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The Production System of Kiln-Fired Pottery in the Korean Peninsula

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Abstract: This essay examines how the technology of the kiln and potter's wheel introduced in the early Proto-Three Kingdoms period replaced the long-term continuous ceramic technology tradition, and how the process of the replacement was different in each regional part of South Korea. Unlike in the Han River basin, where kilns were introduced late and different types of pottery were produced by different organizations, the Nakdong River basin integrated production of Wajil ware (gray-colored and kiln-fired earthenware) mainly for offering in burials, and Yeonjil pottery (orange-colored and mostly open-fired earthenware) for daily use at an early stage. This is the background to the regional differences in ceramic production during the Korean Three Kingdoms period.

Keywords: Proto-Three Kingdoms period, Han River basin, Nakdong River basin, Wajil ware, Dojil ware

13.1. Introduction

It was at the beginning of the Proto-Three Kingdoms period (P-TKP, 100 BC–AD300) that kiln firing was, for the first time, applied to the pottery production in ancient Korea. According to the Records of the Three Kingdoms (*Sanguozhi*), a Chinese historical record of the same period, during the P-TKP, 78 *Guk* (small-scale polities) were distributed in the southern part of the Korean peninsula and the Lelang commandery, which was established by the Han Empire, was located in the northwest. In this period, the polities of South Korea were able to participate in a network of close interaction with Chinese civilization through the commandery. Through this Northeast Asian network, the technologies of ceramic and iron production were introduced to Southern Korea and the new technology triggered the process of technological innovation in the indigenous society (Barnes 2015: 317–22). During the Korean Three Kingdoms Period (KTKP, AD 300–676), the early states, such as Baekje, Silla and the Gaya polity group rose in Southern Korea. Along with the sociopolitical development, the central workshops of some polities turned to large-scale industry; the ceramic production systems were hierarchically organized within both early states, Baekje and Silla. In this chapter, the process of technological innovation in pottery-making and the transformation of the production system will be discussed in the two regions, where Baekje and Silla rose up. It will be described how the kiln firing and potters' wheel techniques were adopted and connected to technological innovation and how this organized ceramic production in two different sociocultural contexts.

13.2. The pottery production system in Korea

Research on the organization of pottery production has been of interest to archeologists for quite a long time. This usually started with the question of how it relates to social complexity, focusing basically on the economic aspects of pottery production. At first, archeologists interested in the organizations of production took the approach of classifying them into several types, taking into account the economic, social and political attributes of craft production. Since the early 1990s, Korean archeologists have also been discussing the organization of ceramic production, and attempts have been made to distinguish the types of production system according to the level of specialization, the degree of production and the scope of distribution (Lee S.1991; Choi G. 2000; Cho S. 2014).

The recent research on the organization of ceramic production has changed considerably. The problem with the formal approach has been pointed out: that by categorizing the production systems into several types in advance and fitting the various ancient organizations into them, one could ignore the various characteristics that appear in ethnological and archeological data (Costin 2001). Recently, from the perspective of relational ontology, the organization of ceramic production has been not seen only as a product of social processes. Instead, by understanding the organization of production as a result of the interaction of people, tools, artifacts, materials and animals, a new approach to it is required (Duistermaat 2017).

The pottery-firing features of the Jeulmun (8000–1400 BC) and Mumun periods (1400–100 BC) remain basically in the form of shallow, simple burnt pits that have mostly been found near villages (Kim H. 2002; Bae S. 2007). No research has yet been conducted on what quantity of vessels was produced from those open firing features near the villages and how widely the products were distributed. However, it is not too difficult to conclude that the products

of such firing features were not widely consumed, nor can it be admitted that there were specialized potters who were exclusively engaged in pottery production, because of their simple, rough forming skill and badly unstandardized shapes. However, in the KTKP, large-scale nucleated workshops (Peacock 1982) found near the capital and main settlements of Baekje, Silla and Gaya were composed of a number of tunnel-type climbing kilns (GNRICH 2004; Lee J. 2008).

