

Pottery and Long-Distance Trade in East Asia: Coastal Areas Around the East China Sea and Yellow Sea During the Han Dynasty

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Abstract: Kiln-fired pottery was widely used for long-distance trade around the Yellow Sea and the East China Sea from the third century BC to the third century AD. This essay discusses a possible value change in that type of pottery. The first widespread distribution was of large containers for transport, produced in the Liaodong and Shandong peninsulas. However, after the development of proto-celadon in the Jiangnan region, medium-sized long-necked jars were exported to other regions from the Han Dynasty onwards. In short, the wide distribution of pottery changed from pottery for transport to high-quality ceramics. In addition to the rising value of ceramic itself, it seems to have been appreciated as a tool for drinking and spread to the higher strata of societies.

Keywords: Long-distance trade, Lelang commandery, Liaodong peninsula, Shandong peninsula, proto-porcelain

9.1. Introduction

The long-distance movement of pottery is occasionally seen in the Japanese archipelago starting in the Jomon period, which was a hunter-gatherer society. Although there are some cases of movement of more than 1000 km, such as Ōbora-type pottery in the Final Jomon period, the movement was mostly contained within the Japanese archipelago, except for the southern end of the Korean peninsula. However, from the Middle Yayoi period onwards, the pottery produced in the northern part of the Korean peninsula or farther away, such as Lelang pottery and Liaodong style pottery, was brought to the Japanese archipelago. These were the types of pottery produced with the flat kiln (see Chapter 8) that developed in northern China.

Regarding the acceptance of kilns, in the south of the Korean peninsula, people adopted not only the flat kiln but also the tunnel kiln that originated from the Jiangnan region (see Chapter 6). In the Japanese archipelago, people also adopted the technology of the tunnel kiln, which formed the basis for later pottery production. In both regions, however, solid kiln-fired pottery had been introduced by trade before the production of kiln-fired pottery began. In this chapter, the author will discuss the expansion of the trade network of the East China Sea and the Yellow Sea during the Han Dynasty that accompanied the use of kiln-fired pottery.

9.2. Current issues

Lelang commandery, which is the source of Lelang pottery, was established in 108 BC after the Emperor

Wuhan defeated Wiman Joseon (Fig. 9.1, Table 9.1). The Lelang Fortress, located in present-day Pyongyang, as a capital almost dominated the Northern part of the Korean peninsula. In the Treatise on Geography of the “*Hanshu*,” there is a description as follows:

There were *Wa* people in the sea of Lelang, divided into more than a hundred countries. They came and contribute (to Lelang) in time. (Bangu, *Hanshu*, Treatise on Geography, 103 of last volume)

This text suggests that there was a close relationship between Lelang commandery and Japan (which was known as “*Wa*” in ancient texts), and archeological research conducted in the early twentieth century shows that diplomatic activities were carried out from this period, accompanied by bronze mirrors and gilt bronze products.

It has also been confirmed in the 1950s that Lelang pottery was brought to the Japanese archipelago (Mizuno and Okazaki 1954). However, it was not until Tani Toyonobu (1984–86) sorted out the pottery of the Lelang Fortress and clarified its composition that the study of Lelang pottery began to progress in earnest, which led to the identification and distribution of Lelang pottery mainly in the northern part of Kyūshū (Takesue 1991a, 1991b).

In parallel with the aforementioned studies, Korean researcher Shin Yongmin (1991: 47–50) sought the origin of Lelang tombs and mentioned the change of some types of pottery in his examination of a burial with wooden compartments and burial goods. Later, Takaku Kenji (1995) examined almost all the burial goods in Lelang tombs and

