnamon, cardamom and other spices to the water, which is popular elsewhere, is not likely to be antibacterial. It is more common to let water settle in clay pots, which improves the purity and taste of water, but does not mean that it is hygienic and healthy.³

Small jars and bottles

Another form commonly found in the Philippines and Indonesia, but not much in China, is the jarlet (small jars)⁴. These jarlets come in various forms-globular or cubical with two, three or four rings on their shoulders. This kind of jarlets were found on the Nanhai No.1 in a great number. They all from the Dehua kilns.

There is a long history of the firing of the jar with rings. In the Majiayao Relics and Banshan Relics of Yangshao culture (5000~3000 BC) in the Neolithic Age, there have been painted pottery jar with rings. In the middle of the Shang Dynasty (about 1600~1046 BC), the original porcelain jars with rings were first made. Mature porcelain jars with rings appeared in the Han dynasty (202 BC-AD 220). During the Southern and Northern dynasties (AD 220-589), the volume of jar production increased greatly, and jar with double rings, four rings, six rings, eight rings and ten rings appeared. They continued to be produced in large quantities in the Sui and Tang dynasties. The output of those jars with rings during the Song and Yuan dynasties was relatively reduced.⁵ The Sui four-series pot was first found in the tomb of Buren in Xiaotun Village, Anyang, Henan Province, and then unearthed in other areas of Henan Province and Shaanxi, Hebei provinces, but rarely found in the tombs of the Sui dynasty in the south, scholars believe that it belongs to the

¹ B. Groslier, "Introduction to the Ceramic Wares of Angkor", *Khmer Ceramics, 9th-14th Century*, (Singapore: Southeast Asian Ceramic Society, 1981), p.14.

² Kong Zhiyuan, "Cultural Exchange between China and Indonesia from the Perspective of Chinese Ceramics in Indonesia", *Southeast Asia*, No.3, 1990.

³ Anthony Reid, *Southeast Asia in the Age of Commerce 1450-1680*, Vol. 1, (New Haven: Yale University Press, 1988), pp.37-38.

⁴ Adhyatman, S., *Antique Ceramics found in Indonesia*, (Jakarta: Nusantara Jaya Foundation, 1990) p.250.

⁵ Xu Shaoyin, Xu Ke ed., *Chinese Ceramic Dictionary*, (Beijing: China Wen Shi Press, 2013), p. 274.

northern celadon type and is a kind of utensils that northerners like to use.¹ In the Song and Yuan dynasties, kilns in the coastal areas of Fujian produced a kind of jar with four rings, with a rolled mouth, a short neck, four rings on the shoulders, and the porcelain body were thick, which was also unearthed in the tombs of the Song and Yuan dynasties in Fujian.²

Many Jingdezhen *Qingbai* porcelain jars of the Yuan dynasty have been unearthed in the Philippines, South Korea and Malaysia, among which the small glazed jars decorated with stippling and bead strings are not common in domestic excavations, and this type of products seemed to be specially produced for export.³ It is hard to understand what such small jars and bottles were for. The small jar from the Shazhoudao Wreck is 7.7 cm high, 5.2 cm in diameter at the bottom and 5.3 cm in the mouth diameter. While those small jar with four rings on Nanhai No.1 are little bigger. The height of the biggest one is 16cm and the diameter of its shoulder is 12.2 cm on the Nanhai No.1, most of the others are more like the size of those on the Shzhoudao Wreck.

