Chinese Ceramics in the Islamic World from the 8th to 10th Centuries CE

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Abstract

This thesis provides new angles, material and discussion to the topic of Chinese ceramics arriving in the Islamic world from the 8th to 10th centuries CE and their connections with contemporary Samarra Horizon Islamic glazed ceramics. It analyses sites with and without Chinese ceramics during this period and explores the broader question regarding the distribution of early Chinese ceramics in the Islamic world. There are varying patterns related to ceramic finds in these sites. The Persian Gulf region has the highest concentration of sites with Chinese ceramics, especially the Iranian coastal area of the Persian Gulf. There are five main types of Chinese ceramics found in the Islamic world from the 8th to 10th centuries CE. Chinese celadon stoneware is the most widely distributed Chinese ceramics in the Islamic world during this period. This is followed by Chinese white wares, Dusun wares, Changsha wares and Chinese monochrome and polychrome glazed wares. Not all Chinese ceramics in the Islamic world are luxurious traded goods. Different types of Chinese ceramics arrived in different areas and settlements in the Islamic world. They held different values and functions; their amounts in these Islamic sites vary hugely too. The scale of the circulation of Chinese ceramics in the Islamic world during this period may not have always been considerable, as most publications have claimed. It is not precise to describe the relationship between Chinese ceramics and Samarra Horizon ceramics as “imitations”, because there were more dynamic interactions than imitations only. Chinese ceramics influenced Samarra Horizon wares, which also exerted influence on Chinese ceramics.

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Chapter 1: Introduction and Research Aims

1.1 Introduction

Chinese ceramics have been found in many sites in the Islamic world. In some archaeological sites, the quantities of Chinese ceramic finds are impressive. For example, an estimate of around 20,000 Chinese ceramic sherds have been found from all the excavations in Fustat over the 20th century CE.[1] The 8th to 10th centuries CE witnessed the prosperity of the Abbasid Empire (750-1258CE) and the Tang Empire (618-907CE) in Asia and saw the first peak in terms of maritime connection between China and the Islamic World. From the 8th to 10th centuries CE, Dusun wares, Changsha wares, Yue celadon and early Chinese white wares made up the majority of Chinese ceramics arriving in the Islamic world. After the 10th century CE, southern Chinese white wares and Longquan celadon gradually became the dominant types of Chinese ceramics in the Islamic world.

Over the last century, Chinese ceramics found in the Islamic world and their connections with Islamic glazed ceramics have been studied by several generations of scholars from the East, West and Middle East. The significance of the topic still stands in the following ways. Firstly, the arrival of Chinese ceramics in the Islamic world from the 8th to 10th centuries CE comprised a dynamic part of maritime activities across the Indian Ocean which connected the two ends of Asia and part of Africa together. It shows a geographic expansion in the scale of Indian Ocean exchange that Chinese ceramics had reached the Middle East. We see how much China and the Abbasid Empire were involved in the Indian Ocean connective network and the ways in which different regions of the Islamic world were involved in the maritime network with the Far East. Secondly, these Chinese ceramics in the Islamic world came from a broad span of areas in China, from today's Hebei province in the north to the southernmost corner of China in Guangdong province. Studying these Chinese ceramics

[1] Qin Dashu 1995, 82.

helps to gain a deeper understanding of ceramic production in China during the 8th to 10th centuries CE. The exchange of Chinese ceramics indicates that a certain amount of certain Chinese ceramic products, like Changsha wares, were starting to be commercialised and traded across the Indian Ocean. Thirdly, Chinese ceramics in the Islamic world can help to date more precisely some Islamic archaeological sites which were dated only based on Islamic glazed ceramics. Chinese ceramics are well-researched with established typology and chronology, and there is abundant archaeological data in and outside of China for cross-dating. Besides, Chinese ceramics were almost all glazed and fired at high temperatures, which made them more durable and their diagnostic attributes more conspicuous. Fourthly, it helps to shed light on debates over the Samarra Horizon.

1.2 The Samarra Horizon

Discussions on Chinese ceramics in the Islamic world and their connections with Islamic glazed ceramics were initiated by the excavations at Samarra from 1910 to 1913. A considerable amount of Chinese ceramics and Islamic glazed wares of various types had been found during the excavations and was named the 'Samarra Horizon'. Arthur Lane (1909-1963) considers 9th-century Samarra glazed ceramics the beginning of fine Islamic pottery.[2] Samarra Horizon types of Islamic glazed ceramics refer to classic Iraqi Samarra wares, which comprise white glazed wares with or without decoration, early lead glazed splashed wares with or without incised decoration. The Samarra Horizon refers to changes in ceramic typology and distribution in the Islamic world from the 8th to 10th centuries CE.[3] Lane attributes the splendour of Samarra fine ceramics to the influence of techniques and artistic styles of imported Chinese ceramics. The chronology and associated kilns of these Islamic ceramics are still unsolved mysteries of the Samarra Horizon.

[2] Lane 1947, 10-11.
[3] Northedge & Kennet 1994, 21.

1.3 Important Scholarship on This Topic

This section gives an overview of important scholarly research on Chinese ceramics in the Islamic world from the 8th to 10th centuries CE. Their research and arguments will also be presented and discussed in many other sections and chapters of this thesis.

Friedrich Sarre's *Die Keramik von Samarra* (1925) published both Islamic and Chinese ceramic finds from Samarra, which started the debate on Chinese ceramic finds in the Islamic world and their connections with contemporary Islamic glazed ceramics. Sarre was among the very first scholars who discussed Chinese ceramic finds in an early Islamic site and saw the similarities between some types of Chinese ceramics and early Islamic glazed ceramics found at Samarra. He described Islamic white glazed wares found at Samarra as imitations of Chinese white wares in terms of form and decoration, and Islamic splashed wares were categorised as imitations of East Asian earthenware with overflowing glazes.[4] Even though some of his opinions have been challenged by later archaeological work and research, Sarre's work still lays the foundation of this topic. Another benchmark work was Arthur Lane's *Early Islamic pottery* published in 1947. Lane describes that "the astonishing rise of Islamic pottery in the 9th century was in fact due to the discovery by the court that pottery could be an art worth encouraging; and the revelation came in the form of porcelain and stoneware imported to Baghdad from the Far East. Chinese porcelain and stoneware created a demand for fine pottery that Islamic craftsmen were not slow to exploit, first by imitating the Chinese wares and then by adding elaborations of their own."[5] Lane comments that Islamic potters applied tin-lead glaze technique from ancient Egyptian glass-making industries to a well purified body in order to achieve a deceptive similarity to the Tang white wares.[6] The idea that Samarra Horizon glazed ceramics developed by imitating Chinese ceramics exported to the Abbasid Empire in the 9th century CE strongly influenced later

[4] See Chapter 3, Section 3.1: Samarra.
[5] Lane 1947, 10 and 11.
[6] Lane 1947, 13.

scholarship. It remains a central idea in current scholarship concerning Chinese ceramics in the Islamic world and early Islamic glazed ceramics, even though more work has been done to enrich and revise the idea.

Tsugio Mikami 三上次男, who studied the ceramic trade in the late Tang and Five Dynasties period of China published his research on this topic in *Tōji bōekishi kenkyū 陶磁貿易史研究 the Study of the History of Ceramic Trade* in 1987.[7] He surveyed Chinese ceramic finds from a broad geographic area from several Islamic sites and museum collections, especially those found in Fustat in Cairo between 1964 and 1966, and identified different types of Chinese ceramics,[8] In his works, he also attributes the production of early Egyptian Islamic ceramics to the influence of Chinese ceramic imports. For instance, he links Fayum polychrome wares[9] from the 9th to 10th centuries CE to the influence of Tang Sancai wares.[10] Mikami approached this topic with a typological comparison between Chinese and Islamic ceramics, which enriched our understanding of typological features of Chinese ceramics in the Islamic world and inspired certain Chinese scholars to continue to research this topic. Mikami attributes early Islamic polychrome glazed wares (splashed wares) to the influence of Chinese 'classical' Sancai ware, which were produced in the early Tang period before the mid-8th century.[11] As David Whitehouse comments, "the realisation that few, if any, of the so called Tang sherds (Sancai wares) from Samarra and other sites in the Middle East really are Chinese and the extreme scarcity of such pottery at Siraf suggests that we should seek an alternative explanation."[12] No classical Sancai ware has been spotted in any site studied

[7] See Appendix 1 for Chinese Dynasties.
[8] Mikami 1982 and 1987 volume 1 and 2.
[9] See Appendix 5 for definition.
[10] Mikami 1982, 69 and 75.
[11] Mikami 1986, 132. See Appendix 5 for the definition of Islamic splashed wares. See classical Sancai wares in Chapter 6, Section 6.6.1.
[12] Whitehouse 1970b, 32.

in this thesis.[13] This substantiates Whitehouse's opinion. Further archaeological evidence is needed to prove Mikami's hypothesis.

Rawoson, Ttie and Hughes examined some lead-glazed ceramic fragments found at Mantai, Fustat and Samarra in 1987 in the British Museum. The results show that these sherds are from Chinese Sancai wares with high-fired white body.[14] They have successfully identified the compositional distinctions between ceramics of Chinese origin and of Islamic origin. Besides, they have found out that the Sancai wares and white stoneware that they have examined are technically similar and associated. Sancai ware's body has been fired to the same level of high temperature as white stoneware.[15] Through an analysis of the vessel shapes and decorations, they have also pointed out the differences between Sancai wares found at these sites and classic early Tang Sancai wares.[16] Their work is pioneering and makes the study of Chinese and Islamic ceramics not just a typological study.

From 1998 to 2001, Yuba Tadanori 弓场纪知 surveyed Chinese ceramic finds from Fustat in Cairo. Tadanori classified Chinese ceramics into different types and also identified some Chinese ceramics which had been mistaken as Islamic wares.[17] His idea on Chinese green splashed wares is not very convincing. He supposes that Chinese white glazed green splashed wares, which began to be produced in Gongxian kilns in the 9th century CE, were made for the Islamic market.[18] New archaeological evidence shows that the history of the production of Chinese green splashed white wares went back before the 9th century and before the Chinese – Islamic Indian Ocean connection.[19]

Ma Wenkuan 马文宽 is among the first Chinese scholars who research the communication between China and the Islamic world in ancient times. He argues that Tang Sancai wares

[13] See Chapter 6, Section 6.6.
[14] Rawson, Tite and Hughes 1988, 39.
[15] Rawson, Tite and Hughes 1988, 48 and 58.
[16] Rawson, Tite and Hughes 1988, 54.
[17] Tadanori 2013, 1.
[18] Tadanori 2013, 5.
[19] See Chapter 6, Section 6.6.1.1.

influenced the production of Islamic lead glazed splashed wares and that Chinese white wares inspired the invention of Islamic tin-glazed opaque white wares.[20] He attributes the development of Islamic white glazed wares with blue decoration to the influence of Tang blue and white wares.[21] He points out that recent excavations and research in China on Tang Sancai wares have not yet become known to some who assume Tang Sancai wares to be only funerary wares and rarely made after the mid-8th century CE. This assumption leads to their argument that Tang Sancai wares could not have been exported to the Islamic world to influence the appearance of Islamic lead glazed splashed wares in the early 9th century CE. Ma disagrees with the idea that China and the Islamic world developed their lead glazing techniques independently.[22] Ma offers an over-simplified explanation to the similarities between Chinese and Islamic ceramics, attributing such resemblance to the influence of Chinese ceramics on Islamic ceramics. He thinks Tang potters produced all these ceramic types first and Islamic potters simply followed the ceramic fashions from Tang China. This explanation overlooks the pre-Samarra ceramic industries in the Middle East and most importantly, there is a lack of archaeological evidence of Chinese classical Tang Sancai ware in early Islamic sites.

Qin Dashu 秦大树 examined Chinese ceramic finds from Fustat in Cairo in the early 1990s and conducted excavations at archaeological sites in the coastal area of Kenya where he discovered Chinese exported ceramics.[23] His expertise in Chinese ceramics and a broad knowledge on kilns and ceramic production in all periods in China helped him to identify several pieces of Chinese ceramics in Fustat which have not been identified well before, for example, Liao Sancai wares and 10th-century Cizhou and Yaozhou wares.[24] He identifies the period of the 9th and 10th centuries CE as the first peak for Chinese ceramic trade with main

[20] Ma Wenkuan 2009, 571.
[21] Ma Wenkuan 2009, 572.
[22] Ma Wenkuan 2010, 19.
[23] Qin Dashu 2016, 96.
[24] Qin Dashu 1995, 83, 85-6. See Appendix 4 for Cizhou wares and Yaozhou wares in Chapter 6, Section 6.6.1.4.

ceramic exports of Changsha stoneware, Yue celadon stoneware, northern white wares and Guangdong celadon stoneware.[25] Changsha wares were exported in a great number in the 9th century, which was then followed by the domination of Yue celadon in the 10th century. While Chinese white wares exported during the 9th century CE were mainly northern Chinese ceramic products, during the 10th century, exported white wares became mainly southern ceramic products.[26] He thinks the period between the 9th and 10th centuries CE was the primary stage of Chinese ceramic export. There was no kiln site specialising in exported ceramic production, except Changsha kilns. Those exported to the Islamic world were of high quality in order to exchange for luxurious goods like ivory and incense. The exported ceramics during this stage were mainly bowls and dishes for daily use.[27] He uses historical texts and archaeological evidence to argue that Srivijaya (Sumatra, Indonesia) was the most important entrepot for the Chinese ceramic trade during this period, where cargo was unloaded from ships from Guangzhou, Mingzhou, and Yangzhou, and were later repackaged and loaded on other ships to be transported to Southeast Asian, Indian, and Middle Eastern ports.[28] His idea that Chinese ceramic exportation had different stages with different features is very inspiring, though he did not mention other means of the movement of Chinese ceramics besides trade.

Zhao Bing 赵冰, based in France, has done work on Chinese ceramic finds from Sharma, an ancient port in Yemen. She uses her knowledge and expertise in Chinese ceramics to identify and classify these finds into datable groups, which helps to establish the chronology of Sharma as a site.[29] She also has done work summarising sites in the western Indian Ocean area with some types of Chinese ceramic finds. She has identified many Chinese ceramic types in Sharma which were not previously well known in publications of other

[25] Qin Dashu 2013, 32 and 43.
[26] Qin Dashu 2013, 43-4.
[27] Qin Dashu 2013, 44-5.
[28] Qin Dashu 2013, 46-9.
[29] Zhao Bing 2004 and 2015.

Islamic sites, especially southern Chinese white wares and celadon. Her work on Chinese ceramic finds in Sharma offers valuable reference to studies of Chinese ceramic finds in early Islamic sites.

On the other hand, some scholars are exploring the role of pre-Islamic and pre-Samarra ceramic traditions in the Middle East. The pre-Islamic ceramic industries in the Middle East, especially Byzantine and Partho-Sasanian glazed and unglazed pottery,[30] had prepared the ground for a relatively easy acceptance of Chinese glazed wares and the adaptation of Chinese ceramic techniques and designs. As Féhérvari suggests, the earliest Islamic glazed wares found in Samarra and Siraf did not look like experimental pieces one might expect in an early stage of a new ceramic practice, neither did the glaze techniques or the decorative patterns, which echoed previous ceramic traditions.[31] But this does not deny or overlook the contribution of Chinese ceramics to the technical and decorative changes in early Islamic ceramics; only their extent of influence needs to be re-evaluated.[32] Robert Mason argues that tin-opacified glaze appeared in the early 8th century during the Umayyad period. The blue and green splashed decoration also came at the same time before the arrival of Chinese ceramics. His opinion challenges Sarre and Lane's interpretation of Chinese white wares as the cause of the widespread use of white glaze in the 9th century in the Islamic world. He argues that the Islamic white glaze was not a response to Chinese white glaze but was developed to serve as a ground for polychrome decoration.[33]

Oliver Watson approaches this topic from the angle of an Islamic ceramist and points out the necessity to re-visit the story of the Samarra Horizon. He believes that the Samarra Horizon has more than the single explanation of influence from Chinese ceramics and that the notion of influence is simplistic and dangerously misleading. He takes the Samarra Horizon as neither a reaction to nor a development of Chinese ceramics.[34]

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[30] Koechlin 1928, 6-12.
[31] Féhérvari 1970, 28.
[32] Féhérvari 1970, 28.
[33] Mason 1995; Mason and Tite 1997; Mason 2004.
[34] Watson 2014, 124, 130.

Watson emphasises the significance of pre-Samarra ceramic legacies in the development of Samarra Horizon types of fine glazed wares. The Coptic glazed ware from Egypt, cream splashed ware produced in Syria and Palestine, the Hijazi ware in Arabia and yellow glazed family ware produced in various locations in Syria formed an extensive glazed ceramic family in the early Islamic period that used delicate glazing technique for decorative purposes. Watson thinks their appearance was soon after late Roman and Byzantine wares, which were the prototypes for these pre-Samarra glazed wares.[35] Therefore, they predated the arrival of most Chinese ceramics in the Islamic world. He puts forward that yellow glazed family wares originated from Syria had deeply influenced the ceramic manufacturing in Iraq; some wares from Susa and Samarra used exactly the shapes and decoration of Syrian yellow glazed wares. He believes that the late 8th - century yellow glazed wares used green painted decoration first, which influenced the green splashed white wares of the Samarra Horizon, and this style of green splashed wares was further exercised by Chinese potters to satisfy the market in the Islamic world.[36] He still acknowledges the inspiration of Chinese wares on Islamic potters, especially their vessel shapes, but he argues that Samarra Horizon wares were not 'simply the result of an Iraqi reaction to imported Chinese wares.'[37] Syrian ceramic techniques and decorative styles exerted a major impact on the success of Samarra Horizon wares. The idea and habit of consuming fine ceramics was passed on from Syria to Iraq with the change of capital cities, from the Umayyad capital in Syria to the Abbasid capital in Iraq.[38]

He puts forward that a large market in Iraq for fine ceramic tableware had already been established prior to the arrival of Chinese wares. Chinese ceramics exported to the Middle East in large quantities were a response to this huge market. Chinese Changsha painted wares, white wares and green splashed wares in the Islamic world were all specially

[35] Watson 2014, 127.
[36] Watson 2014, 130.
[37] Watson 2014, 130.
[38] Watson 2014, 131.

commissioned products for the Islamic world, including the three Tang blue and white plates in the Belitung shipwreck, which were sample imitations of Islamic blue and white sent from China back to the Islamic world.[39] They inspired the new wave of innovation among Islamic potters.[40] Watson's research brings in pre-Samarra ceramic evidence from the Islamic world, which opens up possibilities of alternative explanations to current debates and issues on the arrival of Chinese ceramics during the 9th century in the Islamic world and their interaction with Islamic glazed ceramics, although some of his ideas can be revised in light of the archaeological evidence from China, such as the production of Chinese green splashed wares and blue and white which predated the Samarra Horizon.[41] His assumption of imported Chinese wares in the Islamic world as a reflection of what was fashionable in the Islamic market is not completely convincing, because Chinese white wares, Yue wares, Dusun wares and green splashed white wares found in the Islamic world do not seem to possess particular features that are not seen on those found in China and in other parts of Asia.

Nigel Wood approaches this topic from the point of view of a Chinese ceramist. He focuses not only on typological comparisons between Chinese ceramics and contemporary Islamic glazed ceramics, but also on the differences in their body, glaze and manufacturing using scientific analysis. He values the influence of Chinese ceramics on contemporary Islamic glazed ceramics. Wood and his colleagues neatly summarised the interaction between Chinese ceramics and contemporary Islamic glazed ceramics in four ways: importation, imitation, innovation, improvisation (mixture of any of the above two styles to create hybrid wares) and indigenous wares.[42] They analysed several pieces of ceramic finds from Samarra which they suspected to be Iraqi copies of Chinese Changsha and Sancai wares together with one piece of Changsha ware and Sancai ware. Even though the analysis

[39] See Chapter 6, Section 6.6.1.1.
[40] Watson 2014, 125.
[41] See Chapter 6, Section 6.6.1.1.
[42] Wood et al. 2009, 157.

reveals the chemical differences between the body and glaze of Chinese Changsha and Sancai wares and those of the Islamic ones, they still conclude that, 'until we know more of what was exported from China to Iraq, we cannot always be sure what the original models were, and from which kiln-sites they derived; the interaction between Iraqi and Chinese styles is still not fully understood, so who is influencing whom, and at what stage in history, is still uncertain.'[43]

He also discusses the issue of Tang 'blue and white' versus Abbasid 'blue and white'. He traces the origin of decorating white wares with cobalt blue back to the 8th century in Gongxian kilns.[44] Therefore, he does not agree with the reactive role of Chinese Tang blue and white wares as imitations of early Islamic blue and white produced in the 9th century CE,[45] even though imitations of Abbasid blue and white had been made by Chinese potters and found in the Belitung shipwreck.[46] Besides, Wood believes that the discovery of one piece of Tang high-fired blue and white in Siraf and the long continuity of the production of blue and white and the use of cobalt blue together with other pigments in Gongxian kilns from the 8th century CE 'raise the possibility that Iraqi potters may have taken exported Chinese wares as models for the manufacture of Abbasid blue and white'.[47] 'He agrees that the appearance of Chinese white wares, Sancai wares, Changsha wares and green splashed white wares was accurately imitated in the Islamic world.[48] Different from Mason's opinion, he thinks pre-Samarra Horizon Islamic white glazed wares were very few. The abundance of white glazed wares only came when Chinese white wares arrived in the Islamic world. There is a fundamental difference between pre-Samarra Horizon white glaze and Samarra Horizon white glaze; the former is of alkaline-lime composition, which is under fired to give a semi-opaque effect, and the latter has tin to generate the opacification.[49]

[43] Wood et al. 2009, 157 and 179.
[44] Wood & Tite 2009, 21.
[45] Wood & Tite 2009, 22.
[46] Wood & Tite 2009, 34.
[47] Wood & Priestman 2016, 57.
[48] Wood & Tite 2009, 23.
[49] Wood & Tite 2009, 23.

Meanwhile, some scholars are also trying to deal with this topic from different angles. Axelle Rougeulle conducts archaeological research on Indian Ocean trade, especially ceramic exchange in the Indian Ocean, the Persian Gulf and the Red Sea. Her distribution pattern analysis of Islamic sites with Chinese ceramics shows a concentration in littoral areas, from which she concludes that Chinese ceramics moved almost exclusive via maritime routes in the Indian Ocean networks.[50] She analyses the distribution of Chinese ceramics in the Persian Gulf region in most detail and mentions the distribution in brief in the Red Sea region and inland sites in the Middle East. In her research, she mentions different distribution methods of Chinese ceramics in the Islamic world, which was not only through trade, but also including secondary distribution and piratical activities.[51] She also uses some quantitative information, though not abundant, to suggest that the volume of Chinese ceramic imports had been limited even in the main trading centres, which is quite different from the large volume described in literary sources.[52] She summarises five characteristic types of Chinese ceramics found in the Persian Gulf region prior to the 11th century CE:[53] les grès grossiers; les grès du Hunan; les blanc anciens; les céladons de Yue and les céramiques Sancai.[54] She sees the necessity to explore the different nature and distribution of these different types of Chinese wares. Her site distribution pattern analysis, quantitative analysis together with distribution analysis of different types of Chinese wares provide a very fresh and inspiring angle to examine Chinese ceramics in the Islamic world. However, her work done in the 1990s used Tampoe's chronology of Siraf and its ceramic finds,[55] which might need to be revised to some extent in light of recent research on the Siraf material.[56] Her work focuses more on the Persian Gulf region. More research needs to be carried out on the Red Sea area and inland sites in the Islamic world,

[50] Rougeulle 1996, 160.
[51] Rougeulle 1996, 162 and 175.
[52] Rougeulle 1996, 176.
[53] Rougeulle 1991, 16.
[54] Rougeulle 1991, 16, 21, 25, 32 and 38.
[55] Rougeulle 1996, 162.
[56] Tampoe's chronology of Siraf is not approved by many scholars. Her reading and interpretation of finds record cards for the great Mosque is very different from the excavator, Whitehouse.

which have only been mentioned in brief by Rougeulle. Rougeulle has been conducting excavations and surveys in recent years in the Red Sea region, especially Yemen and Oman, with an aim to enrich her understanding of this area.[57]

Jessica Hallett holds the widely accepted opinion that Chinese ceramics had a profound influence on Abbasid taste of fine ceramic wares. The increased demand for Chinese ceramics motivated local Islamic imitations.[58] Hallett stresses that the driver behind this was the development of the Indian Ocean maritime trade which brought a large amount of Chinese ceramics, instead of the appreciation of the Abbasid court, which she thinks only started to know Chinese ceramics due to the Indian Ocean trade.[59] Her PhD study on the ceramic production in Basra.[60] Hallett uses xeroradiographs of opaque white glazed wares to indicate that they were manufactured using the same method as Chinese white wares, which suggests that Abbasid potters had considerable knowledge of shaping techniques used in northern Chinese workshops.[61] Different from Wood and Ma Wenkuan's views, Hallett attributes the origin of early blue and white wares to Basra, and she thinks Chinese Gongxian blue and white wares that appeared in the 9th century CE were spurred by Islamic prototypes and developed to satisfy foreign consumption.[62] She proposes a much wider influence of Chinese ceramics on Samarra Horizon types of glazed ceramics, which is beyond just the influence of glaze, but changes and developments at every stage of manufacture.[63] However, Hallett was not informed of the latest excavation and finds from Gongxian kilns when she completed her Phd in the 1990s. Therefore, her conclusion about early blue and white wares in the Islamic world and China has to be revised based on recent excavations and research in China.

Zhang Ran 张然 based in the University of Durham does research on Chinese ceramic trade

[57] Rougeulle & Bernard 2015 and 2016.
[58] Hallett 2012, 351.
[59] Hallett 2012, 350.
[60] Hallett 2012, 357.
[61] Hallett 1999, 103.
[62] Hallett 2012, 357 and 259.
[63] Hallett 1999, 93.

across the Indian Ocean from the 9th to the 16th centuries CE. His method does not focus on typological similarities and differences between Chinese ceramics and other ceramics in the Indian Ocean region. Instead, he studies archaeological data, especially quantitative data, from more than 100 archaeological sites and ceramic kilns in China and the Indian Ocean region to show the big picture of changes in ceramic trade across the Indian Ocean over a long time span.[64] His research provides a better understanding of the movement of ceramics across the Indian Ocean, and sheds light on the changes of trade over time. This also helps to revitalise the old debate surrounding the movement of Chinese ceramics in the Indian Ocean and their influences providing a new angle and new materials to add to the debate.

1.4 Research Aims

There has been an over simplified explanation that there was a ceramic trade between China and the Islamic world during the 8th to 10th centuries CE: Chinese ceramics arrived in large quantities in the Islamic world, and therefore, exerted a huge influence on Islamic glazed ceramic production; new ceramic styles and glazing technologies developed in the Islamic world, which has been referred to as the Samarra horizon. The existing debate surrounding Chinese ceramic finds in the Islamic world is mainly concerned with whether China or the Islamic world first invented certain ceramic styles and techniques and the typological connections between certain Chinese ceramics and Islamic glazed ceramics. The broader question regarding the nature of the early Chinese and Islamic world ceramic exchange has not yet been explored sufficiently. The term ‘trade’ has been used widely to define the phenomenon of the existence of Chinese ceramics in the Islamic world. These Chinese ceramics have always been described as ‘luxuries. It is necessary to interrogate and question this existing preconception rather than simply assume it to be true and use it without doubts. There were several drivers behind this long-distance exchange, other than

[64] Zhang Ran 2016 unpublished Phd thesis.

just commercial interest. Chinese ceramics could have been distributed in several other ways, for example, as tributes from local viziers and commanders to the court, diplomatic gifts from the Tang Empire to courts in the Islamic world or personal property brought by artisans, soldiers, and others who travelled around the Islamic world. Not all types of Chinese ceramics were treated by the Chinese and people in the Islamic lands as luxurious goods. It is too oversimplified to describe the exchange of Chinese ceramics in the Islamic world as luxury goods trade.

Many sweeping preconceptions have been used widely by publications and museums. Did Chinese ceramics arrive in the Islamic world in huge quantities during the 8th to 10th centuries CE? Exactly which type of Chinese ceramics have been found in the Islamic world during this period? In which and what types of sites were these Chinese ceramics found? Where and how were they produced in China? How were Chinese ceramics moved from China to the Islamic world to China from the 8th to 10th centuries CE? Recently, the awareness of the danger of attributing the Samarra Horizon completely to the influence of Chinese wares in the Islamic world has been raised.[65] It is time to examine the over-simplification of using of the word 'influence' to denote the relationship between Chinese ceramics and Islamic glazed ceramics. The connection between them were not simple, one-way influence of one on the other. Their interactions were mutual and involved more than ceramics themselves and ceramic techniques. Many ideas generated a long time ago are still being widely adopted without being examined in light of newly discovered archaeological data in the Islamic world and China. There needs to be a deeper and better mutual understanding between scholars doing Islamic materials and Chinese materials of each other's materials and research. In the current stage, the study of Chinese ceramics in the Islamic world and their connections with contemporary Islamic glazed ceramics cannot proceed without new research angles and better understanding of materials from broader regions instead of only focusing on a couple of big and famous sites, such as Samarra, Siraf

[65] Watson 2014.

and Fustat.

This thesis considers the broader context of the exchange process from a cultural and economic perspective, looking in detail at the distribution of sites with and without Chinese ceramics in the Islamic world during the 8th to 10th centuries CE. This includes the find locations (both positive and negative), the variety of Chinese ceramic products found in each of these sites and the distributions of each type of Chinese ceramics in the Islamic world. This helps to have an insight of how far Chinese ceramics had reached in the Islamic world. Did they arrive only in big urban centres? Did they only arrive in certain areas of the Islamic world? Were different types of Chinese ceramics circulated in different ways in the Islamic world? It also examines different types of Chinese ceramics found in the Islamic world, their differences in qualities, functions, production in China and their quantities. Archaeological work done by Chinese scholars in China, which tends to be less familiar to scholars outside of China due to the language barrier, can shed new light on the current debate. It provides some new evidence on the production and transport of Chinese ceramics to the Islamic world. By looking at the aspects above, this thesis is not going to end the debate with a final answer. Instead, by introducing and discussing these archaeological data, it can provide more depth and new angles through which we can further proceed with the current debate, and hopefully find new directions to research it.

1.5 Historical Frames

The period between the 8th and 10th centuries CE witnessed the prosperity of two great empires in the Asian continent: the Tang Empire and the Abbasid Empire covering an area from East China Sea to North Africa. Under these two empires, connections and communications between these two ends of Asia accelerated, with people, merchandise and ideas circulating between the east and the west.

1.5.1 The Tang Empire (618-907CE)



Fig. 1.1 Tang Empire at its Apex c. 700 CE, the Tang Controlled Area is Shaded in Green © Ancient History Et Cetera

The Tang Empire (fig. 1.1) established itself in 618 CE. The Tang Empire showed great interest in the Western Region, which is nowadays Inner Asia and Central Asia. The second Emperor Taizong 太宗 (626-649CE) launched military campaigns towards the Western Region and brought Central Asia partly under Tang's control. Anxi Protectorate 安西都护府[66] was set up as the governmental institution for the Western Region. During the reign of the third Emperor Gaozong 高宗(649-683CE), the Islamic Arab troops invaded the Sassanids (224-651CE). Sassanian Prince Peroz III (پیروز 636-679CE) asked for military assistance from Gaozong, who later refused to send armies due to the geographical distance of the military campaign. After the fall of the Sassanids, Peroz and some Persian elites came to

[66] Anxi Protectorate 安西都护府. Xin Tang Shu: The Emperor Taizong, 新唐书：太宗本纪: Vol 2 .

Tang for refuge.[67] The Turfan and the Turks were always competing with Tang in this region. Tang military campaign and ambitions towards the west facilitated the flow of information, merchandise and people along inland routes in Central Asia and Inner Asia. In this context, Tang ceramics display features of cultural interactions, such as Sancai wares and white wares that took the shapes of Sasanian metalwork. The turning point for the Tang Empire was the An Lushan 安禄山 Rebellion (755-763CE). Just three years before this turbulence, the Chinese and Abbasid troops encountered at Talas in Kazakhstan. The battle ended up with the Chinese troop defeated by its counterpart. The Tang in Central Asia was weakened by this battle. After the An Lushan Rebellion, the Tang failed to recover its prosperity and stability and was involved in continuous rebellions by military leaders and soldiers, uprisings and loss of territory to neighbouring states in the north, west and southwest. In 907, after the fall of the Tang Empire, several local and regional political powers established themselves. This period is named as the Five Dynasties and Ten Kingdoms period (907-960CE).

The Mid-Tang period (8th century CE) witnessed the commercial expansion in traditional political urban centres, the development of markets in rural areas and the credit business which facilitated long-distance transactions of large quantities of merchandise.[68] Textile, ceramic, metalworking and boat building industries were prospering and were administered by governments in a large scale and private-owned and household-owned in a small scale.[69] Guilds of handicraft industries appeared.[70] Places resembling caravanserais which provided storage of goods, boarding for merchants and travellers and transactions as well as professional trading middlemen who mastered several languages were active during the Tang period.[71]

From the end of the Northern and Southern Dynasties (420-589CE) and the Sui dynasty

[67] Xin Tang Shu: The Emperor Gaozong 新唐书：高宗本纪: Vol 3.
[68] Zhou Dianjie & Zhang Lin 1989, 6-7.
[69] Fudan University and Shanghai University of Finance and Economics 1982, 107, 109-111.
[70] Fudan University and Shanghai University of Finance and Economics 1982, 137.
[71] Qi Tao 2001, 320-321.

(581-618CE), China's ceramic industry developed quickly. North China's ceramic industry made a great progress during this period. It began to produce fine stoneware and beautifully decorated glazed earthenware.[72] Tang potters developed a highly advanced ceramic industry manufacturing various types of stoneware and porcelain for domestic and oversea markets. Fine ceramics were valued and placed together with golden and silver vessels.[73] During the Tang, Xing white wares in North China and Yue celadon in South China were among the most prominent ceramic types in China. Tang potters innovatively produced Sancai wares. Although celadon has a long history which can be dated back to the Shang period (1600-1046BC), it was during the Tang that celadon production made great breakthroughs in its techniques and quality. For instance, firing techniques were hugely improved: saggers were widely used; potters could better control the firing process, with further refinement of the raw materials for both the body and glaze. Potters made more innovations in vessel shapes and development in glaze application skills.[74] Some potters may have carried with them advanced ceramic techniques to the south and contributed to the development of southern China's ceramic production during the An Lushan Rebellion, which happened mainly in North China.[75] Tea drinking became a fashion during the Tang period, ceramic tea vessels were highly valued. In addition, the lack of copper resources, which at this time was used for making coins mainly, also encouraged the great development of the production of high-quality porcelain and stoneware vessels. Ceramic kilns spread all over the country.[76] Chinese ceramics, after several achievements in production since the Northern and Southern Dynasties, were among the most exquisite commodities in China, enjoying unparalleled and unique qualities different from those of glass and metal vessels which were more familiar to the Islamic world. They began to circulate along the Indian Ocean.

[72] Feng Xianming 2001, 313.
[73] Feng Xianming 2001, 326.
[74] Feng Xianming 2001, 346.
[75] Qu Kai 1986, 56.
[76] Qi Tao 2001, 310.

The two capitals, Chang'an 长安 and Luoyang 洛阳 and several other urban centres, Nanjing 南京, Xuancheng 宣城, Piling 毗陵, Wujun 吴郡, Kuaiji 会稽, Yuhang 余杭, Dongyang 东阳, Bianzhou 汴州 and Chengdu 成都 became centres of commercial activities.[77] Yangzhou 扬州, Chuzhou 楚州(Huai'an 淮安), Youzhou 幽州(Beijing 北京), Guangzhou 广州, Mingzhou 明州 (Ningbo 宁波) and Dengzhou 登州 (Penglai 蓬莱) were the main ports in the Tang period.[78] Guangzhou was inhabited by many foreign merchants, especially Arab and Persian merchants from the Middle East. In September of 758CE, Persians and Arabs residing in Guangzhou revolted against the local Chinese bureaucracy.[79] The whole Tang empire was connected between its different regions and to the other parts of the world via several inland and maritime routes.[80] The Grand Canal, built by the Sui Emperor Yangdi 隋炀帝(604-618CE) in the early 7th century CE, connected the Yangtze River with the Yellow River and rivers in North China. The Grand Canal, the Yangzi River and the East China Sea meet at the ancient Yangzhou port. Jiangdu city in Yangzhou was recorded to have many canals constructed and maintained for irrigation and water transport.[81] Luxuries such as horses, fur, incenses, medicinal herbs, exotic animals, textiles, jewellery were imported to the Tang empire who exported textiles, ceramics, tea, metalwork, paper and other indigenous products.[82]

1.5.2 The Abbasid Caliphate (750-1258CE)

[77] Fudan University and Shanghai University of Finance and Economics 1982, 113. Qi Tao 2001, 319.
[78] Qi Tao 2001, 315.
[79] Xin Tang Shu: The Emperor Suzong 新唐书：肃宗本纪: Vol 6.
[80] Qi Tao 2001, 315.
[81] Xin Tang Shu: Geography of Huainan 新唐书：地理志-淮南道: Vol 41.
[82] Fudan University and Shanghai University of Finance and Economics 1982, 115.

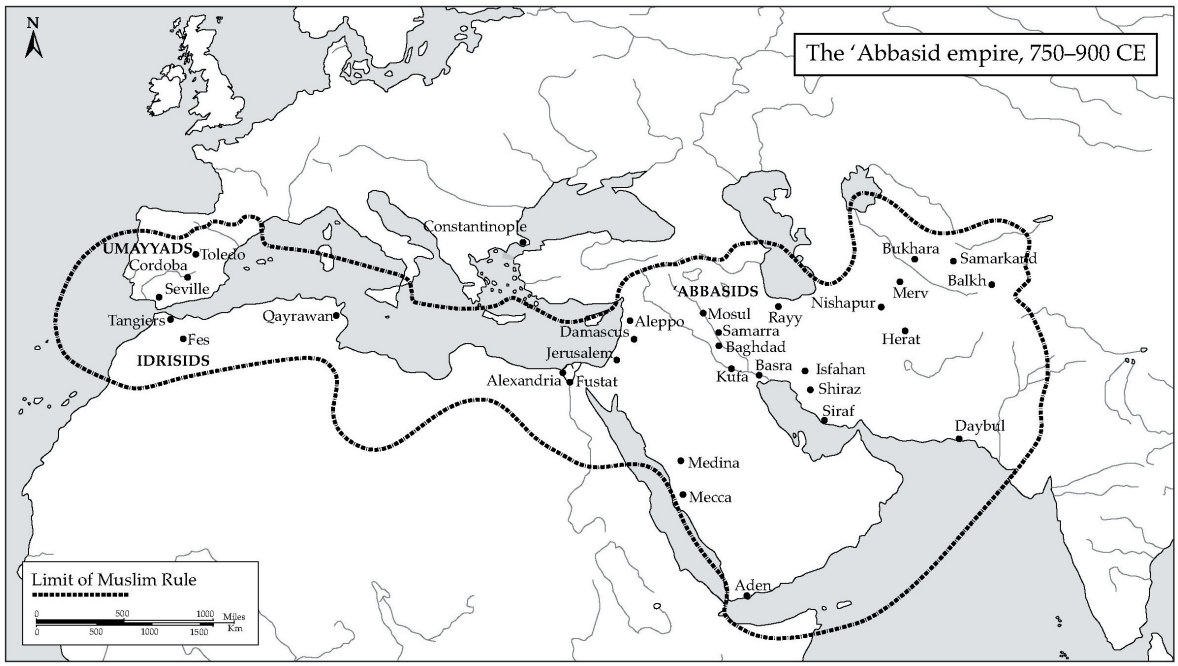


Fig. 1.2 The Abbasid Empire 750-900CE ©Bennison 2009: 31.

The Islamic calender, which is a lunar calendar, starts in 622 CE of the hijra هجرة(migration) of the Prophet Muhammad from Mecca to Medina in Arabia. After the death of the Prophet Muhammad in 632 until 661 CE, it was a period called the rule of the four 'rightly guided caliphs'الخلفاء الراشدون during which time the Arab-Muslims started to unite Arabia and conquer Syria, Iran, Iran and Egypt, which were ruled by the Byzantine and the Sasanian Empires then.[83] In 661CE, the first Arab-Islamic dynasty established itself in Syria as the Umayyad. The Umayyad period was the formative and expansionary stage of the Muslim identity, religion and culture. The Umayyads continued the conquest in Central Asia, Sind and North Africa until the Caliphate reached its greatest territorial limit. The Umayyad Caliphate was based in Syria, where the economy was prosperous due to its advantageous position in the Mediterranean economic system which had flourished for centuries.[84] Damascus, conquered around 636 CE, became the capital of the Umayyad Caliphate.[85] During the last years of the

[83] Kennedy 2016, 72-75.
[84] Robinson 2010, 199.
[85] Robinson 2010, 196.

Umayyads, revolts and rebellions in Iraq and Iran stroke the reign. The Abbasids indirectly descended from the extended family of the Prophet finally overthrew Umayyad rule with the support of Muslims in Khurasan in 750 CE.[86] During the reign of the second Abbasid caliph al-Mansurالمنصور (754-775 CE), he built Baghdad as a new capital. Iraq was the largest contributor to the revenues of the caliphate.[87] A rough calculation based on early Abbasid revenues shows that southern Iraq yielded four times as much tax revenue as the next richest area, Egypt, and five times as much as of Syria and Palestine together.[88] The agricultural area in Iraq expanded to the maximum the physical geography and existing irrigation techniques would allow during the late Sasanian period.[89]

This new capital enjoyed a beneficial location which was connected to the rest of Iraq and Syria through the Euphrates and Tigris, and through the Persian Gulf to Iran, Arabia and Sind. It quickly became a commercial and industrial metropolis of the empire, with numerous suburbs of residential, commercial and manufacturing areas laying outside the round city.[90] Luxurious secluded palaces were erected along the Tigris by princes and princesses residing in Baghdad.[91] Caliph Al-Mu'tasim المعتصم (833-842CE) ordered the construction of Samarra as his new capital, which is to the north of Baghdad along the Tigris River, where he could lodge his Turkic troops. Samarra was a city built up 'overnight'. Palaces were built of rammed earth, mudbrick and occasionally baked bricks. These humble building materials were then adorned with decorative facing, like marble panels, tiles, mosaics, carved stucco, wall paintings and inlaid precious wood and metal.[92] Great palaces were constructed in and near Samarra especially during the reign of al-Mutawakkil,[93] who was also notorious for the fiscal problems of the Empire following his elaborate constructions and extravagant

[86] Kennedy 2016, 134-135.
[87] Kennedy 2016, 143.
[88] Kennedy 2011, 178.
[89] Kennedy 2011, 178.
[90] Bennison 2009, 71.
[91] Bennison 2009, 71.
[92] Bennison 2009, 72.
[93] El-Hibri 2010, 298.

lifestyle.[94] He ordered the construction of Balkuwara (Barkuwara)[95] and the great mosque of al-Mutawakkil.[96] Al-Ya'qubi described Samarra's new bustling commercial area with "three great wide rows [masaff] coming from the street which leads from the Wadi Ibrahim b. Riyah. In each row there were shops containing all sorts of merchandise and art and trade. The breadth of each row was one hundred black cubits…"[97] Samarra was not an inviting place for sustainable development due to a lack of sustainable water. Samarra was totally dependent on the caliphs' support and wealth.[98] Samarra went into decline with chaos in the late 9th century, with the capital returning to Baghdad in 892.

The 9th and 10th centuries saw the rise of regional states. The Abbasid Empire began to shift from a centralised to a more federal mode in which caliphs had limited political power beyond Iraq. But the cultural, intellectual and religious integration had never stopped, at least at the upper level of society.[99] Local dynasties, though politically independent, shared the same cultural traditions and religious practices. Therefore, although a unified Abbasid Empire disintegrated, the highly developed culture it created did not fade out. The intellectual and cultural life continued to flourish in a polyfocal atmosphere in various local Islamic courts.[100] Egypt and Syria under the Tulunids (868-905CE) assumed increasing commercial importance in the Red Sea and the eastern Mediterranean area.[101] The Tulunids reproduced the culture of the Abbasids in Iraq, which led to a shared courtly culture and a deeper degree of integration between different regions in the Islamic world that facilitated commercial exchange.[102] The 'India trade' returned to the Red Sea during the second half of the 9th century and culminated under the Fatimids (909-1171CE).[103] In Baghdad, the Tahirid (821-873CE) family based in Khurasan seized the controlling power and firmly controlled the

[94] El-Hibri 2010, 299.
[95] Leisten 2003, 81, a palace from the time of al-Mutawakkil.
[96] Recorded by al-Ya'gubi from Leisten 2003, 35.
[97] Leisten 2003, 147.
[98] El-Hibri 2010, 301.
[99] Bennison 2009, 39.
[100] Robinson 2010, 15.
[101] For details, see Daly, M. & Petry, C.1998.
[102] Power 2012, 217.
[103] Power 2012, 189-190.

inland routes.[104] The Tahirids were vigorous patrons of cultural activities and promoted an aristocratic cultural value especially in their court in Nishapur.[105] However, very soon their power was reduced by a newly growing political entity, the Saffarids (861-1003CE). The latter was challenged by the Samanids (819-999CE) in the eastern Islamic world. In the mid-10th century, the Buyids (934-1062CE), who controlled Baghdad, were great patrons of Arab culture.[106] The Ghaznavids (977-1186CE), in the meantime, exercised authority in Khurasan since the end of the 10th century.[107] The Kurdish dynasties in the 10th century were active around the area of the Zagros Mountains and the uplands to the north of Mosul in Iraq.[108]

1.5.3 Social Contexts

Muslim culture was shaped as much by the isolated desert as by the long history of connection and interaction with Sasanian-Persian and Roman-Byzantine cultures in Iran, Iraq, Greater Syria and the lands beyond by mercantile activities of caravan trade that passed through Arabia.[109] Since the Umayyad period, the Arab-Muslim elite was increasingly committed to an urban life with a vigorous commercial economy. During the 7th and 8th centuries after the Islamic conquest, a number of new towns were founded in Iraq including Basra, Kufa and Baghdad, which were of enormous political, economic and cultural importance to the emerging Islamic state.[110] In Greater Syria, political and economic elements from Late Antiquity were inherited and continued to evolve in a new Islamic context.[111] The large-scale development of big cities and urban economies in the eastern Mediterranean area continued from the Late Antiquity to the early Islamic period.[112] The 9th and 10th centuries CE saw a flourishing urban network linking together provincial capitals,

[104] Bonner 2010, 314.
[105] Bonner 2010, 315.
[106] Kennedy 2010, 369.
[107] Kennedy 2010, 371.
[108] Kennedy 2010, 381.
[109] Bennison 2009, 138; Robinson 2010, 225.
[110] Kennedy 2011, 177.
[111] Haldon 2010, 40.
[112] Haldon 2010, 41.

market towns, holy cities, ports, border posts and substantial villages.[113]

The Abbasid Empire had an ideal geographic location for inter-regional trade. Commercial activities were culturally and religiously well supported by Muslim culture. Before the era of Islam, states and tribes in the Arabian Peninsula benefited from caravan trade passing through their territories.[114] Mercantile activities were approved by both the Qu'ran and the Hadith as long as they were conducted within certain moral and legal boundaries. Merchants enjoyed a respectable status that was neither humble nor despised. This facilitated mercantile activities to develop in the new Muslim state.[115]

Pilgrimage was another incentive for commerce in the Islamic world. The connection between trade and pilgrimage existed before the Islamic conquest in Arabia. Pilgrimage routes could also be used by traders. The Abbasids were investing in the maintenance and improvement of pilgrimage routes and facilities, such as Darb Zubayda, which was patronised by Zubayda, mother of the Caliph Harun al-Rashid, and further developed by the Caliph himself.[116] Also, the vast number of pilgrims generated a convenient market too. Muslim pilgrims to holy cities and tombs of the saints supported themselves by trading goods along the route and in trade fairs around the holy cities.[117]

More Muslims settling in old towns and new ones stimulated a market with an increasing demand for all kinds of commodities. The wealth gained by members of the Muslim elite through their conquest of former Byzantine and Sassanid territory and the taxation of non-Muslim subjects enabled them to pursue luxuries like spices, precious metals, porcelain, rich silk textiles, perfumes and slaves.[118] This stimulated trade and local industries that manufactured luxury goods. Markets in the Islamic world came in all shapes and sizes: open squares with stalls, elegant streets of roofed shops and market halls.[119]

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[113] Bennison 2009, 80.
[114] Bennison 2009, 137.
[115] Bennison 2009, 138-9.
[116] Kennedy 2016, 154.
[117] Bennison 2009, 140.
[118] Bennison 2009, 140.
[119] Bennison 2009, 84.

In the early Islamic period, Bahrain, Yemen, Oman, and especially Sohar and Masqat served as centres for maritime trade connecting the Arabian Peninsula and the Persian Gulf with the Far East and Africa.[120] Seafaring and maritime trade brought a formidable amount of wealth to Sohar.[121] Even during the political uncertainty in the late 9th and 10th centuries in the Abbasid Empire, Sohar continued to thrive in the maritime trade with the Far East.[122] Due to the advantageous location of Siraf in the middle of the Persian Gulf, Siraf gained importance quickly and flourished during the 9th and 10th centuries, receiving products from the Far East, India and Africa. However, exchange with China, India or the Franks in Europe was still small-scale in comparison to the massive circulation of products within the Abbasid Empire.[123]

The 9th century was the golden age of the Abbasid Empire. The reign of the Caliph Harun al-Rashid هارون الرشيد(786-809CE) is considered as a period of 'golden prime' of the Abbasid Empire.[124] Caliph al-Ma'mun المأمون (813-833CE) was famous for his contribution to the synthesising of knowledge from different cultures and supporting academic activities of specialists from diverse parts of the Empire. The Abbasid Empire generated a creative cultural atmosphere. It was under such a social and economic background that the China-Abbasid interaction and ceramic exchange took place during the 8th to 10th centuries CE.

1.6 Typologies of Chinese Ceramics and Islamic Glazed Ceramics

Ceramic studies have to deal with issues of typology. Typology is a form of classification which has a clear theoretical background and well-agreed norms to solve specific research problems.[125] Archaeologists use typology as a technique to arrange artefacts based on perceived or measurable similarities between observed data and specific analytical units,

[120] Landau-Tasseron 2010, 432.
[121] Landau-Tasseron 2010, 430.
[122] Landau-Tasseron 2010, 437.
[123] Bennison 2009, 144.
[124] El-Hibri 2010, 283.
[125] Santacreu et al. 2017, 185.

called types. A type is an aggregate of diagnostic attributes, for instance, colour, shape, formal aspects, decorative motifs, and measurable aspects, such as height, width, diameter, angles, percentages of ware components which are recorded at a particular site at a particular moment.[126] The perceived and measurable similarities of artefacts are based on the quality and quantity of diagnostic attributes that data and types appear to share. There exist several methods of defining types and what particular attributes each type entails in order to answer specific questions.[127] The diversity results from different typological strategies that different attributes are selected and emphasised for specific research aims and intentions dealing with cultural, technological, chronological or functional aspects of artefacts.[128]

This thesis will not generate a new method of classifying early Islamic glazed ceramics and Chinese ceramics; instead, it focuses on distribution patterns of sites in the Islamic world during the 8th to 10th centuries CE with and without Chinese ceramics finds, their quantification and their comparison with contemporary Islamic ceramics. From Arthur Lane onwards, studies on Islamic ceramics have put forward several typologies, and each is valid and efficient in their specific contexts. This thesis adopts mainly Lane, Northedge & Kennet, Féhérvari, Whitehouse and Watson's typologies of Islamic glazed ceramics.[129] This is because their typologies and their discussions on early Islamic glazed ceramics and Chinese ceramics in the Islamic world are pertinent to the topic under discussion in this thesis. Chinese ceramics have a well-established and systematic standardised typology for almost all ceramic research in China. The biggest attribute of its typology is the kiln from which ceramics were made. Different types of Chinese ceramic products, therefore, are further classified under the same kiln site according to their forms, glaze and decoration. This thesis follows mostly Feng Xianming, Quan Kuishan and Meng Yuanzhao's typologies

[126] Bortolini 2017, 652 and 661.
[127] Sinopoli 1991, 44; Bortolini 2017, 652; Burkette 2018, 39.
[128] Santacreu et al. 2017, 185.
[129] See Appendix 5.

on Chinese ceramics.[130]

[130] Feng Xianming 2001; Quan & Meng 2008. See Appendix 4 and Chapter 6.

Chapter 2: Theoretical Background and Methods of Analysis

This chapter discusses the theoretical background of this thesis and methods of analysis used. It discusses world-systems theory and Indian Ocean networks, within which, this thesis covers the cultural and geographical sphere of the Islamic world at the western end of the Indian Ocean. Exchange is the key element for the study of Chinese ceramics in the Islamic world and their connections with contemporary early Islamic glazed ceramics. Chinese ceramics in the Islamic world have been generally interpreted as commercially traded luxurious goods, and this view needs to be examined.[131] By using spatial distribution analysis of sites in the Islamic world with Chinese ceramics combined with available quantitative information of Chinese ceramic finds, this helps to reconstruct a comprehensive picture of the scale of Chinese ceramic exchange during the 8th to 10th centuries CE from China to the Islamic world.[132]

2.1 World-Systems and Indian Ocean Networks

World-systems theory was developed in the 1960s and 1970s, introduced by the American historian Immanuel Wallerstein in his *Modern World System*,[133] and continues developing until today. Wallerstein defines a world system as a social system with boundaries, structures, member groups, rules of legitimation, and coherence,[134] incorporating various economic or political entities, which are articulated by trade networks extending beyond the boundaries of individual political units.[135] Beaujard discusses the role of Indian Ocean in

[131] For example, George 2015 and Shen 2017.
[132] The quantification is discussed in Chapter 5.
[133] Hall, Kardulias & Chase-Dunn 2010, 234.
[134] Wallerstein 2011, 347.
[135] Hall, Kardulias & Chase-Dunn 2010, 235 and 239.

Eurasian and African world system before the 16th century CE.[136] He discusses long-distance trade to understand the formation of local societies and the larger area in the Indian Ocean system to which they were linked. According to Beaujard, the Indian Ocean became a unified space via exchange networks. The synchronization of different regions which were united by exchange networks demonstrates the systemic nature of their relations.[137] The interconnections, the size of the networks and their regularity, intensity and speed of exchanges make different regions progressively integrate and shape into a world system.[138] Several sub-systems exist in the Indian Ocean system, each with its own core and peripheries.[139]

The ceramic exchange between China and the Islamic world during the 8th to 10th centuries CE could not have been achieved without Indian Ocean maritime networks. In the long history of maritime activities and connections across the Indian Ocean, there existed a net of smaller-scale and short-range transactions and interactions around the rim of the ocean, amid which long-distance trade occurred.[140] Not all coastal areas become a trade nexus. Zones at the intersection of two sub-systems are particularly favoured in this respect, hence for example, the success of Aden and Yemen, Hormuz and Oman.[141] People living in the littoral regions constitute the most dynamic part in the Indian Ocean world. Sailors and merchants move around the Indian Ocean networks driven by demands of exchange and contribute to the establishment of a "littoral society", which is somewhat distinctive from that of the hinterland. They are more cosmopolitan, accustomed to a transient way of life and rhythms of seasonal arrivals and departures. They travel and return, linked to each other by blood and religion, and transact across and along the ocean's shores.[142] It is within this context that the circulation of Chinese ceramics from one end of the Indian Ocean to the

[136] Beaujard 2005.
[137] Beaujard 2005, 412.
[138] Beaujard 2005, 412.
[139] Beaujard 2005, 413.
[140] Hawkes & Wynne-Jones 2015.
[141] Beaujard 2005, 415.
[142] Pearson 2006; Hawkes & Wynne-Jones 2015.

other was achieved.

The examination of Chinese ceramics circulated in the Indian Ocean during the 8th to 10th centuries CE offers a lens concerning the interaction and connectivity in the Indian Ocean system between the two "cores", the Abbasid and the Tang. Wallerstein's world systems theory emphasises concepts of 'core' and 'periphery' and a hierarchical aspect where the core dominates.[143] In the case of ceramic exchange between China and the Islamic world during the 8th to 10th centuries CE, neither of these two economic and political entities formed the core or periphery to each other. An 'interaction sphere' model or a model of two cores of two sub-systems in the Indian Ocean system tends to be more appropriate than the model of core-periphery or dominance-subordination to analyse the phenomenon of ceramic exchange between China and the Islamic world.[144] Chase-Dunn and Hall suggest four types of networks within world systems: bulk goods exchange networks; regularized political-military interaction networks; prestige and luxury goods exchange networks, and information exchange networks.[145] There were also religious networks including pilgrimage in the Indian Ocean.

2.2 The Cultural and Geographical Boundaries of the Area Studied in This Thesis

This thesis focuses on the Islamic Middle East, including sub-regions of Iran, Mesopotamia, Greater Syria, Egypt, Arabia, the Red Sea, the Persian Gulf, the Gulf of Oman and the Gulf of Aden, the territories that were once officially under the rule of the Abbasid Empire during the 8th to 10th centuries CE and closely connected with the Abbasid court in Mesopotamia. This area not only includes coastal areas, which are directly linked to the Indian Ocean network, but also inland territories. Areas discussed in this thesis are defined by the cultural boundaries based on their Muslim culture and identity. Islam arrived in these sub-regions

[143] Renfrew & Bahn 2008, 386.
[144] Renfrew & Bahn 2008, 388.
[145] Hall, Kardulias & Chase-Dunn 2010, 242.

over the course of the 7th century CE and gradually became the most prevalent culture, religion, social and political power.

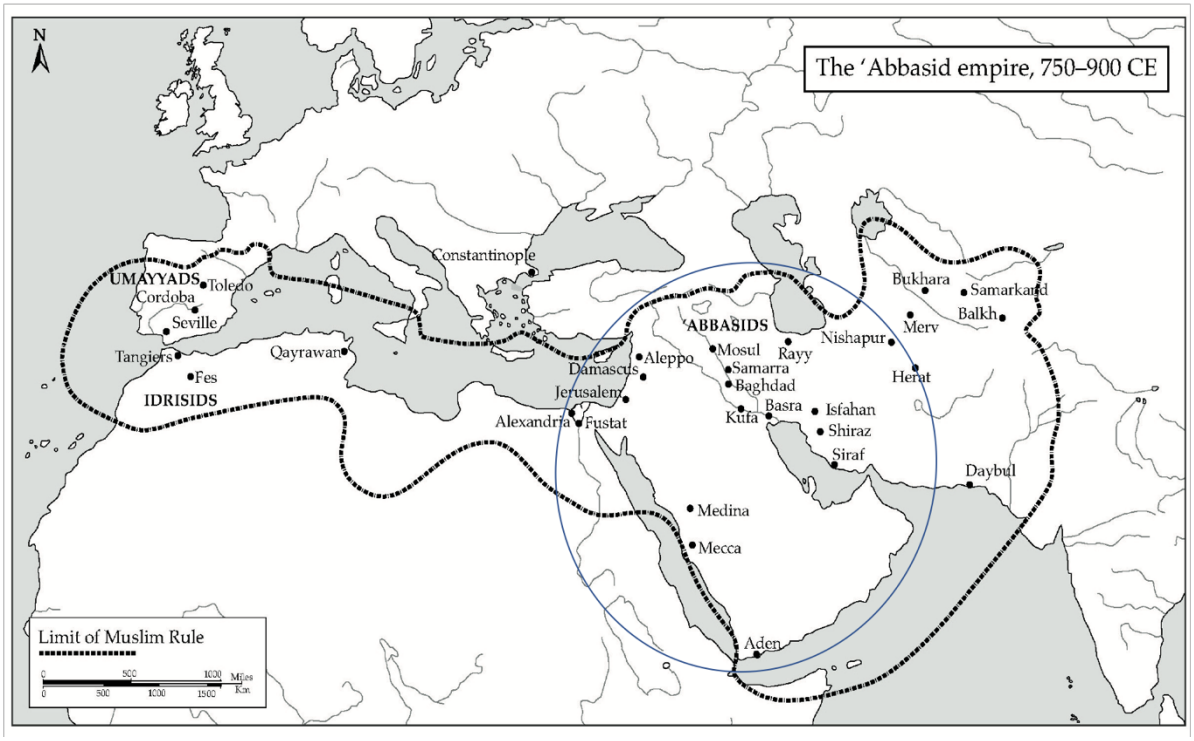


Fig. 2.1 The Abbasid Empire 750-900CE ©Bennison 2009, 31 and the Areas Discussed in This Thesis

This thesis covers the core area of the early Islamic world (fig. 2.1). The areas of Khorasan, Central Asian steppes, Indus valley, Southeast Asia, most of North Africa, West and East Africa and South Spain are not discussed here for the following reasons. Firstly, this is to avoid the danger of covering too wide an area in this thesis. Secondly, Khorasan and Central Asia were linked to inland Iran and Indus Valley, due to regional proximity. These areas were also physically close to China via inland routes, making them as active trade partners, centuries before the boom of maritime activities across the Indian Ocean in the 8th century CE. Indus Valley region is not discussed in this thesis due to its regional complexity. It makes more sense to keep it part of the discussion of the whole Indian Ocean network, rather than simply dragging it out of its context within the South Asian subcontinent. North Africa and south Spain were not only linked to the Indian Ocean network, but also part of the Mediterranean system. When these regions became Islamised in the 7th and 8th centuries

CE, they still maintained various other cultural identities mingled with this new Muslim culture. It is necessary to discuss these areas within a proper cultural frame. Therefore, out of the consideration of the issues above, this thesis covers the core areas of the Abbasid Empire, which were directly linked to the Indian Ocean maritime networks.

2.3 Exchange, Trade and Alternative Methods of Exchange

2.3.1 Exchange

Cultures in ancient times would unavoidably interact and communicate with one another. Their interactions and communications can be identified by the presence of components of one culture within another culture,[146] and the intensity of interactions and communications can be gauged by the frequency and quantity of these components transferred from one culture to another.[147] The movement of these materials from one culture to another can be achieved by both one-way transaction (transfer) and two-way transaction (exchange).[148] The significance of studying exchange lies not only in identifying and measuring interactions and communications between cultures, but also understanding changes and developments in various aspects of ancient societies, which were sometimes externally stimulated by exchange.[149] Chinese ceramics in the Islamic world from the 8th to 10th centuries CE formed a dynamic part of the material exchange between China and the Islamic world. Their transactions on the one hand facilitated the spread of Chinese ceramic art and skills, on the other hand, stimulated changes in ceramic productions and aesthetic values in both the Islamic world and China.

[146] Mumford 1998, 2.
[147] Renfrew 1975, 5.
[148] Smith 2004, 84.
[149] Curtin 1984, 1.

2.3.2 Trade

Most exchange took place in the form of trade. Trade has been studied and defined by many modern subjects. Trade is defined by Polanyi as “the mutual appropriative movement of goods between hands”.[150] The internal trade is operated within social or spatial units and external trade between them across cultural boundaries.[151] Trade is a way through which goods that are unavailable for a group can be acquired externally from another group peacefully.[152] Trade embodies exchange of goods, knowledge, beliefs, values and power.[153] Traces of trade can be identified archaeologically to a certain degree by physical remains of the infrastructure of trade, for instance, marketplaces, warehouses, shops and port facilities[154].

Trade in ancient times did not have to rely on a market,[155] for example, trade in the form of barter and freelance or middleman trade.[156] Merchant communities living outside of their countries in associated networks can serve as cross-cultural brokers, which has been designated as merchant diaspora or trade diaspora.[157] Muslim Arabs and Persians were once one of the largest groups of merchant diasporas across the Indian Ocean, moving along the coastal areas, establishing settlements and participating in the Indian Ocean trade.[158] Their settlements in China facilitated the conduction of exchange between China and the Islamic world.[159]

Administered trade which runs through government-controlled channels with administrative methods, standardised and regulated rules, packages and quality, is conducted normally

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[150] Polanyi 1957, 266.
[151] Renfrew 1975, 4.
[152] Polanyi 1975, 133.
[153] Beaujard 2005, 412.
[154] Cahill 2001, 112-3.
[155] Garraty 2010, 6.
[156] Renfrew 1975, 42-3, 48-51; Renfrew & Bahn 2008, 374; Stark and Garraty 2010, 34.
[157] Wink 1991, 66.
[158] Wink 1991, 67-85.
[159] See details of Middle Eastern merchants in China during the Tang period in Chapter 1, Section 1.5.1 and Chapter 7, Section 7.1.

between treaty relationships.[160] The port-of-trade establishes as the institution for administered trade. The idea of port-of-trade proposed by Polanyi does not designate only riverside or seaside ports, but also insulated centres on borders where diplomats, messengers or merchants working for different political entities can gather to exchange goods in protected neutrality. Trade or exchange in this sense is more political and administrative than economical.[161] Trade in port-of-trade is carried out isolated from local exchange systems. It is mainly cross-cultural and overseas trade.[162] Ancient polities with or without internally commercialised economies could be both engaged in this commercial type of exchange.[163]

In these types of trade mentioned above, market does not appear as a necessary institution for trade. Trade can be conducted between persons, groups or governmental institutions. But market is a necessity for 'free trade', the organization of which follows the supply-demand-price mechanism[164], and under which, traded goods move their way through the market without strong state intervention.[165] Market exchange in the past may not have involved a broad commercialisation as in modern market systems, but rather particular commercialised spheres or degrees of commercialisation.[166]

2.3.2.1 Long-Distance Trade

Long-distance trade as a form of exchange typically does not involve large quantities of goods for everyday livelihood. In ancient times, long-distance trade was arduous and

[160] Curtin 1984, 13.
[161] Polanyi 1963, 30; Smith 2004, 89. The port of trade model was inspired by Karl Polanyi in his series publications, see Phillip D. Curtin in his Cross-cultural trade in world history, page 13 and footnote 13 for details. And see the debates between Polanyi's school which is named as substantivists who focuses more on nonmarket and noneconomic processes in premodern society and the main traditions of Western economic theory (the formalists), who stresses the role played by the market exchange in premodern periods in Curtin 1984, 14.
[162] Polanyi 1963, 31.
[163] Curtin 1984, 13.
[164] Polanyi 1957, 262-3.
[165] Polanyi 1975, 133.
[166] Smith 2004, 78-80; Stark and Garraty 2010, 36.

dangerous, partly due to limitations of technologies of boat building, beasts of burden, knowledge of navigation and the geography of the oceans and lands, and partly due to the risks of travel in foreign lands and waters.[167] The high risks and difficulties signify that long-distance trade in ancient times tended to be carried out by groups of sailors and merchants bounded together by blood, tribes or religions. It was normally seasonal and sporadic.[168] Long-distance trade across the Indian Ocean before the modern era was seasonally determined by the monsoons. The arduousness, long distance and seasonal discontinuity determined that goods circulated by long-distance trade tended to be important and unavailable at home place or retain a high profit.[169] Different commodities would move with unequal ease depending on their desirability, fragility and bulkiness.[170] The desire for specific goods from distant regions motivated early long-distance trade. The choice of place where long-distance trade is carried out is affected by the conditions of the place, the interest of merchants and travellers, as well as the ambition of local rulers.[171] Long-distance trade exerts impacts on societies in various aspects: lifestyle, diet, material culture, etc. The increase of long-distance trade would also stimulate the production of exchanged goods. Elites can display their social status through the possession of important and locally unavailable goods.[172]

2.3.3 Alternatives to Trade in Exchange and Transfer of Goods

There are several feasible methods of circulating goods in ancient times including trade, redistribution, allocation within the unit of production, gift without expectation of return, reciprocal exchange, taxes, tribute, theft, plunder and religious networks.[173] Gift giving is a

[167] Dalton 1975, 102.
[168] Dalton 1975, 102.
[169] Dalton 1975, 102.
[170] Rowlands 1973, 595.
[171] Sindbæk 2007, 129.
[172] Wilson 2012, 419-420.
[173] Smith 2004, 84; Beaujard 2005, 415.

social act with the intention of reinforcing social relationship.[174] Reciprocity designates two-way movements of goods between symmetrical groupings, and redistribution denotes appropriational movements of goods towards a centre and out.[175] Not all these methods have a direct economic benefit. Within archaeological patterns, these various mechanisms of transfer and exchange can rarely be ruled out.[176]

The traditional understanding of trade relationships across the ancient Indian Ocean seems to have dominated both historical and archaeological research. Archaeologists tend to study the Indian Ocean network under frameworks defined in history, the emphasis of which is on macro-histories and economics. Commercial trade has been understood as the mechanism behind the movement of objects across this area.[177] Other methods of movement have not been explored sufficiently. However, across the Indian Ocean, religious networks, the movement of craft workers, cultures of collecting and connoisseurship, pilgrimage, particularly among Muslim communities that occupy the Indian Ocean rims, and processes of enslavement all add to the rich web of exchange and connections across the Indian Ocean.[178] Religion and trade could sometimes occur at the same time, for example, in Islam. Pilgrimages to shrines or tombs of saints provided chance and place for commercial gatherings.[179]

2.3.4 Identifying Different Methods of Exchange

Identifying different methods of exchange tends to be much more complicated than identifying the presence of exchange. Even though different methods of exchange have different nature and mechanisms, the circulation and disposal patterns of durable exchanged goods which survived through time and the quantities can occasionally be very similar to

[174] Renfrew 1975, 5.
[175] Polanyi 1957, 250.
[176] Feinman & Garraty 2010, 178.
[177] Hawkes & Wynne-Jones 2015.
[178] Hawkes & Wynne-Jones 2015.
[179] Beaujard 2005, 451.

each other.

Marketplace trade brings a larger volume and diversity of goods, higher efficiency in trade, goods from more remote areas and a wider range of conversions between various goods.[180] Widespread regional uniformity of imported goods suggests an effect of market trade.[181] In contrast, reciprocal exchange tends to result in lower volume of goods, unequal and small spheres of distribution.[182] The distribution patterns of goods, normally high-value and imported, frequently replicates the social hierarchy.[183] Administered exchange can also generate strong correlation between high-value goods and elite contexts as reciprocal exchange does. However, through the operation of commercial trade, high-value goods can also be distributed in nonelite contexts, though in lower frequencies than in elite contexts.[184]

Under the operation of market trade, all members of the society may purchase imported Chinese ceramics. Their general availability, value and relative cost decide who can afford and acquire these imported ceramics, and later the disposal and distribution patterns of them. Ideologies can also influence the desirability of certain products and their value.[185] Value normally determines the price consumers are willing to pay and price determines the distance over which imported ceramics will transport.[186] When the costs are high, imported ceramics tend to be restricted to elite contexts, in which case, the effect of market trade will be difficult to be differentiated from reciprocal exchange, administered exchange or redistribution where goods are distributed through social hierarchies.[187]

Trade was inevitably one of the major methods, but the different distribution patterns of each type of Chinese ceramics and their different quantities in Islamic sites indicate that there must have been multiple mechanisms behind the movement of Chinese ceramics in the Islamic world. Not all Chinese ceramics in the Islamic world were luxurious traded goods.

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[180] Hirth 1998, 455.
[181] Smith 2004, 90.
[182] Hirth 1998, 455.
[183] Hirth 1998, 455.
[184] Hirth 1998, 456; Smith 2004, 90.
[185] Beaujard 2005, 415.
[186] Hirth 1998, 460.
[187] Hirth 1998, 459; Fulford 2009, 258.

2.4 Distribution Pattern Analysis

As Ian Hodder comments, "Non-random spatial patterns are expected because individual behaviour is not random but is constrained and determined by various social and economic factors."[188] The analysis of distribution patterns of artefacts is one of the most important ways to investigate different forms of exchange and transfer of goods. It deals with the spatial structure, the way in which these goods are located in space and their spatial interaction.[189] Analysis of distribution patterns steps from the study of artefacts themselves to the study of relationships between artefacts and social contexts.[190] It also proves to be a method to assess archaeological sites. This thesis' analysis of the distribution patterns of sites in the Islamic world with Chinese ceramic finds from the 8th to 10th centuries CE is on a macro level of spatial analysis.[191]

There are some complications in applying distribution pattern analysis to groups of archaeological data. The archaeological record is only able to present traded goods that are sufficiently durable or distinguishable from local products within a site. These remains are characterized in archaeological surveys or excavations that form distribution patterns and have already left the exchange systems. In the temporal aspect, distribution of artefacts cannot represent the situation at a single point in time, instead, it is the result of a series of events over a definite time span.[192] Therefore, distribution analysis cannot be used unthinkingly, despite its potential value.

There are several factors affecting distribution patterns. Besides the effect of different mechanisms of exchange, patterns of site survival, the ways in which fieldwork has been carried out and the intensity of fieldwork also affect the distribution patterns of artefacts.[193]

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[188] Hodder 1977, 224.
[189] Clark 1977, 10.
[190] Clark 1977, 5.
[191] Clark 1977, 13.
[192] Rewfrew 1975, 40.
[193] Hodder 1977, 230.

The analysis of distribution patterns directly depends on the quality of the documentation of archaeological contexts and finds. Other factors include the effects of geographical elements, settlement patterns, the density of settlements, distance between them and settlement hierarchy. Sites close to each other have greater chance of interaction than those sparsely or widely spaced.[194]

2.4.1 Settlement Hierarchy

The identification of settlement hierarchy during historical periods relies much on historical texts and topographical criteria.[195] The settlement hierarchy is not a simple reflection of local political hierarchy. The classificatory criteria for the hierarchical class of each settlement, the definition of each class and the number of classes are issues to be considered.[196] Different sets of classes may be applied by different researchers. A certain amount of overlap may occur between classes. Even though the same classes are used by different researchers, they may not be identical in size and character. Smaller sites tend to be underestimated than larger ones. The discovery rates of sites are more or less proportional to their occupational sizes. Dating based on diagnostic ceramics, like Samarra Horizon ceramics, determines that smaller sites, with naturally fewer ceramic finds and maybe only coarse-tempered are much more difficult to date than larger sites, due to the lack of information regarding local types of potteries.[197] For this thesis, the classification of sites in the Islamic world follows the way in which they are described in their publications. The number of classes of settlement hierarchy is restricted to four: city-level, town-level, village-level and ports, in order to make less confusion and a clearer pattern.

[194] Hodder 1977, 286-291.
[195] Sindbæk 2007, 120.
[196] Ikeguchi 2006, 138.
[197] Ikeguchi 2006, 140.

2.4.2 Site Selection and Biases

A total number of 160 sites in the Islamic world dated between the 8th and 10th centuries CE has been studied in this thesis. These sites have been either surveyed or excavated. The availability of archaeological data is the primary criterion for inclusion of a given site in this thesis. These sites are from six geographical and cultural sub-regions: Mesopotamia, Iran, Egypt, the Red Sea area, Greater Syria, and Arabia. They are divided into four categories: city-level settlement; town-level settlement, church, monastery and palace; village and small settlement; port.

The city-level settlements include cities of varying importance and different functions. This is to avoid complication in categorising these sites, which may adversely affect the interpretation. Church and monastery sites are placed together with towns in the second rank in order to distinguish these sites from more populated urban centres. Ports are listed on their own. Their function as ports was crucial, although they varied in size, population and importance.

For any spatial distribution analysis of artefacts, the mechanism of the selection of sites lies in the availability of reasonably well-published archaeological data.[198] Sites studied in this thesis have either been excavated to different degrees or surveyed archaeologically. Only a limited number of these sites have been systematically excavated and published.

There are certain limitations in the available archaeological data. Several inherent biases go beyond the control of archaeologists. Biases appear immediately upon the initial production and use of an artefact, after that, survival of an artefact and preservation of it through natural and human agencies. Distortions can be brought by archaeologists in recording archaeological data; different research trajectories are sued by different countries and different teams in different periods in selecting regions, sites, and portions of sites for survey and excavation. The act of selecting inevitably imposes preconceptions and expectations

[198] Mumford 1998, 24.

about what will be found.[199] They also adopt different approaches to the excavation, recording, interpretive models and publication, which are conditioned often by project resources instead of fully articulated research goals.[200] There are also inter-observer errors generated by different archaeologist.

The biggest challenge in collecting archaeological data in this broad area is the lack of a uniform system of archaeological work conducted in various regions within the Islamic world. The earliest archaeological work studied in this thesis took place in the late 19th century CE, and the most recent work is still in progress. The procedures and standards of archaeological survey and excavation have changed considerably over the past century. Even the ways in which archaeologists publish their results vary greatly. Besides, the Middle East has always been an area interesting to a wide range of international participantion. There are British, French, German, Italian, Polish, Japanese, American, Canadian and local Arabic and Iranian archaeological missions working in this area. Recently, Chinese archaeologists are joining too. Not only are their reports published in various languages, but also to different standards. An unresolved issue is the use of terminologies, especially with Islamic ceramics, which require a systematic typology to be established. Early work tends to isolate finds from their archaeological contexts, and focus greatly on monumental remains of the sites, for example, Samarra, Persepolis and so on. As a result, much information on ceramic finds has been neglected in their publications. In some archaeological sites, layers of Islamic period were treated with less attention compared to classical and pre-historical periods that archaeologists were looking forward to. Therefore, no sufficient information has been provided regarding Islamic layers of these sites. Not every report provides sufficient information on its ceramic finds. Many reports provide very ambiguous information on their ceramic finds, with few illustrations, unclear and scanty descriptions. For example, some reports only mention the presence of Chinese Tang and Song wares without any further

[199] Greene 2006, 130.
[200] Mumford 1998, 14; Mattingly 2000, 13.

information on them. Also, the identifications of Chinese wares in some reports are disputable. For instance, when only the term 'green glazed ceramic' is used to describe an assemblage of ceramic finds, it is difficult to ascertain whether it refers to the alkaline glazed ware or lead glazed ware produced in the Islamic world or Chinese celadon stoneware.

Some sites studied in this thesis have only been surveyed by different teams at different times. Survey methods have rarely been explained in detail in these publications, if there are any proper publications on these surveys. Diverse methods have been adopted by surveyors during their work and most importantly, survey is conditioned hugely by local circumstances, whether natural or cultural.[201] Normally, surface artefacts can be interpreted as consequences of past human behaviour. But there are also post-depositional natural effects;[202] for example, earthquakes, waves, and non-conscious results of human behaviour, such as agriculture, random deposit during transportation and scattered rubbish.

Some sites have never been properly excavated or surveyed, for instance, Baghdad. Archaeological information remains to be uncovered. Some sites have been excavated on a limited scale, for example, in a test pit, while others have only been surveyed on the surface in search for artefacts and traces of architecture. These two methods yield less information than a systematic excavation. Therefore, it is inevitable that archaeological information has yet to be exposed and examined. Even though some sites have been excavated or archaeologically surveyed, the results of which have not been published. Some of these sites may be mentioned briefly in other publications by whoever has the access to information related to these sites. In addition, some publications are circulated within a very small group of readers and not available to public resources Thus, this part of information becomes unavailable too.

Natural forces have also made some archaeological data unavailable now. Earthquakes and river sedimentation could lead to abandonment of a port, such as Siraf. The Tigris-Euphrates

[201] Ikeguchi 2006, 137.
[202] Taylor 2000, 16.

river system has been unstable and often disrupting settlement in the Basra region. The Tigris has been washing away settlements over times, for example, parts of the old town of Basra, which had been built mainly of earth. Frequent changes of the courses of the Euphrates and Tigris have made the physical conditions of Mesopotamia very different from what they looked like in the past.[203] Some sites vanished or decreased. All or part of them have been buried down the earth or submerged under water, thus, become unavailable.

Finally come the tangled political, religious and economic interests in the Islamic world. In colonial times, many finds were divided between local governments and foreign archaeological missions. These finds were further shared among various countries and places, for example, the finds from Samarra, which belonged to the German archaeological mission in the first place, were brought back from Iraq by the British, who defeated Germany in the First World War. They were further distributed by the British Empire among its Commonwealth countries which had Islamic collections. Some were returned to the German excavator, Herzfeld after the war and brought with him to the USA. In Iraq, national archaeological work was once promising and working on many aspects of their archaeological heritage. Due to several forces, national archaeological work has been hugely undermined there. A considerable number of precious artefacts and information become untraceable now.

These biases lead to different scales of archaeological knowledge and understanding of artefacts, sites where they were found and the wider cultural contexts in which they exist.[204] This directly affects the quantification analysis and distribution pattern analysis. It is, however, possible to minimise some biases and maximise the potentiality of archaeological data by covering a larger area and analysing data combining different aspects of the sites, such as settlement hierarchy, geographical factors etc. Regarding research in the Islamic world, a thorough knowledge of materials from different regions and comparable datasets

[203] Wink 2004, 191.
[204] Mumford 1998, 14.

can also help reduce biases.

2.5 Luxuries and prestige goods, mass production

Chinese ceramics found in the Islamic world have been viewed unilaterally as prestigious and luxury goods. This view requires a re-evaluation, and this is one of the goals of this thesis. Not all Chinese ceramics in the Islamic world during the 8th to 10th centuries CE were equally luxurious and highly valued.

2.5.1 Luxuries and Prestige Goods

Luxury goods have often been mentioned in long-distance trade. When archaeologists use the term luxuries, they refer to products that are expensive, non-utilitarian and sometimes exotic. Polanyi attributes spices, cosmetics, incense, rare woods and elaborate artefacts to luxury goods.[205] Preciosities have also been used, which cover a range of items valuable for social status displays, of restricted ritual use, or those represent wealth.[206] Luxuries do not have to be material, but archaeologically visible material luxuries are much easier to be identified in an archaeological context.[207] Among these, it is the imported, exotic, strange and potentially valuable items that are easily identified.[208] But it needs to be pointed out that exotic and luxurious cannot be equated simply. Not all exotic items are luxurious and not all luxurious items are exotic. When imported goods are only circulated within restricted social circles, they may become luxuries of an upper class in societies.[209]

Some scholars use prestige goods exchange system to designate the production, exchange, and consumption of luxury goods.[210] It is often the case that luxury goods resources are

[205] Polanyi 1975, 146.
[206] Stark and Garraty 2010, 36.
[207] MacLean & Insoll 2003, 559.
[208] MacLean & Insoll 2003, 562.
[209] Kusimba 1999, 133.
[210] Smith 2004, 89.

controlled by the elite and the exchange of them is more restricted in size and scope.[211] As discussed above, not all exchange takes place in the form of trade, neither does luxuries exchange. Reciprocal gift giving and administered exchange of luxuries are commonly conducted in hierarchical societies among elites to communicate and reinforce their status, ritual prerogatives, and esoteric knowledge. Considerable effort was devoted by the elite to control the production, circulation and production of luxuries. Yet the 'escape' of technologies and goods into wider social access occurs sometimes and leads to a wider production, circulation and more open access through trade.[212]

2.5.2 Mass Production

Mass production denotes to the production of enormous quantities of the same type of artefact by the same production means to standard shapes and sizes, which are later widely circulated in a region or across regions, such as pottery, glassware, bricks, coins, plate and humble metal objects. It shows an economic phenomenon that production is reacting to the demands.[213] Some types of Chinese ceramics during the 8th to 10th centuries CE were mass produced in kiln sites, such as Changsha wares and Yue wares. Their mass production was one factor that contributed to the circulation of Chinese ceramics in the Islamic world. Most mass-produced products were utilitarian objects rather than luxuries. The case for Yue wares is ambiguous. The quality of Yue wares elevates them to the rank of luxuries. However, they were also mass produced. Their distribution pattern in the Islamic world during the 8th to 10th centuries CE does not demonstrate a specific concentration in archaeological sites with higher settlement hierarchy. They have been found in all levels of settlements.

[211] Hirth 2010, 233.
[212] Fleisher 2010, 155 and 156; Stark and Garraty 2010, 36.
[213] Wilson 2009, 394.

Chapter 3: Studies of Archaeological Sites in the Islamic World from the 8th to 10th Centuries CE

This chapter introduces and re-assesses available evidence for Chinese ceramic finds from sites during the 8th to 10th centuries CE in the Islamic world. Chinese ceramic finds later than the 10th century CE are not discussed in this chapter and this thesis. Some of these Chinese ceramic finds were uncovered decades ago, sometimes by non-experts in Chinese ceramics or by experts in Chinese ceramics, but the identification was made a long time ago when much less updated information was available. Knowledge and research on the production of Chinese ceramics in ancient times have advanced greatly in the past decades. Therefore, it is necessary to re-assess these Chinese ceramic finds when there is sufficient information to allow to do so. The quality of information on Chinese ceramic finds from each site varies greatly. Chinese ceramics from some sites in the Islamic world, for example, Fustat, Siraf, Samarra, Sohar and Sharma, have been identified much better than those from the rest of the sites.

This chapter discusses sites with positive data (with Chinese ceramic finds) which are presented in six sub-regions in the Islamic world in an alphabetical order. Sites with negative data (without Chinese ceramics) is in Appendix 9. The population and size of a settlement changed over time. This chapter primarily discusses the settlement level of these sites during the 8th to 10th centuries CE, from which context these Chinese ceramics were found. All these sites are located in the Eastern and Northern Hemisphere. The availability of archaeological data is the primary criterion for inclusion of a given site in this thesis, as explained in detail in Chapter 2, Section 2.4.2.