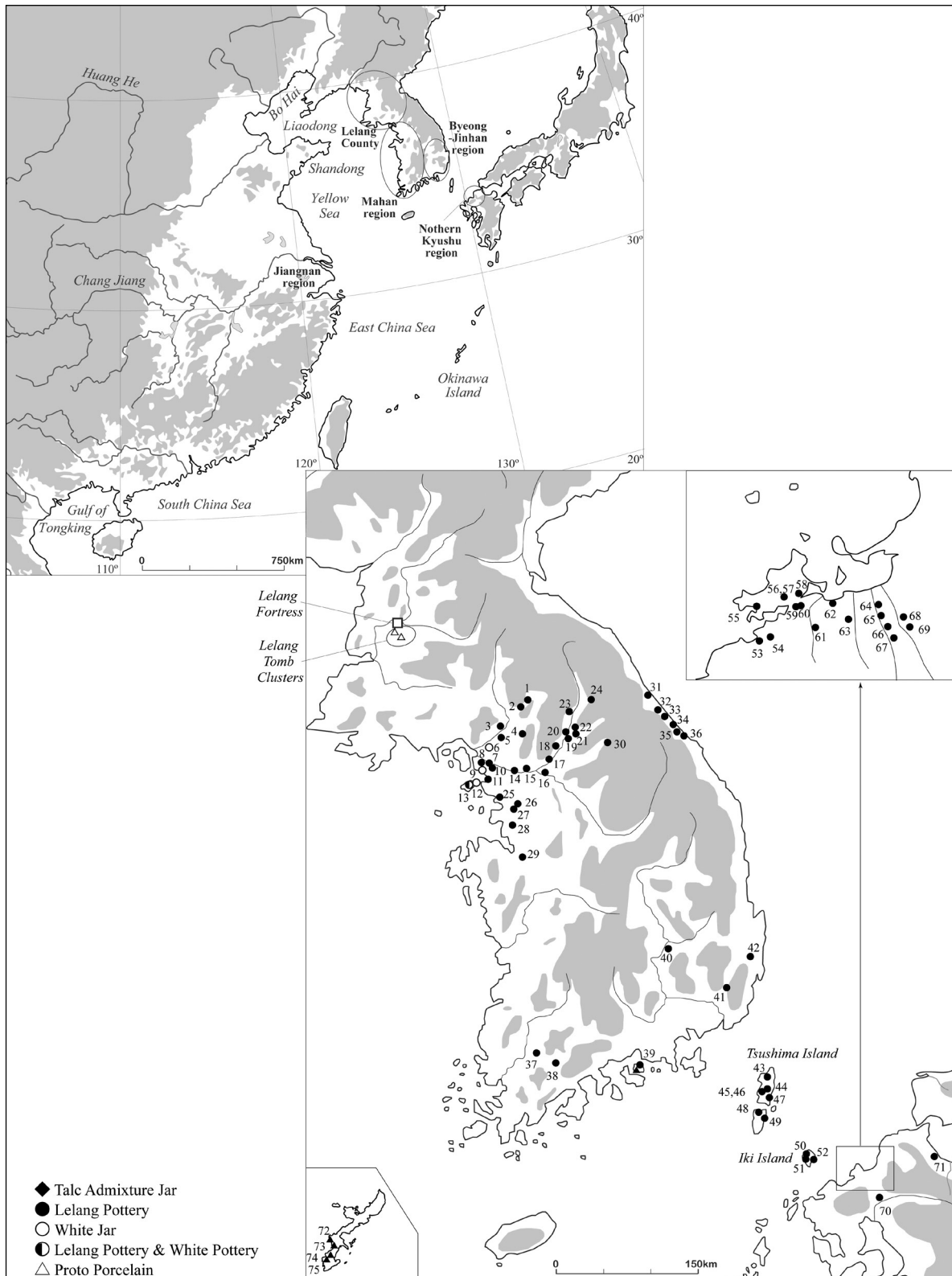


Figure 9.1. Distribution of long-distance trade pottery to the south of the Liaodong region (modified from Nagatomo 2010). 1. Wasuri, 2. Jeongokri, 3. Hakgokri, 4. Guemjuri, 5. Dangdongri, 6. Galhyeongri, 7. Unyangdong, 8. Yanggok, 9. Yanchon, 10. Bullodong, 11. Yeonhuidong, 12. Neundeul, 13. Unbukdong, 14. Pungnap Fortress, 15. Misari, 16. Yansuri, 17. Daeseongdong, 18. Daljeonri, 19. Geunhwa, 20. Shinmeri, 21. Ududong, 22. Yulmunri, 23. Georyeri, 24. Godaeri, 25. Oido, 26. Kianri, 27. Danghari, 28. Seodundong, 29. Galmeri, 30. Cheoljeiongri, 31. Gapyeongri, 32. Gyohangri, 33. Chodangdong, 34. Aninri, 35. Geumjinri, 36. Songjeongdong, 37. Shinchangdong, 38. Daegokri, 39. Nuekdo, 40. Pyeongchonri, 41. Pyeongsanri, 42. Dalcheon, 43. Kyōnokuma, 44. Kine/Yamabe, 45. Ōtobaru Yamoto, 46. Senosae, 47. Kannonbana, 48. Koshikizaki, 49. Shire'eura, 50. Karakami, 51. Toda, 52. Harunotsuji, 53. Fukae Imuta, 54. Magarita, 55. Mitoko Matsubara, 56. Ichinomachi, 57. Usui, 58. Motooka, 59. Urashi Ijiri, 60. Uruuji Tōkyū, 61. Mikumo, 62. Imajuku Gorōe, 63. Konori, 64. Hakata, 65. Hie, 66. Naka, 67. Takahata, 68. Sasai, 69. Shimotsukiguma C, 70. Hebonogi, 71. Jussō, 72. Ōkubo, 73. Nakagawa shell-mound, 74. Arachibaru, 75. Kajoū shell-mound, 76. Kasihima offshore, 77. Zannochi, 78. Aoki, 79. Monzen Ike.

Table 9.1. Chronological division in East Asia from third century BC to third century AD

	China	Korean Peninsula	Japanese Archipelago	Historical Events
220 AD	Three Kingdoms	Korean Three Kingdoms	Early Kofun period	239 AD Tribute from Himiko to Wei 202 AD Establishment of Daifang County Growth of Korean Han states and population outflow of Lelang County (Latter half of 2nd century)
		Final Proto-Three Kingdoms	Final Yayoi period	
89 AD	Middle and Late Eastern Han (M/LEH)	Late Proto-Three Kingdoms	Latter half of Late Yayoi period	
41 AD	Early Eastern Han (EEH)	Middle Proto-Three Kingdoms	First half of Late Yayoi period	57 AD Emperor Guangwu granted the Golden Seal to Wa
8 AD	Xin/Initial Eastern Han (X/IEH)			
48 BC	Late Western Han (LWH)	Early Proto-Three Kingdoms	Late stage of Middle Yayoi period	108 BC Establishment of Lelang County 111 BC Establishment of Nanhai County 119 BC State monopolies on salt and iron
118 BC	Middle Western Han (MWH)	Initial Proto-Three Kingdoms	Middle stage of Middle Yayoi period	
180 BC	Early Western Han (EWH)	Early Iron Age	Early stage of Middle Yayoi period	
221 BC	Qin/Initial Western Han (Q/IWH)		End of Early Yayoi/Initial stage of middle Yayoi period	195 BC Foundation of Wiman Joseon 222 BC Ruin of Yan state
	Late Warring States			

clarified their transitions. In northern Kyūshū, gray-colored pottery similar to Lelang pottery was also brought from Byeong-Jinhan in the southern part of the Korean peninsula, but the fragments are sometimes difficult to distinguish from each other. However, a study by Jeong Inseong (2004: 88–89) revealed differences between Lelang pottery and Wajil pottery in the inner pattern of pottery made by the anvils in paddling.¹ Furthermore, including this point, Terai Makoto (2007: 88) suggested three elements of difference between Lelang pottery and Wajil pottery.

As a result, the actual distribution of Lelang pottery is now understood in considerable detail. After the 1990s, the number of excavations in Korea began to increase rapidly, and Lelang pottery was unearthed in many places. At that time, the studies by Tani, Takaku and Jeong made a significant contribution to identification and chronology.

While the movement of Lelang pottery was taking place, White pottery from the Shandong peninsula was also exported to the Liaodong peninsula and Lelang commandery (Tani 2008). Particular White pottery has been produced since the Neolithic period in the Shandong peninsula, but it became widely distributed in the Han Dynasty. Those pieces unearthed in the Liaodong peninsula and Lelang commandery are basically large jars. In addition, proto-porcelain produced in the Jiangnan region has been excavated from the Shandong peninsula

and Lelang commandery. It is obvious from these findings that the Han Dynasty was a time when coastal trade in the East China Sea and Yellow Sea increased significantly (Nakamura 2015, 2017; Miyamoto 2020).

On the other hand, in recent years, research on the northeastern part of China has progressed and the development of the Warring States and Han dynasties in the Liaodong region has become clearer (Onuki ed. 2007). It is now evident that some pottery was moved long distances before the establishment of Lelang commandery (Jeong 2008; Nagatomo 2010). Talc was mixed into the clay in large amounts (hereinafter, this is called “talc admixture pottery”). Since this type of pottery was transported to the main island of Okinawa, it was also found that trade across multiple polities had begun before the establishment of Lelang commandery (Jeong 2008; Nakamura 2012).

All this long-distance transported pottery from the Han Dynasty period shares one characteristic: it was all fired in kilns, as mentioned in the introduction. This means that the solid and tough pottery moved further compared with the pottery in local areas of the Korean peninsula and the Japanese archipelago at that time. Furthermore, the pottery included large storage containers, which were not found in earlier long-distance transported pottery.

9.3. Pottery of long-distance movement

The pottery that moved long distances in the Korean peninsula and the Japanese archipelago was brought from a plurality of regions. In the following, the differences in

¹ Wajil pottery appeared in the southeastern part of Korea. Some of this was fired by open firing at first, but almost all of the vessels became to be fired by kilns, including gray-colored reduction-fired ones.

the characteristics of each will be discussed, with reference to the pottery that moved long distances across the East China Sea and the Yellow Sea during the Han Dynasty.

9.3.1. Talc admixture jar

In the Japanese archipelago, a talc admixture jar was the first long-distance trade pottery brought from further to the north than the middle part of the Korean peninsula. Pottery containing large amounts of talc is often found in the area from the Liaodong region to the Daedong River basin, and these were transported to the middle and southern part of the Korean peninsula as flowerpot-shaped pottery just before and after the establishment of Lelang commandery. Prior to this type of pottery, large neckless jars suitable for storage were produced (Fig. 9.2: 1–6).

Talc admixture jars have been found in Muyangcheng site, located at the tip of the Liaodong peninsula (Fig. 9.2: 1, 2), Neukdo site, located at the southern end of the Korean peninsula (Fig. 9.2: 3), and some sites in Okinawa (Fig. 9.2: 4–6). Since all sites are located in coastal areas, they are deeply related with ocean-based trade networks. Unfortunately, as only the mouth rims of these jars have been found, the shape of the jar is not clear. However, judging from these parts, it is likely they were nearly spherical in shape. The fact that they were fired in a kiln proves that they were not produced in the Korean peninsula, where kilns had not yet been introduced. Muyangcheng site in Liaodong peninsula was built as a fortress of Yan state in the late Warring States period and continued until the early Western Han Dynasty (from the third to the second century BC). Talc admixture jars were not found in the assemblage of Yan State pottery. Although there were various types of jars made from the Qin to the early Western Han periods, the production of large jars, almost as wide as they were tall, increased. Focusing only on the shape of the mouth rim, a similar jar was found in the Dajinsitun site (Fig. 9.2: 7), which related to the Qin temporary palace, but it does not contain talc. If a talc admixture jar has a flat bottom, it dates from the Qin period; if it has a round bottom, it dates from the early Western Han period, but there are no extant remains of jar bottoms. Therefore, it is reasonable to conclude that the talc admixture jar was created in the Liaodong region and influenced by jars from the Qin to the early Western Han period.

The Neukdo site at the southern end of the Korean peninsula contains a cemetery, a shell mound, and a dwelling. Not only a talc admixture jar was found there, but also Lelang pottery, which will be discussed below (Seo 2004; GARI 2003, 2006). A large amount of Yayoi pottery from the northern Kyūshū area was also found, as well as examples from the Setouchi and Sanin areas of Japan. For this reason, the nature of the Neukdo site as a trade center is evident (Shirai 2001). A talc admixture jar was excavated from the Na-No.136 pit accompanied by local pottery and Yayoi pottery from the first century BC to the first half of the first century AD (Li 2004). As a

large amount of pottery from the second century BC has been excavated across the entire Neukdo site, including the Yayoi pottery of that time, the talc admixture jar seems to have been used for a long time, until it broke.