It is, therefore, hard to deny that in the KTKP, a specialized mass-production organization emerged along with the development of a complex society, while the Jeulmun and Mumun period pottery production could be characterized by a low level of specialization. The most meaningful time in the process of the organizational development of pottery production is the P-TKP. At this time, the kiln of which the heating chamber was separated from the firebox was introduced from Northeast China, and technological innovation was carried out in the process of selecting raw materials, preparing bodies and forming vessels. In addition to these technological innovations, fundamental changes had also begun in the organization of production (Lee S. 2014).

Some studies focus on the development of production organization according to the sociopolitical changes, but others pay attention to the coexistence of different production systems in a society. In Baekje, the various organizations, which were divided depending on the function of the vessel, the social status of the consumer, the *chaîne opératoire* and the spatial range of distribution, coexisted and were closely related to each other. Choi Gyeonghwan classified the organization of production, analyzing the kiln remains of Baekje, into "small-scale," "regional" and "governmental" workshops according to the scope of consumption and whether the government was involved (2000). The small-scale workshop equipped with one or two kilns was operated inside a village of dozens of households, where four to five types of vessels that commoners used in their homes were formed and fired at a relatively low temperature. The regional workshop had limited types of vessels, but with highly developed skill, produced in large quantities and supplied for a wide range of consumption. On the other hand, the governmental workshop operated directly by the central or local government was specialized in producing the vessels necessary for official activities and consumed by the ruling class (Choi G. 2000).

13.3. The development of kiln firing

Until the Mumun period, pottery had been produced by open firing methods. The firing process had been carried out in an oxidation atmosphere within shallow round pits or long trench-shaped features of which the floors were occasionally pebbled (Kim H. 2002, Bae S. 2007). The prehistoric open firing facilities had a structure that could not control the air, so the pottery fired in them was red or brown. The type of kiln which can control the flow of air by separating the firebox and the heating chamber began to be used in the early P-TKP. Considering the emergence of the gray vessels produced in a reducing atmosphere in the settlement and pit-burials in the Han River and the Nakdong River basins from the first century BC, it can be said that pottery was already made in a workshop equipped with kilns. However, although in some archeological sites kiln remains have been reported, there are few well-preserved examples of the feature.

It seems that trench-type and round-pit-type open firing facilities were still in use for brownish-red, low-fired pottery until the P-TKP. In addition, there were other types of structures where grayish pottery was fired in a reducing atmosphere, but well-preserved kiln structures have never been identified. It is highly likely that various firing structures including kilns coexisted during the P-TKP (Kim J. 2007). Among them, there was the Ga-13 Kiln of a very interesting structure in Hwangseongdong settlement, Gyeongju. The settlement has been recognized for its importance as a large-scale iron production site of the P-TKP. The kiln was found in the middle of the settlement, where furnaces, smelting facilities and waste dumps were densely distributed along with a lot of pit-houses. The narrow and long firebox was built somewhat deep underground, but the heating chamber has a wide square plane. There is a study that points out that the structure of this kiln is similar to that of the semi-down-drift (*Bandaoyan*) type domical cover kiln (*Mantouyao*, Liu Z. 1982) that had been popular since the Warring States period in northern China (Nagatomo 2019). In the early P-TKP, the type of vessel fired in a reducing atmosphere which first appeared in southern Korea is a round pot formed by the paddle and anvil technique (Lee S. 2008). The form and paddling procedure of this pot originated from the technological tradition that had spread in Northeast China since the Yan State occupied the region. Therefore, it can be assumed that this kiln structure and firing technology, which had settled in Manchuria during the period from the end of the Warring States period to the Early Han Empire (the third and second centuries BC), was introduced to Southern Korea in the first century BC.

