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Mortuary Ritual and Social Development in Iron Age Korea

A dissertation submitted in partial satisfaction of the requirements
for the degree Doctor of Philosophy in Archaeology

by

Jack Alexander Davey

2014

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ABSTRACT OF THE DISSERTATION

Mortuary Ritual and Social Development in Iron Age Korea

by

Jack Alexander Davey

Doctor of Philosophy in Archaeology

University of California, Los Angeles, 2014

Professor Lothar von Falkenhausen, Chair

This dissertation demonstrates the central role of mortuary ritual in the development of the first complex polities or state-level societies that emerged on the Korean peninsula in the Iron Age. Historians and archaeologists generally characterize this period as a transitional phase of gradual consolidation in which the scattered groups described in Chinese sources are seen as incipient forms of the first kingdoms in the southern portion of Korea in the fourth century: Paekche 百濟, Silla 新羅, and a number of smaller iron producing centers collectively referred to as Kaya 加耶. Though recent research has offered a number of innovative ways of viewing the Iron Age, I argue that the prevailing text-based evolutionary development model obscures the diversity of cultural groups on the peninsula and the complex interaction among them and with neighboring regions.

Using cemetery data from the Early Iron Age and Proto-Three Kingdoms period (ca. fourth century BC to third century AD), I examine the role of mortuary ritual in the social development of the Yōngnam region (southeastern South Korea), the eventual core of Silla and

Kaya. The evolution of this ritual is understood initially as the result of expeditious and short-term decision making rather than a coherent belief system until a more internally consistent practice developed out of the interaction between emerging elite groups. I argue against the idea that tombs and cemeteries in Yōngnam reflect merely the political centralization of the period as tools of legitimization for peninsular elites. Instead, rituals and cemeteries played a central role in shaping the ideology of what would become the historically known polities of the Korean Three Kingdoms Period and served as the foundation for the political centers of Silla and the Kaya groups.

Chapter 1 introduces the question and the theoretical and methodological background of the project. Chapter 2 provides a summary of the geography and an in-depth survey of the archaeology of Yōngnam before assessing the major historical and archaeological theories of social development for the period. Chapter 3 deals with cemetery composition: types of tombs and their origins, intra-site and inter-site organization, and the segment of the Iron Age population selected for burial in these areas. With a more solid understanding of cemetery structure, Chapters 4 through 6 examine the mortuary practices of Yōngnam from several different scales. Chapter 4 situates grave goods in their production, economic, and ritual context and reassesses the ‘meaning’ of prominent prestige goods in elite tombs. Chapter 5 reconstructs and categorizes the mortuary practices at several representative sites. Chapter 6 then situates cemeteries and ritual practice in a broader context, looking at regional patterns of mortuary practice and exploring the relationship of mortuary practices to conceptions of authority and living communities. Chapter 7 applies the findings of previous chapters to the major topics in Iron Age archaeology: the nature of social development, the validity of the historical record, and the place of the Korean peninsula within East Asian and world archaeology.

The dissertation of Jack Alexander Davey is approved.

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University of California, Los Angeles

2014

To my grandmother,

Olive 'Bobbie' Davey

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Chapter 1 – Introduction and Theoretical Background

The Iron Age in southern Korea (fourth century BC to third century AD) is a problematic topic in Korean archaeology. As the period just prior to the emergence of the first Korean kingdoms on the southern peninsula, it is of central importance to not just archaeological scholarship but also to modern conceptions of Korean identity. Despite this, very little can be said with certainty about social development or the cultural make-up of the period. Chinese records contemporary with peninsular Iron Age cultures exist, but these groups produced no records of their own and it is often hard to reconcile the historical sources with the growing volume of archaeological material that has accumulated from decades of excavation. What is clear is that the period saw intensified but inconsistent contact with China after the establishment of four military commanderies¹ in northeast Asia in the first century BC, the growth of strong regional political centers in southeastern Korea, and the development of elite power through control of expanding iron and ceramic production systems. Historians and archaeologists generally characterize the Iron Age as a transitional phase or a gradual period of consolidation in which the scattered polities described in Chinese sources are seen as incipient forms of the first kingdoms in the southern portion of Korea in the fourth century: Paekche 百濟, Silla 新羅, and a number of smaller iron producing centers collectively referred to as Kaya 加耶.

Much of what we know of the period has been extrapolated from a brief ethnographic sketch appearing in the third century *Sanguozhi* 三國志, a dynastic history of the Wei, Wu, and Shu kingdoms and again in modified form in the fifth century *Hou Hanshu* 後漢書, a history of

¹ Commandery (郡 *jùn*) refers to a Chinese administrative region. Of principal concern to the Korean Iron Age is the Lelang commandery 樂浪郡 established in northern Korea in the first century BC.

the later Hàn dynasty.² The account describes origin, culture, and lifestyle of three groups termed Hân³ that are thought by modern scholars to have existed in the southern portion of the Korean peninsula in the first three centuries AD.⁴ Each Hân group is described as being made up of a number of small polities organized in a loose confederation and presided over by a central township.

The other major source of information, the archaeological record, is dominated by mortuary material in the form of coffin and chamber tombs, jar burials of infants and children, and grave goods of ceramics, iron, and bronze. The majority of these data come from southeastern South Korea, the eventual heartland of the Silla and Kaya polities and supposed territory of two of the Samhan cultures: Chinhan and Pyŏnhan. This preponderance of evidence, the association with the textual sources, and the ultimate importance of the region in the Three Kingdoms Period have made the region—known as Yŏngnam or Kyŏngsang⁵—a focus of historical and archaeological theories of social development and state formation.

This study assembles data from the grave goods, tombs, and cemeteries of Yŏngnam in the period just prior to the emergence of Silla and Kaya to determine how they came into existence and the role of mortuary ritual in this process. There is considerable debate over the nature of political authority in this period as well as the cultural cohesiveness of the region as a

² See Byington (2009) for English translations of both accounts, and Byington (2009) and Chu Podon (2009, 2011) for critical assessment of the sources.

³ In order to avoid confusion between the Chinese dynasty Hàn 漢 and the Hân 韓 groups of Iron Age Korea I use Chinese tone markers to distinguish the two in English. In modern Korean the two characters have the same pronunciation.

⁴ The current consensus is that the three Samhan groups (Mahan 馬韓, Chinhan 辰韓, and Pyŏnhan 弁韓) were located in southern Korea and designate an early or nascent form of Paekche, Silla, and Kaya, respectively. Conceptions of what the Samhan were and where they were located has changed considerably since the use of the term in the *Sanguozhi*. In the Later Silla Period and much of the Koryŏ Period, Samhan was often equated with Samguk 三國 and used to mean ‘Korea’ as a whole. In this conception, Mahan, the northernmost Samhan group, was thought to indicate Koguryŏ (No Taedon 1982). Mahan was equated with Paekche rather than Koguryŏ from the late Chosŏn Period onwards (Chu Podon 2009).

⁵ Kyŏngsang is the more common designation of the region, but Yŏngnam is used more frequently in the archaeological and historical literature. The two terms are synonymous.

whole. What was the nature of social development and political authority on the southern peninsula at this time? What was the impact of contact with China via its commanderies in northern Korea and Manchuria? Can the diversity of the material record be reconciled with the historical accounts of the Samhan?

MORTUARY ARCHAEOLOGY IN SOUTH KOREA

Archaeological and art historical research was carried out in Korea during the Japanese Colonial Period (1910-1945), but the appearance of a domestic archaeological discipline and the widespread adoption of systematic excavation practices can be traced to the postwar period in the 1960s (Lee Sŏnbok 2013). Since these beginnings, mortuary remains have occupied a place of central importance in the interpretation of ancient peninsular cultures. In the case of the Iron Age, tombs and grave goods also make up the majority of the extant material record. The development of mortuary archaeology in Korea in many ways mirrors the trajectory of the archaeology of death in western academic thought. Postwar archaeologists and art historians saw burial objects within a culture-historical framework as essentially ethnic markers and a means of reconstructing the geographic extent of different cultures and the diffusion of new groups into the peninsula via migration and conquest (Kim Chŏnghak 1963, Kim Wŏnyong 1973). The impact of processual archaeology in Korea was felt in the 1970s and 80s with the popularization of social evolutionary models that utilized graves and cemeteries to investigate the internal ranking of groups and as markers of a stratified society. Of particular interest were the megalithic burials of the Bronze Age as well as the mounded tombs of the Three Kingdoms Period and how these archaeological phenomena reflected the development of ranked chiefdoms and early states, respectively (Ch'oe Mongryong 1984a, 1984b, Choi and Rhee 2001).

If anything in the Korean approach to mortuary archaeology in this period makes it different from the work of Binford, Saxe, Tainter, and others, it is that historical theory and evidence from textual sources occupied a pre-eminent position even in primarily archaeological studies. This had two major effects: first, a rejection (primarily among ancient historians) of western anthropological categories of social evolution in favor of contextual interpretation of historical accounts of early peninsular groups; and second, a large number of studies that used the mortuary evidence as a secondary source of data for assessing or supporting the historical narrative of the emergence of Koguryŏ, Paekche, Silla, and Kaya. In Iron Age archaeology, mortuary remains are still equated with historically named polities, and there is a continued emphasis on migration and conquest as a prime-mover of social change from the Neolithic through the Three Kingdoms Period.⁶

One of the most significant shifts in mortuary theory in archaeology worldwide has been the recognition that mortuary remains cannot be viewed as a simple reflection of status or grave clusters as an ossified expression of a living social hierarchy. The post-processual critique of positivist studies is summarized by Parker-Pearson (1999), and the importance of the mortuary ritual itself as an object of study was introduced by Pader (1982) and Morris (1987, 1992). Even processually oriented studies such as O'Shea (1996) are aware that, in some sense, ritual must be accounted for when using the mortuary record to make claims regarding social structure and status distinctions. Since the 1990s, a number of interesting new research directions in mortuary archaeology have also emerged in South Korea. To name just two, recent studies of the mortuary record emphasize the ideational aspects of burial in the Bronze Age (Kim Jong-il 2004, Lee and Kim 2011) and the expression of elite legitimization strategies through burial (Lee

⁶ This is a process that mirrors the historiographical orientation of Chinese archaeology, as outlined by Falkenhausen (1993).

Söngju 2009, Lee Hŭijun 2011a, 2012) rather than seeing cemeteries and graves as simple expressions of a stratified society.

If a critique can be leveled at the direction of mortuary studies in Korea, it is merely that no one has focused the mortuary ritual as a phenomenon in and of itself. Ritual practice is still treated primarily as an obstacle, something that needs to be seen through or accounted for before one can make broader statements about social structure, the nature of authority, or exchange networks. The idea of ritual practice as a limiting factor unnecessarily handicaps us from exploring the nature of the ritual itself and how its evolution or elasticity can speak to broader social processes. The present study seeks to complement existing studies with a ritually focused approach to the burial data of the Iron Age.

RITUAL

Placing the ritual aspect of mortuary practice as the central topic of inquiry allows for the incorporation of methodologies drawn from broader interdisciplinary approaches to the phenomenon. This section is not intended as an exhaustive survey of approaches to this topic.⁷ Instead, I touch on only the thinkers whose work guides my methodology directly in three main areas: defining and detecting ritual, tracing and interpreting ritual change, and situating ritual practice in a broader social context.

Defining and detecting ritual.

Much of the archaeological investigation of ritual has been the domain of cognitive archaeology or the research trend within what Preucel (2006:148) terms “cognitive processual studies” —those studies dealing with the more or less universal aspects of human cognition and mentality as they are reflected in material culture. A great deal of research in this vein is

⁷ See Kyriakidis 2007b and Fogelin 2008 for surveys of approaches to ritual and religion in the social sciences as well the specific application of these approaches to archaeological material.

concerned with the detection of rituals as distinct from subsistence, production, or other social contexts in material remains.⁸ The study of mortuary remains does not benefit directly from this kind of investigation as they are unambiguously the product some kind of ritual practice, at least atheoretically.⁹

The other major research trend within cognitive processual studies is the interpretation of material culture as the product of underlying cognitive structures, especially as they relate to ideas of the supernatural (Renfrew 1994) as well as cosmology, religion, and ideology (Flannery and Marcus 1994). This trend is ostensibly concerned with the human mind, but little of the work related to mortuary ritual within this tradition attempts any sort of engagement with the biological and evolutionary foundation of human thought or tries to incorporate material remains into models of human intelligence derived from the cognitive sciences.¹⁰ To access the thought behind rituals and their material correlates, researchers have instead turned to the ethnographic and historical record in order to identify and contextualize ritual space and aspects of performance in the past.¹¹ This method is of limited applicability to the Korean Iron Age, where there are no obvious ethnographic analogies that speak to the meaning or origin of particular rituals¹² or a reliable or extensive historical record to draw from.

⁸ See Renfrew (1985), Renfrew and Zubrow (1994), Kyriakidis (2007a), and Fowles (2008).

⁹ Even ignoring this, mortuary ritual in general and the specific expression of it in Iron Age Korea fulfills most of Renfrew's (1985) criteria of ritual expression (attention-focusing, aspects of the liminal zone, and participation and offering) as well as a number of Bell's (1997:138-170) indicators of ritual that are recoverable from material remains (repetition, invariance, and rule governance).

¹⁰ This approach is curiously well represented in other research trends within cognitive archaeology—in particular, the material engagement theory of Lambros Malafouris (2004) that sees aspects of material culture as essential components of the human cognitive system. Advances in the understanding of craft production systems and innovation have also benefited from engagement with cognitive models (van der Leuw 1994, Lee Söngju 2012).

¹¹ See Flannery and Marcus (1994) and Crass (2008) for productive applications of ethnographic and historical evidence in archaeological studies of ritual and Insoll (2001), Howey (2008), and Stutz (2008) for criticism of reliance on these sources.

¹² The ethnographic comparison usually applied to Iron Age religious practices and belief systems is the Siberian Tungusic expression of shamanism. The applicability of this analogy to Yöngnam mortuary practices is assessed in Chapter 6. Some studies of Iron Age social development, including those of Kwön Oyöng (1995, 1996), Kang Pongwön (1995a), and Hyung Il Pai (2000), make implicit or explicit comparisons with Bronze Age China to

In the absence of good secondary sources for rituals, other researchers have turned to the work of Catherine Bell and her specific application of Pierre Bourdieu's practice theory to the detection and investigation of ritual. Rather than an encompassing definition of ritual as a discrete social phenomenon, she suggests that 'ritualization', or the ways in which human action in general can be imbued with significance or symbolic meaning (Bell 1997). Bell's explication of how these additional meanings and significance are incorporated into more mundane activities focuses on the dialectic between the structuring principles of society that constrain and shape ritual and the ritual practice itself, which effects additional meaning and structure through its performance. Bell has been criticized for her resistance to provide a more concrete definition of ritual, and she herself suggests that for a practical archaeological methodology where the main problem is often determining what is and is not a ritual in the material record, Renfrew's (1985, 2007) more straightforward definition of ritual as activities that address the gods or the supernatural is a more useful working definition.

Bell's concept of ritualization offers some additional considerations in an archaeological analysis of the topic. For Bell, ritualization draws attention to both the ubiquity of ritual in all aspects of life, as well as its lack of coherence and the difficulties of detecting and isolating it. Ritualization also cautions against assumptions of ritual 'systems' or coherent cosmological schemes of which ritual is a component. Even deployed as a heuristic device, thinking of ritual in terms of a system of interrelated practices obscures the reality of rituals as "built up with historical layers and cultural borrowings, both the expedient and the highly inconvenient" (Bell 2007:279). Conceived of in this way, mortuary ritual becomes a series of ritualized actions with

extrapolate the size and structure of polities. The utility of these ethnographic parallels are assessed in Chapter 2. Taylor (1990) also makes extensive use of ethnography in her survey of the iron industry in Protohistoric Korea and Japan. Her model has not been widely adopted in Korea, but the insights from her study are adopted and extended in Chapter 4 to help contextualize the iron grave goods in Yöngnam tombs.

some connection to the treatment and disposal of a corpse. In our specific Korean context, these actions would include, among others, the preparation and presentation of ceramics and food, the disposal of iron weaponry and tools, and the adornment of the human body with decoration of bronze and precious stones.

Liv Nilsson Stutz (2008) also draws inspiration from Bell's emphasis on practice rather than the meaning or function of rituals. For Stutz, the practice or performative aspect frees the archaeologist from focusing on the particular 'meaning' of a ritual to the participants to consider instead how practice changes over time.¹³ This is perhaps self-evident given the nature of archaeological data, but it is also a point worth emphasizing in the context of Iron Age archaeology where specious explanations of the meaning and origin of particular grave goods or burial practices are quite widespread.¹⁴ This is also in some sense a rebuttal to the semiotic or structural conception of ritual as encoding cultural meaning in its continual re-enactment and trend within cognitive archaeology to search for the meaning of objects within their social contexts.

At a small scale, such as the analysis of specific types of grave goods, a traditional cognitive archaeological framework that attempts to discern the value and meaning of these objects based on their placement in graves and production context is possible. With its absence of good secondary sources, however, the mortuary record of the Korean Iron Age as a whole seems most amenable to a practice-based approach that eschews the search for meaning in favor of tracing patterns of ritual change over time. This is particularly relevant to chapters 5 and 6,

¹³ Stutz uses the example of the act of placing pebbles on a grave, to which the question of the 'meaning' of these actions would likely return as many answers as there are participants. The meaning or origin of the practice is likely unrecoverable archaeologically and ultimately meaningless. The important thing is the practice itself and how this changes over time. Bell echoes this sentiment by exhorting archaeologists against prioritizing the 'real' meaning, or the meaning of a ritual to the original participants over the other ways the ritual might be analyzed by a modern researcher (Bell 2007:282).

¹⁴ See Lee Hyŏnhye (2003), Tong Chinsuk (2006), Lee Yangsu (2009b), Kim Kilsik (2008), and Nelson (2008).

where the large amount of aggregated cemetery data makes it possible not only to trace ritual change at one site or the entire region, but also to isolate elements within the mortuary ritual that change along different trajectories. By focusing on practice rather than meaning at this level as Stutz advocates, tracing patterns of ritual change over time becomes a more central concern and necessitates a methodology capable of isolating and interpreting broad changes in ritual practice.

Evolutionary approaches to ritual change

Cultural evolutionary studies offer one pathway into modeling and explaining ritual change. Evolutionary approaches to culture change are diverse, but of interest here are two strands of research that have been applied to archaeology with interesting results. The first, exemplified by the work of Adam D. Smith (2008), can be described as the memetic approach, the core of which is the application of a genetic model to cultural evolution:

The ... paradigm begins with the observation that the locally stable patterns of learnt behavior that we call culture display conservative replication and synchronic variation, as well as differential replicative success of variants, quite independently of shared evolved psychology. As such, it is claimed, they instantiate the “Darwinian algorithm”, or at least an analytically useful approximation to it (pp. 34).

Of particular value to Smith in the memetic paradigm, or indeed any other evolutionary model that does not simply equate evolution with ‘change’, is the fact that foresight and intent are unnecessary for the production of complex cultural patterns or innovation in a particular direction. Smith also underscores an important difference between biological and cultural evolution, namely that in cultural evolution fitness cannot be equated with transmission success: “fitness enhancing only increases the number of candidates for behavioral emulation and replication by others.” (pp. 22)

Where Smith diverges from the original formulation of the model is the nature of the meme, the replicable bundle of culture or mental module at the core of the transmission process

and essentially the mental equivalent of a gene. Smith is ultimately sympathetic to the idea that at the core of cultural transmission there is a meme-like entity that is faithfully replicated through learning and emulation, but he concedes that we will not be able to confirm this without a better understanding of human cognition. At the level of broad cultural changes over time, his model resembles Richerson and Boyd's (2005) formulation of cultural evolution: small and expeditious modification by humans acting within a limited set of synchronic rules causing gradual but consistent changes in aspects of material culture.

Rather than validating or explicating the concept of the meme, Smith suggests that for the time being archaeologists apply the memetic model to aspects of material culture where they can be confident that relatively strict replication is occurring and are sure what these replicators are. For Smith, examples of these include the pictograms that make up the divination record of the earliest Chinese writing and the bronze daggers that developed into coinage in the first millennium BC in North China. This rather restricted application still has potential in a wide range of archaeological contexts. In addition to the examples Smith isolates, the modular elements of design studied by Martin Powers (2006) seem tailor-made for a memetic analysis, and indeed Powers' own methodology is a version of a memetic model that emphasizes the role of patrons and the role of their political philosophy in selecting among variants and causing gradual change in decoration in a particular direction. In chapter 4, I attempt a direct application of this method to iron axe blades found in large quantities in coffin and chamber tombs in the southern portion of the Korean peninsula.

For approaching something considerably more diffuse—the material remnants of a series of actions that constitutes a ritual—the memetic approach as it currently stands is not practical. In this case, the epidemiological approaches of Robert Boyd, Peter Richerson, and Daniel

Sperber that attempt to grapple with broad social phenomena and the transmission of culture at the level of populations is a better starting point. Rather than a meme, Boyd and Richerson suggest the idea of a cultural variant: a more elastic bundle of culture stored in a human brain that cannot be readily broken down into discrete and immutable gene-equivalents. Rather than replication or transmission of culture itself, their focus is on how culture at the population scale survives and adapts via small variations within a limited range of human decision-making possibilities (Richerson and Boyd 2005).

Sperber rejects the notion that cultural transmission, via a meme or otherwise, is ever an act of copying or replication.¹⁵ Instead, any received culture, when emulated, produces an imperfect version due to the vagaries of memory, incomplete understanding, or the priorities of the emulator:

When we study micro processes of transmission ... what we observe is a mix of preservation of the model and of construction of a version that suits the capacities and interests of the transmitter. From one version to the next, the changes may be small, but when they occur at the population scale, their cumulative effect should compromise the stability of cultural items (Sperber 2012).

In other words, cultural transmission is the inverse of genetic: mutation in cultural transmission is the rule rather than the exception. To explain the relative stability and long-term survival of cultural forms, Sperber suggests the idea of an attractor: a biasing factor at the population level that causes cultural variations arising out of the transmission process to cluster in a limited number of expressions. These attractors can be anything in the environment or the individual that encourages selection in favor of a restricted number of variants, but he argues that a potent attractor for the transmission of ritual or religious behavior is their appeal to aspects of universal human cognition (Sperber 1996, Boyer 2001, McCauley and Lawson 2002).

¹⁵ Smith (2008:37-38) argues that this is not a good reason for entirely rejecting a memetic approach and that there could still be a more or less faithful replicative process at the core of cultural transmission.

Sperber's approach has been applied to rituals and religion more than any other cultural evolutionary framework. Sperber himself identifies aspects of ritual that spread and reproduce in human groups because they are inherently attention grabbing, memorable, or otherwise intrinsically appealing to the human mind. A practical archaeological application of this insight has recently come from Wengrow (2011, 2014), who uses the idea to explain the development, spread, and unusually enduring nature of monsters or monstrous imagery in the ancient Near East. Aspects of Wengrow's specific approach are particularly applicable to some of the more prominent grave goods from Korean Iron Age tombs and are discussed in chapter 4.

These cognitively appealing practices, concepts, and images are a component of an evolutionary approach to ritual, but more recent studies have sought to refine the model of transmission further. McCauley and Lawson (2002, 2007) suggest that though aspects of ritual are inherently compulsive and attention grabbing, they do not find their way into successful ritual practices by virtue of this alone. Focusing on the end product or purpose of a ritual, they argue that reproductive success and resilience of these symbols, images, and practices are that they are central to generating a broader sense of community, well-being, powerfulness, and efficacy in the participants of a ritual. Components of rituals that assure memorability and impart motivation to reproduce it are more likely to survive.

Though approached from a wholly different angle, the emphasis on the inculcation of positive emotion and a sense of solidarity, as well as a resolve to replicate the ritual faithfully in the minds of participants, is not at all dissimilar from the structuralist assertion of the ability of ritual to make ideology desirable (Turner 1969). Stutz also points to the similarity between the latter and Bell's structural links within rituals that create a sense of coherency and logic (Stutz

2008:163). Bell herself also suggests that “rituals have a legitimizing force but must leave the participants with some sense of empowerment” (Bell 2007:287).

The definition of ritual McCauley and Lawson’s model requires is fairly restrictive: for all rituals, they assume the presence of a supernatural element or counterintuitive agent as well as a framework requiring an agent (someone or something that performs the ritual), act (the action of the ritual itself), and patient (the person or thing that is affected by the ritual). McCauley and Lawson acknowledge that this disqualifies a wide range activities lacking any one of these components, like prayer and chanting, from being anything other than a component of a ritual. The necessity of the supernatural also forces them to account for the indirect presence of the supernatural in rituals where they are not explicitly invoked through enabling rituals (for example, the ordination of a priest which allows him to be a proxy for a deity in all subsequent rituals he performs). This increasingly complex nesting of rituals brings to mind Bell’s exhortation against the idea of ritual systems, especially in an archaeological context. While still useful, the model seems better suited to the examination of rituals within well-established religious traditions rather than the limited mortuary context of Iron Age Korea.

Despite this, the epidemiological model suggests where we might begin looking for explanations of ritual change in attractors residing in memory and the intrinsic sensory appeal of the pageantry of certain aspects of ritual. An important archaeological extension of the model has been proposed recently by Wengrow (2014), who argues that the cognitive instigators of ritual evolution offer only the starting point for an integrated explanation of these broad cultural practices. There are also some interesting implications of McCauley and Lawson’s ritual hypothesis that might be usefully applied to the mortuary record. The first is the importance of isolating trends within a single ritual over time, particularly which aspects are resistant to change

or the range of substitutions of practice or objects allowed within a single ritual. Their model also suggests that the presence of a ritual specialist might be inferred indirectly via the amount of variability among comparable ritual practices, as well as the presence of substitutions of ritual instruments with other objects. They also hypothesize that the logical consequence of frequently enacted rituals is habituation, which is likely to be compensated for by an escalation of pageantry within the ritual that will at some point necessitate a systemic collapse or correction.

The social context of mortuary ritual

I have attempted to define some of the features of ritual and how these might be approached in the archaeological record. Beyond this, how can the results of analysis of ritual be used to make broader generalizations about the society they exist within? For a systematic approach to mortuary ritual in society in the vein of the evolutionary studies discussed above, I apply Harvey Whitehouse's (2002, 2004) modes of religiosity. Whitehouse characterizes two diametrically opposed types of religious practice: imagistic and doctrinal. On the surface, these two types are not dissimilar to classical anthropological and sociological distinctions of ritual between Dionysian and Apollonian (Benedict 1935, Falkenhausen 2006:48) or charismatic and routinized (Weber 1947). Where Whitehouse's concept of imagistic and doctrinal differs is his emphasis on how each mode ensures its replicative success by stimulating human memory and recall. The imagistic mode relies on the internally generated meanings borne out of localized and infrequent high-pageantry events and transmitted through episodic memory. The doctrinal mode instead relies on frequent, rhetorical, and routinized rituals that encode concrete teachings and rules in semantic and implicit memory. The two modes can co-exist in any successful religious tradition, but the emphasis on the shamanic content of ancient peninsular belief would

make it a primarily imagistic religious scheme with highly variable regional practices and a pronounced performative dimension.