In Okinawa, examples have been unearthed at the Ōkubobaru site, Kajou shell mound, Nakakawabaru shell mound, and the Arechibaru site. Bronze articles such as a knife-shaped coin (*Mingdaoqian*) and a trilobate arrowhead have also been found. Talc admixture jars from the Kajou and Nakakawabaru shell mounds accompanied such Yayoi pottery as Takahashi type, Iriki type and Yamanokuchi type, which date from the third to first century BC in southern Kyūshū. In the Ōkubobaru site, this type of jar was found with Yayoi pottery such as Takahashi II type and Iriki II type, which date to between the end of the third and the second century (Shimada 1999: 22). Miyamoto Kazuo (2014: 81–82) suggested that the talc admixture jar and bronze artifacts were brought by refugees from the Liaodong region during the time from the fall of the Yan to the Qin in 222 BC to the establishment of Wiman Joseon in 195 BC. However, the talc admixture jar does not date from the fall of Yan. Even if there were refugees, it is unlikely that they would have arrived at a completely unknown place by accident. It is noteworthy that the relay type trade of artifacts was seen in such areas: from the western part to the southern end of the Korean peninsula; from the southern end of the Korean peninsula to northern Kyūshū; and from northern Kyūshū to the Okinawa Islands via southern Kyūshū. It should be assumed that Chinese artifacts were brought based on a trade network. What was in the talc admixture jar remains a mystery, but it is still informative as the first pottery used as a transport container in long-distance trade around the East China and Yellow Seas.

9.3.2. Lelang pottery

A large amount of Lelang pottery was brought to the Korean peninsula and Japanese archipelago after the establishment of Lelang commandery in 108 BC. As mentioned above, studies on pottery from the Lelang Fortress (Tani 1984–86) advanced the identification and understanding of Lelang pottery. Jeong Inseong (2003, 2008) and Kim Mujung (2004, 2007) have conducted extensive research on these discoveries in Korea.

Lelang pottery has been unearthed in large amounts from the fortress and tombs of Lelang, and consists of a wide variety of assemblages (Fig. 9.2: 8–30). Some of them are found all over the Han Dynasty, such as vats (*Pan*, Fig. 9.2: 22) for temporary water storage and eared cups (*Erbei*) for drinking, but some types of necked jars (*Hu*, Fig. 9.2: 19) and pots are unique, for example, the flowerpot-shaped talc-admixture pottery (*Fu*, Fig. 9.2: 9–10), which is distinctive of the region of Lelang commandery. It originated from the Yan-style pot (*Yan fu*), and was typologically changed in the Liaodong region; it took on its final form as it spread to the northern part of the Korean peninsula (Miyamoto

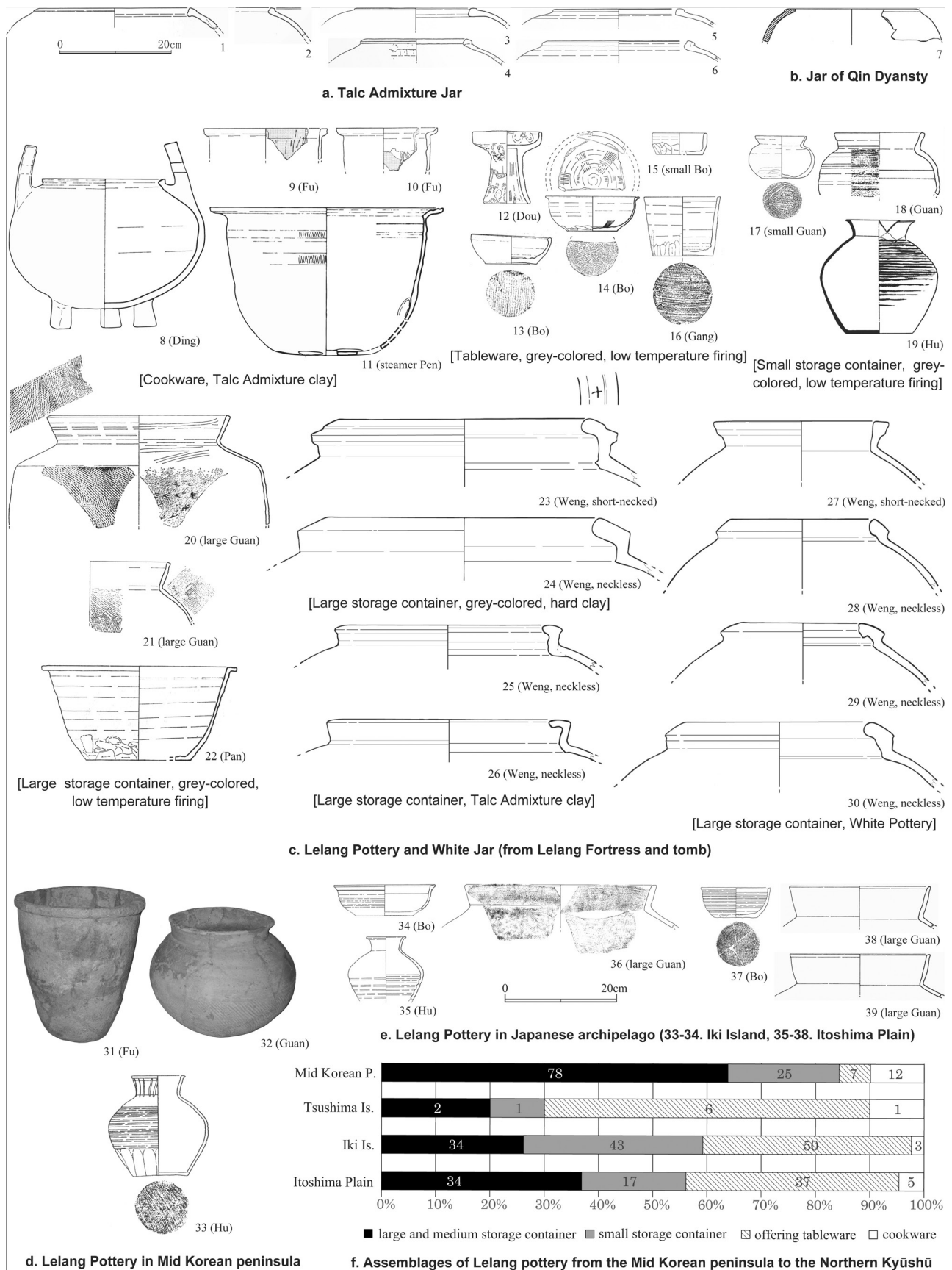


Figure 9.2. Talc pottery and Lelang pottery (a: Ōnuki eds. 2007; Lee 2004; Nagatomo 2010, b: Tani 1984-86; Harada and Tagawa 1930, c: picture courtesy of Nagatomo Tomoko; Kim 2004, d: Nagatomo 2010, Takesue 2014, e: based on Nagatomo 2010; FCBE 2011; Furusawa 2016). 1–2. Muyangcheng, 3. Neukdo, 4. Kajō shell-mound, 5–6. Ōkubo shell-mound, 7. Dajinsitun, 8–18, 20–30. Lelang Fortress, 19. Seokamri tomb No. 205, 31–32. Daljeonri burial No. 2, 33. Songjeongdong, 34–35. Karakami, 36. Harunotsuji, 37. Fukai Imuta, 38–39. Mikumo (Banjo).

2012). Specifically, the Lelang pottery includes a certain number of types that originated from Yan state and were transformed in the Liaodong region and in the Wiman Joseon. In Lelang commandery, a talc admixture jar (Weng, Fig. 9.2: 25–26) was also found, which had transformed from that of the Early Western Han period. Cups with a long leg (Dou, Fig. 9.2: 12)² and cylindrical cups (Gang, Fig. 9.2: 16) were found in the Lelang Fortress, and similar types of pottery were seen in Han tombs in the Liaodong peninsula but have not been unearthed in the Lelang tombs. Incidentally, judging from the Lelang pottery found from the midwestern to the southern part of the Korean peninsula and the White pottery (Fig. 9.2: 27–30) that is easy to assign to the period, the pottery from the Lelang Fortress is mainly from the late Western Han (the latter half of the first century BC) to the early Eastern Han (first century AD) periods. Pottery from the first half of the first century BC is not seen in the Lelang Fortress.