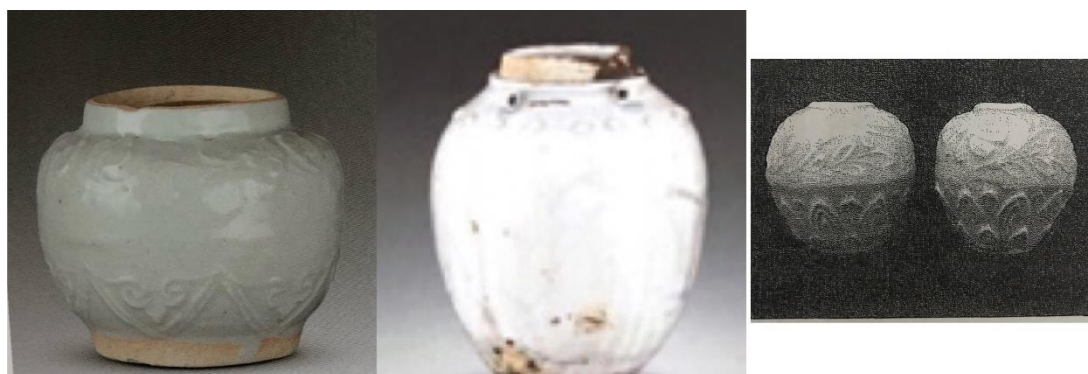


Figure 41: Small Jars from Shazhou Wreck, Nanhai No.1 and Jepara Wreck

At the same time, there also a lot of small vase-like bottles (Figure 41). Those s of small bottle can be seen on the Breaker Shoal Wreck, Huangjiao No.1 the height is around 10cm and he diameter at the largest point is 7 cm.

Surviving examples found in Philippines and Indonesia were in both plain and decorated varieties. Those small jars and bottles may use for preserving fruits and vegetables, sauces and wine, spice and tea and above all medicine and ointment⁴.

5.3 Influence on overseas ceramic technologies

With a large number of Jingdezhen porcelain sold all over the world in the Song dynasty, the technology of making porcelain also affected other countries in the world. An important event that affected the overseas ceramic technology was the establishment of the Yuan dynasty by the Mongols, who expanded their territory on a large scale. From 1321 to

¹ Silicate Society of China, *History of Chinese Ceramics* (Beijing: Cultural Relics Press, 1982), p. 188.

² Ibid., p.308.

³ Ibid., p. 338.

⁴ Ibid., p.39.

AD 1323, during the reign of Emperor Yingzong 英宗 of the Yuan dynasty, the whole country was divided into 13 administrative regions, one Central Region 中书省, one Bureau of Buddhist and Tibetan Affairs 宣政院辖地 and 11 provinces 行中书省. The territory of the Yuan dynasty was unprecedentedly vast, breaking many geographical restrictions and obstacles. The Yuan government set up Liaoyang Province 辽阳行省 in the northeast, with jurisdiction reach furthest over Guwei (骨嵬, now Sakhalin Island), and Zhengdong Province 征东行省 in Goryeo (Korea Peninsula) in the east. The northern frontier was in the Mongol Khanate of Kipchak (AD 1219-1502), govern today's Central Asia and southwest Russia; Chagatai Khanate (AD 1227-1369) was set up in the west, reach furthest to the Amu Darya. The southern frontier reached the Penghu Xunjian Si 澎湖巡检司 (Penghu Military Inspectorate), which was today's Taiwan and Penghu areas, and the southern frontier extended to today's Hainan Island and the South China Sea Islands, which were under the govern of Jiangxi Province 江西行省. Such a large-scale expansion of the territory promoted the flow of personnel and the exchange of technology between regions.

According to Thai documents, in the late 13th century, the Sukhothai Kingdom (AD 1238-1438) asked the porcelain craftsmen of the Yuan Empire to teach the craft of making porcelain.¹ In the twenty-sixth year of the Zhiyuan 至元 (AD 1289), the sixth year of the Zhenyuan 贞元 (AD 1295) and the third year of Zhizhi 至治 (AD 1323), the king of Sukhothai sent emissaries to the Yuan Empire many times, bringing back many silk and porcelain awarded by the Chinese emperors, as well as some ceramic craftsmen.² Around AD 1292, Thai celadon, iron red glazed porcelain and creamy white glazed porcelain were fired in Sukhothai (the capital of Sukhothai Kingdom), Kalong and Sawankhalok kilns.