3.1 Mesopotamia

Site: Ain Sha'ia عين شعيعة

Co-ordinates: Lat. 32.75, Long.43.41

Location: Mesopotamia, Iraq

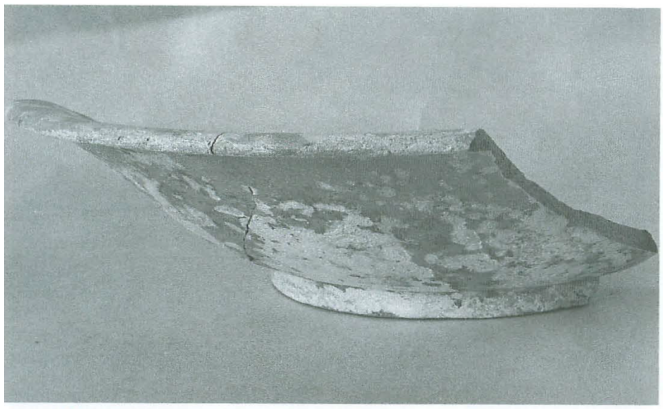
Type of Settlement: Christian institution including a church, a fortified building, canal and monastic-like dwelling

Site history: Late 7th to 9th centuries CE

History of investigation: excavation by a Japanese archaeological expedition from Kokushikan University in three seasons from 1986 to 1989[214]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
1	"A white glazed bowl (fig.3.1), which is most probably from a Chinese-made porcelain ware" was found from Site B in the same room with cross-plaque, which is possibly of monastic use. The body is light grey interior and exterior with a creamy core and sandy fabric.[215]	Fiji et al. 1989, Pl 20 ; 78, fig 33-1.	The shape can be seen on Gongxian wares. The white glaze is heavily exfoliated. The body fabric and the exfoliated glaze make it more likely to be of Islamic origin. Early Chinese white wares have more whitish high-fired body. And their glaze does not tend to exfoliate like early Islamic white opaque glaze.



a. White glazed bowl from Room C, Spot 17, Site B

Fig. 3.1 White Glazed Bowl from Ain Sha'ia, Fiji et al. 1989: Pl 20.

Site: **Basra البصرة**

Co-ordinates: Lat.30.50, Long.47.82

[214] Fijii et al. 1989, 32.
[215] Fijii et al. 1989, 69, 70 and 78.

Location: Mesopotamia, Iraq

Type of Settlement: Port city

Site history: From the 7th century CE onwards[216]

History of investigation: No large-scale excavation has been conducted in old Basra. Old Basra was surveyed by A. Williamson.

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	The presence of Yue ware in Basra was identified by A. Williamson during his survey in 1968-1971 and shown in his map of the distribution of Yue wares from sites of the 9th to 11th centuries CE.[217]	No	No

Site: **Ctesiphon المدائن**

Co-ordinates: Lat.33.09, Long.44.58

Location: Mesopotamia, Iraq

Type of Settlement: Parthian and Sasanian royal capital city

Site history: Ctesiphon was founded in the 2nd century BC on the banks of the Tigris River in Iraq by the Parthians. Later, it became the royal residence of the Parthians and Sasanians. The Arab Muslims conquered Ctesiphon in 636CE. Ctesiphon declined when cities like Wasit, Basra and Baghdad were founded and flourished in the 8th century CE.[218]

History of investigation: In 1928 and 1929, a German archaeological expedition led by Oscar Reuther from the Deutsche Orientgesellschaft excavated part of the ancient ruins of Ctesiphon. In 1931 and 1932, a joint expedition between the Staatliche Museen Berlin and the Metropolitan Museum of Art conducted another excavation, led by Ernst Kühnel, Walter Hauser and Joseph M. Upton. An Italian archaeological team conducted seven seasons of excavations in Ctesiphon and Seleucia from 1964 to 1976.[219]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments

[216] Pellat 2012, Encyclapaedia of Islam: al-Basra.
[217] Williamson 1987, 12, footnote 6.
[218] Reuther 1929, 436-7.
[219] Reuther 1929 and 1930; Upton 1932 and Invernizzi 1876.

1	One piece of Yue ware (fig.3.2) was found during the 1931-2 season of excavation by the Joint Expedition of the Staatlichen Museen of Berlin and the Metropolitan Museum of Art, which is now stored in the Metropolitan Museum of Art.[220]	Metropolitan Museum of Art 32.150.364	No
1	One piece of Chinese white ware (fig.3.3) was found at West Mound, bath of Palace Taq-i Kisra in Ctesiphon, Iraq, during the 1931-2 season of excavation by the Joint Expedition of the Staatlichen Museen of Berlin and the Metropolitan Museum of Art, which is now stored in the Metropolitan Museum of Art.[221]	Metropolitan Museum of Art 32.150.241	Although this fragment is described as "earthenware attributed to probably China" by Metropolitan Museum, it is an authentic piece of early Chinese white ware as one can tell from its whitish highly fired and compact body and its glaze. Wilkinson also describes it as a Chinese piece.[222]



Fig. 3.2 A Yue Ware Fragment from Ctesiphon Front and Back, Accession Number 32.150.364 © the Metropolitan Museum of Art

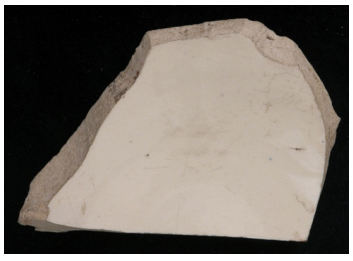


Fig. 3.3 A Fragment of Chinese White Ware from Ctesiphon, Accession Number 32.150.241© the Metropolitan Museum of Art.

[220] Wilkinson 1973, 256. Wilkinson mentions these two Ctesiphon pieces in his publication of Chinese ceramic finds in Nishapur. See entry 8 and 10 in this page.
[221] See Metropolitan Museum item number 32.150.241.
[222] Wilkinson 1973, 256, entry 10.

Site: **Hira الحيرة**

Co-ordinates: Lat.31.88, Long.44.45

Location: Mesopotamia, Iraq

Type of Settlement: River port

Site history: It was founded in the 2nd or 3rd centuries CE as the capital of the Lakhmid kings (c. 300-602CE) and a trading port along the Euphrates River. Hira declined when Kufa was constructed around the 9th century CE.[223]

History of investigation: Hira was excavated in the 1930s by Gerald Reitlinger and Talbot Rice from the University of Oxford.[224]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Reitlinger mentions that "large fragments of a somewhat celadon colouring, in which the highly fired body is partly vitreous are common on the surface of Hira." He dates them to probably 10th century CE.[225]	No	The celadon colouring wares mentioned by Reitlinger are Yue celadon stoneware due to the highly fired and partly vitrified body, which is a stoneware body.
Unknown	Rice mentions in the report graffiato ware finds with "a few related examples of Tang type".[226]	No	This description is very ambiguous. It is not certain whether he refers to Tang incised wares or Islamic incised wares which he thinks were imitations of Tang ceramic types.
1	One fragment of early Chinese white ware (fig.3.4) from the excavation of Hira is now in Ashmolean Museum.	Ashmolean museum 1932.86. b	This piece is not mentioned in any report.

[223] Rice 1932, 278.
[224] Rice 1932, 276.
[225] Reitlinger 1935, 203.
[226] Rice 1934, 70.

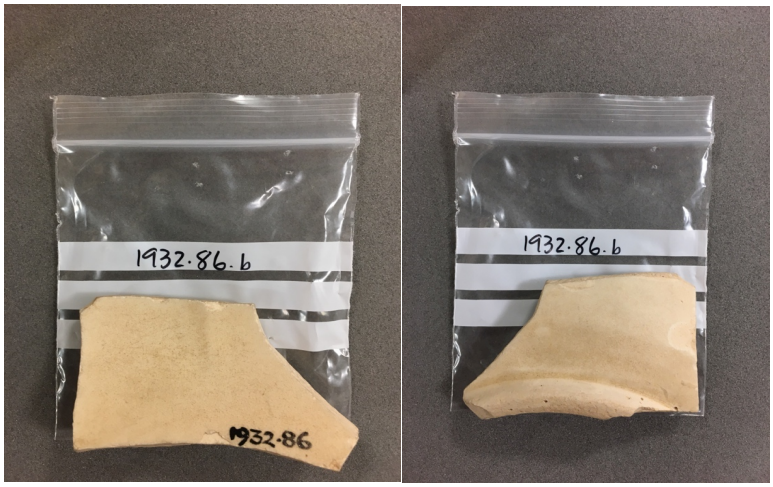


Fig. 3.4 Chinese White Porcelain Sherd from Hira in the Ashmolean museum, Front and Back, Photo Taken by the Author.

Site: Kufa الكوفة

Co-ordinates: Lat.32.03, Long.44.40

Location: Mesopotamia, Iraq

Type of Settlement: City

Site history: Kufa was founded in the 7th century CE during the reign of the third righteous Caliph, Umar, and became an important political and theological city for the Islamic world until the 11th century CE, when Kufa started to lose its significance.[227]

History of investigation: Excavations of ancient Kufa were carried out in several seasons by the Directorate-General of Antiquities of Iraq in 1938, 1953 and 1956.[228] It was also surveyed by A. Williamson.

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Reitlinger mentions that "large fragments of a somewhat celadon colouring, in which the highly fired body is partly vitreous are common on the surface of old Kufa." He dates them to probably 10th century CE.[229]	No	Reitlinger mentions Chinese Yue celadon from old Kufa and Hira together in his report on Kish.

[227] Mustafa 1963, 36.
[228] Mustafa 1963, 36.
[229] Reitlinger 1935, 203.

Unknown	Williamson also identifies Yue ware sherds in Kufa during his surface survey 1968-1971.[230]	No	No

Site: Samarra سامراء

Co-ordinates: Lat.34.19, Long.43.87

Location: On the banks of the Tigris river, Mesopotamia, Iraq

Type of Settlement: Abbasid royal capital

Site history: Samarra was the capital of the Abbasid Empire from 836 to 892 CE.

History of investigation: The German expedition led by Ernst Herzfeld and Friedrich Sarre carried out two seasons of excavation at Samarra from 1910 to 1913. Work was done in Dar al-Khalifa (Djausaq al-Khaqani), Qasr al-Ashiq, Sur Isa, the palace of Balkuwara (Manqur), Congregational Mosque of Mutawakkil (Congregational Mosque of Samarra), Great Mosque of Madinat al-Mutawakkiliyya (Abu Dulaf Mosque), Mosques of Balkuwara, Qubbat al-Sulaibiyya, Tell Aliq, about fifteen private residential houses, the Parthian cemetery[231] and the ceramic area at al-Kura.[232] The majority of the registered finds from Samarra was taken back to Berlin and exhibited in the Kaiser Friedrich Museum, with a small portion going to the Çilini Köşk in Istanbul. Boxes packed with small finds, stored at Samarra during the World War I, were taken to London after the War. These small finds were further distributed among more than 20 museums in London, Berlin, Istanbul, Baghdad and museums in other parts of the world that held collections of Islamic art.[233] Herzfeld took some of his collection of Samarra finds to the U.S. These Herzfeld ones (mostly lustre ware sherds) are now in the Freer Museum in Washington D.C.
The palace at Huwaisilat and four private houses were excavated, and six other private houses were incompletely excavated from 1936 to 1939 by the Department of Antiquities of Iraq Government.[234] A small scale of excavation at Bait al-Zakharuf was conducted by A.A.Hamid from 1963-4. In 1979, the Iraqi State Organization of Antiquities initiated 'Project for Developing the Twin Cities of Samarra and Mutawakkiliyya'. Excavations were conducted in houses on the main street in the Abbasid Samarra city from 1981-2, the palace of Mu'tasim (Dar al-Khalifa) from 1981-2, the city of Matawakkiliyya, tomb of Abu Dulaf and the residential area[235] from 1978-1981.[236]
Alastair Northedge conducted a full-scale survey with some minor excavations at Samarra from 1983 to 1989. This project was divided into three seasons including a full-scale survey

[230] Williamson 1987, 12, footnote 6.
[231] It is named by Ernst Hezfeld, as a pre-Islamic cemetery, situated at Shabbat al-Hawa (Shabbat al-Hawiy).
[232] See Herzfeld 1912 and 1914, 196-204; Leisten 2003, 14. Kura turned out to be a ceramic manufacturing area during the Abbasid period. However, no further investigation was done by Herzfeld. Ceramic finds around this area were judged by Herfeld as mediocre.
[233] Leisten 2003, 29; Kadoi 2014, 30.
[234] Department of Antiquities, Iraq Government 1940, 1.
[235] الحارة السكنية العباسية بالقرب من الملوية
[236] See Al-Janabi 1981, 188-211; Al-Aezami 1982, 168-205; Al-Janabi 1983, 307-8; Al-Fattah 1984, 30-49.

of the ancient site of Samarra and a re-assessment of surface remains and settlement history from pre-Abbasid until post-Abbasid periods.[237] Several small sites have been surveyed in detail, including Al-Mahuza, Shaikh Wali (Zanqur; Karkh Fairuz), al-Matira (Jubayriyya) and Qadisiyya. Around eighteen main sites were surface sherded, with diagnostic sherds collected.[238]



Fig. 3.5 Main Sites at Samarra, Northedge 2005

Qnt.	Identified as	Illustration	Comments

[237] Northedge 1985, 110.
[238] Northedge & Falkner 1987, 160-4.

Unknown	Identified by Sarre as (IX.a) stoneware with grey fabric and celadon coloured glaze (see Appendix 8)	Yes	These sherds show features of Yue stoneware (Details of Sarre (1925)'s identification of Chinese ceramic finds is listed in the tables below. Important pieces are discussed in detail in Chapter 6.)
Unknown	Identified by Sarre as (IX.b) stoneware with grey fabric and bluish green glaze	Yes	These pieces are secret coloured stoneware (see detail in Chapter 6, Section 6.7.1).
Unknown	Identified by Sarre as (IX.c) stoneware with grey or whitish fabric and yellow or light green glaze	Yes	There are three different types of wares in this group. No. 211 are Shouzhou yellow glazed stoneware, No. 212 are northern Chinese monochrome green glazed porcelain or stoneware, and No. 213 are Chinese splashed wares or possibly Sancai wares.
Unknown	Identified by Sarre as (IX.d.) stoneware with white yellowish fabric under colourless glaze	Yes	They are most likely from kilns in north China.
Unknown	Identified by Sarre as (IX.e.) stoneware with white yellowish fabric and white glaze	Yes	They are most likely from kilns in north China.
Unknown	Identified by Sarre as (IX.f) white porcelain	Yes	They are most likely to be from Xing kilns (see detail in Chapter 6, Section 6.3.2).
Unknown	Identified by Sarre as stoneware with monochrome or polychrome spotted overflowing glazes	Yes	Most of them have green splashes or green and yellow-brown splashes on white ground (see detail in Chapter 6, Section 6.6.2).
Unknown	No. 227 identified by Sarre as of doubtful origin, which tends to be Asian	Yes	This piece with green and yellow decoration on a white glaze is of Islamic origin. The shape and decoration are not seen on Chinese wares.
Unknown	No. 227 identified by Sarre as of doubtful origin, which tends to be Asian	Yes	This one also seems more likely to be of Islamic origin, for the dull glaze and the way how it is decorated are not often seen on Chinese ceramics.

Unknown	No. 230 No. 227 identified by Sarre as of doubtful origin, which tends to be Asian	Yes	This piece seems to be a Chinese celadon with brownish green glaze on the rim and upper part and green glaze on the lower part. But the kiln which produced it is hard to tell.
Unknown	Dusun ware fragment[239]	No	Zhao Bing does not give the source of this information.
Unknown	Glazed China porcelain (Celadon) from 1937-9 excavation by the Department of Antiquities of Iraq Government[240]	No	Only Chinese celadon is mentioned. It is possible that excavators categorized all types of Chinese ceramics under celadon.
Unknown	Celadon from the excavation of House No.1 and the main street of Samarra (دار رقم ١ سامراء والشارع الأعظم) from 1981-2[241]	No	Only Chinese celadon is mentioned. It is possible that excavators categorized all types of Chinese ceramics under celadon.
Unknown	"Vessels decorated with beams or streaks emitted from the centre of the vessel" from the excavation of the palace of Mu'tasim (قصر الخليفة المعتصم) from 1981-2[242]	No	They are likely to be Chinese splashed wares. However, decoration of beams or streaks emitted from the centre of the vessel is more often seen on Islamic splashed wares.
Unknown	Glazed ceramics with "opaque white glaze, fine clay fabric and various decorative schemes" from the excavation of the palace of Mu'tasim (قصر الخليفة المعتصم) from 1981-2[243]	No	They could be Chinse white stoneware and porcelain sherds.
No	No Chinese ceramic finds are mentioned in the report of the	No	No

[239] Zhao Bing 2015, 320.
[240] Department of Antiquities, Iraq Government 1940, 5.
[241] Al-Fattah 1984, 45-6.
[242] Al-Aezami 1982, 180-1.
[243] Al-Aezami 1982, 180-1.

	excavation of Matawakkiliyya, tomb of Abu Dulaf(قبر أبو دلف) and the Abbasid residential area(الحارة السكنية العباسية بالقرب من الملوية) from 1978-1981.[244]		

Site: Wasit واسط

Co-ordinates: Lat.32.11, Long.46.18

Location: Mesopotamia, Iraq

Type of Settlement: viceroy's city

Site history: Wasit was a city founded on the west bank of the Tigris River (Iraq) by al-Hajjaj ibn Yusuf al-Thaqafi, viceroy in Iraq of the Umayyad Caliph Abd al-Malik(685-705CE). It was completely abandoned at the end of the 17th century CE after Tigris River gradually returned to its ancient bed.[245]

History of investigation: Some mosques and palaces have been investigated and excavated from 1936 to 1942 intermittently by the Directorate General of Antiquities of Iraqi Government.[246]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
2	"Fragments of grey-green Chekiang celadon porcelain, slightly ribbed". [247] There are fragments of true celadon porcelain which is not known to have been made outside China." [248]	Safar 1945, fig.98 and 181	These celadon porcelain fragments seem to be Longquan celadon which started to be exported from the 12th century onwards.
Unknown	The presence of Yue ware in Wasit was identified by Williamson during his surface survey in 1968-1971 and shown in his map of the distribution of Yue wares from sites of the 9th to 11th centuries CE.[249]	No	No

[244] Al-Janabi 1981, 199.
[245] Safar 1945, 2.
[246] Safar 1945, 3.
[247] Safar 1945, 50.
[248] Safar 1945, 41.
[249] Williamson 1987, 12, see footnote 6.

3.2 Iran

Site: Akhtar

Co-ordinates: Lat.27.42, Long.52.14

Location: coastal area of Persian Gulf, Iran

Type of Settlement: coastal site

Site history: Islamic period

History of investigation: Surveyed by A. Williamson, site F11-18[250]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
1	Chinese white stoneware fragment. [251] Rougeulle describes this type as "white or cream stoneware body with a white engobe and opaque glaze, and a bowl shape typical of Tang wares." [252]	No	Although Akhtar cannot be dated more precisely, this piece of Chinese white ware should be Chinese white stoneware produced in North China during the Tang and Five Dynasties period.

Site: B10

Co-ordinates: Lat.26.34, Long.54.35[253]

Location: coastal area of the Persian Gulf, Iran

Type of Settlement: coastal settlement

Site history: Islamic period

History of investigation: Surveyed by A. Williamson

Chinese ceramic finds:

[250] Priestman 2005, 370.
[251] Rougeulle 1991, 25.
[252] Rougeulle 1991, 26 and 27.
[253] Priestman 2005, 46. B10 is located in Priestman's map of sites surveyed by Williamson.

Qnt.	Identified as	Illustration	Comments
1	Green on white splashed ware fragment (GWSG) [254]	No	Priestman dates them to the 9th – 10th centuries CE from kilns in Hunan. Green on white splashed glazed ware was produced during the Tang period by several kilns, such as Gongxian, Xing, Ding and Changsha. (see detail in Chapter 6).

Site: Bibi Khatun بی بی خاتون

Co-ordinates: Lat.27.84, Long.51.83

Location: coastal area of the Persian Gulf, Iran

Type of Settlement: Port of almost identical construction to Siraf[255]

Site history: Sherds scattered on the surface have been dated to the 9th and 10th centuries CE.[256] Bibi Khatun was one of the ports in the Persian Gulf which dealt with trade with China during the early Abbasid period. Lamb points out that Siraf could not have stood alone as the only port involved in the trade with the East, and there may well have been other such ports during this period both to the east and west of Taheri (modern-day Siraf).[257]

History of investigation: It was visited by Alastair Lamb in the 1960s and by Whitehouse in the 1966.[258]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Chinese white porcelain, Yue ware, green glazed stoneware with handles are common. Lamb claims that he didn't come across a single Chinese sherd here which needed to be dated later than 1000 CE.[259]	No	Green glazed stoneware with handles mentioned by Lamb can be jars with handles from Changsha kilns or from kilns in Guangdong.
Unknown	Whitehouse also points out the presence of Changsha painted wares, Changsha moulded	No	No

[254] Priestman 2005, 307.
[255] Lamb 1964, 15
[256] Lamb 1964, 15
[257] Lamb 1964, 15.
[258] Lamb 1964, 15; Whitehouse 1968, 18.
[259] Lamb 1964, 15

	relief wares and Dusun wares at Bibi Khatun.[260]		

Site: Bostaneh بستانة

Co-ordinates: Lat.26.53, Long.54.65

Location: coastal area of Persian Gulf, Iran

Type of Settlement: Coastal settlement

Site history: Islamic period

History of investigation: Surveyed by A. Williamson, site B8 and B9[261]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Possibly Changsha ware sherd[262]	No	Rougeulle mentions that Changsha ware was possibly found at Bostaneh. Whitehouse (1973) mentions this site with Changsha ware. Williamson (1972) only mentions that around 20 pieces of Changsha wares were found on the surface of Siraf, among the area of Minab and Dayyir and also at Sirjan.[263]
1	According to S. Priestman's (2005) study of the Williamson collection of ceramic sherds collected during his survey in the late 1960s and early 1970s, there is one fragment of Dusun ware attributed to the site Bostaneh.[264]	No	

Site: Bushire بوشهر

[260] Whitehouse 1968, 15, 17-8.
[261] Priestman 2005, 367.
[262] Rougeulle 1991, 22.
[263] Rougeulle 1991, 22, footnote 39.
[264] Priestman's unpublished source.

Co-ordinates: Lat.28.96, Long.50.83

Location: coastal area of the Persian Gulf, Iran

Type of Settlement: Port

Site history: The site started in the first few centuries CE[265] and declined after Siraf prospered in the 9th century CE.[266]

History of investigation: Surveyed by A. Williamson, site H1-9[267]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
8	Dusun ware fragments[268]	No	Rougeulle throws some doubts on the identification of Dusun wares by Williamson during his survey. Rougeulle mentions that four pieces of Dusun wares at the Ashmolean museum possess the typical characteristics of Dusun wares. However, some Dusun wares were found with association to pre-Islamic materials. Thus, she points out that they might be Dusun or earlier black glazed stoneware from East Asia.[269] I believe that some re-assessment of Dusun ceramic finds is necessary, because the definition of Dusun ware-its fabric, form and glaze-vary greatly (see detail in Chapter 6, Section 6.4). The kilns producing Dusun wares still cannot be determined now. There are certain difficulties in identifying Dusun wares and differentiating them from other celadon stoneware from South China and kilns in Southeast Asia.

Site: Daiyirدیر/Dayyir

Co-ordinates: Lat.28.4, Long.52.56

Location: coastal area in the Persian Gulf area, Iran

Type of Settlement: Port

Site history: Islamic period[270]

[265] Whitehouse & Williamson 1973, 39.
[266] Priestman 2005, 145 and 370.
[267] Priestman 2005, 129.
[268] Whitehouse 1968; Rougeulle 1991, 19.
[269] Rougeulle 1991, 19, footnote 27.
[270] Stein 1937, 233.

History of investigation: Surveyed by A. Stein

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
2	Changsha ware fragments[271]	No	These are two very small fragments of Changsha brown and green painted bowl.
Unknown	Dusun ware fragment[272]	No	The presence of Dusun ware in Daiyir has only been mapped by Zhao Bing without giving any original source.

Site: D10

Co-ordinates: Lat.27.02, Long.53.16[273]

Location: coastal area of the Persian Gulf

Type of Settlement: Coastal settlement

Site history: Islamic period

History of investigation: Surveyed by A. Williamson

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
1	Green on white glazed splashed ware fragment (GWSG) from Williamson's survey[274]	No	See comments of site B10

Site: Gharibou/ Tangak-e Mohammad Ja'far

Co-ordinates: Lat.28.54, Long.50.53

Location: coastal area of the Persian Gulf, Iran

Type of Settlement: coastal settlement

Site history: Islamic period

[271] Stein 1937, 233, PL. XXVII, Daiy 6 and 8.
[272] Zhao Bing 2015, 320.
[273] Priestman 2005, 46. This site shares the same location with site D11,12,13.
[274] Priestman 2005, 307.

History of investigation: surveyed by A. Williamson, Site H25-29, H38[275]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
1	Green on white glazed splashed ware fragment (GWSG) from Williamson's survey[276]	No	See comments of site B10

Site: Gishnau

Co-ordinates: Lat.27.06, Long.56.58

Location: Minab area, close to the Persian Gulf coast, Iran

Type of Settlement: settlement

Site history: Islamic period

History of investigation: Surveyed by A. Williamson, Site K143[277]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
1	Changsha ware fragment[278]	No	No
2	(WWS.1) southern white ware group 1 from Williamson's survey[279]	No	This type of white ware is identified by Priestman as possibly from Guangdong during the 10-11th centuries CE. They might be early products of Jingdezhen kilns or Fanchang kilns in the 10th and early 11th centuries CE.
2	(WWS.4) southern white ware group 4 from Williamson's survey[280]	No	This group is identified by Priestman as south-eastern Chinese white ware from 10th – 12th centuries CE. There might be products of Fanchang kilns and Jingdezhen kilns in the 10th and early 11th centuries CE.
1	(WWSL) slipped	No	This group is identified by Priestman as

[275] Priestman 2005, 370-1.
[276] Priestman 2005, 307.
[277] Priestman 2005, 378.
[278] Priestman 2005, 307.
[279] Priestman 2005, 288.
[280] Priestman 2005, 288.

	white ware from Williamson's survey [281]		slipped white ware from 9th or 10th centuries South China. These white stoneware with slip was produced mainly during the 8th- 11th centuries in North China.

Site: Gurgan/ Gorgan

Co-ordinates: Lat.36.83, Long.54.43

Location: in Golestan Province, northeast Iran

Type of Settlement: City

Site history: occupied from prehistoric time until around the 18th century CE

History of investigation: A short period of excavation was conducted by the Iranian General Zahedi in 1926, the finds from which are now in the Gurgan Museum. From 1970 to 1977, Kiani M.Y. conducted a series of surveys and excavations in Gurgan.

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Yue ware fragment[282]	No	Williamson mentions that the Yue ware from this site was recorded in his notes of this survey during 1968-71 and the material was at the Ashmolean museum.[283] However, S. Priestman clarifies that Williamson did not conduct the survey in Gurgan himself and that he might have obtained the source elsewhere.

Site: Gurzeh

Co-ordinates: Lat.26.84, Long.53.64

Location: in the coastal area of the Persian Gulf, Iran

Type of Settlement: coastal settlement

Site history: Islamic period

History of investigation: Surveyed by A. Williamson, site B18, B19[284]

[281] Priestman 2005, 287.
[282] Williamson 1987, 12.
[283] Williamson 1987, 12, footnote 6.
[284] Priestman 2005, 367.

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
1	Dusun ware fragment[285]	No	Rougeulle mentions that the Dusun ware found from Gurzeh 2 was associated with pre-Islamic materials. Thus, Rougeulle points out that it might be Dusun or earlier black glazed stoneware from East Asia.[286] (see comments of ceramic finds in Bushire)

Site: Hakemi

Co-ordinates: Lat.27.11, Long.57.01

Location: Minab area

Type of Settlement: settlements near the coast of Persian Gulf, Iran

Site history: Islamic period

History of investigation: Surveyed by A. Williamson, site K40-43, K54, K65, K67-9.

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
1	Dusun ware fragment[287]	No	No
1	(WWS.4) southern white ware group 4 from Williamson's survey[288]	No	See comments of Gishnau

[285] Rougeulle 1991, 19.
[286] Rougeulle 1991, 19, footnote 27.
[287] Priestman 2005, 304.
[288] Priestman 2005, 288.

3	(WWS.7) southern white ware group 7 from Williamson's survey [289]	No	This group was identified by Priestman as southern Chinese white ware during the 10th to 12th centuries from southeast China or southeast Asia. The dry coarse greyish to greenish glaze and the glaze stopping at the lower part of the vessel links them to those celadon glazed stoneware produced by kilns in Guangdong probably during the Tang period and onwards. (see detail in Chapter 6, Section 6.2.2). The body of these Guangdong celadon is normally less refined than Yue celadon stoneware, also is the glaze.
1	(WWSL) slipped white ware from Williamson's survey [290]	No	See comments of Gishnau

Site: Istakhr اصطخر

Co-ordinates: Lat.29.98, Long.52.91

Location: in the Fars region, Iran

Type of Settlement: City/ town

Site history: It was founded in the Achaemenid period and was occupied until the 12th century CE. It once served as the capital of the Sasanian dynasty and after the Arab conquest still thrived as an important place. It started to shrink due the prosperity of Shiraz in the 9th century CE. In the 12th century CE Istakhr declined into a small village.[291]

History of investigation: This ancient site was excavated from 1932 to 1934 by Ernst Herzfeld and from 1935 to 1937 by a team led by Erich Friedrich Schmidt from the Oriental Institute of the University of Chicago.[292]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Yue ware sherds from E. Shmidt's excavations are in the Persepolis Museum and the University Museum, University of Pennsylvania. [293]	No	No

[289] Priestman 2005, 288.
[290] Priestman 2005, 287.
[291] Streck & Miles 2012, Encyclapedia of Islam: Istakhr.
[292] Whitcomb 1979, 363 and 369.
[293] Williamson 1987, 12, footnote 6.

Site: Jiruft/ Djiruft

Co-ordinates: Lat.28.82, Long.57.72

Location: Kerman province, Iran

Type of Settlement: city

Site history: From early Islamic period until after the Timurid period[294]

History of investigation: Surveyed by A. Stein[295]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Yue ware fragment[296]	No	According to Zhao Bing, Yue ware has been found here. But she does not give the source of this information.

Site: Jundi Shapur/ Gunde Shapur

Co-ordinates: Lat.32.28, Long.48.52

Location: Khuzestan, southwest Iran

Type of Settlement: city

Site history: It was founded by the Sasanian king Shapur (240-270CE) as his seat in Khuzestan. The city remained in use during the Islamic period and later became one of the capitals of the Saffarids (861-1003CE) in the late 9th century CE.[297]

History of investigation: R. Adams conducted a survey in this site and some test excavations in 1963.[298] Whitcomb and Massoud Azarnoush surveyed the remains again around 2003-2004.[299]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments

[294] Frye 2012, Encyclapedia of Islam, Djiruft. Stein 1937, 155.
[295] Stein 1937, 155.
[296] Zhao Bing 2015, 321.
[297] Whitcomb 2004, 92-94.
[298] Whitcomb 2004, 92.
[299] Whitcomb 2004, 93.

Unknown	In Whitcomb's survey of this area of Iranian cities of the Sasanian and early Islamic period, Islamic and Chinese ceramic sherds were found.[300]	No	Although Whitcomb does not date the Chinese ceramic finds from his survey, it is highly likely that some Chinese ceramics arrived at Jundi Shapur, which was then such an important city in Khuzestan, close to Susa during the 8th to 10th centuries CE, when this city still held great importance.

Site: Kangavar/ Kinkiwar

Co-ordinates: Lat.34.56, Long.47.95

Location: Kermanshah province, Iran

Type of Settlement: ancient town, an important staging post and centre of communications on the highway between the Iranian plateau and Mesopotamia[301]

Site history: This site was founded during the Parthian period and flourished until the Mongols in the 13th century CE.[302]

History of investigation: It has been excavated by several Iranian archaeologists from the 1970s until 2000s in several seasons.[303]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Yue ware fragment[304]	No	Zhao Bing has mapped this site with Yue ware find, but she does not give the source of this information.

Site: Mahruban

Co-ordinates: Lat.30.12, Long.49.65

Location: coastal area of the Persian Gulf, Iran

Type of Settlement: Coastal site

Site history: Islamic period

[300] Whitcomb 2004, 93.
[301] Savory 2012, Encyclopaedia of Islam: Kinkiwar.
[302] Savory 2012, Encyclopaedia of Islam: Kinkiwar.
[303] Azarnoush 2009, 396.
[304] Zhao Bing 2015, 321.

History of investigation: surveyed by Hansman

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Dusun ware fragment[305]	No	Zhao Bing lists Mahruban in her map of the distribution of Dusun wares in the Arab world and Africa from the 8th to 10th centuries CE. But she does not give the source of this information.

Site: Mashiran

Co-ordinates: Lat.27.10, Long.56.58

Location: Minab area, Iran

Type of Settlement: close to the coast of the Persian Gulf, Iran

Site history: Islamic period

History of investigation: Surveyed by A. Williamson, site K20-25, K27,28, K62-4

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
1	(WWS.4) southern white ware group 4 from Williamson's survey[306]	No	See comments of Gishnau

Site: Minab delta میناب

Co-ordinates: Lat.27.14, Long.57.07

Location: in the coastal area of Persian Gulf, Iran

Type of Settlement: Coastal sites

Site history: Islamic period

History of investigation: Surveyed by A. Williamson

Chinese ceramic finds:

[305] Zhao Bing 2015, 320.
[306] Priestman 2005, 288.

Qnt.	Identified as	Illustration	Comments
19	Dusun ware fragment[307]	No	Rougeulle points out that Williamson's identification of some of the Dusun wares might not be reliable.
4	Changsha ware fragment[308]	No	No
11	Yue ware fragment[309]	No	No
16	Tang white stoneware and porcelain fragment[310]	No	Chinese white wares tend to be more difficult to identify than Yue wares and Changsha wares. Southern Chinese white wares produced in the 10th and 11th centuries can be visually identical to those produced earlier in north China. And there are certain difficulties in identifying white wares from different kilns. Perhaps a re-assessment of these Chinese white ware fragments is necessary to trace back their production period and kiln sites.

Site: Nakhl Ibrahim

Co-ordinates: Lat.27.08, Long.56.55

Location: Minab area, close to the coast of the Persian Gulf

Type of Settlement: settlement

Site history: Islamic period

History of investigation: surveyed by A. Williamson, site K29, K30, K32, K34-6[311]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
2	Changsha painted ware fragment[312]	No	No

[307] Rougeulle 1991, 19, footnote 27.
[308] Rougeulle 1991, 22.
[309] Rougeulle 1991, 33.
[310] Rougeulle 1991, 25 and 27.
[311] Priestman 2005, 374-5.
[312] Priestman 2005, 307

1	(WWS.2) Southern white ware group 2 from Williamson's surface survey[313]	No	Priestman identifies this group as 10-11th century Guangdong white wares. However, this group seems more likely to be Qingbai wares from Jingdezhen kilns or Fanchang kilns in the 10th and early 11th centuries CE.
1	(WWS.5) Southern white ware group 5 from Williamson's surface survey[314]	No	Priestman identifies this group as 10-12th century southeast Chinese white wares. However, they look more like coarse white stoneware produced in North China from the 8th to 10th centuries CE.
1	(WWS.6) Southern white ware group 6 from Williamson's surface survey[315]	No	Priestman identifies this group as 10-12th century southeast Chinese white wares. It is possible that these relatively coarse and less white stoneware were early products of Fanchang kilns in the 10th and early 11th centuries CE.

Site: Neran

Co-ordinates: Lat.26.89, Long.53.52

Location: coastal area of Persian Gulf, Iran

Type of Settlement: Coastal site

Site history: Islamic period

History of investigation: surveyed by A. Williamson, sites D12, D13, D30[316]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
4	Dusun ware fragment[317]	No	Rougeulle points out that Williamson's identification of some of the Dusun wares might not be reliable (see comments of ceramic finds in Bushire).[318]

[313] Priestman 2005, 288.
[314] Priestman 2005, 288.
[315] Priestman 2005, 288.
[316] Priestman 2005, 368.
[317] Rougeulle 1991, 19.
[318] Rougeulle 1991, 19, footnote 27.

1	Green on white splashed glazed ware (GWSG) from Williamson's surface survey[319]	No	See comments of site B10

Site: Nishapur نیشابور

Co-ordinates: Lat.36.21, Long.58.79

Location: Khurasan, Iran

Type of Settlement: important ancient city

Site history: The city was founded in the Sasanian period and destroyed in the 13th century CE during the Mongol invasion and by several earthquakes.[320]

History of investigation: It was excavated by the Iranian Expedition of the Metropolitan Museum of Art from 1935 to 1947. Half of the finds were transported to the Bastan Museum in Tehran; the remaining went to the Metropolitan museum.[321]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Chinese ceramics found in Nishapur dated to the 8th and 10th centuries CE include "ivory and cream white porcelanous wares" (fig.3.8), Yue ware (fig.3.8), other green glazed stoneware (fig.3.9), "Tang mottled wares", white wares with green splashes (fig.3.7), white wares splashed with bluish green, purple and yellow (fig.3.7 middle), Changsha ware (fig.3.6). [322]	Yes	The mottled ware mentioned by Wilkinson is also named as Sancai ware in many publications. Those splashed wares mentioned are also sometimes treated as a type of Sancai wares. Metropolitan museum dates the green splashed ware fragment with a dragon medallion to the late 7th and early 8th centuries CE, which now seems to be too early. Similar pieces can only be dated to the early 9th century CE (see detail in Chapter 6, Section 6.6.2). Besides, fragments with accession number 40.170.456c in Metropolitan museum from Nishapur have not been identified and are dated to the 9th and 10th centuries CE. These two pieces are highly likely to be

[319] Priestman 2005, 307-8.
[320] Wilkinson 1973, xxiii.
[321] Wilkinson 1973, xxiii.
[322] Wilkinson 1973, 255.

			Jun ware from the 11th century CE (see Chapter 6, Section 6.7.4) The white ware fragment illustrated below from the Metropolitan Musuem is a northern Chinese white porcelain, probably from Xing kilns in the 9th century CE.
Unknown	Dusun ware[323]	No	Zhao Bing mentions Nishapur with Dusun ware, but does not give the source of this information. T L he online database of Metropolitan museum does not contain any Dusun ware fragment from Nishapur.



Fig. 3.6 Changsha Ware Sherd No.17, from Wilkinson 1973, 258.

[323] Zhao Bing 2015, 320.

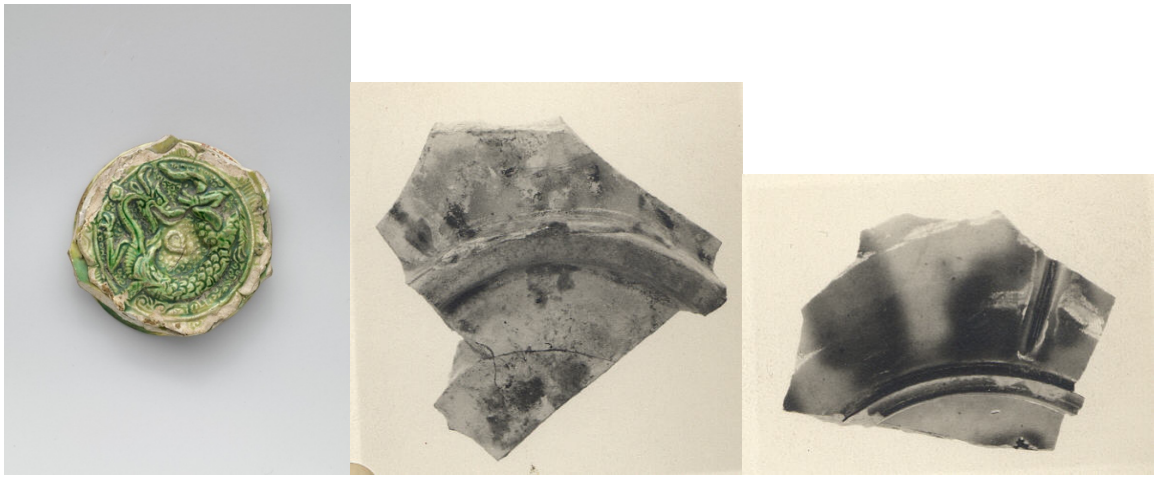


Fig. 3.7 Left: Chinese Green Splashed Ware Fragment, Accession Number: 38.40.274; Middle: Chinese Splashed Ware Fragment, Accession Number 40.170.456g; Right: Chinese Green Splashed Ware Fragment, Accession Number: 40.170.456h. ©Metropolitan Museum

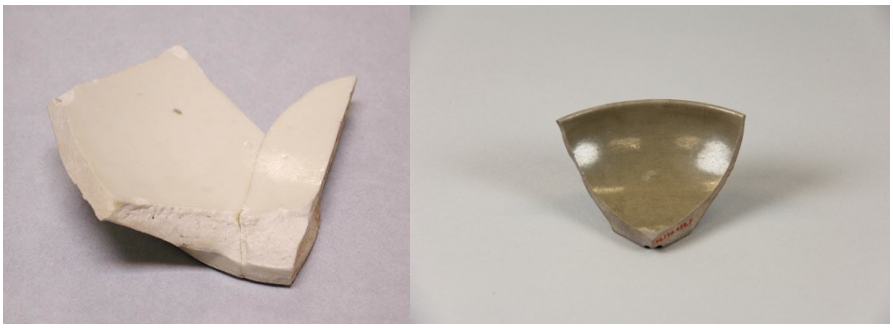


Fig. 3.8 Left: Early Chinese White Porcelain Fragment, Accession Number: 40.170.456e; Right: Chinese Yue Ware Fragment, Accession Number: 40.170.456f ©Metropolitan Museum

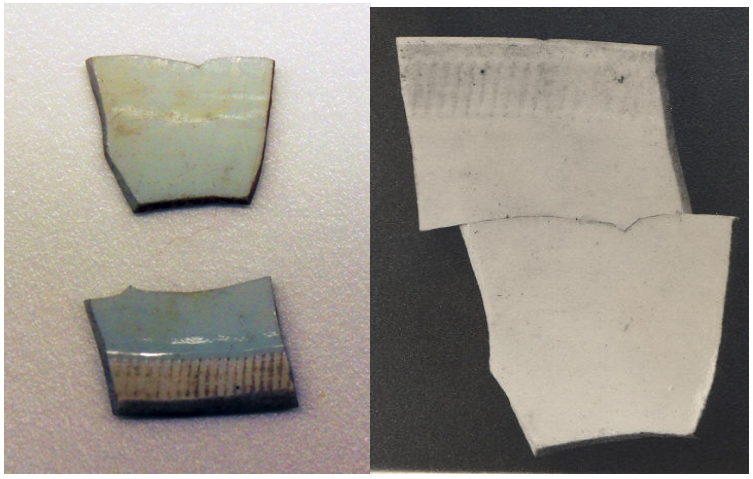


Fig. 3.9 Chinese Jun Ware Fragments, Accession Number: 40.170.456c ©Metropolitan Museum

Site: Qal'at Abd al-Rahman

Co-ordinates: Lat.27.26, Long.52.82

Location: coastal area of the Persian Gulf, Iran

Type of Settlement: Fort

Site history: Islamic period

History of investigation: Surveyed by A. Williamson, site B20-22, B29[324]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
8	Yue ware fragment[325]	No	Williamson found Yue ware fragments during his survey at Qal'at Abd al-Rahman (Site B20).
11	Dusun ware fragment[326]	No	The identification of Dusun ware during the original survey might need some re-assessment.
9	Early white ware fragment[327]	No	According to Rougeulle, Chinese white ware fragments found at Qal'at Abd-Rahman belong to her second type of white wares, which was produced before the Song period (end of 10th century CE) including white stoneware and white porcelain with whitish body. However, in Priestman's (2005) study of the ceramic collection of Williamson's survey from Ashmolean museum, Qal'at abd-Rahman has three pieces of white stoneware, two dated to the 11th century and one between the 11th to 13th centuries CE from kilns in Guangdong (WWG.1 and WWG.2).[328] Four pieces white wares are dated to between the 10th and 12th centuries CE produced by kilns in southern China (WWS.2, WWS.4, WWS. 5). One piece of white slipped ware fragment is from this site (WWSL).[329] Without the opportunity to examine these sherds closely, it is hard to give any conclusion. It is possible that some of these white ware sherds were from kilns in North China earlier than and in the 10th centuries CE and by Jingdezhen kilns in the 10th century CE. Others might have been produced after the 10th century by southern Chinese kilns. Priestman only discusses kilns in

[324] Priestman 2005, 367.
[325] Williamson 1987, 12, footnote 6.
[326] Rougeulle 1991, 19.
[327] Rougeulle 1991, 25.
[328] Priestman 2005, 290.
[329] Priestman 2005, 288-9.

			South China later than 10th century. And Rougeulle seems to have missed the possibility of them produced by kilns in South China after the 10th century CE.

Site: Qasr-i Abu Nasr

Co-ordinates: Lat.29.58, Long.52.62

Location: in the city of Shiraz in the Fars province, Iran

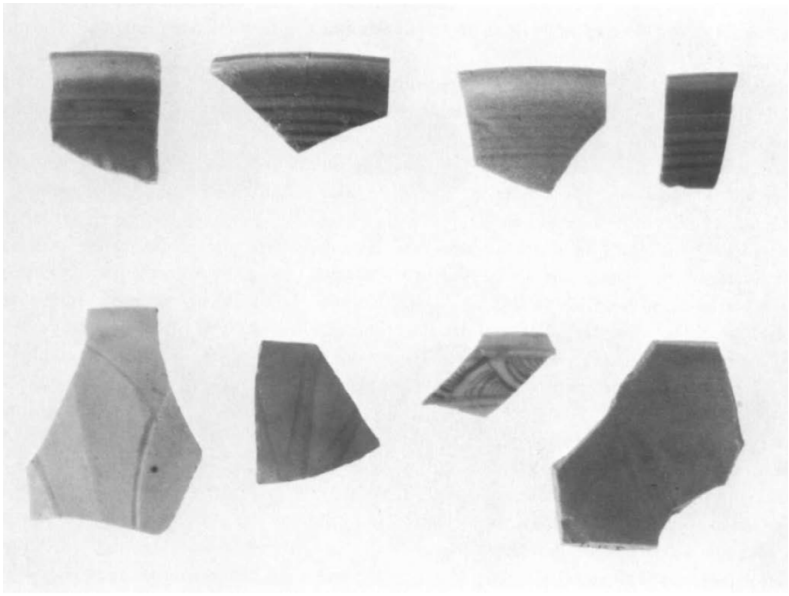
Type of Settlement: town, fortress

Site history: It was an Achaemenid enclosure, a fortress during the Sasanian period and later became an Islamic town.[330]

History of investigation: The excavation was carried out from 1932 to 1935 by the Metropolitan Museum of Art.[331]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Numerous pieces of celadon ware (fig.3.10) were found. [332]	Yes	Some of these celadon wares are early Yue wares, which can be dated to the 9th and 10th centuries CE.



[330] Whitcomb 1985, 11.
[331] Whitcomb 1985, 11.
[332] Whitcomb 1985, 66-7.

Fig. 3.10 Chinese Celadon Sherds from Qasr I abu Nasr, Whitcomb 1985, 85.

Site: Qais/Kays/Kish

Co-ordinates: Lat.26.52, Long.53.96

Location: on the island of Kish in the Persian Gulf, Iran

Type of Settlement: port

Site history: prospered after the decline of Siraf in the 11th century CE

History of investigation: Surveyed by A. Williamson

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Yue ware fragments were found by A. Williamson during his surface survey (site AE1). [333]	No	No
4	Dusun ware fragment from Williamson's surface survey[334]	No	No
1	Southern White Ware group 4(WWS.4) from Williamson's survey[335]	No	See comments of WWS.4 of site Gishnau

Site: Qeshm island

Co-ordinates: Lat.26.69, Long.55.62

Location: in the north of Hormuz Strait

Type of Settlement: island settlement

Site history: Islamic period

History of investigation: Surveyed by A. Williamson

Chinese ceramic finds:

[333] Williamson 1987, 12, footnote 6.
[334] Priestman 2005, 304.
[335] Priestman 2005, 290.

Qnt.	Identified as	Illustration	Comments
Unknown	White ware fragment[336]	No	No further information is given to allow more comments.

Site: Raghes/ Ray/ Rayy

Co-ordinates: Lat.35.58, Long.51.43

Location: Tehran province, Iran

Type of Settlement: city

Site history: Settlements in prehistorical time have been uncovered. It was one of the centres of power in the eastern Abbasid Empire, a major stage along the Silk Road, a military outpost in the 9th century CE, and one of the capitals of the Seljuq Empire (1037 – 1194CE) in the 11th century CE. The city was devastated during the Mongol conquest, became depopulated and declined until the Tamerlane conquest in the 14th century CE.[337]

History of investigation: This site is known as Rey, Rei, Ray, Rayy and Raghes, excavated between 1934 and 1936 by archaeologists from the Boston Fine Arts Museum and the University Museum at the University of Pennsylvania headed by Erich F. Schmidt. The second excavation was initiated by Renata Holod from University of Pennsylvania, E.J. Keall from Unvieristy of Toronto and Chahryar Adle from Paris during the 1970s.[338] There was a recent excavation from 2005 to 2007 under the cooperation of Iranian centre of Archaeological Research of Iran and the *Miras-e Ostan-e Tehran.*[339]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	"Fragments of Chinese pottery of the Tang and Song dynasties were found." [340]	No	No further information is given to allow more comments.
1	Williamson mentions that a Yue ware sherd from Schmidt's unpublished excavations is displayed in the University museum, University of Pennsylvania.[341]	No	No

[336] Rougeulle 1991, 25.
[337] Hall 1935, 55-6; Rante & Afround 2015, 19, 24-5.
[338] Rante & Afround 2015, 32.
[339] Rante & Afround 2015, 1.
[340] Hall 1935, 58.
[341] Williamson 1987, 12, footnote 6.

1	A fine little dish has been found in Raghes in Persia with grey body, very thin bubble-like glossy greenish glaze covering the whole surface with two phoenixes in the middle.[342]	No	This piece was mentioned by Sarre when talking about Yue ware ceramic finds in Samarra. He mentioned that this piece belonged to the same genre. The incised phoenix decoration has also been found on many Yue ware pieces in Islamic sites, such as Fustat.

Site: Rayin/Rayen

Co-ordinates: Lat.29.36, Long.57.26

Location: inland Iran

Type of Settlement: inland settlement

Site history: Islamic period

History of investigation: surveyed by A. Williamson, Site Z1-4[343]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
1	Green on White Splashed Glazed Ware (GWSG) from Williamson's surface survey[344]	No	See comments of site B10

Site: Rishahr

Co-ordinates: Lat.28.93, Long.50.84

Location: in the Bushire peninsula of the Persian Gulf area, Iran

Type of Settlement: port[345]

Site history: at least occupied from Sasanian period until the Portuguese period[346]

[342] Sarre 1925, 57.
[343] Priestman 2005, 389.
[344] Priestman 2005, 307-8.
[345] Priestman 2005, 92.
[346] Whitehouse 1968, 2, footnote 8. Whitehouse describes the site as "A small Islamic settlement and a Portuguese factory".

History of investigation: Surveyed by A. Williamson, site H10-20[347]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
1	Dusun ware fragment from Williamson's surface survey[348]	No	The identification of Dusun wares during Williamson's survey might need re-assessment.
1	Green on White Splashed Glazed Ware (GWSG) from Williamson's surface survey[349]	No	See comments of site B10.
1	Southern White Ware group 7 (WWS.7) from Williamson's surface survey[350]	No	See comments of Hakemi

Site: Ruvan

Co-ordinates: Lat.26.70, Long.54.40

Location: in the coastal of the Persian Gulf, Iran

Type of Settlement: Coastal site

Site history: Islamic period

History of investigation: Surveyed by A. Williamson, site B24[351]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Dusun ware fragment[352]		The identification of Dusun wares during Williamson's survey might need re-assessment.
1	Yue ware fragment[353]		Rougeulle must have obtained this information from her own study of A. Williamson's survey and ceramic samples 1968-1971.

[347] Priestman 2005, 370.
[348] Priestman 2005, 304.
[349] Priestman 2005, 307-8.
[350] Priestman 2005, 289.
[351] Priestman 2005, 268.
[352] Rougeulle 1991, 19.
[353] Rougeulle 1991, 33.

Site: Saravan/Sabaran/Surahan

Co-ordinates: Lat.27.11, Long.56.59

Location: Minab area, Iran

Type of Settlement: coastal settlement

Site history: Islamic period

History of investigation: surveyed by A. Williamson, site K130, K131[354]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
1	Guangdong white ware group 3 (WWG.3) from Williamson's survey (fig.3.11)[355]	Yes	This one fragment from site K131 is identified by Priestman as Guangdong ware. Its yellowish green glaze and hard yellowish grey body fabric with carved lotus decoration on the exterior links it to Yue kilns.
1	(WWS.4) southern white ware group 1 from Williamson's survey[356]	No	See comments of Gishnau



Fig. 3.11 Celadon Sherd at Saravan, from Priestman 2005, 418

Site: Shah Abdallah

[354] Priestman 2005, 377.
[355] Priestman 2005, 290.
[356] Priestman 2005, 288.

Co-ordinates: Lat.30.15, Long.49.59

Location: in the coastal area of the Persian Gulf, Iran

Type of Settlement: coastal site

Site history: unknown

History of investigation: Surveyed by J. Hansman[357]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Changsha ware fragment[358]	No	No

Site: Shahr-i-daqianus

Co-ordinates: Lat.28.39, Long.57.44

Location: inland site along a river in East Iran in Jiruft

Type of Settlement: a considerable town with a citadel[359]

Site history: Islamic period until around the Mongol period[360]

History of investigation: Surveyed by A. Stein and A. Williamson, Site P1[361]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
1	Green on white splashed ware fragment (GWSG) from Williamson's survey[362]	No	See comments of B1
1	Dusun ware fragment	No	No

[357] Rougeulle 1991, 22, footnote 40.
[358] Whitehouse 1973, 250, from Hansman 1970 unpublished Phd thesis.
[359] Stein 1937, 151.
[360] Stein 1937, 151.
[361] Priestman 2005, 380.
[362] Priestman 2005, 307.

1	southern white ware group 3 (WWS. 3) from Williamson's survey[363]	No	Priestman identifies this group as Guangdong white ware from 10-11th centuries. They might be early products of Jingdezhen or Fanchang kilns in the 10th and early 11th centuries CE.
1	southern white ware group 1 (WWS.4) from Williamson's survey[364]	No	See comments of Qishnau
1	"coarse yellowish white ware which was also found at Samarra" [365]	No	Possibly northern Chinese coarse white stoneware
1	"A celadon of Yu-yao type and probably of 9th century date" [366]	No	Yue celadon stoneware
1	"A finer celadon" [367]	No	Might be Yue celadon stoneware or later Longquan celadon
1	"Ying-qing porcelain, perhaps 10th century CE"[368]	No	Might be early Qingbai products of Jingdezhen or Fanchang kilns

Site: Shenas

Co-ordinates: Lat.26.63, Long.54.49

Location: in the coastal area of the Persian Gulf, Iran

Type of Settlement: coastal site

Site history: Islamic period

History of investigation: Surveyed by A. Williamson, site B4-6[369]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments

[363] Priestman 2005, 288.
[364] Priestman 2005, 288.
[365] Hobson 1937, 247.
[366] Hobson 1937, 247.
[367] Hobson 1937, 247,
[368] Hobson 1937, 247.
[369] Priestman 2005, 367.

1	Yue ware fragment[370]	No	Rougeulle must have obtained this information from her own study of A. Williamson's survey and ceramic samples 1968-1971.
10	Dusun ware fragment[371]	No	The identification of Dusun wares during Williamson's survey might need re-assessment.
1	Southern white ware group 4 (WWS.4) from Williamson's surface survey[372]	No	See comments of Gishnau

Site: Shilau

Co-ordinates: Lat.27.39, Long.52.20

Location: in the coastal area of the Persian Gulf, Iran

Type of Settlement: coastal settlement

Site history: Islamic period

History of investigation: surveyed by A. Williamson, site F2-7[373]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
1	Changsha ware fragment[374]	No	No
4	Dusun ware fragment[375]	No	The identification of Dusun wares during Williamson's survey might need re-assessment.
2	Yue ware fragment[376]	No	No

Site: Sirafسیراف

[370] Rougeulle 1991, 33.
[371] Rougeulle 1991, 19.
[372] Priestman 2005, 290.
[373] Priestman 2005, 369.
[374] Rougeulle 1991, 22.
[375] Rougeulle 1991, 19.
[376] Rougeulle 1991, 33.

Co-ordinates: Lat.27.66, Long.52.34

Location: in the middle of the northern shore of Persian Gulf, Iran

Type of Settlement: Ancient port

Site history: From historical records, it shows that Siraf was already a busy, affluent and prosperous port in the Islamic World around 850CE, dealing with the Mediterranean, Red Sea, Africa, the Islamic land and further east. An earthquake was recorded to have happened in 977CE. Archaeological evidence also showed that the flourishing of Siraf as an international port started before or at the beginning of the 9th century CE, when its congregational mosque and bazaar were established. The decline started around the end of 10th and 11th centuries CE. It may not have been a quick and complete collapse after the earthquake. Sites were abandoned at different times. It seemed that Siraf had already been deserted in the late 12th and early 13th centuries CE. Part of it continued to be inhabited or re-occupied in a later period on a diminished scale.[377]

History of investigation: Siraf was excavated from 1966 to 1973 by David Whitehouse from the British Institute of Persian Studies.[378] A total number of fifteen sites were excavated during six seasons. The excavations are rich in finds. The finds from Siraf were divided between the Iranian Bastan Museum and the British expedition. Samples of the finds were finally donated to several supporting institutions of the expedition, including the Ashmolean Museum, British Museum, Corning Museum of Glass, the Calouste Gulbenkian Foundation, the Pilkington Glass Museum, the Royal Ontario Museum and the National Museum of Scotland.[379]

Table 3.1 Individual Sites Excavated by Whitehouse at Siraf

Site Code	Site Description	Interim Report
A	Sounding	First
B	Sasanian Citadel and Congregational Mosque	First, second, third, fourth, fifth, sixth
C	Bazaar	First, fourth, fifth,
D	Pottery Quarter	First, fourth, fifth,
E	Residential Compound15th CE	Second, fifth,
F	Residential Quarter10-11th CE	Second, third, fourth, fifth,
G	Funerary Mosque 14th – 15th CE	Third, fifth,
H	Imamzadeh Mausoleum 14th -16th CE	Fifth,
J	Military Complex & Hammam	Fifth, sixth
K	Palatial Residence	Fifth, sixth
L	West Gate of City Wall	Fifth

[377] See Whitehouse 2009.
[378] Whitehouse 2009, 1.
[379] Whitehouse 2009, 8.

M	Mosques, Defensive Wall and Buildings near the Shore	Sixth
N	Basilica-like Building	Sixth
O	Monumental Cemetery	Sixth
P	Mosques, Defensive Wall and Buildings near the Shore	Sixth

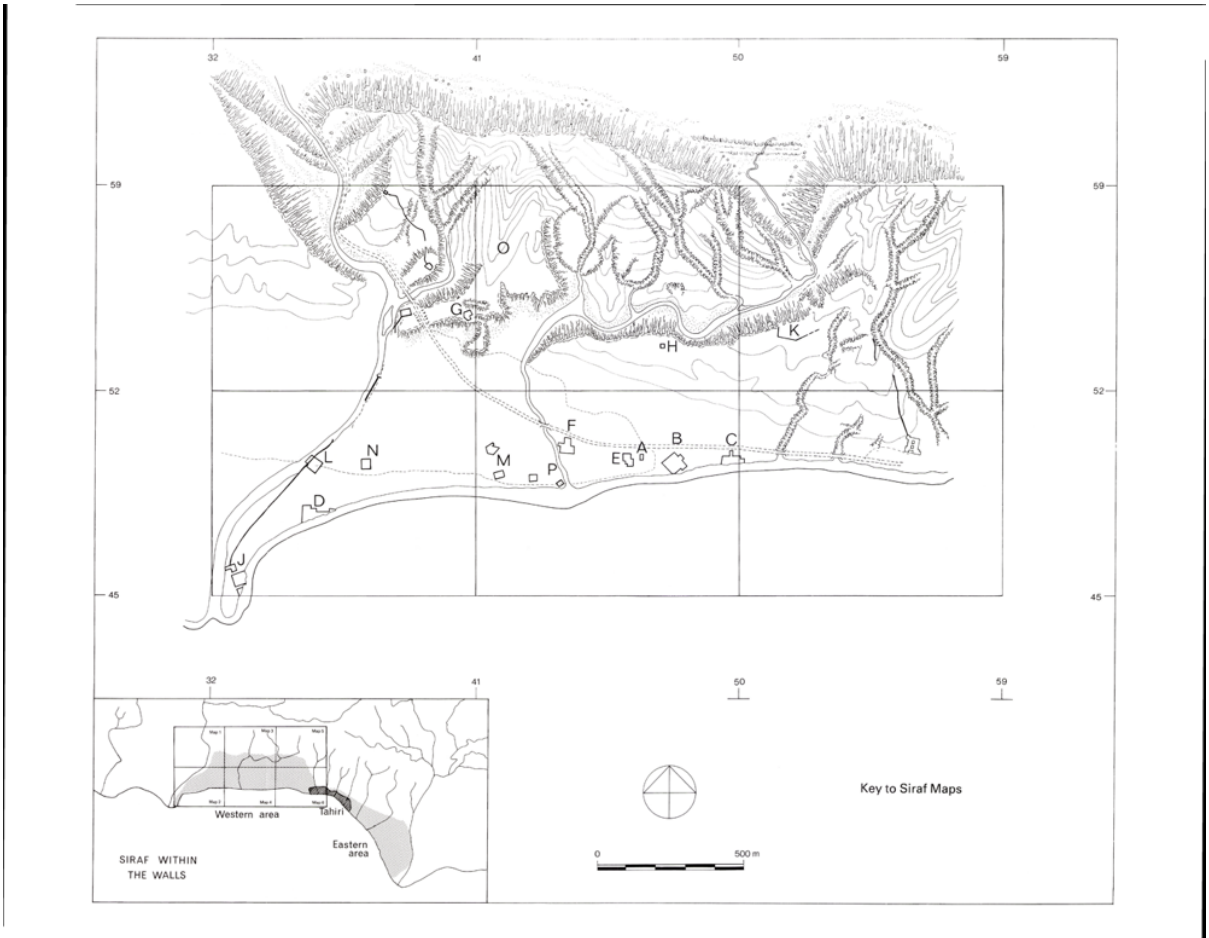


Fig. 3.12 Excavated sites at Siraf, Whitehouse 2005.

Chinese ceramic finds:
Around three million fragments of pottery were recorded. There are currently 10,273 ceramic finds in the British Museum, the figure of which can be reduced to 8,693 when all the joining pieces from the same vessel are excluded.[380] Around 1,300 fragments of Chinese ceramic finds which can be dated between the 8th and 10th centuries CE are deposited in the British Museum.[381] Whitehouse published several excavation reports of Siraf and a monograph on Siraf in 2009, in addition to his several publications concerning his excavation of Siraf. Moira Tampoe wrote her Phd thesis, published in 1989, on ceramic finds from Siraf, which were

[380] Priestman 2013, 237-8.
[381] This number is counted based on the digital database of Siraf finds in the British Museum.

stored in the Ashmolean Museum. But her chronology is debatable. Seth Priestman's Phd thesis includes a quantitative study of ceramic finds from Siraf in the British Museum. Seth Priestman has digitalised and studied all ceramic finds from Siraf at British Museum. Although these are not the entire body of ceramic finds from the excavation, they constitute a large proportion of glazed sherds. The following lists extracted from their works are for Chinese ceramics from Siraf dated from the 8th to 10th centuries CE. Whitehouse only lists the most abundant types of East Asian ceramics. Tampoe and Priestman have a more detailed list. They are discussed in detail in Chapter 6.

Table 3.2 Imported Wares from East Asia and Southeast Asia at Siraf According to Whitehouse[382]			**Comments**
Type of Ceramic	**Earliest appearance at Siraf**	**Origin**	
Large Olive-Green Glazed Stoneware Jar or Dusun Jar	Period 4 of the outer enclosure of the citadel at Site B, pre-800CE	China	Dusun ware
Smaller Black Glazed Jar	Period 4 of the outer enclosure of the citadel at Site B, pre-800CE	Southeast Asia	Might also be from southern Chinese kilns (see Chapter 6, Section 6.7.5)
Changsha Painted Ware	Platform of the congregational mosque at Site B, post 800CE. Monochrome green painted ware seemed to have gone out of use before the bichrome type.[383] The whole variety disappeared around or before 1000CE.[384]	China	Changsha painted stoneware
White Stoneware	During the 9th century CE	China	White stoneware
Green Stoneware	During the 9th century CE	China	Might be southern Chinese celadon stoneware
Changsha Relief Ewer	During the 9th century CE, after the early 9th century CE and after the painted type	China	Changsha ewers
White Porcelain	Late 9th or early 10th centuries CE	China	White porcelain

[382] Whitehouse & Williamson 1973, 38-39; Whitehouse 1974, 6; Whitehouse 2009, 101-4.
[383] Whitehouse 1973, 249.
[384] Whitehouse 1973, 251.

Table 3.3 East Asian and Southeast Asian Ceramics 8th – 10th Centuries from Siraf, by Moira Tampoe[385]	Comments
1.Coarse stoneware with buff or charcoal grey fabric and grey-green glaze	Might be southern Chinese celadon stoneware
2.Coarse stoneware with mid-grey fabric, thick layer of crackled green glaze	Might be Dusun ware
3.Coarse stoneware with pale grey fabric, white slip, in green glaze, with moulded and incised dots and lines	Might be southern Chinese celadon stoneware
4.Coarse stoneware with mid-grey fab in crackled watery silvery green glaze	Might be southern Chinese celadon stoneware
5.Coarse stoneware with iron-speckled grey fab and grey-green glaze	Might be southern Chinese celadon stoneware
6.Coarse stoneware with pale grey fabric and iron brown slip decoration in green glaze	Might be southern Chinese celadon stoneware
7.Coarse stoneware with grey fabric in dull grey-green glaze with pseudo-calligraphic incised band on shoulder	Might be Dusun ware
8.Coarse stoneware in oily brown-olive glaze	Might be southern Chinese celadon stoneware
9.Coarse stoneware in yellow-brown glaze	Might be southern Chinese celadon stoneware
10.Coarse stoneware with granular pink-buff fabric in pale olive-green glaze with scraped base	Might be southern Chinese celadon stoneware
11.Coarse stoneware similar to above, but in different shapes and without scraped marks	Might be southern Chinese celadon stoneware
12.Coarse stoneware with greyer fabric in matt uneven grey-green glaze	Might be southern Chinese celadon stoneware
13.Coarse stoneware, with granular cream fabric in pale green glaze	Might be southern Chinese celadon stoneware
14.Coarse stoneware with grey-purple fabric in shiny black glaze	Might be southern Chinese black or brown glazed stoneware (see Chapter 6, Section 6.7.5)
15.Coarse stoneware with dark purple fabric in chocolate brown glaze	Might be southern Chinese black or brown glazed stoneware (see Chapter 6, Section 6.7.5)

[385] Tampoe 1989, 8-9.

16.Coarse stoneware with buff fabric in bubbled purple glaze	Might be southern Chinese black or brown glazed stoneware (see Chapter 6, Section 6.7.5)
17.Provincial Yue ware	Might be southern Chinese celadon stoneware
18.Developed Yue ware	Yue celadon stoneware
19.Painted Stoneware (Changsha) with buff or grey fab	Changsha painted stoneware
20.Painted Stoneware (Changsha) with grey fabric with variants of brown decoration on green glaze	Changsha painted stoneware
21.Painted Stoneware (Changsha) with smooth whitish fabric in shiny glaze	Changsha painted stoneware
22.Relief stoneware (Changsha) with buff or grey fabric	Changsha stoneware jars
23.Green and white splashed-ware	Chinese splashed wares
24.Polychrome splashed ware	Might be Sancai wares
25.Cream stoneware	White stoneware
26.Fine white ware with coarser fabric in colourless glaze	White stoneware or porcelain
27.Fine white ware with coarser fabric in greyish glaze	White stoneware or porcelain
28.Fine white ware with fine fabric in colourless or off-white glaze	White stoneware or porcelain

Table 3.4 East Asian and Southeast Asian Ceramics from Siraf by Seth Priestman[386]		**Comments**
Typology	**Approximate Starting date**	
Green glazed stoneware jars with blue highlights	7th – early 8th	Might be southern Chinese celadon stoneware
Black glazed stoneware storage jars, group 1, shiny black glazed	East Asia, mid 8th – early 9th	Might be southern Chinese black or brown glazed stoneware (see Chapter 6, Section 6.7.5)
Black glazed stoneware storage jars group 2, dark brown glazed	East Asia, mid 8th – early 9th	Might be southern Chinese black or brown glazed stoneware (see Chapter 6, Section

[386] Adapted from Priestman 2013, 462.

		6.7.5)
Patchy light green glazed stoneware	China: mid 8th – early 9th	Might be southern Chinese celadon stoneware
Dusun stoneware storage jars	China, Guangdong, late 8th – 11th	Dusun ware
Light brown glazed stoneware jars	China, Guangdong, late 8th – 11th	Might be southern Chinese black or brown glazed stoneware (see Chapter 6, Section 6.7.5)
Changsha polychrome painted ware	mid 8th – early 10th	Changsha painted stoneware
Guangdong green glazed stoneware	early 9th – mid 9th	Guangdong celadon stoneware
Slipped white ware	Henan, mid 9th – 10th	Northern Chinese white stoneware
Xing ware	9th – 10th CE	Xing white stoneware or porcelain
Green on white splashed ware	Hunan, 9th – 10th	This type was also produced in many other kilns in North China (see Chapter 6, Section 6.6.1)
Green on yellow splashed glazed ware	mid 9th – late 9th	Gongxian kilns' products
Green glazed moulded ware	10th	Might be Changsha, Gongxian or Xing products (see Chapter 6, Section 6.6.2)
Shanglinhu Yue ware, group 1	early 9th – mid 9th	Yue celadon stoneware
Shanglinhu, Yue ware group 2	mid 9th	Yue celadon stoneware
Shanglinhu, Yue ware group 3	9th	Yue celadon stoneware
Shanglinhu, Yue ware group 4	10th	Yue celadon stoneware
Yaozhou ware	11th	Yaozhou celadon stoneware started to be produced in the Tang period (Chapter 6, Section 6.2.2.2).

Site: Sirjan (Sirdjan) سیرجان

Co-ordinates: Lat.29.45, Long.55.68

Location: Kerman Province, Iran

Type of Settlement: the late Sasanian and early Islamic capital of Kirman province and the largest city of southern Iran by the 10th century CE[387]

Site history: It was founded in the Sasanian period and ceased to exist around the 14th century CE.[388]

History of investigation: Excavations were carried out in the 1970s, led by Andrew Williamson and sponsored by the British Institute for Persian Studies, the British Academy and the University of Oxford.[389] A. Williamson also surveyed this area, site S and SS.[390]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
	No Chinese sherds were mentioned in the excavation report. [391] Approximately 1,000 glazed sherds were found from the excavation from a total number of some 5,000 ceramic sherds. [392] Williamson mentions there are over 20 pieces of Far Eastern Celadon. [393]	No	No
Unknown	Williamson in his notes for his surface survey during 1968-71 mentions the existence of Yue ware in this site.[394]	No	No
1	Williamson describes one sherd "with a pair of finely moulded fishes applied under the glaze to the interior of the base."[395]	No	This tends to be Longquan celadon in the 12th or 13th centuries CE.
Unknown	According to Zhao Bing, Changsha ware has also been found there.[396]	No	Zhao Bing does not give the source of this information.

[387] Williamson 1971, 177.
[388] Morgan & Leatherby 1987, 23-30.
[389] Morgan & Leatherby 1987, 23-30.
[390] SS represents individual sites in the Sirjan survey by Williamson. The exact location of each of these individual sites is not known; only the location of Sirjan has been given.
[391] Morgan & Leatherby 1987, 73-82.
[392] Morgan & Leatherby 1987, 53.
[393] Williamson 1971, 183.
[394] Williamson 1987, 12, footnote 6.
[395] Williamson 1971, 183.
[396] Zhao Bing 2015, 318.

1	Green on white splashed glazed ware (GWSG) from Williamson's surface survey[397]	No	From site SS. See comments of B10
1	Dusun ware from Williamson's surface survey[398]	No	From site SS36
5	Southern white ware group 4 (WWS.4) from Williamson's surface survey[399]	No	See comments of Gishnau, from site SS, SS1, SS36
4	Slipped white ware (WWSL) from Williamson's surface survey[400]	No	See comments of Gishnau, from site site SS, SS1, SS34, SS41

Site: Suru

Co-ordinates: Lat.27.10, Long.56.14

Location: suburb of Bandar Abbas, coastal area of the Persian Gulf, Iran

Type of Settlement: village[401]

Site history: unknown

History of investigation: Surveyed by A. Williamson, site J10 and J11[402]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
1	Identified by Rougeulle as early white ware fragment from Tang period to early Song period.[403] In Priestman's study of Williamson's collection of ceramic finds during his survey 1968-1971, he identifies this piece of white ware as Guangdong white ware from the 11th – 13th centuries CE (WWG.2). [404]	No	See comments of Qal'at Abd al-Rahman

[397] Priestman 2005, 307-8.
[398] Priestman 2005, 304.
[399] Priestman 2005, 288.
[400] Priestman 2005, 287-8.
[401] Priestman 2005, 372.
[402] Priestman 2005, 372.
[403] Rougeulle 1991, 25. She names this site as J10. According to Priestman's study of Williamson's survey, he identifies J10 as Suru.
[404] Priestman 2005, 290.

Site: Susa شوش

Co-ordinates: Lat.32.19, Long.48.25

Location: Khuzestan province, Iran

Type of Settlement: ancient city

Site history: This site was occupied from around the 4th millennium BC until the 13th century CE. In the early Islamic period, Susa was an important city in southwest Iran with a short distance to the Tigris and Mesopotamia.

History of investigation: Susa was first identified by William Loftus in the mid 19th century CE. The excavations in Susa were mainly conducted by French expeditions intermittently from the late 19th century until 1970s.

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
1	A small Chinese Changsha painted bowl (fig.3.13, left) was illustrated by Koechlin, now exhibited in the Museum of Louvre.[405]	Louvre, museum number: MAO S. 325	No
1	A Chinese white ewer (fig.3.13, middle) exhibited at the Louvre was found in Susa, dated by the museum to the 10th to 11th centuries CE.	Louvre, museum number: MAO S. 2488	The white ewer is an 11th-century Cizhou ware, with the typical gouged decoration in a floral pattern.
1	A white ewer with green and blue paintings (fig.3.13, right) exhibited at the Louvre was found in Susa, dated by the museum to the 10th to 11th centuries CE.	Louvre, museum number: MAO S. 524	Nigel Wood points out that the white glazed ewer with blue and green decoration may not be a Chinese ware, but an Islamic tin glazed ewer, for the shape is too close to Islamic metalwork and the white glaze is too thick and opaque to Chinese Gongxian wares (this ewer is discussed in detail in Chapter 6, Section 6.6.3.6).[406]

[405] Koechlin 1928, 69.
[406] From personal correspondence with Nigel Wood. This white glazed ewer with blue and green decoration will be discussed in Chapter 6.

1	Small white glazed lobed dish fragment (fig.3.14) exhibited at the Louvre was found in Susa, dated by the museum to the 9th to 11th centuries CE.	Louvre, museum number: MAO S. 220.	This fragment is not described by the museum as an Islamic ware nor Chinese. The body and glaze tend to be more of Chinese stoneware quality, however, the shape, especially the form of the lobed rim is rarely seen on Chinese wares. It could possibly be a 10th or 11th century stoneware from Ding or Xing kilns.
Unknown	Yue ware[407]	No	Zhao Bing does not give the source of this information.



Fig. 3.13 Chinese Wares Found from Excavations in Susa, Photos Taken at the Museum of Louvre.



Fig. 3.14 A Possible Chinese Ding Ware Fragment from Excavations in Susa, Photo Taken at the Museum of Louvre.

Site: T. Cheraghabad /Charaghabad

Co-ordinates: Lat.27.13, Long.57.27

[407] Zhao Bing 2015, 321.

Location: Minab area, Iran

Type of Settlement: inland riverside settlements

Site history: Islamic period

History of investigation: surveyed by A. Williamson, Site Q2-5[408]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
1	Green on white splashed ware fragment (GWSG) from Williamson's survey[409]	No	See comments of B10

Site: T. Qaleh Kucheck

Co-ordinates: unknown

Location: Minab area, Iran

Type of Settlement: settlements

Site history: Islamic period

History of investigation: surveyed by A. Williamson, site K46,47[410]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
1	southern white ware group 7(WWS.7) from Williamson's survey [411]	No	See comments of Hakemi

Site: T. Gishnu

Co-ordinates: Lat.27.08., Long.56.58

Location: Minab area, close to the coast of Persian Gulf, Iran

Type of Settlement: settlement

[408] Priestman 2005, 382.
[409] Priestman 2005, 307.
[410] Priestman 2005, 375.
[411] Priestman 2005, 288.

Site history: Islamic period

History of investigation: surveyed by A. Williamson, site K145[412]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
1	Southern white ware group 2(WWS.2) from Williamson's survey[413]	No	See comments of Nakhl Ibrahim
1	(WWS.4) southern white ware group 4 from Williamson's survey[414]	No	See comments of Gishnau
2	(WWSL) slipped white ware from Williamson's survey [415]	No	See comments of Gishnau

Site: Tal-i-Sabz

Co-ordinates: Lat.27.82, Long.52.08

Location: in the coastal area of the Persian Gulf near Daiyir, Iran

Type of Settlement: coastal site

Site history: Islamic period

History of investigation: Surveyed by A. Stein

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Changsha ware fragment[416]	No	Both Whitehouse and Rougeulle cite the source from Stein 1937: 233, pl. XXVII: 6. However, after checking Stein's publication, this site is not mentioned anywhere.
Unknown	Dusun ware fragment[417]	No	No

[412] Pirestman 2005, 378.
[413] Priestman 2005, 288.
[414] Priestman 2005, 288.
[415] Priestman 2005, 287.
[416] Whitehouse 1973, 250; Rougeulle 1991.
[417] Whitehouse 1973, 245.

Site: Tappa-i-Surkh

Co-ordinates: Lat.27.06, Long.56.58

Location: Minab area, close to the coast of Persian Gulf, Iran

Type of Settlement: settlement

Site history: Islamic period

History of investigation: surveyed by A. Williamson, site K144, K146, K147[418]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
2	(WWS.1) southern white ware group 1 from Williamson's survey[419]	No	See comments of Gishnau
1	(WWSL) slipped white ware from Williamson's survey [420]	No	See comments of Gishnau

Site: Tavuneh

Co-ordinates: Lat.26.79, Long.53.66

Location: in the coastal area of the Persian Gulf, Iran

Type of Settlement: coastal site

Site history: Islamic period

History of investigation: surveyed by A. Williamson, site B15,16, 23,25[421]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
1	Yue ware fragment was found by A. Williamson during his surface survey from site B15[422]	No	No

[418] Priestman 2005, 378.
[419] Priestman 2005, 288.
[420] Priestman 2005, 287.
[421] Priestman 2005, 367.
[422] Williamson 1987, 12, footnote 6.

1	Dusun ware fragment[423]	No	The identification of Dusun ware during Williamson's original survey might need some re-assessment.

Site: Tell Moragh

Co-ordinates: Lat.30.28, Long.50.01

Location: in the coastal area of the Persian Gulf, Iran

Type of Settlement: coastal site

Site history: unknown

History of investigation: Surveyed by John Hansman[424]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Changsha ware fragment[425]	No	No

Site: Tell Muveh

Co-ordinates: Lat.26.85, Long.53.61

Location: in the coastal area of the Persian Gulf, Iran

Type of Settlement: coastal site

Site history: Islamic period

History of investigation: surveyed by A. Williamson, site B17[426]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
2	Changsha ware fragment[427]	No	No

[423] Rougeulle 1991, 19.
[424] Rougeulle 1991, 22, footnote 40.
[425] Whitehouse 1973, 250, from Hansman 1970 unpublished Phd thesis.
[426] Priestman 2005, 367.
[427] Rougeulle 1991, 22.

Site: Tell Zibid

Co-ordinates: Lat.30.24, Long.48.81

Location: in the coastal area of the Persian Gulf, Iran

Type of Settlement: coastal settlement

Site history: Islamic period

History of investigation: unknown

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Changsha ware fragment[428]	No	Zhao Bing does not give the source of this information.

Site: Tiz تیس

Co-ordinates: Lat.25.35, Long.60.62

Location: in the coastal area of the Arabian Sea in eastern Iran

Type of Settlement: old port[429]

Site history: Islamic period, possibly between the 9th and 10th centuries CE[430]

History of investigation: surveyed by A. Stein

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	"Celadon similar to that found at Samarra" [431]	No	Yue celadon stoneware
Unknown	"White ware similar to that found at Samarra" [432]	No	Might be northern Chinese white stoneware or porcelain

[428] Zhao Bing 2015, 318.
[429] Stein 1937, 87.
[430] Stein 1937, 91.
[431] Hobson 1937, 245.
[432] Hobson 1937, 245.

Unknown	"Ying-qing porcelain which is probably of 10th century date" [433]	No	Qingbai ware from Jingdezhen or Fanchang kilns
Unknown	White wares including white stoneware and porcelain were found at Tiz. [434]	No	Rougeulle describes them as early Chinese white ware (before the end of the 11th century CE).

Site: Ziarat زیارت

Co-ordinates: Lat.27.11, Long.53.08

Location: in the coastal area of the Persian Gulf, Iran

Type of Settlement: coastal site

Site history: Islamic period

History of investigation: Surveyed by A. Williamson, site D18[435]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
1	Dusun ware fragment[436]	No	The identification of Dusun ware during Williamson's original survey might need some re-assessment. S. Priestman identifies one Dusun fragment from Ziarat in Williamson's collection in Ashmolean. [437]
3	Yue ware fragments from A. Williamson's surface survey[438]	No	No
1	Chinese white ware fragment[439]	No	Rougeulle does not provide more information to help to identify whether it is stoneware or porcelain and from which period it was produced. S. Priestman identifies this piece as WWS.1 (see WWS. 1 at Gishnau).

[433] Hobson 1937, 245.
[434] Rougeulle 1991, 25.
[435] Priestman 2005, 369.
[436] Rougeulle 1991, 19.
[437] Priestman 2005.
[438] Williamson 1987, 12, footnote 6.
[439] Rougeulle 1991, 25.

2	Changsha ware fragments from Williamson's survey[440]	No	No
1	Green on white splashed glazed ware (GWSG) from Williamson's survey[441]	No	See comments of B10

3.3 Egypt

Site: Alexandria

Co-ordinates: Lat.30.82, Long.29.74

Location: in the coastal area of the Mediterranean Sea, Egypt

Type of Settlement: Port city

Site history: Alexandria has been occupied from the 4th century BC until the present day.

History of investigation: unknown

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Yue ware fragment[442]	No	Zhao Bing does not give the source of this information.

Site: Fustat

Co-ordinates: Lat.30.00, Long.31.23

Location: old Cairo, Egypt

Type of Settlement: Capital city

Site history: The city was established by Amr b. al-As in 641/2 CE and prospered as the

[440] Rougeulle 1991, 22; Priestman 2005.
[441] Priestman 2005, 307-8.
[442] Zhao Bing 2015, 321.

most important cultural and economic centre in North Africa until its destruction in 1168 CE during the Crusades. It was rebuilt afterwards but declined eventually in the 14th century CE.[443]

History of investigation: Ali Bahgat and Albert Gabriel conducted excavations in Fustat from 1912 to 1920. Fustat was excavated several times by various international missions afterwards, including the Fustat Expedition of the American Research Centre in Egypt, headed by George Scanlon between 1964 and 1980,[444] from 1978 to 1985 the Japanese mission under the direction of Dr. Mutsuo Kawatoko and the French mission under the direction of Prof. Dr. Roland P. Gayraud excavating Istabl Antar of Fustat from 1985 to 2005. In addition to these well published international missions, there are also several Egyptian missions excavating Fustat. [445] From 1960 onwards, Egyptian Antiquity Organisation carried out excavations of Fustat for around ten years. The ceramic finds from these excavations still have not been registered or published. They are still in the storage in Cairo.[446]

Chinese ceramic finds:
Chinese wares arrived in Egypt in the very early 9th century CE. Ali Baghat's excavation in Fustat uncovered large quantities of Chinese ceramic sherds but without any stratigraphic correlation.[447] In Scanlon's excavation, Chinese wares were used by Scanlon as the gauge of the life quality in certain areas of Fustat. According to Scanlon, there are around 5,000 pieces of Chinese ceramic finds during the excavations in Fustat by the American Research Centre in Egypt from 1964 to 1978.[448] Only a selected group of Chinese ceramic finds have been mentioned and described in Scanlon's publications.
Scanlon mentions "a fragment of base and body of a white stoneware bowl, pad base with lightly sunken centre, lightly carved swirling leaf and vine motif within a vined ovoid, all under a turquoise glaze with pooling toward the centre (fig.3.16). It was found in the rubble attending the masonry traces in IV-24. Difficult to date, though we believe it to be before AD 1050; and difficult to place because of the rarity of turquoise glazes in carved wares. Because of the unevenness of the glaze and its pooling, one might see it as a Liao three-colour vessel where, because of poor firing, the copper has turned turquoise. If this is the case, we might date the original vessel to ca.AD 1000."[449] This turquoise glazed white stoneware is likely to be a Yaozhou ware produced in the late 10th or early 11th centuries CE.
Scanlon also describes "a fragment of a Tang splashed ware bowl with all over design of rippling and running green glaze on white. The interior of the ring foot carries the white under-glaze (fig.3.15). It was found in level 10 of the mound's dismantling in IV-12. Thus, it could be as late as mid-11th century, but it is so clearly in the Tang style that we must see it as a 10th century carry-over of the Cizhou range of northern Chinese porcelain. It is the first piece of true Chinese splashed ware to be found in an archaeological context in Egypt."[450] This piece of green splashed ware is not Cizhou ware, but was possibly produced by Gongxian, Xing or Ding kilns (see detail in Chapter 6, Section 6.6.2).

[443] Mikami 1982, 67.
[444] Scanlon 1986, vii.
[445] Abd al-Rahman 2010, 2.
[446] Qin Dashu 1995, 82.
[447] Gyllensvärd 1973, 91.
[448] Qin Dashu 1995, 82.
[449] Scanlon & Kubiak 1989, 48-9.
[450] Scanlon & Kubiak 1989, 47.