Declaring a mortuary tradition as ‘imagistic’ or ‘doctrinal’ is problematic when one considers the practical constraints and necessities of the ritual that prevent it from being a pure expression of a religious tradition. First, even in cultures largely committed to highly variable imagistic religious practices, burial of the dead is a periodic responsibility, an act that occurs regularly if not as frequently as other acts of religious devotion. Even in an imagistic cosmology, burial is regular enough to develop doctrinal aspects of repeated ritual behavior encoded in semantic memory and is probably too frequent an occurrence to rely on the presence of a religious specialist (especially if this religious figure is also a political authority). Second, as frequently explored by archaeologists since the 1970s, there is a prominent coping role that a funeral ceremony fulfills both psychologically and socially in addition to any function it has in a religious system.

These latter aspects might not be essential for the replicative success of a particular mortuary ritual of interest to Whitehouse, but they are necessary considerations when trying to place a particular mortuary tradition in a broader religious or social context. They suggest that regularity and adherence to specific burial procedures are not necessarily good indicators of the character of ritual and religious practice of a culture or group as a whole. Rather, burial in an imagistic religious tradition for the majority of individuals was probably presided over by family or community members with a general idea of the ‘correct’ practices for mortuary ritual and not necessarily connected explicitly to religious rituals or performances.

This is not to say that greater coherency of mortuary ritual is unrelated to the nature of religious practices or the character of religious activity in a broader societal context. Certainly,

within the mortuary ritual itself, characterizing aspects or the entire process as weighted toward either the doctrinal or imagistic is possible. This is particularly relevant for Korea where there is a relatively distinct break from an earlier burial practice in the adoption of the chamber tomb in the second century. Using Whitehouse's criteria, assessment and comparison of each burial tradition and its variable expression at different cemeteries is certainly possible.

In sum, this dissertation adopts both an interpretive and a practice based approach to rituals that sees mortuary practice as a prescribed series of human actions imbued with additional significance by virtue of their perceived connection with the supernatural. Mortuary rituals are the series of ritualized actions involved in the treatment and disposal of a corpse. I employ an evolutionary framework to explain the relative stability of ritual practice and its gradual change over time. I suggest that successful rituals that persist through time contain components that appeal to memory and sensory arousal and, in doing so, inculcate a sense of community, internal coherency, and group solidarity in the participants.

Sources of ritual change are best located in the variable appeal of different components of the ritual process to aspects of human cognition, which can then be situated and explained within a particular social and historical context. The infrequent but routinized aspects of mortuary ritual, as well as the practical necessities of disposing of a corpse and negotiating the loss of an individual within a group, give this subset of ritual practice particular characteristics that make them more resistant to highly variable synchronic expression. Hence, caution must be taken when extrapolating characteristics of mortuary practice to the ritual or religious practice of society as a whole.

I will isolate patterns of ritual transmission in Yōngnam mortuary practice, looking in particular for aspects of ritual that are transmitted, and attempt to measure or qualify to what extent they are variably or accurately replicated. In doing so, I shall break holistic rituals into components and trace the evolution of these components, as well as their variability among synchronic examples. Chapters 2 and 3 introduce necessary background and context to the study. I first provide a summary of the archaeology and major research trends of the Iron Age, with a specific focus on historical and archaeological studies of social structure and political authority. Next, I introduce and explore the nature of the mortuary evidence and attempt to understand to what extent tombs and cemeteries reflect social groupings and how representative they are of the total Iron Age population.

Chapters 4 through 6 consist of an examination of the mortuary ritual from different scales. I focus initially on grave goods and attempt to trace changes in the way ceramics and iron functioned within the mortuary ritual. By incorporating the production context of these objects, I hope to demonstrate how the meaning (in a structural or cognitive archaeological sense) of these objects changed over time. In addition to discussing these two categories of grave goods, I also trace changing conceptions of value through an extended discussion of three of the major prestige goods from the region in mortuary contexts: Chinese bronze mirrors, duck-shaped pottery, and flat iron axes.

The following Chapter 5 examines cemeteries, and I undertake a statistical analysis of grave good placement at three sites to determine how a better understanding of the mortuary ritual can aid in explaining not only the development process of each cemetery but also distinctions in regional mortuary practice. Chapter 6 extends this analysis by situating

cemeteries in their regional context to determine if there is evidence for a regional normative mortuary practice and what this says about the place of mortuary ritual in religious and social life.

Chapter 2 – The Archaeology of the Iron Age and Perspectives on Social Development

I. GEOGRAPHY AND PERIODIZATION

Geography

The boundaries of Yŏngnam or Kyŏngsang are sharply defined by mountains and the coastline. The eastern coastal T'aebaek and southwestern Sobaek ranges delineate the region as separate from the rest of the peninsula and are—along with the meandering course of the Nakdong river—also responsible for the characteristic semi-isolated pockets of low land that characterize the major areas of human occupation in modern times. Researchers differ over the nomenclature and full extent of the major subregions of Yŏngnam based on the period and type of archaeological phenomena under study,¹⁶ but for the purposes of the mortuary record of the Iron Age, the relevant geographical divisions include the Taegu/Kyŏngsan basin in the northwest, the Kyŏngju plain (including the coastal cities of P'ohang in the north and Ulsan in the southeast), the Kimhae/Pusan region along the southern coast, and the western Nakdong river basin in the northwest (Figure 2.1). Yŏngnam is also frequently subdivided into Kyŏngbuk (the north which encompasses Taegu and Kyŏngju) and Kyŏngnam (the south including Kimhae, Pusan and the southern coastal areas) (KCPIRIA 2011b, KAS 2013).

¹⁶ See Lee Sŏngju (1993), Kwŏn Haksu (2005), Kim Nayŏng (2009), and Lee Ch'unsŏn (2011).

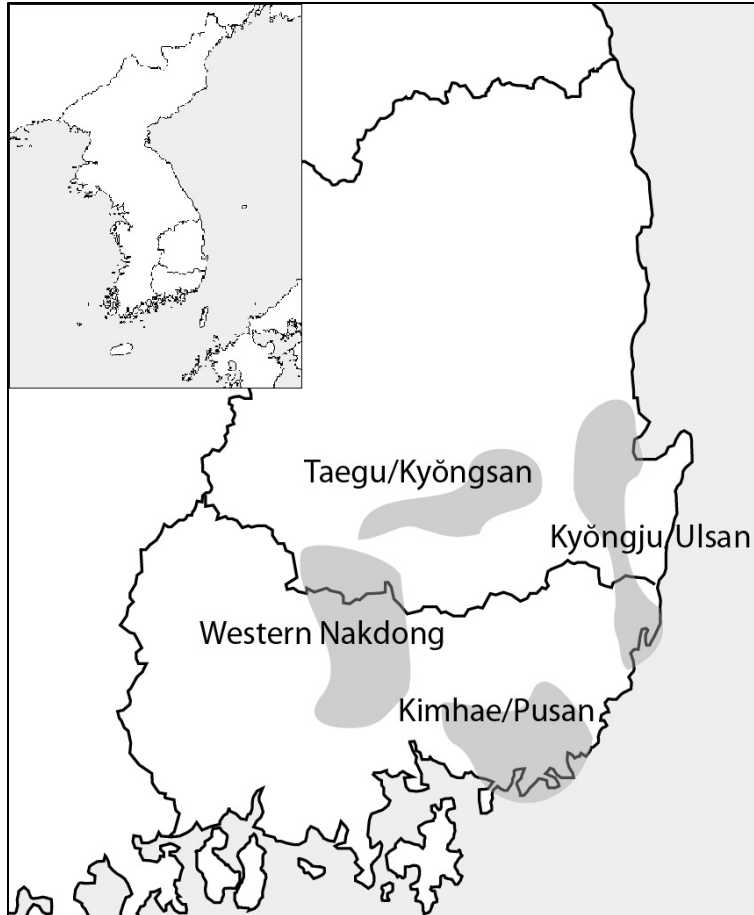


Figure 2.1: Major lowland regions within Yŏngnam containing concentrations of Iron Age mortuary sites (redrawn from Kwon Yongwoo 2010:12)

These geographical divisions constitute the lowland areas of Yŏngnam, where modern habitation and urbanization has necessitated a large number of salvage projects. The more mountainous areas of northern Yŏngnam, as well as the highlands separating the major subregions, have received little archaeological attention. And while the Three Kingdoms Period saw the construction of extensive mountain fortresses at the hinterlands of occupation areas and strategic transportation routes, such highly visible archaeological features have not been found in the Iron Age material. Thus, the place of mountainous terrain in the broader ecology and human occupation patterns of this period are not well understood.

Yŏngnam is bordered on two sides by the ocean, but the difference between the east and southern coastline is dramatic. In the south, the rias of the Nakdong River produces a fractured coastline containing numerous peninsulas, bays, and small islands that appears to have undergone considerable change since antiquity (Yi and Saito 2003). For this reason, Lee Sŏngju (1993) suggests that the area was largely unsuitable to the development of large ports. The eastern coastline is comparatively smooth with the north-south T'aebaek range running alongside it producing a rocky shoreline with only a few bays where streams empty into the sea (Kwon Yongwoo 2010:30). Given the difficulties of navigating both coastlines, maritime trade and human settlement seems to have concentrated in only a few locations: Kimhae, Pusan, Ulsan, and P'ohang.

The wide alluvial basins of the Nakdong (the Taegu/Kyŏngsan, northwest, and southeastern coastal areas) and Hyŏngsan (the Kyŏngju plain, P'ohang, and Ulsan) Rivers and their tributaries constitute the major inland areas of human occupation. Both river systems seem to have been significant trade routes, and most major habitation, production, and mortuary sites correspond to these alluvial plains—both at the nexuses of rivers as well as in more isolated valleys. These river systems contribute rich soil suitable to cultivation, but the warm, wet summers and cold, dry winters as well as a granite bedrock lead to leeching of nutrients and produce highly acidic soils (Kwon Yongwoo 2010:68-69). Yŏngnam has a generally temperate monsoon climate but is also subject to more frequent typhoons and periodic flooding than the rest of the peninsula, a problem that seems to have been significant at least as far back as the Silla period (Kang Pongwŏn 2006).

Periodization

The period under study spans the time from the third century BC to the fourth century AD, a period I will refer to informally as the Iron Age; more precisely, it falls within the Early Iron Age (fourth century BC to second century BC) and Proto-Three Kingdoms Periods (first century BC to the fourth century AD) in the widely-utilized chronological scheme established by the Korean Archaeological Society (KAS 2007, 2013).¹⁷ The terminology derives from the work of pioneering archaeological scholar Kim Wōnyong, who based his chronological divisions on the earliest iron tools and new types of bronze implements (slim daggers, fine-line mirrors, bells, and shield shaped objects) in stone-cist tombs on the peninsula. Kim suggested that the arrival of these new artifacts was precipitated by an influx of people from the northern Chinese kingdom of Yan 燕 or a population migration from the Liaodong region. The Proto-Three Kingdoms date corresponds with the recorded establishment of the Lelang commandery in 108 BC (presumably in the vicinity of modern day Pyongyang) after the defeat of the Manchurian Wiman Chosōn kingdom by the Hān empire. For Kim, the ‘Proto’ label allowed him to reconcile the lack of archaeological evidence for strong, centralized kingdoms until the fourth century with the 57 BC foundation date for the Silla kingdom recorded in the Koryō period *Samguk sagi* (Kim Wōnyong 1973).

The period from the first century BC to the fourth century AD is also referred to as the Samhan period by historians drawing on Chinese sources contemporary with the period (the account of the Hān in the mid-third century AD *Sanguozhi* and its appearance in modified form in the fifth century *Hou Hanshu*). ‘Samhan’ refers to the three regional cultural zones mentioned

¹⁷ The designation of an ‘Early Iron Age’ is not universally accepted. For instance, Lee Sōngju (2013) considers the period from the fourth to first century BC a continuation of the Bronze Age or Mumun Period. The beginning and end of the Early Iron Age are also a source of considerable debate and constant refinement. See Kang Pongwōn (1995a), Lee Hūijun (2004a), and Ch’oe Sōngnak (2004) for examples.

in the Chinese sources: Mahan 馬韓 in western Korea, and Chinhan 辰韓 and Pyŏnhan 弁韓 in northern and southern Yŏngnam, respectively. The account of the Samhan in the *Sanguozhi* is one component of a larger treatment of the various cultural or ethnic groups that make up the “Account of the Eastern Yi” or *Dongyizhuan* 東夷傳. The Hán account in particular draws heavily from the *Weilüe* 魏略, a slightly earlier third century text that survives only in fragments (Chu Podon 2009). The extant account contained in the *Sanguozhi* describes the composition and cultural practices of Mahan, Chinhan, and Pyŏnhan as they appeared in the third century and offers a brief account of the founding of each. The earliest Hán group, Mahan, may have existed as early as the third century BC, but Chinhan and Pyŏnhan are recorded as having appeared in the first century BC. Pak Sunbal (1998) associates Mahan with Late Mumun or Early Iron Age slim bronze daggers and clay-banded pottery dated to the third century BC, but this is not a generally accepted start date for the Samhan Period as a whole by historians (Lee Hyŏnhye 2009, Chu Podon 2009, 2011). References to Paekche and Silla in Chinese accounts of diplomatic missions from the Samhan areas in the fourth century mark the end of the Samhan Period and the beginning of the Three Kingdoms Period (Lee Hyŏnhye 2009). The fourth century date coincides broadly with the appearance of characteristic Three Kingdoms mortuary practices and ceramic production systems discussed below.

II. AN ARCHAEOLOGICAL SKETCH OF THE YŏNGNAM IRON AGE

Obtaining a balanced understanding of Yŏngnam in the Iron Age is hindered by a lopsided archaeological record. The realities of salvage excavations—which constitute the source of most of the data for the period (Shoda 2008)—limit our knowledge to areas of modern human occupation and preclude many of the time and labor intensive recovery practices taken for granted in western academic excavations. For the Iron Age in particular, mortuary sites also

make up a disproportionately large percentage of the total sites discovered and excavated.¹⁸

Much of our knowledge of production and exchange systems, technological progression, as well as regional variations in material culture is based on data from tombs and grave goods. As a result, the following summary of the archaeology of the region is unavoidably incomplete.

Early Iron Age

As discussed above, the fourth century BC is generally considered the beginning of the Early Iron Age, but the material culture of that century shows an interesting mix of peninsular bronze culture, local innovation in craft production, and aspects of Warring States and Northern zone technology—and is probably better understood as a terminal Bronze Age culture (Lee Söngju 2007, 2013). Few dwellings dating to this period have come to light in Yöngnam. Most of what we know of the period comes from sites in the northern portion of the peninsula.

Dwellings here are similar to Late Bronze Age¹⁹ buildings: square, semi-subterranean stone lined structures clustered together in villages and often surrounded by a ditch (Lee Ch'önggyu 2007a: 115). In contrast, the mortuary structures of the period diverge from the prevailing megalithic tombs and stone cist graves of the Mumun Period and are instead simple wood-coffin pit tombs (*mokkwan myo* 木棺墓), sometimes also featuring piled-stone floors and walls (*chöksök mokkwan myo* 積石木棺墓).

One focus of studies on this period has been the metallurgical tradition. Scholars have elucidated both the advances in bronze and iron crafting technology and the development of various metal artifact types. Metal production on the peninsula appears to have been limited to slim bronze daggers, an evolution of lute-shaped bronze daggers of the Bronze Age, and coarse line bronze mirrors, objects unique to the peninsula and bordering areas of Manchuria (Lee

¹⁸ See KCPIRIA 2011b.

¹⁹ Hereafter referred to by the more commonly used designation, the Mumun Period (1500 – 300 BC).

Ch'ōnggyu 2007a:119-128). Bronze working on the peninsula attained a high degree of sophistication by the third century BC with the production of fine line mirrors and a variety of bronze artifacts usually termed 'ritual' objects (Lee Hyōnhye 2009:35, Tong Chinsuk 2006), including bells and shield-shaped ornaments. Advances in bronze production occurred throughout the peninsula, with the center of this late-stage bronze producing culture located in present day Kyōnggi province, central western Korea. North of the Ch'ōngch'ōn River, the initial importation of Siberian iron axes occurred around 500 BC, followed by a variety of iron agricultural equipment (picks, hoes, sickles, and adzes) and weaponry (spears and arrowheads) of Yan origin.

Northern groups seem to have integrated iron tools into their subsistence activities prior to the first century, but iron was essentially non-existent in the south.²⁰ As discussed by Sarah Taylor (1990), Iron Age groups throughout the peninsula had a well-developed concept of the production of metal in bronze but the "idea of iron" as both a material that could be produced and put to practical use was absent in southern Korea. The scant iron finds prior to the first century BC instead point to iron as an exotic trade good (Lee Sōngju 1997a).

In contrast, elaboration and innovation in ceramic production can be observed from the beginning of the Early Iron Age through the first century BC. The characteristic plain red pottery of the preceding Bronze Age, *mumun* (無文), persisted as a ubiquitous, utilitarian pottery type, but vessel forms gained a banded rim (*chōmt'odae t'ogi* 粘土帶土器) and additional types such as raised bowls, vessels with handles, and fan-necked pots also appeared (Choi Jongtaik

²⁰ Recent finds of iron knives in second century BC coffin tombs containing clay-banded *mumun* ceramics complicate this picture somewhat and may force a reconsideration of the beginning of iron production in southern Korea.

2008:169). Distinctive thin *hŭkto* 黑陶 ware made of a finer clay and burnished with black lead is also characteristic of the Early Iron Age and is found exclusively in tombs.

Early Proto-Three Kingdoms Period

The first century BC saw a comparatively dramatic change in the material culture of the southern peninsula. The most significant development was the adoption and rapid spread of iron production. In structure, this seems to have ranged from localized small-scale fabrication connected to individual households all the way to more centralized household industry and workshop production (Taylor 1990, Son Myŏngjo 1998a). The repertoire of peninsular craftspeople consisted of agricultural and craft tools such as sickles, hoes, and axes as well as weaponry in the form of arrowheads, knives, sword blades, and spearheads. The timing of this influx and the morphologies of axes and blades make the Hàn empire the unambiguous source of this production technology in Yŏngnam (Taylor 1990, Sin Kyŏngch'ŏl 2000b), though whether this implies a population movement, technological adoption by peninsular groups, or some combination of the two is an open question. Small-scale production systems existed along the southern coast at village sites such as Nŭk-do, where forging likely took place in a limited capacity (Son Myŏngjo 1998a) and the presence of cast iron of varying quality and iron-ized versions of bronze and stone weapons and tools also points to domestic sourcing and casting (Lee Sŏngju 1997, Son Myŏngjo 1998b) that was the domain of part-time specialists operating within a limited village or community area (Taylor 1990).

In contrast to their absence prior to the second century BC, clusters of dwellings are well-represented in this period. As outlined by Kim Nayŏng (2009) and Kim Ch'angŏk (2011), housing structures of the first century BC until the second century AD were primarily small-scale (10-20m²) pit dwellings in a variety of circular and rectangular shapes containing no heating

facilities and a few, irregular post-hole arrangements around the main structure. Some mid-sized dwellings (20-30 m²) with small stone-lined hypocausts (溫突 kr. *ondol*) have come to light. There are also a number of regional particularities in building shape and post-hole distribution that Kim Nayŏng divides into southeastern, southern coastal, and western interior styles.

Coffin tombs continued to be the primary mortuary treatment of both Yŏngnam and the southwest. Large cemeteries containing hundreds of interments have been discovered with the most notable examples located in the Taegu-Kyŏngsan, Kyŏngju, and southern coastal areas. The context of these sites is often difficult to determine, but in at least a few circumstances large tomb clusters are found in close proximity with habitation and production areas. In addition to iron, the early Proto-Three Kingdoms coffins also contain high-fired, wheel-made ceramics known as *wajil* pottery (瓦質土器). These appear to be the result of new manufacturing techniques likely originating from contact with the commanderies such as rotation, paddling, and closed kiln firing. Initially, these techniques were first applied to mortuary ceramics and resulted in imitations of the Lelang style globular storage jar, as well as distinctive long-necked jars, hourglass-shaped jars, and rounded urns and bowls (Lee Sŏngju 2013).

Later Proto-Three Kingdoms Period

The gradual intensification and diversification of iron and ceramic production, as well as the evolution of a new tomb type, the wood-chamber tomb (*mokkwak myo* 木槨墓), culminated in a new archaeological landscape by the second century AD. For this period in particular, our knowledge is severely biased in favor of tombs and cemeteries. There was increasing stratification within mortuary sites between large richly-furnished coffin and chamber tombs and those with only a few ceramic and iron objects. Burial furnishings in general were also more

elaborate with later coffin tombs containing large quantities of carefully placed flat-axe blades and early chamber tombs with elaborate displays of spears and large quantities of ceramics.

Much of what we know of iron manufacture is based on analyses of grave goods and the small number of production areas near villages. Small-scale household production of iron agricultural and craft tools seems to have persisted (Son Myōngjo 1998a), but workshop strategies begin to shift toward the large-scale production of spears and sword blades beginning in the first century AD. Taylor (1990) and Lee Sōngju (1997a) suggest that this is reflective of a reorientation of the iron industry away from trade with the Lelang commandery to a focus on domestic demand by elites. A wide range of new flat-axes, horse-riding equipment, and weaponry in elite tombs attest to the enhanced economic and ideological significance of iron in the south. Son Myōngjo (2005) also suggests that the process of regional diversification of iron production first manifested itself in the first century AD with distinctly different morphologies in objects originating from Kyōngju and Kimhae. By the second century AD, spears and swords were the primary iron grave goods in northern Yōngnam, replacing flat-axes and other tools in chamber tombs. Farther south in Kimhae and Pusan, weapons were also prominent, but flat iron ingots were the most ubiquitous grave good.

Ceramic production also diversified, and regionally distinct pottery types are more readily apparent. In northern Yōngnam, the standard repertoire of *wajil* jars and bowls was replaced by more complex and production-intensive jars, platters, and bowls with raised bases, handles, and lids. For Lee Sōngju (2013), the appearance of these highly individualized objects points to the existence of a prestige economy focused around the production of these special function ceramics for rituals connected to elite tombs. Simple, short-necked storage vessels are still a common find in northern Yōngnam tombs, but production of these objects was more

prominent in southern areas like Kimhae. *Wajil* firing technology and rotation were eventually applied to non-funerary ceramics in the second century AD, giving rise to *kyŏngjil* pottery (硬質土器) that also found its way into some funerary assemblages in the form of shallow urns or bowls.

Much less is known about habitation after the second century. Small and mid-sized structures persisted, but at large village sites like Hwangsŏng-dong and Imdang a small number of large structures (50m² or larger) also appeared. Almost all buildings featured some kind of heating apparatus (usually made of clay), were semi-subterranean or above ground rather than pits and contained a larger number of supporting pillars within walls (Kim Ch'angŏk 2011). Generalizing about village or community sizes is problematic. There is little consistency among sites regarding the number of structures per settlement or the average spacing between these features. Most settlements are also fragmentary and the sprawling sites of Imdang and Hwangsŏng-dong demonstrate that in at least two cases, human occupation was scattered over a large area containing production and mortuary remains in addition to habitation areas. The majority of villages prior to the second century AD are located on sloping terrain and consist of tight clusters of dwellings, middens and other refuse areas, tombs, and sometimes ring-ditch fortifications or wooden fences. This is also true of later village sites but there are a greater number of sites on plains or foothills.

Kim Nayŏng (2009:36-38) argues that village layout was strongly affected by local geographic preconditions and the primary subsistence, economic, or social function of the site as a whole. The several clusters of 2-3 dwellings that appear at Hwangsŏng-dong were connected to decentralized household-level production of iron, while the placement and orientation of dwellings and defensive features at the site of Talch'ŏn near present day Ulsan seem to have

been dictated by the settlement's primary function of mining. Yet other sites were organized around functions of defense and visibility (Yangsan P'yōngsan-ni and Ch'angwōn Namsan) and agricultural production (Chinju P'yong'gō-dong and Taegu Maeho-dong) (Kim Yongsōng 2011).

In the fourth century AD another major shift in the material culture occurred and this is generally understood as the beginning of the Three Kingdoms period proper (KAS 2013). In this period, the characteristic Three Kingdoms material culture of Silla and Kaya is evident: mounded burials with wood-chambered interiors often containing a huge abundance of iron in the form of ingots, spearheads, blades, armor, and horse equipment; grey stoneware in recognizable regional styles; and ornaments of gold and silver. Two major political and population centers appeared centered around Kyōngju (Silla) and Kimhae (the Kūmgwan Kaya polity). Large earthen fortifications are also found in these areas as well as in larger village sites like Imdang in the Taegu region.

With this sample, skewed as it is towards the mortuary record, it is difficult to assess the exact nature of social change from the end of the Bronze Age to the beginning of the widespread iron producing culture of the second century AD. The possible impact on the peninsula of contact with Warring States through Hàn China or with the emerging steppe empires is similarly vague. The survival of many aspects of Bronze Age culture into the third and second centuries BC does suggest some degree of cultural continuity and not a dramatic modification of the existing population by Ko-Chosōn or Yan refugees as suggested by Kim Chōnghak and other postcolonial scholars.²¹ The gradual evolution of aspects of the material culture argues against the idea of abrupt influxes of outside groups into the peninsula in favor of intermittent and long-term contacts with Warring States and northern cultures.

²¹ See section 3.

III. APPROACHES TO IRON AGE SOCIAL DEVELOPMENT

Studies of Iron Age social development are diverse and numerous in Korea with contributions from historians, anthropologists, and archaeologists working within a number of different theoretical paradigms. In recent years, there has been an explosion of research on this period and a number of interesting studies that try to model social development during this formative period that resulted in the Three Kingdoms. A more detailed treatment of some of the more influential scholars follows.

Nationalist histories and postwar scholarship (1950s and 1960s)

The period I have designated as the Iron Age was not a research priority for Korean historical scholarship during the colonial period, but thinkers in postwar Korea were nonetheless strongly influenced by the Ethnohistorical (民族史學 *minjok sahak*) orientation of research prior to the Korean War. The work of two of the most prominent intellectuals from this tradition, Sin Ch'aeho (1880-1936) and Ch'oe Namsŏn (1890-1957), were particularly influential in establishing the tenor of inquiry into Korean ancient history by later scholars. Despite working within an essentially Rankean derived Japanese nationalist historical tradition, both sought to defend Korean history against claims by Japanese scholars that Korea and Japan shared an ancestral origin, that Korean culture was merely a subset of a broader Manchurian horizon, and that throughout its history Korea had exhibited no dynamism or creativity and was simply dominated by the rest of the Asian continent (see Ch'oe Yong-ho 1980).²² While something of an oversimplification, their work can be characterized to some degree as being preoccupied with discovering the origins of a uniquely Korean culture, and as a nationalist reaction to previous scholarship (even to the point of rejecting Kim Pusik's twelfth century compilation of the

²² Allen (1990:80) and Pai (2000) both point out that even though Korean historians trained during the Colonial period reacted against the assertions of Japanese scholars they themselves were considerably influenced by the Ethnohistorical tradition that defined Japanese historical research in this period.

Samguk sagi) (Ch'oe Namsŏn 1927, Allen 1990, Schmid 1997). Their approach of “Korean history as a weapon” (Ch'oe Yong-ho 1980:20) was largely rejected even during their time, but there was a revival of nationalist thinking among historians during the 1960s, and its enduring influence on Korean archaeology in general is undeniable.

The influence of Colonial Period scholarship is detectable in the work of postwar archaeologist Kim Chŏnghak (1911-2006), who suggested the idea of southern and northern strains of culture in the Bronze Age that came together to create a uniquely Korean culture distinct from China and Japan (Kim Chŏnghak 1963a, 1963b). Kim argued that the peninsular dolmen tradition was a product of the southern strain of culture originating in southeast Asia, while leaf-shaped daggers, bronze mirrors, and stone-cist tombs were the result of migrations of Chinese and steppe groups into Liaoning and the Korean peninsula.²³ Though taken up by Kim Wŏnyong and later archaeologists such as Kim Pyŏngmo (Kim Pyŏngmo 2008) and Choi Mong-lyong (Ch'oe Mongryong) (Rhi Song-nai and Choi Mong-long 1992), the idea that dolmen culture represents a completely different cultural tradition from the rest of the Bronze Age material has been abandoned by many other researchers (An Chaeho 2009).