In the Tang and Song dynasties, Vietnam, known as Jiaozhi 交趾 or Annan 安南, was the only way for China's export routes. Moreover, in history, Vietnam has been intermittently under the jurisdiction of China since the Western Han dynasty until AD 968, when it entered the period of independence and autonomy. When during the Li dynasty (AD 1010-1225), Vietnam's ruling institutions and management systems were modelled on China's. In AD 1274, the Mongolian army invaded the Song dynasty, the Song army retreated, and tens of thousands of Song people came to Vietnam. In the late Southern Song dynasty and the Yuan dynasty, due to social unrest and war, some Song and Yuan people fled to Vietnam. Chinese immigrants to Vietnam have a long history and a large number of people, and have made important contributions to the social, economic and cultural development of Vietnam. At that time, the Li dynasty and Chen dynasty (AD 1225-1400) of Vietnam also allowed Chinese to gather in the capital of Shenglong 升龙 (Hanoi), and allowed them to set up markets, sell traditional Chinese medicine products, set up porcelain workshops, and teach local people how to make porcelain. Therefore, the Chinese style of porcelain making has an influence on Vietnamese porcelain's modelling and firing.

¹ Feng Xianming, "Chinese Porcelain Unearthed in Malaysia, Thailand and the Philippines", *Collection of Papers on Ancient Chinese Ceramics by Feng Xianming*, (Beijing: Forbidden City Press, 1987), p. 332.

² *Yuan Shi* 元史, Wai Yi Zhuan 外夷传, No.3, Xian 暹.

The white porcelain fired in Li dynasty and Chen dynasty is not pure white. During the Li dynasty, wood ash was used to make glaze, and the glaze colour was usually ivory, which was the oxidation effect of iron contained in the glaze. During the Chen dynasty, the iron content in the glaze was slightly higher, about 2%. However, because it was fired in a reducing atmosphere, the glaze was bluish, similar to the *Qingbai* porcelain of Jingdezhen. Generally speaking, the products with bluish glaze in Vietnamese porcelain were deliberately imitating the *Qingbai* porcelain of the Yuan Dynasties, and their shapes and decorations are also similar with *Qingbai* wares.¹

Mongolians and Koreans in East Asia have a special love for white. Taking clothes as an example, *Shi Zu Shi Lu* 世祖实录 of the Joseon dynasty (AD 1392-1897) records that people in the Yuan dynasty and Koreans like white clothes, people in the Ming dynasty like to wear black, and Japanese like to wear cyan.² White porcelain of Goryeo was produced in the 10th century, but the glaze colour is greyish-green, strictly speaking, it is not a real white porcelain. In the 12th century, the technology of white porcelain was mature, and some glazes were bluish white, similar to Chinese *Qingbai* porcelain. The shape of some plum vases and plates are quite similar to Chinese *Qingbai* ones (Figure 42 and 43).

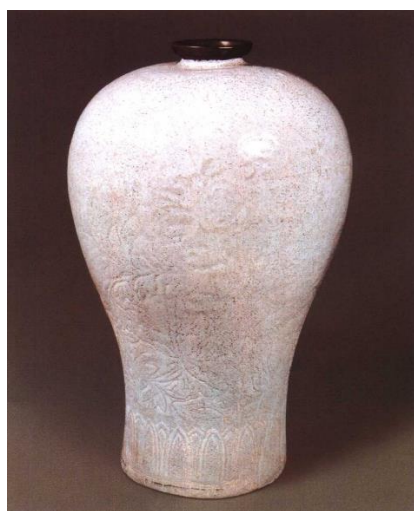


Figure 42³: 12th White Glazed Plum Bottle of Goryeo



Figure 43⁴: White Glazed Plate of Goryeo

¹ Lim Yah Chiew, "Song and Yuan Dynasties *Qingbai* Wares and Its Influence on Vietnam White Wares", *A Study on Qingbai Porcelain*, (Beijing: Palace Museum Press, 2015), p.261.

² *Li Chao Shi Lu* 李朝实录, *Shi Zu Shi Lu* 世祖实录.

³ Collected by Seoul National Central Museum.

⁴ Private collection.