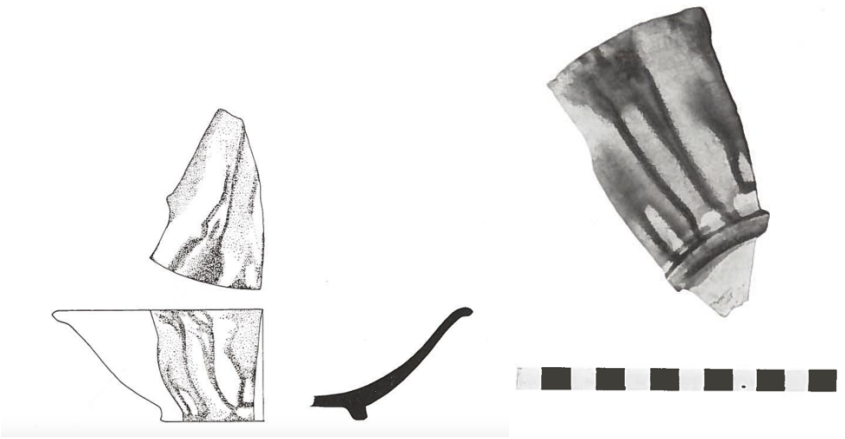


Fig. 3.15 A Tang Green Splashed Sherd Found in Fustat, Scanlon 1989, 48, fig. 68 and 69.

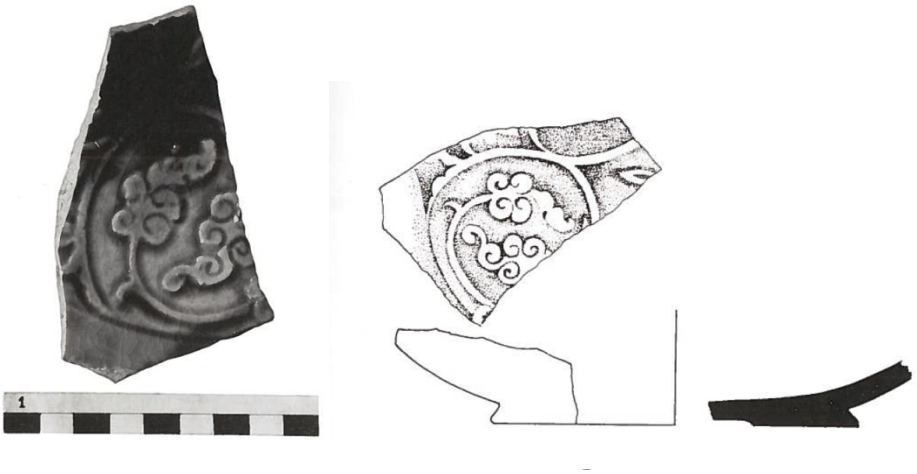


Fig. 3.16 A Chinese Turquoise Glazed White Stoneware Sherd Found in Fustat, Scanlon 1989, 49, fig.70 and 71.

One Yue ware fragment (fig.3.17) with “two flying phoenixes incised with fine lines on the interior” of a base fragment is “of grey fabric with bluish green glaze of fine quality falling in drops on the exterior”.[451] This fragment could be the secret-coloured ware produced during the 9th and 10th centuries CE in Shanglinhu, Zhejiang (see Chapter 6, Section 6.7.1).

[451] Gyllensvärd 1973, 97.

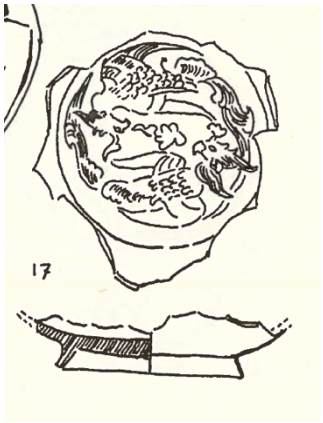


Fig. 3.17 A Bluish Green Glazed Grey Ware Sherd with Incised Phoenix Decoration in Fustat, Gyllensvard 1973, fig 17.

In 1964 and 1966, Koyama Fujio and Mikami Tsugio led a team from the Idemitsu Museum and carried out a survey on Chinese ceramic finds from Fustat, which were stored in Cairo then.[452] In Mikami's examination of the Chinese ceramics in the warehouse on site in 1966, there are some 12,000 to 13,000 sherds of Chinese wares out of a total number of 600,000 to 700,000 ceramic finds from the excavations.[453] According to Mikami, Chinese wares which can be dated between the 8th and 10th centuries CE include "three-coloured wares; white ware; Yue wares and Changsha wares". However, the three-coloured ware sherds illustrated in his publication (fig.3.18) are from F. R. Martin Collection, the International Museum of Ceramics, Faenza, Italy, albeit designated as Fustat finds, with no archaeological context attributing these sherds to the excavations of Fustat.[454] The editor of Transactions of the Oriental Ceramic Society also claims in caption that there is no evidence that they were found at Fustat.[455] The smaller sherd seems to be a fragment of green splashed white ware with moulded decoration. The larger sherd with incised floral decoration in the middle on a white ground has not been reported from any other site in the Islamic world yet. It is uncertain whether they came from Fustat or any site in the Islamic world. Mikami also reports finding fragments of Tang Sancai bottles, bowls and dishes. However, Qin Dashu dates the fragment of the Sancai bottle to the late Liao period (Liao period 916 -1125CE). His examination of Chinese ceramic finds from Fustat in Cairo shows that there is not a single true Tang Sancai ceramic fragment there.[456] Hobson mentioned in his publication in 1932 that "there are, for instance, pieces of buff stoneware with cream glaze mottled with green and brownish yellow, which came from China in the Tang dynasty."[457] Unfortunately, there is no illustration or photo to verify whether these mottled wares mentioned by Hobson are Tang Sancai wares or Chinese Sancai wares from later period or simply Islamic polychrome glazed wares.

[452] Tadanori 2013, 2.
[453] Mikami 1982, 70.
[454] Mikami 1982, 75 and 76. This doubt has also been raised by Scanlon 1989, 47, footnote 61.
[455] This information is given by Oliver Watson.
[456] Qin Dashu 1995, 83.
[457] Hobson 1932, 109.

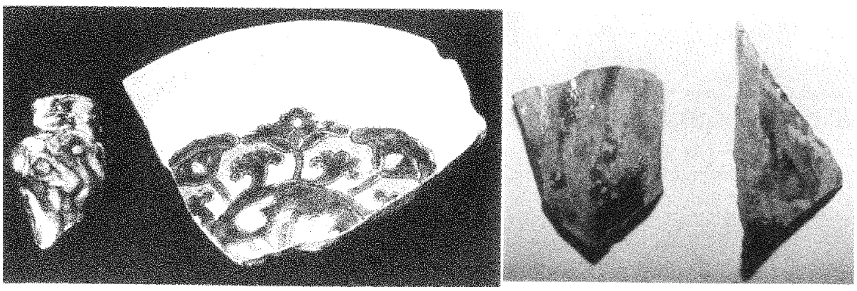


Fig. 3.18 Two Sancai Fragments Attributed to Fustat and Changsha Sherds from Fustat, Mikami 1982, 75.

The Japanese excavations from 1978 to 1985 in Fustat yielded around 1,000 pieces of Chinese ceramic finds. Most of these finds are now stored in the Middle Eastern Cultural Centre in Japan.[458] Chinese wares of high quality constitute examples of white porcelain (fig.3.19) and celadon made in the period of Northern Song, white porcelain of Southern Song and Yue celadon of the 9th and 10th century."[459]



Fig. 3.19 Chinese White Porcelain Sherds from the Northern Song period from Fustat

From 1998 to 2001, another joint project was conducted between the Japanese Middle Eastern Cultural Centre and the Egyptian Government's Department of Antiquities to catalogue all the excavated finds from Fustat that were stored in Cairo. There is a total number of 3,518 boxes of ceramic finds from Fustat, with around 100 ceramic sherds in each box, which contribute to a total number of around 350,000 ceramic sherds. Ceramic sherds from East Asia, mainly China, are in 111 boxes, comprising approximately 11,000 pieces of ceramics. According to Tadanori, there are 12,705 pieces of Chinese ceramic sherds that have been surveyed and identified by him. There are some more boxes which have not been surveyed yet.[460]Tadanori states that the ceramic finds examined by him

[458] Qin Dashu 1995, 82; Kawatoko & Shindo 2010, 5.
[459] Kawatoko & Shindo 2010, 9.
[460] Tadanori 2013, 3-4.

included the finds that had been examined by Mikami in 1964 and 1966.[461]
Table 3.5 below shows the identified Chinese ceramics which can be roughly dated between the 8th and 10th centuries CE. Not all Yue wares can be dated before the 11th century CE. Some may have been produced in the 11th century CE. Most Cizhou and Yaozhou wares were produced in the 11th centuries, with a small amount produced in the 10th century.

Table 3.5 Ceramics Surveyed by Tadanori in 1998, 8th to 10th CE [462]	
Yue green ware	941 sherds
Xing white ware	2069 sherds
Changsha green ware[463]	8 sherds
Yaozhou green ware	25 sherds
White-glazed earthenware with green lead glaze	5 sherds
Cizhou stoneware	6 sherds



Fig. 3.20 Top Left: Xing White Ware Sherds; Bottom Left: Yue Green Ware Sherds; Middle: Green Splashed Ware Sherds; Right: Changsha Painted Ware Sherds in Fustat, from Tadanori 2013, 5.

Tadanori describes the green splashed wares shown above as light-glazed earthenware with green lead glaze from Gongxian kilns in Henan.[464] According to Tadanori, there are ten

[461] Tadanori 2013, 4.
[462] Adapted from Tadanori 2013, 4.
[463] Tadanori names this type of wares as Changsha green ware. However, Changsha green wares are basically Yue type of celadon wares. This type of wares is usually named as Changsha green painted wares.
[464] Tadanori 2013, 5.

fragments of Changsha painted wares, and seven fragments of green splashed white wares. There are forty Chinese ceramic sherds, which can be dated to the 9th century CE. No Chinese ceramic finds from Fustat so far predates this period.[465]
One interesting assemblage of Chinese ceramics (fig.3.21) found in Fustat, dated to the 11th century CE, was produced in kilns in Guangdong province. The interior surface bears fern-shaped patterns painted finely in orange-coloured lustre.[466] Tadanori thinks the orange lustre paintings may have been applied either in Egypt or China.[467] But it can be argued that these dishes and plates were fired and painted both by Chinese potters, in evidence of the finely executed paintings without any overflowing. The strokes here show the delicacy of Chinese potters and painters. They have only been found in Fustat so far.[468]



Fig. 3.21 Chinese Guangdong White Ware Sherds with Lustre Paintings, 11th Century CE. Top from Tadanori 2016, 126. Bottom from Tadanori 2013, 6.

Chinese ceramicist, Qin Dashu, examined Fustat ceramic finds in Cairo in the early 1990s. He estimates that around 20,000 Chinese ceramic sherds have been found from all excavations in Fustat over the 20th century CE.[469] He dates the arrival of Chinese ceramics in Fustat in the second half of the 9th century CE. Based on his examination, it seems the earliest datable Chinese ceramic finds in Fustat came from the stratigraphy of the Tulunid period (868-905CE). Therefore, Chinese ceramics came to Fustat later than coming to Mesopotamia and Iran.[470] He also identifies Yaozhou and Cizhou wares which can be dated around the 10th century CE. A Yaozhou greyish green glazed ware fragment with engraved design has been dated by Qin to between the late 9th century to the early 10th century CE.[471] The Cizhou ware fragments (fig.3.22) are be dated to the second half of the 10th century CE.[472]

[465] Tadanori 2013, 4-5.
[466] Tadanori 2013, 6.
[467] Tadanori 2013, 7.
[468] Tadanori 2013, 7.
[469] Qin Dashu 1995, 82.
[470] Qin Dashu 1995, 90.
[471] Qin Dashu 1995, 85.
[472] Qin Dashu 1995, 86.

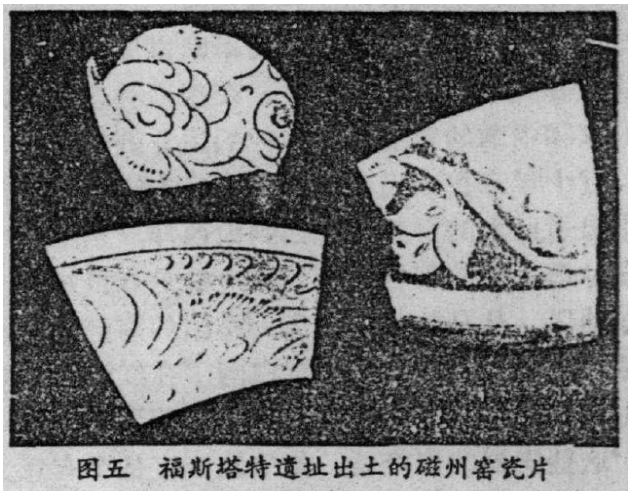


Fig. 3.22 Early Cizhou Ware Fragments from Excavations in Fustat, Qin Dashu 1995, 91.

Gyllensvard summarised the composition of Chinese ceramic finds from Fustat, based on the materials from the American archaeological mission in Fustat. Chinese Song and Yuan celadon was, by his time in 1973, the commonest Chinese ceramic finds in Fustat. Second came Yue wares and Qingbai wares. The Tang porcelain was also well represented. There were sherds of northern celadon, Ding wares, very few Cizhou wares and Sancai wares, which could be Liao Sancai wares.[473] The northern celadon mentioned by Gyllensvard could be Yaozhou or Linru kilns' products. The celadon production in these two kilns both started in the 10th century CE. Zhao Bing maps Fustat with Dusun ceramic finds but gives no source for this information.[474]

3.4 The Red Sea

Site: Al-Hawra'a الحوراء

Co-ordinates: Lat.21.53, Long.39.16

Location: in the coastal area of the Red Sea, Saudi Arabia

Type of Settlement: port

Site history: Islamic period

History of investigation: surveyed by Ingraham in the 1980s[475]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments

[473] Gyllensvärd 1973, 92.
[474] Zhao Bing 2015, 320.
[475] Ingraham et al. 1981, 78.

Unknown	Celadon fragment. [476] Zarins thinks they "may belong to Yue ware". [477]	No	No

Site: Aqaba: العقبة

Co-ordinates: Lat.29.51, Long.35.00

Location: at the northern point of the Gulf of Aqaba connected to the Red Sea, Jordan

Type of Settlement: important port

Site history: It has been occupied from around the beginning of the 5th millennium BC until the present day.

History of investigation: Aqaba was excavated by D. Whitcomb from the University of Chicago from 1986 to1993 under the Aqaba Project.

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Chinese ceramics have been discovered in Fatimid (909-1171CE) levels. They are dated from the 2nd half of the 10th to 11th centuries CE. [478] Chinese celadon (Longquan celadon), Yue wares, Qingbai wares, coarse green wares (fig.3.23), white stoneware and white porcelain were found in Aqaba. [479] Vorderstrasse examined Chinese sherds from Aqaba and concluded that almost all possibly except two could be dated to the Song period (from the latter part of the 10th century CE onwards). [480]	Yes	The coarse green wares have grey-tan fabric fired to a stoneware temperature with mottled green glaze on the interior and exterior and four handles. [481] These are characteristics of Dusun wares, see the illustration below. It seems that Chinese wares arrived in Aqaba later than in the Persian Gulf and Mesopotamia.

[476] Ingraham et al. 1981, 78-9.
[477] Zarins 1989, 258.
[478] Rougeulle 1996, 167.
[479] Whitcomb 1996, 212.
[480] Vorderstrasse 2005, footnote 307.
[481] Whitcomb 1996, 220-1.

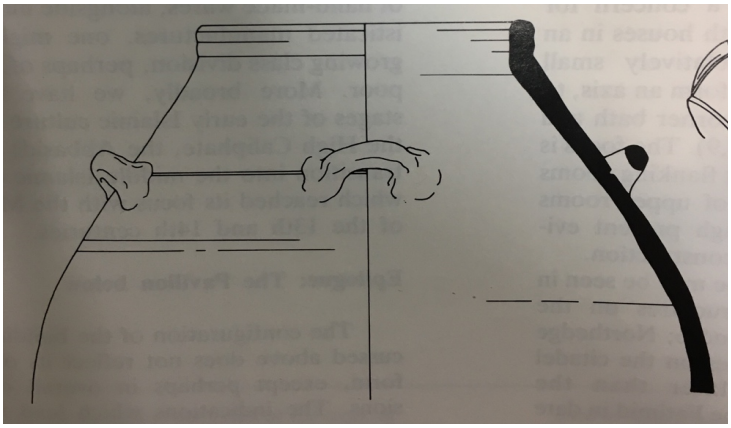


Fig. 3.23 Coarse Green Glazed Ware from Aqaba, Vorderstrasse 2005, 221.

Site: Aththar عثر

Co-ordinates: Lat.17.17, Long.42.45

Location: in the Red Sea coastal area, in the Nadjan area of Saudi Arabia

Type of Settlement: port city

Site history: active from the 7th to 13th centuries CE[482]

History of investigation: It was excavated in 1984 by the Department of Antiquities, Riyadh and Southwest Missouri State University.[483]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	The site of Aththar has a sizeable corpus of Chinese stoneware, porcelain and celadon.[484] Zarins and Zahrani date the Chinese ceramics at Athar from the Tang period, c.950 AD and continued in use well through the Northern Song period, ending in c. 1100AD. "This dating can be confirmed by the parallels to the Siraf and Fustat examples". [485]	No	No

[482] Zarins & Zahrani 1985, 75.
[483] Zarins & Zahrani 1985, 65.
[484] Zarins 1989, 237.
[485] Zarins 1989, 254.

Unknown	“A grey stoneware with no glaze or clear interior is common at Athar. Most of our examples are usually flat base or have low ring base. In several examples we noted on the interior what appeared to be streaks of brown paint. Several examples have an exterior olive drab glaze which may represent the Dusun jars…”[486]	No	Dusun ware
Unknown	“Another stoneware type is yellow in colour and this ware with ring base and open bowl more closely resembles the porcelain types(pl.93b)” [487]	No	This yellow stoneware cannot be identified without examining the original fragments.
Unknown	“Several ceramic types have been identified as belonging to the Late Tang period. A number of pieces may specifically belong to Xing porcelain. The smaller percentage of Xing ware from Aththar includes pieces of the unglazed, short, wide foot ring, bluish-white bowls, and the thickened rim. [488]	Zarins 1989, Pls. Ia, IIa	Xing stoneware or porcelain
Unknown	“another Tang category of material from Aththar is the stoneware. Several pieces have been identified as Changsha ware.” [489]	Zarins 1989, Pl. Ib	Changsha stoneware
Unknown	“The Yue celadon (green) ware forms one of the most significant groupings in our corpus.” [490]	No	Yue celadon stoneware
Unknown	“A small number of fragments from Aththar can be classed with the northern celadon of the Northern Song period and perhaps more specifically to the Yaozhou ware.” Waikam Ho has identified two pieces from Aththar with the characteristic peony and floral scrollwork as Yaozhou. These pieces appear to come from the bellies of ewers.” [491]	Zarins 1989, Pl.II.b	Yaozhou celadon stoneware

[486] Zarins & Zahrani 1985, 79-80.
[487] Zarins & Zahrani 1985, 79-80.
[488] Zarins 1989, 254 and 256.
[489] Zarins 1989, 257.
[490] Zarins 1989, 257.
[491] Zarins 1989, 259 - 260.

Unknown	"The bulk of the Chinese white ware found at Aththar can be identified as Ding ware. All of the examples found at Aththar were fired on the foot. They either tend to be non-porcellaneous in many cases, or quite thick. The foot in the vast majority of cases is unglazed. (several pieces have the characteristic tear stains). Gray (1984: 58) suggests that these are characteristics of pre-Song Ding ware. the most popular type at Aththar is an open bowl with exterior lotus petals carved in a double or treble series of rows emanating from the base. Since late Tang Ding ware is not supposed to be decorated, it appears that the vast majority of our material belongs to the Five Dynasties period. [492]	Zarins 1989, Pls. I, IV, Va, VI	Ding white stoneware and porcelain
Unknown	"The last identifiable category of Chinese ceramics at Aththar forming a rather large group, is the ware labelled Gingbai." [493]	Zarins 1989, Pls. IIIa, IVb, Vb	May belong to Jingdezhen or Fanchang kilns.

Site: Aydhab عيذاب

Co-ordinates: Lat.22.33, Long.36.49

Location: on the coast of Red Sea in North Africa, now in North Sudan

Type of Settlement: medieval port

Site history: It was founded in the seventh century CE. Tsugio Mikami believed that Aydhab and Quseir were the ports where Chinese ceramics had been unloaded prior to being transported overland to the Nile and Fustat.[494] The port's apogee was from the 11th to 14th centuries CE, when it was one of the most important Red Sea entrepots in the trade between India and Egypt. It served also as a port for pilgrims from Africa.[495] Ibn Jubayr (1145-1217CE), who made a pilgrimage in 1183 to Mecca, described Aydhab as one of the most frequented ports, where ships of India and Yemen were sailing to and from it, as well as pilgrim ships coming and going.[496]

History of investigation: Tsugio Mikami visited the site in the 1970s.[497]

[492] Zarins 1989, 260-1.
[493] Zarins 1989, 262.
[494] Mikami 1982, 70.
[495] Facey 2004, 12.
[496] Facey 2004, 12.
[497] Mikami 1982, 70.

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	"celadons which may belong to Yue ware" [498]	No	Zarins mentions the presence of Yue ware in Aydhab in his publication of Aththar.

Site: Ayla أيلة

Co-ordinates: Lat.29.53, Long.34.99

Location: Aqaba, Jordan

Type of Settlement: The ancient Islamic city of Aqaba

Site history: It was founded in the mid 7th century CE and active until the late 12th century CE.[499]

History of investigation: The ancient ruins of this city were excavated by the University of Chicago led by D. Whitcomb from 1986 to 1993. The finds are stored in Aqaba archaeological museum and Jordan archaeological museum.[500]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Far Eastern ceramics from the excavations are represented by a preponderance of Qingbai wares (mostly later than the 10th century CE), Yue wares, and coarse green glazed wares. There are a few examples of North China's white wares and painted Changsha sherds, which are even rarer and always in unstratified contexts.[501] There is one piece of Ding white ware box.[502] It is important to note that none of the excavated Chinese ceramics from Ayla post-date the 11th century CE. [503]	No	The coarse green glazed wares tend to be Dusun wares.

Site: Aynunah عينونة, also named as Leuce Come

[498] Zarins 1989, 250, 258, from Mikami 1982, 70.
[499] Whitcomb 1998, 16.
[500] Zarins 1989, 250 and 258.
[501] Whitcomb 1992, 56.
[502] Whitcomb 1992, 54.
[503] Whitcomb 1992, 56.

Co-ordinates: Lat.28.08, Long.35.18

Location: in the coastal area of the Red Sea, Saudi Arabia

Type of Settlement: a large Abbasid port

Site history: prospered during the Abbasid period

History of investigation: Surveyed by Ingraham in 1980s

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Yue ware fragment [504]	No	No
Unknown	"Pre-Ming Chinese ceramics" [505]	No	No further information has been provided.

Site: Bar Antar

Co-ordinates: Lat.26.28, Long.36.42

Location: It is situated in a small inlet north of Al-Wadjh in Saudi Arabia on the coast of Red Sea

Type of Settlement: port

Site history: Islamic period

History of investigation: Surveyed by Ingraham in 1980s

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
1	Olive-green glazed celadon stoneware fragment[506]	No	Olive green glaze can be seen on both Yue and Yaozhou wares. The latter normally has rather deep and dense engraved decoration of arabesques or flowers.

Site: Khuraybah خريبة

Co-ordinates: Lat.28.06, Long.35.17

[504] Ingraham et al. 1981, 79; Zarins 1989, 258.
[505] Zarins 1989, 237.
[506] Ingraham et al. 1981, 78.

Location: in the north of Wadi Sharmah at the sea end of Wadi Aynunah in the north end of the Red Sea in Saudi Arabia

Type of Settlement: port

Site history: Surface remains can be dated to the Abbasid period.

History of investigation: Surveyed by Ingraham in 1980s

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
1	Olive-green glazed celadon fragment[507]		See comments of Bar Antar

Site: Monastery of Wadi al-Tur

Co-ordinates: Lat.28.25, Long.33.62

Location: in the Sinai Peninsula, Egypt

Type of Settlement: a Christian monastery

Site history: This site was occupied from the 6th until the 15th centuries CE as a monastery at first and later a cemetery yard. It replaced Raya as the main port of al-Tur.[508]

History of investigation: This site was excavated under the project in al-Tur area from 1985-1997 and 2004 by the Middle Eastern Culture Centre in Japan.[509]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Wares from China were found. [510]	No	No
Unknown	In the monastery of Wadi al-Tur, “such expensive objects as dishes of lustre-painted pottery and celadon were found together with crosses and fragments of the Bible. [511]	No	No

[507] Ingraham et al. 1981, 79.
[508] Kawatoko & Shindo 2009, 3.
[509] Kawatoko & Shindo 2009, 4.
[510] Kawatoko & Shindo 2009, 3.
[511] Kawatoko & Shindo 2009, 3.

1	A black glazed stoneware with reddish body and a loop (fig.3.24)[512]	Kawatoko & Shindo,2009, Pl.26-8	This black glazed stoneware might be from kilns in South China, see Chapter 6, Section 6.7.5



Fig. 3.24 A Black Glazed Stoneware Sherd from Monastery of Wadi al-Tur

Site: Quseir al-Qadim/ Myos Hormos in the Roman period

Co-ordinates: Lat.26.10, Long.34.28

Location: in the coastal area of the Red Sea, Egypt

Type of Settlement: ancient port

Site history: It was mainly active during the Roman period and from the late Ayyubid (1171-1260CE) to the Mamluk period (1250-1517CE). The port was used to tranship spices and other goods obtained from India. Pottery and porcelain were mentioned among the 81 genres of commodities recorded by the Arabic documents found from the excavations in the so-called Sheikh's house in Quseir al-Qadim.[513]

History of investigation: The site was excavated by D. Whitcomb and Janet Johnson in 1978, 1980 and 1982. It was surveyed and excavated again from 1999 for five years with permission of the Supreme Council for Antiquities of Egypt and with support from the Peder Sager Wallenberg Charitable Trust, headed by Peacock D. from the University of Southampton.[514]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments

[512] Kawatoko & Shindo 2009, PL.26-8.
[513] Guo Li 2004, 67-8.
[514] Van der Veen 2004, 123.

Unknown	Ceramics from China have been found from the excavations.[515] Yue ware is mentioned by Zhao Bing.[516]	No	Zhao Bing does not give the source of this information.

Site: Raya

Co-ordinates: Lat.28.17, Long.33.68

Location: Sinai Peninsula in Egypt

Type of Settlement: port city

Site history: Raya was a port city in the Sinai Peninsula in Egypt with its fort and residential area dated to the 6th to the 12th centuries CE. Artefacts from the excavations can be dated to mainly the 9th to 12th centuries CE in the fort, and the 8th century CE in the residential area.[517]

History of investigation: The project in Raya from 1997 to 2007 was directed by Mutsuo Kawatoko from the Middle Eastern Culture Centre in Japan.[518]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
2	A Yue celadon and white porcelain with a rim folded outward dated mainly between 9th and 11th centuries CE[519]	Kawatoko 2003, Pl.28, RCW88, 90	No
1	A Yue celadon of the 10th-11th centuries[520]	No	No
1	A Yue celadon which can be dated to the 10th or 11th century from the fort[521]	No	No
1	Illustrated as RCW 104 (fig.3.25, left)[522]	Kawatoko & Shindo,2009, Pl. 6, RCW 104	Yue celadon stoneware

[515] Burke 2004, 125, 127 and 129.
[516] Zhao Bing 2015, 321.
[517] Kawatoko & Shindo 2009, 23.
[518] Kawatoko & Shindo 2009, 4.
[519] Kawatoko 2003,3.
[520] Kawatoko 2004,6.
[521] Kawatoko 2005,5-6.
[522] Kawatoko & Shindo 2009, PL.6-5.

2	Illustrated as RCW105, 106 (fig.3.25 middle and right)[523]	Kawatoko & Shindo,2009, Pl. 6, RCW 105 and 106	They tend to be early Chinese white stoneware or porcelain.

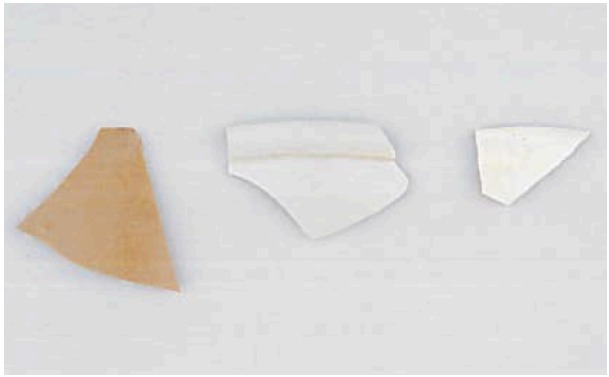


Fig. 3.25 Fragments of Chinese Wares, RCW-104,105,106 from Raya

The quantities of finds from each excavation season are shown in Table 3.6 below. The number of Chinese ceramic finds is very small in Raya.

Table 3.6 Quantities of Ceramic Finds at Raya				
2003 registered finds from the fort[524]				
Earthenware	Islamic Glazed	Chinese	Glassware	Total
370	528	7	486	
2003 registered finds from the residential quarter[525]				
Earthenware	Islamic Glazed	Chinese	Glassware	Total
2115	92	1	1111	
2002 registered finds[526]				
Earthenware	Islamic Glazed	Chinese	Glassware	Total
321	1940	4(RCW87-90)	1253	
2004 registered finds from the fort[527]				
623	476	5(RCW99-103)	353	2550
2004 registered finds from the residential quarter[528]				
2641	235	1(RCW-K2)	1601	5786

[523] Kawatoko & Shindo 2009, PL.6-5.
[524] Kawatoko 2004, 5.
[525] Kawatoko 2004, 5-6.
[526] Kawatoko 2003, 3.
[527] Kawatoko 2005, 5.
[528] Kawatoko 2005, 5.

2007 unregistered finds[529]				
64%	24%		12%	12,000
2007 registered finds[530]				
1971	1895	11(RCW-107-117)	1092	

Site: Sirrin صرين

Co-ordinates: Lat.20.72, Long.39.56

Location: on the Saudi Arabian side of the Red Sea

Type of Settlement: abandoned seaport

Site history: It was active around the 10th and 11th centuries CE but was occupied probably from the 6th to the 14th centuries CE.[531]

History of investigation: Surveyed by J. Zarins and A. Zahrani in 1980s. A Chinese underwater archaeological team is conducting a five-year excavation at Sirrin from 2018 onwards.

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	"pieces of celadon and white porcelain"[532]	No	The publication doesn't differentiate much between terminologies of Chinese ceramics, such as Chinese white stoneware and white porcelain, Yue celadon stoneware and later Longquan celadon porcelain.
Unknown	"Pre-Ming Chinese ceramics" [533]	No	No further information has been provided.
Unknown	celadon which may belong to Yue ware[534]	No	No

Site: Zabid

[529] Kawatoko 2008, 6.
[530] Kawatoko 2008, 6-7.
[531] Zarins 1989, 243.
[532] Zarins & Zahrani 1985, 87; Zarins 1989, 258.
[533] Zarins 1989, 237.
[534] Zarins 1989, 258.

Co-ordinates: Lat.14.47, Long.43.33

Location: in the Red Sea coastal area, Yemen

Type of Settlement: port

Site history: unknown

History of investigation: unknown

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Dusun ware fragment[535]	No	Zhao Bing does not give the source of this information.

3.5 Greater Syria

Site: Antioch

Co-ordinates: Lat.36.20, Long.36.15

Location: eastern Mediterranean coastal area

Type of Settlement: city

Site history: Antioch (Antakiya) was an important eastern Mediterranean city with a seaport from the Hellenistic to Islamic times.[536]

History of investigation: This ancient city was excavated during 1932 to 1939 under the direction of the "Committee for the Excavation of Antioch and Its Vicinity", which was composed of representatives from the Louvre Museum, the Baltimore Museum of Art, the Worcester Art Museum, Princeton University, Wellesley College, later also the Fogg Art Museum at Harvard University and its affiliate Dumbarton Oaks.

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments

[535] Zhao Bing 2015, 320.
[536] Streck & Gibb 2012, Encyclopaedia of Islam: Antakiya.

Unknown	Chinese ceramic sherds have been identified and dated to no later than the 8th century CE. [537]	No	The dating of Chinese ceramics in Antioch is much earlier than Chinese ceramics found in other Islamic sites.
Unknown	Zhao Bing mentions the presence of Yue ware in Antioch.[538]	No	Zhao Bing does not give the source of this information.

Site: Apamea (Afamiya)

Co-ordinates: Lat.35.42 Long.36.39

Location: on the Orontes river in North Syria

Type of Settlement: ancient city

Site history: a Seleucid city, later a fortified outpost of Aleppo and ruined in an earthquake in 1157[539]

History of investigation: unknown

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Yue ware fragment[540]	No	Zhao Bing does not give the source of this information.

Site: Ashkelon (Askalan)

Co-ordinates: Lat.31.66, Long.34.56

Location: in the coastal area of Palestine near Jerusalem

Type of Settlement: Port

Site history: from Bronze Age until the 13th century CE[541]

History of investigation: excavations since 1985 led by Lawrence Stager and Daniel Master sponsored by Leon Levy Expedition[542]

[537] Grabar 1978, 119.
[538] Zhao Bing 2015, 321.
[539] Gibb 2012, encyclopaedia of Islam: Afamiya.
[540] Zhao Bing 2015, 321.
[541] Schloen 1995, 1-6; Hartmann & Lewis 2012, encyclopaedia of Islam: Askalan.
[542] Schloen 1995, 1-6.

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Yue ware fragment[543]	No	Zhao Bing does not give the source of this information.

Site: Hama حماة

Co-ordinates: Lat.35.13, Long.36.75

Location: on the banks of the Orontes river, in west-central Syria

Type of Settlement: Market town

Site history: The history of occupation of Hama can be traced back to the early Neolithic. During the Islamic period, it was a market town.[544]

History of investigation: Hama was excavated by a Danish expedition under the foundation of Carlsberg from 1931 to 1938.[545]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	"la céramique dite céladon ; le céladon de couleur olive est orné ou d'un décor floral, ou de poissons, exécutés en relief." [546]	No	Yaozhou, Yue and Longquan celadon all have olive glaze. All of them have floral relief decoration. But the fish relief decoration tends to be seen exclusive on Longquan celadon from the 12th centuries CE onwards.

Site: Jerusalem

Co-ordinates: Lat.31.76, Long.35.21

Location: Palestine

Type of Settlement: city

Site history: Inhabited since the 4th Millennium BC, it is one of the oldest cities in the

[543] Zhao Bing 2015, 321.
[544] Riis 1987, 11-15.
[545] Riis 1987, 12.
[546] Ingholt 1940, 150.

world.

History of investigation: several excavations during the 19th and 20th centuries CE

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Yue ware fragment[547]	No	Zhao Bing does not give the source of this information.

Site: Qasr al-Hayr East قصر الحير الشرقي

Co-ordinates: Lat.35.07, Long.39.07

Location: in the middle of the Syrian Desert

Type of Settlement: castle, military outpost and hunting lodging

Site history: This palace was built by the Umayyad Caliph ibn Abd al-Malik in 728-9 CE in the middle of the Syrian Desert and was used as a military outpost and hunting lodging, later became one of the posts along the trading route in the Syrian Desert. It was totally abandoned after the Mongol's invasion in the early 13th century CE.[548]

History of investigation: This palace had two parts: the east and the west. From 1964 to 1966 and in 1970, the eastern part was excavated by the University of Michigan led by O. Grabar.[549]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
4	Southern Chinese celadon fragments (fig.3.26) [550]	Yes	The illustrations are published in black and white, thus difficult to tell the kilns and production periods of these sherds.
1	"A light grey glazed stoneware base (fig.3.26 bottom right) that is tooled and partially glazed can be compared with an Antioch piece dated to no later than the 8th century CE." [551]	Yes	This base fragment might be from a celadon glazed stoneware. Its partially applied glaze indicates kilns other than Yue kilns.

[547] Zhao Bing 2015, 321.
[548] Grabar 1978, 113-8.
[549] Grabar 1978, 113-8.
[550] Grabar 1978, 119.
[551] Grabar 1978, 254.

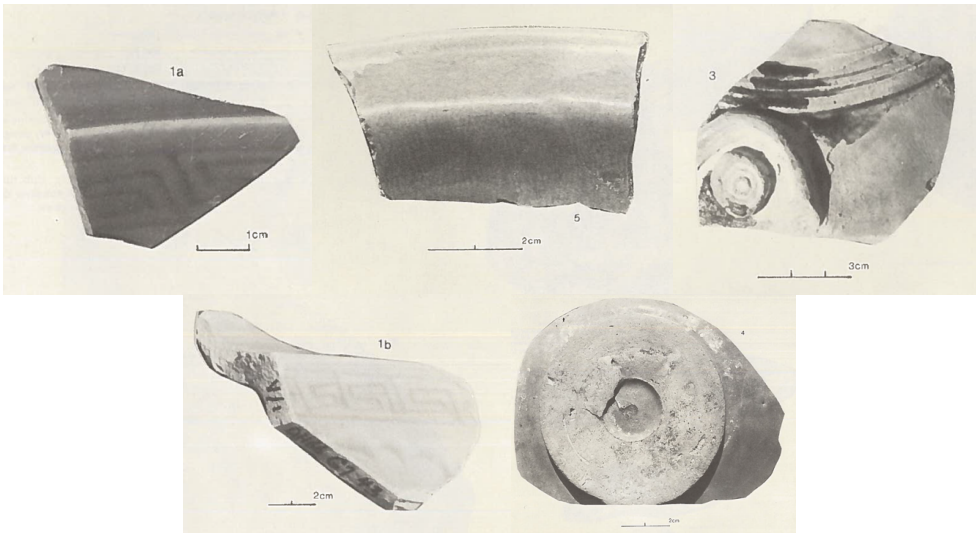


Fig. 3.26 Chinese Green Glazed Stoneware Sherds from Qasr al-Hayr East, Grabar 1978.

Site: Raqqa الرقة

Co-ordinates: Lat.35.95, Long.39.02

Location: on the left bank of the Middle Euphrates, Syria

Type of Settlement: Capital city

Site history: Raqqa has been occupied from the Hellenistic period (around the 3rd century BC) onwards. It was once the capital of the Abbasid empire between 796-809 CE during the rule of the Caliph Harun al-Rashid (786-809CE).[552]

History of investigation: the palace complex of Harun al-Rashid was excavated by M. Meinecke in 1980s.[553]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments

[552] Meinecke 2012, Encyclopaedia of Islam: al-Raqqa.
[553] Meinecke 1991, 17-32.

2	"Two fragments of the base of a Chinese white ware bowl were also in the great mosque." According to V. Porter, Islamic yellow glazed wares, two fragments of Chinese white ware and Islamic white wares are associated with the Abbasid foundation of the Great Mosque at Raqqa, and therefore should be dated after 155AH/ 772CE. [554]	TAFEL 13 a, b.	The two fragments of Chinese white ware bowls are described by Porter as proto-porcelain wares. After examining the photos in the publication, they seem more likely to be coarse white glazed stoneware. Both of them have flat rims. One of them is unglazed on the ring foot.

3.6 Arabia

Site: A'ali عالي

Co-ordinates: Lat.26.15, Long.50.52

Location: on the eastern border of modern A'Ali village on the Bahrain Island

Type of Settlement: Trading town

Site history: It was active during the 9th and 10th centuries CE.[555] The excavated remains are dated to around the latter half of the 8th to the early half of the 9th centuries CE, before the 10th century CE.[556] 1233 fragments of glazed Islamic ceramics in total were found from the 1989-90 season. But no multi-colour incised ware (splashed sgraffiato) and other multi-colour wares (splashed wares) were uncovered in the second season. [557]This indicates that the occupation of the excavated part of A'ali can be dated to before the mid or late 9th century CE, which is before the appearance of Islamic splashed wares and splashed sgraffiato wares. Kennet proposes a date for its occupation as late as the 11th century CE and doesn't rule out the possibility of occupation prior to the 9th century CE.[558]

History of investigation: A Japanese archaeological team excavated the site in 1988 and 1989.[559]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
3	During the 1988-1989	Yes	In the 1990 report, Sasaki describes

[554] Porter 2004, 43.
[555] Sasaki & Sasaki 2011, 27.
[556] Sasaki & Sasaki 2011, 27.
[557] Sasaki & Sasaki 2011, 23.
[558] Kennet 2004, 29.
[559] Sasaki 1990, 112 and 116.

	season, there are 2379 sherds of earthenware, 455 sherds of Islamic glazed ceramics, 2 sherds of glazed stoneware (dark greenish brown glazed stoneware in the shape of a large jar and a basin from kilns in Guangdong) and 1 white porcelain sherd. [560]		this porcelain sherd as a Ding ware. However, in his 2011 report, he describes it as a 12th-century Fujian ware. [561] The photos of this white porcelain fragment show a greenish white colour. It might be produced in South China in the late 10th century CE. Whether it is a stoneware or porcelain is not sure. These two pieces of Guangdong stoneware might be Dusun wares.
2	Two small fragments of Changsha painted stoneware bowls were found from the 1989-90 season. [562]	No	No

Site: Abyanأبين

Co-ordinates: Lat.13.12, Long.45.38

Location: in the Hadramaut coastal region in Yemen

Type of Settlement: a port or at least an important caravan mart and the administrative centre in the medieval times

Site history: Islamic period

History of investigation: surveyed by Lane and Serjeant in 1941[563]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Abyan area is richest in Chinese materials. [564]	No	Lane and Serjeant did not provide information on the types of Chinese materials found here.
Unknown	Yue wares have been found. [565]	No	No

[560] Sasaki 1990, 113-4.
[561] Sasaki 1990, 114; Sasaki & Sasaki 2011, 26.
[562] Sasaki & Sasaki 2011, 26.
[563] Lane and Serjeant 1948, 108.
[564] Lane and Serjeant 1948, 125.
[565] Zarins 1989, 258.

Site: Aden

Co-ordinates: Lat.12.80, Long.45.03

Location: in the Aden Gulf coastal area, Yemen

Type of Settlement: important port city

Site history: from the antiquity period until now

History of investigation: Terrestrial surveys in Aden was done by R.B. Serjeant in 1980s and B. Doe in 1960s with some test excavations. A survey initiated by Aden Governorate was done in 1993 to 1994.[566]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Dusun ware fragment[567]	No	Zhao Bing does not give the source of this information.
Unknown	Chinese ceramics have been identified during surface surveys of Holkat Bay and other areas around Crater by R.B. Serjeant (1988) and B. Doe (1965). [568]	No	No more information has been given.

Site: Al-Hamr al-Sharqiya

Co-ordinates: Lat.17.03, Long.54.43

Location: This site is not far from the pre-Islamic site Khor Rori in the coastal area of Oman
Type of Settlement: trading entrepot

Site history: It used to be a trade entrepot during the Islamic period active around the 10th and 11th centuries CE.[569]

History of investigation: It was excavated by the Italian IMTO team in 2000.[570]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments

[566] Prados 1994, 300 and 297.
[567] Zhao Bing 2015, 320.
[568] Prados 1994, 300.
[569] Rougeulle 2008, 647.
[570] Rougeulle 2008, 645.

4	The excavation yielded around 1170 fragments of ceramics, 4 of which are Chinese pieces (0.35%), 98 of which are Islamic glazed sherds, the remaining unglazed sherds. [571] "One is a fragment of a heavy stoneware jar (thickness up to 1.4 cm), with a rather fine light grey-brownish fabric and an olive-green glaze with small brownish iron spots inside and outside; this piece was probably made in the Changsha area and can be dated to the 9th -10th centuries. The three other pieces were found in the palace and can be dated to around the 11th century. One is a sherd of the body of a jar with thin walls (thickness 0.3-0.4cm), with a fine grey fabric and a very thin nearly colourless outside glaze with large brown spots. The others are small fragments of Qingbai porcelain, one from a cover with a light olive greenish glaze, the other from the wall of a lobed bowl with a bluish glaze. [572]	No	The olive-green glazed stoneware jar fragment is not from Changsha area, but possibly from Guangdong.

Site: Al- Hasa Oasis الأحساء

Co-ordinates: Lat.25.82, Long.49.59

Location: near the coast of Persian Gulf in eastern Saudi Arabia

Type of Settlement: oasis

Site history: This is a traditional oasis region occupied from prehistorical times until recent times. There are fifteen sites in total dated to the early Islamic period.[573]

History of investigation: This area was surveyed by R. Adams in 1976.[574]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
4	Two fragments of Chinese celadon, one porcelain sherd and one Song porcelain	Pl.78	Zhao Bing thinks these two celadon sherds are Yue wares. [576] Porcelain here is highly likely to be North China's early white porcelain, because of the presence of Yue ware and that the sites where they were found

[571] Rougeulle 2008, 648.
[572] Rougeulle 2008, 648. The identification was made by Zhao Bing.
[573] Adams 1977, 26-8.
[574] Adams 1977, 25-8; Whitcomb 1978, 95.

	sherd have been found at two early Islamic (9th -10th centuries CE) sites 16b and 28. [575]		were active during the early Islamic period, during which time North China's white porcelain was the only porcelain ware in China. The blue and white porcelain and Longquan porcelain from South China only came afterwards.

Site: Al-Mabiyat

Co-ordinates: Lat.26.31, Long.38.23

Location: northern part of Saudi Arabia

Type of Settlement: city

Site history: This site is a large well-preserved city site, identified as the trading city of Wadi al-Qura during the early Islamic times (Umayyad and Abbasid periods).[577]

History of investigation: Excavations were conducted in the 1980s by the Department of Antiquities of Saudi Arabia.[578]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	"Two forms (of Chinese ceramics) are present in the 1984 collection. The first, and most common, is a fine white porcelain bowl with moulded lotus blossom decoration on the exterior sides. Gyllensvard (1975:99-100) dates such wares to the northern Song dynasty. The second category is celadon wares which are similarly dated. At Aththar, Zarins and Zahrani place the large number of Chinese sherds in the Tang to the northern Song dynasties (ca. AD1000). The examples from al-Mabiyat fall within the corpus of the Aththar examples." [579]	No	White porcelain with moulded decoration is probably Ding ware in 10th or 11th centuries CE. The celadon wares are mostly likely to be Yue celadon or celadon from other kilns in South China.
1	There is only one Chinese sherd found from sounding P-59, in level 2, dated	No	No further information has

[576] Zhao Bing 2015, 321.
[575] Whitcomb 1978, 98,109.
[577] Gilmore et al. 1985, 109-110.
[578] Gilmore et al. 1985, 109-110.
[579] Gilmore et al. 1985, 116.

	to the early Fatimid period (late 10th to early 11th centuries). [580]		been provided.
Unknown	"Pre-Ming Chinese ceramics" [581]	No	No further information has been provided.

Site: Al-Na'man

Co-ordinates: Lat.25.85, Long.51.08

Location: in the coastal area of the Persian Gulf, Qatar

Type of Settlement: coastal village settlement

Site history: early Islamic period, probably occupied during the 9th and 10th centuries CE

History of investigation: unknown

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	"Tang painted stoneware" [582]	No	Possibly Changsha painted stoneware

Site: Al-Qaraw/ Qaru

Co-ordinates: Lat.13.21, Long.45.31

Location: in the Abyan area, Yemen

Type of Settlement: grand tell of a medieval settlement

Site history: This site was occupied from pre-Islamic period, around the 6th century BC, mainly active during the 9th to 11th centuries CE, and finally was abandoned in around the 14th century CE.[583]

History of investigation: This site was surveyed by Hardy-Guilbert and Rougeulle in Yemen from 1993 to 1995 and also by King and Tonghini in 1994.[584]

Chinese ceramic finds:

[580] Gilmore et al. 1985, 118-119.
[581] Zarins 1989, 237.
[582] De Cardi 1978, 186.
[583] King & Tonghini 1996, 31.
[584] King & Tonghini 1996, 31.

Qnt.	Identified as	Illustration	Comments
Unknown	“des porcelaines et des grès chinois des dynasties Tang et Song” [585]	No	No further information has been given to allow identification of these ceramic finds.
Unknown	Some Chinese ceramic finds from Qaraw are in the Ashmolean Museum. There are fragments of celadon, white ware, black glazed, brown glazed and blue and white (fig.3.27).	Yes	These sherds came from a wide time period.
1	One piece of olive-green glazed stoneware (fig.3.27)	Ashmolean P.6811(12)	The stoneware body and olive-green glaze are Yue ware’s characteristics.
4	Chinese white ware sherds (fig.3.27)	Ashmolean P.6813(14), P.6817(18), P.6820(21), P.6822(23)	P.6822(23) tends to be Xing or Ding white stoneware fragment for its yellowish white glaze and body. The other three fragments might be southern Chinese white wares. Their production date might be later than the 10th century CE.



Fig. 3.27 Chinese Ceramic Finds from Qaraw in the Ashmolean Museum, Photo Taken by the Author.

Site: Al- Quraya

[585] Hardy-Guilbert & Rougeulle 2016, 216.

Co-ordinates: Lat.13.18, Long.45.31

Location: Situated in the Abyan area, not far from the occidental bank of Wadi Hassan, Yemen.

Type of Settlement: It is a broad little marked hill now. There are no traces of visible architecture, but rich in survey materials.

Site history: Occupation started from pre-Islamic period and stopped in around the 14th century CE.[586]

History of investigation: This site was surveyed by Hardy-Guilbert and Rougeulle in Yemen from 1993 to 1995.

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	"des porcelaines et des grès chinois des dynasties Tang et Song" [587]	No	No further information has been given to allow identification of these ceramic finds.

Site: Al-Tariya

Co-ordinates: Lat.13.18, Long.45.32

Location: Located in the Abyan area, on the oriental edge of the Wadi Hassan, around ten kilometres from the sea, Yemen

Type of Settlement: It has become a broad little marked hill now, with no traces of visible architecture, but rich in survey materials.[588]

Site history: It was occupied from pre-Islamic period, and finally abandoned in around the 14th century CE.[589]

History of investigation: This site was surveyed by Hardy-Guilbert and Rougeulle in Yemen from 1993 to 1995, and by King and Tonghini in 1994.[590]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments

[586] Hardy-Guilbert & Rougeulle 2016, 216.
[587] Hardy-Guilbert & Rougeulle 2016, 216.
[588] Hardy-Guilbert & Rougeulle:2016, 216.
[589] Hardy-Guilbert & Rougeulle:2016, 216.
[590] King & Tonghini 1996, 27-8.

Unknown	"des porcelaines et des grès chinois des dynasties Tang et Song" [591]	No	No further information has been given to allow identification of these ceramic finds.

Site: Arja

Co-ordinates: Lat.24.48, Long.56.55

Location: near Sohar, Oman

Type of Settlement: copper mining and settlement[592]

Site history: active from around the 6th century CE to around the end of the 15th century CE, with a dramatic growth of settlements in the 9th century, the mining settlement was at least partly abandoned by the 11th and 12th centuries CE.[593]

History of investigation: This site was surveyed and excavated under the Sohar Ancient Fields project by Harvard, led by Wilkinson and Costa from 1975 to 1977. Arja was surveyed and excavated again in 1978 and 1981 by a collaboration with the Deutsches Bergbau Museum under Dr. G. Weisgerber.[594]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Chinese wares are not very common. [595]	No	No
1	Pottery of the 9th and 10th centuries from Arja includes "a small barrel-shaped stoneware jar with horizontal handle, probably made in south China."[596] It has "dark olive-green glazed surface with occasional small brown patches. On top of rim the glaze is thin and reddish brown in colour. Grey stoneware core with some fine sand, occasional voids and black impurities." [597]	Costa & Wilkinson 1987, fig.97g	Possibly Dusun jar fragment
2	Pottery of the 9th and 10th centuries from Arja includes "a shallow pale green-glazed bowl and the low ring base of a	Costa & Wilkinson 1987, fig.97i,	The pale olive-green glaze, grey stoneware

[591] Hardy-Guilbert & Rougeulle:2016, 216.
[592] Costa & Wilkinson 1987, 20.
[593] Costa & Wilkinson 1987, 107 and 111.
[594] Costa & Wilkinson 1987, 20.
[595] Costa & Wilkinson 1987, 186.
[596] Costa & Wilkinson 1987, 186.
[597] Costa & Wilkinson 1987, 196.

	bowl, the interior of which bore scars resulting from stacking in the kilns.[598] Two sherds of this type of wares have been described in detail that they have pale olive-green glazed surface and smooth hard dense grey stoneware body. [599] Rougeulle identifies them as Yue ware.[600]	fig.97h	body and the stacking scars in the interior are characteristics of Yue wares.
	Early Chinese Tang painted stoneware and later celadon porcelain of the 12th and 13th centuries although present in and around Sohar and even on the fields, were absent at Arja. [601]	No	No

Site: Barbar

Co-ordinates: Lat.26.23, Long.50.48

Location: on the coast of Bahrain

Type of Settlement: it used to be a temple

Site history: This site is dated back to around 2000BC. The site probably was robbed for its masonry in the late 9th century CE.[602]

History of investigation: The site was excavated by a Danish Archaeological Expedition from 1953 to 1970, and by a French expedition in 1978.[603]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Fragments of similar Chinese ceramics to those found in Samarra have been unearthed here. [604]	No	These Chinese ceramics can be dated to the 9th or 10th centuries CE.
1	"A lamp being of mat-green celadon" (fig.3.28) [605]	Yes	Celadon lamp is rarely seen among imported Chinese wares in the Islamic world.

[598] Costa & Wilkinson 1987, 186.
[599] Costa & Wilkinson 1987, 196.
[600] Rougeulle 1991, 33.
[601] Costa & Wilkinson 1987, 186.
[602] Frifelt et al. 2001, 13.
[603] Frifelt et al.2001, 9-10.
[604] Frifelt et al. 2001, 16.
[605] Frifelt et al. 2001, 20.

1	"Another celadon fragment of a light turquoise colour is from a small jar with a flower in relief." [606]	Yes	Might be Yue ware.



Fig. 20. Celadon lamp. 1:2.



Fig. 21. Celadon fragment. 1:2.

Fig. 3.28 Celadon from Barbar, Frifelt 2001, 22.

Site: Bilad al-Qadim البلاد القديم

Co-ordinates: Lat.26.20, Long.50.55

Location: Bahrain

Type of Settlement: an ancient town

Site history: It used to be a town occupied from the 8th or early 9th to 13th or 14th centuries CE based on its pottery assemblage revealed by the excavation.[607]

History of investigation: It was surveyed and excavated in 2001 by Timothy Insoll.[608]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments

[606] Frifelt et al. 2001, 20.
[607] Carter 2005, 107.
[608] Insoll 2005, 1.

1	In the first period of the site during the 8th and early 9th centuries CE, "far eastern ceramics are present in the form of a small white sherd from MOS 01A-10, with a possible moulded pattern (not illustrated). It was registered as Ware 26(Chinese White Ware, a generic category). The sherd is similar to a description of Dehua Moulded whiteware (Kennet 2001: 256-7), though this is not thought to appear until later, hence it may be intrusive." [609]	No	No illustration of this piece has been published. Thus, it is difficult to tell whether this single sherd of Chinese white ware was intrusive from a later period. But it can also be from Ding kilns, which produced high-quality white porcelain and stoneware with incised or carved decoration from the 10th century CE.
Unknown	The second period is dated to the 9th/early 10th century CE. Carter thinks splashed wares with short wavy lines in green on an opaque white glazed background maybe Islamic or Chinese. [610] No other Chinese wares have been found during this period. [611]	No	Further examination of the body and the quality of the glaze is needed in order to determine its provenance.
1	In the third period, suggested as the 11th century CE, "a very fine simple straight rim in whitish porcelain or fine stoneware from period 3 was recorded as Chinese whiteware (ware 26), a class matching the description of Guangdong ware (Kennet 2001: 254-255). The rim from Bilad al-Qadim is comparable to bowls from Siraf in fine white ware and fine grey ware (Tampoe 1989). Fine grey ware begins to occur in Siraf period 4(1000-1300), and fine whiteware in Siraf period 3 (9th - 10th centuries)." [612]	Carter 2005, 190, fig.4.12.3	It seems that without a close examination of these sherds, it is very unlikely to identify them, especially Chinese white wares which had been produced from the sixth century CE onwards in North China and soon in South China. Knowing the fabrics of white ware sherds would be very helpful, as white wares in North China and South China used fundamentally different compositions for their ceramic bodies.

[609] Carter 2005, 117.
[610] Carter 2005, 413.
[611] Carter 2005, 125.
[612] Carter 2005, 132-3.

1	From period 3, another sherd was recorded as non-specific far eastern (ware 52). This was a very small fragment of a squared rim, with a fine medium-dark grey stoneware body and a greenish glaze (not illustrated). It may be Yue celadon, usually dated to the 10th -11th century." [613]	No	In the publication, the small fragment of green glazed ware is not designated to any style. In terms of its greyish stoneware fabric and greenish coloured glaze,[614] it is highly likely to be a Yue type. As Carter cannot give a specific time period for this layer, it makes the identification of these two unillustrated fragments of Chinese wares even more impractical.
1	In the fourth period, suggested as the mid 11th/ 12th century CE, "a small amount of far eastern ceramics was found. A stoneware with a thin olive glaze and a slightly grainy grey body appears to be an early occurrence of celadon (ware 34, not illustrated). It is not typical of Longquan Celadon but may be Yue Celadon." [615]	No	It is probable that this is a provincial Yue ware product or Dusun ware, depending on how coarse the fabric is and how thinly the glaze was applied.
1	From the layer of the fourth period, a fragment of Chinese white ware was found. It is the same genre of white wares as those that appeared in the third period. It is "a bowl rim with transparent glaze. This has a parallel at A'ali supposedly dated to the first half of the 10th century (Aasaki 1990, 114)." [616]	Carter 2005, ware 26: fig 4.12:2	
1	"A thick chunk of a coarse stoneware vessel with a thin olive-green glaze, from period 6. This matches the description of Dusun stoneware, in which case it would be a residual occurrence." [617]	No	No

[613] Carter 2005, 132-3.
[614] Carter 2005, 133.
[615] Carter 2005, 140; Insoll 2005, 424.
[616] Carter 2005, 140-1.
[617] Insoll 2005, 424.

Site: Zubalah زبالة

Co-ordinates: Lat.29.39, Long.43.56

Location: in the middle of Saudi Arabia

Type of Settlement: This site is one of the largest stations along the Darb Zubaydah, with some cisterns, wells, fortress and settlements.[618]

Site history: Early Islamic period[619]

History of investigation: Darb Zubaydah was a pilgrim route linking Kufa and Mecca, officially established during the Abbasid period, although some stations had already been in use in pre-Islamic periods. It is presumed to have flourished for at least five centuries of Abbasid supremacy at Baghdad.[620] Saad A. Al-Rashid conducted a field survey along this pilgrim roads during the 1970s and published it in 1980 in his Phd thesis.[621]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
1	One shoulder fragment from a Chinese stoneware vessel with lead glaze is similar to the one from Siraf dated to the 9th and 10th century. [622]	No	This might be a Chinese splashed ware fragment due to the lead glaze.

Site: Faydفيد

Co-ordinates: Lat.28.26, Long.43.23

Location: in Saudi Arabia

Type of Settlement: pilgrimage route station, chosen as the main seat for the administration of the road during the pilgrim season[623]

Site history: This site used to be one of the most important and strategically located stations on the Darb Zubaydah during the Abbasid period, as a storage point for food and supplies intended for use on the return journey. Its importance could be compared to Basra and Kufa as a city well known for its castle and fortress.[624]

[618] Rashid 1980, 81.
[619] Rashid 1980, 280.
[620] Knudstad 1977, 41.
[621] Rashid 1980, 329. Other sites surveyed along the pilgrimage route is introduced in the following section.
[622] Rashid 1980, 280.
[623] Rashid 1980, 90.
[624] Rashid 1980, 90-1 and 93.

History of investigation: see Zubalah

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
1	One fragment was mentioned to be in the Fayd-Riyad University Museum, which has a body that contains potassium aluminium silicate and traces of iron and titanium. The glaze covering both sides of the small fragment of a vessel contains calcium, potassium silicate with aluminium and traces of zinc, iron, titanium, and barium. It is dated to the Tang period 9th to 10th century. [625]	No	This sherd cannot be identified as any specific Tang type of ceramics.

Site: Dhahran

Co-ordinates: Lat.26.24, Long.50.04

Location: in the coastal area of the Persian Gulf, Qatar

Type of Settlement: coastal settlement

Site history: Islamic period

History of investigation: unknown

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
1	Changsha ware fragment [626]	No	No

Site: Habil

Co-ordinates: Lat.13.73, Long.46.07

Location: in the Aden littoral area of Yemen

Type of Settlement: This site might be a small glass-manufacturing village in the past.[627]

Site history: Islamic period

[625] Rashid 1980, 295.
[626] Whitehouse 1973, 250.
[627] Lane & Serjeant 1948, 109.

History of investigation: Surveyed by Lane and Serjeant's in 1941

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	A few pieces of green glazed stoneware with profuse carving [628] and white porcelain fragments. [629] Zarins mentions the green glazed stoneware may belong to North Chinese celadon. [630]	No	Those green glazed stoneware with carvings may belong to Yue styles or Yaozhou styles. White porcelain from Habil cannot be dated precisely due to lack of further information.

Site: Hayrij

Co-ordinates: Lat.15.35, Long.51.64

Location: in the coastal area of Mahra, Yemen

Type of Settlement: an important port

Site history: active since pre-Islamic period

History of investigation: Surveyed by Rougeulle about the ports of the Indian Ocean in Yemen in the Hadramawt and Mahra region

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	"des céramiques mais également des verreries et objets divers, importés de la chine, qui témoigne de l'importance et de la diversité des échanges aux x-xii siècles" [631]	No	No further information has been given.

Site: Jabalayn

Co-ordinates: Lat.13.18, Long.45.29

Location: in Abyan area, on the north edge of the oasis Wadi Hassan at the foot of the

[628] Lane & Serjeant 1948, 126; Zarins 1989, 260.
[629] Lane & Serjeant 1948, 127.
[630] Zarins 1989, 260.
[631] Rougeulle 2016, 225.

mountainous chain, Yemen

Type of Settlement: a small establishment

Site history: the site started from pre-Islamic period, around 6th century BC, mainly active during the 9th to 11th centuries CE, and finally was abandoned in around the 11th century CE.[632]

History of investigation: This site was surveyed by Hardy-Guilbert and Rougeulle in Yemen from 1993 to 1995.

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	"des porcelaines et des grès chinois des dynasties Tang et Song" [633]	No	No
3	There are three sherds of Chinese stoneware jars of olive-green glaze. [634]	No	Yue wares, Yaozhou wares and Guangdong celadon all have olive green glaze.

Site: Jazirat al-Hulayla

Co-ordinates: Lat.25.79, Long.55.96

Location: on the island of Hulayla in Ras al-Khaimah, Emirates

Type of Settlement: a small, early Islamic settlement with major occupation in the 8th century[635]

Site history: It shows that it was occupied from the 5th to 20th centuries CE, though very few traces of occupation in the late 11th, 12th and 13th centuries CE.[636]

History of investigation: The site was first excavated on a small scale by J. Hansman in 1977. A survey was conducted by D. Kennet in 1991.[637] Sasaki excavated this site from 1994.

Chinese ceramic finds:

[632] Hardy-Guilbert & Rougeulle 2016, 216.
[633] Hardy-Guilbert & Rougeulle 2016, 216.
[634] Hardy-Guilbert & Rougeulle 1995, 32.
[635] Hansman 1985, 33.
[636] Kennet 2004, 25.
[637] Kennet 1994, 176.

Qnt.	Identified as	Illustration	Comments
2	A rim sherd of a Dusun bowl and a fragment from one of the jars were recovered during the surface survey. [638]	Hansman 1985, 33, fig. 1	No

Site: Jidd al-Hajj

Co-ordinates: Lat.26.23, Long.50.50

Location: in the coastal area of Bahrain

Type of Settlement: coastal settlement

Site history: Islamic period

History of investigation: unknown

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
1	Painted Changsha bowl fragment[639]	No	Rougeulle gets her information from Carte archéologique de Bahrain.

Site: Julfar of Ras al-Khaimah

Co-ordinates: Lat.25.86, Long.56.00

Location: in the coastal area of the Persian Gulf, UAE

Type of Settlement: town

Site history: Julfar was archaeologically dated to the 14th century CE and abandoned in the 17th century CE.[640]

History of investigation: This area was first identified by B. de Cardi and B. Doe in 1971. Later an Iraqi Mission carried out the first excavation in Julfar headed by M. Y. Taha in 1973 and 1974. From 1976 to 1977, J. Hansman conducted another three soundings.[641] Excavations led by Burkhard in 1988 was conducted in the western part of the archaeological site of al-Mataf area.[642]

[638] Hansman 1985, 33.
[639] Rougeulle 1991, 24, footnote 42.
[640] Kennet 1994, 174.
[641] Vogt 1991, 187.
[642] Sasaki 1991, 205.

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
1	Even though the town dates to much later than the 10th century CE, a body fragment of a Yue celadon bowl, dated to around the 10th century CE was found. [643]	No	Materials from the 9th and 10th centuries are very meagre and ambiguous. Therefore, although Yue ware was found in Julfar, the site itself is unlikely to be active in the 10th century CE. This fragment may have come from another location.
1	"One body sherd of a jar with grey paste, mottled, olive glaze, vertical neck and looped horizontal handle was collected from the surface at al-Mataf." [644]	No	Possibly Dusun ware

Site: Jumeiraجميرا

Co-ordinates: Lat.25.20, Long.55.24

Location: coastal area in the Persian Gulf near Dubai (UAE)

Type of Settlement: a large coastal residential area

Site history: it was occupied during the 9th and 10th centuries CE.

History of investigation: The site has been excavated, the result of which has not been published yet.[645]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
1	A Yue ware sherd is in the site museum. [646]	No	No

Site: Kadumat am-Sha'ibi

Co-ordinates: Lat.12.93, Long.45.04

[643] Sasaki 1991, 205.
[644] Hansman 1985, 33 and 40.
[645] Kennet 2007, 97.
[646] Williamson 1987, 12, footnote 6.

Location: in coastal area of the Gulf of Aden, Yemen

Type of Settlement: It is extremely large with the main area of tells about 350 meters square, with ancient Islamic graves, mud brick building remains and wall traces of a small mosque.[647]

Site history: Islamic period

History of investigation: This site was surveyed by King and Tonghini in 1994.[648]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	some whiteware sherds	King & Tonghini 1996, 75-7	Due to the quality of the black and white pictures taken for these sherds, it is hard to tell whether these whitewares and the green glazed stoneware came from an earlier period.
1	a fragment of celadon	King & Tonghini 1996, 5-7	See comments above

Site: **Kawd am-Saila**

Co-ordinates: Lat.15.90, Long.52.15

Location: in the Abyan region, Yemen

Type of Settlement: an ancient settlement with kilns,[649] Serjeant suggests this site to be Lahba, which was recorded as a staging palace and a populous village with shops.[650]

Site history: Islamic period

History of investigation: Surveyed by Lane and Serjeant in 1941[651] and King and Tonghini in 1993-4[652]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments

[647] King & Tonghini 1996, 23.
[648] King & Tonghini 1996, 23.
[649] Lane and Serjeant 1948, 108.
[650] King & Tonghini 1996, 22.
[651] Lane and Serjeant 1948, 108.
[652] King & Tonghini 1996, 22.

Unknown	This site is rich in Far Eastern ceramics. [653] Pieces of Ding white opaque stoneware and white porcelain fragments were found. [654]	No	There should be other types of Chinese wares more than just Ding wares.
2	“Two fragments from Kawd am-Saila have been described as rather thick with exterior radiating petal-patterns in relief. It seems the material could be Ding ware of the Five Dynasties period.” [655]	No	No
1	“One fragment of the ware (Qingbai) was found at Kawd am-Saila. The piece is lightly incised on the interior.” [656]	No	This fragment could be an early Qingbai stoneware from Jingdezhen kilns, due to the light incised decoration.

Site: **Khalfat**

Co-ordinates: Lat.15.17, Long.51.12

Location: in the coastal area of Mahra, Yemen

Type of Settlement: an important port

Site history: occupied from pre-Islamic period onwards

History of investigation: This site was surveyed by Rougeulle as part of her research investigation of the ports of the Indian Ocean in Yemen in the Hadramawt and Mahra region.

Chinese ceramic finds:

Qnt.	**Identified as**	**Illustration**	**Comments**
Unknown	“des céramiques mais également des verreries et objets divers, importés de la chine, qui témoigne de l’importance et de la diversité des échanges aux X- XII siècles” [657]	No	No

[653] Lane and Serjeant 1948, 109.
[654] Lane and Serjeant 1948, 126, 127.
[655] Zarins 1989, 261, from Lane & Serjeant 1948, 126.
[656] Zarins 1989, 262, from Lane & Serjeant 1948, 127.
[657] Rougeulle 2016, 225.

Site: **Khatt**

Co-ordinates: Lat.25.62, Long.56.01

Location: southeast to Ras al-Khaimah, Emirates

Type of Settlement: a village

Site history: The site was occupied from late pre-Islamic period to the present day, with a noticeable exception of the 11th to 14th centuries CE.[658]

History of investigation: It was first explored by de Cardi in 1968 and surveyed in 1977, also by Kennet in 1992.

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
2	Two sherds of Changsha wares were found. [659]	No	No

Site: Kush

Co-ordinates: Lat.25.78, Long.55.95

Location: on the coast of Ra's al-Khaimah, Emirates

Type of Settlement: a small tell

Site history: The site was occupied from the 5th to 13th century CE.[660]

History of investigation: It was excavated on a small scale by D. Kennet in 1994 and 1995.[661] Later it was excavated again between 1995 and 2001.

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
6	Dusun ware fragments[662]	No	No
3	Yue ware fragments[663]	No	No

[658] Kennet 2004, 25.
[659] Kennet 2004, 61.
[660] Kennet 2008, 135.
[661] Kennet 1997, 285.
[662] Kennet 2004, 65.
[663] Kennet 2004, 61.

unknown	CHANG (Changsha polychrome underglaze painted stoneware) [664]	Kennet 2004, fig. 16	Changsha painted stoneware may not be underglaze painted (see Chapter 6, Section 6.5.1).
9	GGW (Yue-type wares) The quality of this group with yellowish olive colour glaze is poor compared to Yue wares, sometimes with fine incised decoration. Kennet thinks they might be earlier than Yue ware. [665]	Kennet 2004, fig. 16	Hongzhou kilns in Jiangxi province was famous for yellowish or brownish green glazed stoneware during the Tang and Five Dynasties period (see Chapter 6, Section 6.2.2.2). These pieces might be from Hongzhou kilns.
0.31%	During period V (8th – 11th century CE) of Kush, Chinese ceramics represent 0.31% of the total assemblage by sherd count.[666]	No	Kennet comments that occasional imports are too rare to have shown up. He attributes this 0.31% to the 11th century mainly.[667]

Site: **Qal'at al Bahrain قلعة البحرين**

Co-ordinates: Lat.26.23, Long.50.52

Location: Bahrain, Persian Gulf

Type of Settlement: fort

Site history: The site was occupied from the 3rd millennium BC to around the 18th century CE.[668]

History of investigation: This ancient fort has been excavated by the French archaeological team by Monik Kervran from 1977 to 1984. A Danish archaeological team also conducted some archaeological work in the fort and the Islamic town from the 1950s to 1970s.[669]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments

[664] Kennet 2004, 60.
[665] Kennet 2004, 62.
[666] See Kennet 2004 Table 32 in page 98 and fig. 49 and 51 in page 170.
[667] See Kennet 2004 Table 32 in page 98 and fig. 49 and 51 in page 170.
[668] Pirazzoli-t'Serstevens 2005, 303.
[669] Frifelt et al. 2001, 9.

unknown	The two seasons of 1977-8 yielded about 100 Chinese ceramic sherds. [670]	No	A large number of coins, mostly Chinese have been found in the fort. [671]
1	A Dusun jar from Qal'at is illustrated in the publication of Sohar. [672]	No	No
Unknown	Yue ware[673]	No	Zhao Bing does not give the source of this information.
0.6%	Ceramics collected from the floors of Qal'at al-Bahrain includes 0.6% of Chinese ceramics.[674]	No	No

Site: Qatif

Co-ordinates: Lat.26.56, Long.49.98

Location: in the coastal area of the Persian Gulf, Emirates

Type of Settlement: coastal settlement

Site history: Islamic period

History of investigation: unknown

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
1	Yue ware fragment[675]	No	The only one piece from Qatif was collected by an amateur, currently in the Victoria & Albert Museum. [676]

Site: Ra's al-Hadd

Co-ordinates: Lat.22.52, Long.59.79

[670] Pirazzoli-t'Serstevens 1985, 316.
[671] Pirazzoli-t'Serstevens 1985, 315.
[672] Rougeulle 1991, 20.
[673] Zhao Bing 2015, 321.
[674] Rougeulle 1996, 176.
[675] Rougeulle 1991, 33.
[676] Rougeulle 1991, 33, footnote 69.

Location: coastal area of Oman

Type of Settlement: an important early Islamic harbour

Site history: Islamic period

History of investigation: Surveyed by D. Whitcomb under the Harvard Archaeological survey in 1975. Reade excavated this site in the 1980s with a preliminary report in 1989, which has not been published yet.[677]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Many Abbasid ceramics, Tang and Song porcelain and stoneware pieces were found here. [678]	No	No further information has been given.
Unknown	Yue and other celadon from the period of 1055-1500AD[679]	Whitcomb 1975, fig.8:cc, dd, ff-hh	Fig.8:cc and dd are Islamic alkaline green-blue glazed sherds, not Chinese celadon. Chinese celadon sherds are illustrated as fig.9: ff, gg, hh. Fig.9: ff is a celadon sherd with thin dark green glaze. Fig.9:gg is a celadon sherd with grey glaze, slightly cracked, with unglazed band on interior and lower exterior with red edges. Fig.9: hh is a porcelain sherd with white slightly bluish glaze. [680]

Site: Samdah

Co-ordinates: Lat.24.50, Long.56.43

Location: in the coastal area of the Persian Gulf, Oman

Type of Settlement: copper production centre[681]

Site history: Islamic period

History of investigation: surveyed by G. Weisgerber in 1970s[682]

[677] Rougeulle 2010, 316.
[678] Rougeulle 2010, 316.
[679] Whitcomb 1975, 126.
[680] Whitcomb 1975, 148.
[681] Weisgerber 1978, 17.
[682] Weisgerber 1978, 15.

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Chinese celadon porcelain no later than the 9th century AD [683]	No	Yue ware
Unknown	early white stoneware and porcelain fragment[684]	No	The original reference of Weisgerber 1978: 19 does not contain any information about Chinese whiteware. It might be a mistake in Rougeulle's work.

Site: Sayhut

Co-ordinates: Lat.15.21, Long.51.25

Location: in the Arabian Sea coastal area, Yemen

Type of Settlement: port

Site history: possibly pre-Islamic until around the 9th century CE[685]

History of investigation: unknown

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
unknown	Dusun ware fragment[686]	No	Zhao Bing does not give the source of this information.

Site: **Sharma شرما**

Co-ordinates: Lat.14.82, Long.50.02

Location: in the coastal area of Hadramaout, Yemen

Type of Settlement: port

Site history: It used to be an active port during the 10th to 12th centuries CE.[687]

[683] Weisgerber 1978, 19.
[684] Rougeulle 1991, 25.
[685] Weisgerber 1978, 19.
[686] Zhao Bing 2015, 320.
[687] Rougeulle 2015, 4.

History of investigation: It was excavated by A. Rougeulle from 1996 to 2006.[688]

Chinese ceramic finds:
Chinese ceramics count up to more than 1050 pieces as of the excavation in 2002.[689] In the total assemblage of ceramic finds excavated from Sharma, counted in 2004, there are 3.3% (1584 pieces) of imported Chinese wares, 6.6% (3123 pieces) of Islamic glazed ceramics and 90.1% (42779 pieces) of unglazed ceramics. When ceramics collected from the surface are also counted, Chinese imported ceramics represent 4.4% of the total amount of ceramic finds, 6.9% Islamic glazed ceramics and 88.7% unglazed ceramics.[690] Chinese wares which can be dated between the 8th and 10th centuries include grès à décor peint (there are 21 pieces of this type, some of them are Changsha painted wares); grès à couverte verte (there are 70 pieces of this type, some of which are Yue wares) and jarre en grès à couverte (there are 155 pieces of this type of ware. They can be dated to a long time span, from the 9th to 16th centuries CE. Half of them are Dusun wares.).[691] By the time the excavation of Sharma was finally completed in 2007, a total number of 2139 of pieces of Chinese ceramics were found in Sharma, 1585 of which came from excavations, and the rest from surface survey.[692]

Site: Sharwayn

Co-ordinates: Lat.13.17, Long.45.41

Location: in the coastal area of Mahra, Yemen

Type of Settlement: an important port

Site history: dated back to pre-Islamic period and Islamic period too

History of investigation: This site was surveyed by Rougeulle as part of his research investigation of the ports of the Indian Ocean in Yemen in the Hadramawt and Mahra region.

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	"des céramiques mais également des verreries et objets divers, importés de la chine, qui témoigne de l'importance et de la diversité des échanges aux X- XII siècle" [693]	no	No further information is available.

[688] Rougeulle 2015, 4.
[689] Zhao Bing 2004, 255.
[690] Rougeulle 2015, 154.
[691] Zhao Bing 2004, 256, 261-2.
[692] Zhao Bing 2015, 277.
[693] Rougeulle 2016, 225.

Site: Shihrالشحر

Co-ordinates: Lat.14.76, Long.49.61

Location: in the coastal area of the Gulf of Aden

Type of Settlement: a harbour city

Site history: The occupation went back to the early Islamic period, from the end of the 8th century onwards.[694]

History of investigation: The survey was carried out from 1993 to 1995 by A. Rougeulle and C. Hardy-Guilbert who excavated the site in five seasons from 1996 to 2002.[695]

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Changsha painted ware fragments (fig.3.29)[696]	Yes	The line drawing of this piece of Changsha bowl illustrated below in the middle is slightly erroneous. The base of a Changsha bowl is normally a ring base, not a flat base.
Unknown	white ware fragment[697]	No	They cannot be dated.
Unknown	There are greenish glazed Chinese wares with white porcelaneous body. [698]	No	They could be Qingbai or Longquan celadon in regard to the white porcelaneous body.
2	There are two bowls, both have grey body and dark olive-green glaze, named as celadon. One was incised with Chinese characters on the interior centre with an unglazed base except a central point. And the other has moulded lotus petals on the exterior and possibly an incised flower on the interior centre. [699]	No	Both could be Yue wares.

[694] Hardy-Guilbert 2001, 69.
[695] Hardy-Guilbert 2005, 83.
[696] Hardy-Guilbert 2001, 76; 2005, 71.
[697] Hardy-Guilbert 2001, 76; 2005, 71.
[698] Hardy-Guilbert 2001, 76; 2005, 71.
[699] Hardy-Guilbert 2001, 76; 2005, 71.

1	A fragment of a jar with grey body and spotted brown glaze on the outside, incised with the Chinese character 'perfume" (fig.3.29) [700]	No	It could be a Changsha jar. Some Changsha stoneware jars have brownish glaze and incised characters.
Unknown	Dusun ware has also been mentioned by Zhao Bing. [701]	No	Zhao Bing does not give the source of this information.

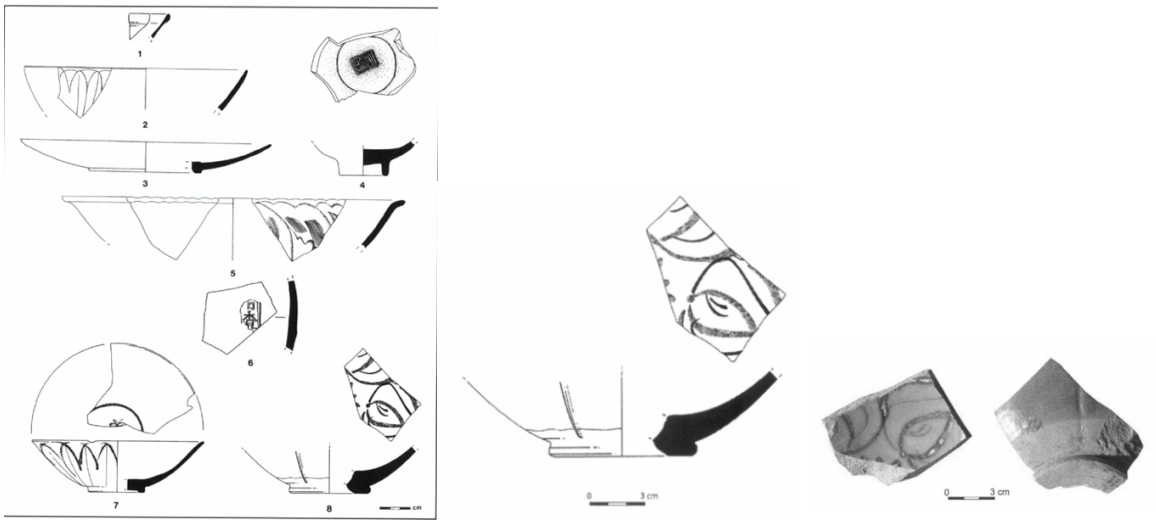


Fig. 3.29 Yue Ware and Changsha Ware Fragments from Shihr, Hardy-Guilbert 2001, 76 and 82.

Site: Socotra

Co-ordinates: Lat.12.54, Long.53.83

Location: on the Socotra Island in the Gulf of Aden

Type of Settlement: island settlement

Site history: Islamic period

History of investigation: unknown

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments

[700] Hardy-Guilbert 2001, 76; 2005, 71.
[701] Zhao Bing 2015, 320.

Unknown	Dusun ware fragment[702]	No	No

Site: Sohar صحار

Co-ordinates: Lat.24.34, Long.56.73

Location: coastal area, Oman

Type of Settlement: port city

Site history: Occupation in Sohar may have begun from the beginning of the first century CE until the present time. The apogee of Sohar was from the 9th to 12th centuries CE.[703]

History of investigation: The excavations in Sohar were conducted from 1980 to 1986 under the French archaeological mission in Oman led by Monique Kervran.

Chinese ceramic finds:
A wide range of Chinese wares have been found. Sherds of Chinese black glazed stoneware jars have been reported to be found in the 5th century CE levels at Sohar and Siraf.[704] However, no detail has been given regarding these black glazed jars. From the period of the 9th to the beginning of the 12th centuries CE at Sohar, whitewares (including northern Chinese whitewares) and Qingbai wares constitute the majority of Chinese ceramic finds (around 40 pieces of Chinese white wares were found), then come Yue wares (around 36 pieces),[705] Changsha wares and Guangdong wares. There are storage jars (les jarres de stockage) found in Sohar, which are Dusun wares.[706] Three pieces of Changsha painted bowls were found at Sohar from excavations, one piece from sondage and around 20 pieces found by P. Farries on the surface of the site.[707] Rougeulle's inventory of Sancai wares is actually green splashed wares produced in Gongxian kilns and Xing kilns in North China and Changsha kilns in South China. Olive-green glazed wares with square patches of glaze removed from the interior of a bowl or dish of Far Eastern origin have also been found at Sohar. According to Rougeulle, this type is not known in China, but has been found in Java and Sumatra, south Thailand, which can be dated to the Tang period.[708] Actually, this type of stoneware has been found in several kilns in Guangdong (see Chapter 6, Section 6.2.2.2).

[702] Whitehouse 1973, 245.
[703] Pirazzoli-t'Serstevens 1988, 87.
[704] Rougeulle 1991, 5.
[705] Rougeulle 1991, 33.
[706] Pirazzoli-t'Serstevens 1988, 88-9.
[707] Pirazzoli-t'Serstevens 1988, 27-9.
[708] Rougeulle 1991, 17 and 19.



Fig. 3.30 Left: Changsha Ware Sherds from Sohar, Pirazzoli-t'Serstevens 1988, 96; Right: Small Storage Jar from Sohar, Rougeulle 1991, 20.

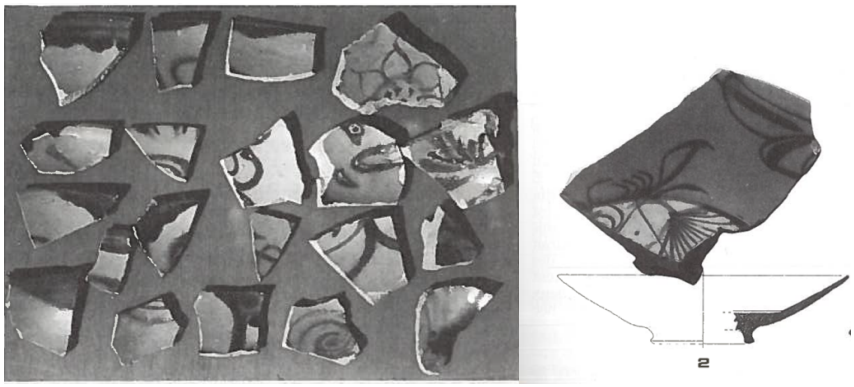


Fig. 3.31 Changsha Ware Sherds from Sohar, Rougeulle 1991, 23.