The scholar to engage most directly with the Iron Age from the postwar period is undoubtedly Kim Wŏnyong (1922-1993). Working in a culture-historical framework, Kim described observable changes in the material record as the outcome of successive waves of settlers and invasion and, like Kim Chŏnghak, emphasized the supposed connections between peninsular bronze culture and the nomadic steppe groups of Siberia and Manchuria. Kim Wŏnyong described three migration and conquest events that, according to him, were responsible for the appearance and development of Iron Age culture on the peninsula. The first of these, an influx of people from the northern Chinese kingdom of Yan 燕 or a population migration from

²³ Refer also to the summary in Pai (2000:78).

the Liaodong region around 300 BC (Kim Wŏnyong 1973), marked the beginning of the early Iron Age. Kim is not explicit about whether this incoming group coexisted with the existing population or displaced them, but attributes the appearance of the earliest iron tools and new types of bronze implements (slim daggers, fine-line mirrors, bells, and shield shaped objects) in stone-cist tombs on the peninsula to them. Kim associated the next material culture phase, Chinese luxury goods, black burnished pottery, and wood-chamber tombs, with the establishment of the Hàn commanderies in 108 BC. This, according to Kim, was the event that precipitated the development of a peninsular iron production industry and the incorporation of peninsular groups into the Chinese trade and tribute system. For the next phase of social development, during what Kim termed the Proto-Three Kingdoms Period, we again see reliance on migration. In this case, he explained new forms of iron artifacts, wheel-made high-fired pottery, and the development of a wood-chamber tomb system as the result of refugees from the Chinese commanderies after the destruction of Lelang by Koguryŏ (Kim Wŏnyong 1973:72).

Few would contest that the observable changes in the material record are due in large part to increasing contact first with Warring States polities in the Chinese northeast and later with Hàn China, but Kim's reliance on punctuated historical events tends to sharpen what might be seen more usefully as gradual processes with multi-faceted causes. The establishment of the Lelang commandery in 108 BC may indeed have caused a large influx of refugees displaced by the imposition of a new Hàn authority in northern Korea as well as a dramatic policy shift in the way China engaged with the peripheral "barbarian" groups south of the Han River. Nevertheless, Chinese material culture was already filtering into the northern portion of the peninsula in the fourth century BC, and although iron was an exotic trade good in the south, its arrival predates the establishment of the Hàn commanderies. Similarly, the destruction of Lelang in 313 AD may

have caused another southward migration and changed the relationship of southern Korea to the then-ruling Chinese imperial dynasty, the Western Jin. Contrary to this, however, even as far back as the second century AD the Eastern Hàn central government seems to have been unable to staunch a steady outflow of the population around Lelang. Furthermore, long before its eventual demise, the commandery was under the control of a succession of local warlords and powerful families with only nominal direction from central China (Kwon O-Jung 2013). The destruction of Lelang itself was symptomatic of the fractious and fragile influence China had had over the peninsula since its establishment.²⁴

Nevertheless, Kim's period divisions still form the basis for the mainstream archaeological chronology in use today (see section 1). Subsequent generations of archaeologists have continued to see the movement of people into the peninsula as the prime mover of social change,²⁵ and many others maintain Kim's atheoretical stance and his focus on the movement of artifacts and technology without additional explanation.²⁶

A more recent example of this approach to the Iron Age is Sin Kyöngch'öl's research on the mortuary record of southern Yöngnam. In a variation of Egami Namio's horserider hypothesis (1964, 1967), Sin suggests that the development of large mounded tombs and grave goods of supposed Manchurian origin (cauldrons and horse-riding equipment) were the result of a sudden influx of mounted nomadic warriors that displaced the indigenous ruling class of Pyönhan and established their own dynasty (Sin Kyöngch'öl 1992, 1994, and 2000a). Subsequent researchers have questioned a number of the foundations of Sin's argument,

²⁴ Archaeologically, there is some evidence that the material wealth and sinicization of the local population was in a state of flux from the first century AD onwards in the form of changing tomb inventories (Takaku 1995, Jung In-Seung 2013). Whatever impact the final collapse of the commandery system had on southern Korea, it was likely the culmination of a process of change rather than its inception.

²⁵ For example, see Park Kyeong-Chul (2004) and Kim Changsöök (2007).

²⁶ For example, see Lee Ch'önggyu (2007a, 2007b) and Cho Chinsön (2005).

particularly the idea that mounded tombs were an abrupt invention rather than a more gradual evolution of Lelang influenced wood-chamber structures (Pak Ch'önsu 2010), as well as the assumption that the presence horse riding equipment necessitates the movement of Scythian or Xiongnu groups into the peninsula (Kang Pongwön 2004, 2010). Influence from Sin's hypothesis and Egami's original horserider theory can be found in a number of derivative treatments of Korean history by western scholars including Ledyard (1975), Covell (1986), and Nelson (2008).²⁷

Social-evolutionary models (1970s and 1980s)

Much of the historical and archaeological scholarship in the 1970s and 80s was concerned with how to categorize the basic socio-political entities of the Samhan period mentioned in Chinese sources: statelets or *soguk* (小國). *Soguk* are discussed in the account of the Hán in the *Sanguozhi* and *Hou Hanshu*. The texts describe three cultural entities, Mahan, Chinhan, and Pyöňhan, that occupied the territory south of Daifang 帶方郡, the administrative territory in northern Korea established by the Gongsun family in 204 AD. Each Hán group is described as being made up of multiple *soguk* (more than 50 in the case of Mahan and 12 each for Chinhan and Pyöňhan). These in turn consisted of towns or townships (*ũmnak* 邑落)²⁸ under the jurisdiction of a ruling township (*kugŭp* 國邑) with additional categories of independent townships (*sobyörŭp* 小別邑) as villages that seem to have existed somewhat outside of the *ũmnak-kugŭp* hierarchy but described as important ritual centers of particular *soguk*. The *Sanguozhi* identifies two grades of *kuk* leaders: the *sinji* (臣智), rulers of powerful polities, and

²⁷ See Ledyard (1975), Covell (1986), and Nelson (2008).

²⁸ This is sometimes also translated as 'village'. Kim Chöngbae (2006:270) also notes that the constituent parts of the term (*ũp* 邑 and *rak* 落) could be separate words that refer to large and small settlements, respectively. I follow the terminology used by Byington (2009) and translate *ũmnak* as township and *kugŭp* as ruling township or leave the terms untranslated.

the *ŭpch'a* (邑借), rulers of smaller *kuk* as well as a variety of town and polity leader titles.²⁹

Ch'ŏn'gun (天君) are also mentioned as important ritual leaders in central townships.³⁰

Choi Mong-lyong (Ch'oe Mongryong) is usually credited with popularizing the work of Elman Service and Morton Fried in Korean archaeology. To this day, some form of evolutionary framework still serves as the theoretical underpinning for many archaeological studies in Korea. Choi focuses primarily on the Bronze Age, the period during which he suggests that peninsular groups entered the chiefdom stage of development. Historian Kim Jung-bae (Kim Chŏngbae) applies Service and Fried's work most directly to the textual account of the Samhan.

As in the case of Kim Wŏnyong, the search for the origins of a distinct Korean ethnic group in antiquity occupies much of Kim Jung-bae's work, as does his emphasis on non-Chinese sources of Korean culture.³¹ He draws heavily on the descriptions of Samhan village organization in the *Sanguozhi* and *Hou Hanshu*, and regards *ŭmnak* as the fundamental units of social and political organization within each Samhan culture. Somewhat confusingly, he defines these *ŭmnak* not in terms of a village or town but as the basic political unit of society. An important feature of Samhan *ŭmnak* for Kim Jung-bae is that, unlike the *ŭmnak* of cultures described elsewhere on the peninsula (such as Okchŏ and Ye) that were relatively independent of each other, Samhan *soguk* were interlinked and subordinate to the *kugŭp*. He suggests that

²⁹ For instance the appointed ritual leaders of *kugŭp* are *ch'ŏn'gun* 天君 and the grades of *kuk* rulers between *sinji* and *ŭpch'a* are *hŏmch'ŭk* 險側, *pŏnye* 樊濊, and *sarhae* 殺奚. *Soguk* leaders are also recorded as receiving titles from the Chinese court such as *ŭpgun* 邑君 and *ŭpjang* 邑長.

³⁰ The various terms in the Chinese sources described here are romanized according to their Sino-Korean pronunciations. This is done to harmonize the present study with the typical transcriptions of these terms in Korean scholarship as well as recent English language studies (see for instance Byington 2009). It should not be understood as a tacit assumption that these terms were employed by peninsular groups themselves or have a special meaning in the Korean context separate from their use in other Chinese sources.

³¹ Kim Chŏngbae 1973, 2000, and 2006 detail his evolutionary model for the emergence of Korean civilization. A number of shorter works (1972, 1975a, 1975b, 1978a, 1978b, 1987c, and 1987) have also been published in English. The following explication of Kim's model relies heavily on his 2006 synthesis of Korean ancient history. Although still adhering to Service's model quite faithfully, it nonetheless represents a greater level of engagement with subsequent scholarship than the previous works.

independent townships had grown out of villages and were still connected to the overall village system through their role as ritual centers of particular *soguk*. For Kim, village or *ŭmnak* leaders were subordinate to *kugŭp* rulers, and even though *sobyŏlup* enjoyed an independent ritual identity, these too were politically tied to the *kugŭp* (Kim Chŏngbae 2000). What united the network of towns within each *soguk* was submission to the appointed ritual authority, the *ch'ŏn 'gun* (Kim Chŏngbae 2006:115).

Kim classifies pre-first century BC *ŭmnak* corresponding to the material culture of the Late Mumun and Early Iron Age as tribes and the first century AD *soguk* as ranked chiefdoms (段階인 君長社會 kr. *tan'gyein kunjang sahoe*) consisting of clusters of *ŭmnak*. These were initially simple chiefdoms of independent *soguk* that coalesced into complex chiefdoms made up of regional alliances of several *soguk* in the second century. Like Service, Kim emphasizes the managerial role of *ŭmnak* and *kugŭp* leaders in redistributing surplus production as their powerbase. Kim argues that the first state-level societies grew out of these regional *soguk* alliances in the third century and isolates the polities mentioned in the Koryŏ period *Samguk sagi* (Mokjiguk, Saroguk, Paekcheguk, and Kuyaguk) as the first true early states (初期國家 kr. *ch'ogi kukka*) on the peninsula (Kim Chŏngbae 2006:113-134).

Like Kim Wŏnyong, Kim Jung-bae emphasizes the pivotal role of the movement of refugees into the southern reaches of the peninsula. He proposes a much greater variety of developmental stimuli when considering the gradual consolidation of *soguk* into regional powers and the appearance state level polities. Mahan, Chinhan, and Pyŏnhan are understood as having formed gradually out of the late Bronze Age cultures affected by southward-moving refugees of Wiman Chosŏn, against the background of the establishment of the Hàn Chinese commanderies.

The evolutionary framework allows for the development of the Samhan and Three Kingdoms to be understood in more nuanced terms than the culture-historical model of postwar thinkers, but it also invites criticism that applies generally to unilineal evolutionary models. Beyond the problematic assertion of a more or less universal trajectory of social development, these stages of development are vulnerable to criticisms of neoevolutionary terminology from recent western scholarship. This is particularly relevant to Kim Jung-bae and Choi Mong-lyong's reliance on Service, whose definitions of evolutionary stages of development, particularly 'chiefdom' and 'state', have been largely deconstructed and, in the view of some scholars, have no heuristic utility.³² In addition, the mechanism through which, according to Service, chiefdoms come into existence, the redistributive hierarchy,³³ has not been borne out in ethnographic case studies.

There is therefore no shortage of Korean historians and archaeologists who object to the use of generalized evolutionary frameworks as a poor fit for the particularities of Korean social development.³⁴ Cognizant of these criticisms, Kang Pongwŏn suggests that the chiefdom and state concepts still have utility as heuristic categories that allow for a wide range of cross-cultural comparisons. Kang himself argues that the development process of the Iron Age could be usefully compared to the Shang in Anyang and the small kingdoms of Mesoamerica and South America prior to the Aztec and Inca (Kang Pongwŏn 1995a).

³² See in particular Pauketat (2007) and Yoffee (2004) for commentary on the utility of the chiefdom concept and Adam T. Smith (2003: chapter 2) for rejection of 'state' as a tangible stage of social evolution. Other researchers still find these terms useful as descriptive terms (Trigger 2003, Köhler 2010).

³³ The control of redistribution of resource surpluses by a permanent centralized agency is the essence of Service's conception of the chiefdom. In his view, surpluses develop out of economic specialization and the hierarchical authority of a chiefdom is the natural result of coordination of this specialization (Service 1962, 1975). See Earle (1977) for how this hypothesis does not seem to reflect the reality of Hawai'ian chiefdoms.

³⁴ See especially historians' objections to uncritical application of Service discussed in Kim Kyŏngt'aek (1995) and Lee Hŭijun (2012).

Kim Jung-bae was not the only historian of his time working within an evolutionary framework. No Chungguk (1988, 1989) and the early work of Lee Hyŏnhye also modeled social change during the Samhan in terms of a unilineal social evolution. Both focus on the *Sanguozhi* and *Hou Hanshu* and largely eschew anthropological terminology. They still locate the basic unit of analysis in the *ŭmnak*, which No describes simply as a village (No Chungguk 1989:4). In both No and Lee's work, *ŭmnak* began as independent and relatively egalitarian village communities that were yoked into regional *soguk* under the control of a central *kugŭp* beginning in the first century BC. Local communities nonetheless retained a high degree of local autonomy. Lee Hyŏnhye makes a distinction between the authority of town chiefs versus that of *soguk* chiefs in the *kugŭp*. She contends that even as networks of towns solidified and the *soguk* emerged, the rulers of individual towns maintained political and administrative autonomy and to some extent resisted the authority of *kugŭp* rulers until well into the third century AD (Lee Hyŏnhye 1984, 2009:35). By the second century, these *soguk* had formed a larger interconnected federations (小國聯盟體 kr. *so'guk yŏnmaengch'e*). The constituent *soguk* of each Hân group lost their separate identity or were absorbed into the emerging territorial states (領域國家 kr. *yŏngyŏk kukka*) during the fourth and fifth centuries.

Both No Chungguk and Lee Hyŏnhye rely on Max Weber's conception of the state as being tied to the emergence of bureaucracy. For No, political centralization was an inexorable process from the first century BC to the Three Kingdoms Period without need for further explanation. Lee Hyŏnhye attributes the gradual stratification process to economic stimulus from iron trade with China, the increased militarization of powerful *soguk*, and the appropriation of religious authority by town chieftains (Lee Hyŏnhye 1984 and 2009:30). She finds evidence for trade and warfare in the material record, first in the transition from wood-coffin pit tombs to

wood-chamber tombs, and next in the increasing amount of iron weaponry and Chinese prestige goods within these later tombs. Her evidence for the appropriation of religion is the *ch'ŏn'gun* religious specialist mentioned in the *Sanguozhi* and what she interprets as the separation of political and ritual authority in the second century AD.³⁵ In this latter claim, Lee flits between the material record and historical sources. Her use of multiple disparate sources is laudable to a degree, but this confusion between archaeology and text creates further problems with her model that are explored in detail below.

No and Lee's schemes address some of the problems with Kim Jung-bae's application of Service and Fried, but their *soguk* and *soguk*-confederation stages of development are not fundamentally different from Kim Jung-bae's complex chiefdoms and early states. Instead of the redistributive mechanism for the genesis of authority, Lee and No rely on historical particularism and very selective readings of the textual and archaeological record. This would be problematic even if they focused solely on textual evidence; as discussed by Chu Podon (2009, 2011), there are fundamental discrepancies not only between the Chinese and Korean sources but also between the *Sanguozhi* and *Hou Hanshu* accounts. Larger contradictions arise with their use of the material record; neither researcher sufficiently calibrates the archaeological evidence to support their model. Both attribute broad trends and distinctions in material culture to specific events or polities named in historical records, not taking into account that observed differences or similarities in material culture do not necessarily correlate to specific living cultural or ethnic groups.

³⁵ Lee suggests that the large number of 'ritual' objects found in fourth and third century BC tombs (bells and mirrors) versus the martial and economic focused objects of wood-chamber tombs (iron weaponry and ingots) reflects a gradual compartmentalization of ritual and governance and a move from an evolutionary stage of religio-political rulers to one of purely secular and administrative governance. Even assuming that her interpretation of particular objects as ritual or secular is correct, I find her assumption that later Samhan rulers had no religious or ritual authority to be conjecture that echoes similar problematic claims of religious authority. See for instance Bertelli (2003).

Lee Hyŏnhye also equates cemeteries with specific communities and in the process ignores the fragmentary nature of the material record. For Lee, the geographical distribution of cemeteries in the Kyŏngju region confirms the location of the six villages of the Saro *soguk* polity mentioned in Chinese and Korean sources. She fails to justify adequately why particular cemeteries must correspond to one and only one village or town community, and does not consider the possibility that we do not have close to a complete sample of sites for the region. Instead, the currently discovered cemeteries are forced into a simple core-periphery network that does not seem to have any empirical justification. Lee also makes a distinction between the authority of town chiefs versus that of *soguk* chiefs in the *kugŭp*. She contends that even as networks of towns solidified and the *soguk* emerged, the rulers of individual towns maintained political and administrative autonomy and to some extent resisted the authority of *kugŭp* rulers until well into the third century AD (Lee Hyŏnhye 1984, 2009:35). This is not an inherently implausible scenario, but there is no indication of such an arrangement in any textual sources or the archaeological data. Lee does suggest that the existence of wealthy ‘town cemeteries’ such as Sara-ri and Yangdong-ni confirm the high status of town chiefs vis-à-vis *soguk* rulers, but she does not explain why graves in these cemeteries must have belonged to town chiefs exclusively rather than *kugŭp* rulers or even non-elites. Similar weaknesses can be seen in No Chungguk and Kim Jung-bae’s work, particularly in their insistence on assigning an ethnic group or named historical polity to particular archaeological assemblages, and their propensity to correlate any change in the material record with an invading or migrating group.

Comparisons with China and explorations of political authority (1990s to present)

The 1990s saw a proliferation of new scholarship on the Samhan and Proto-Three Kingdoms Period. For researchers working outside Korean academia, comparison with China

has served as the basis of investigation. One of the first, and still most compelling, accounts of how the state came into existence in China is K.C. Chang's regional interaction sphere (Chang 1986:234-294). In this formulation, contact between regions in northern and southern China with distinct material culture traditions in the Neolithic that intensified around 4000 BC led to corresponding internal social complexity within each region until this culminated in the urban centers of the first states in the Central Plains in the fourth or third millennium BC.

Chronological refinements and new archaeological discoveries force some revisions of how the interaction sphere is conceptualized, but the overall framework does seem a good foundation on which to model the "emergence of Chinese civilization", as Chang terms it.

More recently, Liu and Chen's (Liu and Chen 2003, Liu 2004) work on the Neolithic and early Bronze Age of China also broadly agrees with K.C. Chang's application of the interaction sphere concept, but with greater emphasis placed on the geographic preconditions giving rise to social complexity. Liu isolates the broad un-circumscribed geographical shape of the Central Plains region as the primary factor that facilitated interaction and competition among a number of decentralized social groups that in turn fostered the development of the Erlitou state.³⁶ Erlitou and later Erligang expansion is explained in political economic terms with a model emphasizing resource procurement and expansion through conquest and population movement (Liu and Chen 2003:131).

Direct application of the interaction sphere concept or Liu and Chen's interaction model to Korea is complicated by the fact that Korea is a secondary civilization that experienced development toward state-level complexity under the influence of the Chinese empire. In

³⁶ Liu contrasts this with an earlier center, Taosi, a site cluster that shows a rapid development of a strong regional center, social hierarchy, and long distance exchange during the Longshan period and an equally rapid decline before the Erlitou period. Again emphasizing geographic preconditions, Liu suggests that the rapid rise and fall of Taosi can be ascribed to its relative geographic isolation (Liu 2004:170-176). Her conclusions are very reminiscent of Wright's (1977) regarding state formation in Mesopotamia.

particular, as discussed, there was a strong Chinese presence on the peninsula from the first century BC onwards. How does one model social development when it must have been influenced by a pre-existing and highly developed state? One response has been Hyung Il Pai's (2000) notion of a Lelang Interaction Sphere. At first glance, Pai's study of Chinese and peninsular contact during Samhan or Proto-Three Kingdoms period seems to be an application of the interaction-sphere model to the peninsula and to southwestern Japan, but her use of the term differs significantly from Chang's original conception. Pai's interaction sphere refers not to multiple regional cultures of equal standing in contact over time but to the influence of the Lelang commandery on the peripheral eastern cultures in its orbit. 'Interaction' in Pai's scheme refers primarily to the influence Lelang, and by extension China, exerted over the emerging polities on the peninsula and southwestern Japan.

Pai's work is limited by its use of archaeological data only up until 1983 and by a few significant factual errors.³⁷ The basic conceit, however, that China exerted a strong influence on the development of early states on the peninsula and that this development is best understood by considering the relationship both between China and the polities and between the polities themselves, is well taken. Where Pai's model falters somewhat is in her disregard for some important aspects of the archaeological record.

First, although cognizant of the various Hàn cultural and political outposts in the northeast, Pai characterizes all contact between the societies in her interaction sphere and China as being mediated through Lelang. Park Dae Jae (2004) discusses how this Lelang focus fails to account for textual sources documenting contact between peninsular groups and the Xuantu, Daifang, and Lelang commanderies. The four regions Pai isolates to describe the core-periphery relationship between Lelang and the local polities are also problematic. Does the core area

³⁷ For these, see review articles by Larsen (2001), Xu Yingzi (2001), Park Dae Jae (2004), and Oppenheim (2002).

surrounding Lelang also include the supposed territory of Daifang? Why are the southeastern coast of the peninsula and southwestern Japan categorized as one region when the coastal sites on the peninsula seem to have received disproportionately more attention from China? Given the diversity in material culture as well as their separate treatments in the *Sanguozhi*, does it even make sense to consider Samhan a single cultural unit?

Like Lee Hyŏnhye, Pai makes a sharp distinction between the so-called native peninsular Bronze Age culture and Hàn Chinese culture imposed by the commanderies. This obscures the interaction and cultural influence from China that preceded the establishment of the Hàn administrative centers; the Late Mumun and Early Iron Age profusion of new bronze artifacts was almost certainly facilitated by some form of contact with Warring States-period polities, and iron tools and weaponry appeared before the Hàn commanderies supposedly introduced the technology to the peninsula.³⁸ Pai, along with many other scholars, also ignores the diversity of non-native, non-Hàn cultural influences on the peninsula. Many of the artifacts she characterizes as native, such as slim bronze daggers, animal-shaped buckles (Pai 2000:198-205), and comb-pattern mirrors, demonstrate at least some connection with steppe zone cultures in Manchuria and Mongolia (Seyock 2003). How much of this influence is related to pre-Bronze Age cultural connections with the north or direct contact with the Xiongnu and other steppe societies, or whether it was introduced via Yan, Qin, or Hàn and mixed up with aspects of Central Plains culture, is another complication Pai neglects. Many of these limitations are the result of the impressive scope of Pai's work, which remains one of the few comprehensive treatments of the Commandery Period in English.

Within Korean scholarship, Iron Age research since the 1990s has moved away from description and classification of early polities. Instead, a proliferation of studies with diverse

³⁸ See Taylor (1990) and Lee Sŏngju (1997a).

research agendas has shifted focus to questions of political authority and the mechanisms local elites used to maintain and expand their influence. Lee Hŭijun (2011a) points to Kwŏn Oyŏng's (1995, 1996) analyses of the *soguk* as beginning a new research trend in the 1990s toward an evolutionary theory focusing more on changes in political structure rather than the composition of and links between polities. This was taken up by archaeologists in a number of broad surveys of the Bronze through Iron Ages that sought to assess the Samhan *soguk* through the material record (Lee Ch'ŏnggyu 1998, Lee Chaehyŏn 2003a, 2003b, Lee Sŏngju 2007).

Lee Hŭijun himself focuses on the burial record to explore the political structure of northern Yŏngnam (Lee Hŭijun 2000a, 2000b, 2004b, 2011b),³⁹ as well as the nature of political authority (Lee Hŭijun 2011a). Lee starts with Lee Hyŏnhye's (2003) assertion of a primarily religious form of authority for *ŭmnak* and *soguk* leaders prior to the first century AD. He frames her religious leadership as an ideological basis of authority after Jonathan Haas' (1982) tripartite components of elite authority (economic, military, and ideological) and examines the grave-good inventories of northern Yŏngnam for evidence of how this changed over time. Lee Hŭijun agrees that the bronze objects of unknown function and fine-line mirrors are indicative of a primarily religious or ideological authority limited to small groups. This was gradually replaced by a more economic basis of authority first in the form of control of long-distance trade with China and then in the growth of domestic iron and ceramic industries. In the second century AD, although the economic component of power is still represented in burials, the most prominent artifacts in elite tombs are elaborate displays of iron spears and other weaponry. This, for Lee, signals another shift to a primarily military base of authority.

³⁹ Given its reliance on the mortuary record, a full treatment of Lee's influential settlement hierarchy of hamlets, large villages, and political networks of villages is reserved for Chapter 3.

Lee Hŭijun is careful to argue that the ideological and economic components of elite burial display are never completely lost, just that the focus shifts over time. He invests Lee Hyŏnhye's original formulation with more theoretical weight and a much more nuanced understanding of the material record, but he is still vulnerable to some of the criticisms of Lee Hyŏnhye's original argument. First, although the function of many of the bronze objects Lee Hyŏnhye and Lee Hŭijun isolate as ideological is obscure, there is no compelling reason to suggest they are somehow more rooted in 'ideology' than the weaponry displays of the Proto-Three Kingdoms period. In addition, as discussed in the previous chapter, viewing burial as simply a reflection of elite priorities prevents additional exploration of the legitimizing and transformative effects of the ritual itself.

Lee Sŏngju (1993, 2002, 2007, 2009) is critical of the social-evolutionary approaches to the Iron Age. For him, the anthropological concept of a state, either the stratified society of Service and Fried or the Weberian bureaucratic state of Lee Hyŏnhye and Kwŏn Oyŏng, are a poor fit for the historical terminology of *kuk*, *soguk*, or *ŭmnak*. As an ethnographic sketch or description of political structure, the accounts of the Hán are also of limited utility for an archaeological study trying to explain site or artifact distribution (Lee Sŏngju 2002). Lee Sŏngju instead advocates a political economy model based on the archaeological record, seeing production of prestige objects and control of long-distance trade networks as central to the economic foundation of emerging elite groups. He looks to the burial evidence as a means of reconstructing the bases of elite power through prestige objects. He suggests that elite graves of the Early Iron Age and Proto-Three Kingdoms periods can be categorized based on the degree of their engagement with trade with China as well as on the energy invested in producing ornamentation of precious stones and iron (Lee Sŏngju 1997a, 2009). In the vocabulary of the

textual sources, Lee Sŏngju sees the Kaya groups as different *kugŭp* in southern Yŏngnam and Silla as coalescing from a regional authority in the Kyŏngju region that was adept at participating in these regional trade and prestige good networks.