Reflecting the variety of the Lelang pottery, several kinds were distributed in the Korean peninsula and the Japanese archipelago. However, there is a deviation among the regions in their composition (Takesue 1991; Nagatomo 2010). Fig. 9.2f shows the variety of types of Lelang pottery in the midwestern part of the Korean peninsula located to the south of Lelang commandery, the trade centers of Tsushima and Iki islands, and the Itoshima plain, where many Chinese artifacts have been unearthed.

First, many storage tools have been excavated in the central part of the Korean peninsula. Among the medium and large storage tools, there were 42 vats and 36 short-necked jars. Seven of the short-necked jars were more than 30 cm in length, and the rest were medium-sized, less than 26 cm. At Gapyeong Daljeonri cemetery and Incheon Unbukdong site, the latter of which was a relay point for trading, Lelang pottery from the first century BC was excavated as early examples. The former site contained a set of flowerpot-shaped pottery and a short-necked jar (Fig. 9.2: 31–32), which influenced the burial goods of Mahan countries in the Midwest. This set came to be used as a standard of grave goods there. These grave goods include a large number of vats and some White pottery (Fig. 9.3: 12–15), which will be discussed below. Cooking steamers (Fig. 9.3: 18) are also included, and they suggest that the site was a base for a temporary stay. It is common to find a few medium and small jars (Fig. 9.2: 33) at other sites in the middle of the Korean peninsula dating from the first to the second century BC. Small jars to be used for storage are presumed to have been brought from Lelang commandery with some contents. This type of jar seems to have been regarded as significant, and was often imitated in the middle part of Korea (Nagatomo 2010: 18–20).

A large amount of Lelang pottery tableware (Fig. 9.2: 34, 37) has also been found on Tsushima Island, Iki Island and the Itoshima plain (Nagatomo 2010). Much Lelang

pottery has been excavated at the Haranotsuji site on Iki Island, and the proportion of small storage jars (Fig. 9.2: 35) is high. These jars are believed to have held some kind of liquid and been used locally as convenient containers. If they were used for a feast, it may have been a set of tableware. From Tsushima Island to the Itoshima plain, there are presumed fragments of large jars, but basically medium and large storage containers were short-necked jars (Fig. 9.2: 36, 38–39), of which there are only a few large ones. Some large jars with (over 40 cm) are found in Lelang commandery, and there were jars of White pottery of the same size. However, except for the White jars brought to Incheon Unbukdong site, as mentioned above, no other jars have been found to date in the Korean peninsula and the Japanese archipelago. Although the talc admixture jars from the early Western Han period spread without other kinds of pottery, the movement of Lelang pottery was different.

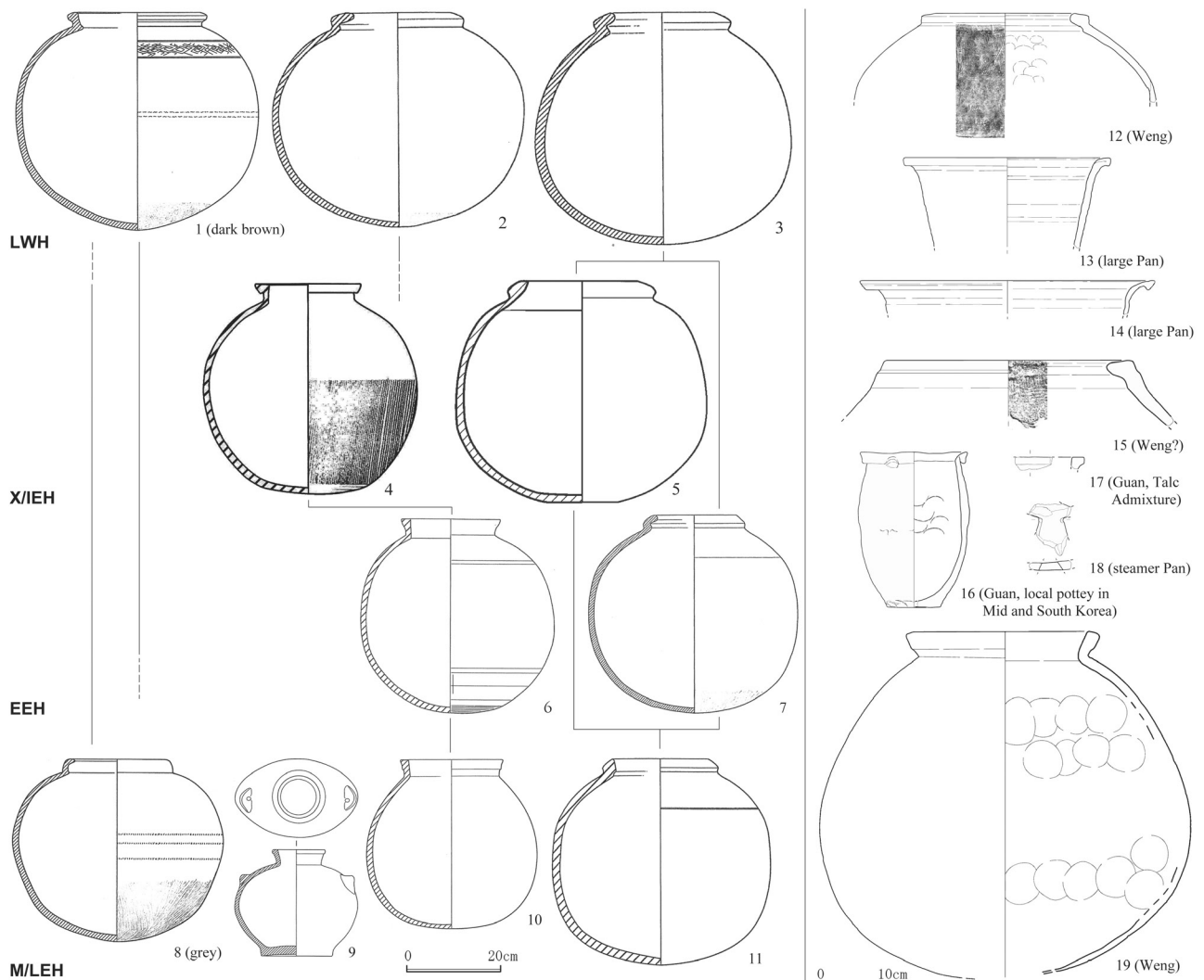
9.3.3. White pottery

Although White pottery jars used to be identified as a type of Lelang pottery, Tani Toyonobu (2008) demonstrated that these were produced in Shandong peninsula. White pottery was found in the Fuxia Wangjia kilns along with Wu Zhu coins, and therefore, they were made in the Han Dynasty (Hou Jiangye 2006), but a more detailed dating has not been attempted. However, the examples of the Jiangtun cemetery in the Liaodong peninsula showed that this kind of pottery appeared starting the late Western Han period (Xu and Zhang 2016). At present, it is believed that jars of White pottery were distributed around the Yellow Sea and that many of these were brought to burials in the Liaodong peninsula and the fortress and tombs in Lelang commandery.

White pottery at the Lelang Fortress includes two types: A) a neckless jar (Fig. 9.2: 28–30) and B) a short-necked jar (Fig. 9.2: 27), and there are sherds of reduction-fired gray pottery among Type A (Fig. 9.2: 23–24). Regarding the Lelang tombs, the earliest Type B jar was found in Jeongbekdong tomb No. 88 and dates from the late Western Han period (Takaku 1995: 57). Type A jars were found in Seokamri tomb No. 257 from the late Western Han period (Nakamura 2017) and Seokamri No. 9 from the Xin period (Takaku 1995: 57). Both types were imported to the Lelang commandery from the late Western Han Dynasty. Considering the cases of Jiangtun burial No. 41 (Fig. 9.3: 2–3) and Yingchengzi burial No. 2003–76 (Fig. 9.3: 5) on the Liaodong peninsula (Nakamura 2020), Type A jars in the Lelang commandery correspond to the late Western Han to Xin-Initial Eastern Han period. Additionally, according to the study by Xu Zheng and Zhang Miao (2016), Type B jars in Lelang commandery are presumed to date from the early Eastern Han period.