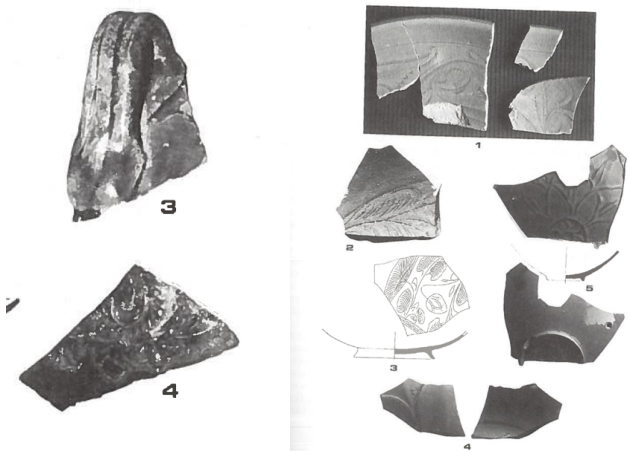


Fig. 3.32 Left: Jarres à médaillons, Changsha Moulded Jar Fragments from Sohar, Rougeulle 1991, 23; Right: Yue Ware Fragments from Sohar, Rougeulle 1991, 35.

Site: Tell Shaykh Salim

Co-ordinates: Lat.13.23, Long.44.73

Location: in Abyan Governorate of Yemen, identified as the ancient Ribat al-Faqih Salim[709]

Type of Settlement: ribat

Site history: Islamic period

History of investigation: This site was surveyed by King and Tonghini in 1994.

Chinese ceramic finds:

Qnt.	Identified as	Illustration	Comments
Unknown	Islamic glazed ceramics and Far Eastern ceramics scattered on the surface. [710]	No	No
Unknown	Far Eastern celadon sherds (there are two sherds with illustrations and one of them has a black and white photo).	King & Tonghini 1996, 78, 92.	The illustrations show the sherd bearing an incised lotus pattern on the exterior. However, due to the quality of the black and white photo, it is difficult to designate it to any kilns.

[709] King & Tonghini 1996, 26.
[710] King & Tonghini 1996, 26.

Chapter 4: The Distribution Patterns of Chinese Ceramics in the Islamic World

Settlement Type	With Chinese Ceramic	Without Chinese Ceramic
City		
Town/ church/monastery/ palace		
Small settlement/village		
Port		

4.1 The overall Patterns



Fig. 4.1 Topological Map of the Middle East

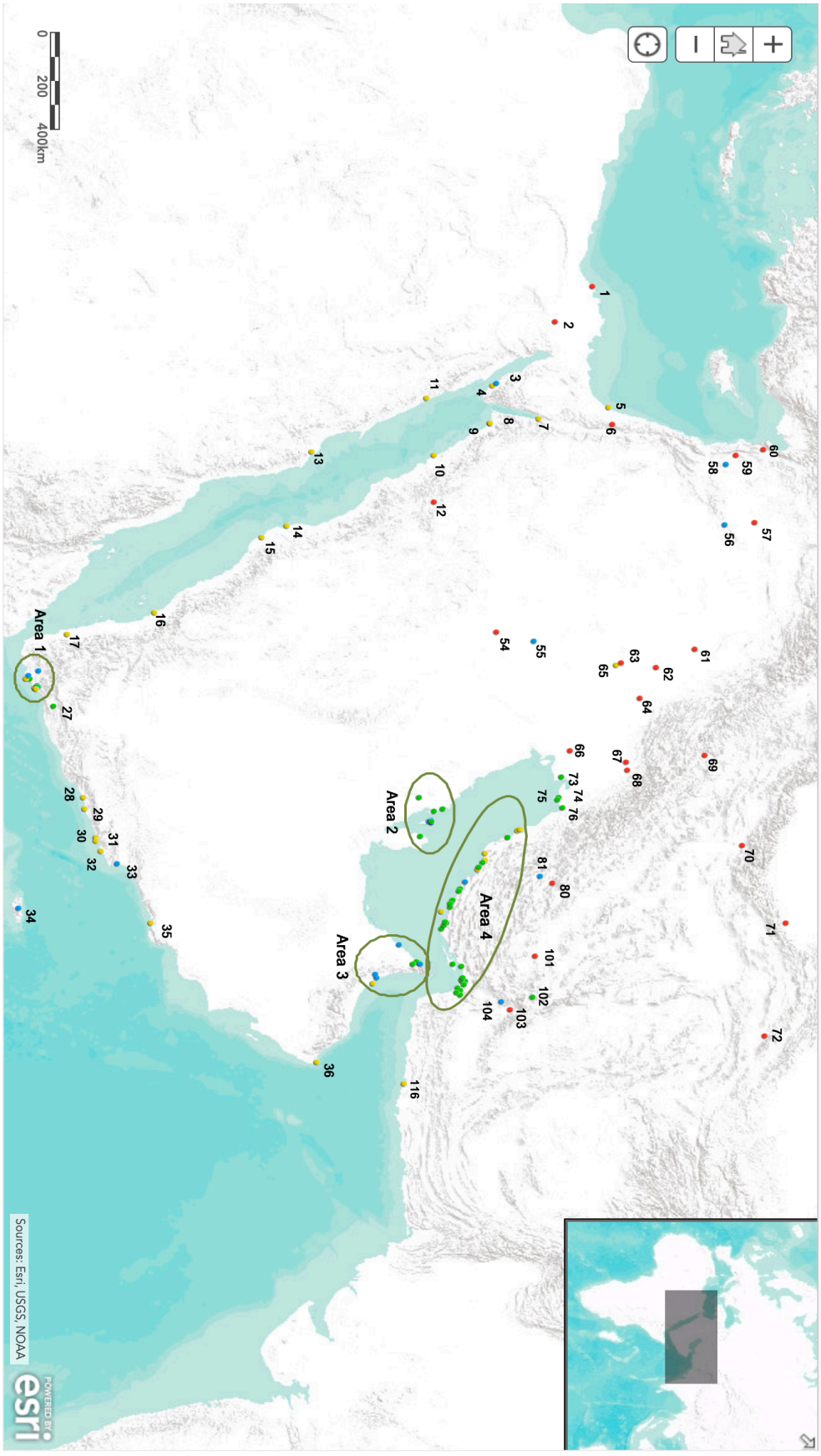


Fig. 4.2 Sites in the Islamic world with Chinese Ceramic Finds from the 8th to 10th Centuries CE



Fig. 4.3 Area 1, Sites in the Islamic world with Chinese Ceramic Finds from the 8th to 10th Centuries CE



Fig. 4.4 Area 2, Sites in the Islamic world with Chinese Ceramic Finds from the 8th to 10th Centuries CE



Fig. 4.5 Area 3, Sites in the Islamic world with Chinese Ceramic Finds from the 8th to 10th Centuries CE

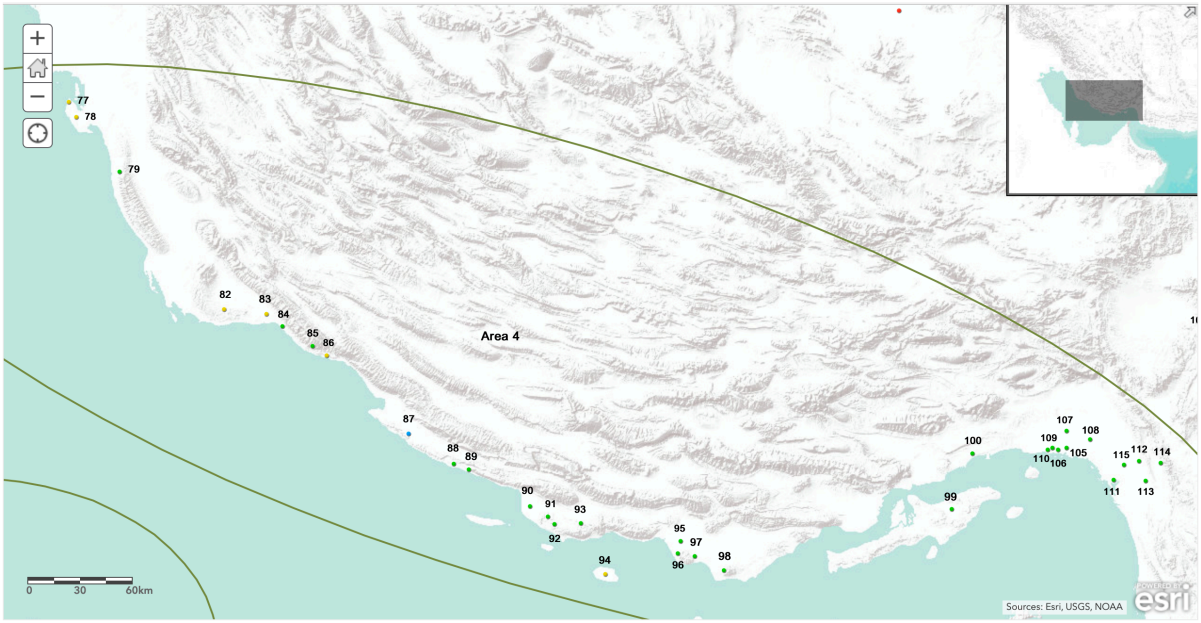


Fig. 4.6 Area 4, Sites in the Islamic world with Chinese Ceramic Finds from the 8th to 10th Centuries CE

Table 4.1 Sites in the Islamic World with Chinese Ceramic Finds			
Red circles	**Blue circles**	**Green circles**	**Yellow circles**
1 Alexandria 2 Fustat 6 Jerusalem 12 Al-Mabiyat 54 Fayd 57 Raqqa 59 Apamea 60 Antioch 61 Samarra 62 Ctesiphon 63 Kufa 64 Wasit 66 Basra 67 Susa 68 Jundi Shapur 69 Kangavar 70 Rayy 71 Gurgan 72 Nishapur 80 Istakhr 101 Sirjan 103 Jiruft	3 Monastery of Wadi al-Tur 18 Tell Shaykh Salim 19 Kadumat am-Sha'ibi 22 al-Qaraw 33 Kawd am-Saila 34 Socotra 38 Samda 39 Arja 43 Julfar 44 Jumeira 49 Barbar 50 Qal'at al-Bahrain 52 A'Ali 53 Bilad al-Qadim 55 Zubalah 56 Qasr al-Hayr East 58 Hama 81 Qasr-i-abu Nasr 87 Qal'at Abd al-Rahman	21 Jabalayn 23 al-Tariya 24 al- Quraya 27 Habil 40 Khatt 41 Jazirat al-Hulayla 42 Kush 45 al-Na’man 46 al-Hasa 47 Dhahran 48 Qatif 51 Jidd al-Hajj 73 Tell Zibid 74 Shah Abdallah 75 Mahruban 76 Tell Moragh 79 Gharibou 84 Tal-i-Sabz 85 Shilau 88 Ziarat 89 D10 90 Neran 91 Gurzeh 92 Tavuneh 93 Tell Muveh 95 Ruvan 96 B10 97 Shenas 98 Bostaneh 99 Qeshm 100 Suru 102 Rayin 104 Shahr-i-daqianus 105 Mashiran 106 Saravan 107 Nakhl Ibrahim 108 Tappa-i-surkh 109 Gishnau 110 T. Gishnu 111 Akhtar 112 Minab 113 T. Qaleh Kucheck 114 T. Cheraghabad 115 Hakemi 116 Tiz	4 Raya 5 Ashkelon 7 Aqaba/ Ayla 8 Aynunah 9 Khuraybah 10 Bar Antar 11 Quseir al-Qadim 13 Aydhab 14 al-Hawra'a 15 Sirrin 16 Aththar 17 Zabid 20 Aden 25 Sharwayn 26 Abyan 28 Shihr 29 Sharma 30 Khalfat 31 Sayhut 32 Hayrij 35 al-Hamr al-Sharqiya 36 Ra's al-Hadd 37 Sohar 65 Hira 77 Rishahr 78 Bushire 82 Bibi Khatun 83 Daiyir 86 Siraf 94 Qais

Chinese ceramics have been found in 116 sites in all six sub-regions in the Islamic world (fig.4.2): Mesopotamia, Iran, Arabia, the Red Sea region, Greater Syria and Egypt, and in all types of settlement. The Persian Gulf region has the highest concentration of sites with Chinese ceramics, especially the Iranian coastal area of the Persian Gulf (fig.4.6). Most sites in the Persian Gulf with Chinese ceramic finds are small settlements in the coastal areas in Iran and Arabia (in green circle), which is different from the Red Sea and the Gulf of Aden areas, where most sites with Chinese ceramics are ports (in yellow circle). In the inland areas of Mesopotamia, Egypt, Greater Syria and Iran, Chinese ceramics have almost exclusively been found in city or town-level settlements (in red and blue circle), including urban centres, important towns, palaces and monasteries with political or religious power and importance and a sufficient purchasing ability. In Egypt and Greater Syria, Chinese ceramics were mainly found in city or town-level sites. It is likely that Chinese ceramics were not accessible to small inland settlements and not as widely circulated in ports in the Mediterranean Sea as in the Red Sea and Persian Gulf from the 8th to 10th centuries CE. In order to understand the distribution patterns, it is necessary to understand ancient transport routes between China and the Islamic world first.

4.2 Ancient Maritime Routes

The Tang and Abbasid Empire not only encountered and bordered each other in Central Asian steppes, their spheres of influence also met in the Indian Ocean. Even after the demise of these two Empires, the Chinese socio-cultural sphere and Islamic socio-cultural sphere continued to expand across the Indian Ocean, the former mainly through migration and acculturalisation, and the latter through military, political and cultural diffusion.

Transport by ships tended to be more economical and time-saving than inland transport in ancient times. Prohibitive costs for inland transport are generated by several elements, such as the maintenance of animals used for traveling and loading cargoes, the cost generated by the maintenance of tradesmen and caravans, and the tolls for various local governments.

Inland routes could be interrupted easily by warfare, political tensions, bad weather, and the bad condition of roads which may not be maintained on a regular base. The unpredictability of inland transport is far greater than that by sea. Even though maritime transport depends to a large extent on the weather and conditions of the waters, it is still more controllable and reliable if sailors have mastered the knowledge of monsoon waves, sailing skills and so on. The most beneficial feature of maritime transport is the amount of goods on board in each journey.

Since Antiquity, Central Asian steppes and the Indian Ocean had been the two main arteries of trans-Eurasian trades.[711] The monsoon was utilised by travellers between Egypt and India at least from the first century CE. The maritime routes connecting China, Southeast Asia and India were already known at least in the 4th century CE.[712] The rise of the Sasanian Empire positively motivated the trade across the Persian Gulf and the Indian Ocean.[713] Persian and Arab merchants carried trade between China and West Asia from the 5th century CE onwards.[714] Ceramics produced in South Asia were present in the Persian Gulf before Chinese ceramics arrived.[715] The arrival of Islam in the Middle East did not disrupt the existing mercantile activities in the Indian Ocean. This has been proved by archaeological evidence of the wide distribution of early Abbasid ceramics. For instance, Iraqi turquoise alkaline glazed storage jars and opaque white glazed wares had reached Mantai in Sri Lanka, Ko Kho Khao in Thailand.[716] Middle Eastern alkaline glazed wares were also found in several locations in China. Islamic glass vessels even reached the capital of the Tang.[717] The presence of Chinese ceramics in the Islamic world is another archaeological evidence for the vibrancy of mercantile activities across the Indian Ocean. Samarkand and Khulbuk are

[711] De La Vaissière 2014, 101.
[712] Faxian's (337-422CE) pilgrim took inland routes to India and Sri Lanka and then voyaged by boat back to China.
[713] Michael 2010, 318.
[714] Shen 2017, 199.
[715] Indian cooking pots were found at Siraf. See British Museum online database for Siraf finds and Proestman 2013.
[716] Mason 2004, 23-60.
[717] For instance, glass vessels from Middle East were found at the underground palace of Famen temple.

the only sites along the inland routes in Central Asia with Chinese ceramic finds before the era of Chinese blue and white. One sherd of Yue ware was found from a level dated to the first half of the 11th century at Khulbuk. Samarkand only has fewer than 20 sherds of Chinese ceramic finds and all, but one can be dated to the 12th to 14th centuries CE. It was only from the 15th century onwards that Chinese blue and white started to circulate along inland trade routes.[718]

The monsoons in the Indian Ocean were crucial to seafaring before the modern era (fig.4.7). The surface winds generated by the monsoon affect the ocean currents in almost the whole Indian Ocean area. Voyaging along the currents made the travel safer, faster and more predictable. The summer monsoon usually occurs between April and September, and the winter monsoon lasts from October to April. The prevailing northeast winds during winter monsoon are favourable for traveling from India to the Middle East, and the prevailing southwest winds during summer monsoon are favourable for sailing the other way around. April, May and October are transitional months for monsoons.

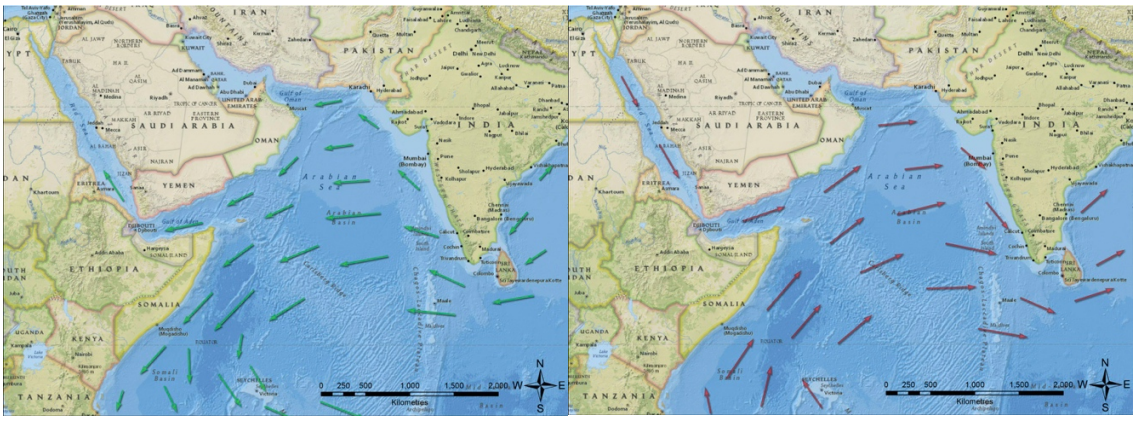


Fig. 4.7 Winter Monsoon and Summer Monsoon in the Western Indian Ocean Region © University of Southampton

Sailing in the Red Sea region presents a different picture. As demonstrated by the maps above, the winter monsoon from October to April is deflected at the Bab al-Mandab and

[718] Rougeulle 1996, 160. Khulbuk is located near the northern bank of the upper Oxus, was the capital of Khuttal until 1040 CE.

turns to a southerly wind in the south of the Red Sea. Vessels can thus be pushed by the southerly wind northwards.[719] Pliny the elder recorded the best time to start a journey from the Indian Ocean to the Red Sea was between early December and mid-January.[720] This is exactly during the winter northeast monsoon season, and ships can catch the favourable southerly winds prevailing in the south Red Sea from January to March, in order to reach the Mediterranean. This favourable southerly wind is only reliable as far north as the latitude around Jiddah and Aydhab. The northern part of the Red Sea beyond this latitude has the prevailing northerly wind all year round. For the period between April and December, the prevailing wind in the whole Red Sea region turns the northerly wind.[721]

However, this is not as if the northern Red Sea beyond Jiddah and Aydhab was completely unnavigable for travelling northwards before the modern era. It would require sailors to have a good grasp of local navigational knowledge of weather, winds and coastal hazards. Smaller vessels could take advantage of off-and-on-shore breezes. Most of the time, they only made their voyages along the coast by day, stopping in creeks or on beaches overnight.[722]

Inland routes would also be used to continue the journey when the sailing condition became unfavourable. Travellers in ancient times must have used a combination of ways of transport, even though this was still mainly an Indian Ocean network which relied heavily on water transport. An 1831 note from a marine surveyor Lt. J. R. Wellsted from the Indian Navy described that outside the Gulf of Aqaba, vessels coming from the south discharged their cargoes, from which point on the merchandise was transported by land to avoid the tedious passage up the gulf by water.[723] Almost 1000 years earlier than this note, the sailing conditions would not have been much better and the sailing techniques and equipment would not have been much more advanced. Therefore, we have reason to think that during

[719] Margariti 2007, 40.
[720] Facey 2004, 11.
[721] Facey 2004, 9-11; Seland 2011, 401.
[722] Facey 2004, 11.
[723] Facey 2004, 7.

the 8th to 10th centuries CE, people transporting products would take inland routes at certain point in the Red Sea region to avoid difficulties, danger and inefficiency of continuing the journey by sea.

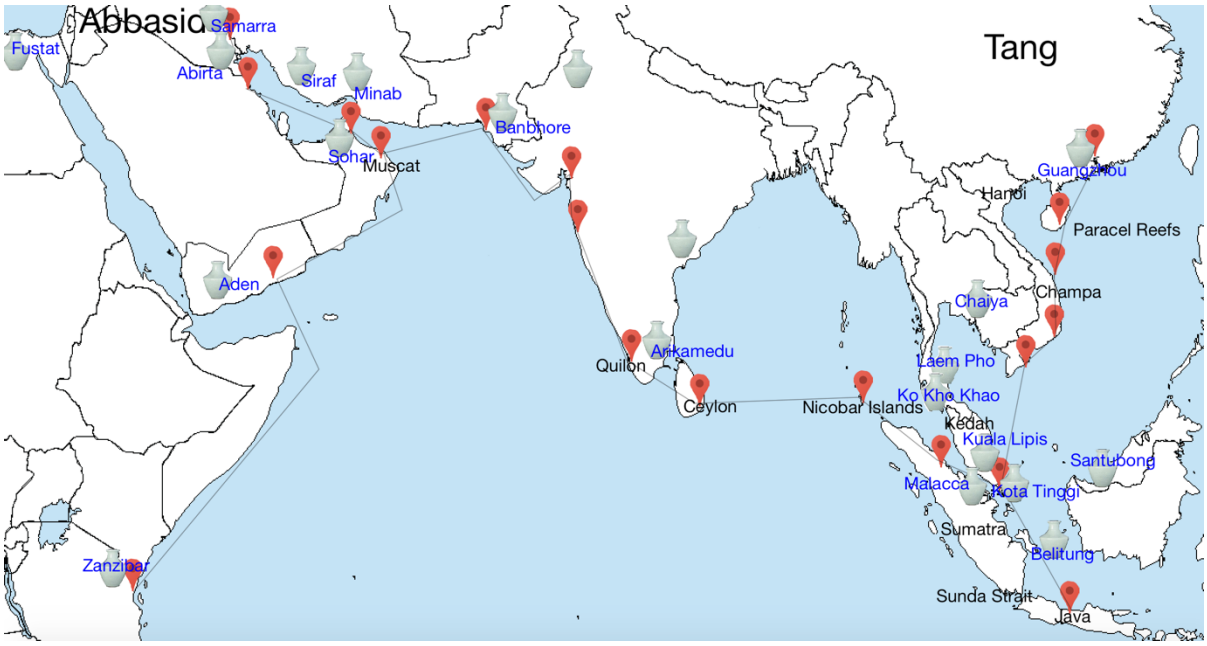
It was during the 9th century CE that the maritime connection between China and the Middle East reached the first apogee. It coincided with the first wave of the arrival of Chinese ceramics in the Islamic Middle East. Some ancient Arabic texts, for example, *Akhbar as-Sin wa l-Hind* أخبار الصين والهند[724] and another one by Ibn Khurdadhbih described maritime routes to India, Southeast Asia and China in detail.[725] Ships loaded with cargo from the Middle East departed from the Persian Gulf and travelled eastward to India. There were two maritime routes from the Persian Gulf to India. The first stop could be Muscat in Oman, then ships sailed across the Indian Ocean taking the monsoon to the port of Quilon in southern Malabar of India. Another route was sailing along the northern coastal line of the Arabian Sea and the western coastal line of India, which was more dangerous. After that, the next stop would be Ceylon (Sri Lanka) or the Nicobar Islands and Kalah Bar (Kedah, Malaysia). After Kalah, ships would proceed to Sumatra, Java and China. For the final voyage to China, ships would cross the Malacca Strait, with stopover points at Tioman Island and ports in Champa (Vietnam) then Guangzhou in China; or via Hanoi or the shortcut through the Paracel Reefs.[726] The Sunda Strait were also possibly used by travellers to enter the South China Sea. Since the Belitung shipwreck found near the Belitung island in the Java Sea could probably have headed southward to the Sunda Strait and then westward to the Arabian Sea.

In the Tang China, one of the prime ministers in the mid Tang period named Jia Dan贾耽 (730-805CE) compiled a book, '*Huang Hua Si Da Ji*'皇华四达记, where he depicted seven main routes connecting the Tang with other parts of the world: an inland route leading to Manchuria and Korean peninsula, a maritime route to Korean peninsula, two inland routes to

[724] أخبار الصين والهند *Ahbar as-Sin wa l-Hind*, this means knowledge about China and Sind.
[725] Hourani & Carswell 1995, 66.
[726] Flecker 2001, 351.

Mongolia, one inland route leading to Central Asia, one to the Indian subcontinent, and the maritime route departing from Guangzhou connecting China with the Islamic Middle East.[727] The maritime routes recorded in Arabic texts and this Chinese text are congruent with each other. Vietnam, Malacca, Java, Kedah, Nicobar Islands, Ceylon, Malabar and Muscat were also mentioned in Jia Dan's records. Besides, Jia Dan included a capillary route to Aden and east Africa. Almost all the sites recorded in the maritime routes have yielded Chinese ceramics dated from the 8th to 10th centuries CE.[728] Chinese ceramics found at sites along the sea routes in the South China Sea and the Indian Ocean, like Mantai in Sri Lanka and Banbhore in Pakistan are very identical to those found in Iraq, which indicates that Chinese ceramics were exported along the Indian Ocean sea routes, covering Southeast Asia, South Asia and the Middle East.[729]

The following map, fig.4.8, shows sites recorded by Jia Dan in red spots. Sites mentioned in Arabic texts are written in black, with ceramic icons and names in blue showing the sites where Chinese ceramics have been found.[730]



[727] Xin Tang Shu 新唐书: Vol 43(2).
[728] Park 2012, 30.
[729] Shen 2017, 207-8.
[730] Adapted from Park 2012, 30.

Fig. 4.8 Map of Important Ports along the Sea Routes and Sites with Chinese Ceramics

Ships from India or the Middle East could voyage all the way to China. Otherwise, they could stop at the Kra Isthmus in the middle of the Malay peninsula, then transhipped to a Chinese ship or a Southeast Asian ship through the Malacca Straits heading to China. They could also take inland roads to the other side of the Kra Isthmus and then shipped eastward again. As narrated in one of the ancient Arabic texts *Muruj al-Dhahab* مروج الذهب,[731] before 877-8 CE, merchants from Basra, Siraf, Oman, India, Zabaj and Sanf used to voyage on their own ships to Khanfu (Guangzhou). In 671 CE, one Buddhist pilgrim, Yi Jing义净 (635-713CE) intended to take a Persian ship to reach Guangdong.[732]

Besides travelling all the way from the Middle East to China, Arab and Persian merchants could purchase Chinese ceramics and other cargo at entrepots in Southeast Asia. Laem Pho and Ko Kho Khao at the two sides of the Kra Isthmus have yielded great quantities of late Tang ceramics, glass and glazed ceramics from the Middle East.[733] It is highly possible that Laem Pho and Ko Kho Khao used to be the entrepots where merchandise from China and the Middle East converged and were exchanged, and through which travellers crossed the Isthmus. Qin Dashu suggests the ancient Srivijaya (nowadays Malacca) an essential entrepot for ceramic trade with the Islamic world.[734]

It seemed that direct and indirect trade between the Islamic world and China co-existed for a long time. At least before the end of the 9th century CE, a large percentage of Middle Eastern merchants had voyaged directly to Chinese ports, especially Guangzhou.[735] Before the end of the 9th century, Arabs and Persians were an essential presence in Chinese port cities. For example, in 758, they were strong enough to sack the port of Guangzhou to take revenge on

[731] مروج الذهبwritten by Al-Masudi, means the Meadows of Gold.
[732] Yi Jing's pilgrim to India finished in 695, when he finally managed to come back to Luoyang, China.
[733] Bronson 1996, 181.
[734] Qin Dashu 2013, 46.
[735] Wang Guangwu 1998, 78.

corrupt Chinese port officials. In 760 when another significant port Yangzhou was sacked by the rebel troops of An Lushan, thousands of Arabs and Persians residing there were killed.[736] This turbulence in North China in mid Tang period might have been the main reason that led to the decline of Yangzhou port and the increasing importance of Guangzhou. However, in 878, rebels led by Huang Chao 黄巢 plundered and burnt Guangzhou, massacring residents there including Arabs and Persians. This massacre was so appalling that an Arab geographer Abu Zaidأبو زيد also depicted it in detail.[737]. After the massacre in Guangzhou, fewer and fewer travellers from the Middle East would voyage themselves all the way to China. Instead, they stopped at entrepots in southeast Asia, where they could get access to Chinese products brought by Chinese ships or Southeast Asian middlemen.

Meanwhile, precious and delicate products from the Middle East had also reached North China during the Tang period, which could be substantiated by artefacts from the Islamic Middle East found in North China. 9th-century Islamic glass vessels were found from the crypt of the pagoda in Famen temple 法门寺 in Sha'anxi province;[738] a curious iron plaque with Arabic numbers and some Abbasid golden dinars (fig.4.9) were found in the capital of the Tang Empire, Chang'an (now Xi'an). After the Tang, the nomadic Khitan Liao dynasty (907-1125CE) rose in North China and reassumed the connection with the Middle East through inland routes along Central Asian steppes. A Ghaznavid (977-1186CE) style bronze vessel was found in the tomb of the Princess of the State of Chen of the Liao dynasty in Naiman Banner, Inner Mongolia.[739] Liao Sancai wares have been found in Fustat (see Chapter 6, Section 6.6.2). A copper coin minted between 1156-1161 CE during the rule of Jin 金 Emperor Wanyan Liang (完颜亮 1149-1161CE) in North China was found from Site F, Siraf from the make-up for the sanctuary floor of the recent mosque.[740]

[736] Xin Tang Shu 新唐书: Vol 43.
[737] Hourani & Carswell 1995, 76.
[738] An Jiayao 1990, 1116.
[739] Sun Hong 2009, 67-90.
[740] Whitehouse 1969, 48.

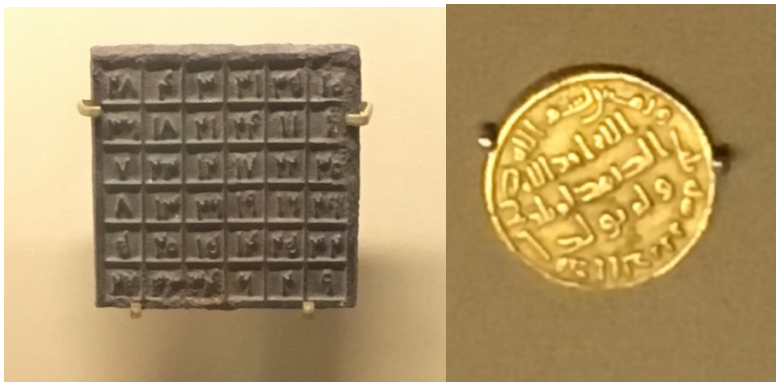


Fig. 4.9 An Iron Plaque with Arabic Numbers and an Abbasid Golden Dinar in the Tang Period, Photos Taken in the Shaanxi History Museum

4.3 Ports and Coastal Settlements, Their Roles in the Circulation of Chinese Ceramics

Even though Chinese ceramics have been found in the Islamic world in both inland urban centres and ports and small settlements in coastal areas, this does not mean that coastal ports and settlements played the same role as inland urban centres in the distribution of Chinese ceramics during the 8th to 10th centuries CE. Two big ports, Siraf and Sohar, which have been excavated, have two of the largest assemblages of Chinese ceramic finds from the 8th to 10th centuries CE in the Islamic world. They were ports where Chinese ceramics together with other cargoes from the Far East and India were discharged and further distributed. These two big ports themselves also consumed Chinese ceramics, which is indicated by the discovery of Chinese ceramic sherds in residential areas of Siraf. However, the puzzle is how small ports and village-level coastal settlements obtained their Chinese ceramics, which were found in quite limited numbers.

Margariti's three-tier ports theory for the Red Sea and Persian Gulf regions provides a possible working typology for the western Indian Ocean ports before the modern era. According to Margariti, the first tier of ports had several advantageous features that made them the most prominent stops along the maritime routes. They were located in the convergence of many routes with suitable topography for defensive constructions and port

construction. More important were the characteristics that developed through the agency of the ports' rulers and merchants. These characteristics created a safe and reliable taxation and mercantile environment. Also crucial were the mastering of maritime technology and the direct access to shipbuilding resources and expertise.[741] The second tier of ports matched several advantages of the first-tier ports, but was under the competition of first-tier ports, and stifled by their disadvantages of less stable taxation and mercantile services.[742] Apart from the political and social factors set out by Margariti above, the second-tier ports could also be restrained by their geographical location and sometimes unfavourable sailing conditions. The third tier comprised coastal towns and small settlements which were connected to the first-tier and second-tier ports via regular sea routes and formed the 'hinterland' of these ports.[743]

Ports like Aden, Sohar, Siraf and probably Jiddah may have been among the first-tier ports. Archaeological excavations at Sohar and Siraf have yielded almost two of the largest assemblages of Chinese ceramics in the Islamic World. These two ports were also mentioned in historical texts as the most crucial ports dealing with goods from the East.[744] Although Aden and Jiddah have not been excavated on the same large and systematic scale as Siraf and Sohar, they were also presented in historical sources as among the most important ports in the Gulf of Aden and the Red Sea. There must have been more than these four first-tier ports in the Islamic world. Some were recorded in historical sources, such as all-Ubullah situated at the north of the Persian Gulf and the estuary of the Euphrates and Tigris. These ports did not all flourish at the same time or at all times. Some thrived under favourable political environment without major warfare, conflicts with or threats from rivals or nomads. Their geographical and topographical advantages, as well as stable port facilities,

[741] Margariti 2007, 211.
[742] Margariti 2007, 212.
[743] Margariti 2007, 212.
[744] See Chapter 1: historical frame and the Islamic market and Chapter 3: Siraf.

made them first-tier ports, at which almost all ships had to stop on their way from or to the East along the Persian Gulf and Red Sea.

The sailing lines in the Indian Ocean were segmented geographically, culturally and socially. The Red Sea and Arabian Sea were segmented due to their geographical features. The Arabian Sea and the Bay of Bengal were segmented due to the cultural distinctions, with the western segment being a Muslim and Persian cultural sphere, while the east belonged to the Indian and Buddhist cultural sphere. Also influential were the social segmentations. Ships, sea routes and sailing skills were managed and transmitted within certain groups of sailors, families or villages. They sailed normally within a fixed water area, where their families or groups conventionally did business and were familiar with, for example, either between Aden and India or between Aden and the Red Sea. Merchandise converged in first-tier ports where they were unloaded, checked, taxed and allocated to the market for further distribution and exchange. After the goods had been unloaded, either were they transported overland or loaded to another vessel to be shipped to another port. These first-tier ports provided a platform where merchandise could be handed from one dealer to another, to be imported and exported again. Furthermore, they made it possible for the working system in the Indian Ocean of a regional management of seafaring. Each group of merchants and sailors was only involved in their familiar and allowed ‘territories’ and used first-tier entrepots to connect with each other.

4.3.1 The Red Sea and the Gulf of Aden Regions

In this area, most sites with Chinese ceramics are ports. Around the Gulf of Aden and the coastal areas in Yemen in the Arabian Sea, some town-level and village-level settlements also have Chinese ceramic finds. The Gulf of Aden area has the second highest concentration of sites with Chinese ceramics only after the Persian Gulf region. Literary sources on the Red Sea area are scarce and do not antedate the 10th century CE. Chinese ceramics found at Aththar and Aqaba do not seem to be earlier than the Fatimid dynasty

(second half of the 10th century at Aqaba and mostly dated between 950-1100CE at Aththar).[745] This might be true of early Chinese ceramic imports in most Red Sea ports and settlements.[746]

Aden stands at an important intersection of the Red Sea and the Arabian Sea. It has the most convenient strategic location to supervise and control the sea traffic of ships sailing in and out of the Red Sea. Merchandise from the Mediterranean could arrive in Aden before or during the months of the summer monsoon and make it to India by the end of it. Ships could sail with the winter monsoon back to Aden then up the Red Sea with the local southerly wind. These goods then could make it to Mediterranean ports in good time for the beginning of the sailing season there.[747] In the Ayyubid period (1171-1260CE), after a preliminary shipboard investigation by port officials, merchandise was unloaded, unpacked, counted, and weighted to assess the customs. They were released later for sale in the port's market. This was recorded in detail by Ibn al-Mujawir (c. 13th century CE). These procedures had possibly already been in use before the Ayyubid period back to the Zurayid times (1083-1174CE) in Yemen.[748] The revenue generated by Aden was impressive and important to the income of local dynasties. For example, during the Rasulid dynasty (1229-1454CE), the revenues of Aden were taken with a heavy escort up to their capital Ta'izz four times a year.[749] In 834AH/1431CE, a chest of commodities including Egyptian, Shirazi, Iraqi cloth and Chinaware was escorted by the chief minister, a group of merchants and ships' captains as a present to the sultan.[750]

After Aden, Aththar was an important port of call for ships bound for Egypt.[751] Jiddah was the chief port for Mecca and a hub of international commerce. As mentioned above, the favourable southerly wind which pushes vessels northward in the Red Sea is only reliable

[745] Zarins & Zahrani 1985, 79-80 and 93-95; Zarins 1989, 254-263.
[746] Rougeulle 1996, 167.
[747] Margariti 2007, 41.
[748] Margariti 2007, 95.
[749] Ta'izz is an Inland site not far from Aden.
[750] Serjeant 1996, 65.
[751] Rougeulle 1996, 166.

around the latitude of Jiddah and Aydhab. They are almost the furthest points where ocean-going vessels can comfortably reach at the optimum sailing period from October to April. Aydhab was the counterpart of Jiddah for medieval trade and pilgrimage on the African side of the Red Sea. Quseir al-Qadim was another important port on the African side of the Red Sea. During the medieval times, merchants known as the 'Karimi' used Quseir and Aydhab to organise their trade with Arabia and India, which involved commodities like peppers, spices, wheat, rice, sugar, silk, textiles, wood etc.[752]

Among the ports in the Gulf of Aden and the Red Sea region, Aden was possibly the first-tier port, where all ships and goods destined for the Red Sea region could not bypass. Jiddah, Aydhab and Quseir in the Red Sea, al-Shihr and Sharma in the Gulf of Aden were among the second tier; ships may have anchored at one but not all of them. These second-tier ports might have been rivals to one another.

These ports have all at one time or another enjoyed prominence in the Red Sea and the Gulf of Aden. They functioned and prospered at the same time or in different periods. Even Aden was not flourishing all the time. It only seemed to have flourished again under the Zurayids in the 10th and 11th centuries CE. Before its resurrection, ships bypassed it, going on to al-Ahwab and Ghulafiqah near Zabid.[753] Warfare, piracy, tribal insecurity, heavy taxation, unreliable port service, unfavourable winds and ocean currents, economic depression in the hinterland of the port etc. could all possibly lead to the decline of one port and rise of another. In addition to these social and economic factors, coral growth and rapidly deposited alluvial silt, which created shallows, could also make a port unnavigable and impossible for anchorage of ocean-going vessels. If a port had lost its natural advantages as a harbour for large and medium-sized vessels, in ancient times, it was a far more reasonable solution to relocate the business to another favourable port. It would require an enormous input of labour and resources to improve the situation of alluvial silt and coral growth. This must have

[752] Van der Veen 2004, 123.
[753] Serjeant 1996, 62.

happened quite often especially for second-tier ports and third-tier coastal towns and small settlements.

First-tier and second-tier ports were mainly dealing with large ocean-going ships sailing between regions and medium-draft ships transferring goods and people within a region. Third-tier ports and small coastal settlements where Chinese wares have been found were dealing with small local vessels and carried out exchange with first and second-tier ports. They may also have had small-scale exchange with members on sea-going ships when they anchored here for water and supplies. Large ocean-going ships would have shipmasters, sailors, merchants and others of diverse nationalities on board. According to one of the seafaring stories recorded by Hourani, one of the largest and most famous ships in the Indian Ocean had around 1,200 men on board.[754] A ship of this size not only had goods prepared for sale but also goods prepared for exchange for supplies and water in small coastal settlements on-route.

4.3.2 The Persian Gulf, Strait of Hormuz and the Gulf of Oman

The Red Sea-Nile and the Persian Gulf-Syrian Desert were two major axes of trade in the Islamic World.[755] The former could supply Chinese ceramics to inland Egypt and Greater Syria. And the latter could supply Chinese ceramics to inland Iran, Mesopotamia, Greater Syria and coastal areas of Arabia. The Persian Gulf area has the highest concentration of sites with Chinese ceramics, most sites are small coastal settlements.

Sites where Chinese ceramics were found in this area concentrate in four sub-areas: the coastal area of Bushehr province and Hormozgan province in Iran, the eastern part of the alluvial plains in the north of the Persian Gulf on the Iranian side, Qatar, Bahrain and the adjacent coastal area in Arabia, and the projecting peninsular south to the Strait of

[754] Hourani 1951, 118.
[755] Seland 2011, 398.

Hormuz. Sohar seemed to have been the source of Chinese wares for its inland sites Arja and Samda. Even though sites like Jumeira and Kush are physically closer to Sohar, their Chinese wares were also likely to have come from other first-tier or second-tier ports on the Iranian side of the Persian Gulf. Siraf has been proved by both archaeological evidence and historical sources to be almost the exclusive first-tier port so far known in the Persian Gulf, but the presence of other big ports in the area is also possible and reasonable. As Lamb indicates, Siraf could not have stood alone as the only port with the eastern trade, and there may have been other such ports during this period, both to the east and west of Taheri.[756] The high density of sites where Chinese wares have been found east to Siraf in the Iranian coastal area, especially the Minab area, shows that this area used to be actively involved in the trade with the East either directly or indirectly. Minab is the old Hormuz, the well-known harbor of Kirman and Sistan and one of the main ports of call.[757] Two maritime routes linking the Persian Gulf and India are known from literacy sources. Ships could sail along the coasts of Iran calling at Tiz, the harbor of Makran, and Banbhore. Both have Chinese and Islamic ceramics. Ships could also sail from Sohar in Oman directly to South India, landing at Muscat for fresh water. Another landing port might have been Ras al-Hadd, which also has Chinese ceramic finds from the 8th to 10th centuries CE.[758] Chinese ceramics from these sites might have been obtained directly from ships or brought there through a secondary distribution from other main ports like Siraf. The Arabian coast of the Persian Gulf did not participate in the Indian Ocean network as much as the Iranian coast. The area of Qatar, Bahrain and the adjacent coastal area in Arabia also have a few sites with Chinese sherds. No important port in this area has been mentioned in historical sources nor found archaeologically. Al-Hasa oasis and the nearby coast were densely populated during the 9th to 11th centuries CE. The Qarmathians ruled this area during that time, who carried out piratical activities on the trade routes and levied

[756] Lamb 1964, 15.
[757] Rougeulle 1996, 164.
[758] Rougeulle 1996, 164-5.

high taxes on ships.[759] The fear for the Qarmathians and the fact that Arabia did not have as large a market as Mesopotamia and Iran resulted in fewer sites in this area with Chinese ceramics during the 8th to 10th centuries CE.[760] Rougeulle thinks that the presence of some isolated Chinese sherds in these Qarmathians sites could very well be considered as traces of the piratical activities rather than evidence of a real participation in the Indian Ocean trade.[761] It is also likely that there was a close connection between this area and ports like Siraf across the Gulf, so that they could obtain their Chinese ceramics from Siraf. The alluvial plains in the north of the Persian Gulf also stand out as the place for Chinese ceramic finds. Basra might be the port where they obtained their Chinese ceramics. Alluvial plains to the east of Basra were much more involved than those to the west of it. Places like Susa and Jundi Shapur, two urban centres in Iran with Chinese ceramic finds, are also to the east of the alluvial plains of Mesopotamia. It seemed that the eastern part was more actively involved in communication and exchange with Mesopotamian and the Indian Ocean network than the western part, which was in Arabia with much fewer urban centres and settlements. A town-level settlement Akkaz and two small coastal settlements Mughaira and al-Qusur to the west of Basra all have no Chinese ceramic finds.

4.3.3 Small Coastal Settlements

Chinese ceramics were not only traded on a large scale in major ports, but also were widely circulated among small ports and coastal settlements, where less rich and powerful people lived. These small coastal settlements in the Persian Gulf, the Gulf of Oman and the Gulf of Aden might have obtained their Chinese ceramics via freelance exchange with people on the ships, or via exchange with or through a secondary distribution from large coastal centres nearby, for example, Sohar, Siraf, Aden and Zabid. If the coastal settlement was

[759] Rougeulle 1996, 164.
[760] Kervran 1994, 341.
[761] Rougeulle 1996, 175.

affluent enough and was not too far to sail or travel by land to nearby coastal centres, the exchange might be conducted directly between them. Otherwise, the exchange might be indirect, in which case, Chinese wares had already been passed through many hands before they were finally obtained by people in these small coastal settlements.

The Iranian coastal area in the Persian Gulf is a good case to look at. Chapter 3 has studied several lesser ports and settlements where Chinese wares were found in this area. Almost all of them have information on the types and quantities of Chinese wares found from surface surveys.

Table 4.2 Sites with Chinese ceramics on the Iranian side of the Persian Gulf

Site	Site type	White ware	Celadon glazed	Changsha	Dusun	Green splashed white
Akhtar	Coastal settlement	1 piece				
B10	Coastal settlement					1 piece
Bibi Khatun	Port	√(presence)	√	√	√	
Bostaneh	Coastal settlement			√		
Bushire	Port				8 pieces	
Daiyir	Port			√	√	
Gharibou	Coastal settlement					1 piece
Gishnau	Settlement close to the coast	5 pieces		1 piece		
Gurzeh	Coastal settlement				1 piece	
Hakemi	Settlement close to the coast	5 pieces			1 piece	
Mahruban	Coastal settlement				√	
Mashiran	Settlement close to the coast	1 piece				
Minab delta	Coastal settlements	16 pieces	11 pieces	4 pieces	19 pieces	
Nakhl Ibrahim	Settlement close to the coast	3 pieces		2 pieces		
Neran	Coastal settlement				4 pieces	1 piece
Qal'at Abd al-	Fort	9 pieces	8 pieces		11 pieces	

Rahman						
Qais	Port	1 piece	√		4 pieces	
Qeshm island	Island	√				
Rishahr	Port	1 piece			1 piece	1 piece
Ruvan	Coastal settlement		1 piece		√	
Saravan	Coastal settlement	1 piece	1 piece			
Shah Abadallah	Coastal settlement			√		
Shenas	Coastal settlement	1 piece	1 piece		10 pieces	
Shilau	Coastal settlement		2 pieces	1 piece	4 pieces	
Suru	Coastal settlement	1 piece				
T. Cheragh abad	riverside settlements close to the coast					1 piece
T. Qaleh Kucheck	Settlement close to the coast	1 piece				
T. Gishnu	Settlement close to the coast	4 pieces				
Tal-i-Sabz	Coastal settlement			√		
Tappa-i-surkh	Settlement close to the coast	3 pieces				
Tavuneh	Coastal settlement		1 piece		1 piece	
Tell Moragh	Coastal settlement			√		
Tell Muveh	Coastal settlement			2 pieces		
Tell Zibid	Coastal settlement			√		
Tiz	Coastal settlement	√	√			
Ziarat	Coastal settlement	1 piece	3 pieces	2 pieces	1 piece	1 piece

Among these sites, Bibi Khatun, Qal'at Abd al-Rahman and Minab delta stand out for their amounts of Chinese ceramic finds. The port Bibi Khatun has four types of Chinese wares. Minab delta must have been important in the Persian Gulf network, for the amounts of all four types of Chinese ceramics are larger than other sites in this area. Qal'at Abd al-Rahman

is an ancient fort site which held some military or political importance. Huzu, an important city, fortress and the mainland port of Qais during the 11th and 12th centuries CE was probably located at Qal'at Abd al-Rahman.[762] It has white wares, Yue wares and Dusun wares in larger amounts than other sites. Larger settlements, like Qal'at Abd al-Rahman, and important ports tend to have more Chinese sherds and more types of Chinese wares than the rest of settlements when all of them have only been surface surveyed.

4.4 The Inland Areas of Iran, Mesopotamia, Arabia, Greater Syria and Egypt

When looking at the map of sites where Chinese wares have been found in the Islamic world from the 8th to 10th centuries CE, it seems that most of them spread along the coastal lines of the Gulf of Oman, the Persian Gulf, the Gulf of Aden and the Red Sea. It's very tempting to make the conclusion that the coastal areas of the Islamic world were the primary receiving places for Chinese ceramics during this period. Though fewer in number, sites with Chinese ceramic finds in inland areas of Mesopotamia, Iran, Greater Syria and Egypt are almost all city-level settlements (in red colour) and a few town-level settlements (in blue colour). The coastal areas and ports were the meeting-ground and bond between the Indian Ocean and the mainland. The maritime trade in the Indian Ocean area could not have been sustained for any length of time without inland urban centres.[763] If coastal sites obtained Chinese wares due to their geographical accessibility to ships and ports with cargoes including Chinese wares, these inland cities, much further away from the ocean and seas, must have attracted Chinese ceramics due to a demand for and ability to afford them.

Inland sites where Chinese wares were found are almost all city-level settlements (in red colour) except Rayin and Shahr-i-daqianus. This striking contrast between inland sites and coastal sites indicates that Chinese wares did not circulate as deeply and widely in inland

[762] Rougeulle 1996, 164.
[763] Chaudhuri 1985, 165.

areas as in coastal areas. Only urban centres, important towns, palaces and monasteries received Chinese ceramics and perhaps other imports. Some goods considered prestigious in cities may not have been desired in inland countryside communities.[764] It is possible that Chinese ceramics were not accessible or affordable to these inland villages and small towns. The destinations where Chinese ceramics were destined to go after they had been unloaded and traded in big ports, like Siraf and Sohar, were urban centres with political or religious power and importance and a sufficient purchasing ability. These sites, lying much deeper inland, attracted Chinese wares by their power and wealth. They are located on main routes of the Islamic world, such as the pilgrimage routes Darb Zubaydah in Arabia, the Levantine roads and the fluvial arteries of the Tigris and Euphrates.[765] Inland transport was more challenging than the maritime transport. Factors like tribal insecurity, the almost impenetrable Syrian Desert and the Sahara, availability and suitability of beasts of burden, the supplies of food and water for people and animals all have made the trip unpredictable and arduous. But the pulling force of power and wealth of these inland centres made it worthwhile and profitable.

Cities like Fustat and Alexandria could have their Chinese ceramics transported via the Nile, which was connected to the Red Sea port of Quseir al-Qadim via the caravan route passing Wadi Hammamat, though no Chinese ware was found there. Otherwise, ships could also sail all the way to the Sinai Peninsula, where there were also sites receiving Chinese ceramics, such as the monastery of al-Tur and Raya. Greater Syria could get Chinese ceramics from the Red Sea, where ships anchored at one port and transferred goods to caravans which delivered them to urban centres in Greater Syria. A noticeable number of Chinese wares have been found at Aqaba, which shows that Aqaba used to be an important port dealing with Chinese wares in this region that came all the way from the Red Sea to the Gulf of Aqaba. The port of Ashkelon, near Jerusalem on the coast of the Mediterranean Sea,

[764] Fleisher 2010: 155.
[765] Rougeulle 1996, 176, footnote 38.

could also get Chinese wares conveniently from ports in Egypt via the maritime route in the Mediterranean. Sites like Jerusalem obtained their Chinese ceramic products either via Ashkelon or Aqaba. Cities in Greater Syria, which are also closer to Mesopotamia, like Raqqa and Qasr al-Hair East, are connected to Mesopotamia easily via the Euphrates, through which Chinese ceramics could come from Mesopotamia to these sites. Cities in the north of Greater Syria, including Antioch, Apamea and Hama, could get their Chinese ceramics via inland routes from cities like Raqqa and Aqaba. No port in the coastal area of Greater Syria in the Mediterranean has yielded Chinese wares from the 8th to 10th centuries CE; thus, it is less likely that these cities obtained their Chinese wares via ports in the Mediterranean. It also indicates that from the 8th to the 10th centuries CE, the eastern Mediterranean Sea was not actively and deeply involved in the connection with the Far East, at least not like the Red Sea and the Persian Gulf.

For the inland area of Iran, the distribution pattern of sites where Chinese ceramics were found appears to be a curved line in the shape of the letter C, linking the north, the west and south of Iran, leaving the middle empty. It was easier for cities in the south to obtain Chinese ceramics from ports in the Persian Gulf due to the physical proximity. Cities, like Nishapur and Gurgan, could also get Chinese ceramics from inland routes via Central Asia. Evidence shows that at least Changsha wares were also possibly transported abroad via inland routes in Central Asia; a Changsha jar was found from the West Market site in Xi'an, now exhibited in the West Market Museum. The blank in the middle of the inland area of Iran means Chinese wares were possibly never transported or consumed in the middle of Iran. This is mainly because of the desert and semi-desert climate in the middle of Iran. There were fewer urban centres and settlements in this vast area. Susa and Jundi Shapur could obtain their Chinese ceramics not only from ports in South Iran but also from Basra, due to the convenient river systems in that area. The presence of numerous sites in the alluvial plains to the east of Basra also demonstrates that Chinese ceramics had been transported from Basra not only to Mesopotamia, but also to sites which were connected to it via river systems on the Iranian side.

The inland area of Arabia shows features different from the other regions. There were two city-level settlements and one town-level settlement in the inland area of Arabia with Chinese sherds (1-2 sherds for each site). Fayd and Zubalah are on the pilgrim route, Darb Zubaydah in Arabia between Kufa and Mecca. These two important stations along the route attracted almost all pilgrims who travelled between Mecca and Kufa. If these two sites are looked at together with the rest of the pilgrim route stations without Chinese wares, it shows clearly that these two important stations are the only two along the pilgrim route with one or two sherds of unidentifiable Chinese wares. They were likely to have been taken by some rich and powerful pilgrims. Arabia stands out from the rest for its lack of urban centres and its unique nomad lifestyle due to its vast desert. There was no pulling force of wealth or power for Chinese ceramics here, unlike in the other four regions where Chinese wares would be used in multiple ways either practically or aesthetically. In Arabia, a nomad lifestyle did not have the space or need for objects like fragile Chinese ceramics.

4.5 A Combination of Different Ports, Routes and Regions in the Islamic World

There was possibly more than one first-tier port dealing with ocean-going vessels with cargoes from Far East. Siraf could not have been the only important port for Chinese ceramics during the 8th to 10th centuries CE. Chinese ceramics were unloaded in first-tier ports with some of them transported to inland centres. The rest stayed in these ports for local consumption and trade with other ports and coastal settlements. Not only the core area of the Abbasid Mmpire in Mesopotamia and the Persian Gulf, which ships had to pass by in order to get access to Mesopotamia were involved in the connection with the Far East. The inland areas of Iran, Egypt and Greater Syria were also receiving Chinese ceramics. Several transport methods, routes, ports and consuming areas were involved in this ceramic connection between China and the Islamic world. As Seland implies, the employment of multiple trade routes ensured that markets would receive Indian Ocean imports at different

times of the year and from multiple entrepots. This would reduce risks connected to weather and political conditions and was also likely to a have a balancing effect on prices.[766]

[766] Seland 2011, 406.

4.6 Distribution Patterns of Sites Where Chinese Wares Have Not Been Found So Far

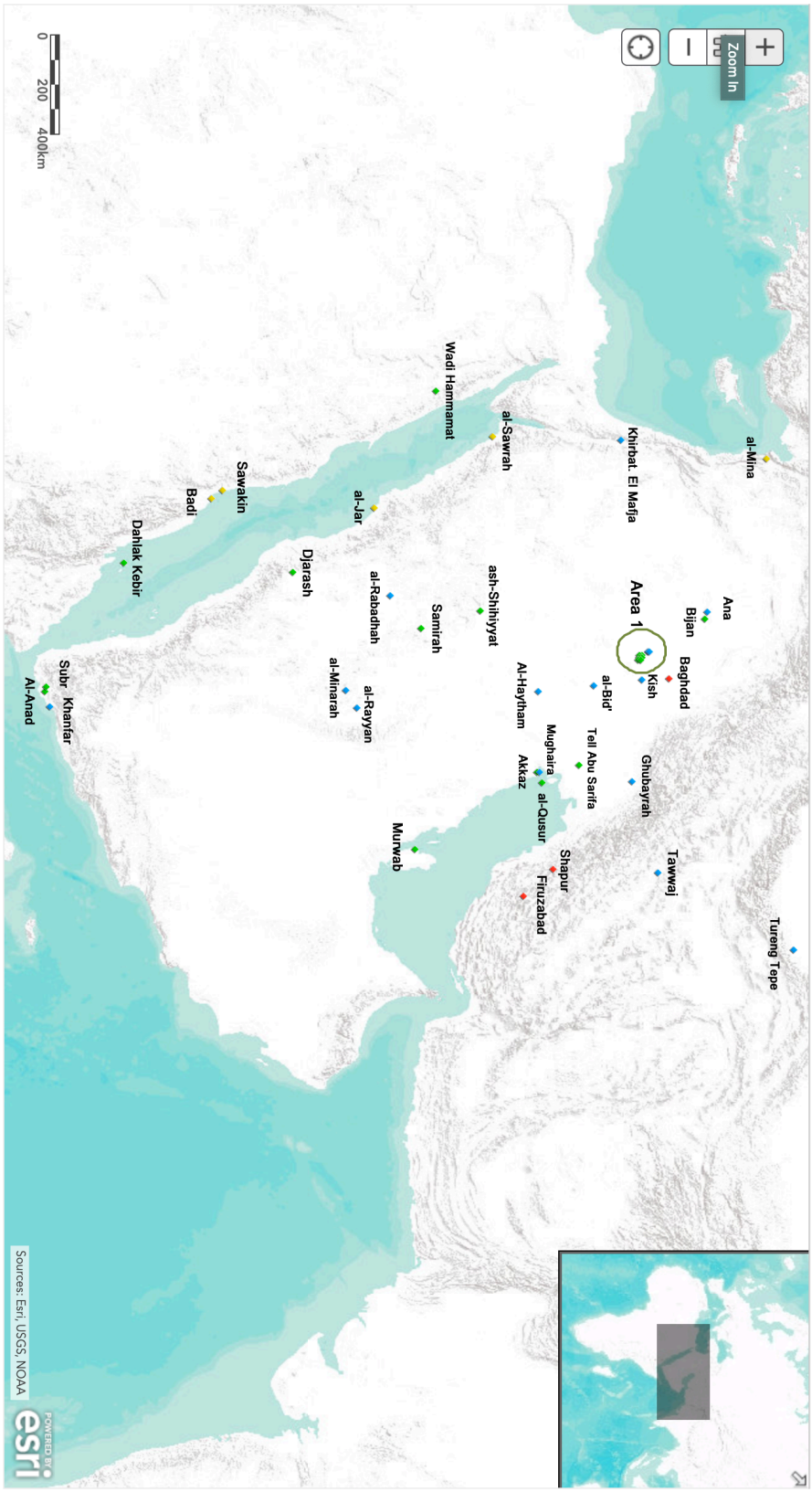


Fig. 4.10 Sites in the Islamic World without Chinese Ceramic Finds from the 8th to 10th Centuries CE

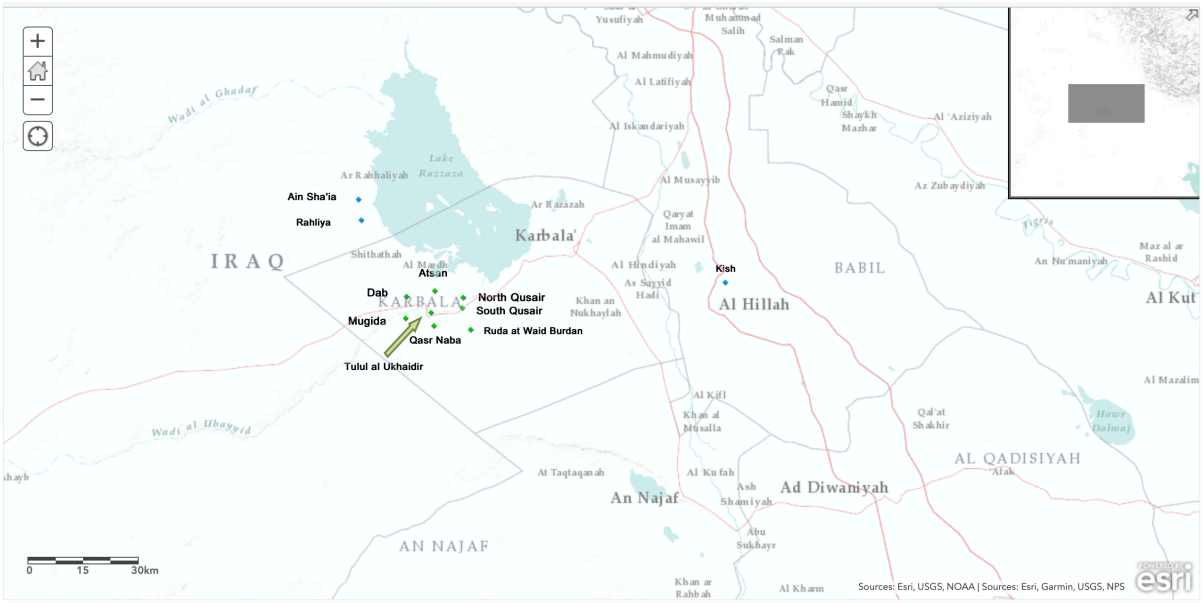


Fig. 4.11 Area 1: Sites in the Islamic World without Chinese Ceramic Finds from the 8th to 10th centuries CE (Approximate Locations)

Sites with negative data can be almost as useful as those with positive data and reinforce the interpretation of distribution patterns of sites with Chinese ceramic finds. Among the sites studied in this thesis where Chinese wares are absent, the majority are village-level and town-level settlements (indicated by green and blue lozenges in the map above). Three of them are city-level settlements, Baghdad in Iraq, Shapur and Firuzabad in Iran. As pointed out in Chapter 2, Section 2.4.2, the criteria for the selection of sites in this thesis lie hugely in the availability of archaeological information of these sites. There are more sites in the Islamic world from this period where Chinese wares have not been found in their archaeological excavations or surveys.

Some sites are highly promising to discover Chinese ceramic finds, such as Baghdad. Baghdad was the seat of the Abbasid Caliphs for almost five hundred years (762-1258CE), Chinese ceramics could not have bypassed it when they were being supplied to the court at Samarra during the 9th century CE. If archaeological work is to be conducted at Baghdad in future, presence of Chinese ceramic sherds is almost certain. Even though some sites have been surveyed or excavated, the possibility of the presence of Chinese wares in these sites is still open. Information concerning ceramic finds at some sites have not been published

yet. We cannot exclude the presence of Chinese wares from the 8th to 10th centuries CE in these sites. Some sites, albeit absent of Chinese ceramic finds, like Ghubayra in Iran, yielded Islamic ceramic finds which show connections with contemporary Chinese wares. These sites prove to be also essential for the study of typological connections between Chinese ceramics and Islamic ceramics.

There is more available information on excavations and surveys of Islamic sites in Mesopotamia, Iran and Arabia than in Egypt and Greater Syria. Even though in this thesis there are only two sites in Egypt where Chinese ceramics from the 8th to 10th centuries CE have been found, Fustat and Alexandria, it can be said with a high degree of certainty that there are more sites in Egypt where Chinese ceramics from this period existed. According to Qin Dashu, who carried out his research in Cairo in 1995, Fayyum, Qus, Aswan and Jebel Adda near Abu Sinbl also yielded Chinese ceramics from archaeological excavations.[767] Fayyum's ceramic finds are stored in the Institute of Archaeology of Cairo University and have never been published.[768] Due to lack of information, it cannot be ascertained whether these sites have Chinese ceramics that can be dated to this period.

The biggest issue here is that most materials have not been published or made accessible to a larger group of researchers outside of Egypt. Therefore, more work needs to be done to study Chinese ceramics found in Egypt and Greater Syria in future. It is also important to point out here that some sites have Chinese ceramic finds which are from later periods than the period of the 8th to 10th centuries CE. These sites are not studied in this thesis which focuses on the period of the 8th to 10th centuries CE.

[767] Qin Dashu 1995, 80-1.
[768] Qin Dashu 1995, 81.

Chapter 5: A Quantitative Study of Chinese Ceramics in the Islamic World

Although not many sites in this thesis have information on the quantities of Chinese ceramic finds, it is still meaningful to use what is available to conduct case studies of quantitative analysis of Chinese ceramic finds in the Islamic world. This helps to reveal the possible scale of the circulation of Chinese ceramics in the Islamic world from the 8th to 10th centuries CE, and aids in understanding their distribution patterns.

5.1 Quantifying Exchange

Archaeological data has filtered what was originally there in the past.[769] The original total can never be extrapolated from what has been recovered. The quantitative data generated by archaeological surveys and excavations cannot represent absolute quantities of artefacts in one site. Excavation, preservation of sites and finds, publication of the results and the process of synthesizing different published archaeological data generate biases to quantitative analysis of artefacts too.[770]

The biggest complicating factor in quantifying ceramic finds lies in the fact that ceramic finds are mainly broken and often dispersed pieces.[771] There are currently four commonly used methods for quantification of ceramic finds: simple counts of the number of sherds of each fabric or form present; simple weights of the sherds of each fabric or form present; estimates of the numbers of individual pots represented by the sherds present; a measure known as the "estimated vessel equivalent".[772] Each method has its inherent defects. All these measurements overcome some problems but create their own problems.[773]

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[769] Wilson 2009, 214.
[770] Wilson 2009, 215.
[771] Priestman 2013, 120.
[772] Millett 2000, 54. EVE; "using rims and depends on using a measurement of the proportion of each individual rim's surviving circumference as a measure of the proportion of the whole pot represented

Sherd counts method has been the most widely and commonly used method of quantification in archaeological sites. The number of ceramic vessels used and deposited in a site and the level of fragmentation affect the number of ceramic sherds generated. The way how the vessel was broken and the environment in which it has been deposited before being excavated also affect the result. For example, falling from a very high place generates more fragments; deposition in a very damp place accelerates the deterioration and complete disappearance of ceramic fragments. The quality of ceramics has huge influence on their survival and the survival of their diagnostic features.[774] A pure count of how many ceramic sherds have been found is uncapable of reconstructing the complete picture of how many ceramic vessels had been consumed within a site and changes of patterns of ceramic usage within the site over different occupation periods. It has to consider how many of these sherds came from the same vessel and can be joined together. In fact, only non-joining sherds can represent the parent vessels that they came from, and therefore, reveal the number of ceramic vessels used by this site and usage patterns of different ceramic types.[775]

In practise, however, the situation becomes very different. We do not always know if joining sherds from the same vessel have been counted as one or multiple, if no information is provided in publication. In practice, the volume of ceramic finds from excavations can be enormous. It is not realistic to register and catalogue every single piece of ceramic finds. Sherds under the minimum size, which cannot reveal any stylistic feature, normally will not be kept, registered or counted. However, in spite of the defects outlined above, the correlation between percentage values produced by sherd-count and sherd-weight is generally above 90 percent.[776]

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in the assemblage. it can, in theory, be used on other measurable features of the pot."
[773] Priestman 2013, 121-2.
[774] Von Dommelen 2000, 27.
[775] Priestman 2013, 120.
[776] Millett 2000, 54.

5.2 Scarcity of Ceramic Quantitative Data in the Islamic World

The majority of sites studied in this thesis do not have information on the quantities of Chinese ceramic finds. Mostly, only fragmented quantitative information on Chinese ceramic finds and ceramic finds in total are available, let alone the quantities of each type of Chinese ceramics and quantities of ceramic finds for each period of the site. As commented by Seth Priestman, “The majority of Middle Eastern ceramic reports provide varying levels of detail regarding the physical characteristics of a ceramic assemblage…but provide no information on how much of any particular category has been recovered and no acknowledgement of the potential importance of a quantitative approach.”[777]

There are several concerns which often put off the idea of recording the amount of ceramic finds, for example, the sheer volume of ceramic finds from excavations, lack of sufficient time, funds, staff or resources.[778] A lack of appreciation for the value of artefact quantification seems to be another straightforward factor for this issue.[779] Most publications treat quantitative information with fewer details and less depth. Quantities are often provided as “a narrative commentary supported by relatively generalised structured description.”[780] Mostly only numbers are provided. Readers are not informed of the policies of their quantitative records; especially how registered ceramic finds are separated from unregistered and what the minimum size is over which ceramic finds are recorded. The results of quantitative analysis generated by registered ceramic assemblage and unregistered ceramic assemblage always demonstrate huge discrepancies.

For some sites, due to unavoidable reasons, a full-scale quantitative analysis is not plausible. Sometimes ceramic finds from the same site are kept in several locations across the world, especially when the excavation was carried out among several parties from

[777] Priestman 2013, 110.
[778] Priestman 2013, 110.
[779] Priestman 2013, 111.
[780] Priestman 2013, 111.

various institutions and nationalities. Finds would be split among parties taking part in the excavation. Sometimes, for the purpose of further studies and research, finds would be distributed among several museums, institutions and personal holdings. When separated from their contexts, the value of the quantitative information of ceramic finds is undermined. It seems that one of the best ways is to make good use of excavation archives. Siraf is a good example. The recording policy at Siraf tended to be very comprehensive with a full finds recovery; all ceramic sherds were washed, classified and recorded on paper records cards before a sizable portion of featureless pieces were discarded. But no information has been provided with regard to the rationale behind the recording methodology.[781] Priestman's study (2013) has made a good use of the archives and the British museum's Siraf ceramic finds assemblage. However, it seems inevitable that there are discrepancies between archives and actual finds. Even archives themselves cannot completely reflect the original situation of the excavations. Interpretation of hand-written archives inevitably creates discrepancies too.

Another factor for the quantitative analysis of ceramic finds in the Islamic world is the low appreciation of unglazed ceramics. Glazed ceramics have been more selected and valued than unglazed ones. This is specifically true for early excavations in the Islamic world, for example, Samarra. The earliest German excavation at Samarra paid very little attention to "non-elite ceramics".[782] Although Chinese ceramics and Islamic glazed ceramics have been well preserved and recorded, it is still not enough to generate a sensible proportion of their actual numbers and representations during the 9th century at Samarra, due to a lack of sufficient information on its unglazed ceramic finds. "Exotic" ceramics and ceramics of non-local provenance are more favoured than those that are not, because these ceramics are believed to possess more potentialities to reveal more information on the site than local unglazed ceramics. However, it is often the case that the great majority of ceramic finds in a

[781] Priestman 2013, 114, from Whitehouse 2009, 8
[782] Elite ceramics refer to unglazed decorated moulded wares and glazed wares.

site, even a very elite site, are always unglazed locally produced ceramic vessels. Although unglazed ceramics are not discussed in this thesis, their existence shows the percentage of Chinese ceramics in a settlement, which further tells us how accessible Chinese ceramics were to residents in a settlement, and how much potential impact they would have had on people living in the settlement and on local ceramic production.

5.3 Quantitative Information of Sites with Chinese Ceramics

Table 5.1 below comprises sites with Chinese ceramics studied in this thesis which have available quantitative information on their ceramic finds. Some are rough counts of ceramic finds in the storage, some are precise counts of ceramic assemblages from excavations or collections, and some are precise counts of find record cards. There is no standardised or unified method with which the quantification was conducted by different excavators.
This thesis deals with sites in the Islamic world that were active during the 8th to 10th centuries CE. Some sites were active only for a short time during this period, and some sites were active partially during this period and also during periods outside of this time frame. Publications sometimes give either the total amount of ceramic finds for each season of the excavations or amounts of ceramic finds for each period of the site. It is inevitable that periods of the site divided by excavators do not necessarily put the 8th to 10th centuries together as one period. Very rarely can quantitative data be extracted precisely for this period. Most quantitative data is on ceramic finds from all periods of the sites and not specifically for the period between the 8th and 10th centuries CE. Only al-Hamr al-Sharqiya, active from the 9th to 11th centuries CE and Siraf, where only ceramic finds from the 8th to 10th centuries CE are counted in this chapter are sites which have quantitative information roughly for the period between the 8th and 10th centuries CE. (The quantitative information below comes from Chapter 3.)

Table 5.1 Sites with Quantitative Information on Ceramic Finds				
Site	**Settlement Type**	**Chinese Ceramic Fragment**	**Islamic Glazed Ceramic Fragment**	**Ceramic Finds in Total**
Ctesiphon	Royal capital city	2		
Akhtar	Coastal settlement	1		
B10	Coastal settlement	1		
Bushire	Coastal settlements	8		
D10	Coastal settlement	1		
Gharibou	Coastal settlement	1		
Gishnau	Coastal settlement	6		
Gurzeh	Coastal settlement	1		
Hakemi	Coastal settlement	6		
Mashiran	Coastal settlement	1		
Minab delta	Coastal settlements	50		
Nakhl Ibrahim	Coastal settlement	5		
Neran	Coastal settlement	5		
Qal'at Abd al-Rahman	Fort	28		
Ravin	Inland settlement	1		
Rishahr	Port	3		
Saravan	Coastal settlement	2		
Shahr-i-daqianus	Inland settlement	8		
Shenas	Coastal settlement	12		
Shilau	Coastal settlement	7		
Siraf	Port	Site A British Museum Assemblage 8th – 10th centuries CE: 163		1032

		Site A Find Record Cards 8th – 10th centuries CE: 226		14740[783]
		Around 1326 pieces from all sites for the 8th to 10th centuries CE in the British Museum[784]		
Suru	Village	1		
T. Cheraghabad	Coastal settlement	1		
T. Qaleh Kucheck	Coastal settlement	1		
T. Gishnu	Coastal settlement	4		
Tappa-i-Surkh	Coastal settlement	3		
Tavuneh	Coastal settlement	2		
Tell Muveh	Coastal settlement	2		
Ziarat	Coastal settlement	8		
Fustat	City	Around 12000-13000 pieces in 1966 in the warehouse		600,000-700,000
		Around 10,000 from excavations during 1912-1920		700,000
		Around 5,000 during the 1964-1978 excavations		
		Around 1,000 pieces during the 1978-1985 excavations		
		around 12,705 in the warehouse in 1998-2001		
		around 20,000 from all excavations		
Bar Antar	Port	1		
Khuraybah	Port	1		
Raya	Port	In 2002 registered finds: 4	1940	2265

[783] Data from Priestman 2013, 242-4.
[784] Counted based on the online database of Siraf ceramic finds in the British Museum.

		In 2003 registered finds from the residential quarter: 1	92	2208
		In 2003 registered finds of the fort: 7	528	905
		In 2004 registered finds from the fort: 5	476	1104
		In 2004 registered finds from the residential quarter: 1	235	2877
		2007 unregistered finds: 0	24%	10560
		2007 registered finds: 11	1895	3877
Qasr al-Hayr East	Castle	5		
Raqqa	City	2		
A'ali	Town	1988-1989 season: 3	455	2837
		1989-1990 season: 2		
Al-Hamr al-Sharqiya	Port	4	98	1170
Al-Hasa Oasis	Village level settlements	4		
Dhahran	Coastal settlement	1		
Fayd	City level	1		
Jazirat al-Hulayla	Town level	2		
Jidd al-Hajj	Coastal settlement	1		
Julfar of Ras al-Khaimah	Town	2		
Jumeira	Town-level	1		
Khatt	Village	2		
Kush	Small tell	0.31% of the total amount of ceramic finds during the 8th to 11th centuries CE, mainly 11th century		
Qal'at al-Bahrain	Coastal fortress	Chinese ceramics collected from the floors represent 0.6% of the total amount of ceramic finds.		
Qatif	Village level settlement	1		

Sharma	Port	More than 1050 pieces until the excavation in 2002		
		1584 pieces until 2004 from excavations	3123	47486
		Chinese ceramics collected from the surface and from excavations represent 4.4% of the total amount of ceramic finds until 2004.	6.9%	
		2139 pieces in total, 1585 of which from excavations until 2007		
Sohar	Port	Around 100 to 200 pieces from the 9th to the early 12th centuries		
Zubalah	Town level	1		

Only Siraf, Fustat, Sharma and Sohar have impressive amounts of Chinese ceramic finds. The rest of the sites in Table 5.1 above only have a limited amount of Chinese ceramic finds; normally fewer than 10 fragments. Most of them are village-level small settlements, small ports and towns. It shows us that during the 8th to 10th centuries CE, the scale of the circulation of Chinese ceramics in the Islamic world may not have always been considerable like most publications have claimed. Even though there are a vast number of sites with Chinese ceramic finds in the Islamic world during the 8th to 10th centuries CE, only very few of them, large urban centres and ports, have an impressive amount of Chinese ceramic finds to indicate some sort of volume of transaction. For the rest of the sites where Chinese ceramics have been found, the quantities are not impressive enough to indicate a large scale of circulation. The fact that most of these sites have only been surveyed may have led to the tiny amount of Chinese ceramic finds in these sites. A proper archaeological excavation may yield more Chinese ceramic finds. However, A'ali, Julfar of Ras al-Khaimah, Bilad al-Qadim and a couple of other sites have been excavated. The amount of Chinese ceramic finds in these excavated sites is no more than that of sites which have only been

surveyed.

It is likely that Chinese ceramics were only transported to very few large ports, from where they were transported to large inland urban centres and also circulated locally and regionally in towns, small ports and small settlements in the neighbourhood of the port. Their quantities show a very hierarchical pattern of the circulation and consumption of Chinese ceramics in the Islamic world, which is based on the hierarchy of the level of settlement and the hierarchy of people living in these sites: their social status, their wealth and power to get access to and afford imports from a faraway place, which often had to be transported over months or a year via a long arduous journey and with great effort. More refined Chinese ceramics tended to circulate where the elite lived. Not all Chinese ceramics found in the Islamic world were valued equally as high-priced luxuries, and not all sites where they have been found are large, important sites. We don't have quantitative information on ceramic finds from Samarra and Baghdad. But it is highly possible that capital cities of Samarra, Baghdad and Fustat were the major consumers of Chinese ceramics. Siraf and Sohar were the major ports where Chinese ceramics landed in the Persian Gulf area, and Aden and Sharma possibly the ports for Chinese ceramics in the Red Sea area, though Aden has yet to be excavated.

5.4 Percentages of Chinese Ceramic Finds

Table 5.2 Percentages of Chinese Ceramic Finds

Site	Occupation Level	Ceramic Assemblage	Percentage of Chinese Ceramic Finds
Siraf	Port	British Museum (Site A 8th – 10th centuries CE)	14%
		Find Record Cards (Site A 8th – 10th centuries CE)	2%
Fustat	City	warehouse in 1966	1.7%-2%
		excavations in 1912-1920	1.40%
Raya	Port	Registered finds in 2002	0.18%
		Registered finds of the fort in 2003	0.77%
		Registered finds of the residential quarter in 2003	0.045%

		Registered finds of the fort in 2004	0.45%
		Registered finds of the residential quarter in 2004	0.035%
		Registered finds in 2007	0.28%
A'Ali	Trading Town		0.10%
al-Hamr al-Sharqiya	Port		0.34%
Kush	Village-level settlement	during the 8th – 11th centuries CE, mainly 11th century	0.31%
Qal'at al-Bahrain	Coastal fortress	ceramics collected from the floors of Qal'at al-Bahrain	0.6%
Sharma	Port	excavated finds in 2004	3.30%
		excavated and surface-collected finds in 2004	4.40%

The finds from the excavations of Siraf are dispersed among several museums and institutions.[785] British Museum has one of the largest collections of Siraf ceramic finds of around 8,693 sherds where all the joining pieces from the same vessels are excluded.[786] In Priestman 2013, a detailed quantitative information of Site A of Siraf has been published. Table 5.3 and 5.4 below show Chinese ceramic finds from Site A that can be dated between the 8th and 10th centuries CE.

Table 5.3 Siraf Chinese Ceramic Finds from Site A at the British Museum, 8th – 10th CE[787]

Typology	Quantity (pieces)
Black Glazed Stoneware	3
Changsha Ware	41
Dusun Ware	71
East Asian non-Identified Ware	5
Green Glazed Moulded Ware	1
Green on White Splashed-Glazed Ware	2
Guangdong Green Glazed Stoneware	6
Slipped White Stoneware	14
White Ware	5
Yue Ware	15
Total	163
Total amount of ceramic finds from the 8th – 10th CE	1032

[785] See Chapter 3, Section 3.2 for details.
[786] Priestman 2013, 237-8.
[787] Data from Priestman 2013, 242-3.

Table 5.4 Siraf Chinese Ceramic Finds from Site A on the Find Record Cards, 8th – 10th CE[788]	
Typology	Quantity
Changsha Ware	57
Dusun Ware	104
East Asian non-Identified Ware	3
Green Glazed Moulded Ware	1
Green on White Splashed-Glazed Ware	1
Slipped White Stoneware	6
White Ware	28
Yue Ware	26
Total	226
Total amount of ceramic finds from the 8th – 10th CE	14740

No quantitative information can be extracted for the period of the 8th to 10th centuries CE only in these sites except Siraf. The British Museum assemblage of ceramic finds from Site A, Siraf during the 8th to 10th centuries CE presents the highest percentage in Table 5.2 (14%). However, the result based on the find record cards drops to 2%. The find record cards present a more reasonable profile of the percentage of Chinese ceramics in a port like Siraf. The discrepancy between the results generated by find record cards and the ceramic assemblage held by British Museum is attributed to the fact that British Museum does not hold all ceramic finds from Site A. Chinese ceramics and Islamic glazed ceramics were selected way more than unglazed potteries by British Museum. The discrepancy in typologies and quantities for each type of ceramics may be caused by multiple reasons, such as illegible find record cards, mistakes on the find record cards, different typologies adopted by card recorders and researcher, etc.

Fustat shows a high consistency with Siraf, where both Chinese ceramic finds' percentages are around 2%. This figure may be the closest so far to the percentage of Chinese ceramics circulated in large urban centres like Fustat and important ports like Siraf. Raya was a port on the Sinai Peninsula. Chinese ceramics represent 0.18% of the total amount of registered ceramic finds in 2002 and 0.28% in 2007. However, its fort area yielded around ten times of

[788] Data from Priestman 2013, 244.

Chinese ceramics than its residential area. It indicates that Chinese ceramics were not as accessible to common people as to the elite and might have been circulated mostly among people with power and wealth. A'Ali and al-Hamr al-Sharqiya were both trading points in the early Islamic period. Their Chinese ceramics represent 0.10% and 0.34% respectively in their total amounts of ceramic finds. These two figures are compatible with that of Raya (0.18%-0.28%), which was also a port in the Islamic period. These three trading points were not as significant as big ports like Siraf and Sohar. Therefore, only a few fragments of Chinese ceramics have been found, almost fewer than 10 pieces. Kush has 0.31% Chinese ceramic finds in the total ceramic assemblage during the 8th to 11th centuries CE, which also is compatible to the three values stated above. Qal'at al-Bahrain's Chinese ceramic finds represent 0.6% of the total ceramic assemblage, which is slightly higher than those of the four sites above. However, this number is generated by a surface survey collection, in which case, Chinese ceramics and Islamic glazed ceramics may have been collected more than unglazed local ceramics because of their diagnostic features.

Sharma on the Arabian side of the Gulf of Aden is distinct from the other sites here. It has an exceptionally high percentage of Chinese ceramics, 3.3% of the total amount of excavated ceramic finds and 4.4% of the total amount of both excavated and surface collected ceramic finds. It was a port active from the 10th to 12th centuries CE. This percentage is even higher than Siraf and Fustat, though when excavations finished, the total amount of Chinese ceramic finds from Sharma is 2139 pieces, which is much fewer than that of Fustat. But Sharma was only active as a port within a shorter period than Siraf and Fustat.

Overall, the quantities of Chinese ceramics vary hugely based on the hierarchy and functions of the settlements. It is likely that big urban centres and important ports like Fustat and Siraf might have had around 2% of Chinese ceramics in their whole ceramic assemblages in all their occupation periods. Smaller trading towns and ports like A'Ali, al-Hamr al-Sharqiya, Raya and Qal'at al-Bahrain have Chinese ceramics which possibly represent around 0.2-0.5% of their whole ceramic assemblages, and the absolute amounts of Chinese ceramic sherds found from all their occupation periods are very small; generally,

fewer than ten pieces. Sharma has a higher percentage of Chinese ceramic finds than Siraf and Fustat. It is a site that deserves more attention and study. It was active during the 10th to 12th centuries CE, during which time Siraf was declining. It is possible that during these two or three centuries, the Gulf of Aden became more important in the connection with the Indian Ocean. Sharma assumed a significant role as important as or even more important than Aden. But this does not necessarily mean that all the Persian Gulf area was declining like Siraf did.

There is no abundant quantitative information available to this thesis. Therefore, only preliminary assumptions can be generated. But it indicates focuses and directions for future studies, especially the demarcation between the percentages of Chinese ceramics in an elite living area and in a common living area within a site as shown by Raya, and the sharp comparison between the amounts of Chinese ceramic finds in smaller settlements and ports and those in bigger urban centres and ports. Finding out the percentage of Chinese ceramics in a site helps to interpret the importance of and role played by Chinese ceramics in the past.

5.5 Chinese Ceramics and Other Ceramic Imports in the Islamic World

Based on ceramic find record cards from Site A of Siraf, pre-Samarra type (actually only alkaline glazed ware was mentioned from Site A) of glazed ceramics represents around 66% in the total amount of glazed ceramics that can be dated from the 8th to the beginning of 11th centuries CE.[789] Samarra types of glazed wares and Chinese glazed wares represent 25% and 9% respectively, with less than 1% possibly from Southeast Asia. It seems that during this period, the majority of glazed ceramics circulated at Siraf were still Islamic glazed wares.