For the Early Iron Age, tombs such as Taho-ri tomb 1 exemplify this engagement and control of trade, but even earlier well-furnished tombs prior to the first century AD containing Chinese iron objects indicate the central importance of trade in conceptions of elite identity (Lee Sŏngju 1997a). In the Proto-Three Kingdoms Period, control of weapon and tool production by the elite class as well as the creation of new ceramic industries in the second century focused around the production of mortuary vessels are understood as indicators of a further concentration of political authority (Lee Sŏngju 2013). Lee Sŏngju does not deny an ideological or ideational component to burial or prestige goods but finds greater utility in subsuming these aspects under a broader politico-economic and interaction-focused framework. The latter is not dissimilar to Pai's interaction sphere, but with a much greater consideration of the internal dynamics of southern peninsular polities rather than the dominating influence of Lelang.

IV. CONCLUSIONS

Taken as a whole, the material record of the Early Iron Age and Proto-Three Kingdoms Period does support the idea of a relatively rapid pace for social change compared to the Mumun Period. The evidence reflects a process of stratification and the growth of regional centers to a large extent facilitated by contact with the Warring States-period kingdoms, then Hàn China.

Observed regional differences also force us to reconsider the historical narrative that Mahan, Chinhan, and Pyŏnhan evolved, coalesced, and stratified into Paekche, Silla, and Kaya in the Three Kingdoms Period. The historical record, in the form of either the accounts of the Hán in the *Sanguozhi* and the *Hou Hanshu* or the *Samguk sagi*, is insufficient to produce a convincing

narrative of social development or political authority for the Iron Age. The accounts themselves are not substantial enough to say anything concretely about village organization or the nature of social networks that made up Mahan, Chinhan, and Pyŏnhan. Application of anthropological models to the terminology does not make up for these deficiencies as the polities described do not fit any pre-existing definitions of stratified society or the state. Similarly, cherry-picking archaeological evidence to fill in the gaps in the historical narrative ignores the fundamental differences between the two types of evidence. Even studies where the archaeological data are more central are hindered by starting from the assumption that the historical narrative is correct. And while there are pronounced material-culture differences between northern and southern Yŏngnam beginning in the second century AD, from an archaeological perspective any geographical distinctions between Chinhan and Pyŏnhan earlier are meaningless.

I suggest that it is more accurate to view the main tendency in social development during this period as one of local elite groups adopting variable strategies to establish and maintain their privileged positions and also gain the upper hand against other neighboring elite groups against a backdrop of fluctuating contacts with China. Rather than three distinct material culture traditions of Mahan, Chinhan, and Pyŏnhan that grew into Paekche, Silla, and Kaya, I propose the existence, in the pre-Three Kingdoms Period, of one overall material-culture horizon defined by local iron and pottery objects, as well as prestige goods from China and the Japanese archipelago that regional groups re-configured in diverse ways—a horizon that encompassed not just Yŏngnam but also the southwestern peninsula and southwestern Japan. This is not a particularly radical re-reading of the material record; the models discussed in the previous section all emphasize interaction and the role of China in the process of social development on the peninsula. My scenario also generally agrees with the peer-polity interaction model proposed by

Gina Barnes for early Kofun period Japan (Barnes 1999, 2007),⁴⁰ as well as Koji Mizoguchi's (2002) interpretation of mediated contact with the 'Other' as the primary impetus behind the growth of elite power in late Yayoi-period Kyushu. Other Korean researchers have also emphasized the role of both inter and intra-regional trade in the creation of the peninsular iron industries and the growth of elites (Lee Chaehyön 2009, Pak Ch'önsu 2006, 2007). My primary objection to the consensus is the way the historical texts and the narrative of the Samhan have been used as the basis for interpreting the archaeological record.

At this point, we know generally that elites grew in power and regional powers began to appear and coalesce in southern Korea and Japan during the Early Iron Age and Proto-Three Kingdoms Period. Whether or not this happened, or the basic course this process took, is no longer in great dispute or particularly interesting as a research question. Debate rises instead from our currently murky understanding of the more granular mechanisms that may explain *how* these social structures evolved; frontloading interaction as a proximate cause of social development still does little to help us understand how the process played out. How was the incorporation of the southern peninsula into the Chinese tribute and trade system understood by emerging elites, and how were Chinese objects incorporated into the peninsular worldview? Contact in the form of direct competition between polities within Yöngnam may have spurred competition and growth, but why do different regions seem to have reconfigured a common material culture into a variety of different burial practices?

Despite the fact that the body of data for the Iron Age is growing, the majority of archaeological studies of social-development still rely on the mortuary record. Lee Hyönhye and

⁴⁰ Barnes has also written a considerable amount about the material culture of the Three Kingdoms period: see Barnes (1999) and essays collected in Barnes (2001) but her focus is the polities of Silla and Kaya rather than their supposed direct antecedents, Chinhan and Pyönhhan.

Lee Hŭijun base their theories of political authority on interpretation of elite graves and mortuary artifact assemblages. Lee Sŏngju's economic prestige-economy is similarly dependent on the assumption that elite graves reflect or encode strategies of legitimization and is reliant on grave goods for information on production and long-distance trade. Despite this, no studies have considered fully the potential of funerals themselves to contribute to political centralization. The limitations of approaching the mortuary record as merely a reflection of social structure, or as a byproduct of elite strategies of legitimization, also prevent us from appreciating the degree to which ritual practice mediates our understanding of political and economic systems in Yŏngnam. The following chapters seek to redress this insufficiency by analyzing the mortuary record from the perspective of the burying group, the meaning of grave goods, the composition of cemeteries, and regional comparisons of ritual practice.

Chapter 3 – The Composition of Cemeteries and the Burying Group

One of the most basic questions surrounding Iron Age mortuary sites has yet to be answered: what segment of the population do cemeteries in this region represent? The answer has significant methodological implications—any analysis of ritual, social structure, or political authority is dependent on knowing, at least in a very general sense, who was buried in a cemetery and what the criteria for selection were. Even more fundamentally, is there enough homogeneity among cemeteries to classify them based on their organizational features or the types of tombs they contain? Here we build a foundation for the remaining chapters that presents the current understanding of tomb and cemetery types, evaluates the place of cemeteries in hierarchical, textual, and demographic models of social structure, and compares cemeteries with recent advances in our understanding of Iron Age settlement patterns.

I. TOMB TYPES IN YŎNGNAM AND THEIR ORIGINS

In Yŏngnam, tombs are usually divided into three developmental categories: the wood-coffin tomb (木棺墓 kr. *mokkwan myo*), wood-chamber tomb (木槨墓 kr. *mokkwak myo*), and finally the Silla and Kaya style wood-chamber tomb (新羅/加耶式 木槨墓 kr. *silla/kaya sik mokkwak myo*), here shorted to ‘coffin tomb’, ‘chamber tomb’, and ‘Silla or Kaya tomb’ or ‘Three Kingdoms tomb.’ The following section presents a synthesis of current research into the origin and development of these types before assessing how this affects our understanding of cemetery populations. In addition to providing context to answer the central question of this chapter, it also serves as a general introduction to the tombs and cemeteries that will occupy our attention for the remainder of the study.

Early Iron Age and Proto-Three Kingdoms wood-coffin tombs

Changes in Late Mumun period or late Bronze Age (550 BC to 300 BC) pit graves and the gradual adoption of aspects of Warring States and northern Chinese mortuary practices culminated in the coffin tomb type on the Korean peninsula (both in Yōngnam and the southwest) in the late third century BC.⁴¹ The basic form of the tomb consists of a rectangular burial pit containing a coffin fashioned from a tree trunk or constructed of wood panels (the former being predominantly found in earlier, pre-first century graves).

Early coffin tombs (200 BC – 100 BC) bear a strong similarity to the Late Mumun graves that directly precede them and these Late Mumun graves may themselves have contained a wood coffin (Lee Sōngju 1997b:29). Many of the coffin tombs in Yōngnam constructed before the first century BC were surrounded by piled stones that connect them to the late Bronze Age piled stone tomb tradition (積石墓 kr. *chōksōkmyo*); hence they are described in some studies as piled-stone wood-coffin tombs (積石木棺墓 kr. *chōksōk mokkwan myo*) (YICP 2000, Lee Hūijun 2000b:101). The appearance of burial mounds⁴² and semi-circular ditches⁴³ surrounding individual burials (leading to the so-called round-ditch coffin tomb designation 周構木棺墓 kr. *chugu mokkwan myo*) solidify the tradition as a distinct entity rather than a slight mutation of the terminal Mumun culture (Lee Chaehyōn 1994:59-62, Lee Chuhōn 1994:48, Lee Sōngju 1997b:11, Im Tongje 2012:27). Early ditch-encircled coffin tombs were relatively homogenous throughout southern Korea, but Yōngnam tombs soon took on regional particularities—the shape of the ditch becomes more ovoid as opposed to square and is found at the head or foot of the

⁴¹ More conservative estimates place its appearance squarely within the second century BC. See opposing perspectives in Lee Chuhōn (1994) and Takaku (2000).

⁴² Speculated to have existed based on patterns of collapsed soil in the burial pit and the relatively equidistant spacing of wood-coffin tombs at most cemeteries (Ch'oe Chong'gyu 1995:122-124).

⁴³ Most of these early graves are built on a slope with the ditch being dug around the higher elevation portion of the burial chamber leading to the interpretation that they were drainage ditches designed to preserve the mound against water erosion (Yu Pyōngil 1996 in Lee Sōngju 1997b).

tomb rather than its sides. Additionally, while tombs in western Korea began to take on the appearance of Lelang chamber tombs, this trend was resisted in Yōngnam (Lee Chaehyōn 1994, Lee Chuhōn 1994, Lee Sōngju 1997b:14).

Initially, coffin tombs on the southern portion of the peninsula were furnished with clay-banded mumun ceramics (粘土帶土器 kr. *chōmt'odae t'ogi*) and bronze spearheads or slim daggers in the Late Mumun style—the latter often paired with elaborate wood or lacquer scabbards and pommels (including the characteristic antenna dagger morphology) (Lee Ch'ōng'gyu 2007a). At Ch'op'o-ri, a site outside of Yōngnam in the southwest, late third century BC coffin tombs were also found to contain Late Mumun bronze disks with fine-line geometric decoration, multi-headed rattles, and shield-shaped decorative embellishments that are all conventionally thought to have had a primarily ritual function or to signify a ritual specialist (KWNM 1988, Lee Ch'ōng'gyu 2010). Chinese bronze objects such as mirrors, bells, and belt hooks have also come to light in isolated cases: Choyang-dong in Kyōngju (KNM 2003a), Taho-ri in Ch'angwōn (NMK 2008), Kyo-dong in Miryang (MUM 2004), and Chisan-dong in Taegu (Pokch'ōn Museum 2009).⁴⁴ Black burnished Late Mumun long necked jars and simple raised dishes are also common in tombs from this period. Yōngnam sites falling into this category include some of the earliest tombs at Yandong-ni in Kimhae (TUM 2008, IUIKC 2012), Taho-ri in Ch'angwōn (NMK 2008), and Imdang in Kyōngsan (YUM 1998, YICP 1999a, 1999b, 2001c).

By 100 BC in Yōngnam, the coffin tomb had shed most of its similarities to the Late Mumun slim bronze dagger tradition. The semi-circular ditch all but disappeared and another burial chamber modification, a small waist-pit (腰坑 kr. *yogaeng*) under the wood coffin is found at various sites (Figure 3.1). Peninsular-produced bronze blades in this period existed, but it is

⁴⁴ Arguments that Chinese luxury goods of this sort symbolically 'replaced' older Mumun prestige objects in graves (Lee Ch'ōng'gyu 2007a, Lee Yangsu 2009a, Horlyck 2011) will be evaluated in Chapter 4.

iron objects in the form of spearheads, flat axes, sickle blades, and knives that are found most prominently arranged under and around the coffin (Lee Ch'ōng'gyu 2007a). Iron horse harness fittings and Chinese lacquer objects have been recovered from a handful of tombs and Chinese bronze mirrors continued to be placed in graves. The latter have been found in fragments or as circular portions cut out of a larger object, as in the example from Imdang, where two circular mirror cut-outs seem to have been used as components of a portable reflective object (Ch'oe Chong'gyu 2001:33-34) or seal (KCHF 1998e).

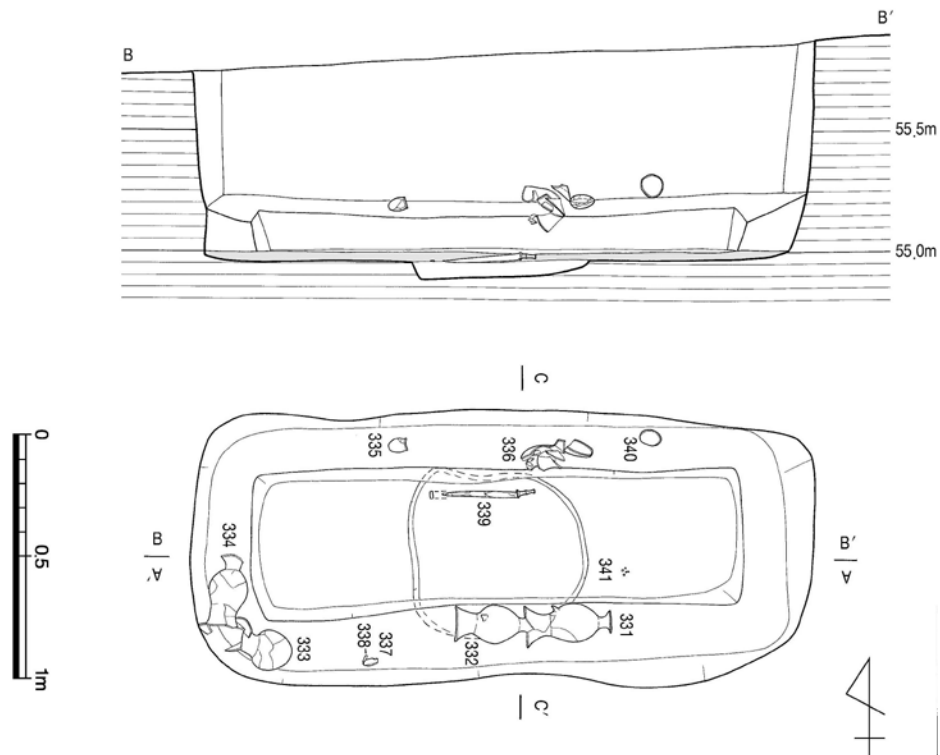


Figure 3.1: Tomb 63 at Sindae-ri, a first century AD coffin grave featuring a prominent waist-pit underneath the coffin (YICP 2010c:171). Fan-necked jars can be seen in the tomb fill at the souther side and southwestern corner of the tomb. A decorated iron sword and several stone beads were recovered from the interior of the coffin.

High-fired wheel-made earthenware known as *wajil* 瓦質 are common finds in first century BC coffin tombs which has led some researchers to designate a *wajil mokkwan myo* sub-stage within the wood-coffin period (Lee Hūijun 2004b). The most characteristic *wajil* vessel shape is the fan-necked long jar that was initially unadorned but gained two small, horn-shaped

handles on the body and a raised base over time (Figure 3.1). Earthenware and *wajil* short-necked globular jars make up the remainder of ceramic finds. 100 BC to AD 50 was the most active period of coffin tomb construction in Yŏngnam. By this point the construction process was fairly formalized at sites like Taho-ri, Imdang-dong, Sindae-ri, and Choyang-dong, though there does not appear to have been any consensus regarding artifact placement or cemetery layout across the region.

The majority of coffin tomb studies find it easiest to distinguish coffin-tomb phases on the basis of ceramic types: early tombs containing clay-banded Mumun ceramics, later tombs containing black burnished vessels, and first century BC and later tombs containing *wajil* vessels. The appearance of iron grave goods are usually correlated with *wajil* tombs but the recent appearance of second century BC tombs containing iron objects but no *wajil* vessels is forcing a reconsideration of the coffin tomb development. Only one excavated cemetery—Hagu-ri in Kyŏngju—has produced a large number of tombs from the second century BC, and this has yet to be published; but it seems likely that future research will decouple iron and *wajil* and develop a new periodization for these artifact types.

The exceptionally well preserved first century BC Tomb 1 at Taho-ri has aided in reconstructing the process of burial in coffin tombs.⁴⁵ It must be borne in mind, however, that Tomb 1 is far more richly furnished than those found at contemporary sites such as Imdang, Nŭk-do, and Choyang-dong and is not necessarily a typical burial of the period. The first two steps in the burial process, the preparation of the corpse in a coffin and the construction of the burial chamber, appear to have occurred separately and the sealed coffin was then transported to the site of burial (L-shaped holes at the foot end of Taho-ri tomb 1 suggest that ropes were threaded through and used to drag the coffin to the burial pit). The lack of preservation of the

⁴⁵ This construction process is explored in NMK (2008), Yi Young Hoon (2009), and Kim Yongsŏng (2011).

corpse itself or of any clothing means that details of body preparation are unknown, but at many sites we see a small bronze or iron blade placed near the midsection of the corpse and arrangements of precious stones that suggest a necklace or other personal adornment. Skeletal evidence from the late Bronze Age and Early Iron Age site of Nŭk-do (PUM 2008) and the early Three Kingdoms cemetery of Yean-ni (PUM 1992) imply that a custom of laying bodies on their backs in an extended posture persisted throughout the period in southern Yŏngnam.

Before the coffin was lowered into the burial pit, objects were placed in the waist-pit at the center of the tomb and the tomb floor itself. At Taho-ri these took the form of a bamboo basket containing an array of ornamented bronze and iron weaponry, tools, and Chinese luxury goods in the pit as well as more weapons, lacquer cups, and food offerings on the tomb floor itself. More modest furnishings of iron axe blades and spears are common at other Yŏngnam sites.

The body was then lowered into the burial chamber (at Taho-ri this was accomplished with a rope tied around the coffin that was found preserved in the burial chamber of tomb 1) and secured in place by filling the remaining space between the burial-chamber walls with layers of earth (補強土 kr. *pogangto* or 充填土 kr. *ch'ungjŏnto*). Additional burial goods (iron tools and lacquer objects at Taho-ri but more frequently at other sites one or two iron tools and ceramic vessels usually placed near the head or feet) were added in tandem with layers of earth until the coffin was covered. In some Yŏngnam tombs, the earth fill was augmented with clay, large stones, or even wooden posts and the top of the tomb was covered with a wood plank. Finally, more earth was added to form a burial mound over the entire feature.

It is tempting to superimpose the Taho-ri process on sites throughout Yŏngnam, but doing so would mask the considerable diversity of artifact placements, relative tomb sizes and

dimensions, and presence or absence of additional construction elements that point less to a common practice than to a general method with a unique interpretation at different sites; Taho-ri is exceptionally elaborate. Contemporary sites such as P'aldal-dong contain many more tombs with no waist-pits, only a few ceramic vessels, a single iron implement, or even no grave goods at all (YICP 2000).

Researchers assign varying degrees of significance to stages within the overall burial ritual, with some seeing the preparation of the coffin as the central funeral event (Kim Yongsŏng 2011), while others focus on the placement of objects in the waist-pit or the final process of burying the coffin and grave goods in the tomb itself (Chŏn Sŏngnam 2007). It is unknown how much time elapsed between each stage in the burial process, but at the minimum a two-stage funeral process involving the separate preparation of the body and burial chamber followed by transportation to and careful placement of coffin in tomb seems to be common to all sites in the region and contrasts with the subsequent chamber-tomb tradition.

Certain stages of the process also called for particular grave goods that were not appropriate at others; ceramics and iron tools like sickles and bores are common finds in the tomb fill that were added in the later stages of burial while precious stones, swords, and lances occur more frequently on the tomb floor or inside the coffin itself. Other objects like axe blades appear at every stage of burial. At Sindae-ri, the types of objects associated with the corpse in the coffin are highly variable (bronze bracelets, mirrors, iron swords, axes, and precious stone adornment) but almost all artifacts arrayed around the coffin during the final burial process are either iron tools or some form of *wajil* or earthenware jar (YICP 2010c, 2010d). This is taken up in more detail in Chapter 5 where 'sets' of ritual objects are isolated and their role in the mortuary ritual at specific sites are explored more thoroughly. For the time being it is enough to

remark that even this relatively simple burial method was actually quite complex with different procedures and possibly different audiences at each stage of the process. This latter point will also be used as a factor to help explain the diversity at different cemeteries and among tombs at individual sites.

The current understanding of coffin tomb development sees the process as a synthesis of native Late Mumun tomb traditions in southern Korea with Chinese practices (originating both in northeastern and southern China and arriving in southern Korea via Yan in Liaodong and southeastern Chinese polities across the Yellow Sea, respectively) that were gradually naturalized (Kim Yongsŏng 2011). Despite this, there is some disagreement on where certain tomb elements originate, particularly the coffin. Log coffins appear earlier than panel coffins in the Late Mumun and some researchers trace their ultimate origin to the log-coffin tombs 獨木棺 of southern Sichuan in the Warring States Period (Lee Chaehyŏn 1995) but they can also be placed within the broader piled-stone tomb tradition prior to the first century BC. The panel coffin appears as early as the second century BC and has been variously described as a mutation of peninsular Late Mumun traditions influenced by practices in northeastern China (Lee Chaehyŏn 1995), the result of an influx of settlers from the Mahan region and the northern Korean peninsula (Lee Hŭijun 2000b), or a recreation in wood of Mumun period stone cist grave construction methods (Lee Chuhŏn 1994 in Lee Hŭijun 2000b).

Adoption of Chinese mortuary practices was selective and anachronistic. Certain elements of Yŏngnam graves such as the waist-pit are so similar to particular Chinese practices that independent origination seems unlikely (in this case, the sacrificial burial waist-pits that first appear in Shang royal tombs at Xibeigang, though these were put to much different use in Korea) (Thote 2009). Conversely, Yŏngnam coffin tombs lack the wood chamber superstructure of

Lelang burials built around the same period (Takaku 2000) and common in Chinese mortuary practices since the Neolithic (Thote 2009). In addition, even though Korean tombs borrow from traditions with their origin in the Chinese Bronze Age or Hàn Period, they lack any of their social or cosmological context. There are no artifact sets that compare to the strict placement of ritual bronzes according to rank of Shang or Zhou tombs or artifacts that suggest that the tomb was a home for the dead as they are understood to have been in the Hàn Period.

Rather than being a complete adoption of Chinese practices synthesized with earlier traditions, it seems Yōngnam tombs fulfilled the same purpose of tombs from the Late Mumun period and incorporated Chinese practices that facilitated this process. They did not reinvent mortuary ritual after contact with Chinese culture. As time went on, the altered social climate and familiarity with new tomb construction techniques introduced by Chinese commandery presence effected a more gradual change in mortuary ritual, the incorporation of more aspects of Chinese practices, and the loss of Mumun tomb elements. Yōngnam in particular was slower to abandon pre-commandery practices than the rest of the Korean peninsula. This latter phenomenon is attributable, in some degree, to the relative geographic isolation of the region and its distance from China. On the other hand, the large number of Chinese luxury goods in southern and coastal Yōngnam (chiefly Kimhae and Ch'angwŏn) does demonstrate that parts of the region had strong connections with China via trade with the commanderies. The resilience of many aspects of Late Mumun tomb construction cannot be explained by geography alone and require further research.

The chamber tomb transition

The latter half of the Proto-Three Kingdoms Period saw a further evolution of mortuary ritual. From the second century AD onwards, large cemeteries of densely clustered chamber

tombs similar to those belonging to first century BC interments from the Hàn commanderies, gradually replaced coffin tombs. The distinction between chamber and coffin is subtle—a single wood panel lining to the burial pit which contained the corpse and burial goods instead of a sealed coffin surrounded by objects—but it is accompanied by a host of other changes in burial practice and material culture.

In chamber tombs the locus of ritual was the gravesite itself—the corpse and artifacts were placed in one large chamber at the time of burial. The scale of chamber tombs is also much larger, both in the size of the burial chamber and in the number of grave goods within them (Ch’õe Ch’õng’gyu 2007, Kim Yongsõng 2011) (Figure 3.2). Characteristic grave goods in chamber tombs are iron axe blades, spears, and swords as well as elaborate later *wajil* jars and bird-shaped mounted vessels that were probably made specifically for the purpose of burying them in graves (Lee Sõngju 2008). On a broader scale, while chamber tomb cemeteries are much more crowded and graves frequently cut into older burials, they are more consistently oriented along a single east-west axis. Graves are generally found on high or sloping terrain than coffin tombs and follow the contours of hills and ridges (Kim Yongsõng 2011).

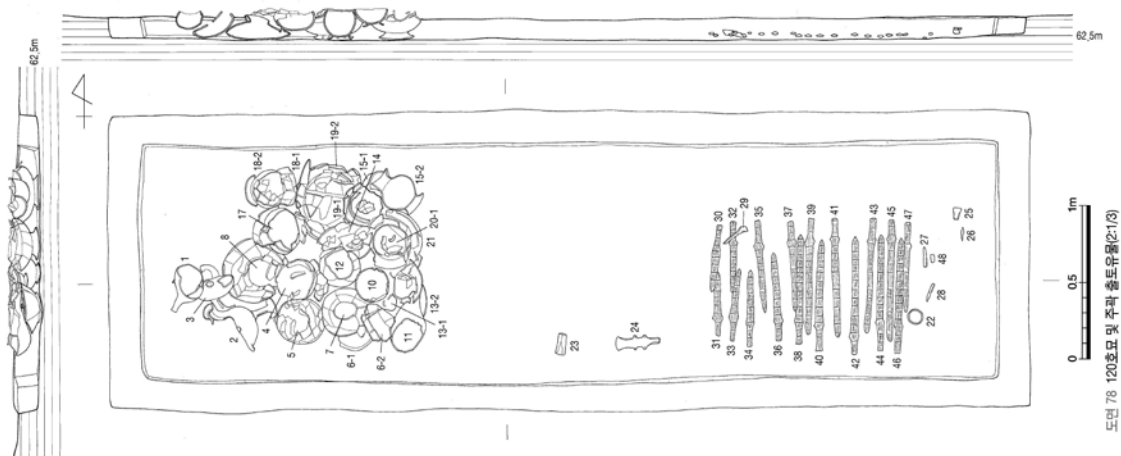


Figure 3.2: Tökch'ön-ni Tomb 120, an elaborate chamber tomb containing a discrete pottery cluster (west end) and rows of spear blades arranged under the body (east end) (YICP 2009b:146).

The overall construction of the Yŏngnam chamber grave shows clear influences from the Lelang tombs concentrated around modern day Pyongyang. Unlike Lelang graves, however, Yŏngnam chamber tombs are shallow and lack any of the ramps or steps often found in Hàn tombs. They also do not seem to have contained wood coffins within the chamber superstructure (Lelang graves often contain two or more coffins inside the chamber), and are oriented east-west or along the contours of the slope they are built on rather than pointing towards the higher elevation (Takaku 2000). Kim Yongsŏng interprets this as evidence that Yŏngnam tombs were not a direct inheritance from Lelang or China. Instead, commandery styles were copied and changed while older ideological differences and practices were maintained (Kim Yongsŏng 2011).