The firing structures of the KTKP in Baekje, Silla and Gaya belong to the category of the long, oval-shaped, tunnel-like climbing kiln. These structures were usually constructed on slopes and quite similar to the structure of the dragon kiln in China. This type of kiln is thought to have appeared at the end of the P-TKP (late third century AD). But in fact, there is no climbing kiln which actually belongs to the P-TKP, and a kiln dated to the early fourth century is the earliest example. In general, the climbing kiln of the KTKP consists of an underground or semi-underground long tunnel-type heating chamber and a short firebox attached to the front. All climbing kilns structurally belong to the horizontal-draft type and basically share common attributes, but each of them differs in plane shape, total length, degree of slope and the volume of the heating chamber.

There are two important examples of climbing kilns of the early fourth century, one of which was found in the Sansuri ceramic production site of Baekje, Jincheon (Choi B. et al. 2006) and the other in the Ugeori workshop cluster of Ara-Gaya, Haman (Lee J. 2007). Both started production in the early fourth century and are of the semi-underground style. The former, Sansuri type is characterized by a subterranean firebox installed much deeper than the heating chamber, while the latter, Ugeori type is constructed so that the floor of the firebox and heating chamber can be connected naturally without any difference in height. When fueling the former's firebox, the fuel would have been thrown from top to bottom, but in the latter, it would have been pushed in from the side. While the heating chamber of the Sansuri type is wide and short, the Ugeori type is long and narrow. The products of the Ugeori-type kiln were sufficiently heated up to 1200°C to cover their surface with natural glaze (Lee J. 2007), but those of the Sansuri type seem to have completed their firing process at much lower temperatures. In the fourth and fifth centuries, kilns in the Baekje area belonged to the Sansuri type, while the Ugeori type represented the structural features of Silla and Gaya's kilns. However, in the fifth century, workshops in Baekje also employed Ugeori-type kilns; this seems to have been for the production of hard-fired Dojil ware. Baekje built various types of kilns, even accepting Chinese kiln structures, but Silla and Gaya improved and developed only the Ugeori-type kiln.

The origin of the kilns in southern Korea can eventually be found in ancient kilns in China. Chinese ceramic researchers classify ancient kilns by two criteria: the way the flow of heat is guided and the shape of the plane. In the development of ancient Chinese kilns, researchers attach great significance to the emergence of the semi-down-draft, round kiln or domical cover kiln in North China and the invention of the horizontal-draft dragon kiln in South China (Liu Z. 1982; Xiong H. 2014: 49–74). Since more direct interaction between Korea and China began from the end of the Warring States period, it is possible that the firing technology and the kiln construction method of the Korean peninsula could have been influenced by the round kilns in North China and dragon kilns in South China. Some researchers say that the round kiln and its firing technology were introduced in the early P-TKP, leading to the production of soft gray pottery, Wajil ware (Lee S. 1992; Barnes 2001: 106; Nagatomo 2017). It is also claimed that at the end of the P-TKP, some groups in the southeast coastal area accepted the dragon kiln from South China and began producing hard-fired Dojil ware (Choi J. 1994; Shin G. 2012; Nagatomo 2017). However, there are also archeologists who think that the Dojil-ware kiln was not directly affected by the dragon kiln because it was quite different from that of South China at the same time and the paste and shape of the Dojil vessels were completely different from those of the Chinese products. They argue that the long oval-shaped climbing kiln of the KTKP was completed by improving China's round kiln, introduced in the early P-TKP, and constructing it on the slopes of hills (Lee S. 1992; Kim J. 2007; Gu Y. 2009).

13.4. The technological innovation in different contexts

In the early P-TKP, technological innovation begins in this region, as the *chaîne opératoire* of kiln-fired pottery was introduced to the communities of Southern Korea. It is thought that the role of potters who visited from Northeast China or Lelang was important for the introduction of technology. However, it would be indigenous potters who physically acquired it through learning and practice and applied it to the production of various vessels in practice to lead the innovation (Lee S. 2014: 243–48). The ceramic assemblages which illustrate the process of technological innovation, starting relatively early and slowly replacing the Mumun pottery group with the kiln-fired one, are found in the settlements of the Han River basin in the central part of the Korean peninsula and in villages and burials in the Nakdong River basin in the southeastern part.