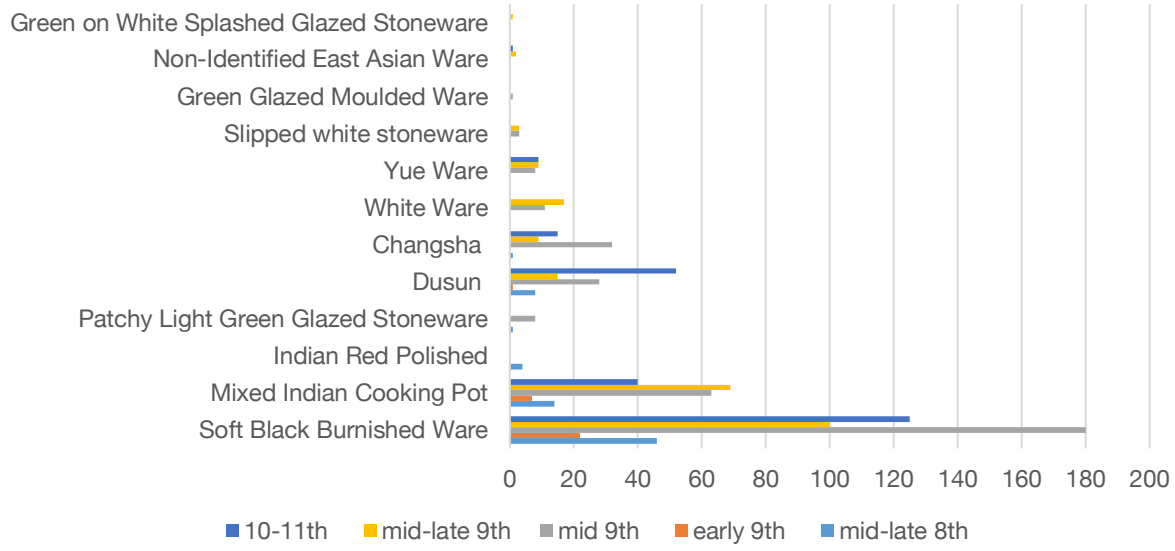
[789] Data from Priestman 2013, 242-4.

Table 5.5 Amounts of Glazed Ceramic Sherds from Site A, Based on Find Record Cards, 8th to the Beginning of 11th Centuries CE	
Pre-Samarran type	1667
Samarran types	617
Chinese	226
Southeast Asia	9

When looking at ceramic imports from the East (China, Southeast Asia and India) found at Siraf, Site A that can be dated to the 8th and the beginning of 11th centuries CE, Indian unglazed pots represent 74% of the total amount of imported wares from the East. Chinese and Southeast Asian ceramics represent 25% and 1% respectively.

Table 5.6 Amounts of Imported Ceramic Sherds from the East from Site A, Based on Find Record Cards, 8th to the Beginning of 11th Centuries CE	
Chinese ceramic sherds	226
Southeast Asia ceramic sherds	9
Indian (unglazed) ceramic sherds	670

Table 5.7 Imported Wares from the East from Site A, Siraf, 8th- early 11th Centuries CE, Based on Ceramic Find Record Cards



The case of Siraf shows that during the period of the 8th to the early 11th centuries CE, Chinese ceramics were not the main type of glazed ceramics used by people at Siraf. They were part of the Indian Ocean maritime exchange; however, they were not the only ceramics

that were circulated and exchanged over the Indian Ocean to Siraf. The amount of Indian unglazed pottery is far greater than that of Chinese ceramics which arrived at Siraf during this period. The traditional way of seeing Chinese ceramics as almost the only ceramics exchanged in great quantities over the Indian Ocean needs to be revised.

Chapter 6: Five Main Types of Chinese Ceramics Found in the Islamic World, 8th - 10th centuries CE

This chapter discusses the five main types of Chinese ceramics found in the Islamic world. By studying the production of the five main types of Chinese wares and their distributions in the Islamic world, it reveals how each part of the Islamic world was involved in the Indian Ocean maritime network and connected to the Far East. More importantly, by studying these five main types of Chinese ceramics found in the Islamic world during the 8th to 10th centuries CE, we might discern their connections with contemporary Islamic glazed ceramics, which are beyond simple influence and imitations. Siraf is used as a case study due to the more detailed and abundant information on its ceramic finds made available by the British Museum and Seth Priestman's research. In the second to last section in this chapter, other minor types of Chinese ceramics in the Islamic world during the 8th to 10th centuries are also discussed. They were not found in as abundant amounts as the five main types of Chinese ceramics, and their existence has rarely been discussed before in publications. However, it is worthwhile to mention their existence and their potential academic value in the research of Chinese ceramics in the Islamic world and their connections with Islamic glazed ceramics. The last section discusses the locations where Chinese ceramics have been found within a site and the possible ways in which Chinese ceramics were used in the Islamic world during the 8th to 10th centuries CE.

6.1 Five Main Types of Chinese Wares

There are five main types of Chinese wares found in the Islamic world from the 8th to 10th centuries CE. They are Chinese celadon stoneware, mostly Yue celadon stoneware, Guangdong celadon stoneware and a few Yaozhou celadon stoneware; Dusun wares;

Chinese white wares, mostly from North China and some from South China; Changsha wares; Chinese monochrome and polychrome glazed wares, including classical Sancai wares, green splashed white wares, Tang blue and white wares etc. Chinese celadon stoneware has been found in 69 sites, Chinese white wares in 42 sites, Dusun wares in 40 sites, Changsha wares in 29 sites and Chinese monochrome and polychrome wares in 16 sites throughout the study area.

Table 6.1 Sites with Chinese Celadon Stoneware

Iran	**Arabia**	**Red Sea**	**Mesopotamia**	**Greater Syria**	**Egypt**
Bibi Khahtun	Abyan	Al-Hawra'a	Basra	Antioch	Alexandria
Gurgan	Al-Hamr al-Sharqiya	Aqaba	Ctesiphon	Apamea	Fustat
Istakhr	Al-Hasa Oasis	Aththar	Hira	Ashkelon	
Jiruft	Al-Mabiyat	Aydhab	Kufa	Hama	
Kangavar	Al-Qaraw	Ayla	Samarra	Jerusalem	
Minab	Arja	Aynunah	Wasit	Qasr al-Hayr East	
Nishapur	Barbar	Bar Antar			
Qal'at Abd al-Rahman	Bilad al Qadim	Khuraybah			
Qasr-i Abu Nasr	Habil	Monastery of Wadi al-Tur			
Qais	Jabalayn	Quseir al-Qadim			
Raghes	Julfar	Raya			
Ruvan	Jumeira	Sirrin			
Shahr-i-daqianus	Kush				
Saravan	Qatif				
Shenas	Qal'at al-Bahrain				
Shilau	Ra's al Hadd				
Siraf	Samdah				
Sirjan	Sharma				
Susa	Shihr				
Tavuneh	Sohar				
Tiz	Tell Shaykh Salim				
Ziarat					
22	21	12	6	6	2
Total	**69**				

Table 6.2 Sites with Chinese White Wares					
Iran	**Arabia**	**Red Sea**	**Mesopotamia**	**Greater Syria**	**Egypt**
Akhtar	A'Ali	Aqaba	Ctesiphon	Raqqa	Fustat
Bibi Khatun	Al- Hasa Oasis	Aththar	Hira		
Gishnau	Al-Mabiyat	Ayla	Samarra		
Hakemi	Al-Qaraw	Raya			
Mashiran	Bilad al-Qadim	Sirrin			
Minab	Kawd am Saila				
Nakhl Ibrahim	Samdah				
Nishapur	Sohar				
Qal'at Abd al-Rahman					
Qais					
Qeshm island					
Rishahr					
Saravan					
Shahr-i-daqianus					
Shenas					
Siraf					
Sirjan					
Suru					
Susa					
T.Qaleh Kucheck					
T.Gishnu					
Tappa-i-Surkh					
Tiz					
Ziarat					
24	8	5	3	1	1
Total	**42**				

Table 6.3 Sites with Changsha Wares			
Iran	**Arabia**	**Red Sea**	**Egypt**
Bibi Khatun	A'Ali	Aththar	Fustat
Bostaneh	al-Na'man	Ayla	
Daiyir	Dhahran		
Gishnau	Jidd al-Hajj		
Minab	Kush		
Nakhl Ibrahim	Khatt		
Nishapur	Sharma		
Shah Abdallah	Shihr		
Shilau	Sohar		
Siraf			
Sirjan			
Susa			
Tal-i-Sabz			
Tell Moragh			
Tell Muveh			
Tell Zibid			
Ziarat			

17	9	2	1
Total	**29**		

Table 6.4 Sites with Dusun Wares				
Iran	**Arabia**	**Red Sea**	**Egypt**	**Mesopotamia**
Bibi Khatun	A'Ali	Aqaba/ Ayla	Fustat	Samarra
Bostaneh	Aden	Aththar		
Bushire	Arja	Zabid		
Daiyir	Bilad al-Qadim			
Gurzeh	Jazirat al-Hulayla			
Hakemi	Julfar			
Mahruban	Kush			
Minab	Qal'at al Bahrain			
Neran	Sayhut			
Nishapur	Sharma			
Qal'at Abd al-Rahman	Shihr			
Qais	Socotra			
Rishahr	Sohar			
Ruvan				
Shahr-i-daqianus				
Shenas				
Shilau				
Siraf				
Sirjan				
Tal-i-Sabz				
Tavuneh				
Ziarat				
22	13	3	1	1
Total	**40**			

Table 6.5 Sites with Chinese Monochrome and Polychrome Glazed Wares			
Iran	**Arabia**	**Egypt**	**Mesopotamia**
B10	Sohar	Fustat	Samarra
D10	Zubalah		
Gharibou			
Neran			
Nishapur			
Rayin			
Rishahr			
Shahr-i-daqianus			
Siraf			
Sirjan			
T.Cheraghabad			
Ziarat			
Total	**16**		

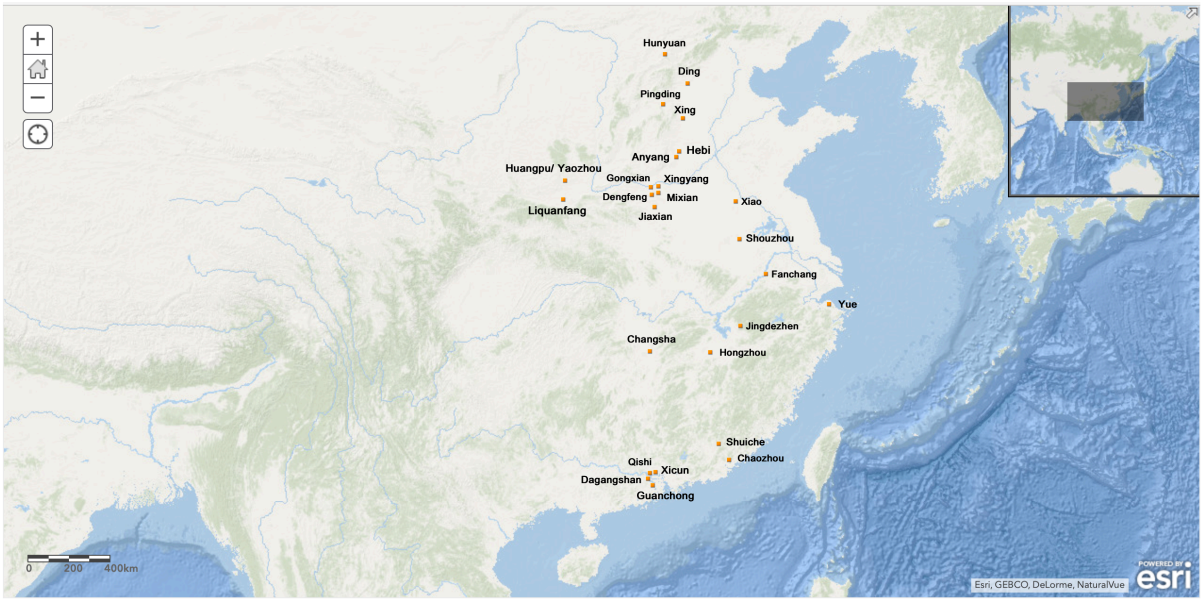


Fig. 6.1 Chinese Ceramic Kiln Sites

6.2 Celadon Stoneware

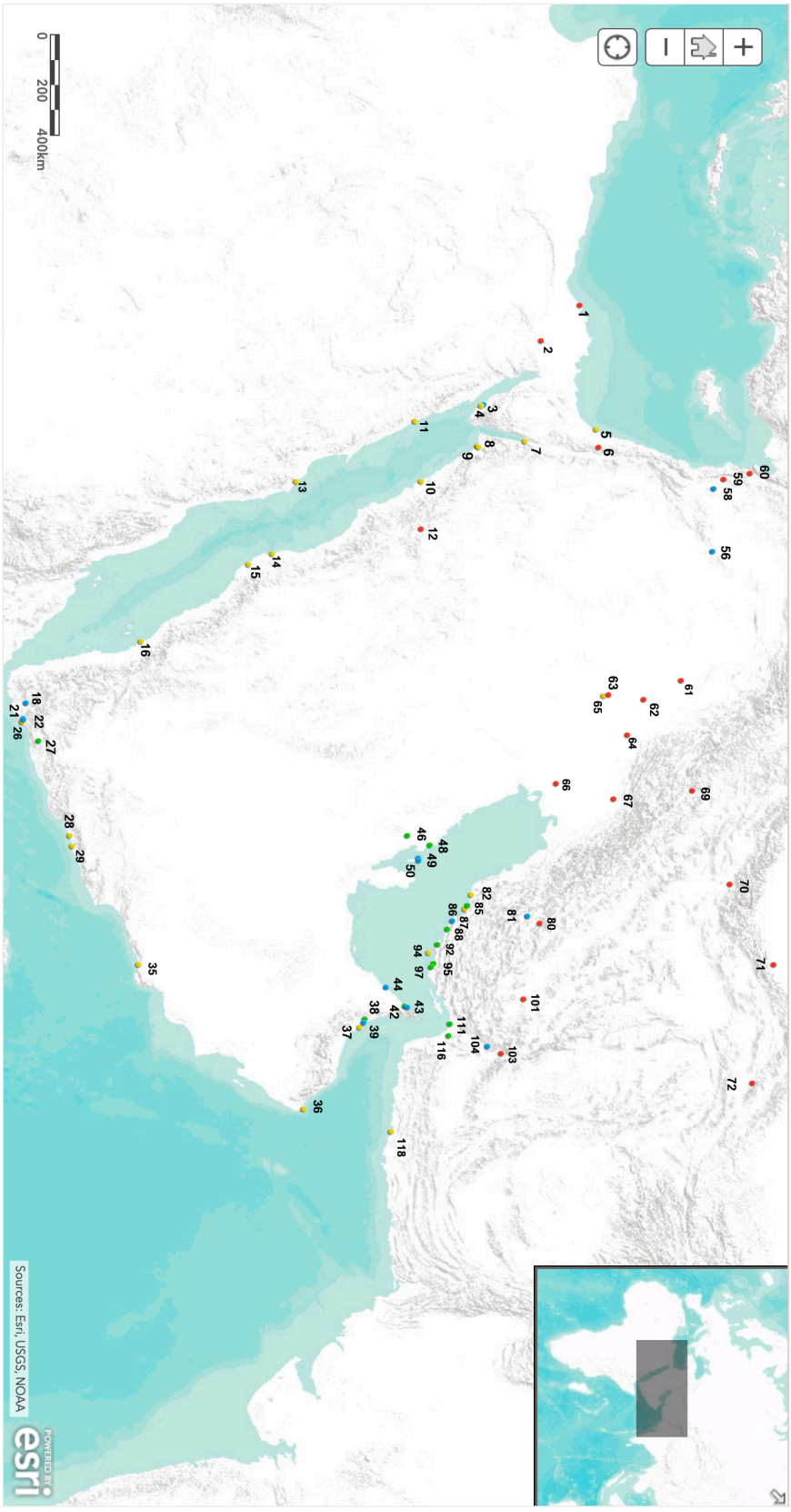


Fig. 6.2 Sites with Celadon Stoneware from the 8th – 10th Centuries CE in the Islamic World

Celadon stoneware refers to stoneware produced in China with a greenish glaze colour. There are 69 sites in total where Chinese celadon stoneware has been found, which means over half of the sites with Chinese ceramic finds in the Islamic world from the 8th to 10th centuries have celadon stoneware. Chinese celadon stoneware is so far the most widely distributed type of Chinese ceramic in the Islamic world during this period. They have been found not only in inland urban centres, but also in several ports and small coastal settlements, especially in the Persian Gulf area and the Gulf of Aden. Chinese celadon stoneware is the only type of Chinese ceramic that was found in most sites in Greater Syria as well as town and city-level sites in the inland area of Iran.

Most Chinese celadon finds in the Islamic world during this period were produced by Yue kilns. However, there were several kilns in South China that produced celadon stoneware which could quite resemble Yue kilns' products. Yaozhou kilns (Huangpu kilns) in North China also produced celadon stoneware that shared similarities with Yue wares, especially the carved decoration and the olive-green glaze colour. It is possible that some celadon finds in the Islamic world previously identified as Yue wares might not have been.

6.2.1 Yue Kilns 越窑

Yue kilns are situated in the area of Shangyu 上虞 and Cixi 慈溪 cities, Zhejiang Province, in the vicinity of Shanglin Lake 上林湖, Baiyang Lake 白洋湖, Du Lake 杜湖, ancient Yinding Lake 古银锭湖. The ceramic production in this area full of kilns started in the late Eastern Han period, prospered during the late Tang to the early Northern Song period, then declined in the late Northern Song period and fully stopped in the Southern Song period.[790] Since the 1930s, when Yue kilns were first identified, archaeological surveys and excavations have

[790] Museum of Cixi City 2002, preface.

been conducted in Yue kilns. Over 200 individual kiln sites have been identified to date. In the ancient times, Yue kilns produced celadon stoneware only. The glaze colour varies from brownish green to olive-green and greyish green. The body fabric of Yue wares is normally fine and well-levigated in a light to dark greyish colour. Yue celadon was among the most valued celadon ware in China before Longquan celadon in the 12th century CE.

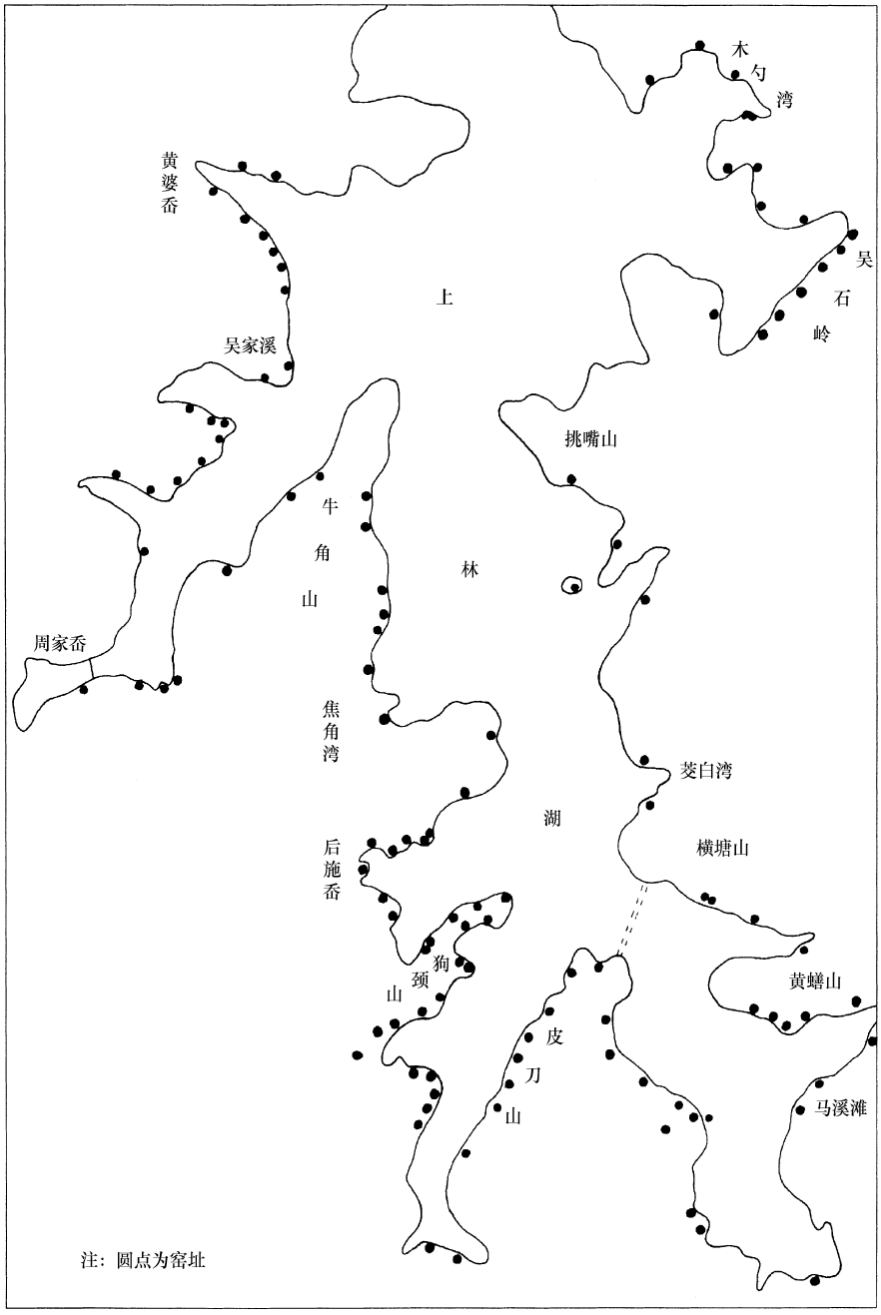


Fig. 6.3 Yue Kiln Sites around the Shanglin Lake, Cixi Museum 2002, 6.

There are around 421 pieces of Yue celadon stoneware from Siraf at the British Museum. Yue celadon stoneware is so far the most abundant type of Chinese ware found from Siraf at the British Museum during the 8th to 10th centuries CE. There are 404 pieces from bowls, 5 pieces from boxes, 4 pieces from jars and 8 pieces from vessels of unknown shape (see Appendix 7). Most of them are too fragmentary to identify any decoration. Only two fragments of boxes carry incised and carved lotus decoration, and one jar fragment carries simple incised lines (fig.6.4). A Yue box lid (fig.6.5) excavated from one of the main Yue kiln sites, Silongkou 寺龙口 in Zhejiang Province, has an almost identical lotus decoration as the Siraf one but in a dark olive-green glaze.



Fig. 6.4 Left: A Yue Box Fragment with Incised and Carved Lotus Decoration from Siraf © British Museum. Museum number: 2007,6001.6968; Right: A Yue Jar Fragment with Incised Lines from Siraf ©British Museum. Museum number: 2007,6001.9565.

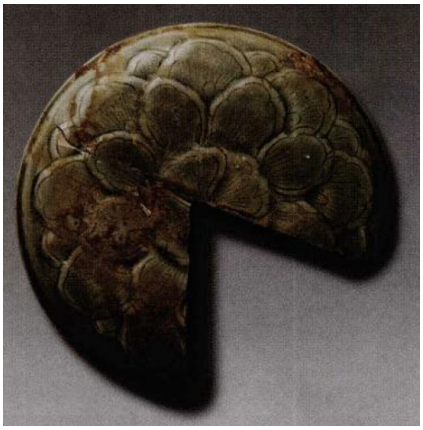


Fig. 6.5 A Yue Celadon Box Lid with Incised and Carved Lotus Decoration from the Excavation of Silongkou Kilns, Institute of Archaeology of Zhejiang Province 2002, 238.

6.2.2 Southern Chinese Celadon

6.2.2.1 Shuiche kilns 水车窑 in Guangdong Province in South China

Shuiche kilns have been identified by Krahl as the kilns producing “Guangdong celadon stoneware” found in the Belitung shipwreck (also called Guangdong green glazed stoneware in some publications).[791] This kiln site is located in Mei County 梅县, Guangdong province, which gives them the additional name Mexian kilns. The kiln site was found and investigated in the 1980s. Ceramic products from Shuiche kilns have been found in several Tang tombs in the vicinity of Mei county.[792] Shuiche kilns produced ceramic products during the Tang period and declined in the early Song period. The body of Shuiche wares is normally greyish less dense and refined than Yue ware’s body. Their glaze tends to be greenish and sometimes bluish green. There are often ice-like cracks in the glaze layer. The firing temperature is not as high as that of Yue kilns.[793]

[791] Krahl 2011, 194.
[792] Chen Zhimin 2006, 90.
[793] Chen Zhimin 2007, 80.



Fig. 6.6 A Celadon Glazed Jar from Shuiche Kilns from the Tang Period in the Guangdong Provincial Museum.



Fig. 6.7 A Celadon Glazed Lobed Bowl from Shuiche kilns from the Tang period in the Guangdong Provincial Museum, Photo Taken by the Author.

There are around 15 pieces of Guangdong celadon stoneware which can be dated between the 8th and 11th centuries CE from Siraf at the British Museum (see Appendix 7). All of them came from bowls. There are four types of Guangdong celadon stoneware found at Siraf:

most of them have a vitrified bluish green glaze with cracks, three of them have matt bluish green glaze, one with yellowish green glaze and one with turquoise blue glaze. They resemble many features of celadon stoneware from Shuiche kilns in Guangdong. Wares with bluish green glaze tend to be of higher quality, rarer, and more valued than wares with yellowish green glaze in Shuiche kilns, because they resemble the highly valued secret coloured tribute ware from Yue kilns (see the secret coloured ware in Section 6.7.1). Shuiche kilns presumably exported their most refined tableware products to Southeast Asia and the Islamic world. Even though the bluish green glazed stoneware of Shuiche kilns is still inferior in terms of quality to the delicate Yue wares and secret coloured wares, as they have less refined bodies and often bear cracks in their glazes, they still represent tableware of the highest quality from Shuiche kilns and high-quality Chinese tableware in the Islamic world.



Fig. 6.8 Left: a Guangdong Bowl Base with Vitrified Bluish Green Glaze from Siraf ©British Museum, Museum Number 2007,6001.872; Right: a Guangdong Bowl Fragment with Matt Bluish Green Glaze from Siraf ©British Museum, Museum Number 2007,6001.5859.



Fig. 6.9 Left: a Guangdong Bowl Fragment with Yellowish Green Glaze from Siraf ©British Museum, Museum Number 2007,6001.2797; Right: a Guangdong Bowl Base with Turquoise Blue Glaze from Siraf ©British Museum, Museum Number 2007,6001.9019.

6.2.2.2 Other kiln sites whose celadon stoneware might have been exported to the Islamic world:

There were several kilns in Guangdong province during the Tang period that produced celadon tableware. 22 kiln sites had been identified in Guangdong province by 1993 around the Foshan area 佛山.[794] Some kilns yielded ceramic finds that shared similarities with Tang ceramics found in the Belitung shipwreck and in the Islamic world.[795] The coarse celadon bowls with unglazed square patches on the interior of the bowl (fig.6.10) found at Siraf and Sohar have also been seen in Guanchong kilns 官冲窑, Qishi kilns 奇石窑 and Dagangshan kilns 大岗山窑 in Guangdong.[796] Whitehouse describes these marks as “patches of glaze scraped from the interior”, while the pale green or yellowish glaze was rare in later deposits and went out of use at the beginning of the 9th century CE at Siraf.[797] According to Rougeulle, this type of ware is not known in China, but has been found in quantity in Java and Sumatra, south Thailand, which can be dated to the Tang period.[798] However, they might have been produced by these kilns in Guangdong and exported to both Southeast Asia and the Islamic world.

[794] Lin Wenbin 2017, 27.
[795] Huang Ying 2016, 260-1.
[796] Liu Chengji 2000, 42. Huang Ying 2016, 261.
[797] Whitehouse 2009, 104.
[798] Rougeulle 1991, 17 and 19.

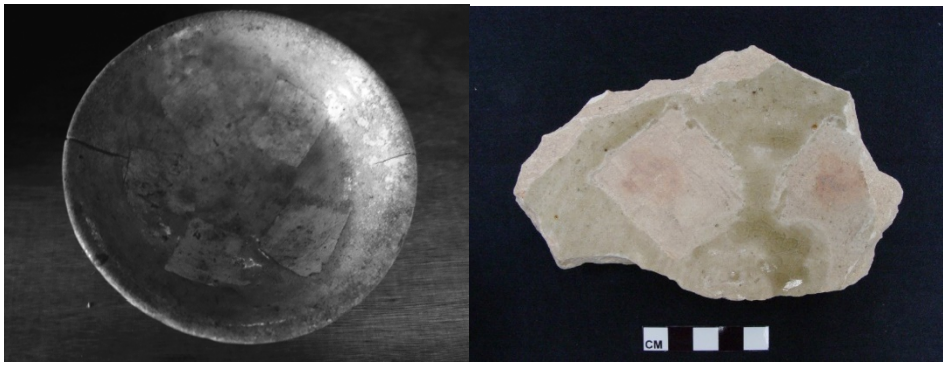


Fig. 6.10 Left: A Bowl with Five Unglazed Square Patches on the Interior from Guanchong Kilns, Huang Ying 2016, 255. Right: A Fragment of Green Glazed Bowl with Unglazed Square Patches on the Interior from Siraf ©British Museum, Museum Number: 2007,6001.2783.

Chaozhou kilns 潮州窑 are situated in Chaozhou city, Guangdong province. The kiln sites were excavated from 1954 to 1972 in six seasons. The production of Chaozhou kilns can be dated to between the Tang and Song periods.[799] Chaozhou wares generally have a yellowish green glaze often with ice-like cracks in the glaze. The body is normally greyish and less dense and refined than Yue ware's body. The firing temperature was not as high as that of Yue kilns.[800] Hongzhou kilns 洪州窑 are located in the area of Fengcheng city 丰城, Jiangxi province, along the Gan River 赣江 which connects to the Yangtze River. Hongzhou kilns started their production in the late Eastern Han period, prospered from the Eastern Jin until the mid-Tang period, and declined in the late Tang and Five Dynasties period. Hongzhou kilns stopped production completely in the northern Song period. Most Hongzhou wares from the Tang period have greyish, brownish or reddish bodies covered by a layer of engobe. The glaze colour is normally celadon, yellowish or brownish celadon or yellowish brown.[801] Tang Hongzhou wares are famous for their yellowish and brownish glaze colour (fig.6.11). Hongzhou wares have been found in quantities together with Changsha wares, Yue wares, and northern Chinese white wares in the ancient Yangzhou port (see Chapter 7, Section 7.2). Therefore, they were likely to have been exported together with Yue wares to

[799] Chen Zhimin 2006, 90.
[800] Chen Zhimin 2007, 80.
[801] Feng Xianming 2001: 342-3; Zhang Wenjiang 2002: 27; Quan and Meng 2008, 143-146.

the Islamic world via Yangzhou port.

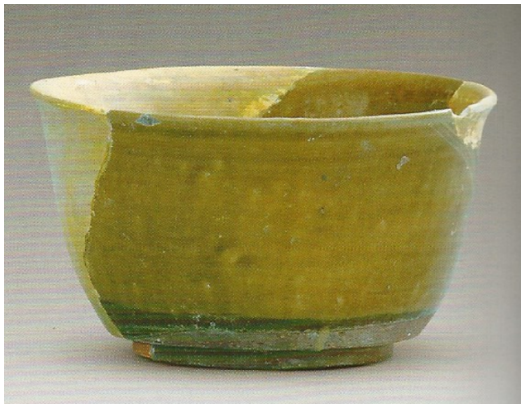


Fig. 6.11 A Hongzhou Yellowish Green Glazed Bowl from the late Tang Period from Yangzhou, Institute of Archaeology, Chinese Academy of Social Sciences et al. 2010, Plate 106.

Yaozhou kilns 耀州窑, also known as Huangpu kilns and Tongchuan kilns 铜川窑, are located in Tongchuan City, Shaanxi Province and were surveyed and partially excavated in 1958, 1959, and 1973.[802] From 1984 to 1992, the kiln sites were excavated again by the Institute of Archaeology, Sha'anxi Province.[803] Huangpu kilns started their ceramic production in the early Tang period and operated until the Yuan period. Yaozhou kilns also produced celadon stoneware; in the early 10th century CE, they produced pale blue-grey glazed stoneware, sometimes with the glaze applied over patterns painted in white slip or with patterns carved through the white slip into the stoneware body. The glaze colour became more olive green from the late 10th century onwards and the decorative style evolved from free hand carving or engraving to moulding techniques.[804] The late 10th century Yaozhou olive green glazed stoneware with carved decoration can sometimes be identical to Yue olive green glazed wares with carved decoration.

There are many sites in the Islamic world which have Chinese celadon stoneware from the 8th to 10th centuries CE, most of which have been identified as Yue wares. However, some of these sherds may have come from kilns other than Yue kilns, such as those mentioned

[802] Shensi Institute of Archaeology, Shensi Academy of Social Sciences 1965, 1; Institute of Archaeology, Shaanxi Province 1992: 1.
[803] Institute of Archaeology, Shaanxi Province 1997, 1.
[804] Wood 2007, 111.

above.

6.2.3 The Wide Distribution of Chinese Celadon Stoneware

It seems that Chinese celadon stoneware managed to reach not only a wide area in the Islamic world, but also areas that other types of Chinese wares were not able to reach. Yue wares are of higher quality than other celadon stoneware produced by kilns mentioned above, and consequently the price of Yue wares would have been high. While Shuiche kilns' celadon stoneware is slightly inferior in quality, most of their products found at Siraf are actually of the top quality among products in the kilns, especially the bluish green glazed ones. Chinese celadon stoneware found in the Islamic world is generally of higher quality and more delicate than Dusun wares and Changsha wares.

A plausible explanation for celadon stoneware's wide distribution in the Islamic world from the 8th to 10th centuries CE is that Yue kilns and Shuiche kilns had increased their scale of production and export during this period. Their unique features, high quality, and the difficulties in imitating their celadon colour all made Chinese celadon, especially Yue wares, popular and widely distributed in the Islamic world. There is no doubt that Yue ware was the most popular type of Chinese ceramic in the Islamic world before the era of Chinese Blue and White, but they seem not to have been imitated by Abbasid potters in the 9th century CE, and it seems that Islamic potters only started to imitate Chinese celadon, especially Longquan celadon, in the 13th century CE in Egypt, Persia and Syria.[805] It appears that there was either a lack of techniques and raw materials or a lack of motivation to imitate Yue wares. Since the challenge of a lack of raw materials could be overcome by applying engobe and opacified glaze, the proper technique for firing celadon glaze would perhaps have been the biggest challenge for Islamic potters; they did not manage to overcome these issues until the 13th century CE. Islamic potters were capable of using copper pigment as colourant for

[805] Wood & Tite 2009, 24; Wood & Doherty 2014, 88.

the production of green or turquoise alkaline glaze before the arrival of Chinese celadon, and they used copper pigment for the green paintings on white glazed wares during the Samarra Horizon. They were also able to produce monochrome green lead glazed wares (fig.6.12), which were earlier than the arrival of Chinese celadon. But the celadon colour (fig.6.13) was not created by addition of copper pigment. Most Tang and Five dynasties celadon colour derived from lime glaze with calcium oxide as flux with iron oxide as the colorant fired in a reduction atmosphere.



Fig. 6.12 Left: An Islamic Monochrome Green Glazed Ware, 8th – 9th centuries CE, from Qasr-i-Abu-Nasr in Iran ©Metropolitan Museum of Art. Right: An Islamic Green Lead Glazed Sherd, from Samarra © British Museum



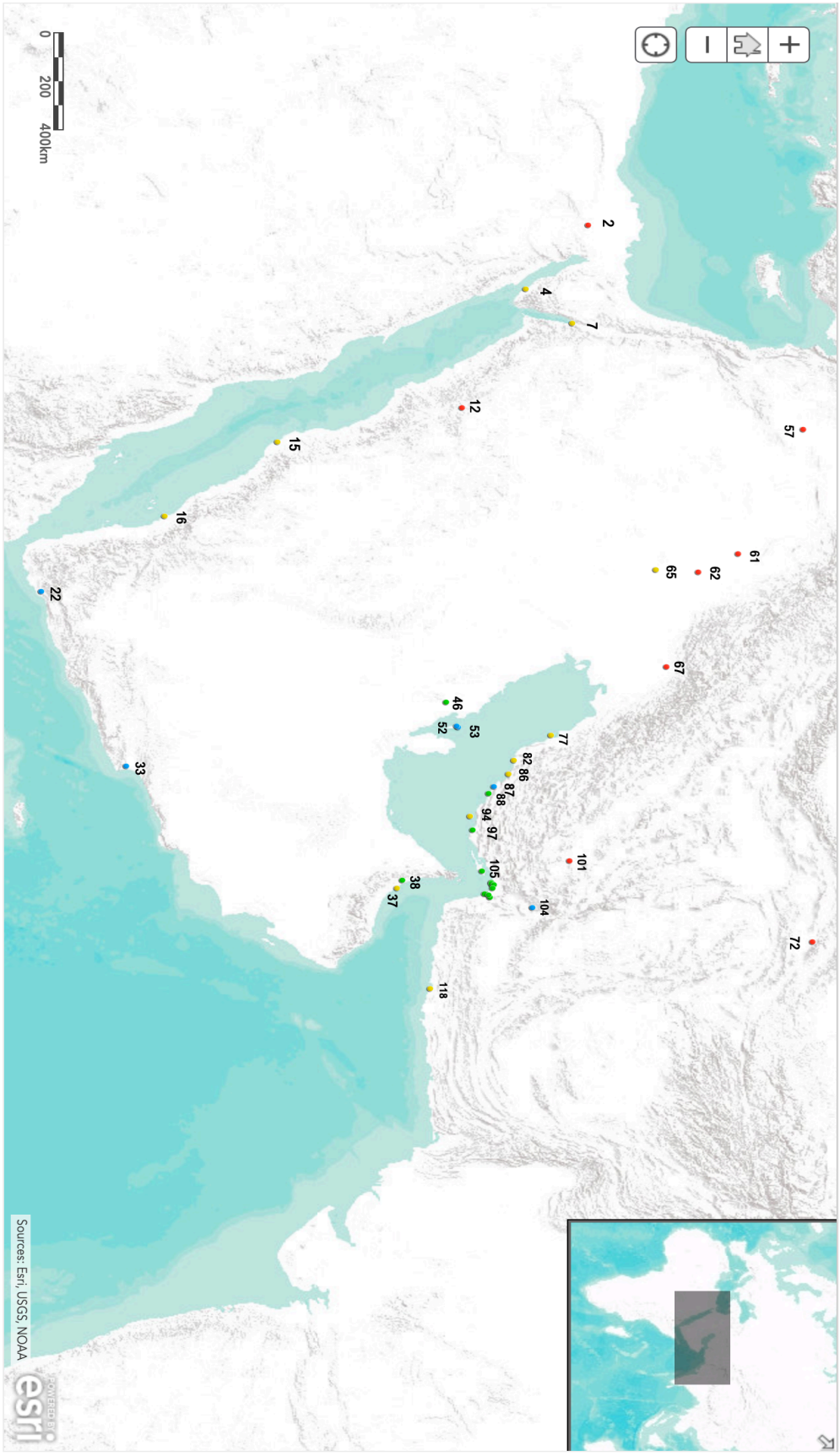
Fig. 6.13 A Yue Celadon Cup from Suzhou 苏州, Jiangsu Province 江苏 © Suzhou Museum

Possibly the motivation of imitating Chinese white wares was much stronger than of imitating Chinese Yue wares during the 8th to 10th centuries CE. This phenomenon could be due to the rarity and possibly even higher price of Chinese white wares, especially white porcelain,

as well as the relatively easy access to Chinese celadon stoneware due to their larger scale of production and export.[806] This might also be the reason why Changsha painted stoneware and Dusun wares were not fully imitated or not imitated at all during this period. More accessibility made the investment in developing new techniques to imitate celadon stoneware less cost-effective and profitable.

[806] The amount of northern Chinese white stoneware and porcelain is much smaller than Yue celadon on the Belitung shipwreck. Sites in the Islamic world with Chinese white wares are fewer than sites with Yue wares during the 8th to 10th centuries CE.

6.3 Chinese White Wares



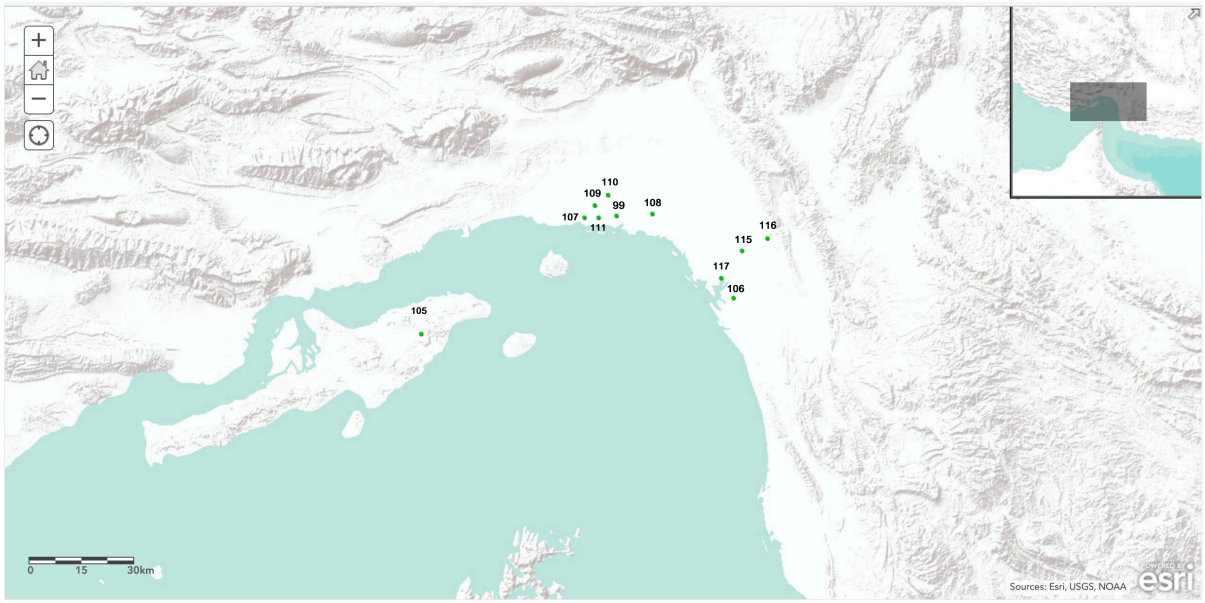


Fig. 6.14 Sites with Chinese White Ware from the 8th – 10th Centuries CE in the Islamic World

Chinese white wares have been found in 42 sites in the Islamic world dating from the 8th to 10th centuries CE in both coastal areas and inland urban centres. They comprise white stoneware and porcelain. Most ports and small coastal settlements with Chinese white wares dating to this period are situated in areas around Siraf and to its east in the Persian Gulf region. For the Arabian Sea and Red Sea regions, only five ports and two town-level settlements on the coast have yielded Chinese white wares. It seems that Chinese white wares were less circulated in the Arabian Sea and Red Sea regions than in the Persian Gulf region. All inland sites with Chinese white wares are city-level settlements except Shahr-i-daqianus and Hira, a river-port in Mesopotamia.

6.3.1 Chinese White Wares and Islamic Imitations

Almost all studies on the connection between Chinese ceramics and Islamic ceramics talk about the influence of Chinese white wares on Samarra Horizon Islamic opaque white glazed wares. Islamic archaeologists generally agree that Islamic potters around the early 9th

century CE began to replicate the shape and glaze of Chinese white wares (fig.6.15).[807] The challenges of techniques and availability of suitable raw materials to imitate Chinese white wares were overcome, to a certain degree, by Islamic potters.

Different clays varying slightly in their compositions were used by different kilns in North China. The body of white stoneware and porcelain produced in North China from around the 6th century CE onwards used local refractory kaolinitic sedimentary clays that were alumina-rich and low in iron contamination.[808] This type of clay could endure long high-temperature firing for stoneware and porcelain, while its purity and low contamination resulted in a cream, light greyish or yellowish white body. The clay from North China was one of the essential elements in achieving white porcelain in the 6th century CE; only when the body is pure and white enough, and no thick opaque white glaze is needed to cover the body, can the potter apply a translucent glaze to achieve a smooth surface. For some of the "coarse" white stoneware, the body is not white and pure enough, and therefore a white slip or an opaque white glaze was applied to give the whole vessel a smooth white surface.



Fig. 6.15 Left: Chinese Xing White Ware, 9th Century CE ©British Museum; Right: Iraqi White Glazed Earthenware, 8th – 10th Centuries CE ©V&A museum

To imitate ceramic wares produced elsewhere, the biggest challenge for local potters in the Islamic world was how to overcome the unsuitability of their own clays, which were fusible calcareous earthenware clays that tended to vitrify when fired over 1200℃. The nature of the local clay in the Islamic world rendered it unfeasible to fire white stoneware or porcelain like

[807] Hallett 2011, 76.
[808] Wood 2007, 91.

those from China, which required a temperature around 1200 ℃ or even higher. Secondly, the local clay in the Islamic world had higher iron contamination than northern Chinese clays, which means that the body of the ceramic vessel would not be as pure and white as the Chinese ones.

In order to compensate for these shortcomings, Islamic potters used a finely-levigated, cream-coloured calcareous clay body with limited coarse inclusions and covered the interior and exterior, except for the foot, with a thick, white, opacified glaze. The glaze was alkali-lime based with varying quantities of lead oxide as flux and its opacification was achieved by an addition of tin oxide, undissolved quartz, gas bubbles, processes of recrystallisation, or a combination of these methods.[809] Because of these different processes, the glazes of the Abbasid opaque white-glazed wares are very variable in their opacity and whiteness. Islamic potters managed to imitate Chinese white wares by using a fundamentally different technique of production. They did not stop at replicating the plain white appearance of Chinese white wares. They produced white glazed wares with colours added in pigment form or pigment mixed in a glaze suspension, such as lustre painted white glazed ware, white glazed wares with blue paintings, green paintings, etc.[810]

6.3.2 The Production of Chinese White Wares

The earliest white wares produced in China were found in the tomb of Fan Cui (575 CE)范粹 in Anyang 安阳, Henan Province 河南省.[811] During the Sui dynasty white wares were fired more successfully; the tomb of Zhang Sheng (595CE)张盛 in Anyang had several white wares, as did the tomb of Li Jingxun(608CE)李静训 in the suburb of Xi'an, who was a member of the Sui royal family. A Sui white ware kiln site has been unearthed in Jia Cun 贾

[809] Priestman 2011, 89.
[810] Priestman 2011, 89.
[811] Feng Xianming 2001, 284.

村, between Neiqiu City 内邱 and Lincheng City 临城 in Hebei province 河北省, which also falls in the area of the Tang dynasty's Xing kilns.[812] By the mid-8th century, true white porcelain was being made at several kilns in North China including Gongxian and Xing kilns.[813] Others include Ding kilns 定窑 in Hebei 河北 province, Mixian kilns 密县窑, Hebi kilns 鹤壁窑, Jiaxian kilns 郏县窑, Xingyang kilns 荥阳窑, Anyang kilns 安阳窑 and Dengfeng kilns 登封窑 in Henan 河南 province, Hunyuan kilns 浑源窑 and Pingding kilns 平定窑 in Shanxi 山西 province, Yaozhou kilns 耀州窑 in Sha'anxi 陕西 province, and Xiao kilns 萧窑 in Anhui 安徽 province.[814] South China started to produce white wares under the influence of northern Chinese white wares in the Five Dynasties period. Fanchang kilns 繁昌窑 in Anhui 安徽 province and Jingdezhen kilns 景德镇窑 in Jiangxi 江西 province first started to produce southern white wares as well as Qingbai wares, which was a type of white ware with a bluish tint. Xicun kilns 西村窑 in Guangdong province also had white ware products that can be dated mainly to the late 10th century onwards. White wares from Xing kilns, Ding kilns and Gongxian kilns have been found in the Islamic world, as well as Fanchang and Jingdezhen white ware products from the 10th century. White wares from these kilns share much in common with one another. Northern Chinese white ware glaze tends to be yellowish and greyish and less translucent, but southern Chinese white glaze in the 10th and early 11th centuries tends to be more translucent and bluish.

Xing kilns, located in Neiqiu 内邱, Lincheng 临城 and Xingtai 邢台 counties of Hebei Province, started their production of white wares in the late Northern Dynasties. During the Tang dynasty, Xing kilns were in the peak of their production. These kiln sites were found in the early 1980s, and surveys were conducted over the course of the 1980s and 1990s. Some test pits were excavated in 1988 and 1992, and rescue excavations were conducted

[812] Feng Xianming 2001, 324.
[813] Wood 2007, 93-4.
[814] The Chinese Ceramic Society 1982, 202.

in 1997 and 2003.[815] Xing kilns mainly produced white wares with and without slip (engobe), though they also produced Tang Sancai wares and monochrome green glazed stoneware (not celadon green).[816] White wares without slip, including white porcelain, are of better quality because their raw materials for the body are more processed and refined. Xing white wares' shapes were considerably influenced by contemporary metalwork. Some of the very delicate and high-quality Xing wares have been found in the Islamic world, including a very exquisite white porcelain cup with moulded relief fish pattern on the interior that was found at Samarra (fig.6.17). An almost identical cup (fig.6.16) has been found in Xing kilns.



Fig. 6.16 A White Porcelain Cup with Moulded Relief from Xing Kilns. Zhao & Zhang 2007,111.

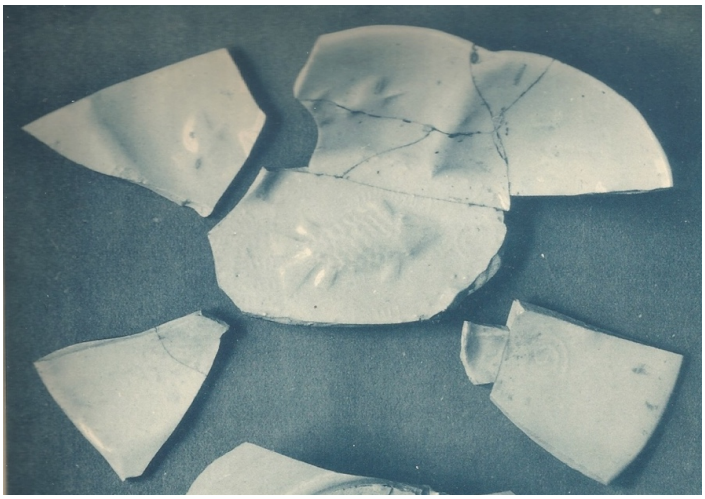


Fig. 6.17 A White Porcelain Cup with Moulded Relief from Samarra, Sarre 1925, XXIV.

[815] Zhao Qinggang and Zhang Zhizhong 2007, 8-9.
[816] Feng Xianming 2001, 329.

Ding kilns 定窑:

Ding kilns are located in Quyang 曲阳, Hebei Province, and were active from the late Tang period until the Yuan period. The primary products of these kilns were white wares, though there were also green glazed, black glazed, purple glazed and Sancai wares produced in the Ding kilns. Like Xing wares, Ding wares also imitated shapes of precious silver and golden metalwork.[817] Some Ding wares are decorated with incised, carved or moulded decoration, which derived from patterns on Chinese silk tapestry, silver and golden metalwork.[818]

6.3.3 Chinese White Wares from Siraf at the British Museum

There are around 328 pieces of Chinese white wares from Siraf at the British Museum dated roughly to the 8th to 10th centuries CE. Researchers in the British Museum have identified around 232 pieces as white porcelain sherds and 96 pieces as white stoneware. There are approximately 305 sherds from bowls, 12 sherds from jars (5 spout sherds), 6 sherds from boxes, 1 dish sherd, 1 spittoon sherd and 3 sherds from unknown vessel forms (see Appendix 7). It should be noted that Chinese white ware sherds from Siraf are all very fragmentary and small in size, which makes the identification of vessel shape more difficult and ambiguous.

Chinese white wares were the second largest group of Chinese ceramic finds after Yue celadon during the period of the 8th to 10th centuries CE at Siraf. White porcelain from Siraf came from kilns in both North and South China. However, in the mid and late 10th century, South China had just started white ware production, so there might not have been a large scale of export of southern Chinese white wares then. Those from South China may come mostly from the 11th and 12th centuries.

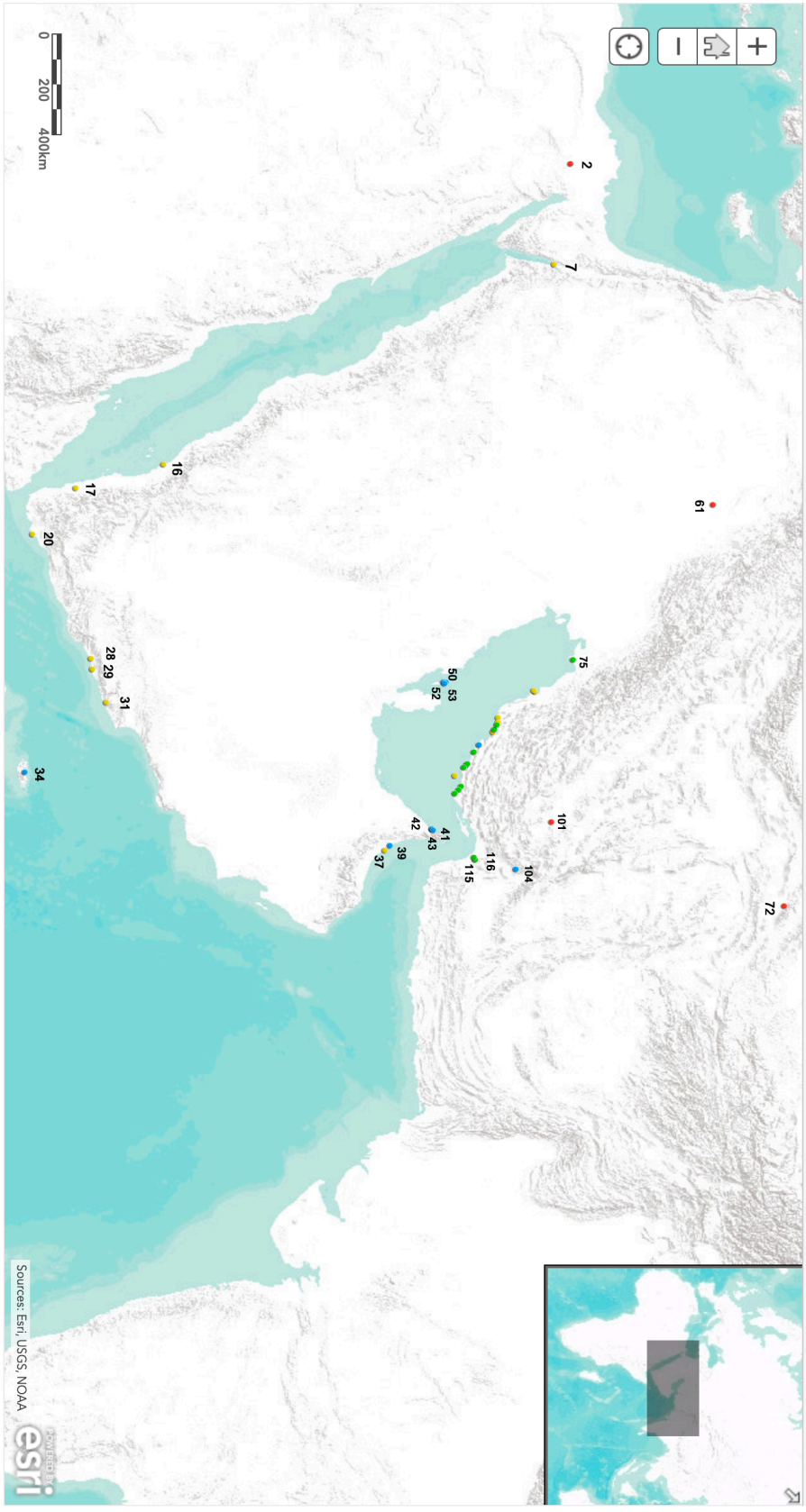
[817] Quan & Meng 2008, 158.
[818] Quan & Meng 2008, 179.

6.3.4 The Distribution of Chinese White Wares in the Islamic World

The distribution pattern of Chinese white wares in the Islamic world is quite different from the patterns of Changsha wares and Dusun wares; there are more inland sites with Chinese white wares. Ports and small settlements with Chinese white wares tend to concentrate in the area around Siraf, generally to the south and to the east of it. In the Persian Gulf region, five sub-areas have yielded Chinese white wares: Tiz, on the mouth of the Gulf of Oman, a place that is unavoidable for ships bound to Siraf; around Sohar, the first important port in Arabia in the Persian Gulf; the Minab area, in the bay connecting the Gulf of Oman and the Persian Gulf in Iran; the Siraf area, which was the main destination for ships from the East; and the area around Bahrain, the main port in Arabia. These five sub-areas acquired their Chinese white wares either from ships loaded with white wares that anchored in these areas for water and supplies, or from the main port at Siraf, where white wares were trans-shipped to other ports and markets. For sites with Chinese white wares in the Arabian Sea and the Red Sea, it might have worked in the same way with their Chinese white wares being trans-shipped from Siraf or another big port in the region.

Chinese white wares were probably specifically shipped to Siraf, from which they were further distributed to ports and settlements nearby and inland urban centres, especially in Mesopotamia, in light of the concentration of sites with Chinese white wares therein. This could explain why at Siraf there is such a large number of Chinese white wares. Even though Chinese white wares have also been found in some ports and small village-level coastal settlements, their primary markets should have been city-level and town-level settlements, most of which are inland sites where the elite in the Islamic world were living. Chinese white wares are generally more refined and delicate than Changsha wares and Dusun wares, and naturally would have had higher prices and been less accessible to normal people. It is highly likely that Chinese white wares were among the luxury imports to the Islamic world.

6.4 Dusun Wares



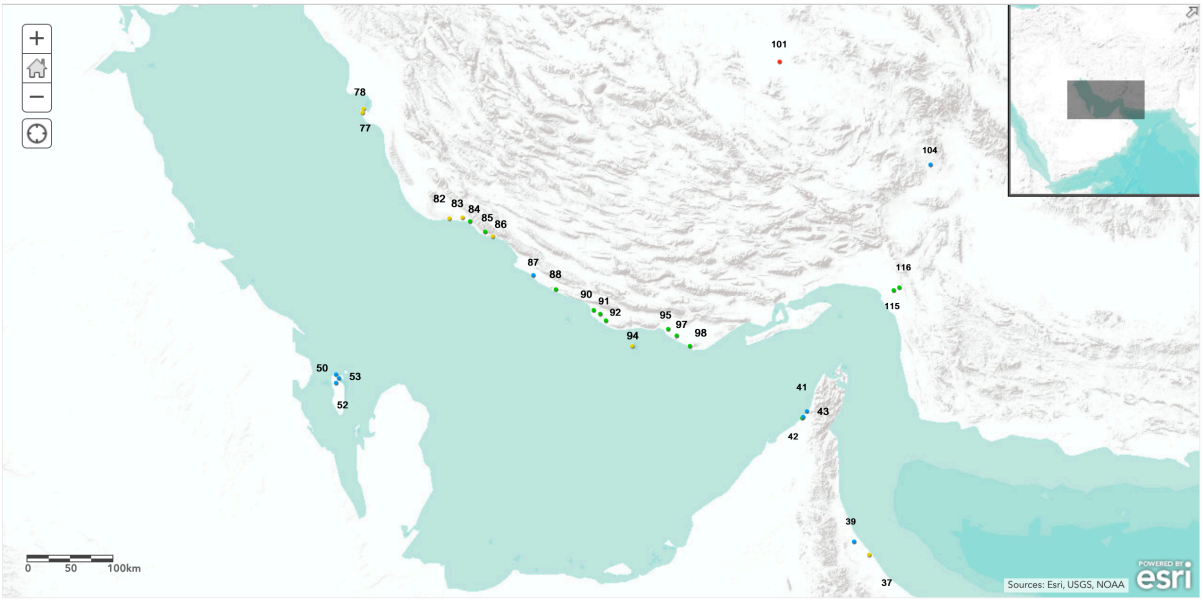


Fig. 6.18 Sites with Dusun Ware from the 8th – 10th Centuries CE in the Islamic World

Dusun wares have been found in 40 sites in the Islamic world, most of which are ports, village-level or town-level settlements in the Persian Gulf. Only a few ports and coastal settlements with Dusun ceramic finds are in the Gulf of Oman, the Arabian Sea, and the Red Sea. Nishapur, Sirjan, Samarra and Fustat are the only inland and city-level sites to have Dusun ceramic finds.

6.4.1 Dusun Wares, the Definition

Tom Harrisson gave the name of “Dusun” to this ware when he observed that this type of celadon jar was highly valued by the Dusun in northern Sabah (now Kadazan), Malaysia. Dusun wares mainly consist of big jars, which all have “a pale, easily peeling, thin greyish green glaze, characteristic ‘pear shape’, a shoulder slope, a small mouth, a lateral ear arrangement, and a massively hard, thick body. The glaze never comes to the foot, which is

usually slightly concave."[819] Harrisson points out that Dusun wares come in all sizes and a moderate range of shapes.[820] At the time when Harrisson wrote his article on Dusun jars, he thought they were manufactured on a large scale over a thousand years ago at kilns that had not yet been located, but almost certainly in South China.[821]

With the progress of archaeological work and continuing contribution from scholars, more information on Dusun wares has come to light. Currently, the name Dusun ware generally refers to vessels, especially storage jars, which were mainly produced during the Tang dynasty with a patchy greenish or brownish glaze and coarser body fabric compared to the more refined Yue wares. Dusun wares normally are glazed on both the interior and exterior, and the glaze tended to flow easily during firing. The lower part of the vessel is normally unglazed. One method to distinguish storage jars from the Tang period (Dusun jars) from those from later periods is to examine whether the jar is glazed on both the interior and exterior. Based on Eva Ströber's research on the Princessehof Museum's collection of Tang storage jars (Dusun jars), most of which came from 20th century excavations in Central Java, near the Buddhist site of Borobudur, all of them are glazed on both sides, though most of them are unglazed on the lower part of the exterior.[822] Dusun storage jars tend to have lug-handles, either two pairs or four pairs below the rim or neck on the shoulder of the vessel.

6.4.2 The Production and Usage of Dusun Wares

Currently, the best sources for the study of Dusun wares are the Princessehof Museum in the Netherlands (fig.6.19), the Belitung shipwreck, Dusun ware from Siraf at the British Museum, and relevant kilns in Guangdong province, China. Ströber in the Princessehof Museum in the Netherlands has identified two types of jars. One type was thickly potted with

[819] Harrisson 1965, 69.
[820] Harrisson 1965, 69.
[821] Harrisson 1965, 74.
[822] Ströber 2016, 41-2.

light coloured clay in a chalky texture, glazed in light yellowish or greenish colour, shaped into an ovoid shape with a short neck, with thumb-pressed lug-handles on the shoulder. Ströber believes that kilns in Guangdong, China and Vietnam, which operated under the Tang dynasty's rule, produced this type of storage jar.[823] The second type of jars (fig.6.20) has a mottled patchy brownish or olive-green glaze, with smaller and more refined lug-handles on the shoulder, shaped into various sizes. Some of them have short and small spouts. Ströber thinks kilns in Guangdong may have produced this type of jars during the Tang period.[824]



Fig. 6.19 Tang Dusun Jars from the Princessehof Museum, the Netherlands, around the 8th – 10th centuries CE, Ströber 2016, 40.

[823] Ströber 2016, 40.
[824] Ströber 2016, 41.



Fig. 6.20 A Tang Dusun Jar with a Spout from the Belitung Shipwreck at the Asian Civilisations Museum, Singapore. Photo Taken by the Author in 2017 in New York.

There are around 265 pieces of Dusun wares in the British Museum's collection of Siraf ceramic finds. Around 191 fragments came from jars, 43 fragments from bowls, and 31 fragments from vessels the shape of which cannot be identified.

It is generally believed that Guangdong was one of the places producing Dusun jars between the 8th and 10th centuries CE.[825] One possible kiln site for the production of Dusun wares has been identified: the Guanchong kilns 官冲窑 in Xinhui City 新会市, Guangdong province. The kiln site was excavated in 1957,1961,1997 and 1998. The ceramic production in Guanchong kilns started in the mid-Tang period and declined in the early Song period.[826] The ceramics from the excavations and surveys of Guanchong mostly have a greyish or yellowish white body made of the white porcelain clay collected locally. The body material had not been carefully and strictly sieved or processed, thus leaving some visible inclusions. The firing temperature was around the stoneware temperature and achieved a light yellowish green glaze. Very few vessels have a black glaze.[827] The greenish glaze seems to

[825] Huang Ying 2016, 247.
[826] Lin Wenbin 2017, 27.
[827] Zeng Guangyi 1963, 222.

be glossier and shinier than the black glaze, which tends to be matt. Most Guanchong wares are plain and not decorated, only sometimes bearing simple incised lines or flower decoration.[828] Potters would leave the lower part of the exterior and the bottom of the vessel unglazed, though the glaze tended to flow during firing.[829]



Fig. 6.21 Guanchong Four-Lugged Celadon Glazed Jar (Dusun Type) and Black Glazed Bowl, Liu Chengji 2000.

According to Huang Ying's study, it seems that Dusun wares retrieved from the Belitung shipwreck are slightly different in glaze colour, body colour and vessel shape from those excavated from Guangchong kilns; the Belitung shipwreck's Dusun jars are more ovoid.[830] Some Dusun wares found from Siraf at the British Museum can be linked to Guanchong kilns with more certainty.[831] It seems that Guangdong area is highly possible to be one of the provenances for Dusun wares, but not the only provenance. Dusun wares demonstrate a moderate variety of glaze colours, body fabrics, vessel shapes and quality. For example, Dusun bowls and jars from Siraf have quite different body colours: greyish body for some jars and reddish buff body for some bowls. The glaze colours for Dusun wares vary too. There are at least olive-green, light green and brownish colour for the glaze of Dusun wares from Siraf, which are shown below in fig. 6.22, 6.23 and 6.24.

[828] Liu Chengji 2000, 41.
[829] Huang Ying 2016, 256-7.
[830] Huang Ying 2016, 249.
[831] Huang Ying 2016, 255.



Fig. 6.22 Dusun Jar Fragment with a Greyish Body (Left) and Dusun Bowl Fragment with a Reddish Buff Body (Right) from Siraf © British Museum, Museum Number 2007,6001.9300 and 8349.



Fig. 6.23 Dusun Jar Fragment with a Light Greenish Glaze (Left) and a Dusun Jar Fragment with a Brownish Glaze (Right) from Siraf © British Museum, Museum Item Number 2007,6001.2895 and 9213.

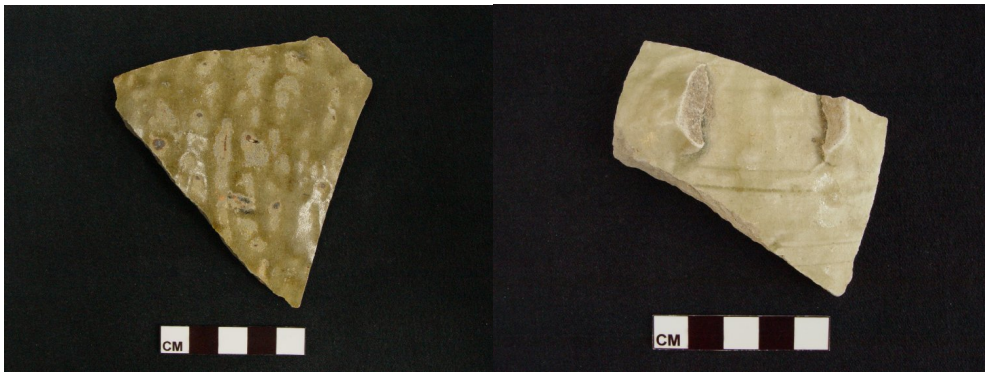


Fig. 6.24 A Dusun Jar Fragment with an Olive-Green Glaze (Left) and a Dusun Jar Fragment with a Patchy Light Greenish Glaze (Right) from Siraf © British Museum, Museum Number 2007,6001.9990 and 8847.

Inscriptions (graffiti) seem to be another feature that some Dusun wares possess. Some jars and bowls from Guanchong kilns bear inscriptions on their shoulders or feet. Most inscriptions are legible numbers and Chinese characters.[832]

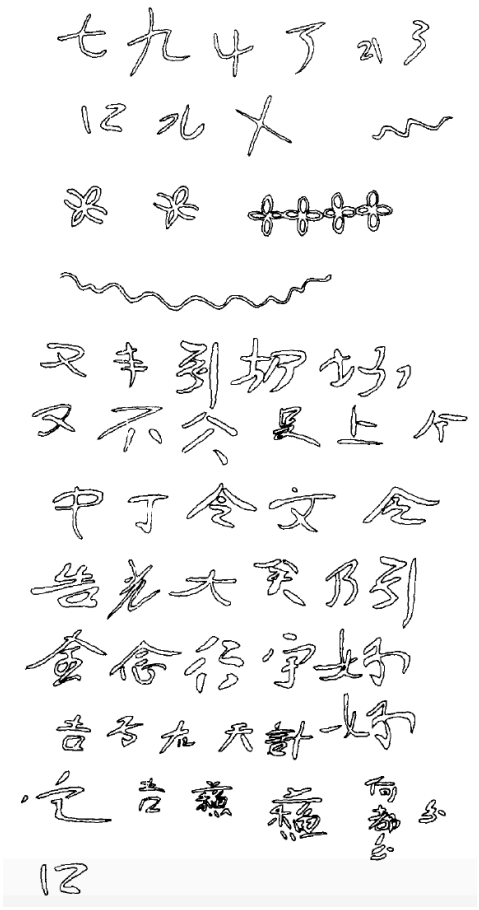


Fig. 6.25 A Collection of Inscriptions on Guanchong Wares Found from the Excavations of Guanchong kilns, Liu 2000, 41.

Two Tang storage jars (fig.6.26) in the Princessehof Museum also have inscriptions below their necks. The inscription in the picture on the below left has been deciphered by Roderick Orlina as Pahlevi, a middle Persian script, which seems to contain the Persian word for "wine".[833] And the inscription in the picture on the below right is an old Turkic, Manichaean script, which might mean "oil".[834] These two inscriptions had been inscribed before the glaze was applied, which means that potters in China made these inscriptions. There are also

[832] Liu Chengji 2000, 41.
[833] Ströber 2016, 43.
[834] Ströber 2016, 45.

several Tang Dusun storage jars from the Belitung shipwreck (fig.6.27, 6.28) and from Siraf (fig.6.29) carrying legible and illegible inscriptions.



Fig. 6.26 Two Tang Storage Jars with Inscriptions in the Princessehof Museum, Ströber 2016, 43-4.



Fig. 6.27 A Tang Dusun Jar with Inscription below the Rim from the Belitung Shipwreck in the Asian Civilisations Museum, Singapore. Photo Taken by the Author in 2017 in New York.



Fig. 6.28 A Tang Dusun Jar with Inscription Below the Rim from the Belitung Shipwreck in the Asian Civilizations Museum, Singapore, Photo Taken by the Author in 2017 in New York.



Fig. 6.29 A Dusun Ware Fragment with Inscriptions from Siraf © British Museum, Museum Number 2007,6001.6436.

6.4.3 The Distribution of Dusun Wares

Dusun stoneware had been used primarily as containers for other products. In the Belitung shipwreck, Dusun jars were found containing piles of Changsha painted bowls or star anise. One of them had nine lead ingots, some of them were empty. These empty Dusun jars were presumably used to contain perishable goods or liquid.[835] The inscriptions on the two Dusun jars in the Princessehof museum indicate that the content within these jars could possibly be wine and oil. The following table shows traded goods from China and India carried by Arab dhows to the Islamic world.[836] Spices like ginger, cinnamon, pepper, betel leaves and cloves and other perishable products listed below might have been the products contained by these Dusun jars. Whitehouse mentions that Dusun wares, according to the writer Tanukhi, were prized in early Islamic society; thirty of them contained 'Ghaliya' perfume, the best of which was made during the Caliph al-Wathiq (842-827 CE).[837]

Table 6.6 Traded Goods from China and India to the Islamic World			
Textiles	Silks	Sandalwood	Bamboo
Ivory	Ebony	Carnelian	Turquoise
Lapiz lazuli	Coral	Tortoise shell	Palm fibre
Betel leaves	Pepper	Cinnamon	Ginger
Cloves	Gums	Dyes	Varnish
Indigo	Perfumes	Aloe	Ambergris
Camphor	Arabic gum	musk	

It is less likely that Dusun wares were exported to the Islamic world for their intrinsic value, even though in Southeast Asia, Dusun jars held some particular values themselves. Dusun wares were the "by-products" of other exported products. Dusun wares seldom made their way to inland sites in the Islamic world. They have been found mainly in the coastal areas of the Persian Gulf. This might be contributed to the importance of Persian Gulf during the 8th to 10th centuries CE in the Indian Ocean network, that ships loaded with Dusun wares and products within them were bound to the Persian Gulf. We can also imagine that after the

[835] Flecker 2011, 110.
[836] Zarins & Zahrani 1985, 88.
[837] Whitehouse 1970a, 5.

arrival of ocean-going ships, merchandise was unloaded and further distributed among other ships in Siraf, which would continue their journeys to regions outside of the Persian Gulf, such as the coastal areas of the Arabian Sea, the Gulf of Aden and the Red Sea. It is also possible that a few ships with Dusun wares were sailing along the Arabian Sea, the Gulf of Aden and the Red Sea route, though not as many as those sailing to the Persian Gulf. which Incenses, spices and perhaps oil and wine in these Dusun jars would be transported to inland urban centres to the houses of the elite and markets for normal people. In this case, one would expect numerous remains of Dusun jars in inland sites, which, however, is just opposite to the distribution pattern here. It is a curious phenomenon that Dusun jars, which were supposed to contain incenses and spices were not found in inland sites where these incenses and spices were to be consumed. What might have happened could be that Dusun jars were replaced in ports by local containers. Whether this was the reason or not, I guess there must have been a practical reason, for which Dusun jars didn't continue their duty as container to inland sites. Most of them remained in ports where they landed in the Persian Gulf. They might further have served in other way by the local in a practical or non-practical way. Krahl proposes that Dusun jars served as packing cases for more valuable goods and were probably not intended for sale on their own. And she thinks Dusun jars may have been reused for several voyages.[838]

[838] Krahl 2011, 185.

6.5 Changsha Ware

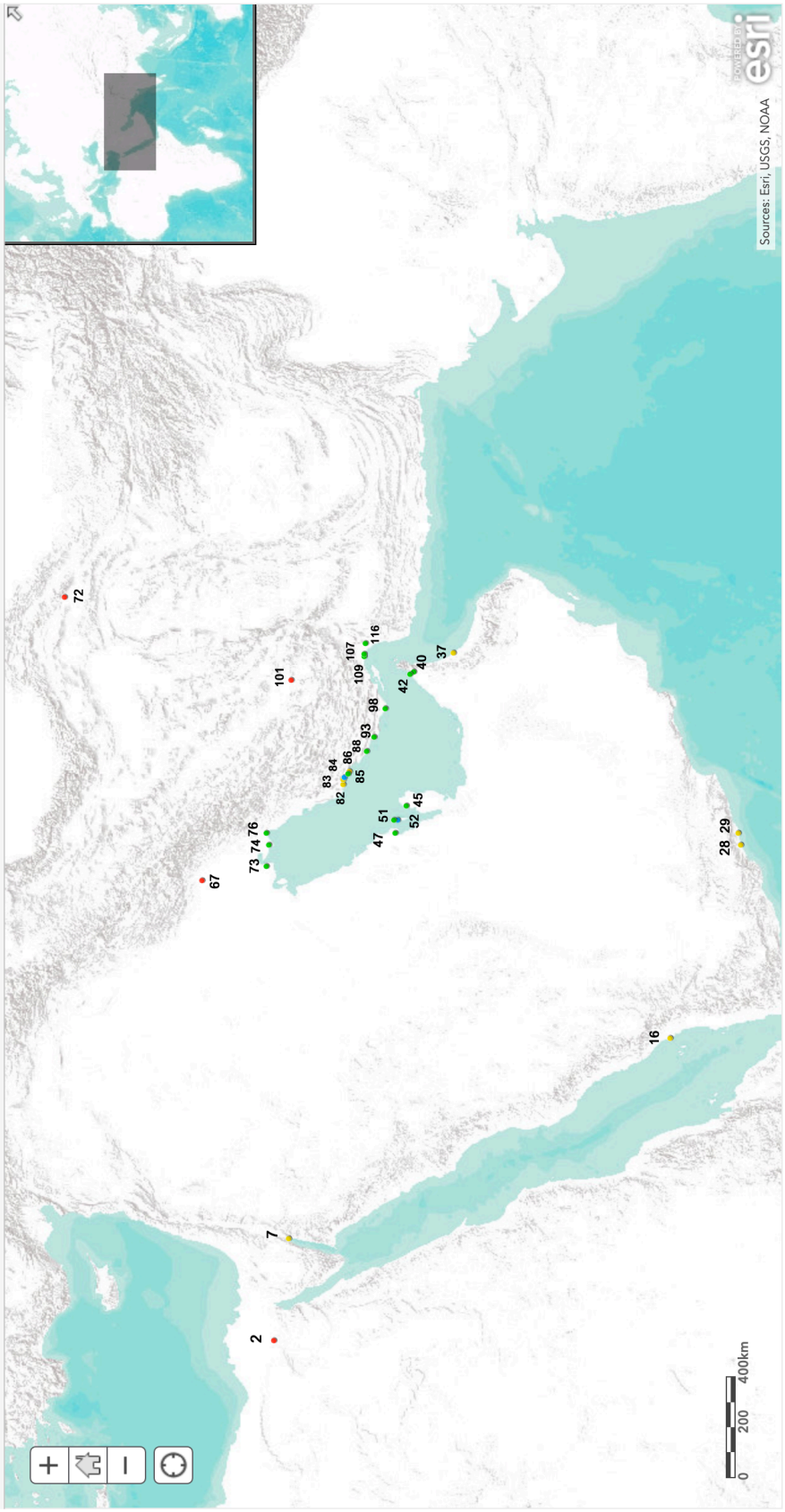


Fig. 6.30 Sites with Changsha Ware from the 8th – 10th Centuries CE in the Islamic World

Changsha wares have been found in 29 sites in the Islamic world. Most of them are small coastal settlements in the Persian Gulf. There are only four ports in the Arabian Sea, the Gulf of Aden and the Red Sea with Changsha wares. There are four city-level inland urban centres with Changsha wares, three of them are in Iran.

6.5.1 The Kiln Sites and the Production

The products of Changsha kilns comprise not only the often-discovered brown and green painted stoneware and stoneware jars with moulded relief decoration, but also white glazed stoneware, brown glazed stoneware, light buff glazed stoneware and Yue types of celadon stoneware. The kiln site is located at the Wangcheng county 望城县, Changsha city 长沙市, Hunan province 湖南省. Changsha kilns were first identified in 1956. A considerable number of ceramic finds were discovered during the investigation and partial excavation in 1978. Further excavations were conducted in 1983 and from 2009 to 2016.[839] The results of the most recent excavations of Changsha kilns in the 21st century CE are currently being processed and to be published in future. The 1983's excavation has been published.[840] The excavated Changsha wares comprise mainly ewers, followed by bowls and jars. There are also cups, spittoons, incense burners, basins, washers, boxes, lamps, pillows, toys and tools.[841] The body of Changsha stoneware is primarily made of porcelain stone, which is rich in silica and low in titanium oxide when compared with the body composition of ceramics produced in North China.[842] The firing temperature of Changsha stoneware ranges between 1150℃ and 1200℃. Most Changsha wares have a layer of white slip between the glaze and

[839] Changsha kilns research group 1996, 7.
[840] Changsha kilns research group 1996, 24.
[841] Changsha kilns research group 1996, 29.
[842] Changsha kilns research group 1996, 24.

body in order to correct the impurity of the body.[843]

Monochrome glazed stoneware represents around 54% and painted stoneware represents 41% of the total amount of ceramic finds in the excavation in 1983. Among the monochrome glazed wares, celadon stoneware is the majority.[844] There are five sub-types of painted stoneware shown in the following Table 6.7. The colours presented by the paintings depend on the firing atmosphere and the concentration of iron and copper elements in the pigment.[845] These paintings have been generally described as underglaze paintings. However, recent research by archaeologists working on Changsha kilns shows that they are actually over glaze paintings.[846] The underglaze painting has also been doubted by Nigel Wood. Sometimes, these paintings are more like in-glaze, when the pigment was fused with the flowing glaze. The decoration patterns include floral patterns, landscapes, animal ornaments, foliage, vapour, cloud scrolling, poetry and a combination of these.

Table 6.7 Changsha Painted Ware Finds from the Kilns[847]

Type	Changsha Monochrome Painted Ware			Changsha Polychrome Painted Ware	
Type	Brown painted celadon glazed ware	Green painted celadon glazed ware	Green painted white glazed ware	Brown and green (and red) painted celadon glazed ware	Brown and green (and red) painted white glazed ware
Percentage	19.2%	6.4%	4.6%	10.5%	0.3%
Percentage	30.2%			10.8%	

[843] Changsha kilns research group 1996, 24.
[844] Changsha kilns research group 1996, 26.
[845] Changsha kilns research group 1996, 25.
[846] See Cai Yi 1997; Sun Ying et al. 2008; Li Yuanqiu et al. 2014.
[847] Changsha Kilns Research Group 1996, 27



Fig. 6.31 Left: Changsha Brown and Green Painted White Glazed Jar Fragments; Right: Fragment of a Brown and Green Painted Celadon Glazed Dish, from Excavations of the Changsha Kilns in the 2010s, Stored at the Bureau of the Management of the Changsha kiln sites, Photos Taken by the Author in 2017.



Fig. 6.32 Left: Changsha Green Painted White Glazed Bottle; Middle: Changsha Brown Painted Celadon Glazed Jar; Right: Changsha Green Painted Celadon Glazed Box Lid, from Excavations of the Changsha Kilns in the 2010s, Stored at the Bureau of the Management of the Changsha Kiln Sites, Photos taken by the Author in 2017.



Fig. 6.33 Left: Changsha Monochrome Black (Dark Brown) Glazed Jar; Middle: Changsha Monochrome Celadon Glazed Bowl; Right: Changsha Monochrome Greenish Blue Glazed Jar, from Excavations of the Changsha Kilns in the 2010s, Stored at the Bureau of the Management of the Changsha Kiln Sites, Photos Taken by the Author in 2017.

6.5.2 The Date of the Production of Changsha Wares

The excavation of Changsha kilns in 1983 and other excavations in China yielded materials that help to generate a preliminary assumption of dates of the production of Changsha wares. This hopefully will shed some light on the debates of the arrival of Chinese ceramics in the Islamic world and the chronology of Samarra Horizon.

The production of painted wares in Changsha kilns started around the mid-8th century CE. It is highly possible that the production of Changsha wares was influenced by the production of Sancai wares in North China. Migration from the north to the south of China during the Anshi Rebellion 安史之乱 in the mid-8th century CE (see Chapter 1, Section 1. 5.1) accelerated this technological transfer. There are several similarities in terms of decoration between Sancai wares and Changsha wares, such as he moulded relief decoration, coloured splashes and floral designs. Changsha kilns declined in the 10th century CE.[848] Its production stopped completely in the early Song period which is around the mid to late 10th century CE.[849] Table 6.8 below shows four production periods of Changsha kilns and main products produced during each period.

Table 6.8 Production Periods of Changsha Kilns

Period	Products
Period one: the late High Tang to early mid-Tang[850] (around mid – late 8th century CE)[851]	Celadon glazed wares, brown glazed wares, unglazed wares, brown painted celadon glazed wares, multi-colour painted celadon glazed wares; No green painted white glazed wares or multi-colour painted white glazed wares
Period two: late mid-Tang to early late Tang[852] (around early 9th century CE)	celadon glazed wares, green painted celadon glazed wares, green painted white glazed wares, brown painted celadon glazed wares,

[848] Changsha kilns research group 1996, 228.
[849] Changsha kilns research group 1996, 232.
[850] Changsha kilns research group 1996, 234.
[851] Tang dynasty has been divided into four stages: Early Tang, 618-713CE; High Tang, 713-766CE; Mid Tang, 766-835CE; Late Tang, 836-907CE.
[852] Changsha kilns research group 1996, 234.

	red painted white glazed wares, multi-colour painted celadon glazed wares and unglazed wares
Period three: late Tang[853] (mid-9th to early 10th centuries CE)	Same as period two
Period four: late Tang to the Five Dynasties[854] (early to mid-late 10th century CE)	Similar to period two and three

Period three was the most prosperous period for Changsha kilns.[855] Even though Changsha kilns in the last period still produced the same range of ceramic products as the previous two periods, the raw materials for the body and glaze and the decorative skills tended to deteriorate.[856] Table 6.9 below shows available dating evidence from both Changsha kilns and other archaeological sites within China where Changsha wares have been found. It shows that Changsha wares perhaps were most circulated from the early 9th century CE onwards, during its period two and three when the production in Changsha kilns was in its peak. The production of Changsha jars with moulded relief decoration perhaps started slightly later than the painted wares and happened in the late 8th or early 9th centuries CE, in light of the two pieces of dating evidence from Changsha kilns and the Yunhui General's tomb.

Table 6.9 Dating Evidence for Changsha Wares from Excavations in China

Location	Date
Tomb of Huangpu Yunqing 黄埔云卿 (Wuxi 无锡, Jiangsu 江苏 Province)	867 CE[857]
Tomb of Xie Shaoqing 谢少卿 (Hanjiang 邗江, Jiangsu Province)	835-850CE[858]
Mingzhou 明州 (Zhejiang 浙江 Province)	around or before 848 CE[859]
Tang Tombs in Hubei 湖北 Province	mid Tang and late Tang[860] (Mid, late 8th to early 10th centuries CE)
Tomb of Yunhui General Sun Yan 云麾将军	812 CE, currently the earliest datable

[853] Changsha kilns research group 1996, 234.
[854] Changsha kilns research group 1996, 234.
[855] Changsha kilns research group 1996, 234.
[856] Changsha kilns research group 1996, 234-5.
[857] Changsha kilns research group 1996, 160.
[858] Changsha kilns research group 1996, 160.
[859] Changsha kilns research group 1996, 161.
[860] Changsha kilns research group 1996, 163.