Figure 44: Grey Glazed Plum Bottle from Seto kiln



Figure 45: *Qingbai* Plum Bottle from Jingdezhen kiln

With the introduction of a large number of Chinese Dehua white porcelain and Jingdezhen *Qingbai* porcelain in Japan in the 12th century, Seto kiln began to imitate and produce four-ear pots, boxes, the holding pot and other artifacts with the Northern Song dynasty style. However, at the end of the 12th century, the Kamakura period (AD 1185-1333), Japanese craftsmen began to change into products imitating the style of the Southern Song dynasty, producing a large number of four-ear pots, plum bottles, the holding pot, which are also the three commendable types of Seto kiln, mainly imitating the white porcelain and *Qingbai* porcelain of Jingdezhen, China. For example, the plum bottles with grey glaze painting patterns collected by Aichi Ceramic Museum (Figure 44) and the plum bottles with *Qingbai* porcelain *tang zi tang* 唐子唐 grass patterns produced in Jingdezhen (Figure 45), China, collected by Kyoto Museum have no difference in shape, and the patterns are also expressed in the way of engraving, with obvious traces of imitation. The ewer is also the main style of popular at this time, with flow in front and handle in back, which is a water or wine container. A 14th century grey glazed ewer collected by Aichi Ceramic Museum (Figure 46) is basically the same as the *Qingbai* porcelain holding pot produced by Jingdezhen Kiln in the Southern Song dynasty unearthed from Guanyin Temple, Taizai Prefecture, Fukuoka Prefecture (Figure 47).¹

At that time, in the glazed pottery made by Arabs and Persians, the glaze colour imitated the white and *Qingbai* porcelain from the Ding kiln and the Jingdezhen kiln. In the past 80 years, Persian pottery unearthed in western Asia are decorated with lotus petal, sunflower, wave and cloud patterns. Those are common patterns on *Qingbai* porcelain. Some Persian pottery has no glaze on the rim, revealing a purple body, which is also considered to have

¹ Guo Fuchun, Sun Chuanbo, *Research on Japanese Ancient Ceramics*, (Beijing: Cultural Relics Publishing House, 2011), pp. 62-64.

absorbed and integrated the characteristics of Jingdezhen *Qingbai mangkou* 芒口 wares in the Southern Song dynasty.¹

The imitation of *Qingbai* porcelain in Islamic ceramics was in two aspects: one is the imitation of white glaze colour of *Qingbai* ware in Islam world; the other is the imitation of the translucent texture and thin body of *Qingbai* porcelain. In the late Fatimid period of Egypt (AD 909-1171), some Egyptian ceramics were made of hard white pasty clay with translucent alkali glaze, trying to achieve the effect of *Qingbai* porcelain. The same method was used in western Asia. In the workshops of Persian potters, equal amounts of powdered quartzite and potassium carbonate are mixed to form a glass frit which, after milling and mixing with water, serves as an alkaline glaze. And the formulation of the ceramic body was similar to the glaze. Persian craftsmen tried to create a white body similar to the white porcelain of the Song dynasty, but the body lines made by this method are not plastic and delicate enough.² Some of the ceramic products of the middle Islamic era have changed and improved significantly, and the pottery technology of the eastern Persian has been constantly improved, and the body soil appears grey, which is the result of the mixture of grey pottery clay and white silica powder. Owing to the improvement of the porcelain body formula, the porcelain can appear white. In addition, on the basis of retaining underglaze engraving and stencilling, decorative techniques have gradually developed into difficult techniques such as underglaze carving, carving and overglaze painting. These are almost the same as the decorative techniques of *Qingbai* porcelain in Song dynasty of China.³ Rye, Kashan, Rakka and Rusafa were the main ceramic making centres during the Seljuk dynasty (AD 1037-1194). was quite plain, with lobes or small concavities on the edge, as was common in Chinese ceramics. The bowl is modelled on the *Qingbai* porcelain of China, with wavy edges and the contours of a milk jug; similarly, a wide-mouthed pot with four rings strongly reminds people of *Qingbai* porcelain and Ding wares.⁴ Islamic potters in the Seljuk period also appreciated the traditional cloud patterns and light underglaze dark flowers in the Song dynasty porcelain, and often used them for reference, incorporating these Song dynasty engraved and printed decorations into Islamic decorations, and began to use them repeatedly, then mixed with the half palm leaf and split leaf patterns of Islamic style, gradually becoming a new theme.

¹ Peng Shifan and Peng Tao, "On the Export of Jingdezhen Porcelain in Song Dynasty from the Terracotta Warriors Leading Horses by Hu People", *Forum on Chinese Culture*, No.1, 1995.

² R.J.Forbes et al, "The Mediterranean Civilizations And The Middle Ages", *A History of Technology*, Vol. II, (Oxford: Oxford University Press, 1954), p. 286.