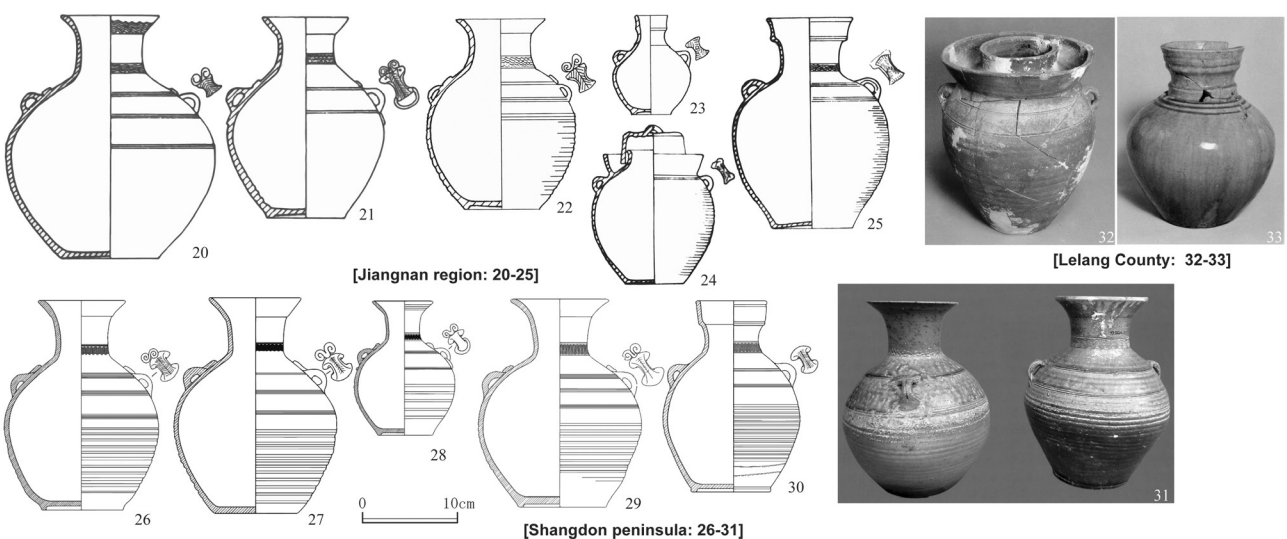
In the southern area of the Korean peninsula, several white jars have been found in the lower Han River basin. Several Type A jars of White pottery have been unearthed from pit No. 1 in section 5 of Incheon Unbukdong (Fig. 9.3:

² It is classified as a ‘Deng’ in the Han tombs of the Liaodong region, and it functions as a lamp.



a. White Jar and Liaodong Style Pottery in Liaodong peninsula: 1. Jiangtun burial (JT) No. 153 (Liaodong Style Pottery), 2-3. JT No. 41, 4. JT No. 19, 5. Yinchengzi burial No. 2003-76, 6. JT No. 10, 7. JT No.106, 8. JT No. 27 (Liaodong Style Pottery), 9. JT No. 73, 10. JT No.22, 11. JT No.21

b. White Jar and Lelang pottery in Midwest Korean Peninsula: 11-17. Unbukudong pit No.5-1, 18. Yangchon 3-Na, moat of tomb No.1



c. Proto-porcelain from Jiangnan region to Lelang County: 20-21. Laoheshan burial No. 98 (LWH), 22-23. No. 128 (EEH), 24-25. No. 129 (EEH), 26-28. Tushantun mound No. 4 burial No. 148 (LWH), 29-30. mound No. 4 burial No. 147 (LWH), 31. Jiuding Meihualing (EEH), 32. Toseongdong tomb No. 45 (M/LEH), 33. Namsari tomb No. 29 (M/LEH) *LWH: Late Western Han, EEH: Early Eastern Han, MEH: Middle Eastern Han, Late Eastern Han

Figure 9.3. White jar and proto-porcelain (a: LPICRA 2014; DMICRA et al. 2019, b: HICH 2012, c: Wang 2005, QMICHC et al. 2019, Yan 2006, ECIBRRK 1989).

12), accompanying local pottery (Fig. 9.3: 16) and many Lelang vats (Fig. 9.3: 13–14). Wu Zhu coins were also found from other archaeological features. The typological characteristics of the jars and coins show that they definitely date to the late Western Han period. At Gimpo Yanchon tomb No. 1 of section Na-3, a Type B jar was excavated from an outer moat of the mound, which is dated to the second half of the second century.

A large number of large jars were offered in the Jiangtun cemetery in the Liaodong peninsula (Fig. 9.3a). White jars of Type A and black-brown short-necked jars were found from the late early Han period (Fig. 9.3: 1–3). Different from those in Lelang tombs, White jars of Type B appeared between the Xin and the initial Eastern Han period (Fig. 9.3: 4). Then, in the Middle and Late Han Dynasty, the edge of the mouth rim of Type A rose and became close to a right angle (Fig. 9.3: 11). Type B jars came to have a thickened mouth rim (Fig. 9.3: 10). In addition, the variety of large jars has increased, to include black-brown pottery, gray pottery (Fig. 9.3: 8) and White pottery during this period, and the oligopoly of White pottery among large jars seems to have been lost.

Since the White pottery in widespread use consisted of large jars and necked jars, Tani Toyonobu (2008) suggests that the pottery was associated with some kind of contents. The White jars in Lelang tombs were also mentioned by Harada Yoshito and Tazawa Kingo (1930: 48–49) as possible food and drink containers. It is reasonable to assume that they were used as both transport and storage containers. The distribution of white pottery is limited to the lower Han River basin in the Midwest of Korean peninsula, and short-necked jars made in Lelang commandery were exported to the southern end of the Korean peninsula and the West of the Japanese archipelago, which suggests that White pottery was not just a tool for transportation but was considered a commodity along with its contents.

9.3.4. *Liaodong style pottery*

The Liaodong style pottery has a pattern of anywhere from one to several lines of cord on the body (Jeong 2003). Vessel types include large jars (Fig. 9.3: 1, 8), wide-mouth jars, long-necked jars and small vats, which were produced from the early Western Han period to the middle and late Eastern Han period. Since a certain amount has been found in the Shandong peninsula (Terai 2007), it is also called Shandong-Liaodong style pottery (Miyamoto 2020). However, the pottery form of the two areas is not the same.

Several Liaodong style pottery pieces have been found from the Harunotsuji site, and a wide-mouth jar among them attracted attention as being typical of the pottery before the establishment of Lelang commandery (Jeong 2008; Takesue 2016). However, as noted by Furusawa Yoshihisa (2016: 87–89), it is difficult to determine the date due to the lack of a mouth rim. As this type of wide-mouth jars appears in the middle Western Han period, which

begins from 118 BC as defined by Chinese archeology, the dating can hardly be traced back before the establishment of Lelang commandery. Regarding the Liaodong style pottery at Harunotsuji site, it is proper to consider that they were brought in during the late Western Han period when the number of such pottery increased. The small vat with a pattern of cord lines in the Harunotsuji site seems to hail from the Liaodong peninsula rather than the Shandong peninsula, taking into account the type of form. Rather, what is important for the Liaodong style pottery is the fact that the pottery from the Liaodong region had moved even after the movement of the jars of talc admixture. It shows that the trade at that time was not limited to the Lelang commandery, Korean Three Han (Mahan, Jinhan, Byeonhan) and Wa.

9.3.5. *Proto-porcelain*

Proto-porcelain is known to have been produced since the Shang Dynasty and to have developed in the Yangtze River basin (Yuba 1999). This kind of pottery is considered porcelain in Chinese archeology, but a kind of ash-glazed ceramic in Japanese archeology. This gap in recognition comes from the difference in the definition of porcelain between Japan and China. In China, porcelain is considered to be glazed and fired at a high temperature, while in Japan, some Chinese porcelain is categorized as glazed ceramic, as the quality of the clay body is emphasized.