孙岩之墓 (Shijiazhuang 石家庄, Hebei 河北 Province)	piece of Changsha pot with moulded applied decoration.[861]
Changsha kilns	808CE, an inscription of the year of the reign of a Tang emperor on a mold for Changsha jars [862]

6.5.3 Changsha Wares Found in the Islamic World and Their Imitations

6.5.3.1 Changsha Wares Found at Siraf

There are around 225 pieces of Changsha ceramic finds from Siraf at the British Museum. Most of the identifiable sherds are from bowls and the rest from jars. There are five types of Changsha ware sherds at the British Museum in terms of their decoration. Some sherds have a typical Changsha light greenish buff glaze bearing no decoration. Some sherds have brown paintings, some have green paintings, and some have green and brown paintings. Sherds with painting decoration are the majority. Not many Changsha ware sherds at the British Museum have moulded relief decoration. Moulded relief decoration appears on jars and pots mostly. This is presumably contributed to the fact that most of the sherds are highly fragmentary. The moulded relief decoration appears mostly on the upper half of the vessel. Therefore, it is reasonable that some fragments bear no moulded relief decoration, but their parent vessels had moulded relief decoration on the upper part. Besides, due to the same reason of being too fragmentary, some light greenish buff glazed ceramic sherds may have come from a vessel with painting decoration or moulded relief decoration. Some sherds with only brown or green paintings can also have another colour's paintings on their parent vessels. Based on the author's study of Changsha wares excavated from the kilns, exhibited in Changsha Museum and those from excavations of Yangzhou and the Belitung shipwreck,

[861] Changsha kilns research group 1996, 163.
[862] Changsha kilns research group 1996, 228.

most painted bowls have both brown and green colours. Thus, most Changsha painted bowls from Siraf probably were originally painted in both brown and green colours.

Those less fragmentary sherds can impart more information on their parent vessels. It can be speculated that only a limited variety of Changsha wares had been exported to Siraf. Among painted bowl sherds with identifiable decorative features, many have abstract designs followed by designs of flowers or birds. Almost all these designs have been found on excavated Changsha wares from the kilns. But there are more painted patterns on Changsha wares found from the Changsha kilns. Only some varieties had been exported to Siraf.

Abstract designs: Changsha potters used curved lines and swirls to generate abstract designs.



Fig. 6.34 Left and Middle: No. 2007, 6001.1215 and No. 2007, 6001.1257 Changsha Sherds from Siraf © British Museum; Right: Changsha bowl Excavated from the Changsha kilns, Changsha kilns research group 1996,138.



Fig. 6.35 Left: No. 2007, 6001.979 Changsha Sherd from Siraf © British Museum; Right: Changsha bowl Excavated from the Changsha kilns, Changsha kilns research group 1996,137.



Fig.6.36 Left: No. 2007, 6001.2688 Changsha Sherd from Siraf © British Museum; Right: Changsha bowl Excavated from the Changsha kilns, Changsha kilns research group 1996,138.



Fig.6.37 Left: No. 2007, 6001. 9834 Changsha Sherd from Siraf © British Museum; Right: Changsha bowl Excavated from the Changsha kilns, Changsha kilns research group 1996.

Designs of birds and or flowers: According to the author's examination of Changsha ceramic finds from the kiln sites, there are more bowls with designs of birds and or flowers than bowls with abstract designs. However, among the Changsha ceramic sherds from Siraf at the British Museum, there seems to be more painted bowl sherds with abstract designs than with designs of birds and or flowers.



Fig.6.38 Left: No. 2007, 6001. 8047 and No. 2007, 6001.5607 Changsha Sherds from Siraf © British Museum; Right: Decoration of a Bird Looking Back on Some Changsha Bowls and Jars from the Changsha Kilns, Changsha Kilns Research Group 1996, 127.



Fig.6.39 Left: No. 2007, 6001. 9020 Changsha Sherd from Siraf © British Museum; Right: Changsha bowl Excavated from the Changsha kilns, Changsha kilns research group 1996, 127.

Painted and or Moulded relief decoration on jars: moulded relief decoration is often seen on jars, pots and ewers beneath handles, spouts and loops, sometimes highlighted by brown paintings. The moulded relief decoration without brown patches are normally smaller than the typical ones with brown patches with designs of fish, lotus and little child. There is a wide variety of moulded decoration on Changsha wares including palm tree, palm tree with birds, palm tree with Chinese character (may refer to the name of the potter), lion, dragon, fish, dancing figure, foreigner, warrior, lotus, little child, etc. The moulded palm tree (fig.6.40 left), palm tree with birds (fig.6.42) and lion (fig.6.40 right) design have been identified on Changsha wares found at Siraf. Some Changsha jars and ewers only have painted decoration in green and or brown in abstract designs (fig.6.43), which have also been found at Siraf too.



Fig. 6. 40 Left: No. 2007, 6001.6649 Changsha Sherd from Siraf © British Museum; Right: No. 2007, 6001.9064 Changsha Sherd from Siraf © British Museum



Fig. 6.41 Left: Changsha Moulded Jar, Late Tang Period, from the Excavation of Yangzhou, Institute of Archaeology, Chinese Academy of Social Sciences et al. 2010, plate 102; Right: Changsha Jar with Moulded Decoration from the Belitung Shipwreck, Photo Taken by the Author in 2017 at the Museum of Asian Civilisations, New York.



Fig. 6.42 Left: No. 2007, 6001.9470 Changsha Sherd from Siraf © British Museum; Right: Changsha Jar with Moulded Decoration from the Belitung Shipwreck, Photo Taken by the Author in 2017 at the Museum of Asian Civilisations, New York.



Fig. 6.43 Left: No. 2007, 6001.8615 Changsha Sherd from Siraf © British Museum; Right: Pot with Brown and Green Painted Dots, at the Bureau of the Management of the Changsha Kilns. Photo Taken by the Author in 2017.

According to the author's examination of Changsha ceramic finds from the kiln site and those found from other sites within China, there is a much wider variety of painting designs for Changsha wares. Jars, ewers and pots found from the kiln site and other sites in China also have a wide variety of decoration and shapes. Changsha jars from Siraf are too fragmentary that it is impossible to reconstruct the original shape and decoration. It seems that jars with a handle and two loops between the spout and the handle with brown paintings in patches, beneath which are moulded relief decoration of palm trees, lions, or trees and

birds, had arrived at Siraf. Jars, ewers and pots from the kiln site were made in various shapes with different glaze colours: greenish blue glaze, milky white glaze and the typical Changsha light greenish buff glaze, without or with moulded and or painted decoration. However, most of these types have not been seen at Siraf or any site in the Islamic world. Not a small group of Changsha bowls and jars are decorated with Chinese characters from poems written in brown colour. This type has not been seen at Siraf or the Islamic world either.

Therefore, it can be argued that a certain variety of Changsha wares had been produced by Changsha potters and exported by Chinese and Middle Eastern merchants to Southeast Asia and the Islamic world, especially bowls with paintings of abstract designs and jars with moulded palm tree and bird decoration beneath brown painted patches.



Fig. 6.44 Changsha Jars from the Kiln Sites, at the Bureau of the Management of the Changsha Kilns, Photo Taken by the Author in 2017.

6.5.3.2 Islamic Imitations of Changsha Wares

The author has examined Samarra ceramic finds in Sarre's publication in 1925, Herzfeld's finds journal of the excavation of Samarra, the publication of the excavation of Samarra by the Iraqi Department of Antiquities in 1939, Samarra ceramic finds in the British Museum,

V&A museum and Pergamon museum in Berlin. There are so far no authentic Changsha wares at Samarra. The only promising fragments which are likely to be authentic Changsha wares are those at the British Museum (OA. 12172). There are Islamic glazed ceramic fragments with features that can almost only be seen on Changsha wares.

There are similarities between Changsha wares and their Islamic counterparts in glaze colours, decoration and shapes. However, these Islamic “imitations” do not possess all the typological features of authentic Changsha wares. It is some of the features that these Islamic glazed wares possess that resemble Changsha wares, such as the typical moulded relief decoration used widely by Changsha jars, the brownish or amber glaze of Changsha wares. Therefore, it may be more accurate to describe them as Islamic glazed ceramics with Changsha styles.

There are several differences between Changsha wares and Islamic glazed ceramics with Changsha styles. Firstly, the glaze colours of Changsha ewer and an Islamic one vary substantially. Most Changsha ewers have a pale straw-like coloured glaze, which tends to be very pale buff colour. The Islamic ones have a darker buff glaze, sometimes an olive-green colour. Most Changsha ewers have brown painting in the shape of a large patch beneath the looped handles, with a large moulded relief decoration beneath. On Islamic Changsha-style ewers brown colour has been applied on the whole surface or in stripes on a buff coloured or olive-green coloured glaze. The Islamic ones have a more fluid glaze than Chinese Changsha wares; the glaze of the latter did not tend to flow into stripes. Secondly, even though Islamic ewers have a similar tri-looped handle and a moulded relief decoration beneath the handle with a darker colour to highlight it as authentic Changsha wares did, these Islamic ewers usually place their handles on the shoulder and neck of the ewer; the Changsha wares either place the handles’ both ends on the shoulder or one on the neck and the other on the shoulder. Thirdly, a Changsha ewer usually only has one handle, sometimes with two tri-fluted small loops, each of them on one side between the handle and the spout. The moulded relief decoration of a Changsha ware is much larger and complex than Islamic ones (fig.6.45), and their darker brown colour did not tend to flow during the firing like the

Islamic ones, which ended up being stripes or splashes with colour fading out from the top to the bottom. In addition, Changsha ewers mostly have a fluted spout, however, most of the Islamic Changsha style ewers have a cylindrical spout.



Fig. 6.45 Changsha Jars with Moulded Relief Decoration, from the Museum of Changsha, Photo Taken by the Author in 2017.

In Sarre's catalogue of Samarra ceramic finds, there are a few fragments with Changsha styles: Number 237 (photo: I-8, Herzfeld's finds journal number: I-N No. 1153a, 1153b) and 237a (photo: I-9, I-N No. 1153c).[863] These three pieces have a reddish yellow body and a pale yellow-green glaze with brown overflowing streaks. Two of them came from a jug and the other one is a handle from a similar jug. Number 237 (fig.6.46) has a moulded relief decoration that recalls the typical Changsha jars.



[863] Sarre 1925, 70.

Fig. 6.46 Left: Islamic Glazed Ceramic with Changsha Style from Samarra, Number 237, I-N No. 1153a, 1153b, photo: I-8; Right: Moulded Designs of Palm Tree from Changsha Wares, Excavated from the Changsha Kilns, Stored at the Bureau of the Management of the Changsha Kilns, Photo Taken by the Author in 2017.

Number 238 (Photo: XIV 1, XIV 4, I-N No. 1154a, 1154b) (fig.6.47) in Sarre's catalogue tends to be ambiguous. They are two fragments from a handled jug with a grey body, which is rare to Islamic ceramics but ubiquitous to southern Chinese stoneware. The exterior of these two sherds has a bright brown-yellow glaze with dark brown overflowing strips. The interior has a green glaze with horizontal fluted wheel marks.[864] The combination of brown-yellow glaze and brown overflowing strips recalls Changsha wares.



Fig. 6.47 Islamic Glazed Sherds with Changsha Style from Samarra, Number 238, I-N No. 1154a, 1154b, photo: XIV1, XIV4.

An examination of Victoria and Albert Museum's Samarra ceramic finds shows a few pieces with Changsha styles with the registered number of C. 735-1922 and C. 697-1922. These pieces have been chemically examined and the result of which has been published in Wood, Doherty and Rosser Owen 2009. The joining pieces of C. 735-1922 (fig.6.48) came from an Islamic Changsha style ewer glazed in buff olive-green colour with brown splashes. It has moulded relief decoration beneath the spout and looped handles. However, the moulded

[864] Sarre 1925, 70.

decoration on this Islamic ewer is not similar to Changsha moulded decoration. The Islamic moulded decoration on this vessel is smaller than Changsha ones and used a pattern that has not been seen on Changsha wares. Number C. 697-1922 (fig.6.49) came from a large bowl with a flat bottom glazed in amber colour with dark purple splashes. The amber glaze and dark splashes recall Changsha wares. However, neither the size nor the shape of the bowl is typical to Changsha wares.



Fig. 6.48 No. C. 735-1922 Joining Fragments of a Changsha Style Islamic Ewer from Samarra, in Victoria & Albert Museum.



Fig. 6.49 No. C. 697-1922 Changsha Style Islamic Glazed Bowl Fragments from Samarra
©Victoria & Albert Museum

In the British Museum's Samarra ceramic collection, there are a few pieces that resemble those mentioned above from the Victoria and Albert Museum including OA. 11561, OA.12651, OA. 12625 and several others (fig.6.50). Some of them have very refined greyish body and better glaze.

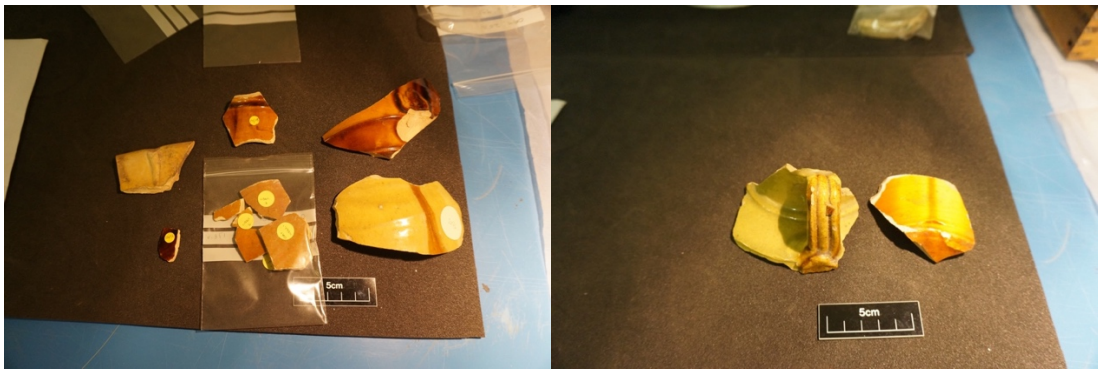


Fig. 6.50 Islamic Changsha Style Vessel Sherds from Samarra in the British Museum.

Fragments with the number OA.12172 (fig.6.51) is highly likely to be from an authentic Changsha ware, which deserve either a chemical analysis or petrographic study. Because the pale buff glaze and a more refined greyish buff body is very similar to an authentic

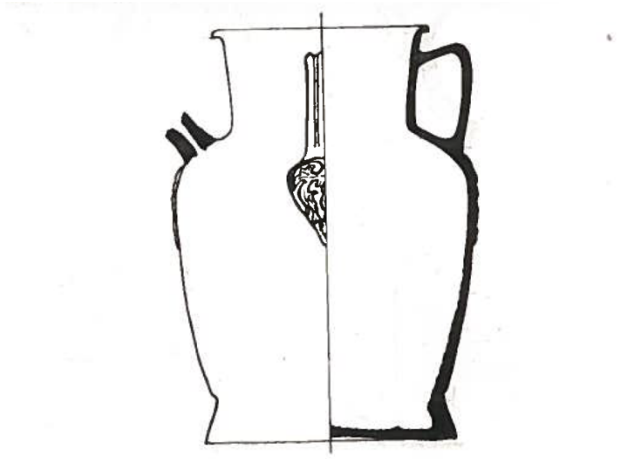
Changsha ware.[865]



Fig. 6.51 Islamic Changsha Style Sherds from Samarra in the British Museum. OA. 12172.

An Islamic Changsha style ewer (fig.6.52) was excavated by the Iraqi archaeological mission during 1936 to 1939 at Samarra. The shape of this ewer highly resembles an authentic Changsha ewer. However, the moulded relief decoration beneath the handles and the spout reveals Islamic features rather than Chinese features. All the handles are between the neck and the shoulder, which is more of the feature of an Islamic ewer. Besides this illustrated ewer below, there are another two Islamic Changsha style ewers (fig.6.53) which were glazed in blue. These two ewers have similar shapes and decoration as the illustrated one. They successfully conveyed the rough image of a Changsha ewer, which has fluted handles and moulded relief decoration beneath the handles or loops. The Islamic potters applied local blue glaze, which made them more Islamic than Chinese in appearance.

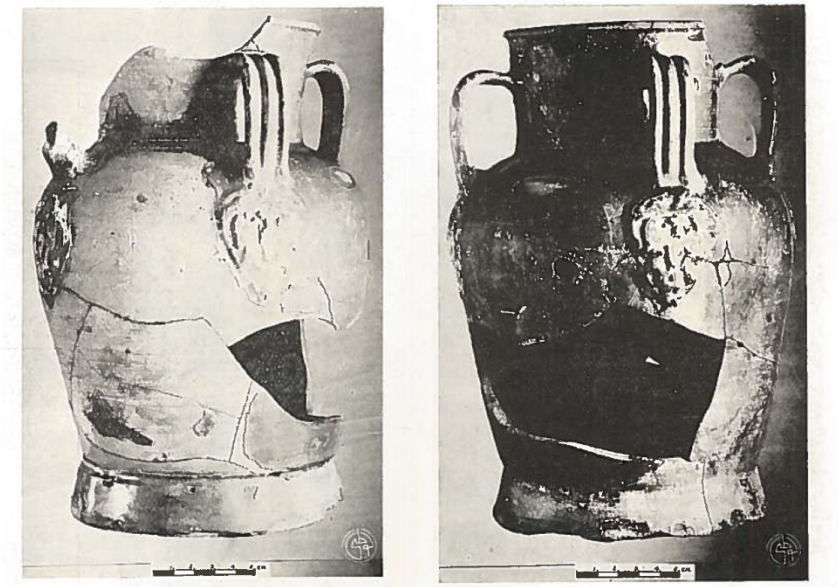
[865] The author showed pictures of the OA. 12172 sherds to the current excavator of the Changsha kilns. He pointed out that these could be Changsha sherds, but he was not absolutely sure about this.



مقاطع اوان خزفية (ثمن الاصل)

Section drawings of glazed pottery vases ($\frac{1}{8}$).

Fig. 6.52 Drawing of a Changsha Style Islamic Glazed Ewer at Samarra, Mudīrīyat al-Āthār al-Qadīmah al-ʿĀmmah. 1940, 53.



Blue glazed pottery jug.

أبريق مزجج بالازرق

Fig. 6.53 Two Islamic Changsha Style Blue Glazed Ewers at Samarra, Mudīrīyat al-Āthār al-Qadīmah al-ʿĀmmah. 1940, 59.

There is an exceptional Islamic lustre handled vessel with Changsha features from the 10th century CE at Susa (fig.6.54). Its two fluted loops, the small moulded palm-tree-like decoration beneath the loops, the spout, and the green colour applied on the moulded relief decoration to highlight it all recall Changsha ewer with moulded decoration. But this ewer

used the lustre glaze technique, which was unique to the Islamic world at that time, a cylindrical spout, and a shape not seen on Changsha ewers or jars.



Fig. 6.54 Islamic Lustre Handled Jar with Changsha Style, from excavations of Susa, 10th Century CE © Louvre Museum

A tripod tray from the 10th to 11th centuries CE found at Susa (fig.6.55) also bears a few Changsha ceramic features. It has the same colour combination of light buff glaze and dark brown glaze as Changsha wares. Trays or big plates (fig.6.56) have also been found in excavations of Changsha kilns, however, they do not have tripod. Most excavated Changsha big plates are painted with brown and or green in designs of birds, flowers or leaves. This Islamic tray bears a rather geometric and abstract design.



Fig. 6.55 Islamic Glazed Tripod Tray, from Excavation of Susa, 10-11th Centuries CE © Louvre Museum



Fig. 6.56 A Collection of Excavated Changsha Plates with Brown and Green Painted Decoration, Stored at the Bureau of the Management of the Changsha Kilns, Photo Taken by the Author in 2017.

6.5.4 The Distribution of Changsha Wares in the Islamic World

Changsha wares were highly likely to be exported to Siraf exclusively. They circulated widely among coastal settlements in the Persian Gulf especially among small settlements. Changsha wares were not as widely distributed in the Red Sea region as in the Persian Gulf. They have been received by some inland city-level settlements in Iran too. Even though Changsha wares are absent at Samarra, there are several Islamic glazed ceramics bearing features with influences from Changsha wares as discussed above.

The trade of Changsha wares could possibly have only been conducted for not a long period over only a few trips. As discussed above, certain types of Changsha wares were exported to the Islamic world, which were possibly specifically made for export. In the Islamic word

only at Siraf were Changsha wares found in a large amount. Siraf is currently the only site in the Islamic world which has a large amount of Changsha wares that can be compared to the amount of Changsha wares in the Belitung shipwreck. Therefore, Siraf could have been the only port in the whole Islamic world to receive ships with Changsha ware cargo. Some Changsha wares were consumed locally. Others were further traded and distributed to ports and settlements in the Persian Gulf area, with not many of them being loaded to ships which were bound to the Arabian Sea and Red Sea regions or being transported overland to inland urban centres, especially in Iran. Ports in the Arabian Sea and Red Sea: Aththar, Shihr, Sharma, al-Hamr al-Sharqiya and Aqaba (Ayla) could have obtained their Changsha wares from ships coming from Siraf. Fustat, therefore, obtained its Changsha wares from Red Sea ports.

Although Changsha wares influenced some early Islamic glazed ceramics, this influence did not survive long enough to exert a long-lasting impact on Islamic glazed ceramics like Chinese white wares did. Almost none of these Changsha influences survived in later periods, such as the moulded relief decoration and the combination of light greenish buff glaze and darker brownish glaze. The influence of Changsha styles was transient. The reasons for Changsha wares' short export history and their transient influence on Islamic glazed ceramics involve several factors, which deserve detailed examination in future. One possible reason is that Changsha wares were not produced as a high-end product. The body fabric, glaze and decoration were coarse compared to Yue celadon and northern Chinese white wares. Changsha wares were more likely to be circulated among the non-elite in the Islamic world. They were not exquisite enough to be highly valued by the elite in Samarra or other urban centres. Changsha wares were more like normal tableware for the affluent people in the Islamic world.

Another factor could be that Changsha kilns only produced ceramics in a short period from the mid-8th until the end of the 10th centuries CE. Unstable social atmosphere and wars always affect the production of a kiln. But for Changsha kilns, according to the author's own fieldwork in the kiln site, the reason for its short life of production might have been the

shortage of raw materials and the difficulty in access to them. The picture below, fig.6.57, shows that the whitish clay band, which is suitable for high-temperature firing, only exists between the reddish local clay horizontal to the ground in the middle of the hill. Another picture, fig.6.57, shows the reconstructed scene of ancient labour mining and collecting this whitish clay in a deep tunnel. This ancient tunnel was disused at certain point when it became too difficult to follow the horizontal layer of whitish clay further into the hill. But as Nigel Wood points out, it cannot be ascertained if this white clay was used for the body and glaze of Changsha wares or only used for the slip. He proposes that deforestation was one of the reasons for the decline of the Changsha kilns, whose products usually used high levels of wood ash, with the evidence from an ancient poem describing the heaven deforestation which was a result of the firing of Changsha kilns.[866]

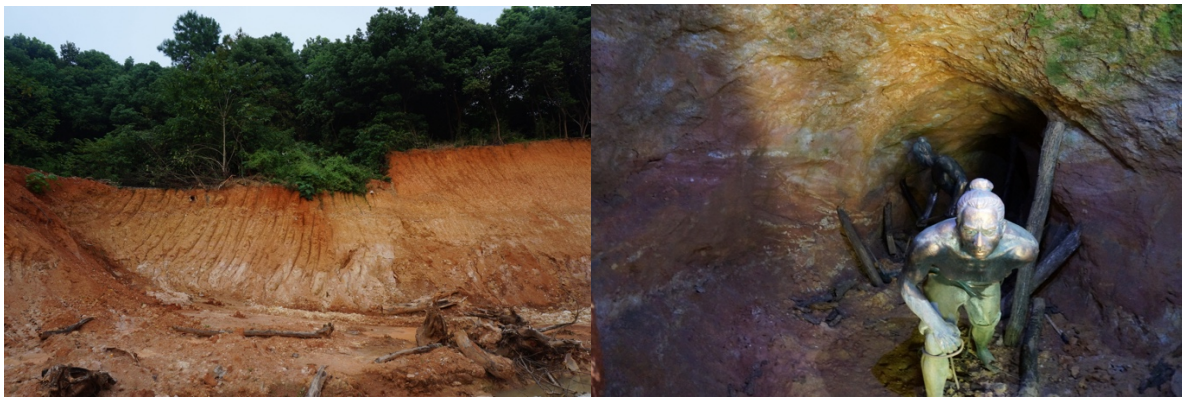


Fig. 6.57 Geology in the Changsha Kiln Sites and an Ancient Mining Site for Changsha Ceramic Raw Material, Photos Taken by the Author in 2017

[866] Personal correspondence with Nigel Wood. The poem that Nigel Wood mentions is a Tang poet Li Qunyu 李群玉's *Shizhu 石渚*: 古岸陶为器，高林尽一焚 Ceramics are made at the ancient river bank, which completely burns all high forests (of nearly regions).

6.6 Chinese Monochrome and Polychrome Ware

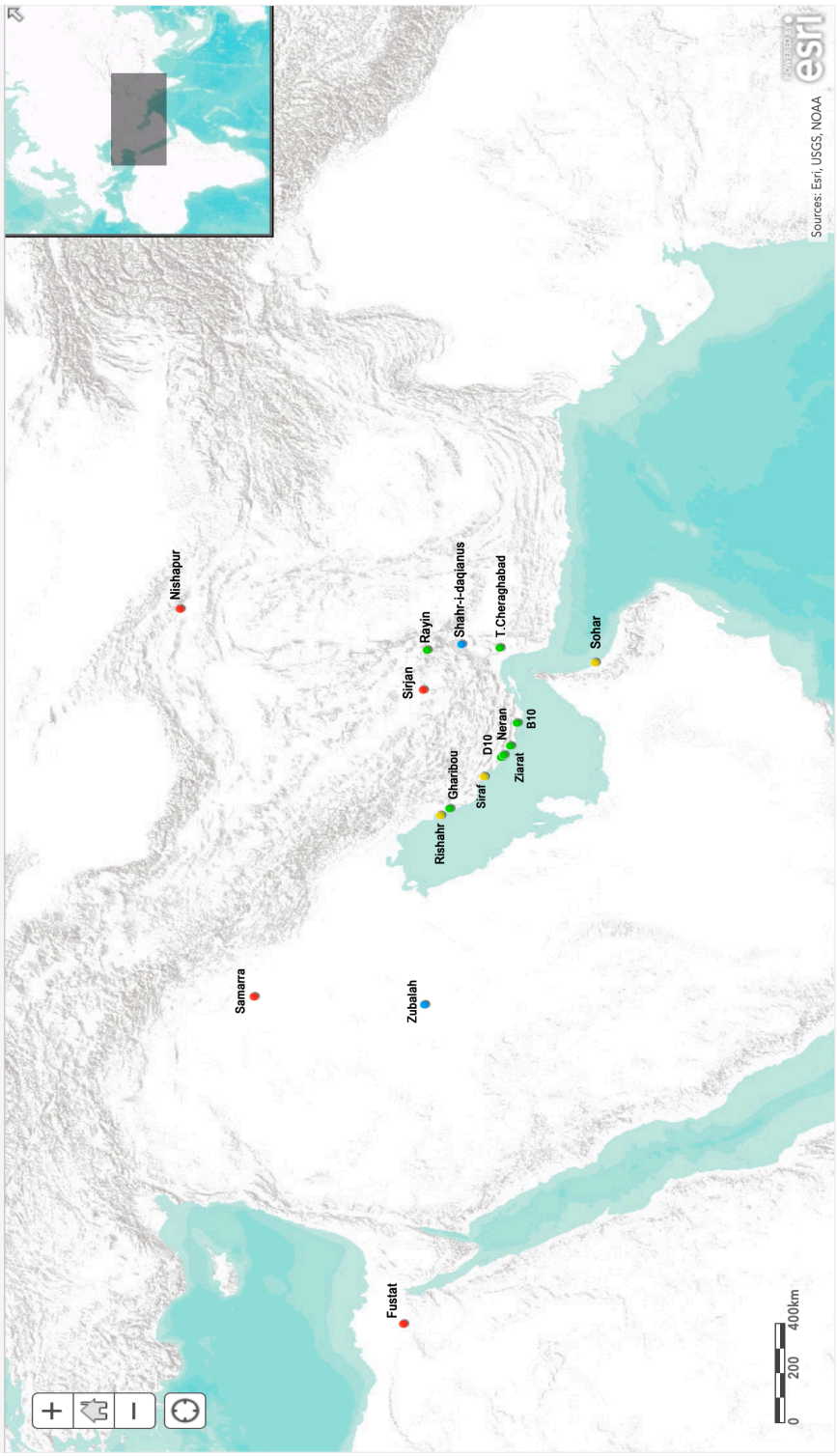


Fig. 6.58 Sites with Chinese Monochrome and Polychrome Glazed Ware from the 8th – 10th Centuries CE in the Islamic World

Chinese monochrome and polychrome wares here include classical Sancai wares (including one colour, two colours and more than two colours), green splashed white wares, Tang blue and white wares and painted stoneware from Changsha kilns produced in China during the 8th to 10th centuries CE. There are 16 sites in this thesis during this period in the Islamic world with Chinese monochrome or polychrome ceramic finds. Four are city-level urban centres: Samarra, Fustat, Sirjan and Nishapur; two are important ports: Siraf and Sohar; one town-level settlement, Shahr-i-daqianus and a pilgrimage route station in Arabia, Zubalah. The rest are small settlements and ports in or close to the Persian Gulf on the Iranian side. The amount of this type of Chinese wares found in these sites are scarce too. Chinese green splashed white wares were found in Sohar. In Zubalah, one shoulder fragment from a Chinese stoneware vessel with lead glaze similar to one from Siraf has been found. No illustration or photograph has been published. Only green splashed white glazed ware fragments were found in Sirjan, Shahr-i-daqianus and these small settlements and ports in or near the Persian Gulf, with only one fragment found in each of them.

6.6.1 The Production of Chinese Monochrome and Polychrome Wares

There are mainly six kiln sites in China known to have produced classical Tang Sancai wares. These are Gongxian kilns 巩县窑 in Gongyi city 巩义市, Henan 河南 Province; Huangpu kilns (Yaozhou kilns) 黄堡窑 (耀州窑) in Tongchuan city 铜川市, Sha'anxi 陕西 Province; Liquanfang kilns 醴泉坊窑 in Xi'an 西安, Sha'anxi Province; Xing kilns 邢窑 in Neiqiu County 内邱县, Hebei 河北 Province; Ding kilns 定窑 in Hebei province and Jiezhuang kilns (Hunyuan kilns 浑源窑) 解庄窑 in Hunyuan County 浑源县, Shanxi 山西 Province.[867] Gongxian kilns, Xing kilns, Ding kilns and Yaozhou kilns have their products found in the Islamic world, although only Yaozhou celadon wares have been found in the

[867] Henan Cultural Relics and Archaeology Institute 2016, 309.

Islamic world; none of their Sancai products have been identified there.

Classical Tang Sancai wares belong to the low-fired lead-glazed earthenware. After biscuit firing, they were applied with lead glaze added with copper, iron or cobalt pigments and fired again. The temperature of the first biscuit firing could reach around 1100℃. The temperature for the second firing was around 900℃. The body was made of kaolinite clay. Most of them have a layer of slip. Lead was used as flux during firing, which meanwhile also altered the hue and shade of colours. These colours were applied normally in dots, splashes or steaks.[868] Sancai wares often present three different colours, mainly blue, green, yellow, red, brown and white in different hues. There are also monochrome lead glazed earthenware and bi-coloured lead glazed earthenware. This is how Sancai wares were named, which means tri-coloured wares. They are known as mainly funerary wares produced from the early Tang to mid-Tang period (7th to the mid-8th centuries CE). They are different from Sancai wares which were primarily for daily uses produced during the late Tang (mid-8th to the early 10th centuries) and the Five Dynasties period in aspects of shapes and glazes.[869]

During the Northern Qi Dynasty (550-577CE), the prototype of Tang Sancai wares appeared. Some four-looped jars have green stripes. There are two four-looped light-yellow glazed jars with green strips (fig.6.59, left) found in the tomb of Li Yun 李云 dated to 576 CE.[870] From the tomb of Fan Cui 范粹, dated to 575CE, a three-looped white glazed jar with green strips and a white glazed bottle with green splashes (fig.6.59, right and middle) were found.[871] Sancai wares started to be produced in the early Tang period. The peak of the production of Sancai wares was during the mid-Tang period, especially during 650 and 756 CE, based on evidence of Sancai wares found in Tang tombs.[872] After the mid-8th century CE, the production contracted, but the quality of Sancai wares was still high. The latest datable Tang

[868] Wood 2007, 199.
[869] Tadanori 2011, 23.
[870] Zhou Dao 1964, 482.
[871] Li Zhiyan 1972, 53-4.
[872] Gongyi Municipal Ofiice for the Preservation of Ancient Monuments 2000, 5.

Sancai funeral wares were from a tomb dated to 850 CE.[873] After the Tang period, the production of Sancai wares declined.[874] During the Liao and Song periods, Sancai wares continued to be produced, but not as widely produced and distributed as during the Tang period.



Fig. 6.59 Left; Light Yellow Glazed Four-Looped Lar with Green Strips, from the Tomb of Li Yun, Northern Qi Dynasty, 576CE © Palace Museum; Middle: White Glazed Bottle with Green Splashes, from the Tomb of Fan Cui, Northern Qi Dynasty, 575CE © Henan Museum; Right: White Glazed Three-Looped Jar with Green Strips, from the Tomb of Fan Cui, Northern Qi Dynasty, 575CE © Henan Museum.

6.6.1.1 Gongxian/ Gongyi Huangye Kilns 巩县/巩义黄冶窑

Gongxian kilns produced both white wares and Sancai wares. The body for Sancai wares of Gongxian kilns is mostly made of porcelain clay covered by a layer of slip. They were fired in a low temperature, which was lower than the firing temperatures of stoneware and porcelain.[875] The kiln sites comprise Baihe kilns 白河窑, Tiejianglu kilns 铁匠炉窑,

[873] Gongyi Municipal Ofiice for the Preservation of Ancient Monuments 2000, 5.
[874] Gongyi Municipal Ofiice for the Preservation of Ancient Monuments 2000, iii.
[875] Henan Cultural Relics and Archaeology Institute 2016, 312.

Dahuangye kilns 大黄冶窑 and Xiaohuangye kilns 小黄冶窑.[876] Huangye kilns were found in 1957 and excavated in a few test pits in 1976. There was a rescue excavation in 2002 and another two seasons of excavations in 2003.[877] From 2002 to 2007, four seasons of excavations were conducted in Huangye kilns and Baihe kilns.[878]

Huangye kilns started production during the North and South Dynasties mainly producing white wares and celadon.[879] During the Tang period, Huangye kilns were in their apogee, not only produced celadon and white wares, but also Sancai wares. The production declined after the Tang dynasty. However, the production of Sancai wares in this region did not completely stop with the decline of Huangye kilns. The production was relocated to another kiln site and continued during the Song period.[880]

Archaeologists working on Huangye kilns divide the production into four periods based on dating materials found from the excavations, diagnostic vessels found from the kiln sites and vessels sharing similar features found from datable tombs in China. The first production period was during the Sui dynasty (581-618CE) when Huangye kilns mainly produced celadon glazed wares.[881] The second production period was in the early Tang period (618-684CE) with main products of white wares and black glazed wares.[882] The third production period are divided into two parts. The first part of the third period (684-756CE) and the second part of the third period (756-840CE). And the fourth period last between around 841 and 907 CE.[883]

The classical Sancai wares (fig.6.60, middle) started to appear in the second period in a minor number. They had been produced from the second period until the end of the fourth period, the majority of which were produced during the third period.[884] White wares with blue

[876] Henan Cultural Relics and Archaeology Institute 2016, 3.
[877] Henan Cultural Relics and Archaeology Institute 2005, 2.
[878] Henan Cultural Relics and Archaeology Institute 2016, 1.
[879] Gongyi Municipal Ofiice for the Preservation of Ancient Monuments 2000, 5.
[880] Gongyi Municipal Ofiice for the Preservation of Ancient Monuments 2000, 4.
[881] Henan Cultural Relics and Archaeology Institute 2016, 64.
[882] Henan Cultural Relics and Archaeology Institute 2016, 67.
[883] Henan Cultural Relics and Archaeology Institute 2016, 303-5.
[884] Henan Cultural Relics and Archaeology Institute 2016, 304-5.

paintings (fig.6.60, right) started to appear during the first part of the third period. Sancai wares with blue colour are typical to Gongxian kilns only.[885] White wares with green splashes (fig.6.60, left) started to appear in the first half of the third period in a minor number. Their production increased in the second half of the third period.[886]



Fig. 6.60 Left: A White Glazed Bowl with Green Splashes from Huangye Kilns, First Half of the Third Period, Henan Cultural Relics and Archaeology Institute 2016, Plate 69; Middle: Classical Sancai Ware from Huangye Kilns, First Half of the Third Period, Henan Cultural Relics and Archaeology Institute 2016, Plate 60; Right: White Glazed Bottle with Blue Paintings from Huangye Kilns, First Half of the Third Period, Henan Cultural Relics and Archaeology Institute 2016, Plate 75.

Tang blue and white stoneware has been found during the excavations of Huangye kilns and Baihe kilns (fig.6.61). Based on Nigel Wood's study, the blue pigment or glaze has been found both beneath and on top of the glaze.[887] The decoration comprises curved lines, floral and lozenge designs.[888] A blue and white jar and a fragment of a blue and white ewer have been found during the excavation of Huangye kilns, dated to the fourth period.[889]

A few intact Tang blue and white stoneware vessels and numerous fragments have been found outside of the kiln sites too. Two Tang blue and white pagoda-shaped jars (fig.6.62) have been found in a Tang tomb in Zhengzhou 郑州, Henan province, not far from the Gongxian kilns in 2006. The ancient Yangzhou port yielded a noticeable amount of Tang blue and white intact stoneware vessels and fragments (fig.6.63 and 6.64), which were

[885] Jia Chenghui et al. 2007, 491-5.
[886] Henan Cultural Relics and Archaeology Institute 2016, 144, 304-5. 301-2 and 325.
[887] Personal correspondence with Nigel Wood.
[888] Henan Cultural Relics and Archaeology Institute 2016, 307.
[889] Henan Cultural Relics and Archaeology Institute 2016, 17.

possibly produced by Gongxian kilns. A blue and white stoneware pillow with geometric design was found in the excavation in 1975 of the ancient Yangzhou port. More than 20 pieces of Tang blue and white stoneware were collected in 1983. In 1990, excavations in Yangzhou yielded another 14 pieces of Tang blue and white stoneware. Analysis on these Tang blue and white stoneware sherds shows that they were fired at a temperature of around 1250℃ with a slip between the body and glaze painted with cobalt blue under the glaze. It also reveals that the cobalt pigment used by the Tang blue and white stoneware, which was from a sulfur cobalt mine with iron and copper elements and less silicon oxide and aluminium oxide, is chemically different from that used by Yuan and Ming blue and white porcelain.[890] The Belitung shipwreck has three intact Tang blue and white stoneware dishes (fig.6.66) which are now in the Asian Civilizations Museum in Singapore. The University of Hongkong Museum and Art Gallery (fig.6.65) and the Museum of Fine Arts of Boston also have collections of Tang blue and white stoneware vessels.[891] In the Islamic world, Siraf is currently the only site where one sherd of Tang blue and white stoneware has been found.

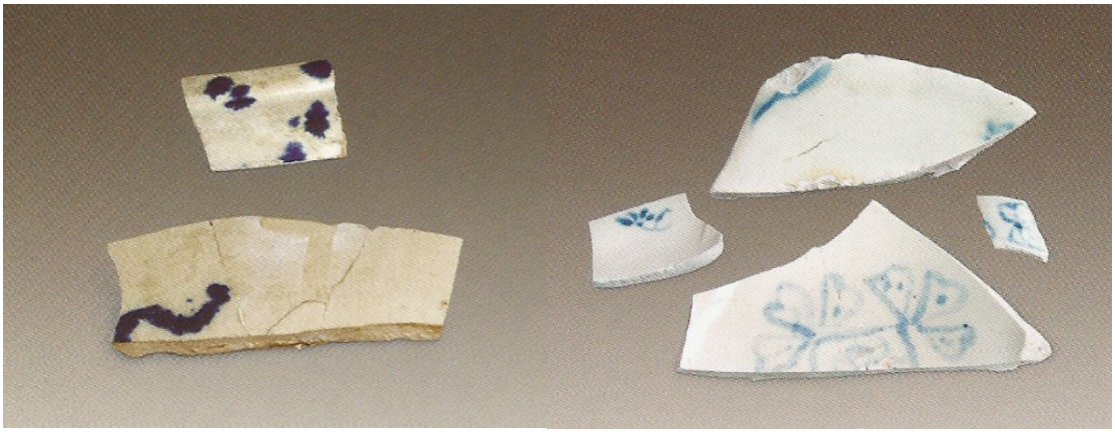


Fig. 6.61 Left: Tang Blue and White Stoneware Sherds from the Fourth Period of Huangye Kilns, Henan Cultural Relics and Archaeology Institute 2016, Plate 232; Right: Tang Blue and White Stoneware Sherds from Baihe kilns, Henan Cultural Relics and Archaeology Institute 2016. Plate 262.

[890] Henan Cultural Relics and Archaeology Institute 2016, 318.
[891] Henan Cultural Relics and Archaeology Institute 2016, 315.



Fig. 6.62 Two Tang Pagoda-Shaped Blue and White Stoneware Jars from a tomb in Zhengzhou in the Collection of Zhengzhou Municipal Institute of Cultural Relics and Archaeology.



Fig. 6.63 Tang Blue and White Stoneware Sherds from the Ancient Yangzhou Port, Henan Cultural Relics and Archaeology Institute 2016, Plate 270.

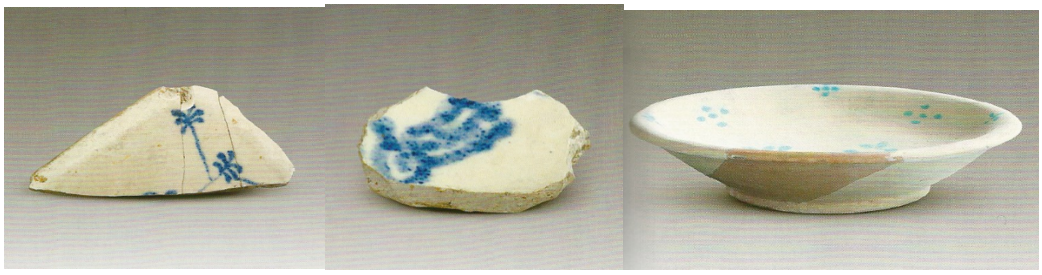




Fig. 6.64 Tang Blue and White Stoneware Sherds from the Ancient Yangzhou Port, Late Tang Period, Institute of Archaeology, Chinese Academy of Social Sciences et al. 2010, Plate 115.



Fig. 6.65 Tang Cobalt Blue Tripod Stoneware Pot © University of Hongkong Museum and Art Gallery



Fig. 6.66 Tang Blue and White Stoneware Dishes from the Belitung Shipwreck © Asian Civilizations Museum, Singapore

6.6.1.2 Xing Kilns 邢窑

Xing kilns' Sancai products have less lead component in their glaze than Gongxian Sancai

and Huangpu Sancai wares. Generally, the glaze of Xing kilns' Sancai wares was less glossy and less fluid.[892] Some Xing Sancai wares' body was more vitrified and closer to porcelain, which was fired in a higher temperature.[893] Xing kilns used kaolin for the body of most of their Sancai wares.[894] This high-fired boy has also been observed on Gongxian export wares with coloured lead glaze.[895]



Fig. 6.67 Left: Sancai Sherds from Xing kilns; Right: A White Glazed Plate with Green Splashes and Moulded Decoration from Xing kilns, Tang dynasty, Zhao & Zhang 2007, 211.

6.6.1.3 Ding Kilns 定窑

Ding kilns also produced Sancai wares. Ding Sancai wares do not generally have a slip between the glaze and body. Their body is normally whitish. Green colour was applied on Ding Sancai wares frequently and overwhelmingly. Another distinctive feature of Ding Sancai wares is that most of them are large vessels like bottles and jars. They often carry incised, engraved, moulded, applied and or openwork decoration. Like Ding white wares, metalwork seemed to have exerted similar influence on the shape and decoration of Ding Sancai wares.

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[892] Yang Wenshan 2007, 453.
[893] Shen Xianyou 2007, 581.
[894] Shen Xianyou 2007, 589.
[895] See Rawson, Tite and Hughes 1988.



Fig. 6.68 Ding Sancai Pagoda-Shaped Jar and Ding Sancai Phoenix-Headed Ewer in Hebei Museum

6.6.1.4 Huangpu Kilns 黄堡窑/ Yaozhou Kilns 耀州窑

Huangpu kilns in the Tang period produced a wide range of ceramic products including Sancai wares. They used porcelain clay for the body of most of their Sancai wares.[896] Huangpu kilns' green splashed white wares were produced in a different way from those produced by Xing kilns and Gongxian kilns. They have underglaze green paintings on a porcelain body. Most of the them have a slip. The white glaze is not pure white, which tends to be more yellowish white.[897] The kilns also produced other types of underglaze painted

[896] Institute of Archaeology, Shaanxi Province 1992, 23.
[897] Institute of Archaeology, Shaanxi Province 1992, 291.

wares including brown paintings beneath white glaze or celadon glaze and white paintings beneath celadon glaze.[898] Underglaze green painted white wares appeared in the third and fourth periods of Huangpu kilns around 757-840CE and 841-907 respectively.[899]

6.6.1.5 Changsha Kilns 长沙窑

Another important kiln site that produced Chinese monochrome and polychrome wares is Changsha kilns. Changsha polychrome stoneware includes green and or brown paintings on white or celadon glaze. The characteristics of Changsha monochrome and polychrome wares include their greyish body, which is different from the whitish porcelain body and reddish earthenware body of North China; their thick milky white glaze and their stoneware body. Even though polychrome wares in North China used porcelain clay for their body, they were not normally fired to a stoneware or porcelain temperature.

6.6.2 Chinese Monochrome and Polychrome Ceramics Found in the Islamic World

Nishapur:

There are two pieces of Chinese polychrome glazed ceramics found in Nishapur. One is a Sancai ware sherd with bluish green, purple and yellow splashes. The kaolin body was fired to a higher temperature, which made it almost vitrified.[900] This sherd (fig.6.69) has only been published in black and white in Wilkinson's publication as fragment No. 9, therefore, it is hard to examine the details of this sherd.[901]

[898] Institute of Archaeology, Shaanxi Province 1992, 291 and 302.
[899] Institute of Archaeology, Shaanxi Province 1992, 522-3.
[900] Wilkinson 1973, 256.
[901] Wilkinson 1973, 257.

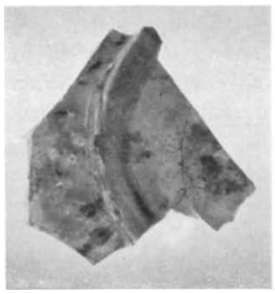


Fig. 6.69 Chinese sherd No. 9 from Wilkinson 1973, 258

Another one is a sherd from a green lead glazed vessel with a moulded medallion in the design of a dragon in the middle of the inner bottom of the vessel (fig.6.70, left).[902] It is now stored in the Metropolitan Museum of Art and dated to the late 7th to the first half of the 8th century CE. Bowls with almost identical green splashed white glaze and moulded dragon medallion relief have been found on the Belitung shipwreck and the ancient Yangzhou port (fig.6.70 and 6.71). Therefore, this Nishapur one was more likely to be produced during the early 9th century CE, around the time when the Belitung ship sunk.[903]



Fig. 6.70 Left: A Chinese Green Lead Glazed Sherd with a Moulded Dragon Decoration from Nishapur ©Metropolitan Museum of Art; Right: Four-Lobed Bowl with Dragon Medallion, Probably from Gongxian Kilns, found in the Belitung Shipwreck at the Asian Civilisation Museum, Singapore, Photo Taken by the Author in New York.

[902] Wilkinson 1973, 257.
[903] See Belitung shipwreck in Chapter 7, Section 7.2.



Fig. 6.71 Left: A Green Splashed White Glazed Lobed Bowl with a Moulded Dragon Relief in the Middle of the Interior, Possibly from Gongxian Kilns, Found in the Ancient Yangzhou Port in 1983 © Yangzhou Museum; Right: A Similar Bowl from the Belitung Shipwreck © Asian Civilisations Museum

This type of green splashed relief decorated bowl from Nishapur is not frequently seen in China. Although no identical bowl has been found in Gongxian kilns or any other kilns which produced Sancai wares, Gongxian kilns seem to be the most possible provenance for it. The vessel shape and moulded relief decoration came from contemporary metalwork. A sliver bowl with gilded moulded relief decoration found in a hoard, Hejiacun 何家村, in Xi'an, shares the same vessel shape and the same style of relief decoration in the middle of the bowl with the Nishapur one. It might be the metalwork prototype of this type of ceramic wares. This silver bowl was influenced by Persian silver vessels with relief medallion (fig.6.72), though the relief decoration of the twin fish is rather Chinese style. The ceramic version has more adaptations to become more Chinese and more remote from its Persian root. The dragon relief medallion is more Chinese style and the ring foot is typical to Chinese bowls during the Tang period.



Fig. 6.72 Left: A Tang Silver Bowl with Gilded Muoulded Relief Decoration, from the Hoard of Hejiacun, Xi'an © Shaanxi History Museum; Right: A Sasanian Silver Bowl with a Medallion Relief, 4th century CE © Metropolitan Museum of Art

There is a yellow-green glazed bowl (fig.6.73) with ribs and a moulded relief decoration on the interior, engraved decoration and poked lines of dots on the exterior, which resembles much the shape and decoration of a metalwork. This bowl was found in Huangye kilns (Gongxian kilns). Even though the decoration and shape of the vessel are not completely identical to the Nishapur one, this bowl is the only one found from kilns producing monochrome and polychrome glazed wares in China that used similar decorative styles. Therefore, if without new evidence from other kilns, Huangye kilns are perhaps the most plausible provenance for this Nishapur sherd.



Fig. 6.73 A Yellow - Green Glazed Bowl with Relief Decoration from Huangye Kilns, Gongyi Municipal Office for the Preservation of Ancient Monuments, Henan Province 2000, Plate 18.

It seems that Chinese potters learnt the idea from contemporary metalwork, which was imitating their Persian counterparts. These Chinese ceramics with a Persian metalwork prototype finally found their way to Yangzhou port, the Belitung ship and Nishapur in Iran again. In light of their scarcity, it's hard to believe that this type of wares was ever mass produced. They might have only been produced once or twice and provided specifically to the Middle East, who might appreciate both the green and white glaze and the relief medallion decoration in the middle. They might have been gifts or tribute rather than commercial traded goods.

Fustat:

Chinese monochrome and polychrome wares have been mentioned in almost every publication on its Chinese ceramic finds. Scanlon mentioned a turquoise coloured bowl with white stoneware body and carved leaf swirl decoration (fig.6.75), which he believed was a Liao Sancai ware and dated to the early 11th century CE.[904] This piece is more likely to be a Yaozhou celadon stoneware dated to the late 10th and early 11th centuries CE. Liao Sancai wares are similar to Tang Sancai wares, which are low fired and normally polychrome. Scanlon also found a Chinese Tang green splashed ware sherd (fig. 6.74) in the 1980's season, which has been dated to the 10th century CE.[905] It was found in the level which can be dated as late as the mid-11th century CE and has been seen by Scanlon as a 10th-century carry-over of the Cizhou range of northern Chinese porcelain.[906] This opinion is not necessarily true. Green splashed ware in China appeared as early as the mid-8th century CE

[904] Scanlon & Kubiak 1989, 49. See more detail in Chapter 3.
[905] Scanlon & Kubiak 1989, 48.
[906] Scanlon & Kubiak 1989, 47.

in Gongxian kilns. And they are not within the Cizhou range. Gyllensvard identified Sancai wares excavated by the American archaeological mission as Liao Sancai wares.[907]

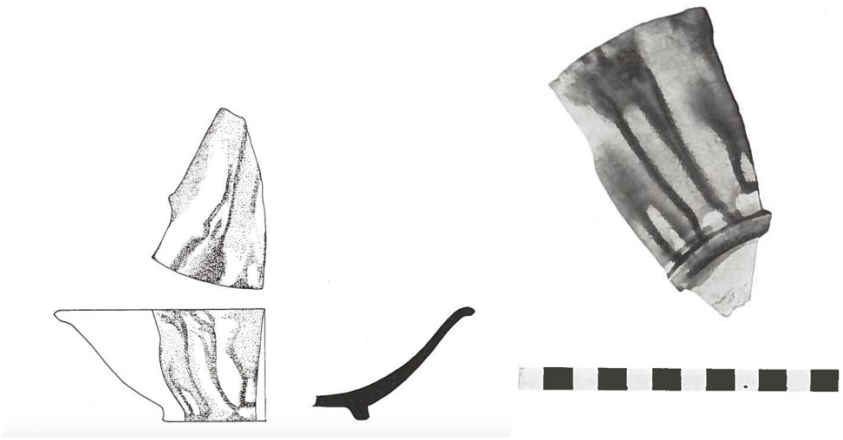


Fig. 6.74 Tang Green Splashed Ware Sherd Found in Fustat, Scanlon 1989, 48.

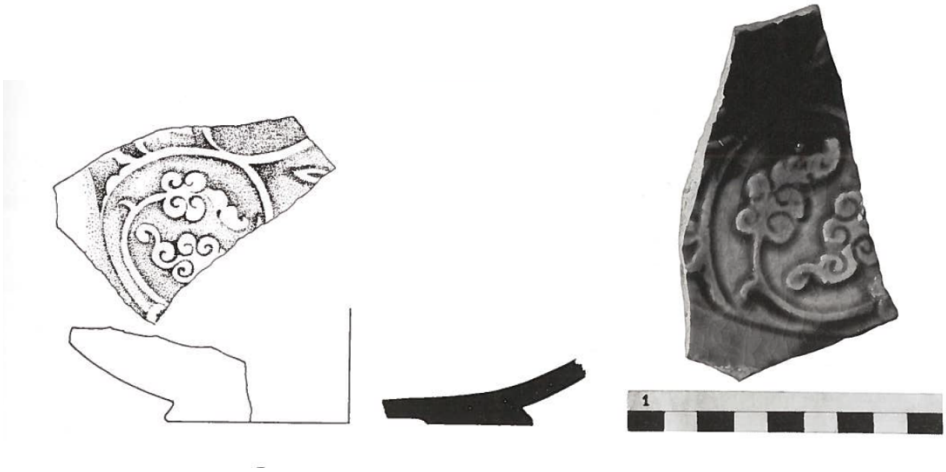


Fig. 6.75 Chinese Turquoise Glazed White Stoneware Sherd found in Fustat, Scanlon 1989, 49.

Mikami examined ceramic finds of Fustat in Cairo and pointed out the existence of Tang Sancai wares. The Sancai sherds illustrated in his publication (fig.6.76) are from F. R. Martin Collection, the International Museum of Ceramics, Faenza, Italy. Even though designated to Fustat, there is no firm archaeological evidence attributing these sherds to excavations of

[907] Gyllensvard 1973, 92.

Fustat.[908] The editor of Transactions of the Oriental Ceramic Society also claims in caption that there is no evidence that they were found at Fustat.[909] The smaller sherd seems to be from a green splashed ware with moulded decoration. The larger sherd with incised floral decoration in the middle on a white ground has not been reported from any other site in the Islamic world yet. But this type of Sancai wares has been seen often in excavations in China. These two sherds are true Tang Sancai fragments but with a sceptical provenance. They don't have to be from Fustat or any site in the Islamic world. Mikami also reported fragments of Tang Sancai bottles, bowls and dishes. However, Qin Dashu dated the Sancai bottle fragment to the late Liao period (Liao period 916 -1125CE). His examination of Chinese ceramic finds from Fustat in Cairo shows that there is not a single piece of Tang Sancai wares (he means the classical tri-coloured wares here).



Fig. 6.76 Left: Two Sancai Fragments Attributed to Fustat, Mikami 1982, 75; Right: a Sancai Tripod Plate from the Excavations of Huangye Kilns, Gongyi Municipal Office for the Preservation of Ancient Monuments, Henan Province 2000, Plate 14.

Hobson mentioned in his publication in 1932 that “there are, for instance, pieces of buff stoneware with cream glaze mottled with green and brownish yellow, which came from China in the Tang dynasty.”[910] Unfortunately, there is no illustrations or photos. Tadanori

[908] See Mikami 1982, 75.
[909] This information is given by Oliver Watson.
[910] Hobson 1932, 109.

surveyed ceramic finds from Fustat in Cairo in 1998 and found seven sherds of white glazed earthenware with green lead glaze (fig.6.77).[911] He described them as light-glazed earthenware with green lead glaze from Gongxian kilns.[912]



Fig. 6.77 Chinese Green Splashed Ware Sherds, Tadanori 2013, 5

In summary, there is hardly any classical Tang Sancai wares found in Fustat. The Sancai wares mentioned by Hobson, Mikami and Scanlon are highly likely to be Liao Sancai wares. Fustat only has green splashed wares from Gongxian kilns and probably also from other kilns from the 8th to 10th centuries CE.

Samarra:

Samarra has several Chinese monochrome and polychrome ceramic finds, most of which are from green splashed wares. Some green splashed wares have incised or moulded decoration. Samarra also yielded sherds in green and brown glaze with a moulded dragon relief decoration beneath the brown colour, and a plate with green and yellow dots. These two examples are exceptional. Sarre's description of Chinese polychrome wares can be

[911] Adapted from Tadanori 2013, 4.
[912] Tadanori 2013, 5.

seen in Chapter 3, Samarra, IX. g. Stoneware with monochrome or polychrome spotted overflowing glazes.

Hadiyyah in Arabic هدية means gift. It has been given as a source of ceramic finds in Samarra in Sarre's publication. Some of these sherds were not excavated but given by someone who picked them up in the ruins. The only confirmed location where Chinese polychrome glazed wares were excavated is within the Harem. Harem is within Dar al-Khalifa دار الخليفة, which means caliphal palace. Dar al-Khalifa was the principal residential palace for the Abbasid caliphs in Samarra with a major public ceremonial function. It was founded in 836 CE and its last known occupation was 884CE.[913] One of the domed reception halls was excavated by Herzfeld, which was referred in his work and in Sarre's book as Harem.[914] Their finding locations are described as caliphal palace. Even though without enough evidence to support this theory, it is possible that these Chinese polychrome wares were supplied specifically to the caliphal palace and used within the Harem. This also explains the limited number of this type of Chinese wares found in Samarra and in the whole Islamic world.



Fig. 6.78 Left: Flat Dish with Green Spots and An Incised Concave Square with Palmettes and Spirals, Found in the Caliphal Palace, 9th Century, Photo Taken by the Author in the Pergamon Museum, Also in Sarre 1925, No. 220; Right: Fragments of A Bowl with Radial Splashed Decoration, Found in the Caliphal Palace, 9th Century, Photo Taken by the Author in the Pergamon Museum, Also in Sarre 1925, No. 218.

[913] Northedge 2007, 135.
[914] Northedge 2007, 133.

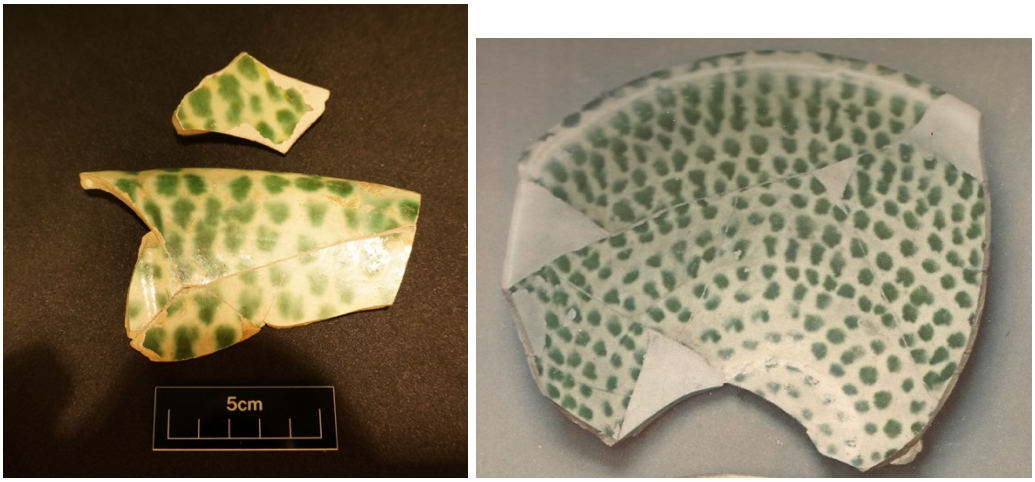


Fig. 6.79 Left: Fragments of A Chinese White Glazed Bowl with Green Dots, Photo Taken by the Author at the British Museum; Right: Fragments of A Chinese White Glazed Bowl with Green Dots, Sarre 1925, No 219, Plate XXVI.



Fig. 6.80 Fragments of A Chinese White Glazed Plate with Green and Yellow Dots, Sarre 1925, No 221, Plate XXVI.



Fig. 6.81 Left and Middle: Fragments of Chinese Green Splashed Wares, Sarre 1925, No. 226, Plate XXIII; Right: Fragments of Chinese Green and Brown Glazed Ware with Moulded Dragon Relief Decoration, Sarre 1925, No. 222, Plate XXIII.



Fig. 6.82 Left: Fragments of Chinese Green Splashed Wares with Moulded Decoration, Sarre 1925, No. 225 and 223, Plate XXIII; Right: Fragments of Chinese Green and Brown Splashed Wares with Moulded Decoration, Sarre 1925, No. 224, Plate XXIII.

These Chinese polychrome glazed wares presumably came from two kilns in China: Gongxian kilns and Xing kilns. The fragments with brown and green glazes and a moulded relief decoration (fig.6.81, right) is highly likely to be Gongxian products. There is a piece of green splashed incense burner (fig.6.83) found in Gongxian kilns with a rounded patch of brown glaze, beneath which is a moulded relief decoration of a musician playing a lute. The combination of brown glaze, moulded decoration beneath and the green spalshes are shared by both the Samarra sherd and this Gongxian sherd. Green splashed wares with moulded relief decoration, No 223, 224 and 225 (fig.6.82), are likely to be Xing wares (fig.6.84). Gongxian kilns so far have not found any ware bearing this moulded decoration all over the interior of the plate. While Xing kilns have yielded a green splashed white glazed plate with moulded scrolls and geometric decoration. For the sherds No. 219 and similar ones (fig.6.79) at the British Museum with green dots on a white glaze, identical pieces and intact vessels (fig.6.85) have been found in the excavations of the ancient Yangzhou port, which have been designated to Gongxian kilns. This further substantiates the link between Yangzhou port and the Islamic world.



Fig. 6.83 A Fragment from An Incense Burner from Gongxian Kilns, Henan Cultural Relics and Archaeology Institute 2016, Plate 126.



Fig. 6.84 A White Glazed Plate with Green Splashes and Moulded Decoration from Xing Kilns, Tang dynasty, Zhao & Zhang 2007, 211.



Fig. 6.85 Gongxian Green Splashed White Glazed Plate Found from Yangzhou, Institute of Archaeology, Chinese Academy of Social Sciences et al. 2010, Plate 118.

One fragment of green splashed white glazed cup with a drinking pipe (fig.6.86) was found at Samarra. This type of cups has also been found in the Belitung shipwreck (fig.6.87) and from the excavation of Gongxian kilns (fig.6.88) dated to the fourth prodcution period

between 841 and 907 CE.



Fig. 6.86 Green Splashed Cup Fragment with A Drinking Tube from Samarra, Photo Taken at the British Museum



Fig. 6.87 Green Splashed Cups with Moulded Relief and Drinking Tubes from the Belitung Shipwreck

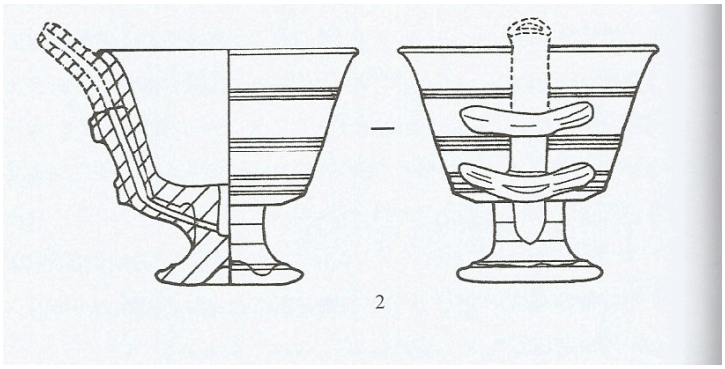


Fig. 6.88 Green Splashed Cup with Moulded Relief and A Drinking Tube from the Huangye Kilns, Henan Cultural Relics and Archaeology Institute 2016, 218.

Siraf:

There are around 64 fragments of Chinese monochrome and polychrome glazed wares found from Siraf at the British Museum. 44 fragments are green splashed wares and 12 sherds in monochrome green glaze with moulded relief decoration. Four green splashed sherds have some yellow splashes, possibly stains or original decoration. There are two fragments with green, yellow and white glaze and one fragment with yellow glaze and green splashes. Only one fragment of white glaze with cobalt blue paintings has been found at Siraf. There are two fragments coming from jars and 26 fragments from dishes. The rest 35 fragments came from bowls. The finding locations for these Chinese monochrome and polychrome glazed wares are shown in Table 6.10 below. There are fifteen sites excavated at Siraf, nine of them have Chinese monochrome and polychrome glazed ceramic finds. However, there seems to be no positive correlation between this type of wares and their finding locations. It should be pointed out that even though there are 64 Chinese monochrome and polychrome ceramic sherds found at Siraf, this does not necessarily mean there were more this type of wares at Siraf than at Samarra. Because almost all the Siraf sherds are rather fragmentary and tiny, which means that many of them may just have come from the same vessel.

Table 6.10 Sites at Siraf with Chinese Monochrome and Polychrome Sherds

Site code	Number of Chinese monochrome and polychrome sherds
Site A: Sounding	4
Site B: Sasanian Citadel and Congregational Mosque	5
Site C: Bazaar	1
Site D: Pottery Quarter	3
Site E: Residential Compound15th CE	1
Site F: Residential Quarter10-11th CE	13
Site K: Palatial Residence	5
Site M: Mosques, Defensive Wall and Buildings near the Shore	13
Site P: Mosques, Defensive Wall and Buildings near the Shore	9
Unknown Site	9

Most of these Chinese monochrome and polychrome ceramic finds have been identified as products from kilns in Henan and North China with very few to Changsha kilns by

researchers in the British Museum. After examining these Siraf sherds, they presumably belong to Gongxian kilns and Xing kilns in North China and Changsha kilns (fig.6.89) in South China.

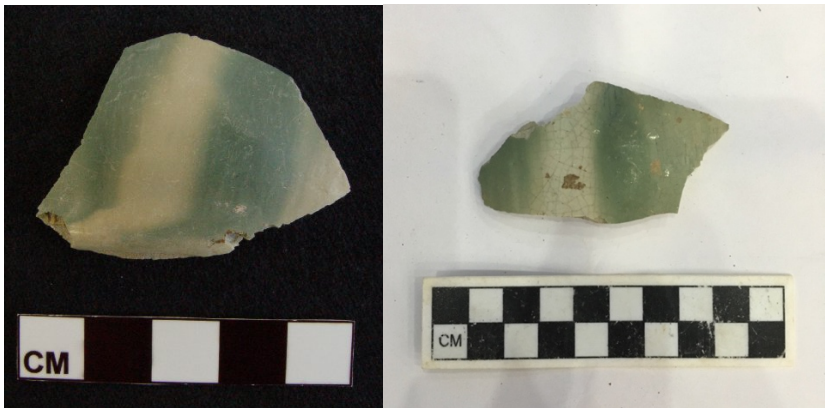


Fig. 6.89 Left: A Fragment of Changsha Green Splashed White Ware © British Museum, Museum Number 2007,6001.8194; Right: A Fragment of Changsha Green Splashed White Ware at the Bureau of the Management of the Changsha Kilns, Photo Taken by the Author in 2017.

There are around 16 fragments in total which bear moulded relief decoration. 12 of them only have green colour, the rest four are white glazed with green splashes (fig.6.90). These green splashed wares with moulded decoration almost all over the interior might have come from Xing kilns as discussed in the previous section of Samarra. For monochrome green glazed wares with moulded decoration, for example, No.2007,6001.5332 and No.2007,6001.9071 in the British Museum, similar decoration has been seen on Changsha wares, albeit slightly different in glaze colour (fig.6.91). Changsha wares with moulded decoration are in olive green or bluish green glaze (fig.6.92 and 6.93). There is a monochrome green glazed cup, except that the moulded fish relief is in yellow glaze (fig.6.94, left), found at the archaeological site of the Tang West Market in Xi'an. Its green glaze colour and moulded decoration look more alike those found at Siraf. This West Market one was most probably produced by Gongxian kilns. Almost identical monochrome green glazed cups with moulded relief fish on the interior (fig.6.94, right) were found in Huangye kilns but without moulded decoration on the inner walls and have been dated to the fourth period (around 840-907CE). Similar ones have also been found in the Belitung shipwreck in

green splashed white glaze without moulded decoration on the inner walls. Therefore, these Siraf ones are highly likely to have been products of Gongxian kilns. Meanwhile, this style was also practiced by Changsha kilns by applying a slightly different glaze colour.



Fig. 6.90 Left: A Chinese Green Splashed Ware with Moulded Decoration from Siraf © British Museum, No.2007,6001.5319; Right: A Chinese Green Glazed Ware with Moulded Decoration from Siraf © British Museum, No.2007,6001.9071.



Fig. 6.91 Changsha Monochrome Green Glazed Cup with Moulded Decoration © Changsha Museum



Fig. 6.92 A Changsha Monochrome Bluish Green Glazed Cup with Moulded Decoration, at the Bureau of the Management of the Changsha Kilns, Photo Taken by the Author in 2017.



Fig. 6.93 A Changsha Monochrome Olive-Green Glazed Dish with Moulded Decoration, at the Bureau of the Management of the Changsha Kilns, Photo Taken by the Author in 2017.

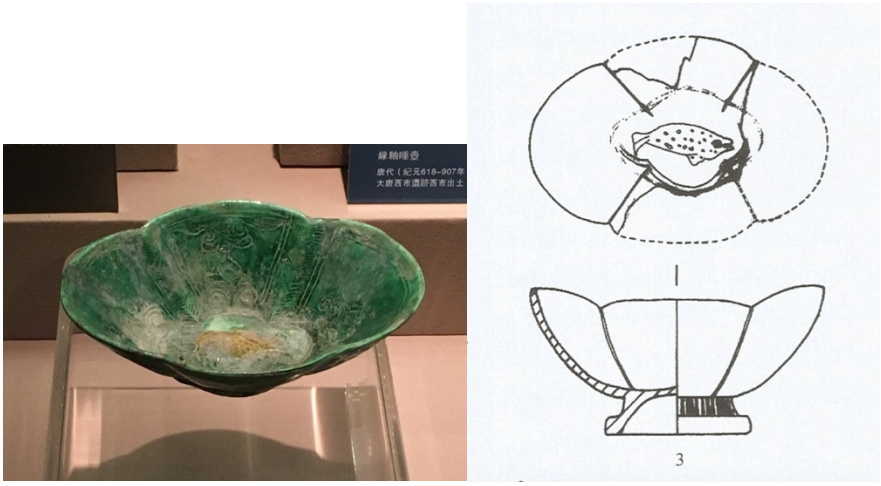


Fig. 6.94 Left: A Green Glazed Moulded Cup with a Yellow Glazed Relief Fish Found at the Tang West Market Site in Xi'an, Photo Taken at the Tang West Market Museum by the Author; Right: A Monochrome Green Glazed Cup with a Moulded Relief Fish Found from the Huangye Kilns, from the Fourth period, Henan Cultural Relics and Archaeology Institute 2016, 218.

Gongxian kilns, Xing kilns and Changsha kilns all had produced monochrome green and green splashed wares with moulded relief decoration on the interior walls. This type of ceramic has been found at Siraf and Samarra. The amounts found in China and in the Islamic world are not huge. The moulded decoration on the interior walls, the moulded relief design on the bottom and the thinly potted walls all resemble features of moulded metalwork.

A piece of Chinese blue painted white glazed stoneware found at Siraf (fig.6.95, left) is so far the only example found in the Islamic world. As mentioned above in Section 6.6.1.1 that white wares with blue paintings (earthenware) started to appear during the first part of the

third period (684-756CE).[915] This predates the production of Islamic blue painted white glazed wares in the early 9th century CE. High fired blue painted white glazed wares were found in Huangye kilns and dated to the fourth period (around841-907 CE).[916] They were also found from the excavation of Baihe kilns without specific dating. The blue dots decoration on this Siraf high-fired one can be traced back to earlier low-fired ones (fig.6.95, right) found in the second half of the third period of the Huangye kilns (756-840CE).



Fig. 6.95 Left: A Fragment of Chinese Blue Painted White Glazed Stoneware from Siraf © British Museum, No.2007,6001.5010; Right: A Blue Painted White Glazed Low-Fired Bowl with Dots Decoration from the Huangye Kilns, from the Second Part of the Third Period, Henan Cultural Relics and Archaeology Institute 2016, Plate 130.

Other peculiar types of Chinese polychrome glazed wares found at Siraf are yellow glazed with green splashes and white glazed with yellow and green splashes. There are three pieces of them at Siraf (fig.6.96, left and fig.6.97). Similar ones with white, green and yellow colours (fig.6.96, right) and yellow glazed with green splashes (fig.6.98) have been found in Gongxian kilns dated to the fourth period between around 840 to 907CE.

[915] Jia Chenghui et al. 2007, 491-5.
[916] Henan Cultural Relics and Archaeology Institute 2016, 17.



Fig. 6.96 Left: A Fragment of Chinese Green, Yellow and White Glazed Ware from Siraf © British Museum, No.2007,6001.6734; Right: A Sancai Bowl with Yellow, Green and White glazes, Found from the Huangye Kilns, from the Fourth Period, Henan Cultural Relics and Archaeology Institute 2016, Plate 192.



Fig. 6.97 A Fragment of Chinese Yellow Glazed Ware with Green Splashes from Siraf © British Museum, No.2007,6001.6733



Fig. 6.98 Left: A Yellow Glazed Dish with Green Splashes; Right: A Yellow Glazed Bowl with Green Splashes, Found from the Huangye Kilns, from the Fourth Period, Henan Cultural Relics and Archaeology Institute 2016, Plate 193.

6.6.3 Chinese Monochrome and Polychrome Glazed Wares and Islamic Glazed Ceramics

The relationship between Chinese classical Sancai wares, splashed wares, blue painted wares and their Islamic counterparts have been discussed continuously. The debates usually focus on whether China or the Islamic world started the production of these styles. However, this was more like an interaction between these two cultures in terms of ceramics and also other materials.

6.6.3.1 Classical Tang Sancai Wares

Rouguelle has already noticed that the import of Sancai wares in the Islamic world is a particular problem. Almost all Sancai wares found in the Islamic world are green splashes white wares.[917] This is quite true after examining the Chinese monochrome and polychrome glazed ceramic finds in the Islamic world. Medley already observed that Sancai wares found in the Islamic world might not be the same type of Tang Sancai wares from elites' tombs during the High Tang period. Chinese splashed wares found in the Islamic world had a less luxurious and more mundane appearance with a grey body, white slip and simple decoration, mostly florettes, executed in a more muted iron brown or copper green fritted glaze.[918]

As discussed above, there has been no classical Sancai ware found in the Islamic world so far except the unillustrated one at Nishapur. There are always doubts on the influence of Chinese classical Sancai wares on early Islamic splashed wares, even though there are several similarities in their appearance: decoration with two or three different colours in dots, streaks, patches, splashes or a combination of them. For example, two fragments of Islamic amber-colour splashed white bowls, one with a Chinese style ring foot (Number C. 656-1992 in Victoria and Albert Museum) (fig.6.99) and another with a flat base (OA. 1516 British Museum) (fig.6.100, left) were found at Samarra. Identical style of amber-colour splashed

[917] Rougeulle 1991, 28.
[918] Medley 1981, 87-88; Tempoe 1989, 89.

wares were produced in Gongxian kilns (fig.6.100, right) during the Tang period.



Fig. 6.99 Islamic Amber-Colour Splashed White Bowl Fragment from Samarra C. 656-1922 in Victoria & Albert Museum, Photo Taken by the Author.



Fig. 6.100 Left: Islamic Amber-Colour Splashed White Bowl Fragment from Samarra in the British Museum, OA. 1516, Photo Taken by the Author; Right: Gongyi Municipal Office for the Preservation of Ancient Monuments 2000, Plate 54.

It does not make much sense that classical Sancai wares exerted a huge influence on early Islamic splashed wares if no classical Sancai wares had been exported to the Islamic world during the 8th to 10th centuries CE. One possible explanation could be that these two types of wares were developed independently from each other. The Chinese made their lead glazed Sancai wares earlier than the Islamic world. Nigel Wood points out that the technical aspect of the effect is very important. The lead glaze used on Sancai wares is rather fusible which tends to spread in firing.[919] The mottled effect on Sancai wares were perhaps not intended at first but caused by accident.

There is one thing that Islamic splashed wares share definitely with Chinese Sancai wares: the use of lead glaze. When white wares were introduced to the Islamic world, they were

[919] Wood & Priestman 2016, 51.

imitated quickly by local potters. Almost at the same time, Islamic potters were tempted to add decoration on the plain white surface. A number of oxide pigments, usually copper green or turquoise, iron black and manganese purple were splashed onto an opaque white glaze.[920] Another type of Islamic splashed wares used lead glaze over a white slip splashed with oxide pigments. The glaze comprises about 50% lead oxide. Some bear incised decoration through the slip, which are named as sgraffiato wares.[921] The lead glaze used on Islamic splashed wares also tended to fuse and flow into each other, and therefore, generated the mottled effect. Watson contributes the similarities between Chinese Sancai wares and Islamic white slip transparent glazed splashed wares to some "technical convergence"; potters in China and the Islamic world happened to use the same kind of designs to decorate ceramics at the same time.[922] It is too early to say there is absolutely no influence from Chinese classical Tang Sancai wares on Islamic splashed wares. But we cannot rule out the possibility that their seemingly typological similarities were caused by their both use of the fusible lead glaze and multi-colour oxide pigments.

6.6.3.2 Changsha Polychrome Wares

The Islamic "imitation" of Changsha painted wares has been discussed in Section 6.5.3.2. This section mainly discusses a certain type of Changsha wares which have brown and or green paintings in or on their celadon or white glaze (fig.6.101). This is not seen on Gongxian wares, which usually have green splashes only. The use of brown and green streaks converging into the bottom middle of the bowl is shared by Changsha wares and an Islamic one found in Nishapur (fig.6.102, right). Scholars used to focus on the possible influence of classical Tang Sancai wares on contemporary Islamic splashed wares, not much attention has been given to Changsha wares which were also deeply influenced by classical

[920] Mason 2004, 29.
[921] Mason 2004, 31 and 36.
[922] Watson 2004, 47.

Tang Sancai wares. Nigel Wood points out the importance of Changsha wares in understanding the connections between Chinese wares and Islamic splashed wares.[923] Qin Dashu has also paid attention to Changsha wares. During his examination of ceramic finds from Fustat in Cairo, he thought that Changsha wares, instead of Tang Sancai wares, had inspired Egyptian potters in producing Fayyumi wares.[924] But this type of Changsha wares has not been seen yet in any archaeological site in the Islamic world. Therefore, the possible connection is difficult to prove now.



Fig. 6. 101 A Changsha White Glazed Bowl with Green and Brown Streaks © Hunan Museum

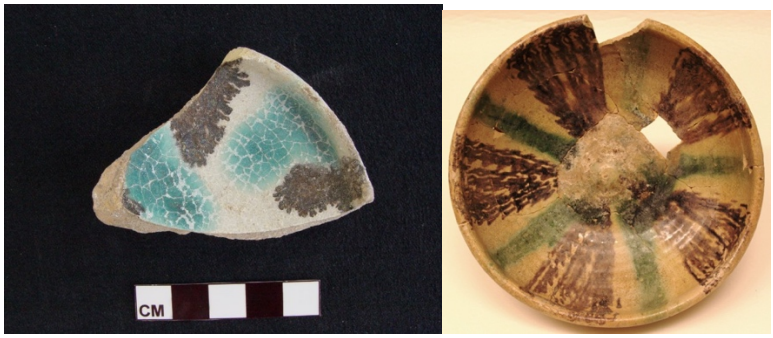


Fig. 6.102 Left: A Dish Lamp Fragment in Opaque White Glaze with Turquoise Blue and Brown Splashes, from Siraf, Mid-9th – 10th Centuries CE © British Museum, No. 2007,6001.8030; Right: A Polychrome Slip Painted Bowl under A Monochrome Glaze, 8th- 9th Centuries CE, Found from Nishapur © Metropolitan Museum of Art.

6.6.3.3 Green Splashed Wares with White Glaze or Yellow Glaze

[923] Personal correspondence with Nigel Wood.
[924] Qin Dashu 1995, 83.

The earliest Chinese green splashed wares on white glaze or on light yellow glaze appeared after the mid-6th century CE. Gongxian kilns started the production of green splashed white wares during the 684-756CE (see Section 6.6.1.1). The production of green splashed white wares in China predates the ceramic exchange to the Islamic world during the late 8th and early 9th centuries CE. Therefore, it is hard to say there was any influence from the Islamic world on the beginning of the production of Chinese green splashed wares.

The Samarra Horizon white glazed wares with green splashes or paintings are dated to the early 9th century CE, which is after the arrival of Chinese ceramics in the Islamic world. However, Islamic white wares with green splashes, streaks, dots or paintings share similarities not only with contemporary Chinese green splashed white wares, but also green splashed yellow glazed wares from the yellow glaze family (fig.6.103), named by Oliver Watson. The Islamic yellow glazed family ceramics on an opaque yellow glaze and often with green in-glaze paintings have been found in several sites in Syria, including Qasr al Hayr East, Apamea, al-Mina, Antioch, Aleppo, Raqqa and so on. "The green seems to be applied as coloured glaze painted into the opaque yellow glaze before firing as random splashes and runs or in more deliberate parallel streaks, or as yet more conscious patterns – swags from the rim, curved lines dividing the surface and rows of dots."[925] Evidence suggests that all the varieties of the yellow glaze family were made at Tall Aswad.[926] Their production is not yet precisely dated, but not early than the mid 8th century CE, and is associated with the stay of the Abbasid Caliph Harun al Rashid in Raqqa during 796-808CE.[927]

[925] Watson 1999, 81-2.
[926] Watson 1999, 84.
[927] Watson 2014, 128 and 130.

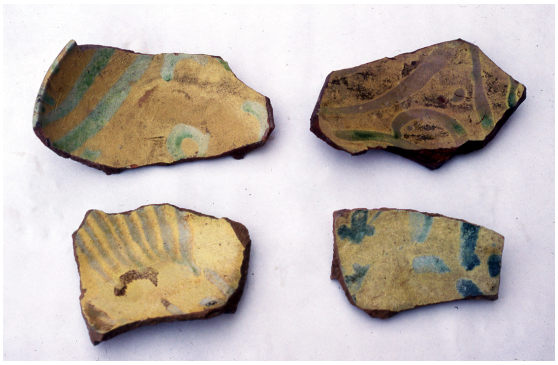


Fig. 6.103 Yellow Glazed Family Ceramic Sherds from Raqqa, late 8th Century CE, Watson 2014, 140.

It seems that most Chinese green splashed white wares have either green splashes, green patches or very neat dots. However, Samarra green splashed wares not only have green splashes, green patches and dots, which resemble the Chinese ones, but also green streaks. Green streaks are not often seen on Chinese green splashed wares, but are a feature seen on Islamic yellow glazed family and Islamic green splashed wares (fig.6.104). I tend to make the assumption that Samarra Horizon green splashed wares were influenced by both Chinese green splashed wares and the yellow glaze family ceramics originated in Syria. More study is needed to prove this assumption.



Fig. 6. 104 Left: An Islamic Yellow Glazed Bowl with Green Splashes from Susa © Louvre Museum; Right: An Islamic Green and Brown Splashed White Glazed Basin from Susa, 9th - 10th Centuries CE, Photo Taken at the Louvre Museum.

Except the two sherds with green, yellow and slightly white glaze and the one sherd with yellow glaze and green splashes found at Siraf, and the plate with green and yellow dots on a white glaze found at Samarra, no other Chinese yellow glazed wares with green splashes

have been found in any other Islamic site. As discussed before, this type of ceramics was produced at least in Gongxian kilns. The earliest example is a brownish yellow glazed lid with green splashes dated to the first half of the third production period of Huangye kilns (684-756CE). Other examples came from the fourth production period (around 841-907CE): a yellow glazed plate with five green dots on the rim and middle of the plate, and a yellow glazed bowl with possibly four green splashes. There are two almost intact Islamic yellow glazed vessels with green splashes found at Samarra, one jar with green dots on the upper part of the vessel and one cup with white glaze, yellow dots and green splashes beneath the yellow dots.

Even though the Chinese brownish yellow glazed lid with green splashes predates the rest, it is too early to say this was the first example of Chinese yellow glazed ware with green splashes. The brownish glaze colour is slightly different from the later yellow glaze and the Islamic yellow glaze. It is more likely that Chinese yellow glazed wares with green splashes appeared almost contemporary with these two Samarra yellow glazed wares, and perhaps not earlier than the 9th century CE. The Islamic world seemed to have a longer tradition than China in producing yellow glazed wares. China, even though has a longer tradition in the production of Sancai wares, only started the yellow glaze production during the early 9th century CE on a small scale.