³ Chen Jinhai, *History of World Ceramic Art*, (Harbin: Heilongjiang Fine Arts Publishing House, 1995), p. 302.

⁴ Arthur Lane, Faber&Raber, *Early Islamic Pottery*, translated by Cheng Yong and Wang Anna, (Shanghai: Xuelin Press, 2014), pp.51-65.



Figure 46: Grey Glazed Ewer from Seto kiln



Figure 47: *Qingbai* Ewer from Jingdezhen kiln

Indonesia has been imitating Chinese porcelain since the 9th century, and Indonesians have also used Chinese ceramic technology to produce *Qingbai* porcelain plates painted with Indonesian scenery. Indonesian scholar Brian Harrison pointed out that Chinese Song porcelain was welcomed by people all over Asia, the Middle East and the eastern coast of Africa, which stimulated the development of ceramics industry in the Srivijaya Kingdom in the southern part of South Sumatra Island at that time.¹

¹ Kong Zhiyuan, "Cultural Exchange between China and Indonesia from the Perspective of Chinese Ceramics in Indonesia", *Southeast Asia*, No.3, 1990.

Chapter 6 Conclusions

When looking back on history, land was always regarded as the centre and the ocean was a natural quarantine from the outside world. The power of the land regimes was difficult to control the marine world because of its marginal characteristics. With the emergence of worldwide commodities, such as silk and porcelain, and the development of the navigation technology, global transportation routes and global trade networks were gradually formed. The free movement of maritime residents and the seaborne exchange of material and culture make the ocean an avenue that connecting the continents and islands. The name of the “Maritime Silk Road” is also the imitation of the “Silk Road” (on the land). During the Song and Yuan dynasties (AD 960-1368), the global trade network accelerated its construction and had made great progress. Some scholars have put forward the concept of “oceanic ceramics” in response to porcelain industry in the southeast China that oriented to the exportation. The export *Qingbai* porcelain was the symbol of this progress, which trading routes extended from the southeast coastal areas of China to the eastern coast of Africa. The long-distance sea voyage has made the *Qingbai* porcelain trading a cross-regional, cross-racial and cross-cultural activity, to a certain extent, advancing the process of globalization and regional integration. A large number of trading vessels piled on the Maritime Silk Road according to the monsoons, some of them unfortunately sank, and the *Qingbai* porcelain on these sunken ships were discovered and became a microcosm of that prosperous era of maritime trade.

This thesis believes that the origin of the *Qingbai* porcelain was the results of both “the imitation of jade” and “the imitation of white porcelain”. According to the archaeological discoveries at present, it is very likely that the *Qingbai* porcelain was first created in the Fanchang kiln in Anhui Province in the late Tang dynasty (AD 836-907). And the mass production and exportation of *Qingbai* porcelain were flourished in the Song and Yuan dynasties. There are many reasons for the popularity of *Qingbai* porcelain: the open overseas trade policy of the Song and Yuan governments, the aesthetic on the bluish white colour of Chinese people, and the progress of porcelain making technology in the Jingdezhen kiln made the texture of *Qingbai* porcelain thinner and even transparent. Although there is a big difference between the quality of *Qingbai* porcelain for the daily use and export and those high-quality tribute porcelain supplied to the court, it did not affect its popularity in domestic and overseas markets. The prosperity of *Qingbai* porcelain trade led to the imitation of Jingdezhen products all over the country, especially promoting the coastal kilns in Fujian and Guangdong Provinces, which specialized in foreign trade porcelain. At present, large quantities of *Qingbai* porcelain have been unearthed in China and abroad, a total of 19 shipwrecks and 12 coastal and underwater sites with *Qingbai* porcelain were found on the Maritime Silk Road.