Even in China, there was a controversy over whether to use glazed ceramics or porcelain, but Guo Moruo suggested proto-porcelain as a compromise term in 1971, and the name became widely used (Wang et al. 2014: 87). In addition, Li Zhiyan (1973) used the term “proto-celadon” as satisfying the elements of porcelain, and Sekiguchi Koji (2002) also uses this term. In recent years, Wang Chang-Hu et al. (2014) have also argued that ash-glazed ceramics in China are the same as proto-porcelain and cannot be scientifically distinguished from celadon. Although the term “proto-celadon” is now used again for long-necked jars from the Western Han period (QMICHG et al., 2019), the term of “proto” seems to be used to distinguish it from later celadon with typical coloration. Also, Lin Shimin (1986) determined that proto-porcelains unearthed from kilns from the Middle and Late Han period of Ningbo in the Jiangnan region were made by the immersion glazing method and improved clay body. He regarded them as an early form of celadon. However, the ceramics excavated from kilns in Ningbo are a type of long-necked jar that kept being made from the Western Han period, and there was no large difference in the appearance and chemical composition of those of the Western Han and the Eastern Han. Furthermore, according to the work of Yin Min et al. (2015), differences in clay and glaze can be seen from the Warring States period. For these reasons, and also considering the difference from later celadon, this paper will use the term “proto-porcelain,” which is still in common use.

Proto-porcelain spread from the middle Yangtze River in the early stage and then did from the lower (Okamura

1995). It was also produced in the Guanzhong region during the Han Dynasty and buried as ceramics with unique forms in the graves. In the lower Yangtze River basin, the Jiangnan region, many mound tombs were constructed in the Han Dynasty in which many long-necked jars with twin ears are found (Fig. 9.3: 20–23, 25). A type of wide-mouthed jar for fermentation was also widely produced in this region which could be sealed by filling it with water between the cover and the mouth (Fig. 9.3: 24).

In Toseongdong tomb No. 45, a wide-mouth jar for fermentation was found dating from the Middle and Late Han Dynasty of the Lelang commandery (Fig. 9.3: 32), and a long-necked jar with twin ears was found in Namsari tomb No. 29 (Fig. 9.3: 33). They were certainly produced in the Jiangnan region. According to Wu Xiaoping and Jiang Lu (2016), long-necked jars with mouth rims that open outwards were also found in tombs in the middle Yangtze River basin. However, in the period from the middle Western Han Dynasty to the early Eastern Han Dynasty, this pottery was closely related to the Jiangdong area, that is, the lower Yangtze River basin. In light of this point, it may be considered the case that the proto-porcelain in the Lelang commandery came from the coastal area of the Jiangnan region.

On the other hand, the proto-porcelain was not brought directly from the Jiangnan region to the Lelang commandery, but passed through several transit points. Among them, the closest area to the Lelang commandery is the Shandong peninsula. Now, let us take a look at some examples.

In Qingdao Tushantun tomb No. 4, proto-porcelains were found in graves No. 147 and No. 148 (Fig. 9.3: 26–30). Originally, grave No. 148 had its own small mound, then it was enlarged and the new main part of the tomb was constructed (grave No. 147). A wooden tablet with the inscription ‘Yuanshou 2 year (1 BC)’ was found in grave No. 147, and according to the chronological study of Okamura Hidenori (1984), a Han mirror of around 30–20 BC was found in grave No. 148. However, there is no difference in type between the proto-porcelains of the two graves.

In Rizhao Haiqu tomb No. 2, which has many graves in a mound, Shandong-Liaodong style pottery was unearthed dating to the middle Western Han period. Starting in the late Western Han period, long-necked jars of proto-porcelain with twin ears came to be placed in the graves. Long-necked jars with twin ears were also excavated from Susia Guanlicun grave No. 1 and Haiyang Jiuding Meihualing dating to the Eastern Han period (Yan 2006, Fig. 9.3: 31).

Traditionally, exchange between the Shandong region and Jiangnan region began in the Warring States period. The crystal ornaments and ivory in the Linzi Fanjia cemetery in the fifth century BC (Wang and Li 2016) shows that the trade passed through the Jiangnan

region. In addition, as regards the style of burials, Qingdao Tushantun tomb No. 4 and Rizhao Haiqu tomb No. 2 were influenced by Tutunmu, which was the characteristic type of mound grave mainly distributed in the Jiangnan region.

9.4. Long-distance trade pottery and kilns

As mentioned in the introduction, all of the long-distance mobile pottery examined above was fired in kilns. The following discussion of the characteristics of each type of pottery will focus on the differences in kiln types.

First of all, as talc admixture pottery appeared from the eastern end of Yan State territory, the technology of the kilns used for firing surely originated from Yan State. Several kilns in which Yan-style pots were fired have been discovered at Fangshan Nanzheng in Beijing (Fig. 9.4: 1). A large-scale kiln site consisting of eleven kilns dating from the Qin period has been excavated at the Dajinsitun site (Fig. 9.4: 7) in the Liaoxi region, and the nearby Shibeide site had a kiln in the early Western Han period. These kilns are all of the same “flat kiln” type, despite differences in whether the firing chamber is rectangular or oval. Since the flat kiln style replaced the updraft kiln during the Warring States period and spread mainly in North China (Fukasawa 2011), these continued to be used without any fundamental change in the northern and northeastern parts of China even during the dynasty change from Yan to Qin and Qin to Han.

In regards to Lelang pottery, its vessel assemblage contains the talc admixture jars and the flowerpot-shaped pottery, which also descended from the lineage of the Yan State. It is highly possible that the Lelang pottery was fired in a similar flat kiln. Since even the firing temperature of the reduction-fired Lelang pottery is about 800–1000°C (Kanegae and Fukuda 2006), it is difficult to argue that the kilns in the Lelang commandery were acquiring new technology from other regions.

A kiln for White pottery has been reported, although only photographs are available (Hou 2006, Fig. 9.4: 8). It is a flat kiln almost the same as the Fangshan Nanzheng kiln. Therefore, the White pottery established its uniqueness not by the improvement of the kiln structure but rather by the use of kaolin-rich clay. In the Middle and Late Han Dynasty, not only large White jars but also the flattened jars and other types of White pottery were distributed (Fig. 9.3: 9). It can be seen that the production of new products began at a certain stage in the Eastern Han period. Unfortunately, White pottery continued to be produced until the beginning of the Three Kingdoms period, but when the trade of proto-porcelain began to reach as far north as the East China Sea, its production seems to have shrunk.

On the other hand, after the Warring States period, flat kilns came to dominate in North China, but in contrast to this, the dominant type in coastal areas of Central and