Fig. 6.105 A Brownish Yellow Glazed Lid with Green Splashes Found from the Huangye Kilns, from the First Part of the Third Period, Henan Cultural Relics and Archaeology Institute 2016, Plate 68.



Fig. 6.106 Left: A Yellow Glazed Dish with Green Splashes; Right: A Yellow Glazed Bowl with Green Splashes, Found from the Huangye Kilns, from the Fourth Period, Henan Cultural Relics and Archaeology Institute 2016, Plate 193.



Fig. 6.107 An Islamic Yellow Glazed Jar with Green Splashes and An Islamic White Glazed Bowl with Yellow Dots and Green Splashes Found at Samarra, Sarre 1925, No.229 and No. 227.

6.6.3.4 Monochrome Glazed Wares with Moulded Decoration

Both China and the Islamic world produced monochrome green glazed wares with moulded relief decoration on the interior during the 8th to 10th centuries CE. This type of ceramics has not been paid much attention before. Islamic monochrome glazed wares with moulded relief decoration are covered with green or yellow glaze (fig.6.108 and 6.109). It may be argued that the origin of this technology lays in the Romano-Byzantine Mediterranean, where small cups imitating bronze vessels were made. Mason suggests a date between 750 and 900

CE.[928] Sarre named the yellow monochrome glazed moulded wares as monochrome lustre wares, which is not quite precise.



Fig. 6.108 Islamic Monochrome Yellow Glazed Sherds with Moulded Decoration from Samarra, Photo Taken at the Victoria and Albert Museum

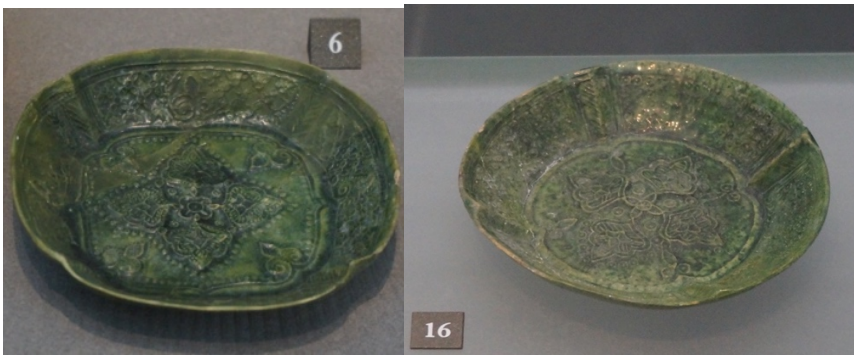


Fig. 6.109 Two Islamic Monochrome Green Lead Glazed Moulded Dishes, 8th – 9th Centuries CE, Photos Taken at the Museum of Louvre

Chinese monochrome green glazed moulded wares have been discussed in the previous sections. Xing, Gongxian and Changsha kilns all had produced this type of moulded glazed wares in a monochrome green glaze or green splashed white glaze or green and brown glaze. They have been found in Siraf and Samarra. There seemed to be no precedent of this type of ceramics in China before the Tang dynasty. The thin wall and moulded relief decoration reveal a prototype of metalwork from Central Asia, which was very popular among the Tang elite.

Even though this type of Chinese ceramics has been found in the Islamic world, it might not

[928] Mason 2004, 31.

be true to indicate any Chinese influence on Islamic monochrome glazed moulded wares. The Islamic ones were produced earlier than the arrival of Chinese ceramics. Their shared typological similarities, including the metalwork shape, the moulded relief decoration, the thin walls and the monochrome green glaze all indicate their shared prototype: metalwork in Central Asia and the Middle East. Both Islamic potters and Tang potters decided to imitate metalwork using ceramics. This type of ceramics was not produced in a great quantity during the Tang period; their quantity found in the Islamic world is not great either. It might be argued that this type of Chinese ceramics was not traded items, but maybe tribute or gifts.

6.6.3.5 White Wares with Blue Paintings

As mentioned in Section 6.6.2, there is only one single sherd of Chinese high-fired Tang blue and white ware found in the Islamic world at Siraf, which was produced by Gongxian kilns in China. It is often argued that the Islamic world started the production of white glazed ware with cobalt blue paintings in the early 9th century soon after the arrival of Chinese ceramics and very early during the Samarra Horizon.[929]

Gongxian kilns started the production of low-fired white wares with blue paintings during the period of 684-756CE. The high-fired white wares with blue paintings started to be produced by Huangye kilns during the period around 841 and 907 CE. There is no dating evidence for high-fired blue and white in Baihe kilns so far. The production of Tang blue and white wares from low-fired to high-fired has a continued tradition in Gongxian kilns. The amount of low-fired blue and white is larger than that of the high-fired ones.

It is previously argued that Chinese high-fired blue and white wares were produced in response to the Islamic world, due to the combination of lozenge and floral decoration on them. However, after examining all the currently known Tang high-fired blue and white wares and their finding context, it seems that the “export” type with a Middle Eastern taste is only

[929] Northedge & Kennet 1994, 25.

part of the Tang high-fired blue and white produced then.

Chinese high-fired blue and white wares with lozenge and floral designs have been found in Baihe kilns, Yangzhou and the Belitung shipwreck. There are another two types of Chinese high-fired blue and white wares. One type has dots, dashes or a combination of these two elements, which has been found at Huangye kilns and in the University of Hongkong Museum. Another type has human image (kid) and floral designs, which has been found in a Tang tomb (see Section 6.6.1.1).

The lozenge and floral design seemed to be influenced by contemporary Islamic wares, especially Islamic white glazed wares with blue paintings. This has been pointed out by several scholars, such as Jessica Hallet, Regina Krahl and Nigel Wood.[930] The Islamic white glazed wares have cobalt blue decoration in the form of palmettes, garlands, palm trees and Arabic writings (fig.6.111, right). The Chinese lozenge and palmette designs seemed to derive from the quatrefoil panels filled with Arabic writing surrounded by leaf fronds.[931] The lozenge and palmettes have also been applied on Chinese green splashed wares found at Samarra and in the Belitung shipwreck (fig.6.78, left and fig.6.112). They were highly likely to be Baihe kilns' products, as the same decoration has also been seen on Baihe kilns' white glazed wares with blue decoration (fig.6.110). Huangpu kilns also produced unglazed wares with black glazed decoration in lozenge and floral designs (fig.6.113) during the Tang period. Unfortunately, these Huangpu kilns' products cannot be dated precisely, therefore, it is hard to know where Huangpu kilns' lozenge and floral designs came from.

[930] Wood & Priestman 2016.
[931] Krahl 2011, 210.



Fig. 6.110 Left: Tang Blue and White Stoneware Sherds from Baihe Kilns, Henan Cultural Relics and Archaeology Institute 2016, Plate 262; Right: Tang Blue and White Stoneware Sherd from Yangzhou, Henan Cultural Relics and Archaeology Institute 2016, Plate 270.



Fig. 6.111 Left: Tang Blue and White Stoneware Dish from the Belitung Shipwreck © Asian Civilizations Museum, Singapore; Right: An Islamic White Glazed Bowl with Cobalt Blue Decoration, Basra, 9th century CE © V & A Museum



Fig.6.112 Chinese Green Splashed Wares with Incised Lozenge and Floral Designs from the Belitung Shipwreck, Photo Taken by the Author in New York

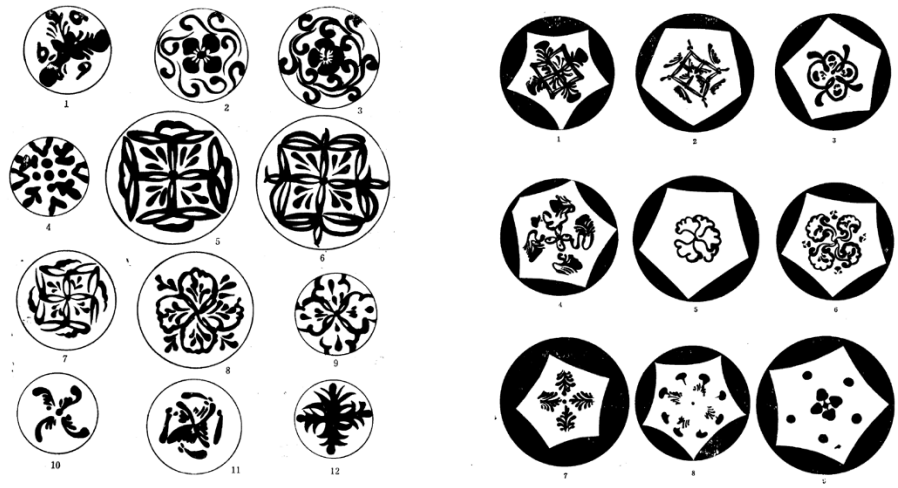


Fig. 6.113 Chinese Huangpu Wares with Black Floral and Geometric Designs from the Tang Period, Institute of Archaeology, Shaanxi Province 1992, 350 and 408

However, the dots and dashes decoration and human image (kid) and floral designs on Chinese Tang blue and white stoneware are more Chinese decorative repertoire than Islamic. They can be traced back to earlier low-fired Chinese blue and white wares (fig.6.114 and 6.115). As Nigel Wood proposes that the high-fired Gongxian blue and white with dots and dashes found from Huangye kilns followed the traditional approach of low-fired blue and white, which used simplified Sancai patterns, modified from the funerary Sancai repertoire.[932] From excavated materials from Huangye kilns, dots and short dashes were often applied to decorate low-fired blue and white wares. Another evidence of the continuity of production is that both low-fired and high-fired blue and white from Gongxian kilns used the same kind of iron-cobalt ore without zinc and higher in the cobalt content if compared with the cobalt pigment used on Islamic ceramics, which was a cobalt-iron-zinc compound.[933]

In Wood and Priestman 2016, they point out the direct impact of low-fired blue and white

[932] Wood & Priestman 2016, 51.
[933] Wood & Priestman 2016, 56.

wares with dots decoration on early Samarra Horizon wares, one example of which has identical dots decoration, though not in blue colour (fig.6.116).[934] However, this theory might need more excavated materials from the Islamic world to prove. No such type of Chinese low-fired white glazed wares with blue decoration has been currently found in the Islamic world.



Fig. 6.114 Chinese White Wares with Blue Paintings from the Third period of the Huangye Kilns, Henan Cultural Relics and Archaeology Institute 2016, Plate 259



Fig. 6.115 Chinese White Ware Bowl with Blue Paintings from the Fourth Period of the Huangye Kilns, Henan Cultural Relics and Archaeology Institute 2016, Plate 230

[934] Wood & Priestman 2016, 55.



Fig. 6.116 Left: Chinese Low-Fired White Glazed Wares with Blue and or Yellow Decoration from Huangye Kilns, Henan Cultural Relics and Archaeology Institute 2005, 141; Right: An Islamic Bowl with Brown and Green Dots from Iraq or Syria, 8th- 9th Centuries CE © al-Sabah Collection, Dar al-Athar al-Islamiyyah Kuwait, Wood & Priestman 2016, 55.

In conclusion, it seems that Gongxian kilns had already established a production of low-fired white wares with blue decoration during the 8th century CE. Its high-fired ones seemed to have been produced around or after 840 CE. Some of the high-fired ones adopted lozenge and palmettes from the Islamic decorative repertoire. Others continued some of the traditional decoration like dots and dashes. Therefore, Islamic blue and white only influenced the Gongxian kilns to adopt some of their decoration, but not the production of blue and white style itself. It is hard to tell if the low-fired Chinese blue and white had ever exerted any influence on the Samarra Horizon blue and white due to lack of archaeological evidence.

6.6.3.6 White Wares with Cobalt Blue and Green Paintings

White wares with cobalt blue and green paintings are often seen on Samarra Horizon glazed ceramics. A white glazed ewer with blue and green paintings found in Susa now at the Louvre Museum has been attributed to Chinese dated to the 10th and 11th centuries CE. Nigel Wood thinks this tripod ewer is more likely to be an Islamic tin glazed wares, for its shape is very close to Islamic metalwork and the white glaze is too thick and opaque for

Chinese Gongxian wares (fig.6.117).[935] A fragment of white glazed bowl with green, blue and brownish yellow decoration (fig.6.118, left) was found in Huangye kilns dated to the fourth period (around 841-907CE). The leafy twig motif is more often seen on Samarra Horizon Islamic glazed ceramics (fig.6.118, right).



Fig. 6.117 Left: Tripod White Glazed Ewer with Green and Blue Paintings Found in Susa, Photo Taken at the Museum of Louvre; Right: 9th – 10th centuries CE Egyptian Bronze Ewer, David Collection, Denmark



Fig. 6.118 Left: A White Glazed Bowl Fragment with Brownish Yellow, Green and Blue Decoration, from Huangye Kilns, Fourth period, Henan Cultural Relics and Archaeology Institute 2016, Plate 201; Right: A Jar Fragment of Opaque White Glaze with Blue and Brown paintings, 9th Century, Nishapur © Metropolitan Museum of Art

6.7 Other Types of Chinese Wares Found in the Islamic World

[935] From personal correspondence with Nigel Wood.

6.7.1 'Secret Coloured' (*Mi Se* 密色) Wares

'Secret Coloured' wares have been found in three sites in the Islamic world so far. It was described by Sarre in his second category of Chinese ceramic finds from Samarra: stoneware with grey fabric and bluish green glaze. It was described by Sarre as a very rare genre at Samara and very few found. Only five pieces were recorded in Herzfeld's finds journal (Sarre No. 210, finds journal I-N No.1136-40). Sarre cited Zimmermann's comments that this genre of ceramics never happened again in Chinese ceramic history.[936] The bluish-green glaze, which was thickly applied on a light greyish body, makes it very likely to be the 'secret coloured' ware, or '*Mi Se*' ware. In Fustat, one Yue ware fragment with two flying phoenixes incised with fine lines on the interior of a base fragment is of grey fabric with bluish green glaze of fine quality falling in drops on the exterior (fig.6.120).[937] The excavation of the Housi'ao 后司岙窑 kilns in the Shanglinhu area yielded a secret coloured glazed bowl base fragment with two incised phoenixes decoration (fig.6.121) which is completely identical to the Fustat Chinese one. This piece has been dated to the early Northern Song period (late 10th century CE to early 11th century CE). Siraf is the third archaeological site in the Islamic world that has Chinese secret coloured ceramic finds. There are at least three pieces in the British Museum that are possibly secret coloured ceramic fragments (Museum Number 2007,6001.8673; 2007,6001.9743; 2007,6001.9963) (fig.6.122).



[936] Sarre 1925, 57-8.
[937] Gyllensvard 1973, 97.

Fig. 6.119 Left: Secret Coloured Ceramic Sherd from Samarra, Sarre 1925, XXIII: 11; Right: A Secret Coloured Jingping (Bottle) Excavated from Famen Tample, China, Zhejiang Provincial Institute of Cultural Relics 2017, 170

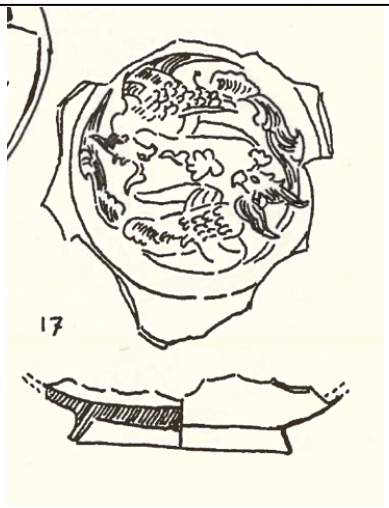


Fig. 6.120 Bluish Green Glazed Grey Ware with Incised Phoenix Decoration, Fig. 17 from Gyllensvard 1973

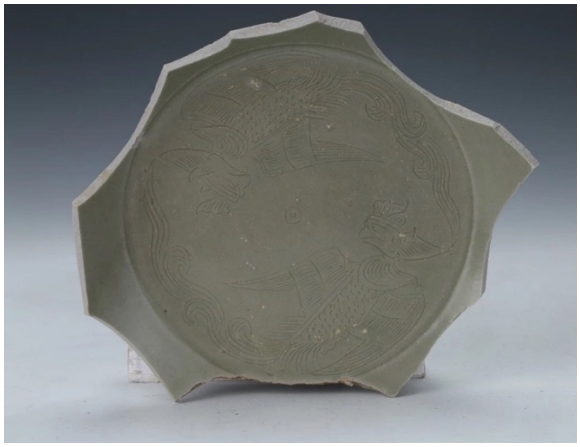


Fig. 6.121 Secret Coloured Bowl with Incised Phoenix Decoration from Housi'ao Kilns, Early Northern Song Period, Zhejiang Provincial Institute of Cultural Relics



Fig. 6.122 Three Secret Coloured Glazed Ceramic Fragments from Siraf ©British Museum

Secret coloured wares were first found at the underground palace of Famen Temple 法门寺 in 1987.[938] There are several kiln sites producing secret coloured wares during the Tang and Five Dynasties. Housi'ao kiln in the Shanglin Lake area 上林湖后司岙窑 was the primary kiln site for secret coloured wares, excavated from 2015 to early 2017.[939] Hehuaxin 荷花芯 kiln, Huangshanshan kiln 黄鳝山 and Jiaobaiwan kiln 茭白湾 in the Shanglin Lake area; Shimanong kiln 石马弄 in the Baiyang Lake 白洋湖 area and Silongkou kiln 寺龙口 in the Ancient Yinding Lake 古银锭湖 area also produced a small amount of secret colour wares.[940]

Tang and Five Dynasties' secret coloured wares are a special variety of Yue wares. They have been described in many publications to have a bluish green glaze. Excavations of these kiln sites also yielded secret coloured wares that are not in bluish green glaze. Nigel Wood also points out that most secret coloured ceramic sherds he has examined appear to be Yue-type grey-green glaze but more refined.[941] Each of them was fired individually within a sagger, which was sealed by glaze and fired in a reduction atmosphere. The shape is more delicate, and the body and glaze are even finer and thicker than normal Yue wares.[942]

[938] Shen Yueming 2017, 1.
[939] Zheng Jiangming 2017, 24.
[940] Shen Yueming 2017, 5.
[941] Personal correspondence with Nigel Wood.
[942] According to Nigel Wood, Chris Doherty and Ma Hongjiao's analysis of some secret coloured ware

Most secret coloured wares are fully glazed, plain, without decoration. Normally, sagger used refractory clay that was more commonly seen and cheaper. But the sagger used for the firing of secret coloured wares was made of highly refined clay same as the body of secret coloured wares themselves. It was sealed by glaze during the firing and had to be broken after the firing in order to take out the wares inside. These saggers had already been fired into a stoneware state, therefore, could not be reused after their initial use. All these factors contributed to the high cost of producing secret coloured wares. They were exclusively used by royal courts of the Tang and Wu Yue 吴越 kingdom during the Five dynasties.[943]

The secret coloured wares found from the underground palace of the Famen temple can be dated before the 15th year of the reign of Xiantong 咸通十五年 (874 CE). The earliest datable evidence in the excavations of Housi'ao kilns is during the reign of Dazhong 大中 (847-860CE), and in Hehuaxin kilns during the reign of Huichang 会昌 (841-846CE). The most prosperous period for the production of secret coloured wares in the Housi'ao kilns was during the reign of Zhonghe 中和 (881-884CE). The production declined after the mid-Five dynasties period (around 930sCE).[944]

Only a few sherds of Chinese secret coloured wares have been found at Samarra, Fustat and Siraf. They were already the most precious and luxurious ceramics in China. It is highly likely that they were sent to Islamic courts as diplomatic presents.

6.7.2 Shouzhou Wares 寿州窑

Shouzhou yellow glazed wares were described by Sarre in his third category of Chinese ceramic finds at Samarra: stoneware with grey or whitish fabric and yellow to light green glaze. The three sherds shown below (Sarre No. 211 and finds journal I-N No. 850c)

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fragments, they share almost the same glaze and body composition with normal Yue wares.

[943] Shen Yueming 2017, 7.

[944] Shen Yueming 2017, 11.

(fig.6.123, left) have a light yellowish fabric and the typical yellowish glaze of Shouzhou wares. The glossy glaze of these three Shouzhou sherds from Samarra indicates a more refined quality. A Chinese yellow glazed stoneware sherd was found at Siraf too (fig.6.123, right).

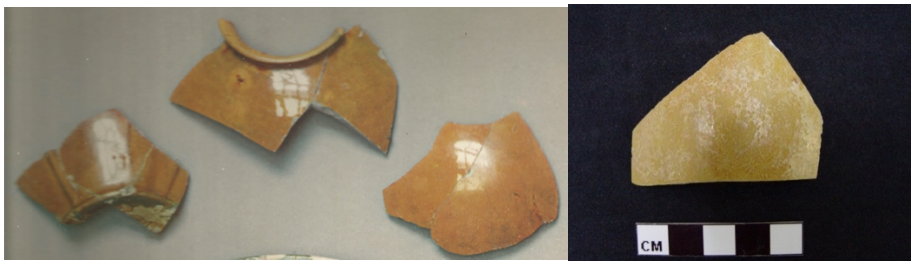


Fig. 6.123 Left: Yellow Glazed Stoneware Sherds from Samarra, Sarre 1925, XXVII: 1-3; Right: Yellow Glazed Stoneware Sherd from Siraf © British Museum, No. 2007,6001.727



Fig. 6.124 Left: Shouzhou Yellow Glazed Bowl from Shouzhou Kilns; Right: Shouzhou Yellow Glazed Bowl Found from Yangzhou, Institute of Archaeology, Chinese Academy of Social Sciences et al. 2010, Plate 107

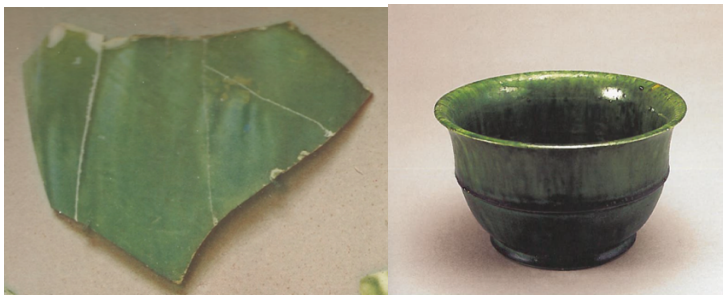
Shouzhou wares were one of the most famous six ceramic wares during the Tang. Surveys since the 1960s have identified the kiln site for Shouzhou wares in the area of Huainan 淮南 city. Shouzhou kilns started the production from the late North and South Dynasties, prospered during the Sui and Tang, and declined in the late Tang period.[945] Most Shouzhou wares have greyish or yellowish red body which is relatively coarse with inclusions. Above the body, there is often a layer of slip. Shouzhou wares have either celadon glaze or their unique yellow glaze, which was rare in the Tang period. During the late Tang period,

[945] Feng Xianming 2001, 341-2; Quan and Meng 2008, 153-4; Tao Zhiqiang 2011, 39.

Shouzhou kilns also produced black glazed and brown glazed stoneware.[946] Shouzhou wares have been found at the Liuzi Canal and in the ancient Yangzhou port too (see Chapter 7).[947] Since they have been found at Samarra and Siraf, it is possible that Shouzhou wares were also exported in a minor amount to the Islamic world during the 8th to 10th centuries CE. There may be more Shouzhou yellow glazed stoneware in the Islamic world which have not been identified yet.

6.7.3 North China's Monochrome Green Glazed Wares

Both Chinese green glazed stoneware and earthenware (not the celadon green) have been found in Herzfeld's excavations at Samarra. There are four wall fragments of a bellied monochrome green glazed stoneware jar with greyish white porcelain clay fabric (Sarre No. 212 and finds journal I-N No. 787) (fig.6.125). The emerald green glaze makes it a North China's product, and highly possible from Xing kilns. 15 fragments of a Chinese spherical vase or jar shaped vessel from Samarra (Sarre No. 213 and finds journal I-N No. 765) were found, which have monochrome green glaze and fired to earthenware (faience) temperature. Gongxian kilns, Ding kilns and Xing kilns all have low-fired monochrome green lead glazed wares during the Tang period. As mentioned in Section 6.6, some Chinese monochrome low-fired lead glazed wares found at both Samarra and Siraf also carry moulded relief decoration.

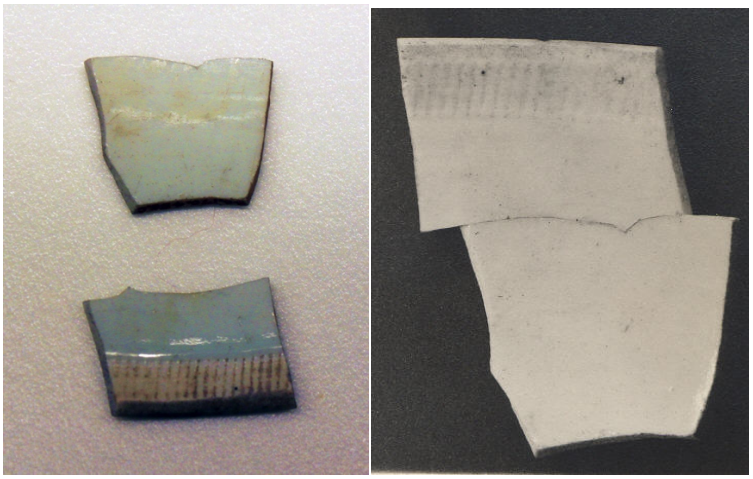


[946] Quan and Meng 2008, 153-4; Tao Zhiqiang 2011, 40.
[947] Tao Zhiqiang 2011, 43.

Fig. 6.125 Left: Green Stoneware Sherd from Samarra, Sarre 1925, XXIII:2; Right: Tang Green Glazed Cup, from Sha'anxi History Museum

6.7.4 Jun Wares 钧窑

There are two pieces of Jun wares (fig.6.126) found in Nishapur dated to the 9th and 10th centuries CE by the Metropolitan Museum of art, but to the 10th century by Wilkinson and described as Qingbai wares.[948] They came from the same vessel, however, the upper piece shows a bluish colour, which is strikingly akin to Jun wares produced mainly from the 11th century CE onwards in Henan province, China.[949] The second articulated fragment shows a bluish white colour, which recalls the effect of accidental colouring of Jun wares. The inhomogeneous colours were not resulted from painting or intentional addition of colourants but the firing atmosphere. The body is dark grey, which is the body colour of northern Chinese stoneware, especially Jun wares, but not for southern Chinese Qingbai wares, which have a whitish body. This type of wares has not been identified yet in other Islamic sites.



[948] Wilkinson 1973, 257, number 14.
[949] Quan & Meng 2008, 181.

Fig. 6.126 Chinese Jun Ware Sherds ©Metropolitan museum

6.7.5 East Asian Black or Brown Glazed Stoneware

Around 23 sherds of black or brown glazed stoneware (fig.6.127) has been found at Siraf. Monastery Wadi al-Tur and Sohar also have yielded this type of stoneware. Stoneware with black or brown glaze and a coarse fabric had been produced in many kilns in North and South China. It is hard to locate their kilns precisely. Changsha kilns had black or dark brown glazed stoneware. Some of the black glazed wares from Siraf might be Guangchong kilns' products (see Section 6.2.2.2).[950] Yixing kilns 宜兴窑 tend to be another possible kiln site that produced some of these brown or black glazed stoneware found in the Islamic world. Yixing kilns are situated in the area of Yixing county, Jiangsu Province. During the Tang period, Yixing kilns primarily produced celadon stoneware until the Five Dynasties.[951] Yixing kilns also had stoneware with dark brown or black glaze (fig.6.129). Their celadon was not as refined and well fired as Yue celadon and tended to be patchy light green glaze (fig.6.128). This feature is quite similar to the patchy light green glazed wares produced in Guangdong and found at Siraf. Because Yixing wares have been found in great quantity in the ancient Tang Yangzhou port (see Chapter 7, Section 7.2), they were highly likely to have been exported to the Islamic world too.

[950] Huang Ying 2016, 255.
[951] Jiang Zanchu 1984, 64 and 66.

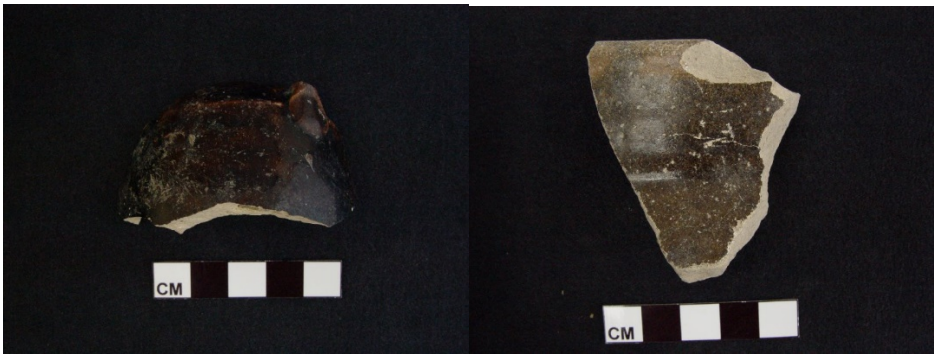


Fig. 6.127 East Asian Brown or Black Glazed Stoneware Fragments from Siraf © British Museum, No. 2007,6001.7482 and 2007,6001.5546



Fig. 6.128 Yixing Patchy Celadon Glazed Jar Found from Yangzhou, Institute of Archaeology, Chinese Academy of Social Sciences et al. 2010, Plate 92



Fig. 6.129 Yixing Brownish Glazed Jars Found from Yangzhou, Institute of Archaeology, Chinese Academy of Social Sciences et al. 2010, Plate 92

6.8 Peculiar Locations Where Chinese Ceramics Have Been Found and Potential Ways of Consuming Chinese Ceramics in the Islamic World

This part deals with some peculiar locations for Chinese ceramic finds within a site in the Islamic world, though not many sites have detailed information on where they have been found, and not all locations make much sense such as the case of monochrome and polychrome Chinese wares in Siraf (see Section 6.6.2).

Monastery of Wadi al-Tur, which was a Christian site in the Sinai Peninsula, has Chinese celadon and Islamic lustreware dishes found together with crosses and fragments of the Bible.[952] Probably churches and monasteries placed Chinese ceramics and highly valued Islamic glazed ceramics, like the lustreware, on their altars. It is not very likely that Chinese ceramics had been given any particular Christian religious significance. However, it is not difficult to imagine that these churches and monasteries would put most valuable objects on their altars, in order to adorn the altars and to match the glories of the holy cross and bible. Similar situation occurred in Java too, where Chinese ceramics, including Guangdong bluish green glazed wares, Changsha wares, green splashed white wares and Yue wares have also been found in palaces and temples.[953] At Samarra, drinking bowls including celadon were found scattered around the area of the remain of a fountain in the centre of the courtyard of the congregational mosque of Mutawakkil.[954] It is possible that celadon and other ceramic bowls were used for containing water and ritual ablution in some mosques by Muslims.

The appreciation of Chinese ceramics and newly developed Islamic glazed ceramics as a form of ceramic art must have been established in the Islamic world during the course of the 8th to 10th centuries CE. Glazed ceramic vessels, fired in a higher temperature with a higher quality than unglazed ones, not only introduced new form of artistic and aesthetic enjoyment,

[952] Kawatoko & Shindo 2009, 3.
[953] Mikami 1988, 58-9.
[954] Leisten 2003, 81.

but also a new form of tableware to contain food and drinks. This might be directly or indirectly influenced by the doctrines of Islam about golden and silver vessels, which were obviously a lavishness and related to an extravagant lifestyle. Instead of abandoning all the enjoyment brought by sumptuous banquets and glorious utensils, there was a way to get around the doctrines. Like the lusterware conveys a visual resemblance to golden and silver vessels, Chinese ceramics, especially the high-quality ones, gave the glorious and mild light refracted by their smooth and translucent surface. They not only play with the light, they also give the touch of smoothness and purification for whatever is contained inside of them. The exotic features were also appreciated in the Islamic world. Chinese ceramics had been used in the Islamic world in quite different ways, compared to their original usage in China. The existence of Chinese ceramics in these specific locations above gives us a clue of the possible ways in which Chinese ceramics might have been used in the Islamic world, and their relations with vessels of other materials, such as golden and silver vessels, glass vessels and so on.

Chapter 7: Archaeological Information on Middle Eastern Merchants, Ports and Ships in Chinese Ceramic Exchange to the Islamic World

The study of Middle Eastern merchants in the Tang China, ports, passageway and ships used for the Chinese ceramic exchange from China to the Islamic world is an essential part of this thesis. In this chapter, I will use archaeological evidence and analysis to show how ceramic exchange might have been possibly conducted in the 8th to 10th centuries CE, by discussing evidence on Middle Eastern merchants' presence in China, ports in China, the Ancient Great Canal and the Belitung Shipwreck.

7.1 Middle Eastern Merchants in China

As mentioned in Chapter 4, Section 4.2, Chinese Tang texts described the presence and activities of Middle Eastern merchants in port cities including Yangzhou and Guangzhou. There is also archaeological evidence to substantiate their presence and their activities in the Tang Empire. Fragments of Middle Eastern alkaline glazed wares have been found at eight sites in China so far: Mingzhou port, Yangzhou port, Guangzhou port, Changsha kiln site, Fuzhou福州, Hepu 合浦, Rongxian 容县 and Guilin 桂林 in Guangxi Province.



Fig. 7.1 Sites in China with Middle Eastern Alkaline Glazed Wares

The Middle Eastern alkaline glazed ewer (fig.7.2, left) found from a tomb in Hepu in the late Eastern Han period is currently the earliest Middle Eastern alkaline glazed ware found in China.[955] Hepu was an important sea port during the Eastern Han dynasty, it is possible that there was a direct or indirect connection between China and the Middle East via the Indian maritime routes back then. Nine pieces of Middle Eastern alkaline glazed wares have been found in the ancient Tang and Song Mingzhou site in the excavation of 1997 together with Yue celadon stoneware. These alkaline glazed wares share many similarities with those found in Yangzhou in terms of glaze, body and decoration of applied beads and strings (see Section 7.2 for alkaline glazed wares found in Yangzhou).[956] In Guangzhou, more than ten pieces of alkaline glazed jars (fig.7.3) were found from the excavation of the Southern Han (917-971CE) layers of the palace of the Southern Yue kingdom (204-112BC) in 1997 and more than 100 pieces of alkaline glazed vessels (fig.7.2, right) were found in a dump pit dated to the Tang to Southern Han period in Guangzhou in 2008.[957] One fragment of an

[955] Cheng Mingxi 2016, 58.
[956] Fu Yimin, 2000. http://www.farsarts.com/portal.php?mod=view&aid=242
[957] Cheng Mingxi 2016, 63.

alkaline glazed vessel (fig.7.7) was found from the excavation of the Changsha kilns. Three intact Islamic alkaline glazed jars (fig.7.4) came from the tomb of Liu Hua 刘华, Queen of the Min Kingdom 闽国, dated to 930 CE in Fuzhou.[958] Pieces of Middle Eastern alkaline glazed wares were found from the Tang layers in archaeological excavations conducted in Guilin and Rongxian in Guangxi Province.[959] It is likely that people from the Middle East had reached the area of Guilin and Rongxian to conduct trade or other activities.



Fig. 7.2 Left: A Middle Eastern Alkaline Glazed Ewer Found from A Late Eastern Han Tomb in Hepu, Guangxi province, Cheng 2016, 58; Right: A Middle Eastern Alkaline Glazed Jar Found from A Dump Pit Dated to the Tang to Southern Han Period in Guangzhou, Cheng Mingxi2016,



Fig. 7.3 Middle Eastern Alkaline Glazed Fragments from the Southern Han Layer at the Ancient Site of the Southern Yue Palace in Guangzhou, Cheng MIngxi 2016, 63

[958] Museum of Fujian Province 1975, 62.
[959] Cheng Mingxi 2016, 62.



刘华墓出土釉陶瓶

Fig. 7.4 Three Middle Eastern Alkaline Glazed Jars from the Tomb of Liu Hua, Cheng Mingxi 2016, 60



Fig. 7.5 Middle Eastern Alkaline Glazed Sherds Found from Yangzhou, Institute of Archaeology, Chinese Academy of Social Sciences et al. 2010, Plate 124



Fig. 7.6 Middle Eastern Alkaline Glazed Jar Found from the Excavations of Yangzhou in 1965 ©Yangzhou Museum



Fig. 7.7 A Fragment of an Islamic Alkaline Glazed Ceramic Vessel from Excavations of the Changsha Kilns, Photo Taken by the Author

A piece of crystal (fig.7.9), possibly brought from abroad, has been found in the excavation of the Changsha kilns in 2015.[960] A glass bowl (fig.7.8), possibly produced in the Islamic world, was found from excavation in Changde City 常德, Hunan Province. Ma Wenkuan attributes this glass bowl to the production of Nishapur, Iran.[961]



Fig. 7.8 An Islamic Glass Bowl Found in Changde, Hunan Province, in Changde Museum, Ma 2006, plate 1.

[960] Zhang Xingguo 2016, 319.
[961] Ma Wenkuan 2006, 15.



Fig. 7.9 A Piece of Crystal Found in the Excavation of the Changsha Kilns in 2015, Zhang 2016, 178

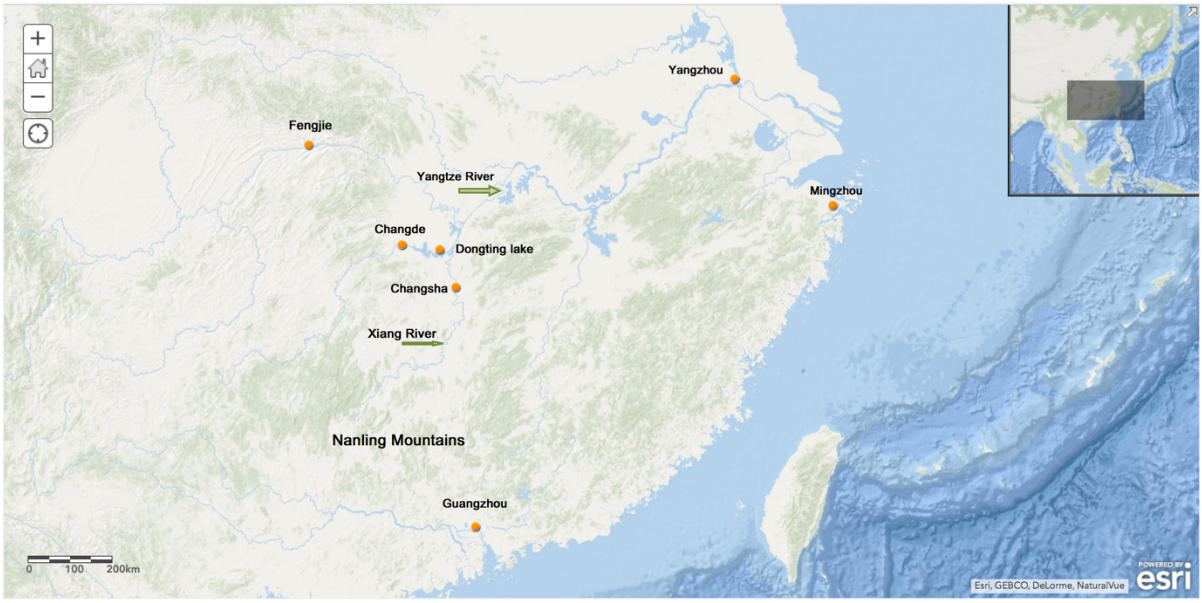


Fig. 7.10 Geography around Changsha Kilns

A few Chinese texts mention the existence and activities of foreigners in the northern Hunan area along the Yangtze River and around the Dongting Lake 洞庭湖. *Changsha Dongchi Ji* 长沙东池记 by Fu Zai 符载 in the late Tang period mentions that, “Changsha is a large county, rivers and mountains extend a thousand miles, routes connect Baiyue (the area of southwest China), there are hosts, there are outsiders, they come from all directions, ships

and carriages cluster here."[962] Ma Wenkuan thinks that the outsiders here possibly refer to merchants from the Islamic world. A novel *Ganze Yao* 甘泽谣 written by Yuan Jiao 袁郊 in the late Tang period mentions the profits foreign merchants obtained from trades in the Dongting Lake area. Changde was described in Tang texts as having merchandise from foreign merchants. A poem by a Tang poet Du Fu 杜甫 in the mid-8th century CE mentions foreign merchants leaving Fengjie 奉节 area (now in Chongqing 重庆) to Yangzhou.[963] Therefore, Ma proposes that foreign merchants not only were trading in important ports, like Yangzhou, Mingzhou, Guangzhou, and metropolitan cities, like Chang'an and Luoyang, they had also arrived in the northern Hunan area and even in Chongqing along the Yangtze River.[964]

In light of the excavated materials of the Islamic glass bowl, blue alkaline glazed ware fragment and the crystal fragment, which were presumably brought by people from the Islamic world or people who were connected to the Islamic world, Ma's opinion of an active existence and engagement of Islamic merchants in Changde and Changsha areas and along the Yangtze River is highly reasonable, though they did not necessarily have to be merchants. We can speculate that people from the Islamic world came to Changsha kilns to place orders of Changsha wares. They came all the way not only to order Changsha wares to be taken back and to be traded in Southeast Asia and West Asia, but also to exchange products that they brought from outside of China for all sorts of local goods. However, this does not mean that all the procedure of the exchange of Changsha wares were led and operated by people from the Islamic world. It is more feasible that Chinese were in charge of transporting Changsha wares along the Xiang river to the Yangtze river and to the ports of Yangzhou and Mingzhou. Those Middle Eastern merchants may well have been with their

[962] Ma Wenkuan 2006, 17. The original text of Fu Zai is: '况长沙大郡也，江山亘千里，道途控百越，有主人焉，有大宾焉，浑浑四来，击戟摩轩。'

[963] Ma Wenkuan 2006, 17. This poem is Jiangmen Shi'er Shou composed by Du Fu during 766-768CE in Kuizhou, now Fengjie. The original poem is '胡商离别下扬州，忆上西（一作兰）陵故驿楼，为问淮南米贵贱，老夫乘兴欲东流（一作游）'.

[964] Ma Wenkuan 2006, 17.

ordered ceramic products on ships to these ports, where they continued transactions of other ceramics and products.

7.2 Ports in China

It is highly possible that Changsha wares had been transported to ships bound for Southeast Asia and West Asia via the Xiang River 湘江 to the Yangtze River and to Yangzhou and Mingzhou ports. Yangzhou is located on the Great Canal too, via which northern Chinese white wares and Gongxian wares in Henan Province were shipped to the port. Yangzhou became the most convenient port for dealing with both North China's ceramic products and Changsha wares from South China. Mingzhou, ancient name for today's Ningbo in Zhejiang Province, was another port for the export of Changsha wares, with Changsha wares found at the ancient port piers.[965] They were often found with Yue stoneware and possibly sold and shipped together with these Yue wares abroad. Although the Guangdong Museum holds a collection of Changsha wares, they are not entirely from archaeological surveys or excavations in Guangzhou or other sites within the province. Only 13 pieces of Changsha ware sherds in total were found from archaeological contexts. One Changsha ware found in the Paracel Islands may have been left by a passing ship, which stopped over for supplies.[966] Therefore, Changsha wares were not very likely to be exported via Guangzhou port. This was mainly due to the geological barriers of the Nanling Mountains 南岭山脉, which separate the Hunan Province and Guangdong Province. The Xiang River 湘江 north to the Nanling Mountains running from Guangxi to Hunan from south to north linking itself to the Yangtze river via the Changsha kilns tends to be a more convenient, efficient and economical way to transport Changsha wares. Therefore, Yangzhou and Mingzhou in the Yangtze river system were the main ports for Changsha wares instead of Guangzhou port in

[965] Changsha kilns research group 1996, 161.
[966] Changsha kilns research group 1996, 162.

the south.

Among the three most important ports in the Tang period: Yangzhou, Guangzhou and Mingzhou, the ancient Yangzhou port has been surveyed and excavated most systematically and the results of which have been published in detail. Therefore, the ancient Yangzhou port is discussed below in more detail, from which we can speculate the way how exchange had been conducted between the Tang and the Islamic world.

The ancient Yangzhou port:

Yangzhou is situated at the crossing of the Yangtze River and the Great Canal within a short sail to the East China Sea. Merchandise and people from the north and south converged in the ancient Yangzhou port. The ancient Tang Yangzhou port was excavated in the 1970s by the Museum of Nanjing and Museum of Yangzhou. The areas of handicraft workshops, temples, bridge foundations, hoards, city walls and wells from the Tang period were excavated.[967] During the 1980s and 1990s, archaeological excavations and surveys continued to be conducted in the ancient Yangzhou port.[968] Ceramic sherds of Shouzhou wares, Gongxian wares, Ding wares, Xing wares, Yue wares, Yixing wares, Hongzhou wares and Changsha wares have been found in the Tang, Five Dynasties and early Song layers.[969] This thesis discusses the excavated sites of the ancient Yangzhou port where Tang ceramic finds have been counted and described.

Song City Walls:

From the remains of the Song city walls, there are 1614 pieces of Changsha wares (43%), 1504 pieces of Yixing wares (40%), 370 pieces of Shouzhou wares (10%), 184 pieces of Yue wares (5%), and 69 pieces of Ding wares (2%) dated to the Tang period.[970]

[967] Institute of Archaeology, Chinese Academy of Social Sciences et al. 2010, 7.
[968] Institute of Archaeology, Chinese Academy of Social Sciences et al. 2010, 8-9.
[969] Institute of Archaeology, Chinese Academy of Social Sciences et al. 2010, 74, 83, 88, 92-102, 116 and 145.
[970] Institute of Archaeology, Chinese Academy of Social Sciences et al. 2010, 94-102.

The West Gate of the Song Yangzhou city:

Table 7.1 below shows the amount of each type of ceramic finds dated to the Tang period from the West Gate of the Song Yangzhou city.[971]

Table 7.1 Types and Amounts of Tang Ceramic Sherds from the West Gate of the Song Yangzhou City		
Ceramic type	Amount	Percentage (%)
Changsha	247	38
Yixing	133	21
Yue	75	12
Shouzhou	63	10
Ding	66	10
Gongxian	17	3
Gongxian Sancai	22	3
Other types	20	3

The site of the Palace of Culture 文化宫:

In an early Tang house, the early Tang ceramic finds comprise 376 pieces of Yixing wares (69%), 54 pieces of Hongzhou wares (10%), 49 pieces of Shouzhou wares (9%) and 68 pieces of unidentified wares (12%).[972] In a late Tang house, there is a total amount of around 18900 pieces of Tang ceramic finds, including 1196 pieces of Yue wares (6.3%), 6159 pieces of Yixing wares (32.7%), 6775 pieces of Changsha wares (36%), 537 pieces of Hongzhou wares (2.9%), 755 pieces of Shouzhou wares (4%), 1726 pieces of Ding and Xing wares (c.9%), and1310 pieces of Gongxian wares (c.7%). The most exceptional ceramic finds are two pieces of Tang high-fired blue and white wares. Besides Chinese ceramic finds, there are also 151 pieces of Middle Eastern alkaline glazed wares and around 200 pieces of glass wares.[973] Two pieces of glass wares have been examined, which shows an origin from the Islamic world.[974]

The site at Xinhua Middle School 新华中学:

At this site, ceramic finds from the Tang period comprise 357 pieces of Yue wares (12%),

[971] Institute of Archaeology, Chinese Academy of Social Sciences et al. 2010, 116.
[972] Institute of Archaeology, Chinese Academy of Social Sciences et al. 2010, 143.
[973] Institute of Archaeology, Chinese Academy of Social Sciences et al. 2010, 148-178.
[974] Institute of Archaeology, Chinese Academy of Social Sciences et al. 2010, 176 and 179.

1545 pieces of Yixing wares (53%), 316 pieces of Gongxian white wares (11%), 36 pieces of Ding and Xing wares (1%), 329 pieces of Shouzhou wares (11%) and 363 pieces of Changsha wares (12%). From a total number of 3680 pieces of ceramic finds, there are 2946 pieces of stoneware and porcelain and 734 pieces of low-fired potteries.[975]

The Great East Gate Street Site 大东门街遗址:

Two ditches from the Tang period were found at this site. Early Tang ceramic finds mainly comprise Yixing wares and Yue wares. Ceramic finds from the late Tang period include primarily Yue wares, Yixing wares, Changsha wares, Shouzhou wares, Ding wares and Gongxian wares.[976]

The Handicraft Workshop and Commercial Area:

Sherds of Middle Eastern alkaline glazed wares, Yue wares, Changsha wares, Ding wares, Gongxian wares and Shouzhou wares have been found.[977] There are 598 pieces of Changsha painted wares. Other Changsha wares have not been counted yet. Changsha wares discovered from this area show more refined and delicate features than Changsha wares found elsewhere in the ancient Yangzhou port.[978] It is likely that more refined and well fired Changsha wares had been transported all the way to this commercial area of the ancient Yangzhou port where merchants could purchase them.

Discussion:

Almost all the types of Chinese ceramics found in the Islamic world, except Dusun wares, have been found in the ancient Tang Yangzhou port, particularly in the commercial area. The late Tang period house at the site of the Palace of Culture not only yielded a large amount of Chinese Tang ceramics, but also two pieces of exceptional Tang high-fired blue and white as well as more than 100 fragments of Middle Eastern alkaline glazed wares (fig.7.5 and 7.6) and possible Middle Eastern glass wares (fig.7.13). These finds substantiate the ancient

[975] Institute of Archaeology, Chinese Academy of Social Sciences et al. 2010, 209-213.
[976] Institute of Archaeology, Chinese Academy of Social Sciences et al. 2010, 240-246.
[977] Institute of Archaeology, Chinese Academy of Social Sciences et al. 2010, 246-252.
[978] Changsha kilns research group 1996, 158.

records from both Chinese and Arabic texts on the presence of Middle Eastern traders in the ancient Tang Yangzhou port, and it proves that Yangzhou port used to be one of the most important ports for the connection between the Tang and the Islamic World. This also indicates the importance of this late Tang house in the aspect of commercial or official activities of traders or officials from the Middle East in Yangzhou.

The Changsha wares that were found in the ancient handicraft workshop and commercial area were more refined than those found at other sites in the ancient Yangzhou port. In light of the finding of Islamic alkaline glazed wares in this commercial area, it can be argued that Changsha wares which were destined for oversea markets, including the Islamic market, might have a more refined quality than those consumed within China, which were used as normal tableware or burial goods.

Besides the well-known types of Chinese wares found in the Islamic world, including Yue wares, Changsha wares, Gongxian wares (lead glazed wares and white wares), Ding and Xing white wares, excavations of the ancient Yangzhou port also yielded noticeable amounts of other types of Chinese wares, especially Yixing wares and Shouzhou wares. It is possible that these two types of ceramics were also exported to the Islamic world during the Tang period. Table 7.2 below shows percentages of each type of Tang ceramic finds from the four sites with available data in Yangzhou.

Table 7.2 Percentages of Different Types of Tang Ceramic Finds in Yangzhou

	Song City Walls	West Gate of Song City	Late Tang House	Xinhua Middle School Site
Changsha	43%	38%	36%	12%
Yixing	40%	21%	32.70%	53%
Yue	5%	12%	6%	12%
Shouzhou	10%	10%	4%	11%
Ding and Xing	2%	10%	9%	1%
Gongxian white wares				11%
Gongxian Sancai		3%		
Gongxian		3%	7%	
Hongzhou			2.90%	
other types		3%		

Ceramic finds from the early Tang house at the Palace of Culture site and the two ditches at the Great East Gate Street site can be dated specifically to the early Tang period. At the early Tang house, most ceramic finds that can be dated to the early Tang period are Yixing wares followed by Hongzhou and Shouzhou wares. Yixing and Yue wares are the major early Tang ceramic finds from the two Tang ditches. It shows that during the early Tang period, at least these two collections of early Tang ceramic finds in the ancient Tang Yangzhou port have no Changsha wares, Chinese white wares (from Ding, Xing and Gongxian kilns) or lead glazed wares (Sancai and green splashed wares) from North China. Therefore, it can be argued that the connection between China and the Islamic world in the form of ceramic exchange had not been conducted yet in the early Tang period in Yangzhou, which was before the mid 8th century CE.

The most abundant types of ceramic finds from the Tang period in the ancient Yangzhou port are Changsha wares and Yixing wares. Gongxian Sancai wares, though have been found in a variety of types, are not as abundant as the other types. The 3% of Sancai wares found at the West Gate site were not all intended to be exported abroad. Some of them would have been consumed locally or transported to South China via Yangzhou. It should be pointed out that the excavators of the Yangzhou port count monochrome lead glazed potteries, two-coloured lead glazed splashed wares and tri-coloured lead glazed wares all as Sancai wares. This percentage makes sense if we compare it to the amount found outside of China, especially in the Islamic world.



Fig. 7.11 Yue Celadon Glazed Dish Found from Yangzhou, Institute of Archaeology, Chinese Academy of Social Sciences et al. 2010, Plate 85

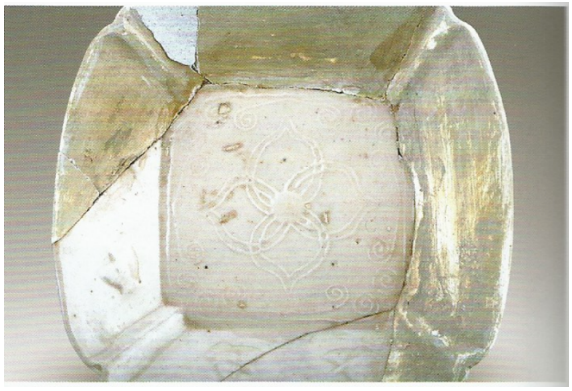


Fig. 7.12 Xing or Ding White Glazed Dish Found from Yangzhou, Institute of Archaeology, Chinese Academy of Social Sciences et al. 2010, Plate 112



Fig. 7.13 Middle Eastern Glass Sherds Found from Yangzhou, Institute of Archaeology, Chinese Academy of Social Sciences et al. 2010, Plate 125

7.3 The Ancient Great Canal in Liuzi 柳孜

The Great Canal played an important role in the transport between North China and the Yangzte River in South China. Archaeological excavation also substantiates that the Canal

had been used to transport ceramic products from kilns in North China to the ancient Yangzhou port. The Tongji canal 通济渠 in Huaibei city 淮北, Anhui Province connected the Yellow River with the Great Canal. Liuzi was an important town along the Tongji canal.[979] In 1999, a rescue excavation of the Liuzi Canal was conducted by the Anhui Provincial Institute of Archaeology, the Museum of Huaibei city, Bureau of Cultural Relics of the Suixi County 濉溪县. This rescue excavation yielded eight Tang shipwrecks, a Song stone building structure and ceramic finds from over 20 kilns across the country.[980] Excavated materials can be dated from the Sui to the southern Song periods, including Shouzhou wares, Gongxian wares, Yaozhou wares (Huangpu wares), Changsha wares and Yue wares from the Tang period.[981] The Sancai ceramic finds, especially a low-fired blue and white bowl (fig.7.14) from Gongxian kilns, proved that products from Gongxian kilns were transported via the Great Canal to the ancient Yangzhou port.



Fig. 7.14 A Tang Low-Fired Blue and White Bowl Found from the Liuzi Canal, Anhui Provincial Institute of Archaeology and the Museum of Huaibei City 2002, Plate 31

7.4 Belitung Shipwreck

The Belitung shipwreck was recovered during 1998-1999 off Belitung Island between Sumatra and Borneo in the Java Sea. The building techniques of this vessel indicate it as an

[979] Anhui Provincial Institute of Archaeology and the Museum of Huaibei City 2002, 94
[980] Anhui Provincial Institute of Archaeology and the Museum of Huaibei City 2002, 3-4.
[981] Anhui Provincial Institute of Archaeology and the Museum of Huaibei City 2002, 92 and 97.

ancient Arab or Indian dhow. The wood from which the vessel was built revealed an African origin and strongly suggest that the vessel was built somewhere in Arabia.[982] Items from China constitute more than 95% of the retrieved cargo, the majority of which are ceramics. The original cargo has been estimated to have around 70,000 pieces of ceramics.[983] Around 60,000 pieces of Chinese ceramics were finally retrieved,[984] including 55,000 Changsha painted bowls and 2,500 other types of Changsha wares (ewers, jarlets and a variety of less common forms).[985] These Changsha bowls were presumably packed in straw "cylinders" or stowed in Dusun jars in a helical way.[986] Around 200 pieces of green splashed white glazed wares were found at the stern of the shipwreck with other higher-value items.[987] Chemical analysis of eight fragments of green splashed wares from the Belitung shipwreck shows similarities to those from Gongxian kilns.[988] Three high-fired blue and white wares were also found at the stern area of the ship.[989] There is a large green splashed ewer with incised lozenge and floral designs (fig.7.15). The incised decoration recalls those on the high-fired blue and white produced in Baihe kilns. However, its size and shape resemble those produced by Ding kilns and Xing kilns.[990]

[982] Smithsonian Institute 2011, 36.
[983] Smithsonian Institute 2011, 36.
[984] Flecker 2011, 107.
[985] Flecker 2011, 107.
[986] Flecker 2011, 108.
[987] Guy 2011, 24.
[988] Li Baoping et al 2011, 183.
[989] Flecker 2011, 110.
[990] Nigel Wood points out that Xing Sancai wares were in general with an inferior quality and Ding Sancai wares only seemed to be produced in the late Tang period (second half of the 9th century CE). Therefore, this Belitung large ewer's provenance cannot be determined, unless new excavated materials can shed light on its provenance.



Fig. 7.15 Chinese Green Splashed Ewer with Incised Lozenge and Floral Designs Found from the Belitung Shipwreck, Photo taken by the Author in New York

Around 200 pieces of Yue wares were found from the Belitung shipwreck.[991] There are around 300 pieces of Chinese white wares; all came from kilns in North China.[992] White wares and Yue wares were also found at the stern area of the ship.[993] There are around 900 pieces of southern Chinese green-glazed (celadon) stoneware, most of which are Dusun storage jars, and a small number of them are tableware from Yue kilns and kilns in Guangdong.[994] Krahl thinks these Guangdong celadon tableware may have come from

[991] Smithsonian Institute 2011, 51.
[992] Smithsonian Institute 2011, 52.
[993] Flecker 2011, 110.
[994] Krahl 2011, 185.

Shuiche 水车 kilns in Guangdong.[995] Dusun jars were found falling to both sides of the ship's centreline, but they were presumably stowed on top of the lead ballast ingots. Most Changsha bowls and Dusun jars with Changsha bowls were recovered from the centre of the boat and aft.[996]

A bright green glazed bowl with inscription of the character Ying 盈 (surplus) and a green splashed white glazed dish with inscription of the characters Jinfeng 进奉 (offered as tribute) have been recovered from the Belitung shipwreck. These two inscriptions are normally seen on Xing white wares and Ding wares.[997] Krahl thinks these two pieces were most likely to be from Gongxian kilns.[998] However, Xing and Ding kilns also had green-glazed stoneware, Sancai wares and green splashed wares. Therefore, we cannot rule out the possibility that these two pieces from the Belitung shipwreck came from Xing and Ding kilns.

The date when the ship sunk was probably between 841 and 845 CE. One Changsha painted bowl carries inscriptions of "*bao-li er nian qi-yue shi-liu-ri*" (the 16th of July in the second year of Baoli), which is the year 826 CE. Radiocarbon dating of selected samples from the shipwreck and cargo is consistent with the year of 826 CE. From the shipwreck retrieved 199 coins of Tang kai-yuan-tong-bao 开元通宝 minted before 845 CE, and nine qian-yuan-zhong-bao 乾元通宝 minted from 758 CE onwards.[999] The three high-fired Chinese blue and white wares were likely to be produced after around 840 CE, which was during the fourth period of the production of Huangye kilns (see Chapter 6, Section 6.6.1.1). Green splashed white glazed cups with moulded relief (fish, turtle and duck) on the bottom of the interior and a drinking tube attached on the exterior were found in the Belitung shipwreck. This type of cups with a drinking tube has been found at Samarra and at the Huangye kilns dated to the fourth period around 841 to 907 CE (see Chapter 6, Section

[995] Krahl 2011, 194.
[996] Flecker 2011, 110.
[997] Krahl 2011, 52.
[998] Krahl 2011, 52.
[999] Smithsonian Institute 2011, 38.

6.6.2). If the dating and chronology of the excavation of Huangye kilns are substantially reliable, the Belitung ship must have sunk in the early fourth production period of the Huangye kilns, which now has been proposed to be around 841 CE.

The ship was likely to be sailing to the Middle East. As mentioned above, it was highly likely to have been built in the coastal area of Arabia. Personal belongings to the crew members and passengers on the ship include Middle Eastern alkaline glazed jars and glass vessels.[1000] More importantly, the Chinese ceramic cargo in the Belitung ship is very similar to those found in the Islamic world. Chinese high-fired blue and white was also found at Siraf. The green splashed ware with moulded dragon medallion was also found in Nishapur. The green splashed wares with incised decoration were also found at Samarra and Siraf, and the green splashed cup with drinking pipes was found at Samarra too (see Chapter 6, Section 6.6.2).

[1000] Smithsonian Institute 2011, 40.

Chapter 8: Conclusion

This thesis provides new angles, material and discussion to the topic of Chinese ceramics arriving in the Islamic world from the 8th to 10th centuries CE and their connection with contemporary Samarra Horizon Islamic glazed ceramics. This phenomenon cannot be explained simply by the ceramic trade between China and the Islamic, which took place in large quantities during the 8th to 10th centuries CE. The connections between Chinese ceramics and Samarra Horizon Islamic glazed ceramics are beyond one-way influence of the former on the latter, bur rather a bi-influence on each other. In addition, not all Chinese ceramics in the Islamic world are luxurious traded goods.

This thesis also explores the broader question regarding the distribution of early Chinese ceramics in the Islamic world which has not yet been explored sufficiently. Chinese ceramics have been found in 116 sites in all six sub-regions in the Islamic world and in all types of settlement. There are varying patterns related to ceramic finds in these sites. The Persian Gulf region has the highest concentration of sites with Chinese ceramics, especially the Iranian coastal area of the Persian Gulf. Most sites in the Persian Gulf with Chinese ceramic finds are small settlements in the coastal areas in Iran and Arabia, which is different from the Red Sea and the Gulf of Aden areas, where most sites with Chinese ceramics are ports. In the inland areas of Mesopotamia, Egypt, Greater Syria and Iran, Chinese ceramics have almost exclusively been found in city or town-level settlements. It is likely that Chinese ceramics were not accessible to most small settlements in inland areas and were not as widely circulated among ports in the Mediterranean Sea as in the Red Sea and the Persian Gulf from the 8th to 10th centuries CE.

There are five main types of Chinese ceramics found in the Islamic world from the 8th to 10th centuries CE. Chinese celadon stoneware is the most widely distributed Chinese ceramics in the Islamic world during the 8th to 10th centuries CE. This is followed by Chinese white wares, Dusun wares, Changsha wares and Chinese monochrome and polychrome glazed

wares. Celadon stoneware has been found in all six sub-regions and in all types of settlements. It is the only type of Chinese ceramic that was found in most sites in Greater Syria and town and city-level sites in the inland area of Iran.

Chinese white wares seemed to have been less circulated in the Arabian Sea and Red Sea regions than in the Persian Gulf region. Almost all inland sites with Chinese white wares are city-level settlements. Dusun wares have been found mostly at ports, village-level and town-level settlements in the Persian Gulf. Only a few ports and coastal settlements with Dusun ceramic finds are in the Gulf of Oman, Arabian Sea and the Red Sea. Very few inland city-level sites have Dusun ceramic finds. Changsha wares were found mostly in small coastal settlements in the Persian Gulf. Chinese monochrome and polychrome ceramic finds were only found in 16 sites in very small amounts in each of them. Most of these sites are in the Persian Gulf area on the Iranian side.

As discussed in Chapter 5, during the 8th to 10th centuries CE, the scale of the circulation of Chinese ceramics in the Islamic world may not have always been considerable, like most publications have claimed. Only very few large urban centres and ports have an impressive amount of Chinese ceramic finds to indicate some volume of transaction, which might have represented around 2% in their whole ceramic assemblages in all occupation periods. In smaller trading towns and ports like A'Ali, al-Hamr al-Sharqiya, Raya and Qal'at al-Bahrain, Chinese ceramics might have represented around 0.2-0.5% in their whole ceramic assemblages in all occupation periods. The absolute amounts of Chinese ceramic sherds found from all their occupation periods are very small; generally, fewer than ten pieces. It is likely that Chinese ceramics were only transported to very few large ports, from where Chinese ceramics were transported to large inland urban centres and also circulated locally and regionally in towns, small ports and settlements in the neighbourhood of the port. The distribution of Chinese ceramics and their quantities in each site show a very clear hierarchy, which is based on the hierarchy of the level of settlement and the hierarchy of people living in these sites; their social status, their wealth and power to get access to and afford Chinese imports.

Different types of Chinese ceramics arrived in different areas and settlements in the Islamic world. They held different values and functions; their amounts in these Islamic sites vary hugely too. Chinese Changsha wares and Yue wares were more likely to be traded ceramics, except the extremely rare and precious secret coloured celadon wares, which were likely gifts rather than traded goods. Some extremely fine Chinese white wares were similarly unlikely to be traded goods. For example, the exquisite Xing moulded white ware fragments found at Samarra were likely rather than traded goods. The distribution and quantity of Chinese monochrome and polychrome wares in the Islamic world gives an indication that they might serve other functions beyond that of being traded goods. The blue and white, yellow glazed stoneware, monochrome green or green splashed moulded wares, due to their scarce amounts found in the Islamic world, might have been tribute or exchanged presents to courts in Samarra and Nishapur. An example would be the green splashed wares with moulded dragon medallion found in Nishapur. Dusun storage jars themselves were less likely to be traded for their intrinsic value but were by-products of traded goods which they contained. Therefore, we must open to the possibility that only part of the Chinese ceramics in the Islamic world were the result of commercial activities. There were also other purposes for the exchange, such as ceramics which were exchanged as tribute goods, gifts or even through looting. It is important to note that not all of these Chinese ceramics were luxurious. Some of them were mass-produced and traded as normal goods, for example, Changsha wares and Dusun wares. Different types of Chinese wares were treated differently in the Islamic world and they did not present the same commercial or aesthetic value.

It is not precise to describe the relationship between Chinese ceramics and Samarra Horizon ceramics as “imitations”, because there were more dynamic interactions than imitations only. Chinese ceramics influenced Samarra Horizon wares, which also exerted influence on Chinese ceramics. Ceramic techniques also played a huge role in the appearance of these ceramic wares. The similarities between their looking may be results of imitations and interactions, but also their ceramic production techniques and shared

influence from metalwork and possibly other materials.

It is time to examine many ideas regarding this topic which were generated a long time ago by new discovered archaeological data in the Islamic world and China. There needs to be a deeper and better mutual understanding between scholars doing Islamic materials and Chinese materials on each other's materials and research. In the current stage, the study on Chinese ceramics in the Islamic world and their connections with contemporary Islamic glazed ceramics cannot proceed without new research angles and better understanding of materials from broader regions instead of only focusing on big and famous sites, such as Samarra, Siraf and Fustat.

Appendix

Appendix 1. Chinese Dynasties and Islamic Dynasties

Chinese Dynasties	
Dynasty	**Years of Reign**
Western Han 西汉	202BC-9CE
Eastern Han 东汉	25-220CE
Three Kingdoms 三国	220-280CE
Western Jin 西晋	265-317CE
Eastern Jin 东晋	317-420CE
Northern and Southern Dynasties 南北朝	420-589CE
Sui 隋	581-618CE
Tang 唐	618-907CE
Five Dynasties and Ten Kingdoms 五代十国	907-960CE
Northern Song 北宋	960-1127CE
Southern Song 南宋	1127-1279CE
Liao 辽	907-1125CE
Jin 金	1115-1234CE
Yuan 元	1271-1368CE

Islamic Dynasties	
Dynasty / Period	**Years of Reign**
Rashidun Caliphate (the Four Righteous Caliphs) الخلافة الراشدة (الخلفاء الراشدون)	632-661CE
Umayyad Caliphate الخلافة الأموّية	661-750CE
Abbasid Caliphate الخلافة العباسية	750-1258CE
Samanid Dynasty سامانيون	819-999CE
Tahirid Dynasty طاهريون	821-875CE
Saffarid Dynasty صفاريون	861-1003CE
Ghurid Sultanate غوريون	879-1215CE
Buyid Dynasty بويهيون	934-1062CE
Ghaznavids الدولة الغزنوية	977-1186CE
The Great Seljuq الدولة السلجوقية	1037-1194CE
Fatimid Caliphate الخلافة الفاطمية	910-1171CE
Ayyubid dynasty الأيوبيون	1171-1260CE
Mamluk Caliphate المملوك	1250-1517CE
Ottoman Caliphate الدولة العثمانية	1517-1923CE

Appendix 2. The Tang Emperors and The Abbasid Caliphs in Iraq

Emperor	Years of Reign and Reign Titles
Gaozu 高祖	Wude 武德 618-626
Taizong 太宗	Zhenguan 贞观 627-649
Gaozong 高宗	Yonghui 永辉 650-655 Xianqing 显庆 655-661 Longshuo 龙朔 661-663 Linde 麟德 664-665 Qianfeng 乾封 666-668 Zongzhang 总章 668-670 Xianheng 咸亨 670-674 Shangyuan 上元 674-676 Yifeng 仪凤 676-679 Tiaolu 调露 679-680 Yonglong 永隆 680-681 Kaiyao 开耀 681-682 Yongchun 永淳 682-683 Hongdao 弘道 683
Zhongzong 中宗	Sisheng 嗣圣 684.1-2
Ruizong 睿宗	Wenming 文明 684.2-684.9 Guangzhai 光宅 684-688 Yongchang 永昌 689.1-11 Zaichu 载初 689-690
The Emperess Zetian Dasheng Tianhou 则天大圣皇帝	690-705
Zhongzong 中宗	Shenlong 神龙 705-707 Jinglong 景龙 707-710
Ruizong 睿宗	Jingyun 景云 710-711 Taiji 太极 712 Yanhe 延和 712
Xuanzong 玄宗	Xiantian 先天 712-713 Kaiyuan 开元 713-741 Tianbao 天宝 742-756
Suzong 肃宗	Zhide 至德 756-758 Qianyuan 乾元 758-760 Shangyuan 上元 760-761 761-762
Daizong 代宗	Baoying 宝应 762-763 Guangde 广德 763-764 Yongtai 永泰 765-766 Dali 大历 766-779
Dezong 德宗	Jianzong 建中 780-783 Xingyuan 兴元 784 Zhenyuan 贞元 805

Shunzong 顺宗	805
Xianzong 宪宗	Yuanhe 元和 806-820
Muzong 穆宗	Changqing 长庆 821-824
Jingzong 敬宗	Baoli 宝历 824-826
Wenzong 文宗	Baoli 宝历 826 Dahe 大和 827-835 Kaicheng 开成 836-840
Wuzong 武宗	Huichang 会昌 841-846
Xuanzong 宣宗	Dazhong 大中 847-859
Yizong 懿宗	Dazhong 大中 859 Xiantong 咸通 860-873
Xizong 僖宗	Xiantong 咸通 873-874 Qianfu 乾符 874-879 Guangming 广明 880-881 Zhonghe 中和 881-885 Guangqi 光启 885-888 Wende 文德 888
Zhaozong/ Xiangzong 昭宗 / 襄宗	Longji 龙纪 889 Dashun 大顺 890-891 Jingfu 景福 892-893 Qianning 乾宁 894-898 Guanghua 光化 898-901 Tianfu 天复 901-904 Tianyou 天佑 904
Jingzong (Aizong) 景宗（哀宗）	Tianyou 天佑 904-907

Regnal Name of Caliph	**Years of Reign**	**Capital City**
As Saffah السفّاح	749 ~ 754	Kufa الكوفة (750-762)
Al Mansur المنصور	754 ~ 775	Kufa الكوفة Baghdad بغداد (762-796)
Al Mahdi المهدي	775 ~ 785	
Al Hadi الهادي	785 ~ 786	
Harun al Rashid هارون الرشيد	786 ~ 809	Baghdad بغداد Ar-Raqqah الرقّة (796-809)
Al Amin الأمين	809 ~ 813	Baghdad بغداد (809-836)
Al Ma'mun المأمون	813 ~ 833	
Al Mu'tasim المعتصم	833 ~ 842	Baghdad بغداد Samarra سامرّاء (836-892)
Al Wathiq الواثق	842 ~ 847	
Al Mutawakkil المتوكل	847 ~ 861	
Al Muntasir المنتصر	861 ~ 862	
Al Musta'in المستعين	862 ~ 866	
Al Mu'tazz المعتز	866 ~ 869	
Al Muhtadi المهتدي	869 ~ 870	

Al Mu'tamid المعتمد	870 ~ 892	
Al Mu'tadid المعتضد	892 ~ 902	Baghdad بغداد (892-1258)
Al Muktafi المكتفي	902 ~ 908	
Al Muqtadir المقتدر	908 ~ 932	
Al Qahir القاهر	932 ~ 934	
Ar Radi الراضي	934 ~ 940	
Al Muttaqi المتقي	940 ~ 944	
Al Mustakfi المستكفي	944 ~ 946	
Al Muti المطيع	946 ~ 974	
At Ta'i الطائع	974 ~ 991	
Al Qadir القادر	991 ~ 1031	
Al Qa'im القائم	1031 ~ 1075	
Al Muqtadi المقتدي	1075 ~ 1094	
Al Mustazhir المستظهر	1094 ~ 1118	
Al Mustarshid المسترشد	1118 ~ 1135	
Ar Rashid الراشد	1135 ~ 1136	
Al Muqtafi المقتفي	1136 ~ 1160	
Al Mustanjid المستنجد	1160 ~ 1170	
Al Mustadi المستضيء	1170 ~ 1180	
An Nasir الناصر	1180 ~ 1225	
Az Zahir الظاهر	1225 ~ 1226	
Al Mustansir المستنصر	1226 ~ 1242	
Al Musta'sim المستعصم	1242 ~ 1258	

Appendix 3. Terminologies for Ceramics

Slip: a liquid mixture of clay applied over the ceramic body to decorate the ceramic.

Glaze: a layer of a vitreous substance, fused to the ceramic body through firing.

Terracotta: a type of earthenware, normally refers to sculpture and vessels used in construction made of earthenware.

Earthenware: pottery fired below 1200 ℃.

Stoneware: partially vitrified ceramic made of stoneware clay or non-refractory clay.

Porcelain: ceramic fired between 1200-1400℃, made of kaolin or porcelain clay.

Samarra body: distinctive cream-coloured clay body fabric used on Islamic Samarra Horizon cobalt blue white wares and lustre painted wares.

Appendix 4. Chinese Ceramics and Kilns (the majority is discussed in Chapter 6)

Cizhou Kilns 磁州窑	
Location: Ci county 磁县, Hebei Province	**Period**: Song to Jin Dynasties
Main products: White glazed ware with underglaze black paintings; green or brown/amber paintings over white glaze during the Northern Song period; red and green paintings during the Jin period. Cizhou style influenced many kilns in Henan, Shanxi, Sha'anxi, Anhui, Shandong, Zhejiang, Jiangxi and Guangdong provinces.[1001]	

Mixian Kilns 密县窑	
Location: Mi county, Henan Province	**Period**: probably starting from Five Dynasties and mainly active in the Northern Song Dynasty
Main products: White wares, black glazed wares, yellow glazed wares, wares with incised decoration on black or white slip and Sancai wares.[1002]	

Dengfeng Kilns 登封窑	
Location: Dengfeng, Henan province	**Period:** since the Tang and flourished during the Song
Main products: White wares, green splashed white wares, Sancai wares. Dengfeng kilns' products were mainly for folk market.[1003]	

[1001] There are Hebi kilns, Lushan kilns, Yiyang kilns, Bacun kilns, Juntai kilns, Mixian kilns, Jiaxian kilns of Henan province, Jiexiu kilns, Huoxian kilns of Shanxi province, Yaozhou kilns of Sha'anxi province, Xiaoxian kilns of Anhui province, Zibo kilns of Shandong province, Quzhou kilns of Zhejiang province, Jizhou kilns of Jiangxi province and Haikang kilns of Guangdong province, Feng Xianming 2001, 382. Dangyangyu kilns of Henan province, Jizhou kilns of Jiangxi province, Chayang kilns, Cizao kilns of Fujian province, Quan & Meng 2008, 181.
[1002] Feng Xianming 2001, 355.
[1003] Feng Xianming 2001, 391-2.

Appendix 5. Islamic Ceramics

1. White glaze with cobalt blue decoration:

This type of glazed ware was possibly produced in Basra or around, but Basra may not be the only production centre. Its appearance has been dated to the mid-8th century at Susa by Kervran to the end of the 8th century at Siraf by Tampoe, and to after 825 CE at Siraf by Whitehouse. Northedge and Kennet propose that it went out of production soon after the foundation of Samarra in 836CE.[1004]

2. White glaze with cobalt-blue and green or brown decoration:

This type of ceramics came after white glaze with cobalt blue decoration. They were presumably still in production in the last two decades of the 9th century CE.[1005]

3. Lustre ware:

Watson (2004) defines lusterware as "a type of pottery or porcelain with a metallic glaze that gives the effect of iridescence, produced by metallic oxides in an overglaze finish, which is given a second firing at a lower temperature to exclude oxygen." There were three types of lustre decoration. Ruby red lustre appeared first. The second type with polychrome lustre: green, yellow, brown, brownish red and ruby red came afterwards in the second half of the 9th century CE. The third type of lustre ware with polychrome lustre in greenish yellow or golden yellow came by the mid-9th century CE. [1006]

4. Grey glaze:

There were grey glazed wares. Some of them have lustre or cobalt decoration. Grey glaze was not misfired white glaze but deliberate fired by potters.[1007]

5. Plain opaque white glaze:

This type has been considered as imitations of Chinese white stoneware and porcelain. The

[1004] Northedge & Kennet 1994, 25.
[1005] Northedge & Kennet 1994, 29.
[1006] Lane 1947, 14; Northedge & Kennet 1994, 29 and 33; Fehérvári 2000, 42; Watson 2004, 38.
[1007] Northedge & Kennet 1994, 33.

shape of the latter including the curved or flaring side, radiating ribs and notches on the rim was imitated too.[1008] Five types of fabric have been found, including the Samarra body.[1009]

6. Splashed glaze:

Splashed wares were usually in red body coated with white slip and a transparent lead glaze and splashes in green, yellow-brown and purple.[1010] The colours tended to run during the firing, which, therefore, gave the characteristic streaked or splashed pattern. Lane saw these wares imitations of Chinese mottled stoneware, and thus, called them pseudo-Chinese mottled wares.[1011] They were probably introduced in the early to mid-9th century CE.[1012]

7. Sgraffiato splashed ware:

The first sgraffiato wares were produced from different production centres using different fabrics and forms. They were lead glazed with white slip decorated with green and brown colourants and incised decoration scratched through the slip to the body beneath. They may be introduced in the early 10th century.[1013] Early Sgraffiato wares had slightly yellowish glaze with green and brown splashes, which was basically incised splashed ware.[1014] Later Sgraffiato ware had a slip with transparent yellowish glaze splashed with green, purple and yellow.[1015] They were probably introduced around the 11th century and seemed to have gone out of use in the mid-12th century CE.[1016]

8. Alkaline glazed ware/ Sasanian-Islamic glazed ware:

This type is the commonest glazed ceramic found in the Middle East. The monochrome alkaline green-blue glaze was in use until the Ottoman period.[1017] The Parthian period had

[1008] Whitehouse 1979, 50.
[1009] Northedge & Kennet 1994, 33.
[1010] Whitehouse 1979, 50.
[1011] Lane 1947, 12. He described Chinese Sancai wares and Changsha wares here as mottled stoneware.
[1012] Northedge & Kennet 1994, 33.
[1013] Northedge & Kennet 1994, 33.
[1014] Whitehouse 1979, 50.
[1015] Whitehouse 1968, 15.
[1016] Whitehouse 1975, 265.
[1017] Northedge & Kennet 1994, 23.

blue-green, yellow or brown alkaline glaze.[1018] The Sasanian and Islamic alkaline glazed wares were a continuity of the Parthian ones. Alkaline glazed wares with barbotine decoration were of Umayyad or more probably Abbasid date. Their exterior is decorated with applied ornament in the form of small beads, strips and stamped medallions. Their distribution pattern primarily follows waterborne networks.[1019]

9. Lead Glazed Relief Ware:

This type of glazed wares was among the very early Islamic glazed wares. Its production continued for another two or three centuries after the advent of Islam.[1020] It was probably influenced by late Roman relief wares, which were covered by coloured lead-glaze with patterns moulded in relief. The Islamic ones were coloured in green, brown or purple glazes.[1021]

[1018] Lane 1947, 8.
[1019] Sasaki 1991, 2-3.
[1020] Féhérvari 2000, 35.
[1021] Lane 1947, 12; Northedge & Kennet 1994, 34.