In the early stages of technological innovation of both regions, the vessels related to the new technologies are limited to only one class of vessel, the round pot, which had not previously been seen in Mumun societies. For manufacturing the round pot, fine clay mixed with silt was prepared, and it was fired in a kiln that, though imperfect, could control the inflow of air under a low-temperature, reducing condition. So, the kiln-fired pottery of the P-TKP is basically characterized by a soft and gray fabric. Although the potter's wheel was used in the forming process, the turning method was applied to adjust the symmetry, reduce the variations in wall thickness and finish the surface of the vessel rather than to throw it. In the P-TKP, there was a tendency to make the bottom of a vessel round; the method used to complete a round-shaped vessel was the paddling and anvil technique. In the early stage of innovation, all these new technological elements can be identified only in round pots, and other vessel types used in every utilitarian and ritual context were all made with traditional Mumun techniques. However, the *chaîne opératoire* of the new technology was gradually extended to other traditional types of vessels. It can therefore be said that the new techniques did not quickly replace the traditional ones and that the technological innovation was made possible by the traditional Mumun potter who acquired the embodied skill of the kiln-fired pottery technology.

The process of technological innovation in communities in Southern Korea during the P-TKP shows very interesting regional differences. The communities in the Han River basin rarely built tombs, and therefore had no burial food offerings in which ceramic vessels were used. Thus, to explain the technological innovation of pottery production in this region, it is necessary to rely on the ceramic assemblages found in the settlement sites. Within each house, a considerable number of different kinds of pottery were used for the storage, transportation, cooking and daily meals in a household. Among the various utilitarian vessels, the new technology was limited to the production of only two types: the round pot and small flat-base jar. The

other various utilitarian wares were all produced based on traditional forming and firing methods. Therefore, they were brownish red and hardly standardized, and they were completely different from the round pot formed by the turning and paddling technique and fired in the kiln. It is difficult not to acknowledge that the two vessel groups, which were clearly distinguished in technological tradition, would have had a different organization of production. Until at least the early fourth century, the organization of ceramic production had been separated in two. Even though traditional potters had sometimes tried making round pots or small jars, it is hard to find any attempt to make traditional vessels with the new technologies during the separated period (Lee S. 2011). From the late fourth century, turning and paddling techniques began to be applied to the production of the most common utilitarian vessel types, i.e. the bowl, long egg-shaped jar and large storage jar, which had been produced with the traditional Mumun techniques. As the new technology is applied, the shape and size of each type of vessel is almost perfectly standardized (Lee S. 2011).

In contrast, in the Nakdong River basin the construction of tombs seems to have been very important sociopolitically. Inside a pit-burial, using funeral facilities, such as a wooden coffin or wooden chamber, a considerable number of ritual vessels was dedicated in various ways. In particular, depending on the social rank of the deceased, the size of the burial structure and the dedication of the grave goods, including ceramic vessels, were greatly variable. So, in the elite burials of the late P-TKP, a large quantity of the elaborately manufactured Wajil vessels was consumed to differentiate them from other tombs. On the one hand, Wajil ware was originally used to refer to the low-fired gray pottery tradition before the emergence of hard-fired Dojil ware, but on the other hand, it is also a concept used to refer to the elaborately made pottery group for burials.

In the early stage of technological innovation, the vessels manufactured on the basis of new technology in the Nakdong River basin, like in the Han River basin, were limited to round pots. However, the new *chaîne opératoire* of round-pot production, unlike in the Han River basin, was rapidly expanded to the production of traditional Mumun vessel types. In the first century BC, all of the utilitarian and ritual vessels, except round pots, were made with traditional Mumun techniques. However, after about a hundred years, new forming and firing techniques were widely applied to the production of traditional vessel types, the small carinated bowl, long-necked jar, bowl and long egg-shaped jar. In the Nakdong River basin, the traditional organizations of production and the new technology-based one were not separated, unlike the circumstances in the Han River basin. As soon as some indigenous potters learned the *chaîne opératoire* through the practice of round-pot production, the number of potters who acquired embodied skill increased and they began to produce traditional Mumun-ware vessels with new technologies. Especially in the southeastern part of Korea, the production system, which was organized based on new technology, produced various vessels for consumption in the burial rituals as well as daily practice (Lee Sungjoo 2014: 243–54).