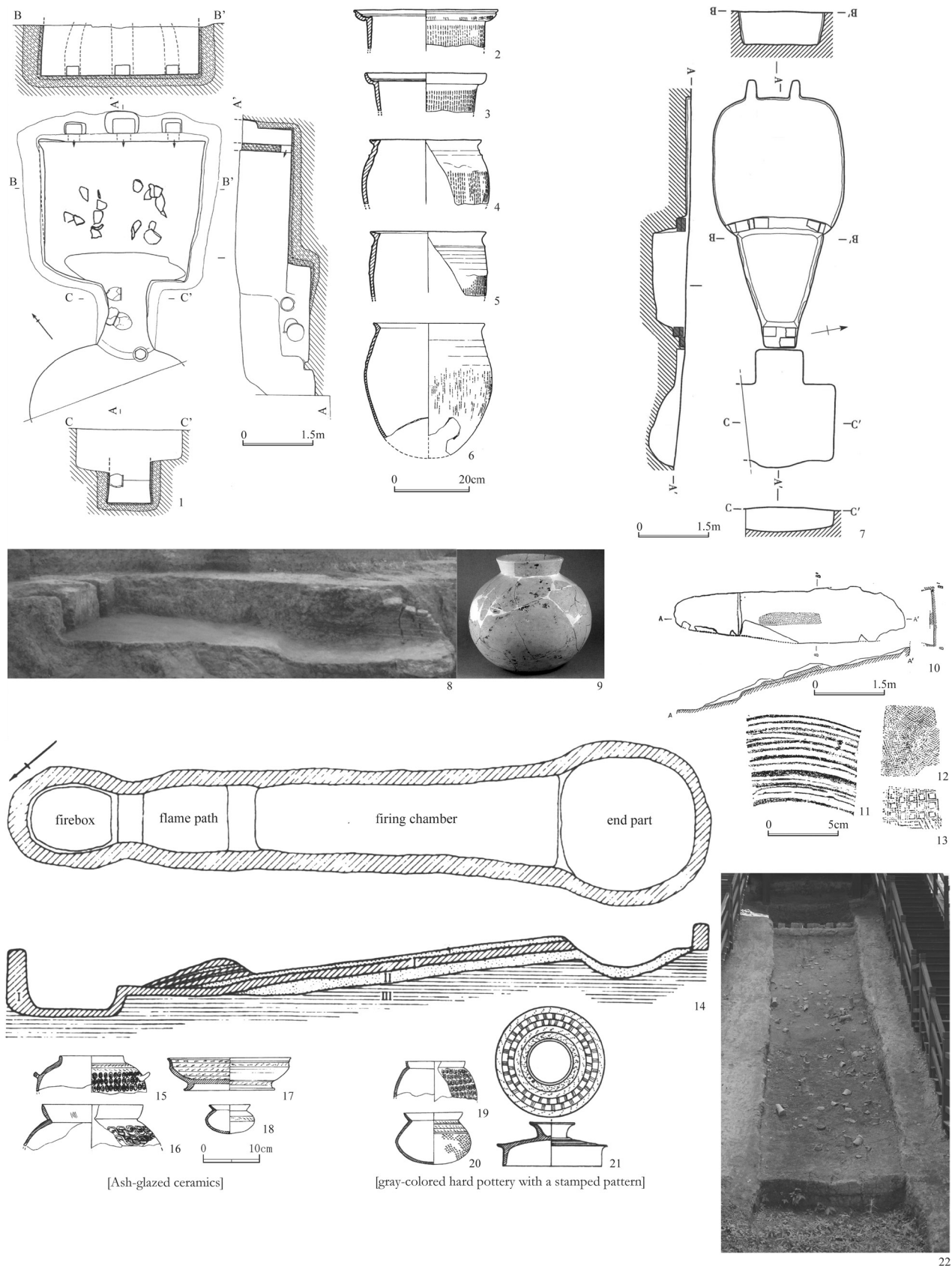


Figure 9.4. Flat kiln and tunnel kiln from North to South China (CRIB 2008; LPICRA 2010; Hou 2010; Hu 1987; GPICRA et al. 1998; photo by author): 1–6. Fangshan Nangzheng kiln No. 6 (Beijin), 7. Dajinsitun kiln No. III-4, 8–9. Buxia Wangjia kiln No. 1 (Yantai, Shandong), 10–13. Shangyu kiln of Shang period (Shangyu, Jiangnan), 14–21. Meihuadun (Boluo, Lingnan), 22. Jinshan kiln of Eastern Han period (Shangyu, Jiangnan).

South China is the tunnel kiln (Fukasawa 2011); it is called the “dragon kiln” in China. This type of kiln appeared in the late Shang period (late second millennium BC), and a long kiln has been excavated which has a 16-degree slope and boasts about 4 m of firing chamber, and was found at Shangyu in the Jiangnan region (Hu 1987; Fig. 9.4: 10). Gray-colored hard pottery with a stamped pattern was mainly unearthed from this kiln, and there was no proto-porcelain. It is still unclear what kind of kiln the early stage of proto-porcelains was fired in. However, it is known that these were found with gray-colored hard pottery in the Meifadun kiln, which dates from the late Spring and Autumn to the early Warring States period (GPICRA et al. 1998). This proto-porcelain is reported to have been fired at 1270°C and to have a clay composition similar to that of celadon. The proto-porcelains of the Han Dynasty period were fired by excellent tunnel kilns (Fig. 9.4: 22), and are furthermore both elegant and much more rigid than other pottery at that time. Solid and refined proto-porcelains have been found up to the Shandong Peninsula from the Western Han Dynasty and eventually came to be distributed to the Korean Peninsula during the Eastern Han Dynasty. The proto-porcelain had always been valued for its quality in the Yellow River basin. It can be said that this value was extended to the east.

9.5. Structure of the trade network and its expansion

The movement of pottery in the Yellow Sea and the East China Sea is a result of trade at that time. However, the Han Dynasty was quite different in terms of the developmental stages of polity and economic structure than the countries in the Korean peninsula and Japanese archipelago. It is well known that commerce and manufacture developed in China from the Warring States period to the Han Dynasty period, and merchants rose to prominence. According to Sahara Yasuo (1985), markets were held in cities and villages, and coins and cloth were the basic means of exchange. In the Korean Three Han and Wa, although coins have been excavated, they were not used as a means of exchange; the exchange was based on barter. The History of the Three Kingdoms describes how Jinhan countries produced iron and the Korean Three Han, Hui and Wa countries came to collect it. It also refers to iron used as currency (Chenshou, *Sangoushi*, Weishu Volume 30, Treatise on Han). Actually, at the Ulsan Dalcheonri site, where iron ore was produced in the first century BC, Lelang and Yayoi pottery has been unearthed. It is suggested that a market was held with iron as its focus (Nakamura 2015). Wa people are presumed to have exchanged cloth and local specialties for iron, but this will be discussed below.

Since Wa lacked iron-smelting technology until the latter half of the fifth century and copper-smelting technology until the seventh century, obtaining iron and bronze was crucial to producing not only tools and weaponry but also prestige goods. Before the establishment of Lelang

commandery, cast-iron tools and their fragments were brought from Liaodong commandery (Nakamura 2015), which seems to have been done by merchants of the Yan State and Han Dynasty. After the establishment of Lelang commandery, iron began to come in from Byeon-Jinhan in the southeastern part of the Korean peninsula to Wa, as described in the *Sanguozhi*. On the other hand, as a result of the establishment of diplomatic relations between Wa and Lelang commandery (Okamura 1999; Nakamura 2015), large and superior Han mirrors were brought and buried in the graves of the Japanese chiefs. Previously examined pottery such as the talc admixture jars, Lelang pottery and Wajil ware of the southeastern part of the Korean peninsula were not used as burial goods or ritual offerings on and beside burials. The fact that only prestige goods and weapons served as burial goods shows the value of long-distance mobile pottery as hard containers.

Takesue Junichi (2009, 2016) describes how a settlement located on the coast and relying heavily on maritime trade activities has been united with a regional capital as a social and economic unit.³ Based on the unearthed artifacts of the Han Dynasty including the Lelang pottery and coins, the Northern Kyūshū countries undoubtedly connected with the Lelang commandery via such relaying bases as the coastal settlements in Japan, island counties of Iki and Tsushima, and Neukdo, which is a coastal settlement of Byeon-Jin Han. The relay trade along the coastline would be the concrete image of the trade network at that time.

Incidentally, in the period from the first century BC to the first century AD, Indo-Pacific Beads (IPBs) were distributed to such regions as the Nanhai commandery, the Lelang commandery, the Liaodong peninsula, the southern part of the Korean peninsula and the Japanese archipelago (Oga and Tamura 2013, Nakamura 2015). At the Khao Sam Kaeo site located on the Malay peninsula, archeologists found not only IPBs but also indigenous hard pottery which was produced from the Jiangnan region to the areas around the Gulf of Tongking, in addition to Brahmi script from India (Higham and Thosarat 2012: 184–85). These artifacts mean that the Jiangnan region was connected to India. The so-called Sea Silk Road had been in use since this period. It should be noted that IPBs are almost never unearthed in the Jiangnan region and Shandong peninsula, located between the Huanan region and Lelang commandery. However, as examined above, the proto-porcelains were distributed from the Jiangnan region to the Shandong peninsula, and a great deal of White pottery was distributed from the Shandong to the Liaodong peninsula and Lelang commandery. These pottery movements show

³ Miyazaki Takao (2001) and Anraku Tsutomu (2013) used the term ‘Tsukushi Union’ to explain the social structure of this period. In addition, in the Fukuoka plain, Kusumi Takeo (2008) assumed that the Naka site functioned as a ‘trade center’ and the Sugu Okamoto site functioned as a ‘royal city’.