One complication to this pointed out by Kim Yongsŏng (2011) is the chronological discrepancy between the decline of the Lelang-style chamber tomb in northern Korea in the first century BC and the fact that its Yŏngnam imitations appear only after the second century AD. Why the sudden revival of the style after 200 years in a region that seems to have been unaffected by it after being introduced to it in the preceding Early Iron Age? Kim Yongsŏng's

explanation focuses on the agency of the Yŏngnam tomb builders: commandery power and its grip on the peninsula waned in the second century AD as a result of political and social upheaval in China and prompted a corresponding strengthening of, and competition among, local groups. Having already been Sinicized to a large degree during the commandery period, these groups projected a new identity that merged existing peninsular traditions with Chinese trappings; burial ritual was the most prominent material display of this new identity. Kim's framework lacks any corroborating historical evidence, but stands as a better starting place for considering the process through which the chamber tomb was adopted than earlier scholarship that saw the transition from coffin to chamber as evidence of southward moving invaders or migrations from the commanderies.⁴⁶

Instead of a single and abrupt change, the discovery of more sites with transitional forms indicates that aspects of chamber tombs were incorporated in a piecemeal fashion, with the Kyŏngju and Ulsan regions in particular taking to the new methods more readily than the rest of the Yŏngnam region. In Kyŏngsan and Kimhae coffin tombs persisted until the fourth century, well into the so-called chamber tomb period. The morphological changes in chamber tombs is most clear in the Kyŏngju region. Initial second century chamber tombs were square and featured artifact clusters suggestive of Lelang graves of the first century BC (方形 木槨墓 kr. *panghyŏng mokkwak myo*). These were replaced by rectangular tombs with discrete ceramic clusters at one end in the third century (長方形 木槨墓 kr. *changbanghyŏng mokkwak myo*). Such tombs gradually became more slender over time (細長方形 木槨墓 kr. *sejangbanghyŏng mokkwak myo*) and gained a discrete grave good chamber by the late third century (主副槨式 木槨墓 kr. *chubu kwak sik mokkwak myo*) (Lee Sŏngju 1996:62, Kim Yongsŏng 2009). Even

⁴⁶ See Kim Wŏnyong (1973 and 1986) and Sin Kyŏngch'ŏl (2000).

within Kyōngju the appearance of new chamber types was not uniform or consistent among sites, hinting that the style was introduced more than once and probably from different sources.

The coffin tombs of some first and second century AD sites also exhibit features that are typically associated with chamber tombs. The graves at Sara-ri, a site in the western portion of the Kyōngju plain, are clearly coffin interments, but their shallow depth and the volume of iron and ceramics they contain are characteristic of chamber tombs. The most elaborate tombs at Sara-ri also feature tomb floors covered in even rows of axe blades, a practice associated with later chamber tombs in the Kimhae and Haman regions to the south (Ch'ŏe Chong'gyu 2007).

Lee Sōngju's work (Lee Sōngju 1997b, Lee and Kim 2000) on sites in the Ulsan region provides one of the more convincing frameworks for explaining the coffin-to-chamber transition. At Chungsan-ri, large scale and shallow chamber tombs quite distinct from coffin tombs dating to the second century co-existed with small-scale coffin tombs persisting from the earlier period. By the fourth century, however, only chamber tombs were constructed though the distinction between large and small tombs remained. In contrast, at the nearby site of Ta'ūn-dong, chamber tombs did not appear until the fourth century and these were essentially coffin tombs with the addition of a wood chamber burial pit. This leads to what Lee Sōngju describes as “coffin-tomb lineage chamber-tombs” (木棺系木槨墓 kr. *mokkwan kye mokkwak myo*) that contrast with the typical chamber tombs at Chungsan-ri.

Lee Sōngju sees these differences as evidence that political power in Ulsan became concentrated among a few elite groups, and that a nascent social hierarchy emerged in the second century. Social elites at Chungsan-ri adopted new chamber-tomb construction techniques while the rest of the population was still building coffin tombs. By the third century, non-elites at the site were copying the chamber tomb style. In contrast, at Ta'ūn-dong, there was no elite group

driving the adoption of chamber tombs. Hence, this style of burial does not appear until much later and when it does, these chamber tombs retain the essential features of the earlier coffin tomb tradition. For Lee Sŏngju, the adoption of chamber tombs, while gradual and varied, represents a significant shift in the concept of burial itself. Coffin tombs were simply a means to wrap and bury a corpse, but chamber tombs are carefully planned installations designed to facilitate an elaborate ritual procedure.

Lee Sŏngju's model accounts for the diversity of tomb types better than invasion or migration explanations and by contextualizing social development in very concrete material culture changes his explanation becomes more convincing than simplistic social evolutionary models. It is likely that the process of chamber-tomb adoption was driven, at least in part, by elite actors, and there is little to argue with the claim that social stratification and concentration of power was becoming more pronounced in the Proto-Three Kingdoms Period. Lee's findings are also supported by artifact distributions at other Yŏngnam mortuary sites. Tombs at the site of Tŏkch'ŏn-ni (in the southern Kyŏngju plain) containing the most pottery and iron objects also yielded the more rare and costly-to-produce objects such as duck-shaped pottery vessels, serrated iron spearheads, and ring-pommel swords (YICP 2009a, 2009b). The concentration of wealth and unique objects in a few tombs in particular perhaps reflects a more codified conception of status, or at the very least a more uniform mortuary ritual restricted to an ever smaller segment of the population.

It should be noted, however, that Lee Sŏngju's arguments are based on a very small subset of tombs; they might not be applicable to the entire region, especially to areas further south in Kimhae or Honam. In addition, it is worth emphasizing that political centralization did not begin in the chamber-tomb period, but it accelerated and mutated during that time. The

notion of non-elites influenced by their early-adopting social betters may also be a simplification of power dynamics in Ulsan. Lee's assertion that bigger tombs indicate higher social status requires additional scrutiny, and instead of elites and non-elites, we may be witnessing a more complex form of social competition *among* elites through mortuary ritual at both the intra-site and inter-site levels.

One further point that follows from Lee Sŏngju's identification of diversity in chamber tomb construction is the variability of ritual practice at different sites. Artifact distribution and placement in tombs at any given site is considerably more consistent than during the coffin-tomb period, but the reverse is true when comparing different sites and regions. The increased standardization of the mortuary ritual within elite cemeteries like Chungsan-ni and Tŏkch'ŏn-ni generally agrees with the idea of a gradual centralization and expansion of political power in the Proto-Three Kingdoms period. Despite this, while graves within a single cemetery were much more standardized in terms of placement, orientation, and arrangement of grave goods, cemeteries themselves became increasingly idiosyncratic. At Tŏkch'ŏn-ri spear blades are the primary component of elite burials, but in nearby contemporaneous sites such as Choyang-dong, Sara-ri, and Oksŏng-ri these objects are almost entirely absent and the logic of placement of ceramic vessels and iron tools is different (KNM 2003a, YICP 2001a, 2001b, SICP 2010). At sites further south such as Yangdong-ni in present day Kimhae, even greater diversity is seen not just in the way artifacts are placed, but also in the haphazard distribution and orientation of tombs.

In sum, when the Proto-Three Kingdoms Period cemeteries are considered individually, they support the idea of a gradual standardization of mortuary ritual and the centralization of

power in a few key regions. When one cemetery is compared to its neighbors, the mortuary ritual and the logic of placement of graves at each site is unique.

The Emergence of Three Kingdoms Tombs

Like coffin and chamber tombs before them, Three Kingdoms tombs that emerged between the third to fifth centuries are not so much an abrupt departure from their predecessors but the culmination of gradual evolution. Silla and Kaya tombs are essentially chamber tombs that are larger and more elaborate in their construction and tertiary elements (larger mounds, piled-stone tomb fill instead of packed earth, discrete sections within the wood chamber for different types of artifacts, and separate auxiliary chambers surrounding the main burial chamber). Grave goods are also unsurprisingly more abundant and lavish with more complex ceramic forms and vessel stands, adornment of gold and silver, and greater numbers of iron weapons. The Three Kingdoms Period is also when it becomes appropriate to discuss coherent regional styles—Silla type tombs take shape in Kyōngju, Ulsan, and Taegu while several distinct Kaya tomb types can be found in Pusan, Kimhae, and farther west in Chinju and Haman.

Lee Sōngju's (1996) meticulous examination of Ulsan area cemeteries has also yielded insight into the formation process of Silla style tombs. Starting as far back as the second century—before even coffin tombs had been abandoned—the overall shape of chamber tombs lengthened and developed a slightly rectangular burial pit as opposed to square. This accelerated in the third century with the appearance of extremely long tombs, an auxiliary chamber at the foot of many tombs, and an increase in the size of the burial chamber. In the fourth century piled stones became the favored tomb fill, the auxiliary chamber lengthened to become almost the same size as the primary burial chamber, and graves gained protective stone coverings, a moat, and a larger mound.

The most important contribution of Lee Sŏngju's work is not necessarily in its explication of the details of tomb evolution but in his rejection of the idea that Silla tombs developed in the central Kyŏngju region and then radiated outwards to encompass peripheral sites within the Kyŏngju plain. Instead, the basic framework of the transformation process occurred within all regions of what would become Silla territory; the influence from center to periphery was not necessarily one-sided. Though piled-stone features, high mounds, figure-8 shaped auxiliary chamber tombs, gold working tools and personal adornment were popularized in tombs in the center, later Silla burial traditions such as the stone-chamber pit (豎穴式石槨 kr. *suhyŏlsik sŏkkwak*), horizontal-entrance stone-chambers (橫入式石槨 kr. *hŏengipsik sŏkkwak*), and multi-person family tombs (家族的 多槨式kr. *kajŏkchŏk tagwaksik*) all saw their initial forms develop in so-called peripheral regions.⁴⁷

For Kaya tombs, regional types are usually denoted by the supposed historical polities that produced them: the Kŭmgwan Kaya type originating in Kimhae (late third century to early fourth), the Ara Kaya in Haman (mid-fifth to early sixth century), and the Tae Kaya type centered on Koryŏng (also mid-fifth to early sixth century) (Pak Ch'ŏnsu *et al.* 2003, Lee and Kim 2011). The tombs of the earlier Kŭmgwan polity were markedly different from Silla tombs of the same period. Rather than slender, stone-piled mounded tombs, early Kaya tombs are shallow, segmented chamber tombs with large quantities of iron ingots and simple globular stoneware jars. Human sacrifice was practiced at the fourth century cemetery of Taesŏng-dong and later to an even greater extent in the massive tumuli of Tae Kaya at Chisan-dong in Koryŏng. For both Kŭmgwan Kaya and Tae Kaya, objects exemplifying an intensified trade with groups in

⁴⁷ This leads Lee Sŏngju to ultimately dispense with the idea that the piled-stone wood-chamber tomb type (積石木槨墓 kr. *chŏksŏk mokkwak myo*) that developed in central Kyŏngju should be considered the representative tomb type of Silla, preferring to classify it as a high-status variation of a more inclusive 'Silla style wood-chamber tomb' type.

the Japanese archipelago are central to the burial assemblage (bronze spiral and tube-shaped objects in Taesöng-dong and sets of iron armor, jade, and shell ornaments in Chisan-dong) (Pak Ch'önsu 2008).

Jar Burials

Another important burial practice that predates any other Iron Age tomb type and continued well into the Three Kingdoms Period is the jar burial (甕棺墓 kr. *onggwanmyo*). Used predominantly for infants and young children, jar burials are a persistent feature of mortuary and habitation sites throughout Yöngnam and the southwest. The majority of these tombs consist of two jars arranged horizontally, one larger (60 to 150cm) slender vessel that held the body and a smaller globular jar or pot acting as a covering.⁴⁸

The earliest jar burial sites in Yöngnam date to the third century BC (PUM 1989, 2004, Lee Ch'unsön 2011) and appear in sites along the southern coast and on small islands just off the mainland. These jar burial groups are found very close to habitation areas and, at Nük-do just off the coast of Kimhae, intermingled with simple pit tombs. Nük-do has yielded 61 jar coffins, many of them containing skeletal remains. These remains suggest that jar burials at the site were exclusively infant and child interments (with the oldest having been no older than five but the majority being less than a year old or newborn), but several child burials are also counted among the 75 pit tombs at the site. Burial of infants and children in jar coffins seems to have been a consistent practice in this early period, but it was by no means the only mortuary treatment afforded children.

⁴⁸ Jar burials in which the two vessels are the same size are also common and Lee Ch'unsön (2011:105) designates two additional variations in one of the few comprehensive treatments of these features: single-vessel jar burials that date prior to the first century BC and rare two-vessel burials in which both jars are separated by empty space, fragments of other vessels, or by wood, clay, or stone.

By the mid-second century BC jar burials could be found all over Yŏngnam and instead of dwellings they were placed within coffin tomb cemeteries. There is a high degree of regional variation in the types of pots used and in the first century BC a few of these burials also contained a small number of grave goods in the form of jade and other precious stone objects, bronze belts or clothing hooks, as well as iron weaponry and tools similar to those found in contemporaneous coffin tombs. Grave goods with iron objects are more common in Taegu and Kyŏngju.

Jar burials became even more prevalent at cemeteries in the first century AD. They were also more standardized with several common sizes, especially at sites in the upper reaches of the Nakdong river and along the east coast. Archaeologists have interpreted this as evidence for increasing social stratification, as a small number of these larger jar burials also contain precious stones and iron objects and are often directly associated with a richly-furnished coffin tomb (Lee Chaehyŏn 2003a, Lee Ch'unsŏn 2010:131). In the second and third centuries, jar burials exhibited even more standardization, stratification, and made up a greater portion of graves coffin and chamber tomb cemeteries. Many jar burials of this period also feature elaborate secondary features like raised mounds. Some regional variation persisted, particularly among the large-size jar burials along the south coast and lower-Nakdong river areas. Interestingly, although the ratio of jar burials to other burial types increased from the first century, children were increasingly interred in chamber tombs rather than in jars (Lee Ch'unsŏn 2010:137).

As is the case with other aspects of Yŏngnam Iron Age mortuary practice, it is difficult to make even regional generalizations about the use of jar burials. The graves did become more prevalent over time and, by the first century AD, were a core feature of cemeteries rather than isolated practice associated with habitation areas. Earlier sites also have markedly fewer jar

burials than coffin tombs but at several later sites these tombs equal or surpass the number of adult burials (Kimae T'öerae-ri, Taegu P'aldal-dong, Ulsan Sinhwa). Considering this, it is likely that jars were used in only a subset of infant and child burials initially, but came to be a routine burial practice for the youngest members of communities. The earliest jar burials do not contain any of the trappings that would flag them as elite such as the presence of grave goods, prominent or monumental presentation, or direct association with other richly-furnished graves; they are found apart from cemeteries. This latter fact hints at a deviant burial practice for young children who died in a certain way or an infrequent ritual that not every individual was selected for.

The scarcity of early jar burials may indicate that they were restricted to elite actors. And, as the practice becomes more ubiquitous, ritual stratification and standardized large and small jar sizes are readily discernible (Lee Ch'unsön 2011:117). In isolation this seems like an example of what Morris (1987:16) describes as the adoption of a previously elite-exclusive practice by a larger segment of the population that prompted elites to abandon or modify the practice in order to differentiate themselves. As will be argued in section 3, cemeteries themselves took on an overall elite character in the transition to chamber tombs; greater percentages of jar burials are more likely to reflect a complete exclusion of non-elite burials rather than a general adoption of the practice.

In Yöngnam, horizontal jar burials appeared at roughly the same time as the spread of iron technology; their emergence can be seen as one of the many material culture changes that characterizes the Early Iron Age. Nevertheless, there are other jar burial traditions that potentially relate to the Yöngnam expression of the custom: Mumun jar burials in central-

western Korea, Yayoi period jar burials in southwest Japan, and early Three Kingdoms Period large jar burials in the Yöngsan river area.

The earliest of these, burials in the Küm River area in the Middle Mumun period (850-550 BC) are associated with the broader Songguk-ri material culture assemblage (An Chaeho 2000, Bale 2011:35-36). Lee Ch'unsön sees these as the direct inspiration for Yöngnam Iron Age jar burials and that the tradition was brought in by migrant communities of Kojosön moving south from central western Korea after the establishment of Wiman Chosön in the second century BC (Lee Ch'unsön 2011:118). Lee Ch'unsön argues for a model of gradual acculturation as incoming groups were assimilated and the jar burial custom was adopted and changed by pre-existing elite groups in Yöngnam.

This is at odds with recent re-dating of Nük-do ceramics and organic remains to the third century BC (Lee Ch'anghüi and Kim Hönsök 2010). If correct, the large number of jar burials at the site suggest that the practice was well established prior to the supposed conquest of Kojosön and unlikely to be the result of these displaced northern groups. A migration model also offers an unconvincing explanation for the differences between Songguk-ri and Yöngnam jar burials. As pointed out by Lee Ch'unsön himself, Songguk-ri burials were typically placed vertically and could be used for both adults and children—both of which contrast with the Yöngnam horizontal burial style that was used for child burials exclusively.

Another third century BC jar burial from Hwehyön-ni in Kimhae utilizing a ceramic vessel associated with southwestern Japan also links the Yöngnam expression of the custom to mid to late Yayoi practices in Kyushu. The horizontal placement of Yayoi jar burials is more in line with the Yöngnam practice and the arrangement of some jar burial sites in southern Korea such as Sinch'ang-dong in Kwangju, Chungmyöng-ni in P'ohang, and Hwajöng in Kimhae

resemble Yayoi cemeteries consisting of single or paired linear arrangements of jar burials in Kyushu (Mizoguchi 2005). Yayoi jar burials do not exclusively contain infants and children, however, and Yōngnam sites lack the social context of Japanese cemeteries. In particular, the single-mound compound cemeteries that Mizoguchi sees as working alongside their linear counterparts in order to reinforce village and corporate group identity and to set off an emerging leadership class are noticeably absent.

These similarities provide more reasons to question a migration and acculturation hypothesis and point instead to a strong link between the Korean southeast and Japanese southwest. There are still a number of unique aspects that set southern Korean jar burials apart. The large jar burials of the Yayoi period are more directly analogous to the Yōngsan river valley jar tombs that arise in the fourth century and flourish in the fifth. Rather than an evolution of the Yōngnam tradition, Yongsan burials, as argued by archaeologist Hideo Yoshii, are a unique custom that is likely related to Yongsan groups' close trading relationship and cultural similarities with the Kyushu and Kinki regions (Yoshii 2002, 2010).

Even though the current evidence throws doubt on the inspirations for Yōngnam jar burials, it is insufficient for developing a satisfying alternative. As a tentative model, I argue that Mumun Songguk-ri burials, southern Korean Iron Age burials, and Middle Yayoi burials should be considered as a unified cultural practice with considerable time depth that took on unique characteristics in various subregions of peripheral East Asia. I believe that these different regions informed each other throughout the Bronze and Iron Ages. The Mumun or Bronze Age origin of the practice in central western Korea can be accepted, but was likely more widespread than just the Kūm River region.⁴⁹ The custom persisted and mutated in some parts of the

⁴⁹ An assertion bolstered by the isolated discoveries of Mumun jar burials in western Yōngnam and South Chōlla Province.

peninsula and Japan even as it eventually declined in its area of origination. Lingering questions surrounding the chronological gap between the apparent decline of the practice in the Late Mumun and its reappearance in Yōngnam in the third century as well as the restriction of these burials to infants and children in southern Korea persist, however, and will require further investigation.

Tomb Type Assessment

Looking at the entire arc of tomb evolution from the end of the Mumun to the beginning of the Three Kingdoms Period, there is little to suggest successive forms represent completely new groups or even a radical departure from previous periods. Even the most dramatic change in tomb morphology—from the simple coffin tombs to the more complex chamber burials—seems better explained as a form of identity formation by increasingly strong, locally entrenched elite groups (Lee Sōngju 1997b and Kim Yongsōng 2011). The diversity of transitional forms also points to a lack of overarching regional authority or a cohesive culture driving material culture change in a structured way.

There is some evidence for stratification within and among cemeteries in the chamber-tomb period, but rather than separating the sample into ‘elites’ and ‘non-elites’ or hierarchical social categories might be premature at this stage. From the tomb evidence alone it is just as likely that differential adoption of new tomb styles, overall tomb sizes, and the variable amount of grave goods points to different tomb preparation strategies among elites and a large non-elite population that was buried in an archaeologically invisible fashion.

An understanding of tomb types also forces us to reconsider how Yōngnam cemeteries might be classified. Rather than ‘coffin tomb cemeteries’ or ‘chamber tomb cemeteries’ it is more useful to categorize sites based on variables such as duration of use and if this was

continuous, the number of different types of tombs present, the presence or absence of transitional forms and what kind they are, and whether or not newer tomb types are built over older ones.

Table 3.1: Summary of Yōngnam tomb types

Tomb type	Translation	Period
積石墓 kr. <i>chōksōk myo</i>	piled-stone tomb	Late Mumun
木棺墓 kr. <i>mokkwan myo</i>	coffin tomb	
積石木棺墓 kr. <i>chōksōk mokkwan myo</i>	piled-stone wood-coffin tomb	second to first century BC
周構木棺墓 kr. <i>chugu mokkwan myo</i>	round-ditch coffin tomb	second to first century BC
瓦質木棺墓 kr. <i>wajil mokkwan myo</i>	wajil wood-coffin tomb	first century BC to second century
木槨墓 kr. <i>mokkwakmyo</i>	chamber tomb	
方形 木槨墓 kr. <i>panghyōng mokkwak myo</i>	square wood-chamber tomb	second to third century
長方形 木槨墓 kr. <i>changbanghyōng mokkwak myo</i>	rectangular wood-chamber tomb	third to fourth century
細長方形 木槨墓 kr. <i>sejangbanghyōng mokkwak myo</i>	slender wood-chamber tomb	mid third to fourth century
主副槨式 木槨墓 kr. <i>chubu kwak sik mokkwak myo</i>	partitioned wood-chamber tomb	late third to fifth century
木棺系木槨墓 kr. <i>mokkwan kye mokkwak myo</i>	coffin tomb lineage wood-chamber tombs	fourth century
新羅/加耶式 木槨墓 kr. <i>silla/kaya sik mokkwak myo</i>	Three Kingdoms tomb	fifth to sixth century
積石木槨墓 kr. <i>chōksōk mokkwak myo</i>	piled-stone wood-chamber tomb	fifth to sixth century
竪穴式石槨 kr. <i>suhyōlsik sōkkwak</i>	stone-chamber pit tomb	fifth to sixth century
橫入式石槨 kr. <i>hōengipsik sōkkwak</i>	horizontal-entrance stone-chamber tomb	fifth to sixth century
家族的多槨式 kr. <i>kajōkchōk tagwaksik</i>	multi-person family tomb	fifth to sixth century
甕棺墓 kr. <i>onggwan myo</i>	jar burial	mid Mumun to Three Kingdoms Period

II. CEMETERY ORGANIZATION

Tomb types in isolation can give some sense of the inhabitants of the Iron Age, but answering the central question of this chapter requires investigating cemeteries as a whole—both their internal organization and their regional clustering. Since much of Korean archaeology is

oriented towards questions of chronology and the majority of sites are incomplete, research on cemetery organization has lagged behind that of individual tomb types and their origins.

Extensive regional studies to elucidate this problem have been conducted primarily by historians and even when approached by archaeologists, they have been informed in large part by frameworks established by historical documents. In the present study, mortuary data and cemetery layouts are first considered in isolation before comparing them to other archaeological features and the historical record.

Intra-site and inter-site stratification

As outlined in the previous section, individual cemeteries show increased stratification from the coffin-tomb period through the chamber and Three Kingdoms tomb periods. At most coffin tomb cemeteries, graves are relatively uniform in size with no conspicuously wealthy or object-rich graves. There is also a lack of spatial stratification; while tomb clusters can be seen at many sites, these do not reflect concentrations of wealthy, large, or otherwise distinct tombs. Graves from this early period tend to be oriented north-south, but there is still considerable variation within individual sites.

In the first and second century AD, researchers see overt ranking within burial grounds (Lee Sŏngju 1993, Lee Hŭijun 2000a, Lee Chaehyŏn 2003b). Lee Sŏngju points toward distinctions in size, wealth, and construction technique among tombs in Ulsan (Lee Sŏngju 1997b) and sites like Sara-ri in Kyŏngju, Pokch'ŏn-dong in Pusan, and Taesŏng-dong in Kimhae all contain a few large tombs with many iron objects that contrast with the majority of other graves.

In the chamber tomb period from the second to fourth century AD stratification of tombs within cemeteries is even more apparent in the size of graves and their furnishings with an elite

‘type’ readily discernable at sites like Tökch’ön-ni, Taesöng-dong, Chungsan-ni, and Yangdong-ni. Cemetery layouts with graves are oriented east-west with no obvious clusters within sites. As previously discussed, however, what constitutes an elite grave or normative burial ritual is highly variable from site to site, and even so-called non-elite graves contain larger amounts of grave goods and more energy is expended on grave construction than the earlier period.

The appearance of uniformly different ritual treatments as time goes on supports the idea of internal ranking emerging within cemeteries of the region, but the comparison of concentrations of objects at different sites also shows that there are broader distinctions of wealth to be made. A few first century BC coffin tomb cemeteries—Taho-ri, Togye-dong, and Yangdong-ni—contain graves that are conspicuously more elaborate than anything seen at nearby contemporary sites and they are furnished with hard-to-procure Chinese objects. In the chamber tomb period, the sites of Chungsan-ni and Hadae in Ulsan, Pokch’ön-dong in Pusan, and Taesöng-dong in Kimhae also have far greater concentrations of Chinese objects, iron weaponry, bronze decoration, and precious stone adornment than nearby cemeteries.

It is likely that these differences reflect the fact that some burying groups were comparatively more powerful or well-placed to benefit from trade routes or natural resources. Several researchers have taken this a step further to argue that wealth differences among cemeteries are evidence of polity formation and regional ranking of the cemetery groups within these polities. Ch’öe Chong’gyu (1995) sees evidence for cemetery ranking even as far back as the Late Mumun and devises the following three-tier pyramidal hierarchy for several regions: At the top are the few cemeteries belonging to powerful groups and containing only elite graves (such as Taho-ri), below this are the comparatively more abundant cemeteries containing mostly

‘regular group’ graves⁵⁰ with a few powerful individual within them (Choyang-dong and Yangdong-ni), and at the bottom are the remaining cemeteries that seem to contain no powerful individuals (Chöp’o-ri and Nop’o-dong) (Ch’öe Chong’gyu 1995:106-108). According to Ch’öe, stratification intensifies in the second century, and these existing three-tiered hierarchies were folded into more complex regional polity configurations. By the fourth century, the elite tombs of the central Kyöngju region formed the apex of a five-tiered cemetery hierarchy that comprised all of Yöngnam (Ch’öe Chong’gyu 1995:117).

Ch’öe’s model is difficult to verify, as it presupposes the existence of other elite cemeteries comparable to Taho-ri and a large number of regular group cemeteries and elite tombs in regions where such finds have not yet come to light. More conservative models that focus on existing data such as Lee Söngju’s 1993 study do not see clear evidence of cemetery hierarchies in the coffin tomb period. Some cemeteries appear to have belonged to wealthier groups (such as Taho-ri and the coffin tombs at Taesöng-dong), but these did not extend their influence much beyond a five kilometer radius. In contrast, the third-century appearance of wealthy elite tombs in present day Kyöngju city, Kujöng-dong, Chungsan-ni, Hadae, Poch’ön-dong, and Taesöng-dong leads Lee Söngju to conclude that the regional polities had begun to form within Yöngnam. Application of Renfrew’s XTENT and Thiessen polygon modeling also suggests to Lee that there were five polities centered on Kyöngju, Ulsan, Pusan, Kimhae, and Haman from the third to fourth centuries (Lee Söngju 1993).