According to the records of *Meng Liang Lu* 梦梁录, the size of Chinese maritime trade ship varies in the 13th century: the largest load was about 300 tonnes, could accommodate 500 people; the medium ships' load capacity was 60 to 120 tonnes and could accommodate 200 to 300 people; the rest ones could carry about 100 people. Some of the trading ships carried a variety of goods, and some carried mainly one kind of cargo with a small number of other cargoes. Most of the sunken ships' basic outline were not intact due to the poor burial conditions, the most complete hull found so far is the Nanhai No.1 of the Southern Song dynasty. It is a ship mainly engaged in porcelain trade with nearly 80,000 items related to porcelain on it and most of them are *Qingbai* wares. The same type of Nanhai No.1 is the Java Sea Wreck, which outline has not been preserved because of its serious damage, and has unearthed 12,000 pieces of porcelain. However, scholars estimate that the number of pieces actually contained was about 100,000. In addition to the Nan Hai No.1 and Java Sea, there are many shipwrecks that, while not specialized in the porcelain trade, contained large numbers of porcelains: more than 32,000 pieces of Chinese porcelain were on the Pulau Buaya Wreck; nearly 10,000 pieces of porcelain were found on the Huaguangjiao No.1; 33,340 items of porcelain have been recovered from the Jepara Wreck and over 20,000 items on the Sinan Wreck. The historical records and existing archaeological data indicated that the scale of *Qingbai* porcelain trade is large. Although it is difficult to estimate how many ships participated in overseas trade every year and the specific quantity of the export *Qingbai* porcelain during the Song and Yuan dynasties, the importance of *Qingbai* porcelain trade can be judged from the income of *Shi Bo Si* 市舶司. Export porcelain was the most important commodity in overseas trade during the Song and Yuan Dynasties, and contributed a lot to the income of *Shi Bo Si* 市舶司, which accounted for about 20% of the fiscal revenue in the Southern Song dynasty, and could support the military campaigns of the Yuan Empire.

Qingbai porcelain trade not only earned a lot of tax revenue for the Song and Yuan governments, but also promoted the cultural exchanges. There were all kinds of *Qingbai* porcelains unearthed in China, but those export wares unearthed from overseas sites and shipwrecks were mainly daily necessities such as bowls, plates, small dishes, boxes, jars, *kendis* and incense burners. Among them, *kendis*, big plates and bowls, small jars and bottles were the customized products for the Southeast Asian market. In addition to meeting the needs of daily life, these *Qingbai* wares were also used in local customs and religious scenes. *Qingbai* boxes were mainly used to hold women's cosmetics and spices in China and Southeast Asia, while in Japan, they were found in Buddhist sutra tombs, which might be used to hold incense and Buddhist scriptures. In northern Kalimantan, *Qingbai* porcelain urns are used to hold the bodies of the dead in order to perpetuate them. Bowls and dishes were found to cover the mouth, throat and pubic area of the corpse, which was a kind of witchcraft using porcelain to protect the safety of the deceased's descendants. *Qingbai* wares were also used to offer the perfume, flowers, incense, food and beverages in Taoist and Buddhist rituals in China. In the Southeast Asia, people believed that Chinese porcelain had magic power and used them in various religious scenes: held offerings, cured diseases, communicated with gods and called on the ghosts. Although the rise of *Qingbai*

porcelain may not be the result of voluntary choice in overseas markets, people who like *Qingbai* porcelain have not given up their deliberate imitation of it. Craftsmen from west Asia, Vietnam, Indonesia, the Korean Peninsula and Japan all imitated and studied *Qingbai* porcelain to fire the ideal white glaze colour, and all of them had obtained similar products. Thus, developed the local porcelain industries.