13.5. Regional variation of ceramic production systems in the Three-Kingdom period

So few ceramic production remains have been archeologically discovered that the production systems of the P-TKP must unavoidably be approached through sherds and vessels excavated from the consumption sites. As mentioned earlier, even within Southern Korea, there were differences in the date of new technology introduction, the limit of application, the products, consumption and organization of production regionally. It can be assumed that this difference was caused by the different economic and sociopolitical contexts of each region (Nagatomo Tomoko 2008, Lee Sungjoo 2014: 173–211). The processes by which the organizations of the production and distribution of P-TKP were formed had great differences from region to region.

During the KTKP, the early states such as Baekje and Silla rose in Southern Korea. The Gaya, located between the two states, was divided into dozens of small-scale polities the social complexity of which reached a considerable level despite their being small political entities. In organizing ceramic production, the small polity (*Guk*) was very important as a political and social background from the P-TKP (Lee S. 2014: 248–58). No matter how ceramic production was organized, it resulted from the sociopolitical engagement of the social agents of *Guk*. However, after Baekje and Silla achieved a wide political integration, the ceramic production systems were organized in different ways in the central and local areas of the two early states (Lee S. 2012).

The beginning of production using the Ugeori-type kiln is estimated to have been in the late third century. There is no kiln, as an archeological finding, of which the date has been determined back to the late third century. But since the burials where Dojil round pots produced in Ugeori-type kilns have been found belong to the late third century, the date of the Dojil-ware kiln can be estimated. Because those early Dojil round pots are almost exclusively found in the burials of Haman and Gimhae, it seems that the Dojil-ware kilns were first operated only in those two regions (Lee S. 2008). First of all, the products of Haman and Gimhae were not only fired at high temperatures that induced natural glaze. In addition, the forming procedure based on the distinctive methods of potter's wheel and paddle usage, being a *chaîne opératoire* that had not been seen so far, was very effective in the mass production of round pots (Lee S. 2014: 311–24). These early Dojil-ware workshops produced only one type of vessel, the round pot. The surfaces of the vessels had the mark of a Haman product because the dried vessels were piled up in a specific way inside the heating chamber to be fired (Lee J. 2007, Jung J. 2009). Tracing the vessels bearing the Haman marks allows us to recognize that the

Haman products were distributed in a fairly wide range of Nakdong River Valley.

The earliest Dojil-ware workshops operated only in a limited area of the southeastern coast of the Korean peninsula. However, the round pots of the Haman workshop were mass-produced for wide-ranging consumption. The potter who produced a limited type of vessel in large quantity was able to keep the level of his/her embodied skill fairly high and produce standardized vessels. By the middle of the fourth century, Dojil-ware workshops produced other types of vessels besides the round pot. They expanded their production list to include the mounted dish, cup, large jar, mounted jar, pot stand etc. previously produced by other organizations of production (Jung Juhee 2009, 2019). Although the number of vessel items increased, each type was highly standardized because the programmed forming process of each vessel type was carried out elaborately by full-time specialists (Lee Sungjoo 2012). It is also correct that the Dojil vessels were used in everyday life, but most of them were excavated from burials, and a large number were actually consumed in the burial rituals. In particular, some types of vessels, such as pottery stands and mounted jars, are rarely found in common people's houses, so they may not be related to their daily lives. They may have been produced because of burial ceremonies or demand from higher classes.