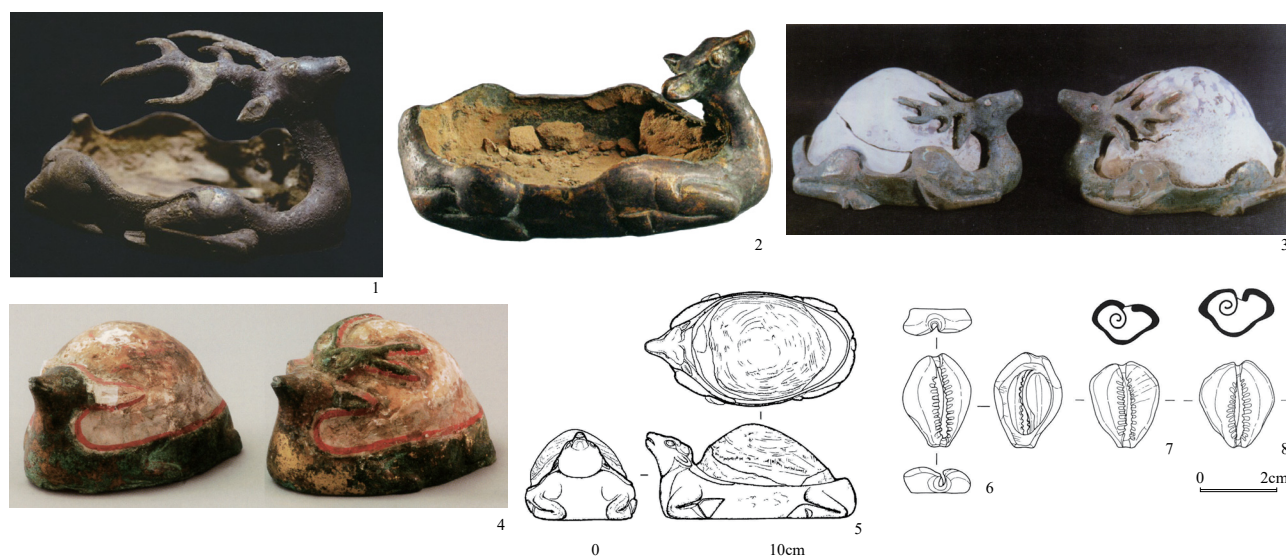


Figure 9.5. Copper deer weights with a large shell and cowries in China and South Korea (Cheng 2017; APICRA et al 2007; Wei eds. 1998; Guo and Zhao 2010; LPICRA 2013; GARI 2006). 1. Haihunhou Liuhe tomb (length: ca. 11 cm, Nanchang, Jiangxi), 2. Fangwanggang grav No. 1 (length: 10.2 cm, Chaohu, Anhui), 3. Babai grave No. 3 (length: both 10.4 cm, Hohhot, Inner Mongolia), 4. Huaershan grave No. 7 (length: 10.5 and 10.7 cm, Pulandian, Liaodong peninsula), 5. Jiangtun grave No. 41 (Pulandian, Liaodong peninsula), 6. Neukdo shell mound (Sacheon, Gyeongsang-namdo), 7. Neukdo grave No. Ka-95 (Sacheon, Gyeongsang-namdo), 8. Neukdo grave No. Ka-122 (Sacheon, Gyeongsang-namdo).

that the area from the Jiangnan region to the Shandong peninsula had a significant role as the site of relay bases.

There is good evidence in the Liaodong peninsula for when the trade of the East China and Yellow Seas connected to the Sea Silk Road. Copper deer weights with a large shell were found in Jiangtun grave No. 41, which is the shell filling grave in the Liaodong peninsula (Fig. 9.5: 5). The shell is *Cypraea tigris*, a species that lives in the South China Sea. Additionally, the shell filling grave is the local style of burial around the Yellow Sea, and IPBs have often been unearthed from these graves in the Liaodong peninsula (Nakamura 2020). Because of their date and materials, it is estimated that the copper deer weights with a large shell spread after the establishment of the Nanhai nine counties (111 BC, Cheng 2017) around the Gulf of Tongking, which may have led to a permanent connection with the Sea Silk Road from this time.

Meanwhile, although the shell filling graves had rich burial goods, they lack lacquerware, long swords and long knives; thus, they differ from those of the aristocracy of the Lelang commandery. Shell filling graves are estimated to have belonged to an affluent merchant class (DMICRA et al. 2019; Nakamura 2020). Furthermore, the shell filling graves and the Lelang tomb had gold belt fittings of the type that were sent to influential people in the periphery of the Han Dynasty. This demonstrates that the Liaodong peninsula and the Lelang commandery were not only closely related but also amassed a great deal of financial power. In particular, the aristocracy in Lelang commandery has long been noted for its wealth (Sekino 1968).

In ordinary trade, cloth and other specialties may have been exchanged for bronze and iron before and after

the establishment of the Lelang commandery. Japanese comma-shaped beads have been found in a Lelang tomb and Japanese bronze pikes in burials on the Korean peninsula, but not in large numbers. The distribution of Yayoi pottery is limited to the middle and southern parts of the Korean peninsula. It is controversial whether Wa people exchanged for much metalware and materials; among them, rice has often been mentioned (Choi 2006, Miyamoto 2020). However, unlike in Okinawa and the steppe areas where agriculture is not possible, it is easy to grow grain in both the Korean peninsula and areas in the Han Dynasty. More valuable goods that are difficult to find were shellfish and pearls. In China, cowries have been valuable since the Shang Dynasty, and the *Cypraea tigris* shells mentioned above were distributed as luxury goods from the South China Sea from the middle Western Han period. There is a strong possibility that the distribution of shellfish from the Nanhai commandery stimulated the demand for shellfish of Okinawa in the Lelang commandery and the Korean peninsula. In fact, cowries (Fig. 9.5: 6–8) have been unearthed at the Neukdo site, including shell mounds.

9.6. Concluding remarks

From the Qin and early Western Han period onwards, since large jars began to be distributed widely but these vessels were large in size and heavy when filled, trade by ship was a necessity. Firing in kilns was essential to harden the large pottery used as transport tools. White pottery was brought from the Shandong peninsula to the Liaodong peninsula and the Lelang commandery and was also offered in burials. The quantity of this pottery increased, especially from the late Western Han period to the initial Eastern Han period, and the number of IPBs in distribution

increased rapidly. The White jars and a large number of vats were found in Incheon Unbukdong, located on an island in the Midwest of the Korean peninsula. In addition, this was accompanied by a simple dwelling and pottery for cooking. This situation reminds us of the merchants from the Lelang commandery who were heading south via their coastal base.

Pottery fired in kilns, which was a novelty in the middle and late Western Han Dynasty, was brought to the Korean peninsula. Kilns were only introduced in the southeastern region, Byeon-Jinhan. However, the Wajil ware of Byeong-Jinhan was initially fired in a kiln as medium short-necked jars and small padlock-shaped jars. The emergence of large kiln-fired pottery was delayed. The kilns were introduced for reasons other than the need for rigid containers. As mentioned above, the Lelang pottery and Wajil ware was also brought to the Japanese archipelago, but it was not used as burial goods or for rituals. The main aim was transportation of their contents.

In the middle and late Eastern Han period, the number of IPBs decreased in the Lelang commandery and the Japanese archipelago and increased in the southern part of the Korean peninsula (Nakamura 2105: 44). It is evident that the distribution situation changed during this period. At the same time, proto-porcelains from the Jiangnan region were newly brought to the Lelang commandery. This indicates that the vast changes in coastal trade extended to the distribution of pottery. In addition, it is significant that the aristocrats of Lelang commandery, who had collected precious artifacts from all over the Han Dynasty, began to appreciate the value of porcelain. In Baekje on the Korean peninsula, porcelains from the Jiangnan region were imported from the early Eastern Jin Dynasty after the collapse of the Lelang commandery. Along with large ceramic jars, necked jars with a spout in the shape of a chicken head and small cups were also brought and became burial goods. These were valuable on their own as drinking vessels. The use of pottery from other states as burial goods has not been seen anywhere else except on the border of the Lelang commandery. In Baekje, it was treated as quite valuable. It can be considered that the sense of the value of the aristocracy in the Lelang commandery diffused around the time of its collapse. In this regard, the distribution of proto-porcelain of the Jiangnan region constituted the most significant innovation in the value of pottery in long-distance trade. It is also interesting to note that from this period on, the Japanese began to offer pottery in their burials from Gaya and found value in pottery from other countries.

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Part III

Spread to the North and the Northeast