The whole process of production, transportation, sale and consumption of *Qingbai* porcelain in Song and Yuan dynasties is a network across Asia and Africa, involving all countries and regions along the Maritime Silk Road, as well as different religions such as Buddhism, Taoism, Islam, Hinduism and local beliefs in Southeast Asia. The change of regional political power and the drastic change of religious pattern did not stop the pace of trade. *Qingbai* porcelain, in that era, once separated thousands of miles of people closely linked together. The huge profits of the overseas trade belt have partly overcome the fear of the inland people towards the sea. People of different races went to the Indian Ocean to make a living, a small piece of porcelain, was changing the world's big pattern. The number of *Qingbai* porcelain kilns declined sharply until the Yuan dynasty, and the most famous kiln is still Jingdezhen kiln. Moreover, the *Qingbai* porcelain unearthed from the tombs of Jiangxi in the seventh year of Zhizheng 至正 (AD 1347) in the late Yuan dynasty was close to bean green, and the texture was rough, some tombs or cellars did not even see *Qingbai* porcelain. It was replaced by the new products which was whiter and brighter. By inheriting the firing technology of *Qingbai* porcelain in the Song dynasty, craftsmen from the Jingdezhen kiln made some innovations, and a new type of porcelain, egg-white glaze porcelain, appeared in the middle of the Yuan dynasty. Egg-white glaze is a type of opacified and devitrified glaze that the calcium content in glaze is low, about 5%. The glaze of it was thicker than the *Qingbai* wares and the colour was similar to the goose egg shell. During the Yuan dynasty, *Shu Mi Yuan* 枢密院, the highest military organ of the empire, had specially fired egg-white glazed porcelain in the Jingdezhen kiln and stipulated that *Shufu* 枢府 should be engraved on the porcelain body, so egg-white glaze was also called *Shufu* porcelain. However, the egg-white glazed porcelain had a very short firing history, which was then replaced by the sweet white glazed 甜白釉 porcelain of the Yongle 永乐 period (AD 1403-1424) of the early Ming dynasty. The last bit of blueish colour of *Qingbai* porcelain is disappeared and porcelain became absolutely white. After years of military expansion, Mongolian culture, Islamic culture, Han traditional culture, Tibetan Buddhist culture, European Christian culture and Koryo culture were coexisted in the empire. Blue and white porcelain that combined those multiple cultures was successfully fired in Jingdezhen. During the early Zhizheng 至正 Period (AD 1341-1368), blue and white porcelain was still in *Qingbai* glaze. With the progress of porcelain technology, the glaze colour of blue and white porcelain gradually became pure white. Mongolian nobles were fond of white, pure white and strong cobalt blue were considered as sacred and auspicious, blue and white porcelain has also become an enduring type of porcelain in later generations.

A new and advanced greenware material was also developed in south China in the later 12th-early 13th centuries in southwest Zhejiang. This new material ‘Longquan celadon’ was also based on white porcelain stone, but of a lower grade than that used for *Qingbai*. Longquan-type celadons were made on a huge scale in the Yuan dynasty and gradually replaced *Qingbai* in many domestic and export markets. This may have been a more significant reason for *Qingbai*’s decline than the technical changes that occurred in the Jingdezhen glaze in the 14th century.

As one of the many commodities, *Qingbai* porcelain is a symbol of the trade network around the Indian Ocean and South China Sea in that era, which not only reflects the grandeur of the whole trade network, but also carries very small and specific cultural information of different societies and groups behind the trade. It was the box that held a lovely girl’s rouge, it was the cup that held hot tea and fine wine, it was an incense burner that offered before the Bodhisattvas, and it was the home to the soul of the dead. It used to carry people’s ups and downs, keep food fresh, invite to the gods, and wash away the dirt of the devout believer. The export of *Qingbai* porcelain is the cultural envoy of the Song and Yuan dynasties, once brought wealth to people, and today tells us history. Perhaps the emergence of *Qingbai* porcelain is really an accident in the process of making white porcelain, but this accidental product drew a magnificent scene in the Song and Yuan dynasties.

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Appendix

Shipwrecks

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①National Centre of Underwater Cultural Heritage, National Museum of China, Fujian Museum, Fuzhou Municipal Institute of Cultural Relics and Archaeology ed., *Underwater Archaeology Survey in Fujian Coastal Area (1989-2010)*, (Beijing: Cultural Relics Press, 2017), pp.191-197.

30. Beiriyuan No.4 Site

①National Centre of Underwater Cultural Heritage, National Museum of China, Fujian Museum, Fuzhou Municipal Institute of Cultural Relics and Archaeology ed., *Underwater Archaeology Survey in Fujian Coastal Area (1989-2010)*, (Beijing: Cultural Relics Press, 2017), pp.216-220.

31. Beiriyuan No.5 Site

①National Centre of Underwater Cultural Heritage, National Museum of China, Fujian Museum, Fuzhou Municipal Institute of Cultural Relics and Archaeology ed., *Underwater Archaeology Survey in Fujian Coastal Area (1989-2010)*, (Beijing: Cultural Relics Press, 2017), pp. 220-227.