Spatial arrangement and cemetery types

Regardless of the particular analytical lenses through which cemetery organization has been interpreted, the studies introduced here demonstrate quite conclusively that there was

⁵⁰一般集團墓, presumably non-elite graves containing only a few burial goods and more abundant than wealthy tombs.

pronounced ritual differentiation at the intra-site and inter-site levels throughout the Iron Age. A distinction can be made in wealth (defined by the presence of Chinese prestige goods and large amounts of iron and bronze personal adornment) even in the coffin tomb period. The small number of significantly more wealthy cemeteries, such as Taho-ri and Sara-ri, is not enough to establish a regional hierarchy of mortuary sites before the second century AD. There is also stratification of wealth *within* coffin-tomb cemeteries themselves even in those that are not particularly wealthy overall. As to chamber-tomb cemeteries, we can be more confident in isolating several wealthy or elite sites within each subregion of Yŏngnam as well as other, more expansive grave clusters with smaller numbers of metal and ceramic objects.

Lee Sŏngju also points to significant differences in the internal organization of cemeteries after the third century. Rather than similarly sized coffin tombs, small, medium, and large tombs became visible in the third and fourth centuries. At Hadae, late third century large tombs were placed perpendicular to the slope the cemetery was built on and are found surrounded by small and medium tombs aligned with the contours of the topography. Similar patterns appear at Taesŏng-dong and Pokch'ŏn-dong (both in Pusan). In general, after the third century, large tombs at wealthy cemeteries were built on or near the summit of low hills that were somewhat segregated from smaller burials.

At cemeteries with tombs containing fewer grave goods, such as Nop'o-dong (in northern Pusan and within 10km of Pokch'ŏn-dong) and Chŏp'o-ri in the Hangang River basin (not to be confused with the second century BC site of Ch'op'o-ri in Haman), only medium and small tombs are found and there is no obvious spatial segregation of wealthy graves. For Lee Sŏngju, this suggests that more prominent elite groups had begun to consolidate authority at a regional level and relatively underdeveloped groups maintained more modest burial grounds in the

outskirts of these developing centers. He suggests that by the early fourth century two classes of cemetery had developed: central elite cemeteries with a three-tiered hierarchy (Taho-ri, Pokch'ŏn-dong, and Taesŏng-dong) and smaller two-tiered cemeteries belonging to less influential or lower-ranking groups (Nop'o-dong and Chŏp'o-ri).

Lee Sŏngju's later work revises the appearance of regional polities to the late fourth century and extends his analysis of grave positioning into the Three Kingdoms Period where he sees further elite stratification and complex tomb arrangements. In particular, he isolates cyclical generational patterns of elite burials oriented around a single paramount tomb at the major Kaya sites of Chisan-dong and Pokch'ŏn-dong (Lee Sŏngju 2006). Since his studies are primarily concerned with charting the development of the Kaya polities and the tomb patterning of the Three Kingdoms Period, Lee does not delve further into the distribution of tombs at Early Iron Age and Proto-Three Kingdoms sites.

Later excavations and studies have not contradicted Lee Sŏngju's argument that stratification and ranking is not evident in the tomb distribution or topographical positioning at these earlier sites but there are additional aspects to cemetery arrangement worth drawing attention to. At Sindae-ri and P'aldal-dong (two coffin tomb cemeteries where the spatial distribution of graves could be traced), tombs were not arranged on the basis of wealth or size, but later tombs were placed carefully in relation to previous interments. At Sindae-ri this took the form of four tomb clusters that grew and eventually intermingled over the 150 year lifespan of the site. At P'aldal-dong, rows of contemporary tombs constructed along the same axis and elevation appear at all stages of the use of the cemetery. The arrangements give the impression of an organic development in which the primary criterion for selecting a burial place was its proximity to earlier tombs.

Regional site hierarchies and spatial patterning within cemeteries is further complicated by the presence of expansive mortuary complexes in northern Yŏngnam containing hundreds of coffin and chamber graves that were in active use for several hundred years: Imdang in Kyŏngsan, Hwangsŏng-dong in Kyŏngju, and Oksŏng-ni in P'ohang. All three sites contain coffin tombs with little stratification and although distinctions of wealth are more prominent among the chamber tombs at each cemetery, these do not compare to the prominent graves in the cemeteries Lee Sŏngju isolates as related to polity centers. Two of the sites are associated with other features that suggest some connection to a political center. The Imdang graves are adjacent to a Proto-Three Kingdoms fortress and in the Three Kingdoms Period the site came to contain Silla-style elite mounded tombs. Hwangsŏng-dong was a major iron production center and very close to the elite tombs in central Kyŏngju.

These sites have been variously interpreted as regional central burial grounds for a number of villages (Chang Yongsŏk 2007) or as non-elite cemeteries that survived at the peripheries of emerging political centers (Lee Hŭijun 2000a, 2011a). The latter idea is compatible with Lee Sŏngju's assertion that cemeteries themselves can be characterized as low or high-ranking. Grave clustering is difficult to determine as each site was in use for such a long period that many coffin graves have been lost entirely, or the practical demands of space prevented organic tomb groupings from forming. At Area A of Hwangsŏng-dong, early tombs seem to follow the pattern of coffin-tomb sites like Taho-ri, where graves are evenly spaced and uncluttered. In contrast, around the second century AD, when chamber tombs became common, graves were constructed in much larger numbers and regular tomb spacing was abandoned. Where possible, efforts seem to have been made to arrange tombs in rows similar to those seen at P'aldal-dong.

Grave arrangements at sites containing only chamber tombs are similarly difficult to interpret. The only relatively complete cemetery, Tökch'ön-ni in southern Kyōngju, is on relatively flat land and its short duration (100 years at most) makes it difficult to isolate many substages in its period of use. The tombs at this cemetery are also remarkably consistent in their sizes, orientations (east-west), and in their arrangements of grave goods. There are also many instances of two or three tombs that were placed together tightly, possibly an indicator of multiple graves within the same burial mound. As at Sindae-ri and P'al-dal-dong, tombs were placed in relation to earlier interments. Unlike these earlier sites, however, there is no obvious clustering and graves are not placed in such a way as to disrupt the general order and orientation of the site.

Tökch'ön-ni does contain 14 coffin tombs dating from the first century BC to first century AD (more are thought to have been present but have been lost due to modern development); but these are segregated in the southern portion of the site and away from the majority of chamber tombs. Overall, the layout of Tökch'ön-ni gives the impression of having had more overt planning and internal consistency than coffin tomb groups or the multi-generational mortuary complexes of Hwangsōng-dong and Imdang.

Other post-second century sites containing primarily chamber tombs, such as Sara-ri, Hadae, and Chungsan-ni, exhibit the more complex grave layouts that foreshadow the Three Kingdoms elite burial areas of the Silla and Kaya polities (clusters of small graves around single large tombs, the placement of tombs close to the summit of low hills, and wealthy graves oriented differently from hill contours or other nearby tombs). Tomb distribution and artifact placement was more consistent at these later sites, but cemeteries themselves became increasingly idiosyncratic. At Tökch'ön-ri spear blades are the primary component of elite

burials, but in nearby contemporaneous sites such as Choyang-dong, Sara-ri, and Oksöng-ri these objects are almost entirely absent and the logic of placement of ceramic vessels and iron tools is different. At sites further south, such as Yangdong-ni in present day Kimhae, even greater diversity is seen not just in the way artifacts were placed in tombs, but in the distribution of graves throughout the site, which is much more haphazard than during earlier periods. Newer graves also frequently cut into older ones.

Considering these patterns, in addition to the coffin-tomb, chamber-tomb, Three Kingdoms-tomb, and jar-burial tomb typology developed by Korean scholars, a tentative cemetery typology is proposed here and summarized in Table 2. Coffin tomb sites where the arrangement of graves was organic are designated as *grave fields*, a term used predominantly for Bronze Age sites in northern Europe that are too small and unstructured to be considered true cemeteries. These give way to the more planned and complex *cemeteries* of the chamber tomb period that are in turn supplanted by the Three Kingdoms *necropolis*. Elaborate coffin-tomb sites such as Taho-ri and the early graves at Sara-ri might also be classified as cemeteries rather than grave fields, but are too incomplete to make a firm distinction either way. Extensive long-duration sites like Hwangsöng-dong and Imdang are referred to as *mortuary complexes*. The presence of these complexes introduces the possibility that other comparably massive cemeteries existed throughout Yöngnam that could have been the primary burial ground of one community, a designated area utilized by several different groups in one region, or some other social configuration. This framework is intended to complement Lee Söngju's cemetery hierarchy and Lee Hŭijun's integrated historical framework (discussed more fully below) in that these designations do not make a judgment as to the social position of those interred in particular cemeteries or claim any kind of social organization at the regional level. Similar to the coffin-

tomb, chamber-tomb, and Three Kingdoms-tomb typology, these cemetery types exist in a continuum rather than discrete categories and the terms are deployed heuristically. Many examples of transitional cemeteries and exceptions to the general types could also be pointed out. How these cemetery types relate to living social configurations and to distinct cultural or ethnic groups is explored in the subsequent two sections.

Table 3.2: Types of mortuary sites in Iron Age Yōngnam

Cemetery type	Tomb types	Distinguishing features	Examples
grave field	coffin tombs	unplanned small grave clusters, no overall organization or planning, tombs placed based on their proximity to earlier tombs	P'aldal-dong, Sindae-ri, Nŭk-do
cemetery	coffin and chamber tombs	consistent orientation and placement of tombs, elevation and earlier graves important when placing new ones, 100-200 year duration	Taho-ri, Tōkch'ōn-ni, Sara-ri, Taesōng-dong, Chungsan-ni
necropolis	Three Kingdoms tombs	highly visible elite mounded tombs, complex spatial arrangement of tombs	Chisan-dong, Pokch'ōn-dong, Taenŭngwōn
mortuary complex	coffin and chamber tombs	long-duration (200+ years), densely clustered, often in close proximity to habitation, production, or other sites	Imdang, Hwangśōng-dong, Yangdong-ni

III. CEMETERIES AND THE HISTORICAL RECORD

Kinship and ethnicity

The textual predisposition of archaeological scholarship on the Iron Age has led many to approach cemetery organization from the position of the familial or ethnic distinctions mentioned in the *Sanguozhi* and *Hou Hanshu*. This is seen most prominently in the work of Sin Kyōngch'ōl (1992, 2000a, 2000b) who argues that clusters of overlapping chamber tombs in Kyōngnam sites,

such as Taesŏng-dong and Pokch'ŏn-dong, correspond to invading migrants from the Puyŏ culture of present day Jilin province in northeast China. Lee Chaehyŏn also sees cemeteries as conglomerates of various ethnic groups. He isolates tomb construction as the primary marker of a tribal affiliation, in the belief that this facet of burial was more resistant to short-term change than the type or amount of objects within graves. In his view, the two major distinctions in the coffin tomb period are log coffin tombs with waist-pits (the log coffin being a pre-existing native Bronze Age type and the waist-pit suggesting an ethnic or racial connection to southern China⁵¹) and panel-coffin graves (a newer coffin type originating in the central plains and northeast China). The presence of both types in single regions and in some cases single cemeteries point to the diversity of tribes and incoming Chinese people related to the commanderies (Lee Chaehyŏn 1995, 2003b:12, 2009).

Lee Hŭijun's extension of this argument applies these ethnic markers to the layout of the first century BC to second century AD cemetery of P'al-dal-dong in northern Taegu (Lee Hŭijun 2000b:101-103). Lee starts with a similar division between log and panel coffin but also draws a distinction between piled-stone tomb chambers (dating from the late Bronze Age) and the earthen tomb pits characteristic of the majority of coffin tombs in Yŏngnam. In the generally accepted view (KAS 2007), log coffins and piled-stone chambers are considered the typical tomb type of the pre-existing native population of the Late Bronze Age and the panel coffin and

⁵¹ Lee Chaehyŏn acknowledges that the waist-pit derives ultimately from the Shang and could indicate contact with Central Plains China. Despite this, he argues that, based on the distribution of tombs with waist-pits from the Shang through Warring States periods, this burial tradition declined in Zhou dynasty tombs and in the Warring States period was a grave feature mostly confined to southern China (Lee Chaehyŏn 1995:15-16). Elsewhere (Lee Chaehyŏn 2009) Lee has argued that groups of the Late Mumun and Early Iron Age slim-bronze dagger tradition centered on western Korea during the fourth century BC were engaged in intensive maritime trade with southern China in order to procure tin for the manufacture of bronze ritual objects. Therefore, it is important to this argument that groups on the Korean peninsula received the waist-pit tradition through southern Chinese Warring States tombs because it is a further indicator of a pre-existing trading network with this region. Waist-pits are less common in Zhou tombs, but Falkenhausen (2007:192) characterizes the tradition as still fairly wide-spread and common in this period. There is simply not enough data to prove or disprove Lee's assertion of a southern Chinese route of transmission for the waist-pit and for now they can be taken only as a general indicator of contact with China and the selective adoption of Chinese mortuary practices.

earthen chamber associated with an immigrating northern Chinese group pushed south by the establishment of the Hàn commanderies. In contrast, at P'aldal-dong log and panel coffins are both found in piled-stone and earthen chambers and are distributed evenly throughout the cemetery. Lee also points to other sites with similar coffin and chamber distributions.

At P'aldal-dong the panel coffin persisted throughout the duration of the site, from the first century BC to the second century AD. In contrast, the log coffin only lasted until the end of the first century BC. Log-coffin tombs are the wealthiest and most centrally located tombs in the initial phase of the cemetery but it is panel-coffin tombs of the piled-stone and earthen chamber type that are the wealthiest and most prominently positioned tombs during the second phase of the cemetery.

To Lee Hŭijun, the presence of both log and panel coffins in piled-stone tombs at the early phase of Paldaldong represents a mixing of native and immigrant populations. In addition, rather than an abrupt influx, the mixing of log coffins in earthen chambers and panel coffins in piled-stone chambers represent the gradual naturalization of the incoming group. The native group at the site held more power in the first phase, but after the first century BC, the ethnic distinction between native and immigrant disappeared along with the earlier construction methods.

This model of ethnic distinctions in the mortuary record, as developed by successive authors, offers a thoughtful integration of archaeological and historical sources. Nevertheless, the guiding principle underlying all these studies—that waves of incoming settlers left clear markers in the archaeological record that are distinct from preexisting groups—is difficult to accept. There are significant problems with any reading of ethnicity into the archaeological record (Shennan 1989, Rice 1998). Valid ethnic attributions in historical documents do not

necessarily correspond to the distribution of particular forms of material culture. Even allowing the assumption that panel coffins were the result of northern Chinese influence, the move towards panel coffins at P'aldal-dong and other sites could just as easily represent practical concerns in response to deforestation or broader ecological shifts (Yi and Saito 2006) that would have made log coffins economically unfeasible as a primary burial method. Lee Hŭijun himself is also aware of the limitations of textually based archaeological interpretation. He is careful to present his argument as a mere hypothesis: *if* textual descriptions of the sociopolitical makeup of the peninsula are correct, then tomb construction could be a *possible* group marker (Lee Hŭijun 2000b:98, 116).

The appearance of different tomb styles in Yŏngnam throughout the Early Iron Age and the Proto-Three Kingdoms Period is almost certainly attributable, at least to some degree, to immigrant groups or cultural contact with other areas, but untangling these cultural distinctions in the material record does not seem possible with the current data.

The historical model

The assumption discussed above—that migration and conquest were more or less directly responsible for social and political development on the southern peninsula during the period under discussion—is an interpretation derived from historical sources. As detailed in Chapter 2, a model of gradual state formation assembled from Chinese historical records serves as the scaffolding for the majority of archaeological studies of the Iron Age. This model sees the emergence of Paekche, Silla, and Kaya as the product of a unilineal evolution from small villages to hierarchical village clusters and from village clusters to regional political confederacies. Much of the historical and archaeological scholarship into the period is

concerned with how to describe properly the polity form mentioned in these textual sources, the statelet or *soguk* (小國).

In this model, prior to the establishment of the Hàn commanderies, society in the southern portion of the peninsula was structured around small village confederacies or *ŭmnak* with little to no regional scope. Beginning in the first century BC, *soguk* appeared—small polities made up of semi-autonomous *ŭmnak* nominally ruled from a central village confederation known as a *kugŭp*. *Soguk* confederacies encompassing larger parts of Yŏngnam (Kyŏngju, Kimhae, Haman, and Koryŏng) began to coalesce in the third century. Over time, political authority in these confederacies centralized and Kyŏngju and Kimhae became, respectively, the centers of Silla and Kŭmgwan Kaya kingdoms during the fourth or fifth centuries.

Given the central role of the village and *ŭmnak* as the basic units of social organization, historians typically equate cemeteries with these communities and are interested in them primarily to pinpoint the locations of regional *soguk* based on grave-good wealth (Lee Hyŏnhye 2009, Lee Chaehyŏn 2009). The model itself does not necessarily disagree with the archaeological picture—at the very least, political centralization is more or less confirmed through the cemetery hierarchies isolated by Lee Sŏngju and Ch’oe Chong’gyu— but fixation on these structures has led to specious interpretations of the archaeological record. One example of such an interpretation is Lee Hyŏnhye’s designation of six cemeteries in the Kyŏngju plain as the six villages that make up the primary *soguk* of the Chinhan confederation in the second century (Lee Hyŏnhye 2009). In addition to ignoring the significant chronological differences between these cemeteries, Lee Hyŏnhye forces existing sites into a simple core/periphery network that does not seem to have any basis in either textual or archaeological evidence.

Population estimates for the region derived from textual sources are also hard to reconcile with cemetery data. The sources dealing with Korea in this period do not detail any specific numbers of households, but the Pyŏnhan and Chinhan territories (the supposed inhabitants of Yŏngnam) are recorded as having contained twelve polities or *guk*, and Mahan is described as consisting of more than 50 (Byington 2009). From this, Lee Hyŏnhye (1984) was the first to estimate polity size in the first century AD at roughly 2,000 to 3,000 households. She further speculates that the individual *ŭmnak* or village confederacies contained 500 households each. Extrapolating from Bronze Age village sizes documented in the *Hanshu*, Kwŏn Oyŏng (1995:26-37) further suggests that a large polity of Chin and Pyŏnhan would have contained 4,000 to 5,000 households. If each of these households contained five people at any given time, this would add up to a population of 20,000 to 30,000 per *soguk*. Kwŏn estimates the population of the *ŭmnak* community of Saro, the paramount *soguk* of the Kyŏngju region, at 3,300 to 5,000 inhabitants. According to him, smaller polities would have contained 2,200 to 3,300 people.

Even allowing for the incompleteness of the archaeological record, these estimates are far larger than what is suggested by any single cemetery or cluster of cemeteries known archaeologically today.⁵² If the *Sanguozhi*-derived demography is anywhere close to accurate, then no cemetery discovered so far can claim to be representative of either an entire *ŭmnak* or *soguk* population in any period. The notion of the persistence of villages, and the idea that confederacies were gradually formed out of village-size units, is also at odds with the average cemetery lifespan of only 100 to 200 years (see Appendix I, Table 1). It would follow that most cemeteries, whether they represent individual villages or *ŭmnak*, only offer a snapshot of the demography compared to the duration of the actual community.

⁵² See burying group size estimates in section 3.

Despite such discrepancies, completely disregarding the historical model when interpreting cemeteries seems equally unwise. A fruitful alternative approach has been Lee Hŭijun's investigations into social structure in the Taegu/Kyōngsan and Kyōngju regions (2000a, 2000b, 2004b, 2011a). Lee begins with the assumption that the historical model is basically accurate, but he recognizes that equating cemeteries with *ŭmnak* is problematic. Individual cemeteries containing between 100 and 200 graves are unlikely to represent *ŭmnak* communities of 500 households; at the same time, they seem larger than single family or small hamlet communities. Lee suggests that *ŭmnak* were politically linked large villages (村落, kr. *ch'ollak*) that were themselves composed of a number of small villages or hamlets (小村 kr. *soch'on*). Rather than each cemetery representing an *ŭmnak*, Lee proposes that the cemeteries represent individual component *ch'ollak*—communal burial grounds used by individual hamlets (村落群 kr. *ch'ollakgun*).

Lee Hŭijun's framework offers a convincing synthesis of textual and material data and his methodology has produced fruitful interpretations of burial grounds in the Taegu and Kyōngju regions that will be explored in section 4. Nevertheless, given that the only historical sources we have are second-hand accounts of the peninsula filtered through a third and fifth-century Chinese imperial lens, it is debatable whether it is even necessary to bring the archaeological and textual evidence into agreement in this manner. For this reason, I shall keep Lee's integrated historical model in mind as I proceed with a more thorough, textually unencumbered examination of the archaeological record. This will lead me to a reassessment of Lee's findings in the subsequent section as well as a determination of its utility in explaining individual cemeteries in Chapter 5.

IV. THE IRON AGE POPULATION

Demographic considerations

The Korean Iron Age mortuary sample is quite large (over 3,000 tombs in 106 sites) and recovery methods and publication formats have been remarkably consistent for the past 30 years. These are enviable characteristics for a demographic study, but the lack of skeletal remains at most sites and the systematic bias introduced by the salvage nature of excavation prevents us from understanding even very basic facts about the Iron Age population. Given the nature of the material, a thorough demographic and paleopathologic study is impossible. Hence, the more modest goals of this section are to assess the likelihood that cemeteries are representative sample of a living population, and to speculate on the portion of society that was interred at cemeteries.

The three sites in Yōngnam that have produced relatively complete human remains in significant numbers book-end the Iron Age: Nūk-do (third to second centuries BC), Yean-ni (fifth to seventh centuries), and the mounded tombs at Imdang (sixth to seventh centuries). The skeletal remains from Nūk-do have only recently undergone substantial investigation, and the results have not yet been published. A superficial examination of the age and sex ratios suggests that Nūk-do was a communal cemetery representating the small community whose dwellings were found adjacent to it (PUM 2004). Results from a study of the mitochondrial DNA of the occupants of the Silla style mounded tombs at Imdang (Lee Chunjōng *et al.* 2008) also suggest a close genetic relationship among all individuals. Both sites lend credence to the idea that cemetery populations belonged to one community, rather than being drawn from a particular social stratum in a larger region. It does not seem likely that these cemeteries served as communal burial grounds for several groups.

Nūk-do and the post-fifth century tombs at Imdang are not representative of the layout or number of graves typically found in Iron Age cemeteries. The Three Kingdoms-period mounded

tombs at Imdang are generally thought to reflect Silla influence or hegemony over the Taegu region in the sixth century (Lee Hūijun 2007) and may in fact represent an entirely new elite class rather than a continuation from the Proto-Three Kingdoms Period. The third cemetery with human remains, Yean-ni, is most similar to Iron Age cemeteries in its overall composition. Sex and age determinations from skeletons show high numbers of females and almost no infants and children (PUM 1985a, 1992), making it doubtful that the cemetery population accurately reflects the demography of a living community.

In the absence of human remains in the Iron Age proper, jar burials offer the best chance of determining the ages of those buried at southern peninsular sites. Where any skeletal material has been recovered in jar burials, it confirms the hypothesis that in Yōngnam they were reserved for infants and young children. This allows a gross distinction to be made between infant and child interments on the one hand, and young adult, adult, and senile graves on the other.⁵³ The high infant and child mortality observed in comprehensive demographic surveys of pre-industrial populations produces roughly equal numbers of adult and child deaths (Waldron 1994, Morris 1987:58). For our Yōngnam cemeteries to be demographically valid, a similar ratio between jar burials and coffin or chamber tombs is expected.

Jar burials in the region are exclusively child interments, but the reverse is not always the case. A small number of young children (five to seven years old) were found buried in pit graves at Nūk-do and in the second and third centuries AD more children are found in chamber tombs even as the overall percentage of jar burials in cemeteries increases (Lee Chunsōn 2010:77). It is also likely that some of the observed changes in the percentage of jar burials in mortuary sites are purely cultural rather than demographic. As described in section 1 of this chapter, initially

⁵³ Lee Chunsōn (2011:98) suggests that the size of the pots typically used in jar burials also gives some clue as to their overall age. This will not be pursued here due to the imprecision of such age estimates as well as chronological and regional fluctuations in vessel size that would further complicate age determination from vessel morphology.

jar burials do not even appear in mortuary contexts but are instead found in small clusters near habitation areas. Only from the latter half of the first century BC until about 150 AD do we see the ‘typical’ distribution of jar burials interspersed with coffin and chamber tombs in cemeteries. In the third century, jar burials are found in cemetery contexts, but they also occur in isolated clusters unassociated with any other tombs.

After omitting obviously incomplete cemeteries and sites prior to the first century BC, the numbers of jar burials are consistently far lower than one would expect for a living pre-industrial population. In 30 of the 35 sites listed in Table 3.3, jar burials account for less than 50% of recovered tombs, a large discrepancy even assuming that the actual ratio of child to adult graves is larger than what can be observed. These patterns are not due to recovery methods, as jar burials would actually be better preserved than the timbers of coffin or chamber tombs. Where test trenching to determine the overall extent of a cemetery has been possible (such as Sindae-ri, and Choyang-dong) no separate clusters of jar burials apart from adults within the confines of a cemetery has been found and it is unlikely that excavators have missed large sections of these cemeteries containing only sub-adult burials.

Table 3.3: Adult and child graves in selected Yŏngnam cemeteries

Region	Site	Adult	Child	Total	% Child	Region	Site	Adult	Child	Total	% Child
Kyŏngju	Sara-ri	33	0	33	0%	Ulsan	Sinhwa-ri	11	3	14	21%
Taegu	Wŏlsŏng-dong	19	0	19	0%	Taegu	Sinsŏ-dong	60	18	78	23%
Milyang	Kyodong	22	0	22	0%	Milyang	chedae-ri	10	3	13	23%
Ulsan	Hasamjŏng	115	4	119	3%	Kyŏngju	Choyang-dong	41	15	56	27%
Kyŏngju	Kuŏ-ri	24	1	25	4%	Kyŏngsan	Sindae-ri	115	47	162	29%
P'ohang	Oksŏng-ni	274	12	287	4%	Taegu	Hakjŏng-dong	16	7	23	30%
Haman	Tohang-ni	110	6	116	5%	Kyŏngju	T'ŏkch'ŏn-ni	138	66	204	32%
Kimhae	Kuji-ro	53	4	57	7%	Kŏje	Taekŭm-ni	26	13	39	33%
P'ohang	Sŏnggong-ni	12	1	13	8%	Kyŏngju	Hwangsŏng-dong	165	85	250	34%
Ulsan	Chungsan-dong	34	3	37	8%	Kijang	Panggong-ni	11	10	27	37%
Kimhae	Taesŏng-dong	56	6	62	10%	Ulsan	Changp'yŏng-dong	10	7	17	41%
Ulsan	Taun-dong	132	15	147	10%	Pusan	Nop'o-dong	46	6	13	46%
Kyŏngsan	Imdang	164	22	186	12%	Kyŏngsan	Okgok-dong	6	6	12	50%
Ulsan	Taeon-ni	65	9	74	12%	Kimhae	T'ŏerae-ri	11	14	25	56%
Taegu	Tongnae-dong	14	2	16	13%	Taegu	P'aldal-dong	103	139	242	57%
Kyŏngju	Pukto-ri	15	3	18	17%	Ulsan	Sinhwa-Kyodong	8	23	31	74%
Milyang	Chŏnsap'o-ri	14	3	17	18%	Ch'angwŏn	Samdong-dong	0	34	34	100%
Ulsan	Changhyŏn-dong	58	15	73	21%						

At the majority of sites, infant and child graves were systematically excluded from inclusion in cemeteries. This makes it unlikely that individual sites represent coherent communities. This is not an unusual situation in archaeology; a number of mortuary case studies worldwide have reported an under-representation of infants and children (Buikstra *et al.* 1986, Waldron 1987, Wood *et al.* 2002:150), giving us confidence that the distribution observed in Yŏngnam cemeteries is accurate. It is possible that cemeteries are accurate demographic slices of the adult population of a living community, but jar burials are inadequate for extracting this kind of information.