Appendix 6: Sites in the Islamic World with Chinese Ceramic Finds: Numerical Order

Site Number	Site Name
1	Alexandria
2	Fustat
3	Monastery of Wadi
4	Raya
5	Ashkelon
6	Jerusalem
7	Aqaba/ Ayla
8	Aynunah
9	Khuraybah
10	Bar Antar
11	Quseir al-Qadim
12	Al-Mabiyat
13	Aydhab
14	Al-Hawra'a
15	Sirrin
16	Aththar
17	Zabid
18	Tell Shaykh Salim
19	Kadumat am-Sha'ibi
20	Aden
21	Jabalayn
22	Al-Qaraw
23	Al-Tariya
24	Al-Quraya
25	Sharwayn
26	Abyan
27	Habil
28	Shihr
29	Sharma
30	Khalfat
31	Sayhut
32	Hayrij
33	Kawd am-Saila
34	Socotra
35	Al-Hamr al-Sharqiya
36	Ra's al-Hadd
37	Sohar
38	Samda
39	Arja
40	Khatt
41	Jazirat al-Hulayla
42	Kush
43	Julfar
44	Jumeira
45	al-Na'man

46	al-Hasa
47	Dhahran
48	Qatif
49	Barbar
50	Qal'at al-Bahrain
51	Jidd al-Hajj
52	A'Ali
53	Bilad al-Qadim
54	Fayd
55	Zubalah
56	Qasr al-Hayr East
57	Raqqa
58	Hama
59	Apamea
60	Antioch
61	Samarra
62	Ctesiphon
63	Kufa
64	Wasit
65	Hira
66	Basra
67	Susa
68	Jundi Shapur
69	Kangavar
70	Rayy
71	Gurgan
72	Nishapur
73	Tell Zibid
74	Shah Abdallah
75	Mahruban
76	Tell Moragh
77	Rishahr
78	Bushire
79	Gharibou
80	Istakhr
81	Qasr-i-abu Nasr
82	Bibi Khatun
83	Daiyir
84	Tal-i-Sabz
85	Shilau
86	Siraf
87	Qal'at Abd al-Rahman
88	Ziarat
89	D10
90	Neran
91	Gurzeh
92	Tavuneh
93	Tell Muveh
94	Qais
95	Ruvan
96	B10
97	Shenas
98	Bostaneh

99	Qeshm
100	Suru
101	Sirjan
102	Rayin
103	Jiruft
104	Shahr-i-daqianus
105	Mashiran
106	Saravan
107	Nakhl Ibrahim
108	Tappa-i-surkh
109	Gishnau
110	T. Gishnu
111	Akhtar
112	Minab
113	T. Qaleh Kucheck
114	T. Cheraghabad
115	Hakemi
116	Tiz

Appendix 7. Chinese Ceramic Finds from Siraf at British Museum, 8th – 10th Centuries CE

Chinese White Wares		
Museum Number	**Type**	**Shape**
2007,6001.200	Porcelain	Bowl
2007,6001.204	Porcelain	Bowl
2007,6001.248	Porcelain	Bowl
2007,6001.253	Porcelain	Bowl
2007,6001.301	Porcelain	Bowl
2007,6001.315	Porcelain	Bowl
2007,6001.322	Stoneware	Bowl
2007,6001.334	Porcelain	Bowl
2007,6001.513	Porcelain	Bowl
2007,6001.525	Porcelain	Bowl
2007,6001.679	Stoneware	Bowl
2007,6001.685	Stoneware	Bowl
2007,6001.686	Porcelain	Bowl
2007,6001.783	Porcelain	Bowl
2007,6001.833	Porcelain	Vessel
2007,6001.836	Porcelain	Bowl
2007,6001.871	Stoneware	Bowl
2007,6001.980	Stoneware	Bowl
2007,6001.987	Stoneware	Bowl
2007,6001.988	Stoneware	Bowl
2007,6001.994	Stoneware	Bowl
2007,6001.995	Stoneware	Bowl
2007,6001.996	Porcelain	Bowl
2007,6001.1186	Stoneware	Bowl
2007,6001.1187	Stoneware	Bowl
2007,6001.1243	Stoneware	Bowl
2007,6001.1319	Stoneware	Bowl
2007,6001.1435	Stoneware	Bowl
2007,6001.1443	Stoneware	Bowl
2007,6001.1857	Stoneware	Bowl
2007,6001.1981	Porcelain	Bowl
2007,6001.1988	Porcelain	Bowl
2007,6001.2103	Porcelain	Bowl
2007,6001.2104	Stoneware	Bowl
2007,6001.2105	Porcelain	Bowl

2007,6001.2106	Porcelain	Bowl
2007,6001.2134	Porcelain	Bowl
2007,6001.2148	Porcelain	Bowl
2007,6001.2149	Porcelain	Bowl
2007,6001.2151	Porcelain	Bowl
2007,6001.2205	Stoneware	Bowl
2007,6001.2212	Porcelain	Bowl
2007,6001.2217	Porcelain	Bowl
2007,6001.2220	Stoneware	Bowl
2007,6001.2223	Stoneware	Bowl
2007,6001.2228	Stoneware	Bowl
2007,6001.2255	Stoneware	Bowl
2007,6001.2256	Porcelain	Bowl
2007,6001.2257	Porcelain	Bowl
2007,6001.2258	Porcelain	Bowl
2007,6001.2259	Porcelain	Bowl
2007,6001.2278	Porcelain	Bowl
2007,6001.2310	Porcelain	Bowl
2007,6001.2424	Stoneware	Bowl
2007,6001.2429	Porcelain	Bowl
2007,6001.2710	Porcelain	Bowl
2007,6001.2727	Stoneware	Bowl
2007,6001.2741	Stoneware	Bowl
2007,6001.2743	Stoneware	Bowl
2007,6001.2787	Stoneware	Bowl
2007,6001.2837	Stoneware	Bowl
2007,6001.2838	Porcelain	Bowl
2007,6001.2840	Stoneware	Bowl
2007,6001.2964	Porcelain	Bowl
2007,6001.3055	Porcelain	Bowl
2007,6001.3104	Porcelain	Bowl
2007,6001.3163	Porcelain	Bowl
2007,6001.3167	Stoneware	Bowl
2007,6001.3214	Porcelain	Bowl
2007,6001.3344	Stoneware	Bowl
2007,6001.3583	Porcelain	Bowl
2007,6001.3679	Porcelain	Box
2007,6001.3730	Porcelain	Bowl
2007,6001.3731	Porcelain	Bowl
2007,6001.3904	Stoneware	Bowl
2007,6001.4275	Porcelain	Bowl
2007,6001.4383	Porcelain	Bowl

2007,6001.4407	Porcelain	Bowl
2007,6001.4611	Porcelain	Bowl
2007,6001.4740	Porcelain	Bowl
2007,6001.4806	Porcelain	Bowl
2007,6001.4841	Porcelain	Bowl
2007,6001.4850	Porcelain	Bowl
2007,6001.4850	Porcelain	Bowl
2007,6001.4851	Porcelain	Bowl
2007,6001.4935	Porcelain	Bowl
2007,6001.4987	Porcelain	Bowl
2007,6001.4992	Porcelain	Bowl
2007,6001.4996	Porcelain	Bowl
2007,6001.4998	Porcelain	Bowl
2007,6001.5000	Porcelain	Bowl
2007,6001.5011	Porcelain	Bowl
2007,6001.5119	Porcelain	Bowl
2007,6001.5152	Porcelain	Bowl
2007,6001.5219	Porcelain	Bowl
2007,6001.5223	Stoneware	Bowl
2007,6001.5224	Porcelain	Bowl
2007,6001.5244	Porcelain	Bowl
2007,6001.5245	Porcelain	Box
2007,6001.5256	Porcelain	Bowl
2007,6001.5310	Porcelain	Bowl
2007,6001.5340	Porcelain	Bowl
2007,6001.5341	Porcelain	Bowl
2007,6001.5354	Porcelain	Bowl
2007,6001.5355	Porcelain	Bowl
2007,6001.5490	Porcelain	Bowl
2007,6001.5509	Porcelain	Bowl
2007,6001.5510	Porcelain	Bowl
2007,6001.5601	Porcelain	Bowl
2007,6001.5602	Porcelain	Bowl
2007,6001.5616	Porcelain	Bowl
2007,6001.5622	Porcelain	Bowl
2007,6001.5682	Porcelain	Bowl
2007,6001.5733	Porcelain	Bowl
2007,6001.5754	Stoneware	Bowl
2007,6001.5771	Porcelain	Bowl
2007,6001.5772	Stoneware	Bowl
2007,6001.5800	Porcelain	Jar
2007,6001.5874	Stoneware	Jar

2007,6001.5888	Porcelain	Bowl
2007,6001.5973	Porcelain	Bowl
2007,6001.6019	Stoneware	Bowl
2007,6001.6022	Porcelain	Bowl
2007,6001.6043	Porcelain	Bowl
2007,6001.6065	Stoneware	Jar
2007,6001.6088	Porcelain	Bowl
2007,6001.6100	Stoneware	Bowl
2007,6001.6120	Porcelain	Bowl
2007,6001.6139	Porcelain	Bowl
2007,6001.6141	Porcelain	Bowl
2007,6001.6221	Porcelain	Bowl
2007,6001.6223	Porcelain	Bowl
2007,6001.6226	Porcelain	Bowl
2007,6001.6240	Stoneware	Bowl
2007,6001.6279	Porcelain	Box
2007,6001.6299	Stoneware	Bowl
2007,6001.6414	Porcelain	Bowl
2007,6001.6415	Stoneware	Bowl
2007,6001.6416	Porcelain	Bowl
2007,6001.6417	Porcelain	Bowl
2007,6001.6418	Porcelain	Bowl
2007,6001.6422	Stoneware	Bowl
2007,6001.6425	Stoneware	Bowl
2007,6001.6427	Porcelain	Bowl
2007,6001.6463	Porcelain	Bowl
2007,6001.6607	Stoneware	Vessel
2007,6001.6620	Porcelain	Bowl
2007,6001.6631	Porcelain	Bowl
2007,6001.6632	Porcelain	Bowl
2007,6001.6657	Porcelain	Bowl
2007,6001.6663	Porcelain	Bowl
2007,6001.6664	Porcelain	Bowl
2007,6001.6686	Porcelain	Jar
2007,6001.6722	Stoneware	Bowl
2007,6001.6725	Porcelain	Bowl
2007,6001.6726	Porcelain	Bowl
2007,6001.6805	Porcelain	Bowl
2007,6001.6929	Porcelain	Bowl
2007,6001.6930	Porcelain	Bowl
2007,6001.6940	Porcelain	Bowl
2007,6001.6983	Porcelain	Bowl

2007,6001.7000	Stoneware	Bowl
2007,6001.7161	Porcelain	Box
2007,6001.7210	Porcelain	Bowl
2007,6001.7211	Porcelain	Bowl
2007,6001.7212	Porcelain	Bowl
2007,6001.7213	Porcelain	Bowl
2007,6001.7214	Porcelain	Bowl
2007,6001.7215	Porcelain	Bowl
2007,6001.7216	Porcelain	Bowl
2007,6001.7336	Porcelain	Bowl
2007,6001.7362	Stoneware	Bowl
2007,6001.7363	Stoneware	Bowl
2007,6001.7364	Stoneware	Bowl
2007,6001.7462	Porcelain	Bowl
2007,6001.7473	Porcelain	Bowl
2007,6001.7513	Stoneware	Bowl
2007,6001.7548	Porcelain	Bowl
2007,6001.7557	Porcelain	Bowl
2007,6001.7558	Porcelain	Bowl
2007,6001.7761	Porcelain	Bowl
2007,6001.7876	Porcelain	Bowl
2007,6001.8001	Porcelain	Bowl
2007,6001.8106	Porcelain	Bowl
2007,6001.8107	Porcelain	Bowl
2007,6001.8176	Stoneware	Bowl
2007,6001.8177	Stoneware	Bowl
2007,6001.8178	Stoneware	Bowl
2007,6001.8179	Stoneware	Bowl
2007,6001.8180	Stoneware	Bowl
2007,6001.8181	Porcelain	Vessel
2007,6001.8192	Stoneware	Bowl
2007,6001.8199	Porcelain	Bowl
2007,6001.8273	Porcelain	Bowl
2007,6001.8279	Porcelain	Bowl
2007,6001.8280	Stoneware	Bowl
2007,6001.8284	Stoneware	Bowl
2007,6001.8288	Porcelain	Bowl
2007,6001.8295	Porcelain	Bowl
2007,6001.8296	Porcelain	Bowl
2007,6001.8432	Porcelain	Bowl
2007,6001.8433	Porcelain	Bowl
2007,6001.8434	Porcelain	Bowl

2007,6001.8473	Porcelain	Bowl
2007,6001.8475	Porcelain	Spout
2007,6001.8476	Porcelain	Spout
2007,6001.8477	Porcelain	Spout
2007,6001.8478	Porcelain	Spout
2007,6001.8479	Porcelain	Spout
2007,6001.8485	Porcelain	Bowl
2007,6001.8494	Porcelain	Bowl
2007,6001.8546	Porcelain	Bowl
2007,6001.8602	Porcelain	Bowl
2007,6001.8603	Stoneware	Spittoon
2007,6001.8604	Porcelain	Bowl
2007,6001.8606	Stoneware	Bowl
2007,6001.8607	Porcelain	Box
2007,6001.8611	Porcelain	Bowl
2007,6001.8614	Stoneware	Bowl
2007,6001.8616	Porcelain	Bowl
2007,6001.8617	Porcelain	Bowl
2007,6001.8619	Porcelain	Bowl
2007,6001.8620	Porcelain	Bowl
2007,6001.8621	Stoneware	Bowl
2007,6001.8631	Porcelain	Bowl
2007,6001.8635	Porcelain	Bowl
2007,6001.8636	Stoneware	Bowl
2007,6001.8637	Porcelain	Bowl
2007,6001.8643	Stoneware	Bowl
2007,6001.8645	Stoneware	Bowl
2007,6001.8646	Porcelain	Bowl
2007,6001.8652	Stoneware	Bowl
2007,6001.8653	Porcelain	Bowl
2007,6001.8654	Porcelain	Bowl
2007,6001.8665	Porcelain	Bowl
2007,6001.8668	Porcelain	Bowl
2007,6001.8670	Porcelain	Bowl
2007,6001.8672	Stoneware	Bowl
2007,6001.8676	Porcelain	Bowl
2007,6001.8677	Stoneware	Bowl
2007,6001.8678	Stoneware	Bowl
2007,6001.8684	Porcelain	Bowl
2007,6001.8685	Stoneware	Bowl
2007,6001.8688	Stoneware	Bowl
2007,6001.8744	Porcelain	Bowl

2007,6001.8758	Porcelain	Bowl
2007,6001.8767	Porcelain	Bowl
2007,6001.8776	Stoneware	Bowl
2007,6001.8780	Porcelain	Bowl
2007,6001.8782	Porcelain	Bowl
2007,6001.8788	Porcelain	Bowl
2007,6001.8807	Porcelain	Bowl
2007,6001.8820	Porcelain	Bowl
2007,6001.8822	Porcelain	Bowl
2007,6001.8825	Porcelain	Bowl
2007,6001.8826	Porcelain	Bowl
2007,6001.8835	Porcelain	Bowl
2007,6001.8838	Stoneware	Bowl
2007,6001.8839	Porcelain	Bowl
2007,6001.8840	Stoneware	Bowl
2007,6001.8841	Stoneware	Bowl
2007,6001.8848	Porcelain	Bowl
2007,6001.8849	Porcelain	Bowl
2007,6001.8878	Stoneware	Bowl
2007,6001.8883	Porcelain	Bowl
2007,6001.8884	Porcelain	Bowl
2007,6001.8886	Porcelain	Bowl
2007,6001.8919	Porcelain	Bowl
2007,6001.8924	Porcelain	Bowl
2007,6001.8956	Porcelain	Bowl
2007,6001.8977	Porcelain	Bowl
2007,6001.8984	Porcelain	Bowl
2007,6001.8994	Porcelain	Bowl
2007,6001.9011	Stoneware	Bowl
2007,6001.9015	Porcelain	Bowl
2007,6001.9016	Porcelain	Bowl
2007,6001.9017	Stoneware	Bowl
2007,6001.9028	Stoneware	Bowl
2007,6001.9034	Porcelain	Bowl
2007,6001.9040	Stoneware	Bowl
2007,6001.9041	Porcelain	Bowl
2007,6001.9042	Porcelain	Bowl
2007,6001.9051	Porcelain	Bowl
2007,6001.9052	Stoneware	Bowl
2007,6001.9057	Porcelain	Bowl
2007,6001.9058	Porcelain	Bowl
2007,6001.9061	Porcelain	Bowl

2007,6001.9065	Stoneware	Bowl
2007,6001.9066	Porcelain	Bowl
2007,6001.9081	Porcelain	Bowl
2007,6001.9084	Stoneware	Bowl
2007,6001.9088	Porcelain	Bowl
2007,6001.9090	Porcelain	Bowl
2007,6001.9091	Porcelain	Bowl
2007,6001.9094	Porcelain	Bowl
2007,6001.9097	Porcelain	Bowl
2007,6001.9099	Porcelain	Bowl
2007,6001.9102	Stoneware	Bowl
2007,6001.9111	Porcelain	Bowl
2007,6001.9119	Porcelain	Bowl
2007,6001.9123	Stoneware	Bowl
2007,6001.9127	Porcelain	Bowl
2007,6001.9134	Porcelain	Bowl
2007,6001.9137	Stoneware	Bowl
2007,6001.9144	Porcelain	Bowl
2007,6001.9147	Stoneware	Bowl
2007,6001.9154	Porcelain	Bowl
2007,6001.9160	Porcelain	Bowl
2007,6001.9165	Stoneware	Bowl
2007,6001.9166	Stoneware	Bowl
2007,6001.9172	Porcelain	Bowl
2007,6001.9173	Porcelain	Bowl
2007,6001.9180	Porcelain	Bowl
2007,6001.9185	Stoneware	Bowl
2007,6001.9190	Porcelain	Bowl
2007,6001.9191	Porcelain	Bowl
2007,6001.9193	Stoneware	Bowl
2007,6001.9195	Stoneware	Jar
2007,6001.9196	Porcelain	Bowl
2007,6001.9198	Porcelain	Jar
2007,6001.9219	Stoneware	Bowl
2007,6001.9304	Stoneware	Bowl
2007,6001.9309	Porcelain	Bowl
2007,6001.9310	Porcelain	Box
2007,6001.9391	Porcelain	Jar
2007,6001.9566	Porcelain	Bowl
2007,6001.9571	Porcelain	Bowl
2007,6001.9841	Stoneware	Dish

Chinese Celadon		
Museum Item	**Shape**	**Comments**
2007,6001.7	Bowl	
2007,6001.8	Bowl	
2007,6001.99	Bowl	
2007,6001.255	Bowl	
2007,6001.439	Bowl	
2007,6001.467	Bowl	
2007,6001.533	Bowl	
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2007,6001.543	Bowl	
2007,6001.590	Bowl	
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2007,6001.779	Bowl	
2007,6001.785	Bowl	
2007,6001.805	Bowl	
2007,6001.834	Bowl	
2007,6001.897	Bowl	
2007,6001.1632	Bowl	
2007,6001.1647	Bowl	
2007,6001.1727	Jar	Looks more like Yue ware than Dusun ware
2007,6001.1729	Bowl	
2007,6001.1731	Bowl	
2007,6001.1738	Bowl	
2007,6001.1739	Bowl	
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2007,6001.1868	Bowl	
2007,6001.1870	Bowl	
2007,6001.1982	Bowl	
2007,6001.1989	Vessel	
2007,6001.2012	Bowl	
2007,6001.2041	Bowl	
2007,6001.2133	Bowl	

2007,6001.2214	Bowl	
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2007,6001.2222	Bowl	
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2007,6001.3686	Jar	
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2007,6001.3854	Bowl	
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2007,6001.6227	Bowl	
2007,6001.6315	Bowl	
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2007,6001.6609	Bowl	
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2007,6001.6772	Bowl	
2007,6001.6773	Bowl	
2007,6001.6776	Bowl	
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2007,6001.6804	Bowl	
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2007,6001.6962	Bowl	
2007,6001.6964	Bowl	
2007,6001.6967	Bowl	
2007,6001.6968	Box	Lotus relief decoration
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2007,6001.7320	Bowl	

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2007,6001.7347	Bowl	
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2007,6001.7474	Bowl	
2007,6001.7486	Bowl	
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2007,6001.7565	Bowl	
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2007,6001.8049	Bowl	

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2007,6001.8101	Bowl	
2007,6001.8105	Bowl	
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2007,6001.8123	Bowl	
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2007,6001.8342	Bowl	
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2007,6001.8395	Bowl	
2007,6001.8416	Bowl	
2007,6001.8489	Vessel	
2007,6001.8498	Bowl	
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2007,6001.8524	Bowl	
2007,6001.8584	Bowl	
2007,6001.8587	Bowl	
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2007,6001.8696	Bowl	
2007,6001.8697	Bowl	
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2007,6001.8746	Bowl	
2007,6001.8747	Bowl	
2007,6001.8750	Bowl	
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2007,6001.8769	Bowl	
2007,6001.8779	Bowl	
2007,6001.8802	Bowl	
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2007,6001.8827	Bowl	
2007,6001.8828	Bowl	
2007,6001.8829	Bowl	
2007,6001.8831	Bowl	
2007,6001.8834	Bowl	
2007,6001.8866	Box	Carved lotus petals on top
2007,6001.8875	Bowl	
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2007,6001.8961	Bowl	
2007,6001.8986	Bowl	
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2007,6001.8998	Bowl	
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2007,6001.9074	Box	
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2007,6001.9085	Bowl	
2007,6001.9087	Bowl	
2007,6001.9089	Bowl	
2007,6001.9093	Bowl	
2007,6001.9100	Bowl	
2007,6001.9101	Bowl	
2007,6001.9104	Bowl	
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2007,6001.9109	Bowl	
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2007,6001.9112	Bowl	
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2007,6001.9117	Bowl	
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2007,6001.9128	Bowl	
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2007,6001.9141	Bowl	

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2007,6001.9181	Bowl	
2007,6001.9183	Bowl	
2007,6001.9186	Bowl	
2007,6001.9192	Bowl	
2007,6001.9194	Bowl	
2007,6001.9205	Bowl	
2007,6001.9214	Bowl	
2007,6001.9215	Bowl	
2007,6001.9301	Bowl	
2007,6001.9303	Bowl	
2007,6001.9305	Bowl	
2007,6001.9306	Bowl	
2007,6001.9307	Bowl	
2007,6001.9385	Bowl	
2007,6001.9394	Bowl	
2007,6001.9473	Bowl	
2007,6001.9559	Bowl	
2007,6001.9560	Bowl	
2007,6001.9561	Bowl	
2007,6001.9562	Bowl	
2007,6001.9563	Bowl	
2007,6001.9565	Jar	With incised decoration
2007,6001.9567	Bowl	
2007,6001.9568	Bowl	
2007,6001.9569	Bowl	
2007,6001.9570	Bowl	
2007,6001.9573	Bowl	
2007,6001.9574	Bowl	
2007,6001.9575	Bowl	
2007,6001.9576	Bowl	

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2007,6001.9595	Bowl	
2007,6001.9832	Bowl	
2007,6001.9962	Vessel	
2007,6001.9964	Vessel	
2007,6001.9965	Vessel	
2007,6001.10061	Bowl	

Dusun Wares		
Museum Number	**Vessel Shape**	**Comments**
2007,6001.11	Bowl	
2007,6001.13	Jar	
2007,6001.108	Jar	
2007,6001.109	Bowl	
2007,6001.184	Jar	
2007,6001.226	Jar	
2007,6001.288	Jar	
2007,6001.295	Not known	
2007,6001.303	Jar	
2007,6001.305	Jar	
2007,6001.307	Jar	
2007,6001.308	Jar	
2007,6001.329	Jar	
2007,6001.514	Bowl	
2007,6001.522	Jar	
2007,6001.526	Jar	
2007,6001.535	Jar	
2007,6001.536	Jar	
2007,6001.537	Jar	
2007,6001.538	Jar	
2007,6001.542	Bowl	
2007,6001.554	Not known	
2007,6001.555	Jar	
2007,6001.556	Jar	
2007,6001.557	Jar	
2007,6001.558	Jar	
2007,6001.559	Jar	
2007,6001.560	Jar	
2007,6001.561	Jar	
2007,6001.562	Jar	

2007,6001.563	Jar	
2007,6001.564	Jar	
2007,6001.565	Jar	
2007,6001.566	Jar	
2007,6001.567	Jar	
2007,6001.568	Jar	
2007,6001.569	Jar	
2007,6001.570	Jar	
2007,6001.571	Not known	
2007,6001.572	Jar	
2007,6001.573	Jar	
2007,6001.574	Jar	
2007,6001.575	Jar	With a loop
2007,6001.576	Jar	
2007,6001.577	Jar	
2007,6001.578	Not known	
2007,6001.579	Jar	
2007,6001.580	Not known	
2007,6001.581	Not known	
2007,6001.582	Jar	
2007,6001.583	Jar	
2007,6001.584	Jar	
2007,6001.585	Jar	
2007,6001.589	Jar	
2007,6001.657	Jar	
2007,6001.659	Jar	
2007,6001.681	Jar	
2007,6001.695	Jar	
2007,6001.708	Jar	
2007,6001.709	Jar	
2007,6001.710	Jar	
2007,6001.776	Jar	
2007,6001.835	Jar	
2007,6001.898	Jar	
2007,6001.998	Jar	
2007,6001.1000	Not known	
2007,6001.1010	Jar	
2007,6001.1204	Jar	
2007,6001.1206	Not known	
2007,6001.1208	Jar	
2007,6001.1222	Jar	
2007,6001.1234	Not known	

2007,6001.1235	Jar	
2007,6001.1236	Jar	
2007,6001.1239	Jar	
2007,6001.1297	Jar	
2007,6001.1436	Jar	
2007,6001.1442	Jar	
2007,6001.1450	Jar	
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2007,6001.1626	Jar	
2007,6001.1712	Not known	
2007,6001.1723	Not known	
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2007,6001.1735	Jar	
2007,6001.1808	Jar	
2007,6001.1873	Jar	
2007,6001.1877	Jar	
2007,6001.1886	Not known	
2007,6001.1887	Not known	
2007,6001.1892	Jar	
2007,6001.1993	Jar	
2007,6001.2037	Not known	
2007,6001.2049	Jar	
2007,6001.2130	Not known	
2007,6001.2165	Jar	
2007,6001.2286	Jar	
2007,6001.2778	Jar	
2007,6001.2779	Jar	
2007,6001.2783	Jar	
2007,6001.2788	Jar	
2007,6001.2791	Jar	
2007,6001.2798	Jar	
2007,6001.2799	Jar	
2007,6001.2882	Jar	
2007,6001.2885	Jar	

2007,6001.2886	Jar	
2007,6001.2892	Jar	
2007,6001.2893	Jar	
2007,6001.2895	Jar	With a loop
2007,6001.2900	Jar	
2007,6001.2901	Jar	
2007,6001.2902	Jar	
2007,6001.2903	Bowl	
2007,6001.2905	Jar	
2007,6001.2911	Jar	
2007,6001.3136	Bowl	
2007,6001.3150	Jar	
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2007,6001.3312	Bowl	
2007,6001.3313	Bowl	
2007,6001.3314	Jar	
2007,6001.3315	Not known	
2007,6001.3316	Jar	
2007,6001.3668	Jar	
2007,6001.3943	Not known	
2007,6001.4104	Jar	
2007,6001.4442	Jar	
2007,6001.4446	Jar	
2007,6001.4447	Jar	
2007,6001.4662	Jar	
2007,6001.4869	Jar	
2007,6001.4921	Jar	
2007,6001.4926	Jar	
2007,6001.4928	Jar	
2007,6001.4931	Jar	
2007,6001.4933	Not known	
2007,6001.4990	Jar	
2007,6001.4991	Jar	
2007,6001.5087	Jar	
2007,6001.5206	Jar	
2007,6001.5207	Jar	
2007,6001.5208	Jar	
2007,6001.5311	Jar	
2007,6001.5351	Jar	
2007,6001.5352	Jar	
2007,6001.5353	Jar	

2007,6001.5466	Jar	
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2007,6001.5600	Jar	
2007,6001.5681	Bowl	
2007,6001.5721	Jar	
2007,6001.5939	Bowl	
2007,6001.6001	Not known	
2007,6001.6149	Jar	
2007,6001.6179	Jar	With a loop
2007,6001.6180	Jar	
2007,6001.6189	Jar	
2007,6001.6280	Jar	
2007,6001.6412	Bowl	
2007,6001.6420	Jar	
2007,6001.6421	Jar	
2007,6001.6436	Jar	With incised lines
2007,6001.6443	Jar	
2007,6001.6448	Jar	
2007,6001.6469	Jar	
2007,6001.6623	Jar	
2007,6001.6745	Jar	With loops
2007,6001.6774	Jar	
2007,6001.6856	Bowl	
2007,6001.6931	Bowl	
2007,6001.6932	Jar	
2007,6001.6933	Bowl	
2007,6001.6934	Jar	
2007,6001.7014	Jar	
2007,6001.7016	Jar	
2007,6001.7287	Bowl	
2007,6001.7555	Jar	
2007,6001.7812	Jar	
2007,6001.8035	Not known	
2007,6001.8104	Jar	
2007,6001.8182	Bowl	
2007,6001.8183	Bowl	
2007,6001.8184	Bowl	
2007,6001.8282	Jar	
2007,6001.8283	Jar	
2007,6001.8316	Bowl	
2007,6001.8321	Jar	
2007,6001.8323	Bowl	

2007,6001.8324	Jar	
2007,6001.8325	Jar	
2007,6001.8332	Jar	
2007,6001.8334	Not known	
2007,6001.8339	Bowl	
2007,6001.8340	Bowl	
2007,6001.8343	Bowl	
2007,6001.8346	Jar	
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2007,6001.8446	Bowl	
2007,6001.8471	Jar	
2007,6001.8640	Jar	
2007,6001.8644	Bowl	
2007,6001.8661	Bowl	
2007,6001.8666	Jar	
2007,6001.8679	Bowl	
2007,6001.8690	Jar	With a loop
2007,6001.8695	Bowl	
2007,6001.8737	Jar	
2007,6001.8738	Bowl	With a loop
2007,6001.8740	Jar	Not fully glazed
2007,6001.8751	Jar	
2007,6001.8757	Jar	
2007,6001.8768	Bowl	
2007,6001.8778	Jar	
2007,6001.8783	Jar	
2007,6001.8787	Jar	
2007,6001.8789	Not known	
2007,6001.8792	Bowl	
2007,6001.8794	Jar	
2007,6001.8830	Jar	
2007,6001.8847	Jar	
2007,6001.8871	Bowl	
2007,6001.8880	Jar	
2007,6001.8946	Bowl	
2007,6001.8951	Not known	
2007,6001.8957	Jar	
2007,6001.8997	Jar	
2007,6001.9005	Jar	
2007,6001.9021	Bowl	
2007,6001.9025	Not known	

2007,6001.9035	Jar	
2007,6001.9036	Bowl	
2007,6001.9107	Jar	
2007,6001.9113	Not known	
2007,6001.9122	Bowl	
2007,6001.9130	Jar	
2007,6001.9149	Jar	
2007,6001.9161	Jar	
2007,6001.9163	Not known	
2007,6001.9170	Jar	
2007,6001.9184	Jar	
2007,6001.9203	Jar	
2007,6001.9212	Jar	With a loop
2007,6001.9213	Jar	Yellowish glaze
2007,6001.9218	Jar	With a loop
2007,6001.9300	Jar	Greyish fabric
2007,6001.9544	Not known	
2007,6001.9553	Jar	
2007,6001.9558	Jar	
2007,6001.9572	Bowl	
2007,6001.9946	Not known	
2007,6001.9947	Not known	
2007,6001.9985	Not known	
2007,6001.9990	Not known	
2007,6001.10044	Bowl	

Changsha Wares		
Museum Number	**Vessel Shape**	**Features**
2007,6001.299	Jar	Light greenish buff glaze
2007,6001.300	Bowl	Brown painting
2007,6001.333	Jar	Moulded decoration and brown painting
2007,6001.661	Bowl	Light greenish buff glaze
2007,6001.664	Bowl	Brown painting
2007,6001.682	Bowl	Light greenish buff glaze
2007,6001.683	Bowl	Brown painting
2007,6001.684	Bowl	Brown painting
2007,6001.696	Bowl	Brown painting
2007,6001.826	Bowl	Green and brown painting
2007,6001.832	Bowl	Brown painting
2007,6001.844	Bowl	Brown painting

2007,6001.845	Bowl	Brown painting
2007,6001.846	Bowl	Brown painting
2007,6001.847	Bowl	Light greenish buff glaze
2007,6001.873	Jar	Light green glaze
2007,6001.883	Bowl	Brown and green painting
2007,6001.884	Bowl	Brown and green painting
2007,6001.885	Bowl	Brown and green painting
2007,6001.906	Bowl	Brown and green painting
2007,6001.935	Jar	Light greenish buff glaze
2007,6001.977	Jar	Light greenish buff glaze
2007,6001.979	Bowl	Brown and green painting
2007,6001.1007	Jar	Brown painting
2007,6001.1008	Jar	Brown painting
2007,6001.1188	Jar	Light greenish buff glaze
2007,6001.1215	Bowl	Brown and green painting
2007,6001.1221	Bowl	Brown and green painting
2007,6001.1228	Bowl	Brown painting
2007,6001.1257	Bowl	Brown and green painting
2007,6001.1320	Jar	Brown painting
2007,6001.1321	Jar	Light greenish buff glaze
2007,6001.1388	Bowl	Brown and green painting
2007,6001.1437	Bowl	
2007,6001.1438	Bowl	Brown and green painting
2007,6001.1439	Bowl	Brown painting
2007,6001.1444	Jar	Light greenish buff glaze
2007,6001.1449	Bowl	Brown painting
2007,6001.1457	Bowl	Light greenish buff glaze
2007,6001.1500	Bowl	Brown and green painting
2007,6001.1545	Bowl	Light greenish buff glaze
2007,6001.1616	Jar	Brown painting
2007,6001.1751	Bowl	Brown and green painting
2007,6001.2297	Bowl	Light greenish buff glaze
2007,6001.2688	Bowl	Green and brown painting
2007,6001.2769	Bowl	Green and brown painting
2007,6001.2777	Bowl	Blue, brown and green painting
2007,6001.2784	Bowl	Green and brown painting
2007,6001.2790	Bowl	Green painting
2007,6001.2796	Bowl	Light greenish buff glaze
2007,6001.2839		Moulded tree decoration with brown painting
2007,6001.2873	Jar spout	Light greenish buff glaze
2007,6001.2894	Bowl	Green and brown painting
2007,6001.2897	Bowl	Light greenish buff glaze

2007,6001.2904	Bowl	Light greenish buff glaze
2007,6001.2907	Bowl	Green painting
2007,6001.2909	Bowl	Green and brown painting
2007,6001.2910	Bowl	Brown painting
2007,6001.2975	Bowl	Green painting
2007,6001.3001	Bowl	Green painting
2007,6001.3071	Bowl	Green and brown painting
2007,6001.3081	Bowl	Brown painting
2007,6001.3109	Bowl	Green and brown painting
2007,6001.3215	Bowl	Green painting
2007,6001.3216	Bowl	Green painting
2007,6001.3233	Bowl	Brown painting
2007,6001.3351	Bowl	Brown painting
2007,6001.3484	Bowl	Brown painting
2007,6001.3676	Bowl	Green and brown painting
2007,6001.3678	Bowl	Brown painting
2007,6001.3685	Bowl	Green and brown painting
2007,6001.3716	Bowl	Green and brown painting
2007,6001.3717	Bowl	Green painting
2007,6001.4577	Jar	Brown painting
2007,6001.4579	Bowl	Brown painting
2007,6001.4590	Bowl	Green and brown painting
2007,6001.4833	Bowl	Brown and green painting
2007,6001.4914	Bowl	Green and brown painting
2007,6001.4923	Bowl	Brown and green painting
2007,6001.4924		Moulded decoration with brown painting
2007,6001.4929		Moulded decoration with brown painting
2007,6001.4993	Jar	Light greenish buff glaze
2007,6001.4994	Jar	Light greenish buff glaze
2007,6001.4997	Jar	Light greenish buff glaze
2007,6001.4999	Jar	Light greenish buff glaze
2007,6001.5001	Bowl	Brown painting
2007,6001.5003	Bowl	Brown painting
2007,6001.5004	Bowl	Brown painting
2007,6001.5005	Jar	Brown painting
2007,6001.5006	Bowl	Brown painting
2007,6001.5091	Bowl	Brown and green painting
2007,6001.5214	Bowl	Light greenish buff glaze
2007,6001.5320	Bowl	Brown and green painting
2007,6001.5322	Wine Jar	Brown painting
2007,6001.5325	Bowl	Brown painting
2007,6001.5328	Box	Light greenish buff glaze

2007,6001.5538	Bowl	Brown and green painting
2007,6001.5605	Jar	Brown painting
2007,6001.5607	Bowl	Brown and green painting
2007,6001.5730		Moulded decoration with brown painting
2007,6001.5889	Bowl	Brown and green painting
2007,6001.6052	Bowl	Green and brown painting
2007,6001.6121	Jar	Light greenish buff glaze
2007,6001.6423	Jar	Moulded decoration with brown painting in light greenish buff glaze
2007,6001.6424	Bowl	Brown and green painting
2007,6001.6428	Bowl	Brown and green painting
2007,6001.6465	Jar	Light greenish buff glaze
2007,6001.6482	Jar	Moulded decoration with brown painting
2007,6001.6503	Jar handle	Brown painting
2007,6001.6649	Jar	Moulded tree decoration with brown painting
2007,6001.6723	Bowl	Green and brown painting
2007,6001.6727	Bowl	Green and brown painting
2007,6001.6730	Jar	Moulded decoration with brown painting
2007,6001.6732	Bowl	Green and brown painting
2007,6001.6912	Jar	Brown painting
2007,6001.6974	Bowl	Brown and green painting
2007,6001.7007	Bowl	Brown and green painting
2007,6001.7201	Bowl	Brown painting
2007,6001.7202	Bowl	Green and brown painting
2007,6001.7518	Bowl	Brown and green painting
2007,6001.8027		Green and brown painting on the rim
2007,6001.8047	From the same vessel as 8048	
2007,6001.8048	Vessel	Green and brown painting
2007,6001.8051	Jar-spout	Brown painting
2007,6001.8067	Jar	Moulded tree decoration with brown painting
2007,6001.8111	Bowl	Green and brown painting in scroll and swirl
2007,6001.8112	Bowl	Green and brown painting in scroll
2007,6001.8114	Bowl	Green painting in scroll
2007,6001.8122	Bowl	Brown painting on the rim
2007,6001.8203	Bowl	Brown and green painting
2007,6001.8267	Jar	Moulded tree decoration with brown painting
2007,6001.8278	Bowl	Light greenish buff glaze
2007,6001.8285	Bowl	Brown painting
2007,6001.8289	Bowl	Light greenish buff glaze
2007,6001.8290	Bowl	Brown painting
2007,6001.8291	Bowl	Brown and green painting
2007,6001.8292	Bowl	Green and brown painting

2007,6001.8294	Bowl	Brown painting
2007,6001.8297	Jar	Light greenish buff glaze
2007,6001.8301	Bowl	Brown painting
2007,6001.8315	Bowl	Green painting
2007,6001.8379	Jar	Moulded bird decoration with brown painting
2007,6001.8385	Bowl	Brown painting
2007,6001.8453	Bowl	Brown painting
2007,6001.8454	Bowl	Light greenish buff glaze
2007,6001.8455	Bowl	Brown painting
2007,6001.8457	Bowl	Brown painting
2007,6001.8461	Bowl	Brown painting
2007,6001.8462	Bowl	Brown and green painting
2007,6001.8518	Bowl	Brown, green and blue painting
2007,6001.8600	Jar body	Brown painting
2007,6001.8601	Jar base	Light greenish buff glaze
2007,6001.8608	Jar base	Light greenish buff glaze
2007,6001.8612	Jar body	Brown painting
2007,6001.8615	Jar body	Green and brown painting in dots
2007,6001.8622	Jar body	Brown painting
2007,6001.8623	Jar body	Brown and green painting in dots
2007,6001.8624	Jar body	Brown painting
2007,6001.8625	Jar body	Light greenish buff glaze
2007,6001.8626	Jar	Moulded palm tree leaves decoration with browning painting
2007,6001.8627	Jar	Moulded leaf like decoration with light greenish buff glaze
2007,6001.8628	Jar handle	Brown painting
2007,6001.8629	Jar	Moulded decoration with brown painting
2007,6001.8632	Jar	Moulded palm tree decoration with browning painting
2007,6001.8639	Jar base	
2007,6001.8642	Jar	Brown painting
2007,6001.8648	Bowl	Brown painting
2007,6001.8655	Bowl	Brown painting
2007,6001.8660	Bowl	Brown and green painting
2007,6001.8663	Bowl	Light greenish buff glaze
2007,6001.8671	Bowl	Brown painting
2007,6001.8674	Bowl	Brown painting
2007,6001.8675	Bowl	Brown painting
2007,6001.8693	Bowl	Brown and green painting
2007,6001.8694	Bowl	Brown painting
2007,6001.8698	Bowl	Brown painting
2007,6001.8819	Bowl	Brown and green painting

2007,6001.8823	Bowl	Brown and green painting
2007,6001.8824	Bowl	Brown painting
2007,6001.8833	Bowl	Brown and green painting
2007,6001.8851	Bowl	Brown painting
2007,6001.8874	Bowl	Brown painting
2007,6001.8881	Bowl	Brown painting
2007,6001.8882	Bowl	Brown and green painting
2007,6001.8962	Jar	Light greenish buff glaze
2007,6001.9020	Bowl	Green and brown painting
2007,6001.9064	Jar	Moulded decoration with brown painting
2007,6001.9067	Bowl	Brown painting
2007,6001.9070	Bowl	Brown and green painting
2007,6001.9077	Bowl	Brown and green painting
2007,6001.9078	Jar	Brown painting
2007,6001.9080	Bowl	Brown and green painting
2007,6001.9086	Bowl	Green painting
2007,6001.9096	Jar	Light greenish buff glaze
2007,6001.9103	Bowl	Brown painting
2007,6001.9106	Bowl	Light greenish buff glaze
2007,6001.9124	Jar	Brown painting
2007,6001.9125	Bowl	Brown painting
2007,6001.9129	Bowl	Green and brown painting
2007,6001.9145	Stoneware Jar	Light greenish buff glaze
2007,6001.9148	Bowl	Brown painting
2007,6001.9153	Bowl	Brown painting
2007,6001.9168	Bowl	Brown painting
2007,6001.9175	Bowl	Brown painting
2007,6001.9177	Bowl	Brown painting
2007,6001.9179	Bowl	Light greenish buff glaze
2007,6001.9182	Bowl	Brown painting on the rim
2007,6001.9187	Jar	Brown painting
2007,6001.9188	Bowl	Brown and green painting
2007,6001.9189	Bowl	Brown painting on the rim
2007,6001.9197	Bowl	Brown painting
2007,6001.9216	Bowl	Painted
2007,6001.9221	Bowl	Brown painting
2007,6001.9232	Bowl	Green and brown painted flower decoration
2007,6001.9302	Bowl	Brown painting
2007,6001.9311	Handle	Light greenish buff glaze
2007,6001.9350	Bowl	Green painting in dots on the rim
2007,6001.9468	Jar	Moulded tree decoration with brown painting
2007,6001.9469	Jar body	Brown painting

2007,6001.9470	Jar	Moulded bird and tree decoration with brown painting
2007,6001.9471	Bowl	Painted
2007,6001.9472	Jar body	Light greenish buff glaze
2007,6001.9474	Jar	Moulded tree decoration with brown painting
2007,6001.9593	Vessel	Moulded decoration with brown painting
2007,6001.9834	Bowl	Green and brown painting
2007,6001.9897	Bowl	Brown painting
2007,6001.10022	Bowl	Brown painting on the rim
2007,6001.10035	Bowl	Brown and green painting

Secret coloured wares		
Museum Number	**Shape**	**Comments**
2007,6001.8673	Bowl	Secret coloured ware
2007,6001.9743	Vessel	Bluish green glaze, secret coloured glaze ware
2007,6001.9963	Vessel	Bluish green glaze, secret coloured glaze ware

Guangdong celadon stoneware		
Museum Number	**Shape**	**Body and glaze**
2007,6001.171	Bowl	Bluish green glaze with cracks
2007,6001.869	Bowl	Bluish green glaze with cracks
2007,6001.872	Bowl	Bluish green glaze
2007,6001.1005	Bowl	Bluish green glaze with cracks
2007,6001.1216	Bowl	Bluish green glaze
2007,6001.1446	Bowl	Bluish green glaze
2007,6001.1726	Bowl	Bluish green glaze
2007,6001.1750	Bowl	Bluish green glaze with grey body
2007,6001.2797	Bowl	Yellowish green glaze
2007,6001.5859	Bowl	Matt bluish green glaze
2007,6001.6731	Bowl	Matt bluish green glaze
2007,6001.8598	Bowl	Bluish green glaze
2007,6001.8609	Bowl	Matt bluish green glaze
2007,6001.8770	Bowl	Bluish green glaze
2007,6001.9019	Bowl	Turquoise bluish green glaze

Museum Number	Type	Shape	Kiln	Description	Location
2007,6001.658	Green splashed ware	Bowl	Henan	Stoneware, greyish body, mid-late 9th	Site A
2007,6001.868	Green splashed ware	Bowl	Henan	Reddish body, Stoneware, mid-late 9th	Site A
2007,6001.1209	Green monochrome glaze	Dish	North China	Relief decoration, Stoneware, 10th	Site A
2007,6001.1629	Green splashed ware	Bowl	Henan	Stoneware, reddish buff body, mid-late 9th	Site A
2007,6001.2776	Green monochrome glaze	Dish	North China	Relief decoration, Stoneware, 10th	Site B
2007,6001.2841	Green splashed ware	Bowl	Henan	Stoneware, reddish body, mid-late 9th	Site B
2007,6001.2842	Green splashed ware	Bowl	Henan	Reddish body, Stoneware, with some yellow splashes, mid-late 9th	Site B
2007,6001.2918	Green splashed ware	Bowl	Henan	Buff body, Stoneware, mid-late 9th	Site B
2007,6001.5010	Cobalt blue paintings on white ware	Bowl	Henan	Buff body, Stoneware, mid 9th – 10th, Stoneware, sherd drilled with rivet repair holes	Site C
2007,6001.5319	Green splashed ware	Dish	North China	Relief decoration, Stoneware, 10th	Site D
2007,6001.5331	Green splashed ware	Dish	Henan	Stoneware, mid-late 9th reddish buff body	Site D
2007,6001.5332	Green monochrome lead glaze	Dish	North China	Relief decoration, Stoneware, 10th	Site D
2007,6001.5611	Green monochrome glazed ware	Bowl	Henan	Stoneware, mid-late 9th, it was described as green splashed wares, but it is a Stoneware sherd with monochrome green glaze, with yellowish white body	Site E
2007,6001.6068	Green	Bowl	Henan	Stoneware, mid-	Site F

	splashed ware			late 9th	
2007,6001.6433	Green splashed ware	Bowl	Henan	Maybe from Changsha kilns, mid-late 9th, Stoneware	Site F
2007,6001.6462	Green splashed ware	Dish	Henan	Reddish buff body, Stoneware, mid-late 9th	Site F
2007,6001.6728	Green splashed ware	Dish	Henan	Greyish body, Stoneware, mid-late 9th	Site F
2007,6001.6733	Green splashed wares on yellow glaze	Dish	North China	Buff/reddish fabric, Stoneware, mid-late 9th	Site F
2007,6001.6734	Green splashed wares on yellow glaze	Dish	North China	Grey fabric, Stoneware, mid-late 9th	Site F
2007,6001.6775	Green splashed ware	Dish	North China	Yellowish white body, relief decoration, Stoneware, 10th	Site F
2007,6001.6980	Green splashed ware	Bowl	Henan	Reddish buff fabric, green small intense dots, mid-late 9th	Site F
2007,6001.6981	Green and yellow splashed ware	Bowl	Henan	Reddish buff fabric, Stoneware, mid-late 9th, not sure if the yellow splashes are original decoration or just stains.	Site F
2007,6001.7209	Green splashed ware	Bowl	Henan	Stoneware, mid-late 9th, might be from Changsha kilns	Site F
2007,6001.7312	Green splashed ware	Bowl	Henan	Whitish body, Stoneware, mid-late 9th	Site F
2007,6001.7461	Green splashed ware	Bowl	Henan	Green spots, buff body, Stoneware, mid-late 9th	Site F
2007,6001.7587	Green splashed ware, with some brown/yellow splashes	Dish	North China	Relief decoration, Stoneware, 10th	Site F
2007,6001.8068	Green splashed ware	Bowl	Henan	Stoneware, mid-late 9th	Site K

2007,6001.8194	Green splashed ware	Jar	Changsha	Stoneware, green strips in a clear glaze on a slip, mid 8th – early 10th	Site K
2007,6001.8200	Green splashed ware	Bowl	Henan	Green spots, Stoneware, mid-late 9th	Site K
2007,6001.8254	Green splashed ware	Bowl	Henan	Stoneware, mid-late 9th, yellowish white body	Site K
2007,6001.8424	Monochrome green glazed ware	Dish	North China	Relief decoration, Stoneware, fine yellowish white body, 10th	Site M
2007,6001.8425	Monochrome green glaze	Dish	North China	Relief decoration, Stoneware, 10th	Site M
2007,6001.8426	Monochrome green glaze	Dish	North China	Relief decoration, Stoneware, 10th	Site M
2007,6001.8427	Monochrome green glaze	Dish	North China	Relief decoration, Stoneware, 10th	Site M
2007,6001.8449	Green splashed ware	Bowl	Henan	Radial green streaks, mid-late 9th, Stoneware, reddish body	Site M
2007,6001.8480	Green splashed ware	Bowl	Henan	Green streaks, Stoneware, mid-late 9th, whitish body	Site M
2007,6001.8481	Green splashed ware	Dish	Henan	Reddish buff body, Stoneware, mid-late 9th,	Site M
2007,6001.8496	Green splashed ware	Bowl	Henan	Reddish body green dots, with yellow tints or splashes, mid-late 9th, Stoneware	Site M
2007,6001.8499	Green splashed ware	Bowl	Henan	Stoneware, mid-late 9th	Site M
2007,6001.8506	Green splashed ware	Dish	North China	Relief decoration, Stoneware, 10th	Site K
2007,6001.8531	Green splashed ware	Bowl	Henan	Green streaks, mid-late 9th, Stoneware	Site M
2007,6001.8583	Green splashed ware	Bowl	Henan	Green spots, mid-late 9th, Stoneware	Site P
2007,6001.8597	Green splashed ware	Bowl	Henan	Green spots flowing into strips, Stoneware, mid-late 9th	Site P
2007,6001.8599	Green splashed	Bowl	Henan	Reddish buff body, green spots,	Site P

	ware			Stoneware, mid-late 9th	
2007,6001.8618	Green splashed ware	Bowl	Henan	Green dots, mid-late 9th, Stoneware	Site P
2007,6001.8664	Green splashed ware	Dish	Henan	Flower rim (notched rim), Stoneware, mid-late 9th	Site P
2007,6001.8669	Green splashed ware	Bowl	Henan	Green dots, Stoneware, mid-late 9th	Site P
2007,6001.8730	Monochrome green	Dish	North China	Relief decoration, Stoneware, 10th	Site M
2007,6001.8731	Green splashed ware	Dish	Henan	Buff body, green dots/dashes, mid-late 9th	Site M
2007,6001.8963	Green splashed ware	Dish	Henan	Green dots, Stoneware, mid-late 9th	
2007,6001.8964	Green splashed ware	Bowl	Henan	Stoneware, mid-late 9th, green streaks	
2007,6001.8982	Green splashed ware	Dish	Henan	Stoneware, mid-late 9th	
2007,6001.9003	Green monochrome glaze	Dish	North China	Relief decoration, Stoneware, 10th	
2007,6001.9069	Green splashed ware	Dish	North China	Relief decoration, Stoneware, 10th	
2007,6001.9071	Green monochrome glaze	Dish	North China	Relief decoration in the design of a fish, Stoneware, 10th	
2007,6001.9146	Green splashed ware	Bowl	Henan	Stoneware, mid-late 9th	Site P
2007,6001.9156	Green splashed ware	Bowl	Henan	Stoneware, mid-late 9th	Site P
2007,6001.9159	Green splashed ware	Bowl	Henan	Stoneware, mid-late 9th	Site P
2007,6001.9230	Green splashed ware	Bowl	Henan	Buff body, Stoneware, mid-late 9th	
2007,6001.9231	Green splashed ware	Bowl	Henan	Green dots, buff body, Stoneware, mid-late 9th	
2007,6001.9263	Green splashed ware	Jar	Henan	Green overflowing strips, mid - late 9th, Stoneware,	Site B

				reddish buff body	
2007,6001.9555	Green splashed ware	Bowl	Henan	Stoneware, mid-late 9th	
2007,6001.10065	Monochrome green glaze	Dish	North China	Relief decoration, Stoneware, 10th	Site M

Black or Brown Glazed East Asian Stoneware		
Museum Number	**Glaze**	**Vessel Shape**
2007,6001.185	Brown glaze	Vessel
2007,6001.264	Shiny brown glaze	Vessel
2007,6001.707	Shiny black glaze	Vessel
2007,6001.1101	Black or brown glaze	Vessel
2007,6001.1754	Matt brownish black glaze	Vessel
2007,6001.2773	Brown glaze	Vessel
2007,6001.3032	Black glazed	Jar
2007,6001.3039	Dark brown glaze	Jar
2007,6001.3040	Brown glaze	Jar
2007,6001.5329	Brown glaze	Vessel
2007,6001.5485	Dark brown glaze	Vessel
2007,6001.5593	Brown glaze	Vessel
2007,6001.6127	Brown glaze	Jar
2007,6001.6502	Dark brown glaze	Vessel
2007,6001.6927	Brown glaze	Vessel
2007,6001.6928	Brown glaze	Vessel
2007,6001.7482	Brown glaze	Vessel
2007,6001.7856	Dark brown glaze	Vessel
2007,6001.7919	Dark brown glaze	Vessel
2007,6001.9092	Dark brown glaze	Vessel
2007,6001.9268	Black glaze	Vessel
2007,6001.9273	Brown glaze	Vessel
2007,6001.9557	Brown glaze	Vessel

Appendix 8. Sarre's (1925) Description of Chinese Ceramic Finds at Samarra

IX.a Stoneware with grey fabric and celadon coloured glaze

No	I-N No.	illustration	description	location	page
	1127		A bottom fragment of a flat bowl on a flat foot plate, traces of sand on the foot, grey body, with slip on the inside, thin, greenish fine glaze covering the whole sherd		57
	1128		Similar to I-N No. 1127, base fragment with wide ring foot, grey body, thin translucent green-grey glaze, sprinkled dark blue glaze on the interior, the bottom and the exterior is unglazed		57
206	1129	XXIII13	Similar to I-N No.1129, base fragment with a wide ring foot, grey body, thin grey-green fine sprinkled glaze with some red-blotted spots		57
207	1130	XXIII15	Similar to the previous ones, base fragment with a narrow ring foot, grey body, thin finely-blown grey glaze covering the entire surface with red spots on the foot		57
207	1131-1133,282a-d		Rims, similar to the previous ones	house V No. 8, Bath I	57
208	850a	XXV6, XXIII14	A fragment of a small cup, the outer side of the body is five times perpendicularly angled and notched at the edge, grey body, engraved patterns of leaves and flowers on the inner bottom, very thin, bubble-like glossy greenish glaze covering the whole surface, which converge on the ridges and makes them darker		57
209	850b	XXIII9, XXV4	Fragment of a similar cup, reddish stains on the foot and glaze slag, with an incised fish (scaly carp) on the inner bottom, dull glaze, probably caused by use, the glaze appears glossy only on the corners.		57
	850d		Rims of a similar vessel to the previous cup		57

	11,341, 135		Fragments of handle of identical vessel to the previous one	House V	57

IX.b Stoneware with grey fabric and bluish green glaze

No	I-N No.	illustration	description	page
210	1136-40	XXIII 11, 12	Fragments of corrugated vessel walls	58

IX.c Stoneware with grey or whitish fabric and yellow or light green glaze

No	I-N No.	drawing	illustration	description	location	page
211	850c	131	XXVII 1-3	Fragments of a bulbous jar with a short neck and a narrow opening on a flat base plate, very thick grey body, which sometimes appears darker in the middle. On the slightly indented bottom are residues of fire props. The entire surface including the base and the interior is covered by a thin pale yellow-coloured glaze, which is applied to the outer surface with a stronger hue. This glossy and transparent glaze is coated with fine hairline cracks and of a bright yellow colour and blends with dark brownish-yellow stripes at the foot and some places where the irregularities of the surface or inclusions in the body fabric have stopped the overflowing glaze. The lower part of the vessel is generally darker than the upper part. The gloss and luminosity of the glaze is particularly noteworthy: a yellow glaze which could scarcely have ever been imitated by Chinese ceramics.	Djausaq, in a room of the harem.	58

212	787		XXIII2	Four fragments from the wall of a similar bellied jar, grey, almost white, very hard, porcelain-like body, emerald green transparent and finely sprung glaze, which overflowed in several places, showing different stripes. Inside the vessel there is light yellow glaze. Inscription in black ink, see Annex I 19 of Sarre 1925.		59
213	765	132		15 fragments of a spherical vase, faience (might mean earthenware) with green glaze. The glaze is dark green alternating irregularly with light green, chrome yellow and brown spots probably originating from a cooking defect. It is glazed in greenish light yellow in the interior. In Constantinople Museum (Inv. Du Musee des Arts musulmans, No. 4532)	Djausaq, spread over the whole harem, in the rooms south of the Throne rooms.	59

IX.d. Stoneware with white yellowish fabric under colourless glaze

No	I-N No.	illustration	description	location	page
214	426	XIX2	fragments of a bowl with four ribs and notches, whitish-yellow hard body, very light in weight. Colourless, finely cracked glaze. They appear creamy with ring foot unglazed. They were found together with real porcelain sherds.	Ashiq	60
214	762;787;1147		fragments of similar vessel		60

IX.e. Stoneware with white yellowish fabric and white glaze

No	I-N No.	illustration	description	location	page
	940		Fragment of a big vessel, yellowish white body without slip, transparent and colourless glaze in the interior, externally porcelain-like, white, polished shiny glaze with little hairline cracks.		60

215	427	XXV3	Thin-walled flat bowl on a low broad ring-foot with a slightly rounded beaded edge, whitish creamy body, sand marks on the ring foot edges, milky white glaze overflowing in drops	Serdab in Ashiq	60
215	282		fragments of a low flat thin bowl with a slightly curved ring foot base and an obliquely rising straight wall without a beaded edge. Porcelain-like white opaque body, thin glossy milky glaze which looks bluish in the corners.		60

IX.f. White Porcelain

No	I-N No.	drawing	illustration	description	location	page
216	428		XXIV2, XXV1	fragments of a bowl in similar shape as No. 215 with wide and low base and rim beads, white porcelain-like body, thin creamy glaze, walls slightly transparent.	Ashiq	61
216	784;1148;1149(282)			fragments of a similar bowl, the wall is slightly translucent.	Hadiyyah (present) 20 m for 787	61
217	1150	133	XXIV1, XXV2	Small oval thin bowl on a ring foot with a straight, obliquely ascending four times lobed and notched wall, white, slightly yellowish body, with relief pattern on the inside. In the middle, a carp-like fish emitting air bubbles forming spirals between crossed parallel lines, which indicates the water, birds flying on the wall with outspread wings and tail feathers seen from above. Thin cream-colored glaze, which appears slightly greenish at the edges also with bubbles. Bottom and walls slightly transparent.	Djausaq, Harem.	61

217	1150	133		Two very small bowls identical in shape, in the Louvre Museum, Paris. 1, from China, a gift from the Vicomte de Sartiges, a bowl of greenish stoneware, larger and thicker than ours, also with fish in the middle. 2. An apparently lighter mass of Raghes in Persia, exhibited in the Salle de la Mission Pelliot, by M.Ch. Vignier. The connection with Sasanian metal bowls is striking. There is a series of figuratively decorated larger or smaller oval silver bowls on a ring foot, the wall of which has the same structure as our porcelain cup (see Smirnoff, op. 42-45). Similar pattern with air bubbling, equally drawn fishes on an ancient Chinese bronze bowl owned by Dr. Otto Burchard in Berlin.		61

IX. g. Stoneware with monochrome or polychrome spotted overflowing glazes

No	I-N No.	drawing	illustration	description	location	page
218	784a		XXIX1, XXX2	fragments of a bowl, on a polished foot plate. White-yellow body. Green spotted and streaky overflowing glaze on a white glaze with fine hairline cracks which is on an opaque white slip applied both inside and outside. Part of the body and the foot is unglazed. The green appears light or dark depending on the thickness of the glaze. On the back, indistinct Arabic writing in ink, see Appendix I 16.	Hadiyyah (present) 20 m	63

219	784b		XXVI1, XXX1	fragments of a similar bowl, same technique, light green small spots on the inside, dark and light green stripes and larger spots on the outside.	Hadiyyah (present) 20 m	63
219 a	784c		XXV5	Fragments of a small, flat, thin-walled bowl on a ring foot, same technique, brown yellow spots on the glaze.	Hadiyyah (present) 20 m	63
220	839		XXVII4, XXVIII1,2	Fragments of a big flat plate on a ring foot. Yellow- reddish body, which passes through the glaze in places where the slip is absent, for example, on the ring foot. On the incised (engraved) polished surface, there is a typical Chinese pattern: four-pointed star with palms and volutes (涡旋). Large, emerald-green spots on white-yellow ground on both the outside and inside.		63
220	572; 784c-h			similar bowls and plates as previous ones	Hadiyyah (present) 20 m for 784	63
221	838		XXVI2	Fragments of a similar plate as no. 220, yellow-reddish body, light green and light yellow-brown spots on the outside and inside. The glaze is partially flaked.		64
221	700;730;734; 784i; k; l;565.			Fragments of similar plates and bowls. I-N. 700 in LM, Paris	Hadiyyah (present) 20 m for 784 and B Kh 16v = Southwestern side room of Harem [P.] for 565	64

222	1151	134	XXIII10	Fragments of a plate with wavy edge. Thin light-white body. On the corrugated flat bottom are two peacocks, the inner edge is interrupted by spring-ribs lattice pattern. Light green and brownish-yellow glaze over white slip. The glaze is partially flaked.		64
223	838		XXIII4	rim of a similar vessel, green-spotted lattice pattern on the inside.		64
224	762		XXIII7,8	bottom of a similar plate with relief pattern with braid and volute motifs. White-yellow glaze with green and brown-yellow spots.		64
225	762a	135	XXIII1	rim of a similar plate, with relief pattern on the inside.		64
226	762a		XXIII3,6	rims of a bowl similar to no 217. Corrugated edge, sharp relief ribs on the inside, green overflow glaze on a white ground on the inside and outside.		64

X. Ceramic of doubtful origin (East Asian or Mesopotamian)

No	I-N No.	drawing	illustration	description	page
227	748a		XXXI2	Cylindrical cup, thin wall, foot missing, grey medium tone body. On a white slip is a transparent colourless glaze with yellow and green streaks and streaks flowing into each other. The shiny glaze is unusual for ceramics of Western origin. The origin is doubtful. (Dr Otto Burchard speaks for a Chinese origin.)	65

228	1152	136		Fragments of a handled vessel. Belly body with short neck and small button crochet on the handle. Fine white clay. On a white slip, a translucent, strongly glossy glaze with green and yellowish-brown interspersed spots. The Samarra tone, which agrees with that of the lustre ware and other genera of Samarra, points to Mesopotamian origin; also, the typical jumping off glaze is present.	65
229	815		XXXI1	Belly jug with straight grooves, narrow opening and slightly bulging beaded edge. Two small loops on the shoulder. Dull yellow-brownish solid opaque glaze on the inside and outside. On the shoulder are green spots running in drops. Because of the un-Chinese body and the dull glaze, the piece is probably not an East Asian one but rather an impeccably successful imitation of East Asian ceramics.	66
229	806			Bottom of a small oval bowl on a ring foot, similar shape as no. 217. Grey white body. On colourless glaze are green spots.	66
230	1067		XXXV2, XXIII5 Chinese celadon	Cylindrically shaped cup, ring foot, with grooves on the outside. Yellowish body. Very shiny, translucent, green-brown glaze with hairline cracks on a yellowish-green slip, which is visible on the glaze-free foot. At the grooves, the coarse glaze appears browner and flows down into drops. The subtlety and brilliance of the glaze indicate its Asian origin.	66

XI.a. Imitation of East Asian stoneware with colourless or white glaze

No	I-N No.	drawing	illustration	description	location	page
	515			Bowl, ring-foot with a protruding and notched rim and ribs in the interior. Thick yellowish body, transparent, shiny, porcelain-like white glaze on a slip curling into drops on the foot. Imitation of an East Asian bowl like no. 214	House XVI	67

231	515a		V6	rim of a similar white glazed bowl with the same indentations and ribs	House VII	67
232	54	137		Jar, ring foot, white-yellow thick body, white glazed inside and outside, British Museum		67
233	1159	138		Base of a bowl or plate on a ring foot. Grey body. Incised braid pattern with leaf motifs and an animal head (lynx) in between. White glazed outside and inside.		68

XI.b. Imitation of East Asian earthenware with coloured overflowing glazes

No	I-N No.	drawing	illustration	description	location	page
234	309	139	XXXV7	Imitation of a cylindrical form of bowl (incomprehensible) as no. 230, very thin light green glaze, British Museum	Parthian cemetery	68
234a	1066		XXXV1	Similar vessel, yellow body, Exterior and interior light green glazed.		68
234a	1086			Fragments of a similar vessel, but coarser and larger, whitish-yellow body, yellowish-brown thinly watery running (dünnflüssige) glaze on a white slip		68
235	90	140		Pear-shaped vessel, ring foot, whitish-yellow body. Yellowish-white watery glaze inside and outside; brownish-yellow glaze form droplets at the foot on the outside.	House II	68
236	231		XXXIII1	Plate, ring foot, grey body, light and dark green thin spotted glaze on a slip. Imitation of East Asian plates like no. 220 and 221.		70

237	1153 a, b	141	I8	sherds of a jug, reddish-yellow body, pale yellowish-green glaze and brown overflowing streaks	House VI	70
237a	1153 c		I9	similar handle and similar glaze		70
238	1154 a, b		XIV1,4	two fragments of a handled jug, grey body, brighter brownish-yellow glaze and dark brown overflowing strips on the outside; (innen grün glasiert und wagerecht geriefelt) green glaze on the inside and green fluted/corrugated decoration horizontally.		70
239	7480		XXIX2, XXX3	Bowl, footplate, grey body, colourless glaze with light green spots and streaks, which flows into milky-white drops and the footplate unglazed. Imitation of an East Asian bowl like no. 218.	Djausaq	70
240	303	142		bowl of the same kind, bluish-green stripes on a white background on the inside	Shabbat -al- Hamri	70
241	304	143		Same, British Museum	Shabbat -al- Hamri	70
242	306	144		Bowl with straight horizontal edge. Light green and dark green spots on a white ground.		70
243	412a		XXXII3, XXXIII5	Pan same as no.177, grey body. Yellowish-white glaze with green stripes on the back. Iridescent.		70
244	1156		XXXII4, XXXIII3	Bowl, ring foot, yellowish-red body. At the inside, alternately four green and four yellow overflowing strips on bluish shimmering glaze. Outside with green spots.	House II	70
245	115	145	XXXII1, XXXIII2	Bowl. ring foot, fine body. Inside: green spots and comma-like brown strokes on a white background. Hairline cracks. Strong silvery iridescence. Outside: green spots.	House II	70

246	89	146		Sherds of a jug on a foot plate with four small loops and a short neck, white glaze with green strips.	House V	70
247	274	147		Deep bowl, on a foot plate, yellow glaze with green spots.	Kurah	70
248	277	148		Sherds of a cylindrical bowl as no. 230, 234. bright glazed with dark green spots.		70
249	310	149	XXXV6	Smaller bowl, on a ring foot, similar as 248, with light green rim and green-blue and dark yellow spotted glaze. British Museum.	Shabbat el-Hamri	70

XI. c. Imitation of East Asian earthenware with overflowing glazes and incised decoration

No	I-N No.	drawing	illustration	description	page
250	273	150	XXXIV2	fragments of a plate, large flat plate on a ring foot, red body, green, yellow, brown overflowing glazes with diamond pattern on the edge (rautenmuster auf dem rande). Little clearly incised ornaments with Chinese entwined pattern and braids. Imitation of east Asian plates such as no. 220, 221, British Museum.	71
250	273a			rim of the same vessel, rapidly incised Chinese foliage, brown-yellow and light green spots	71
251	275	151,2		fragment from the same vessel. On the rim is an incised diamond pattern, on the bottom are scaled fish and leaf motifs, green and yellow glaze, at British Museum	71
252	274		XXXIV1	fragments of a deep bowl, incised entwined pattern, yellow and green spots	71

XI.d Polychrome glazed coarse pottery, partly under East Asian influences

No	I-N No.	drawing	illustration	description	location	page
253	398		XXXVI1	Rim, unglazed grey body, reddish in the interior. Arabesque, “a false vine" according to the scheme of the usual wave lines in the Samarra ornamentation. At BM, vgl. HO. Abb. 196, 197, 201, 206-13, 215	Djubbair iyyah	73
254	307	153		Fragment of a deep bowl. White glazed with brown-green raw/crude (rohen) arabesque. At BM	Shabbat el-Hamri	74
255	308	154	XXXV8	fragments of a bowl, yellow-brown glaze, at BM		74
255	179			Similar to the previous one	house VI	74
256	180	155		small cup, might be an oil lamp, raw form, painted with two-coloured stripes.	house VI	74
256	399			Small cup. Outside unglazed. In the interior glazed with green and manganese -violet patches and stripes on whitish ground.	Djubairiy yah, house XVII	74
257	124	156		Lamp, light-glazed with green-blue speckles on the edge and centre	House III	74
257	431			sherds and base, raw vessel. glazed with green or, respectively, violet painting: star and entwined pattern. At British Museum and Louvre Museum.	Ashiq	74
258	94	157		Large deep bowl, ring foot, green speckled glaze	House III	74
259	1165	158		Deep bowl, ring foot, Black, cruciform, lean, leaf-like veins on a white-grey ground.		74
260	1160	159		Base, ring foot, thick-walled yellow reddish body. without slip, under colourless glaze with dark brown painted leaf.		74

261	996	160		Base, brick-red body, glazed and painted: citron/lemon yellow, blue-green and sapphire green flowers on cream-colored ground.	Djausaq	74

Appendix 9. Sites in the Islamic World without Chinese Wares Found

This appendix includes sites in the Islamic world from the 8th to 10th centuries CE without Chinese ceramic finds which can be dated to this period. These sites are introduced in an alphabetical order in each sub-region in the Islamic world.

Mesopotamia:

Ana عانات:

Ana was occupied at least from the first millennium BC onwards. It existed as a town during the Islamic period on an island in the Euphrates river. A congregational mosque, minaret, Islamic palace, bridge and parts of the city streets have been excavated by the British Expedition, with the State Organisation for Antiquities and Heritage of Iraq from 1981 to 1982.[1022] There is no Chinese ceramic found in Ana. Samarra Horizon types of ceramics have been found.[1023]

Baghdad:

Founded by the Abbasid Caliph al-Mansur (754-775CE) in 144-5AH/ 762CE, Baghdad functioned as the seat of the Abbasid caliph till 1258CE except some intervals.[1024] The city was devastated during the Mongol invasion but continued to be occupied till now. Baghdad has yet to be explored in terms of its archaeological remains. Although no Chinese wares were found, Baghdad is still a very promising site for Chinese wares.

Bijan:

Bijan was occupied from the neo-Assyrian period till the Abbasid period.[1025]It is on an island in the Euphrates River near the ancient site of Ana. Samarra Horizon types of ceramics were

[1022] Northedge et al. 1988, x and 14-21.
[1023] Northedge et al. 1988, 82-94.
[1024] Kennedy 2011, 187.
[1025] Krogulska 1992, 353; Mierzejewska 2014, 643-4.

found during the excavation of a Polish Archaeological Mission from 1979 to 1983, with an absence of sgraffiato and lustre wares. Chinese wares have not been found.[1026]

Kish:

Kish was one of the most important cities in ancient Mesopotamia from the late fourth millennium BC. During the early Abbasid period, it remained as a small, but rich town and later declined to a village.[1027] It was excavated by a French mission between 1912 and 1914 and by a joint Field Museum and University of Oxford team from 1923 to 1933. Samarra Horizon types of Islamic ceramics are present in the excavation, but no Chinese ceramic finds were mentioned.[1028]

Imsefna مصيفنة :

A three-season excavation was carried out by the University of Mosul from 1980 to 1982 at Imsefna. The excavation did not yield any Chinese wares. Only Islamic Samarra Horizon types of glazed wares were found.

Tell Abu Sarifa تل أبو سريفة:

It was excavated by Adams over 31 working days in 1969 and remarked by its excavator as a small and in no way remarkable mound, at all times only a modest village.[1029] It was occupied from Sasanian period till post Samarra period.[1030] Celadon was entirely absent. Samarra Horizon types of ceramics were found,[1031] but in an inferior quality compared to those found in Wasit and Samarra, and small in quantity throughout the entire occupation history.[1032]

Tulul al-Ukhaidir تلول الأخيضر:

Tulul al-Ukhaidir is the remains of a settlement close to the fortress of al-Ukhaidir. Archaeological work was carried out from 1973 till 1975 in Tulul al-Ukhaidir, led by Barbara

[1026] Northedge et al. 1988, 94.
[1027] Gibson et al. 1972, 60.
[1028] Reitlinger 1935, 201-2.
[1029] Adams 1970, 87-8.
[1030] Adams 1970, 105.
[1031] Adams 1970, 108, 113-4.
[1032] Adams 1970, 105.

Finster and Jürgen Schmidt from German archaeological Institute in Baghdad. The excavation shows evidence of occupation from early Islamic and Umayyad period. There are remains of destroyed Christian materials and coins dated to 145AH/762CE.[1033] Regarding the date of al-Ukhaidir, there is still debate going on. The primary occupation period is most likely to be between the 7th and 8th centuries CE, in light of the excavated glazed ceramic materials which are exclusively blue, green or blue-green alkaline glazed wares.[1034] No Chinese ceramics were found.

Archaeological sites which have been surveyed together with Tulul al-Ukhaidir include Atsan, Mugida, North Qusair, al-Rahliya, Ruda at Waid Burdan, Dab, South Qusair and Qasr Naba. All are dated to the Sasanian to early Islamic period, mostly before the 9th century CE. Chinese sherds were found in none of these sites.

Al-Rahliya:

It is a site with remains of churches in Iraq, surveyed by Barbara Finster and Jürgen Schmidt from the German archaeological Institute in Baghdad in the 1970s.[1035] It was mainly active from the Sasanian to early Islamic period before the 9th century CE. No Chinese sherds were found.

Atsan:

It is a settlement site in Iraq among the sites surveyed by Barbara Finster and Jürgen Schmidt from the German archaeological Institute in Baghdad in the 1970s.[1036] It was mainly active from the Sasanian to early Islamic period before the 9th century CE. No Chinese sherds were found at Atsan.

Dab:

It is a settlement site in Iraq among the sites surveyed by Barbara Finster and Jürgen Schmidt from the German archaeological Institute in Baghdad in the 1970s.[1037] It was mainly

[1033] Finster & Schmidt 1976, 149-50.
[1034] Finster & Schmidt 1976, 111.
[1035] Finster & Schmidt 1976, 23-4.
[1036] Finster & Schmidt 1976, 23-4.
[1037] Finster & Schmidt 1976, 23-4.

active from the Sasanian to early Islamic period before the 9th century CE. No Chinese sherds were found.

Muqida:

It is a settlement site in Iraq among the sites surveyed by Barbara Finster and Jürgen Schmidt from the German archaeological Institute in Baghdad in the 1970s.[1038] It was mainly active from the Sasanian to early Islamic period before the 9th century CE. No Chinese sherds were found.

North Qusair:

It is a settlement site in Iraq among the sites surveyed by Barbara Finster and Jürgen Schmidt from the German archaeological Institute in Baghdad in the 1970s.[1039] It was mainly active from the Sasanian to early Islamic period before the 9th century CE. No Chinese sherds were found.

Qasr Naba:

It is a settlement site in Iraq among the sites surveyed by Barbara Finster and Jürgen Schmidt from the German archaeological Institute in Baghdad in the 1970s.[1040] It was mainly active from the Sasanian to early Islamic period before the 9th century CE. No Chinese sherds were found.

South Qusair:

It is a settlement site in Iraq among the sites surveyed by Barbara Finster and Jürgen Schmidt from the German archaeological Institute in Baghdad in the 1970s.[1041] It was mainly active from the Sasanian to early Islamic period before the 9th century CE. No Chinese sherds were found.

Ruda at Waid Burdan:

It is a settlement site in Iraq among of the sites surveyed by Barbara Finster and Jürgen

[1038] Finster & Schmidt 1976, 23-4.
[1039] Finster & Schmidt 1976, 23-4.
[1040] Finster & Schmidt 1976, 23-4.
[1041] Finster & Schmidt 1976, 23-4.

Schmidt from the German archaeological Institute in Baghdad in the 1970s.[1042] It was mainly active from the Sasanian to early Islamic period before the 9th century CE. No Chinese sherds were found.

Iran:

Apadana:

It was the palace of the Achaemenid king Darius I (522-486CE) at Susa. The palace fell into ruin in the 4th century BC. But the site was occupied till around the 10th century CE. It was excavated from 1972 to 1976 by M. Kervran.[1043] Samarra Horizon types of wares have been found in abundance there.[1044] No Chinese sherds were mentioned in Kervran's report.

Bishapur/ Shapur:

It is an ancient city founded in the 3rd century CE and flourished during the Sasanian and Islamic periods, one of the largest locatable Sasanian sites in Persia. In a 12th-century CE account, it was completely deserted. The site was excavated in the 1930s by Roman Ghirshman.[1045]

Firuzabad فیروز آباد:

It was founded during the Sasanian period and lasted till the Qajar period (1785-1925CE) in Iran. It was in a similar size as Istakhr and smaller than Shiraz in the early Islamic period. An archaeological survey was conducted by Dietrich Huff from the German Archaeological Institute, Berlin in 1972 in the ancient ruins of Firuzabad.[1046] No information was published on the ceramic finds from Firuzabad.

Ghubayra:

Ghubayra was excavated by Géza Fehérvari during four seasons in 1971, 1972, 1974 and 1976, jointly sponsored by the School of Oriental and African Studies and the Iranian Centre

[1042] Finster & Schmidt 1976, 23-4.
[1043] Kervran 1977, 75.
[1044] Kervran 1977, 83-6.
[1045] Rice 1935, 174-5.
[1046] Huff 1974, 155-179.

for Archaeological Research in Tehran.[1047] It was an Islamic early to medieval middle-rank town in Kirman province of Iran, occupied between c. the 10th and 14th centuries CE. [1048]The ceramic finds are stored in London and Tehran.[1049]

Samarra Horizon types of wares were uncovered from Ghubayra.[1050] No confirmed 8th-to-10th-century Chinese wares have been identified from the ceramic finds, though there are Longquan celadon and Qingbai wares found in Ghubayra, which are from a later period. Chinese white porcelain has also been mentioned. It is possible that some of this white porcelain came from Xing or Gongxian kilns, which can be dated in or before the tenth century CE. One potential Sancai sherd was mentioned, which has a compact yellow stoneware fabric despite being fired in an earthenware temperature. It was decorated with brown and yellow splashes on a yellowish-mustard glaze, with four appliqué buttons alternating with a row of small vertical handles.[1051] The body fabric suggests that this fragment is likely a Chinese product. However, the only concern is the buttons and the small vertical handles, the combination of which has not been seen on Chinese ceramics. It seems that this fragment shares the same decoration with some of the Islamic monochrome alkaline green glazed wares, some of which even have more than four buttons and handles, up to twelfth. The appliqué buttons seem more Islamic, but the multiple handles show connections with Chinese wares.



From Ghubayra, Bivar et al. 2000, plate 79, 80.

[1047] Bivar et al. 2000, preface.
[1048] Bivar et al. 2000, 3 and 53.
[1049] Bivar et al. 1972,168 ; Bivar et al. 2000, 3-11.
[1050] Fehérvari 2000, 127-8 and 132.
[1051] Fehérvari 2000, 130-1 and 193.

Tawwaj:

This site was visited and identified by A. Iqtidari in 1970. It was identified as an Umayyad town, occupied from Elamite period (2700-539BC) to early Islamic period (around the 10th century CE).[1052] No information was published on ceramics in Tawwaj.

Tureng Tepe:

It is an archaeological site occupied from the Neolithic to around the 13th century CE. It was first excavated by Fredrick Wulsin, sponsored by Atkins Museum of Fine Arts in 1931. Later, Jean Deshayes from Centre de Recherches d'Archéologie Orientale Université de Paris I conducted excavations at this site again from 1960 to 1977.[1053] It was a fortress during the Sasanian period and later a settlement during the Islamic period.[1054] No information on the ceramic finds are available at present.

Red sea:

Al-Jar الجار:

It is one of the ancient ports for Medina in Saudi Arabia. Muqaddasi (945/6-991CE) mentioned this port and Jeddah as ports linking the Far Eastern markets across the Indian Ocean with the markets in Egypt. This site had been occupied probably from the Roman period to the Ottoman period (1299-1922/3 CE).[1055] No information has been provided with regard to its ceramic assemblage.

Al-Sawrah:

It is a port on the Saudi Arabian coast of the Red Sea. Zahins and Zahrani mention the presence of Abbasid ceramics, but no Chinese wares.[1056]

Badi/ Bad'a:

It is a medieval port on the Red Sea coast of Sudan. It was established in the 7th century CE

[1052] Carter et al. 2006, 67.
[1053] Deshayes et al. 1987.
[1054] Deshayes et al. 1987, 192.
[1055] Whalen et al. 1981, 52.
[1056] Zarins & Zahrani 1985, 88.

and thrived during the 8th and 9th centuries CE.[1057] However, no information is available on the ceramic finds in Badi.

Dahlak Kebir : دهلك كبير :

It is a port island with an Islamic necropolis. Since the late 19th century CE, the epigraphy of the necropolis has been studied by many European orientalists. A preliminary survey was conducted by Oman G. in 1972.[1058]

Wadi Hammamat:

It is a station on the caravan route from Quseir, which is a port on the coast of the Red Sea to the Nile. Only alkaline blue-green glazed barbotine wares were mentioned at this site.[1059]

Sawakin:

It is a medieval port on the Red Sea coast of Sudan. Founded in the 7th century CE, it prospered during the 8th and 9th centuries CE.[1060] No information is available on the ceramic finds in Sawakin.

Greater Syria:

Al-Mina المينياء:

It is an ancient river seaport on the Orontes River in the Antioch region, but not a principal port for Antioch at any time. It was occupied from the Iron age to the Ottoman period. The area was excavated by Leonard Woolley in 1936, and surveyed under the Amuq Valley Regional Project, led by T. Wilkinson and A. Yener from 1998 to 2002.[1061] Several pieces of imitation Chinese potteries were found, but no Chinese ceramics.[1062]

Khirbat. El Mefjer (خربة المفجر أو قصر هشام

It is the ruins of an unfinished desert palace near Jericho in Palestine. Major archaeological work in this site was done by D. C. Baramki and R. W. Hamilton from the Department of

[1057] Power 2008.
[1058] Oman 1974, 254.
[1059] Zarins 1989, 250.
[1060] Power 2008.
[1061] Vorderstrasse 2005, 10,16 and 29-30.
[1062] Vorderstrasse 2005, 75.

Antiquities of Palestine from 1935 to 1948. The palace was built in the early 8th century CE. Although the earthquake in 746 CE disturbed the occupation of this site, it was still under use in a lesser degree till around the 13th century CE, which was indicated by the presence of pottery from that period. No Chinese ceramics were found.[1063]

Arabia:

Akkaz/ Shuwaikhالشويخ :

Akkaz is an island, ancient al-Qurain, located in the south-eastern part of the Bay of Kuwait. The site was excavated from 1993 to 1996 by a French archaeological mission. It was first occupied as a settlement perhaps around the first century BC or CE. After a period of abandonment, a church was built around the 6th century CE. Akkaz was still active in the early Islamic period.[1064] No Samarra horizon types of wares nor Chinese wares were found from the excavations. Akkaz may have already been abandoned as a settlement at the end of the 8th century CE. The last datable evidence was a hoard of coins dated to the rule of the Caliph al-Mansur in 773CE, and moulded and incised wares from the Umayyad and early Abbasid period. No Chinese ceramics have been found.[1065]

Al-Anad:

This site is in the Lahj area of Yemen. It was surveyed by King and Macdonald in 1993. The site comprises a mosque and a fortification built in mud-brick. On the surface scattered late Samarra Horizon sherds without Chinese ceramics.[1066]

Al-Minarah:

It is a large inland site in the Wadi Djayan in Saudi Arabia, surveyed by Zarins in the 1980s. Only Abbasid blue glazed fragments (Sasanian- Islamic alkaline glazed wares) were mentioned in the report.[1067]

[1063] Baramki 1942, 65 and 74.
[1064] Gachet 1998, 75.
[1065] Gachet 1998, 75.
[1066] King & Tonghini 1996, 25.
[1067] Zarins et al. 1981, 32.

Al- Qusur of Failaka:

It is an early Islamic period village on the island of Failaka in Kuwait. There was a Christian community in this site during its existence. The island attracted archaeological interest since the 1950s. Both Danish and Italian expeditions had done some surveys on this island. Later, the French expedition carried out excavations at al-Qusur.[1068] No Chinese wares were reported.[1069]This site was abandoned probably before the 9th century CE.

Al-Rayyan الرين:

It is a large inland site in the Wadi Djayan in Saudi Arabia. Only Abbasid blue glazed pieces (Sasanian- Islamic alkaline glazed wares) were mentioned in Zarins' report of the survey in the Wadi Djayan area in the 1980s.[1070]

Djarash:

It is a site in the Ta'if region (inland area) of Saudi Arabia, surveyed by Zarins in the 1980s. Only Abbasid blue glazed pieces (Sasanian- Islamic alkaline glazed wares) were mentioned in the report.[1071]

Khanfar:

This site was surveyed by King and Tonghini in 1994. It is in the Abyan Governorate of Yemen near Zanzibar and was a medieval town in the past.[1072] No information is available on ceramic finds there.

Mughaira:

The western shore of Kuwait Bay is generally thought to be associated with early Islamic textual references to the toponym Kadhima (Kazimah). Mughaira is situated in the Kadhima area and is the largest settlement there in the size of a large village. It was occupied from the 7th to 9th centuries CE. A survey project was carried out over two seasons during 2009 to 2011 led by the National Museum of Kuwait and Durham University in the Kadhima

[1068] Kennet 1991, 97-8 ; Calvet et al. 2008.
[1069] Kennet 1991, 102.
[1070] Zarins et al. 1981, 32.
[1071] Zarins et al. 1981, 32.
[1072] King & Tonghini 1996, 30.

region.[1073] The area includes walled enclosures and a number of settlements of varied sizes, equal in size to large villages to small and dispersed hamlets.[1074] No Samarra Horizon types of wares nor Chinese wares have been reported from the survey.

Subr:

This site was surveyed by King and Tonghini in 1994. It consists of tells in the Lahj area of Yemen. Very few Islamic glazed potteries and no Chinese ceramics have been noticed on the surface.[1075]

Murwab:

It was excavated by a Danish mission in 1959, then from 1979 to 1981 excavated by a French Archaeological Mission lead by C. Hardy-Guilbert. It was surveyed in 2005 and 2006 and excavated in 2007 by A. Guérin and F. Al-Na'imi.[1076] The site was occupied during the 9th century CE as a village.[1077] From the 2007 excavation, a total number of 6948 sherds, 2251 of which are Islamic glazed wares, were found.[1078] Chinese ceramics have not been found yet in neither the survey from 2005 to 2006 nor the excavation in 2007.[1079] Chinese ceramics were not mentioned by Andrew Williamson or De Cardi during their survey in this site.[1080]

Darb Zubaydah: (the two sites with Chinese ceramics are in the previous section)

This was a pilgrim route linking Kufa and Mecca, officially established during the Abbasid period, although some stations had already been in use in pre-Islamic periods. Saad A. Al-Rashid conducted a field survey along this pilgrim roads during the 1970s and published it in 1980 in his Phd thesis.[1081]

Al-Haytham الهيثم: This site is a very big pilgrim station along the Darb Zubaydah, equipped

[1073] Blair et al. 2012, 13.
[1074] Blair et al. 2012, 18.
[1075] King & Tonghini 1996, 24.
[1076] Guérin & Al-Na'imi 2009, 181-3.
[1077] Guérin & Al-Na'imi 2010, 18.
[1078] Guérin & Al-Na'imi 2010, 21-6.
[1079] Guérin & Al-Na'imi 2010, 26.
[1080] De Cardi 1978, 185.
[1081] Rashid 1980, 329.

with two large cisterns, an old fortress and some foundations.[1082] Ceramic finds comprise Islamic glazed wares but no Chinese ceramics.[1083] **Ash-shihiyyat الشيحيات:**This site is a pilgrim station along the Darb Zubaydah with cisterns, wells, fort and rest houses.[1084] Islamic turquoise green or green glazed vessels were found, with no Chinese ceramics.[1085] **Al-Bid' البدع:**This site is an important station along the Darb Zubaydah, with a small number of ancient wells, cisterns, fort and foundations of buildings.[1086] Samarra Horizon types of lustre wares, green splashed opaque white glazed wares and green glazed wares (alkaline or lead) were found here.[1087] No Chinese wares were found. **Samirah:سميرة** This site is a pilgrim station along the Darb Zubaydah. Fragments of Islamic green splashed ware, alkaline glazed ware and green lead glazed ware were found.[1088] No Chinese wares were found. **Al-Rabadhah :الربذة** This site was an influential Islamic town in Hijaz area in Saudi Arabia, one of the main stations on the Darb Zubaydah. Founded around the mid 7th century CE, it was deserted around the 10th century CE due to warfare.[1089] The site was excavated by Sa'ad bin Abd al-Aziz al-Rashid from 1979 in six seasons. Only Samarra Horizon types of ceramics have been mentioned. No Chinese wares have been described in the publication.

[1082] Rashid 1980, 79.
[1083] Rashid 1980, 79 and 275-280.
[1084] Rashid 1980, 83.
[1085] Rashid 1980, 285-6.
[1086] Rashid 1980, 86.
[1087] Rashid 1980, 286-7.
[1088] Rashid 1980, 297-8.
[1089] Rashid 1986, 5 and 11.

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