Although most of the defective products deposited at the dump in the kiln site are hard-fired Dojil ware vessels, a small amount of Yeonjil ware (soft-fired potteries) and utilitarian vessels are also included. The firing of utilitarian vessels seems to have been finished in an oxidizing atmosphere and at a low temperature, injecting relatively small amounts of fuel, because a perfect vitrification or very high hardness is not required for storage and cooking vessels. Since the utilitarian ware was generally low-fired, it had less frequent defects due to over-firing. Thus, the fact that a small number of Yeonjil utilitarian vessels has been unearthed from the Ugeori-type kiln's dump does not mean that its production was also low. In short, the Dojil-ware kiln of Silla and Gaya produced all the vessels consumed by the upper classes as well as ordinary people, and used in rituals as well as daily life. In a small-scale polity, only one kiln was operated within its area at any one period. This was different from Baekje, where a workshop equipped with one or two kilns operated in each large village. In an early state like Silla, a number of kilns are distributed within its territory, but they are concentrated in both state capital and local centers. Although Silla and Gaya also have small-scale ceramic production sites equipped with one or two kilns, they are usually found in locations unrelated to the village (Kim J. 2016), so they were not workshops for the village community. Judging from their products, they worked with greater emphasis on production for the demand of burial rites and the consumption for the upper class than for utilitarian usage in commoners' village life. Considering the distribution of the kiln remains, as mentioned so far, it is highly likely that political power intervened in the whole organization of ceramic production in Silla and Gaya.

During the P-TKP, the utilitarian wares based on the traditional Mumun pottery techniques and the round pot and small flat-base jars, which were made with new technology, were produced by separate organizations. However, the firing structure in which the utilitarian vessels were produced in the settlement sites is not known until the early fourth century. Although it has not been confirmed through archeological excavations, it is assumed that the firing facilities of the Proto-Three Kingdom period villages would be open firing, similar to those of the Mumun period. As the potter's houses in which the clay body prepared for forming and carbonized wooden turn-tables are found have no differences from those of ordinary people in the village, it can therefore be said that the process of forming and drying was also carried out at a low level of specialization.

It was in the early fourth century that the climbing kiln appeared in the Baekje area and began to produce, almost exclusively, round pots. However, it was a little later that the climbing kiln was introduced into the village workshop and that the wheel-turning and paddling methods began to be applied to the forming of various utilitarian vessels. Unlike in the Silla and Gaya area, where the unified production systems which produced all the vessels to serve the demand of each polity were operated, this ceramic production, organized around several villages, continued in the Baekje area until the sixth century.

In Baekje, the workshops were organized separately by political power for the production of vessels different from the products of village kilns. The upper classes of Baekje imported and used various Chinese celadon items from the fourth century on. From the late fourth century, potters of the official workshop produced imitations of Chinese imported vessels of an earthenware quality. There are production organizations that manufactured and supplied the well-made vessels of fine workmanship and those needed by the central and local governments of Baekje. Hence, it seems that in Baekje, the production for commoners and that for the upper classes' needs were separated and organized hierarchically.

13.6. Conclusion

The technology of kiln and potter's wheel introduced in the early P-TKP replaced the long-term continuous ceramic technology tradition. The process of replacement was different in each regional part of South Korea. In this chapter, without explaining all the regional variations, the process in the Han River basin and that in the Nakdong River have been compared and discussed. At the settlement sites in the Han River basin, where more artisans, including potters, visited from the Lelang commandery, the new technology failed to spread rapidly to the production of traditional utilitarian vessels and was delayed for more than 300 years. The production organization of round pots

based on new technology had long been separated from that of the utilitarian-ware tradition. The Sansuri kiln cluster, which worked in the fourth and fifth centuries to produce a single type of vessel, the round pot, succeeded the tradition of the previous round pot production. However, in the Baekje area, there was another organization that produced the various vessels and the other ceramic products, which was controlled by the early state. In the Nakdong River basin, on the contrary, the indigenous Mumun potter who had acquired new technology from the immigrant potter applied his/her embodied skill in a relatively short time to the traditional types of utilitarian vessels. In the innovation process of Dojil ware, the production of the Wajil ware consumed for burial rites and that of the Yeonjil-ware vessels for domestic use were integrated by the potters who had acquired the technology of the climbing kiln and rapid wheel-turning.