Cemeteries and settlements

Another approach to assess the demography of cemeteries is comparison with discovered settlements and villages. These are not as abundant or well studied as mortuary material, but 45 habitation sites dating to the Early Iron Age and Proto-Three Kingdoms period have been excavated in Yŏngnam (Kim Nayŏng 2009:26). Much of the research on habitation sites has

been concerned with morphological and function distinctions of dwellings, the isolation of regional features, and investigation into the ultimate origins of building layouts, hearths, and heating features (see YAS 2009). In the past ten years, the growing sophistication of settlement archaeology in Korea, spurred on by a few sustained village excavation projects, has led to an interest in village composition. Scholars have started to investigate how dwellings were integrated into broader human occupation zones consisting of habitation, subsistence, production, and ritual spaces.⁵⁴

The basic features of villages and dwellings and their changes over time are briefly described in the survey of Iron Age archaeology in Chapter 2. In this section I look at villages as possible supporting evidence for the demography of cemeteries and the overall shape of the Iron Age population in addition to discussing how settlement and mortuary space informed one another. The basic organizational unit of settlements is assumed to have been the household, defined after Marie Louise Stig Sørensen as a “constellation of people who live together most of the time and who, between them, share the activities needed to sustain themselves as a group” (Sørensen 2010:123). Since Yōngnam Iron Age dwellings are single-room structures measuring less than 40m² including external hearth and heating facilities (Kim Ch’angök 2011), they are assumed to be the material representations of single households. These households may have been composed of variable numbers of individuals that changed over the use period of the structure. They cannot necessarily be equated with family units.

Estimating an average household size is further complicated by the lack of data on the division of space within dwellings or activities carried out by individual households. Sørensen (2010:125) also cautions against models that correlate house size directly with the number of individuals. She points to such variables as different ways of constituting space within a

⁵⁴ See references in Kim Nayōng 2009.

household, the potential movement of people from one family unit to another, and other subsistence or production systems that may have affected family composition as well as dwelling construction.

Even bearing these concerns in mind, the small, single room structures of the Korean Iron Age would have dictated a maximum threshold for household size. In the absence of detailed information on domestic activities or close ethnographic parallels, Chamberlain's (2006:125) proposed rough model of 1 person per 5-10m² of roofed area is used to suggest a maximum of 5 individuals per household for the small-scale dwellings (20-24m²) prior to the first century AD and a household size of 5-8 individuals for the mixed small-scale and mid-size dwellings (24-39m²) from the first to fourth centuries.

Inferring village or community sizes from single households is also problematic. The number of structures per settlement and the average spacing between structures at these settlements show little consistency and most sites are fragmentary. The sprawling sites of Imdang and Hwangsŏng-dong demonstrate that in at least two cases, human occupation was scattered over a large area containing production and mortuary remains in addition to habitation zones.

At Hwangsŏng-dong, clusters of dwellings are discernible, but in the absence of well-studied mortuary ceramics, it is often impossible to determine if a group of structures were roughly contemporary or represent successive building events. At best, early and late phases can be distinguished with the early phase containing three discrete building clusters of ten dwellings each (Kim Yongsŏng 2011:661) and another single cluster for the later phase. Three additional large-scale buildings date to the later phase and are set apart from other structures. Since it is impossible to obtain a more precise chronology or to determine how many households would

have occupied each cluster at any given time, an application of Chamberlain's method would not provide any useful information.

What these dwelling clusters represent within a village is even more a matter of speculation; their significance likely varied from site to site. As discussed in Chapter 1, Kim Nayŏng (2009:36-38) suggests that village layout was strongly affected by local geographic preconditions and by the primary subsistence, economic, or social function of each site as a whole. Hwangsŏng-dong seems to have been focused on iron casting and forging, while other sites were mining settlements or organized around defense or agricultural production.

All this points to highly variable social configurations and household compositions. Settlements were either organized into smaller clusters of extended families, or consisted of several household groups engaged in similar subsistence or production activities. At Hwangsŏng-dong, these groups do not appear to have grown beyond ten households. It may be premature to characterize settlements as discrete villages. In at least two cases human occupation was dispersed over a wide area and rather than well-defined village units. Far from forming an organized and well-defined settlement, these organic clusters of households are perhaps analogous to the farmsteads proposed by Lee Hŭijun (2000a:119-120) and do not correspond directly to the *ŭmnak* described in historical texts. This tentative model of social structure at the village level gives us at least a baseline with which to compare the organizational patterns of cemeteries and determine whether they were the product of the same organizational logic.

It is difficult to find complete mortuary sites where the bias introduced by salvage archaeology can be accounted for. For the early Iron Age, the best candidate is Sindae-ri, a grave field containing 115 coffin tombs and 47 jar burials. Using pottery and iron-tool

chronologies, excavators estimate that the cemetery was in use for approximately 150 years (0 – 150 AD).⁵⁵ Although the eastern portion of the site appears to have been disturbed by a much later Chosŏn-period cemetery, the western section seems to preserve, more or less completely, a group of 112 tombs, making it one of the few cemeteries from the period where the overall distribution of graves is discernible.

Based on ceramic vessel seriations, excavators divide the site into 5 phases. When the graves from each phase are plotted on the site map, the formation of the site becomes apparent (Figure 3.3). While the earliest area of use was the north, beginning in phase two of the site, three other tombs clusters began to form and these grew and became intermingled over time. Within the overall burying group, there appear to have been several sub-groups adding to the cemetery over its entire period of use. These groups were clearly culturally and socially linked in some way (enough to bury their dead in the same area over several generations) but still segregated themselves within the burial area, at least initially.

⁵⁵ This is considered a conservative estimate and other researchers estimate a use period of up to 200 years (Lee Hŭijun pers. com. April 2012)

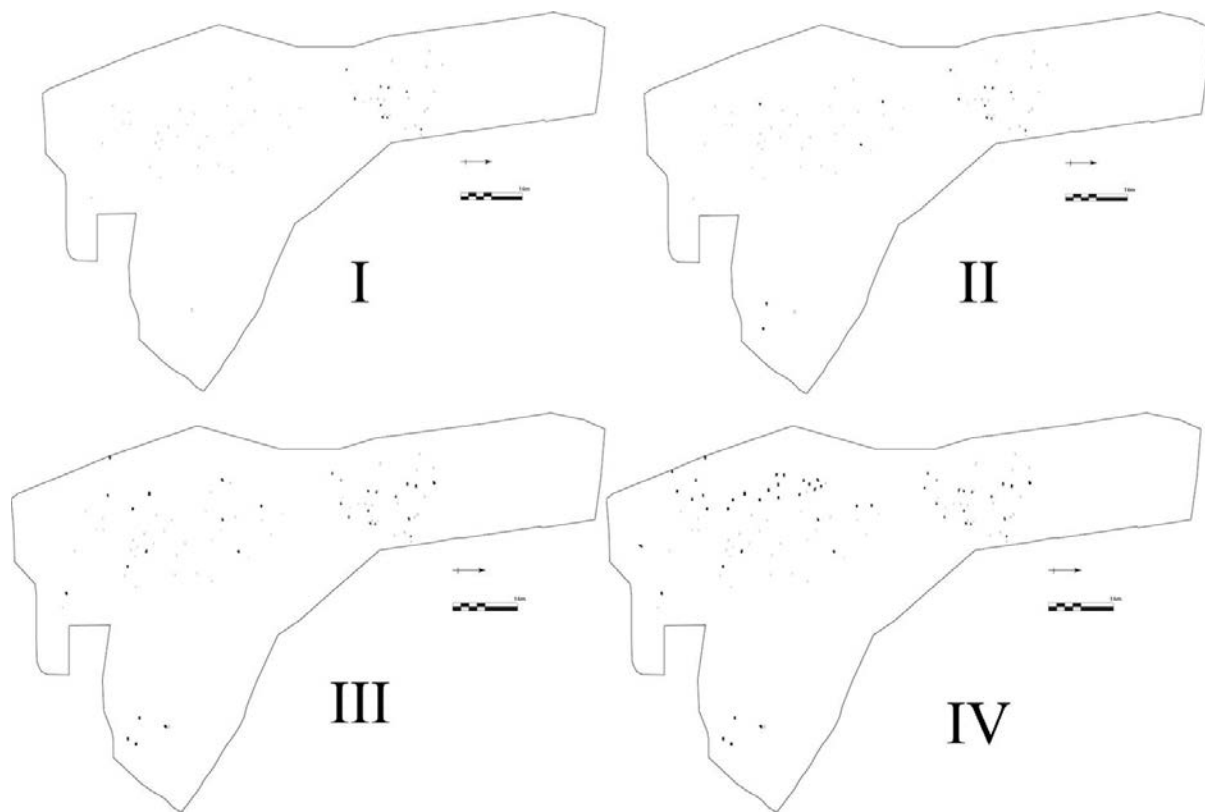


Figure 3.3: Sindae-ri site formation (black: tombs appearing in stages, gray: undatable tombs)

Estimation of the size of the burying group (the population burying an individual at any one time) allows us to assess the possibility that these clusters represent one community or kin group. Within the western portion of the site, two to three grave clusters are also apparent: the northern cluster contains 44 graves, nine of which are from the earliest period at the site and all phases within the 150-200 year use period are represented. The southern cluster contains graves identified from phases II through V and is more difficult to delineate as a coherent unit, with two possible groupings of 37 and 41 burials each. Since the north and south cluster contain graves that cannot be placed reliably into one of the five phases at the site each cluster is assumed to have been in use for the entire 150-200 year period.

One formula for estimating population of an agricultural society based on burials that has produced fruitful results for Iron Age Mediterranean populations (Morris 1987) and northeast

Bronze Age China (Falkenhausen 2006:133) assumes an average rate of 30 deaths out of 1,000 people per year in a fully demographically represented sample:

$$\text{Population} = \frac{1000}{(30 \times t)/n}$$

where t = years the cemetery was in use (in this case 150 and 200) and n denotes the number of burials.

The dearth of sub-adult graves in the Sindae-ri assemblage skews the results somewhat and probably underestimates the actual population size. The large number of undatable graves also means that finer period distinctions and population growth rates cannot be determined. On the other hand, results of the calculation for the entire tomb group and all possible sub-clusters (Table 3.4) do yield an interesting rough estimate of 25-35 individuals for the whole group, 8-12 individuals for the northern grave cluster, and between 6 and 9 individuals for each southern sub-group. The assumption that each cluster represents an extended kin group may be premature based on this analysis alone, but if we consider 6-9 individuals the absolute minimum population size for each cluster, it does not seem unrealistic that each cluster represents two or three extended family groups, or even lineage groups similar to those observed in Bronze Age China (see Falkenhausen 2002), that were integrated into a larger overall community. Such findings lessen our suspicion that another significant portion of the community (in addition to infants and children) was buried elsewhere.

Table 3.4: Burying group size estimates for Sindae-ri grave clusters

Tomb cluster	Number of graves	Burying group size (150 year use period)	Burying group size (200 year use period)
north and south	130	28.9	21.7
north	52	11.6	8.7
south	78	26.5	13
south a	37	8.2	6.2
south b	41	9.1	6.8
Total site	159	35.3	26.5

These numbers are similar to the projected 5-8 person household size derived from dwelling size, but it is still difficult to determine whether one discrete village community maintained the cemetery as a whole. When Sindae-ri is considered as part of the larger Imdang site group, the settlement data suggest it was part of a patchwork of mortuary areas woven within habitation, production, and subsistence zones rather than a planned settlement or peripheral to a so-called ‘central’ area. In this context, rather than representing a single village, the cemetery denotes a cluster of several households that existed within a larger matrix of dispersed human occupation.

The numbers proposed here for dwelling cluster size and individuals in a burying groups rest on a number of potentially problematic assumptions, but they do prevent us from rejecting outright the hypothesis that the distribution of graves at coffin tomb cemeteries was based on the social configurations of living groups. Individuals were likely buried with members of their extended family, or with members of other households that were closely linked through jointly carried-out subsistence activities. Sindae-ri may not be entirely representative of all sites from the Early Iron Age, but its grave clusters are similar to the visible coffin tomb groups at Imdang and Hwangsŏng-dong (Figure 3.4), as well as other coffin tomb grave fields like P’aldal-dong (Figure 3.5) and Taho-ri.

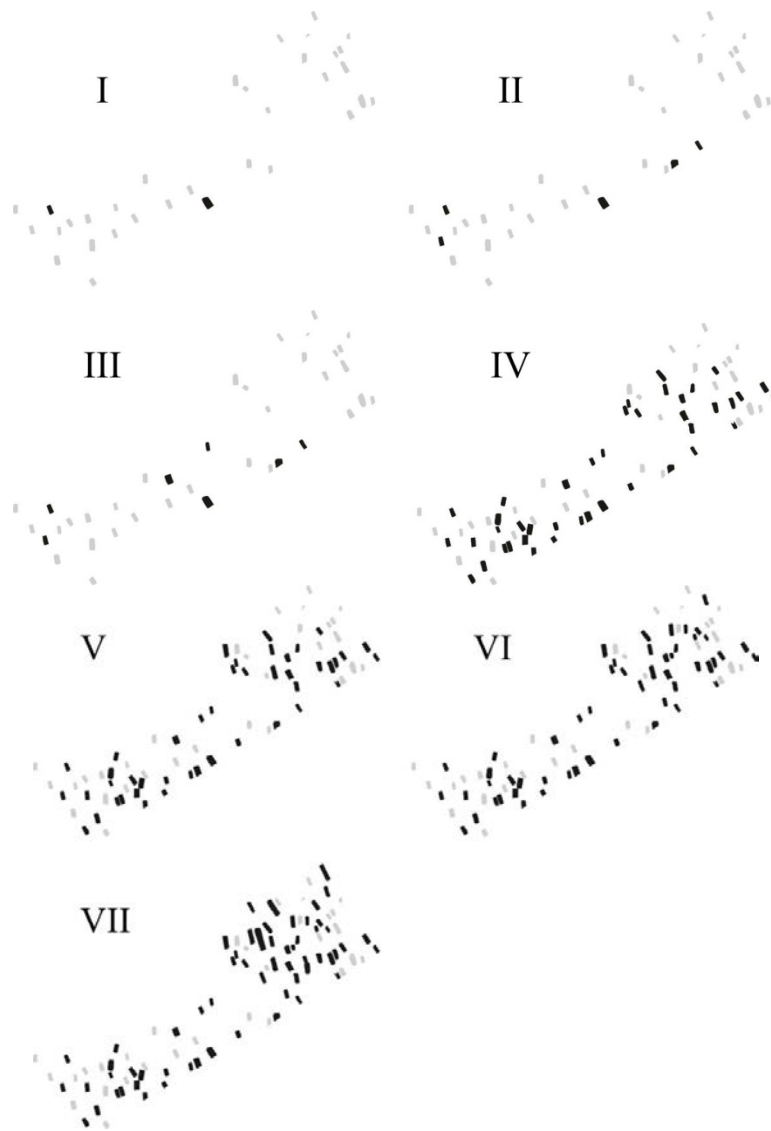


Figure 3.4: Hwangsŏng-dong (region 575) site formation

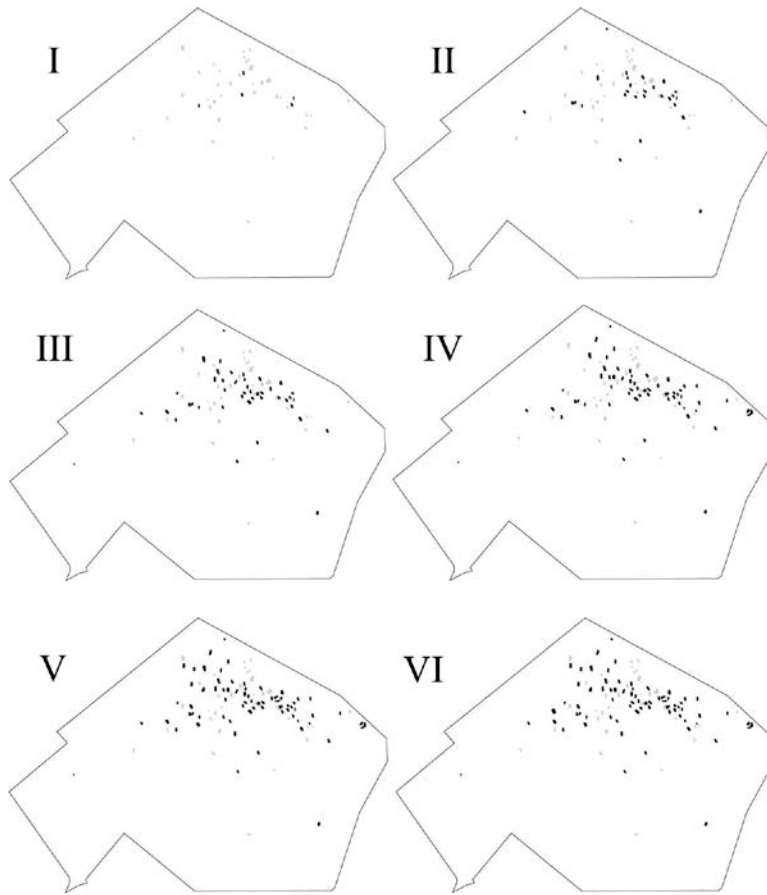


Figure 3.5: P'aldal-dong site formation

The fact that cemetery clusters became less distinct over time at Sindae-ri is somewhat at odds with the building distributions at Hwangsŏng-dong and Imdang, which retained well-defined dwelling clusters into the Proto-Three Kingdoms period. This divergence between settlement and cemetery patterns is even more pronounced in later cemeteries containing primarily chamber tombs. Rows of closely spaced tombs are evident at Hwangsŏng-dong, Tŏkch'ŏn-ni, and Imdang, but there are no discrete clusters of tombs within sites as a whole. This organizational shift is present only in mortuary sites and does not necessarily represent a dramatic change in social structure or kin relations as a whole.

V. CONCLUSIONS

The development of tomb types and cemeteries in Yōngnam was complex and there was considerable variation in this process at the regional and site levels. Some of this complexity is undoubtedly the result of the enviable position Yōngnam mortuary archaeology finds itself in: an overabundance of carefully excavated and well-documented sites and decades of careful analytical scrutiny focusing on chronology and morphological variation of tombs and grave goods. Few arguments can be offered that agree with all sites and subregions, and general trends are difficult to isolate within the minutia produced by hundreds of careful artifact and site studies.

The data are also noticeably incomplete. A huge segment of the population is still archaeologically invisible, and the current data is probably biased in favor of elites. This imbalance becomes more pronounced through time as one approaches the Three Kingdoms Period. Our understanding of the population sample we are left with is similarly limited: a lack of osteological data prevents us from reconstructing demographic patterns, overall health, or diet. It is also likely that infants and children were systematically excluded from most grave sites.

Despite these limitations, a few generalizations regarding the development of Yōngnam mortuary sites can be made. The majority of coffin-tomb sites seem to have been the product of an organic development process that mirrored living social configurations and are better described as grave fields rather than true cemeteries. These burial grounds were integrated into larger, decentralized human occupation areas and cannot be correlated directly with villages or similar discrete human settlements. In addition, while grave clusters are likely to represent burial areas for extended kin groups, these become diffuse over time and initial burial groups become hard to distinguish in cemeteries used for a long period. Ritual stratification is clearly visible not just among graves at individual sites, but also among cemeteries in the entire Yōngnam region. This ritual stratification should not be taken as evidence for the existence of regional polities and

cemetery hierarchies, however, rather they show that certain areas (or groups) gained a disproportionate amount of wealth due to their proximity to trade routes or natural resources.

Aspects of Chinese commandery tomb culture were likely introduced multiple times in different parts of Yōngnam. Chamber tombs throughout Yōngnam share a similar construction process and similar grave good assemblages, but the variety of early transitional forms in Kyōngju, Ulsan, and Taegu suggest an uneven adoption process. The rise of chamber tombs represents a significant shift in mortuary practice, moving the focus of ritual to the site of the grave itself. Burial rituals in the chamber-tomb period became more elaborate displays of wealth, and the details of placement were more consistent among tombs within a single cemetery. Clusters of tombs are less apparent at these sites, and true cemeteries appeared: designated mortuary areas with a consistent burial methodology. Despite this, when one cemetery is compared to its neighbors, the mortuary ritual and the logic of placement of graves at each site was unique.

In addition to discrete cemeteries, several grave fields connected with decentralized human occupation zones maintained the organic development process from the coffin-tomb period and became expansive and densely packed mortuary complexes. In general, chamber tomb site organization was noticeably different from settlement organization, and it is appropriate to distinguish elite and low-ranking or general burial grounds. Tomb construction methods and spatial arrangement in the chamber-tomb period anticipate the formation of distinct Three Kingdoms tomb types and the complex spatial arrangements of the elite necropolises of Silla and Kaya. By the fifth century, massive elite tombs dominated hillsides and sprawling burial sites became the central features of emerging urban centers in at least two areas: central Kyōngju and Kimhae.

Two major questions drawn from this basic trajectory are taken up in subsequent chapters: (1) What prompted the ritual changes implied by the appearance of chamber tombs and the divergence of mortuary sites from settlement organization? (2) What regional patterns in mortuary practice in Yōngnam can be isolated, and how much of the diversity of ritual can be explained by geographic preconditions or other tangible factors? Chapters 4 and 5 focus specifically on the role of certain key grave goods over time and the development of ritual practice at several sites. Chapter 6 then examines the mortuary evidence at the regional scale to determine how cohesive Yōngnam ritual practices were and how they fit in with the wider social and religious landscape.

Chapter 4 – A New Ritual Typology

This chapter reassembles existing artifact seriations into functional typologies for the major grave good types: ceramics and iron as well as the murkier category of ‘valuable’ artifacts including distant trade objects and prestige goods. In addition to creating new categories more useful for investigating ritual evolution, the changing functions of particular objects (bird-shaped pottery, Chinese bronze mirrors, and iron staff-heads) are also considered. Three general questions guide the analysis: 1) How was each object incorporated in a larger mortuary program; 2) How does burial change the value of a grave good; and 3) how did the social and production context of these objects impact their evolution and function in tombs?

I. CERAMICS

Pottery is the most ubiquitous and visible component of Iron Age burials and is well-studied in Korea. As outlined in Chapter 2, prior to the first century BC, ceramic production was small-scale and consisted of undecorated earthenware as well as thin, black-burnished vessels limited to funerary contexts. As technology from the Chinese commanderies made its way into the southern peninsula in the first century BC, *wajil* vessels developed and the new techniques were applied to the funerary then utilitarian spheres. *Wajil* morphologies and forming techniques diversified in the second and third centuries, and an increase in the scale of ceramic production led to domestic innovations in production and the eventual development of porcelain-like *toji* ware (陶質土器) in the fourth century.

Pottery terminology in Korea often implies something about its use (for example *ong* 甕 urn and *wan* 盥 bowl), but classification is primarily a distinction based on “ratios of height, diameter, orifice size, and various vessel components” (Rice 2005:217) rather than a value

judgment of function. What follows is a consideration of the Yŏngnam ceramic grave good assemblage at each stage of its development. Typological distinctions from previous research are reassembled to create a functional classification based on the role of each object in the mortuary ritual or tomb space.

Funerary vessels prior to the development of *wajil* (before 100 BC) were thin earthenware pots with a black surface of burnished lead. Vessels in this category consist of cylindrical jars with no neck similar to utilitarian clay-banded pots (described in Korean as urn-shaped), globular vessels with a long, straight neck, or shallow dishes with a long stand. Unburnished urns and shallow bowls predominantly found in habitation sites have also been found in tombs. The ceramic inventories of the early coffin tombs of this period are typically sparse with the majority of interments containing no pottery at all or two to three vessels at most. This being the case, it is difficult to assign any clear functional categories of funerary ware for this early period beyond the specialized mortuary and general-purpose utilitarian categories already defined. The surface decoration, delicate composition, and presence of dishes and jars with long stands does suggest more of a concern for display for these non-utilitarian pots.



Figure 4.1: Pottery prior to the introduction of *wajil* (KAS 2013:147)

In the first century BC, the introduction of *wajil* production methods from Lelang triggered a change in the mortuary ceramic assemblage. The earliest *wajil* vessels were a completely new morphology in southern Korea—the globular jar with a short, restricted neck—and were limited to mortuary contexts. The prototype of this seems to have been the Lelang globular jar, it makes sense that the first application of new techniques from the Chinese commanderies in the southeast was an imitation of this type (Lee Sōngju 2013). These techniques—rotation on a potter’s wheel, paddling, and closed kiln firing—were applied to pre-existing funerary vessels in the early first century AD. The result was the globular body, fan-necked jar with two horn-shaped handles that became a fixture of coffin tomb burials as well as the vaguely hourglass shaped, wide-mouth *chumōni* jar, an apparent evolution of the lead-burnished mumun urn. *Wajil* firing technology and rotation were eventually applied to non-funerary ceramics in the second century AD, giving rise to red ware (Lee Sōngju 2013) that also finds its way into some funerary assemblages in the form of shallow urns or bowls.

These three types: the short-necked jar, fan-necked jar with horn-handles, and *chumōni* jar (sometimes substituted with a red-ware urn), constituted a set in the burial assemblage until the second century AD. Over time fan-necked jars came to dominate the overall mortuary assemblage and many tombs with no vessels or one fan-necked jar have been recovered. Within these types, fan-necked jars and Lelang-style globular jars are typically found at the foot of the corpse, while the *chumōni* jar and earthenware urn were usually placed at the side of the body (Takaku 2000:71), suggesting two discrete functions within the burial ritual. Concrete determination of these functions is likely unrecoverable (chemical analyses of the contents of these vessels has not been carried out), but some idea may be gleaned from the shape of the pots themselves. Following the considerations of shape outlined by Rice (2005), given the relatively restricted access and larger capacity of the fan-necked jar and short-necked jars, they were likely intended as storage vessels, while the unrestricted access and smaller size of the *chumōni* jar was more suited to a serving or display function.