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14

Social Background to the Kilns and Pottery Production Systems of the Ancient Korean Peninsula

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Abstract: Following the Proto-Three Kingdoms period, when pottery production based on kiln firing took root, pottery differing with each regional polity or state came to be used at the stage when ancient states were established throughout the Korean peninsula. In light of that situation, this essay shows that regional differences between pottery styles and the borders of the kingdoms overlapped in the Korean Three Kingdoms period, based on the political situation. The system of pottery production between these entities might have differed as well. Baekje adopted a dispersed production/urban accumulation system, while Silla adopted a centralized production/regional distribution system. It can be concluded that this distinction between the two states originated from such differences as the social characteristics, political systems, and differences in ritual customs, including burial practice. This regionality of the pottery production continued for a while during the Unified Silla period as well, but the "cultural rivalry" synthesized by the division into separate states vanished, and state involvement in the production of articles of daily use such as pottery faded.

Keywords: Korean Three Kingdoms period, Baekje, Silla, pottery production system, government management

14.1. Introduction

For pottery of the ancient Korean peninsula, in addition to conspicuous regional idiosyncrasies in vessel types, forms and so forth, variety can be seen in the shaping and trimming, and in the firing technology as well. Looking at the degree of standardization, and at the distribution and scale of the clusters of kilns, it can be supposed that even the systems for producing and distributing ceramics differed from region to region. Taking such a situation as its premise, the current contribution outlines relations between the polities of the Korean peninsula and pottery production for the Proto-Three Kingdoms, Korean Three Kingdoms and Unified Silla periods, and in addition to perspectives on the numbers of kiln groups and their compositions, based on the quality, distribution and consumption of pottery as a product, I endeavor to look at how social background influenced the manufacture of pottery, or conversely how the society of those times can be reconstructed based on ceramic production. In particular, each region was producing stoneware independently during the Korean Three Kingdoms period, and by comparing the various pottery styles and ceramic industries it is possible to elucidate the characteristics of handicraft production for each polity.

Regarding pottery kilns of the ancient Korean peninsula, for which striking increases in data have been seen, as compilations, investigations and reviews of the history of research have been published in Japanese as well (Ueno 2009, 2013, 2015), with advances made in assessing their lines of derivation and examining relationships with kilns in Japan, those results have been heavily consulted in the current undertaking (Ueno 2017; Nagatomo 2018, 2019).

14.2. Archeological characteristics of the Three Kingdoms period of the Korean peninsula

Simultaneously with the Kofun period of Japan, in Korea it was a time when various states and forces were arrayed across the peninsula. In particular the states of Goguryeo, Baekje and Silla were in a powerful three-way contest, and because their rivalry is detailed in historical texts this time is called the Three Kingdoms period. In actuality it is known that in addition to these three states there were various other forces in coexistence, such as Fuyu (Buyeo), Woju (Okjeo), Hui (Ye), Gaya and polities in the Yeongsan River basin. According to the *Samguksagi* (History of the Three Kingdoms), the founding of the Three Kingdoms was in the first century BC, and in texts such as the *Weishu* (Book of Wei) of the *Sanguozhi* (Records of the Three Kingdoms), in the Han (Korea) section of the chapter "Dong Yi" (Eastern Barbarians), the "Han" groups of Mahan, Jinhan and Byeonhan are depicted as divided into small polities holding their separate territories in the southern part of the Korean peninsula until about the third century AD. This era, from around the start of the Common Era until the Three Kingdoms were firmly established, is called the Proto-Three Kingdoms or Samhan period.

In terms of archeology, over the span from the Proto-Three Kingdoms to the Three Kingdoms periods multiple