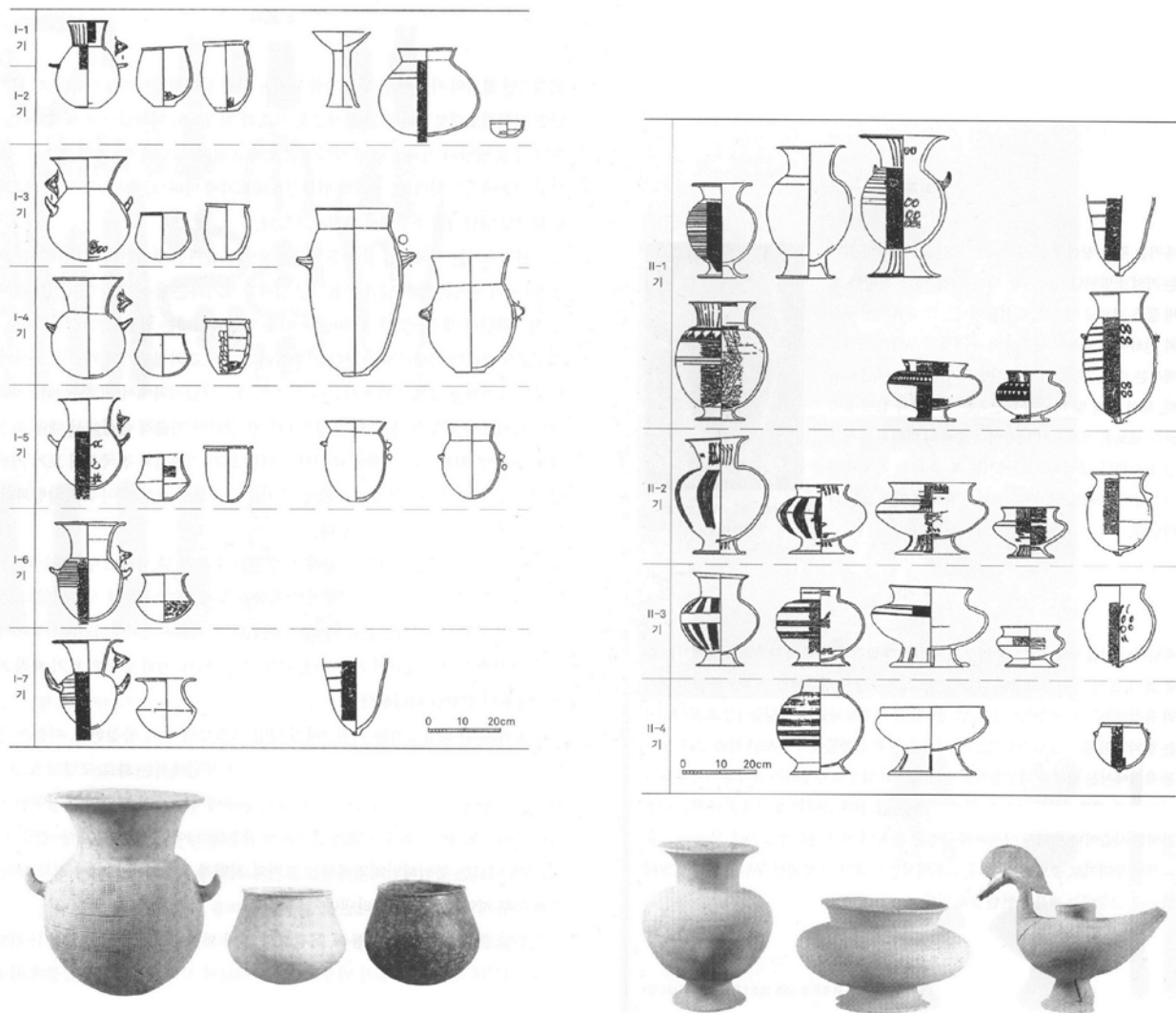


Figure 4.2: Wajil pottery vessels. Early wajil pots (left) consist of fan-necked jars, *chumöni* jars, short-necked jars, raised dishes, and small urns. Later wajil objects consist of similar morphologies but with elaborate hands, stands, and additional decoration (KAS 2013:220-221).

Ceramic production and the prominence of pottery in tombs grew rapidly, and by the mid-second century, a new *wajil* repertoire had replaced earlier vessel types. These later *wajil* pots coincided with the appearance of chamber tombs and are found primarily in mortuary contexts. In Kyöngju and neighboring regions, the distinctive fan-necked and *chumöni* jars disappeared, to be replaced by an array of pots and jar types with more elaborate fanned necks and stands, shallow raised platters, raised dishes, and brazier-shaped objects consisting of a

short-necked jar attached to a platter with a stand (爐形土器 kr. *nohyōngt'ogi*). As pointed out by Lee Sōngju (2013:220), the production of later *wajil* forms necessitated hand-building and other time consuming methods and points to the emergence of a prestige economy in northern Yōngnam and not simply better workshop organization and greater expertise in production.

Improved efficiency in production can be seen in the continued manufacture of large quantities of simple short-necked jars throughout Yōngnam. In the Kimhae area, later *wajil* pots are not as common as large quantities of these short-necked jars, and the demand for this vessel type is seen as the reason for the development of *tojil* (the earliest stoneware) in this area of Yōngnam (Ch'ōe Chonggyu 1994). Based on this context of production, later *wajil* ceramics can be divided into functional categories of simple storage (the large quantity of efficiently produced short-necked jars) and those related to serving or display and possibly direct markers of prestige in the Kyōngju region (pots and jars with stands, handles, and lids, raised dishes and platters, nested pots, and bird-shaped liquid vessels).

There is a further difference within elaborate later *wajil* vessels between containers that seem designed to serve, display, or even prepare food (dishes, platters, liquid pouring containers, nested jars) and decorative storage (globular jars with elaborate stands, handles, and lids and restricted mouths). These distinctions do not manifest themselves in the burial context itself however, as both types are found in pottery clusters at the foot of the corpse in chamber tombs as well as near the head or waist of a corpse. At some sites there is a spatial segregation between ceramics clustered at the foot and a smaller number of vessels offset and slightly closer to the corpse itself. The latter are often, but not exclusively, unelaborated earthenware urns or *wajil* raised dishes. There are no clear 'sets' of pots in either area similar to the fan-necked and

chumǒni jars from the early *wajil* period. Instead, non-specific numbers of serving vessels were interred in the same space as simple short-necked storage jars.

The different vessel preferences of northern Yōngnam (elaborate raised dishes and pots as well as the continued production of simple globular jars) and southern Yōngnam (primarily globular jars only) might reflect the different ritual priorities that existed in each subregion; display and novelty in the Kyōngju region and more overt expressions of conspicuous consumption in Kimhae. If these elaborate later *wajil* vessels point to a more prominent feasting or offering component to mortuary ritual in Kyōngju, it is likely that this took place prior to their placement among simple storage vessels in one section of the tomb. It is also difficult to isolate this as common practice of Kyōngju basin sites, as cemeteries themselves became more idiosyncratic in their use and display of ceramics in tombs after the second century. Some southern Yōngnam sites also contain serving and decorative later *wajil* vessels (a trend that is explored in the next chapter).

In general, from the coffin tomb to chamber tomb period there was increased elaboration and diversification in ceramic vessel production. Decorative elements also became more important and a number of vessel types developed whose primary function was serving or display. At each stage of development, the needs of elite funerary ceremonies drove ceramic production. Innovation in form and manufacture was a byproduct of this intensified elite demand. Early *wajil* vessels were an evolution of funerary ceramics from the Late Mumun but the appearance of a multitude of new types in the second century, along with the adoption of the chamber tomb, points to a more distinct break with previous traditions and a pronounced difference in ritual behavior between the Kyōngju and Kimhae regions. A rough functional

typology for three phases within the Iron Age is summarized in Table 4.1 and these vessel categories will be applied to the analysis of specific cemeteries in Chapter 5.

II. IRON

Iron was a consistent feature in burials from the second century BC well into the Three Kingdoms Period, but it is difficult to construct a general functional typology in the vein of ceramics. Pottery in the Yōngnam assemblage consists mainly of objects fabricated for the purpose of burial and offers clues to ritual function in vessel morphology, the variable effort expended in production, and position in the tomb itself. In contrast, the majority of iron objects presumably had some utility outside of burial in addition to any ceremonial role they might have had. Iron objects also show little consistency of placement from site to site and even the simplest tools are the end product of an extensive and costly production process.

Existing classifications for iron come from a number of diverse sources, including formal morphological analysis, use-wear analysis, experimental reconstruction, pre-existing typologies of iron objects found in the Japanese archipelago, and traditional Chinese terms for certain object shapes. Terminology for these objects does vary from site to site and among researchers, but in most cases this is a matter of descriptive terminology rather than a fundamental disagreement over what constitutes a different object type.

Many of the conventional types reoccur frequently in the Iron Age sample and make up the majority of iron finds in tombs: axe blades (shaped, triangular, and flat), sickle blades, spearheads, iron arrowheads, sword blades (with unadorned and ring-pommel variants), knife or dagger blades (also unadorned or with elaborate bronze and lacquer handles and scabbards), and bits and bridles. Other less common objects include bores and forked shaped objects, plows, spades, saws, scissors, fishhooks, halberds, and—after the second century—jagged staff-heads

and armor. Within these major types there was gradual variation in form and production over time (for instance, spearheads become more elongated from the first to second centuries and arrowheads become flat and wide in the same period), and the size and weight of major object types often varied from site to site. This variation is important for chronological and production studies, but the variation is not great enough to warrant introducing further complexity into the present study.

In most cases, the formal analogy implied by existing terminology is uncontroversial; swords, spears, armor, and bridles are unlikely to have functioned as anything other than what their names suggest. Objects generally categorized as tools (axes, sickles, bores, and forks) are less straightforward but I have relied on direct translations of the Korean terms for the majority of object types for the sake of consistency.

Most researchers make functional distinctions based on the presumed utilitarian purpose of iron objects. The most common is a division between weaponry (spear and sword blades), craft tools (chisels, axes, saws, scissors), and agricultural tools (sickles, spades, plows, rakes) (Lee Namgyu 1997, Song Kyehyŏn 2002, Chŏng T'aeŭn 2012). The primary limitation of this practice is the classification of many objects that could conceivably have functioned as weapon, tool, or hunting equipment (knife blades and arrowheads) or do not fit clearly into any category (jagged staff-heads, horse-riding equipment, objects of personal adornment). Flat and cast iron axes are the most difficult to classify as they seem to have functioned simultaneously as craft tools, digging objects, raw materials for the fashioning of other tools, and possibly measurable units of metal for purpose of exchange (Azuma 1995, Lee Namgyu 1997, Kim Tohŏn 2004).

This will perhaps be useful at a later time when considering artifact sets or explaining regularities of placement within a tomb, but for the purposes of a workable iron typology based

on the ritual usage of the objects in tombs, the categories of weapon, craft, and agricultural tool do not seem a particularly reliable division. Instead, I consider the major object types that reoccur in many tombs throughout the region separately. The number of objects and overall variety of object types per tomb are also good variables for exploring meaningful ritual distinctions among graves. There is also a distinction to be made between iron objects with a (seemingly) specific role in the burial (rows of axe blades and spearheads that the corpse rests on), objects worn or associated with the body (components of personal adornment, knives, and swords), and iron objects found in tomb fill, ceramic clusters, or otherwise grouped away from the body in chamber tombs (sickles, axes, swords, spears, and others). Many of the tombs at Tökch'ön-ni contain rows of spearheads, but a much smaller subset also contain long ring-pommelled swords worn at the waist. This more direct association with the body and the rarity of the items points more strongly to an object that was symbolically important to, or closely associated with, the identity of the deceased.

As outlined in Chapter 2, the context of the introduction, adoption, and development of iron production into the southern peninsula is not well known. Iron filtered into the peninsula before the establishment of the Lelang commandery, but it is unclear to what extent the far south participated in this exchange. Finds are scarce and limited to Yan and northern zone axes and bores. The concept of metal production was well established via bronze but the “idea of iron” and its production was absent. Demand does not seem to have progressed beyond the level of exotic luxury good (Taylor 1990). On the Korean peninsula as a whole, this was a period of iron trade rather than production and iron objects seem to have functioned in a similar way to bronze prestige good burials in tombs of the Later Mumun period (Lee Söngju 1997a). Some scholars contend that local forging and reshaping of these objects began in this period (Song Kyehyön

2002), and this is compatible with the idea that iron production was adopted fairly rapidly after its initial introduction and suggests that Yōngnam groups were already repurposing these objects for their own use. Recent discoveries of clay-banded pottery in tombs with iron knives in Yōngnam⁵⁶ may also push the date of iron production in Yōngnam back to the second century. At this early stage iron does not seem to have had a distinct role in burial.

The first century BC to the early first century AD saw the beginning of a nascent iron production industry in southern Korea. The scale and mode of production of this industry is difficult to estimate and analysis of iron manufacture has tended to focus on the development of metallurgic technologies rather than the social or economic context of production. As detailed in Chapter 2, forging of iron objects was fairly widespread even though only a limited number of object types were produced (axes, sickles, bores, and occasionally spears and blades). These varied in shape significantly from region to region and point toward localized monopolies of iron production (Lee Sōngju 1997a). Some previously bronze or stone tool and weapon forms were recreated in iron, and local styles not directly connected to Lelang were prevalent: the flat iron axe was an iron version of the Late Mumun groundstone axe blades (Kim Tohōn 2004), and an iron version of the bronze halberd was also produced during this period (Song Myōngjo 1998b).

Taylor (1990) hypothesizes that production was the domain of part-time specialists satisfying local demand in individual communities and perhaps also engaged in limited trade with Lelang (either by part-time artisans at set times or full-time craft producers that were only part-time iron workers). Taylor describes these producers as generalized workshops, which are analogous to Peacock's (1982) designation of household industry after van der Leeuw (1976): part-time artisans working for profit and exploiting both local and long-distance markets. The scale and sophistication of forging and casting in the period does point towards a degree of

⁵⁶ Lee Hūijun pers comm. (July 2013).

specialization, but at large sites like Hwangsöng-dong, forging and re-melting of pig iron seems to have taken place within each individual dwelling (Ch'oe Kyönggyu 2006). Mining and casting may have been the products of specialized household industry or individual workshops (as defined by Peacock 1982), but simple tools seem to have also been produced through forging and smelting of local sources at the casual or household production level. Interaction among the different production modes was also likely, with workshops perhaps supplying the relatively standardized cast and flat axes that were re-forged and re-shaped in the household at sites like Hwangsöng-dong.

In burials, iron was common even in non-elite tombs and the majority of finds are mundane tools that were interred in the tomb-chamber fill rather than near the body in the coffin. A small number of spears and elaborately decorated iron daggers have been found in coffin tombs of this period and these are invariably located in the coffin itself rather than the tomb fill. Some tombs from the sites of Imdang and Hwangsöng-dong in northern Yöngnam contain interesting arrangements of flat iron axes directly below the coffin or the body (KCHF 1998c, 2003, 2005). These objects could have functioned as tools themselves but also seem to have been evolving into production materials or templates from which plows, spades, and shaped axes could be fashioned (Kim Tohöñ 2004). In addition to providing a glimpse of a more organized and standardized production process in the Taegu-Kyöngsan and Kyöngju regions in northern Yöngnam, the placements of the objects seems to indicate a special ritual connotation for iron objects that were integral to the emerging production industry.⁵⁷

The diversification of object types and the greater abundance of iron in the latter half of the first century AD suggest an intensification of production. Tools continued to occupy the margins of the burial space and spears and arrowheads were also buried in large numbers. The

⁵⁷ The evolution of flat iron axes is explored more in depth in section 3.

three object categories isolated in the previous period—mundane (agricultural and craft tools), rare and valuable objects (weaponry and horse-riding equipment), and iron production components (flat and cast iron axes)—are apparent here as well and the latter have an even more prominent function in tomb construction. The meticulously arranged flat axe blades of Sara-ri tomb 130 are perhaps the best example of the increase in scale of iron production and its importance in burial (YICP 2001a, 2001b, Ch'ŏe Chonggyu 2007). Emerging elites were clearly involved in organized iron production of axes and disposal of this resource via burial serves as a potent indicator of the importance of iron in elite identity formation.

Iron production and its placement in tombs underwent a transition in the second century and a distinction of practice is apparent in northern and southern Yŏngnam. In southern Yŏngnam tombs in Kimhae and Pusan, rows of axe blades under the corpse are replaced by large, flat ingots. In northern Yŏngnam, weaponry is much more prominent in mortuary contexts and spears replace axes on tomb floors. At this point, it becomes possible to distinguish between weapons that seem to have served a prestige function and were associated directly with the corpse (ring-pommel swords) versus abundantly produced and relatively standardized objects arrayed around the corpse in the main burial chamber (spears and daggers). Spears especially seem to have become a commodified product that was also integral to tomb construction in the same way axes were in the first century. Swords and horse-riding equipment are relatively rare finds, and are found placed prominently on or around the body. Tools such as shaped axes, sickles, and spades continue to be found in elite and non-elite tombs though these are never prominent features of the tomb assemblage.

Taylor (1990) points to the large numbers of spears and other weaponry in tombs as a possible indicator of full-time specialists and a degree of vertical specialization (producers

engaged in only one aspect of the creation of a finished iron object) in the Yōngnam iron industry. Producers of this kind would be analogous to Peacock's (1982) individual workshops; specialized craftspeople engaged in production as a primary means of subsistence and catering to the most lucrative market rather than the practical demands of a local community. Taylor suggests that this market would have been local elites, and the re-orientation towards this group over trade with Lelang was a significant departure from the production industry of the first century AD. Crucially, however, the appearance of workshops catering to elite demand for weaponry did not prevent the continuation of household and household industry production of agricultural and craft tools, which continued to be placed in graves, albeit in much smaller numbers. Nevertheless, the focus of individual and perhaps nucleated workshops in the second century was weaponry of limited utility for agricultural and craft purposes. Either smaller individual workshops that produced utilitarian tools or ingots capable of being re-forged in the household continued to exist, or part-time production at the level of household industry emerged to supply the demand for iron tools. This latter scenario may be embodied in the post third century dwelling clusters at Hwangšōng-dong, which contain larger buildings with iron production residue interspersed among smaller houses.

Within Yōngnam as a whole, there was an increase in the volume and variety of iron in tombs from the second century BC onwards until the end of the coffin tomb period (second century AD). Iron remained important in the subsequent chamber tomb period, but the volume of objects was no greater than the iron-rich coffin tombs at elite sites like Sara-ri and Choyang-dong. There was also much less variety in the types of iron objects in tombs from the second century and later—spears and axes dominated at the expense of sickles, knives, arrowheads, and others. Iron became a more important component of the ritual display of objects in tombs in the

first and second centuries. In coffin tombs in this period, axe blades were often placed under the arms and legs of the deceased or in some cases the corpse itself rested on a bed of these axe blades. Axe arrangements were especially prominent in the coffin tombs at Imdang, Sara-ri, and Choyang-dong. This continued in the chamber-tomb period but the types of objects arranged in this way were more frequently spearheads, sword blades, and jagged staff-heads.

Scholars point to this preference for spears and swords in chamber tombs as well as the prominent placement of these objects below or around the corpse to argue that northern Yōngnam tombs take on a more martial character after the second century. This is seen as an indicator of a general increase in warfare and conflict that became more pronounced in the Three Kingdoms Period (Kang 1995b, 2000) or that the basis of elite authority was shifting from religious and ritual to control of military resources (Lee Hyōnhye 2009, Lee Hūijun 2011a, 2012). This is problematic when one considers the prominent position of bronze weaponry in many early coffin tombs. Decorated bronze daggers or swords are found in waist-pits of tombs at Imdang-dong, Taho-ri, P'aldal-dong, and Yangdong-ni and in some cases appear to have been worn by the deceased (Taho-ri Tomb 1) or placed in the hands (Imdang area CI tombs). Iron weaponry in tombs does increase over time, but so too does the volume of iron objects and ceramics in general. It does point to increased warfare obliquely, but there are more direct markers of warrior identity in the form of swords and horse riding gear that appear before the transition from axe blades to spearheads in northern Yōngnam tombs. A recent comparison of spearheads in Yōngnam and western Korea also demonstrates that the Yōngnam spear was an important trade object that was circulated widely (Kim Seбом 2011). Control of this long-distance trade network would seem at least as important a source of legitimacy as military

strength and a counterpoint to any argument that all weaponry only symbolized warfare and warriors in burials.

Instead, the concept of iron seems to have changed and become more nuanced over time, and its symbolic importance of spears and swords as markers of wealth become intertwined with their ostensible function as weapons. In the second and third centuries, iron also becomes a vehicle for the creation of prestige goods, a topic considered more fully in the following section.

III. PRESTIGE AND VALUE

One final aspect of artifact classification in need of attention before turning to the more aggregated data of cemeteries in Chapter 5 is the identification of prestige goods in tomb contexts. While the previous sections reassessed existing typological divisions within the most prominent artifact categories, we are more concerned here with how concepts of value and prestige have been applied by researchers to objects in the Yōngnam assemblage. Uncritical use of the term ‘prestige good’ has been called into question recently by Armin Selbitschka (2010), who makes a distinction between objects that actually signal the prestige or esteem of their owners and those that might be better described as status symbols that reflect a particular social identity, the prestige of which depends on the audience or viewer (though objects that connote both certainly existed). This subtle difference is often unrecoverable archaeologically, but Selbitschka suggests that the presence of lower quality imitations of a particular object make it more likely that this object signaled prestige that others were attempting to access through emulation.

The Korean term frequently translated as prestige good, 威勢品 (kr. *wisep’um*), actually refers to objects that symbolize or confer authority and power rather than social status or esteem. The term is applied frequently to a wide variety of objects in Iron Age tombs, however,

suggesting a more general de facto usage that includes items connected directly with political authority in addition to artifacts that communicated access to wealth and high status more broadly. In the second and first centuries BC, costly and uncommon items identified as prestige goods are primarily bronze blades and decorative objects (beads, buckles, and pins). Slim bronze daggers with decorated pommels and sheaths have also been found in several of the first century BC tombs at Taho-ri, Imdang, and P'aldal-dong at the waist of the corpse, near the head, or under the coffin itself in the waist-pit. In the first century AD, prestige goods in richly furnished burials in Ch'angwŏn, Taegu, and Kyŏngju are more diverse: iron weaponry (ring-pommel knives and spears modeled on Lelang examples), bronze belt hooks and bells, as well as Chinese coins and luxury goods in the form of bronze mirrors, lacquered fans, boxes, raised dishes, and in one instance a writing brush.

Prestige goods for the more elaborate coffin tombs and early chamber tombs of the first and second century are primarily mirrors, iron ring-pommel swords, iron horse-riding equipment, and personal adornment of precious stones and glass. Increasingly, large tombs signaled prestige or status through a large quantity of iron or ceramics rather than difficult to obtain trade objects. After the second century, rare objects consist of objects made from common materials (ceramics and iron) that were elaborately decorated and sculpted (later *wajil* ceramics including duck-shaped pottery, flat iron staff-heads, and decorated spear and sword blades). In the late third and fourth centuries, sets of iron armor and gilt-bronze crowns appear.

Trade objects representing contact with groups outside the peninsula are a particularly important subcategory of prestige good in Korean scholarship. These so-called 'foreign' artifacts (外來遺物 kr. *ōerae yumul*) are defined simply as objects originating outside the Korean peninsula (KCPIRIA 2011a). For the Iron Age, these are subdivided into three points of origin:

the northern zone (early iron tools, bronze cauldrons and items of personal adornment like belt hooks), central China (Han Chinese mirrors, lacquer, and coinage), and the Japanese archipelago (bronze bells, spears, and decorative objects) (Lee Hyŏnhye 1998, KCPIRIA 20011a, Im Tongjae 2012). The designation is helpful in that it isolates a set of objects that reflect long-distance contacts and possible cultural influxes, but has the consequence of creating an unnecessary Korean-not Korean dichotomy that anticipates a concept of peninsular ethnic unity by almost 1,500 years. It also prevents us from investigating the possibility that ‘foreign’ may have been construed on a smaller scale from region to region or site to site. What is also not addressed by the term are the domestically produced artifacts like iron or *wajil* ceramics that are as much a product of extra-peninsular influence and technology as they are local innovation. Still more problematic are the imitations of foreign objects and foreign practices such as imitation bronze mirrors or the numerous aspects of tomb construction that can be traced back to Lelang or Chinese styles. At what point do these objects stop being ‘foreign’?

For now, the more encompassing term of valuable objects is used to refer to the broadest interpretation of the Korean *wisep’um* in lieu of prestige goods, though this necessitates some consideration of how value is defined and measured. In Korea, identification of valuable objects or *wisep’um* in the archaeological record follows the conventional starting point: identifying artifacts that are relatively scarcer in the overall material culture of the region and the relative difficulty of their procurement and production (Renfrew 1988, Flad 2002, Selbitschka 2010). Other more qualitative markers of value such as aesthetic quality (Donnan 2012), their tactile pleasure, or novelty within an existing stylistic or fashion paradigm (Hay 2010) are not generally discussed in archaeological literature, although this seems particularly applicable to certain trade objects such as bronze mirrors, decorated ironware, and sculptural *wajil* pottery.

As discussed by Sofia Voutsaki (2012), the act of burial also renders all grave goods as objects of value in some form and, depending on their prominence, may have instantiated a different or greater meaning for particular objects. In particular, the relationship of valuable objects to the body of the deceased, the prominence the object within the overall grave assemblage, and the portion of the tomb in which the object was found (inside the coffin, chamber, or waist-pit versus within the tomb fill or in an auxiliary artifact cluster) are used to reconstruct hierarchies of value and the function of the object in the mortuary ritual. Selbitschka's emphasis on imitation also offers a means of identifying objects that signal prestige—both in the sense of imitation objects that evoke genuine prestige goods and imitations of earlier ritual traditions that incorporate valuable objects.

Valuable objects are rarely considered in isolation in archaeological studies in Korea. Typically, such objects are viewed in aggregate as markers of a stratified society or individually as markers of leaders or high-status ritual specialists. To move beyond simple identification and conceptions of prestige goods as mere symptoms of larger social formations, the composition and context of the objects themselves must be taken into account. To understand the meaning or function of prestige goods and make finer distinctions between prestige, status, and wealth I draw on art historical analyses of object production and design with careful consideration of the ritual mortuary context of the artifacts. This is essentially an outgrowth of the typological evolutionary approach to mortuary ritual and graves outlined in the introductory chapter, however, in the case of individual artifacts a few more aspects are worth emphasizing.

I return to Martin Powers' underlying assumption regarding the evolutionary nature of decorative change as being of particular relevance to objects in the Korean context, especially his 'fitness principle' or "the working assumption that a style appeals to some social groups more

than others because it encodes a particular scale of priorities.” (Powers 2006:158) The conventional procedure for creating an object relies on a series of logical operations that result from specific decisions reflecting the assumptions and worldview of the artisan and his/her society. This puts Powers in the same company as recent anthropological explorations of the evolution of material culture not necessarily tied to human biological evolution (Richerson and Boyd 2005, Smith 2008), though Powers adopts a more interpretive framework when isolating the material components and mental processes that lead to object evolution.

Powers’ precise methodology, a careful deconstruction of graphic elements and decorative boundaries, is not directly applicable to most of the object types recovered from the Iron Age that seem to lack a unified design paradigm. In addition, the breadth of stylistic craft objects is much smaller and there is no analogous textual record to draw upon—something that Powers uses to great effect to bolster his hypotheses of the prevailing social paradigms of the Bronze Age and Warring States periods. Instead, I emphasize the context of production, the variability of design elements, and how the objects themselves evolve over time. ‘Foreign’ objects also introduce a methodological challenge absent in Powers’ work. As these objects were not produced in Yōngnam, their design paradigms do not reflect local value judgments or social circumstances. Instead, the way these objects were reused and refashioned can be used to speculate about not just Iron Age society, but the place of these remote cultures in the peninsular worldview.

Three case studies—Chinese bronze mirrors, duck-shaped pottery, and serrated iron staff-heads—are presented to explore the function of prestige goods in mortuary contexts and how the ‘value’ of these objects varied in time and space.

Chinese bronze mirrors

Chinese bronze mirrors in the Hàn period were both toiletry items and decorative objects. They are frequently found in mortuary contexts in the Central Plains and regions more peripheral to the Chinese cultural sphere. These small bronze disks (usually about 15cm in diameter and half a centimeter thick) conventionally have an unadorned reflective side and an ornate decorative side with motifs that include a variety of floral and faunal designs, inscriptions, and geometric patterns all with some form of cosmological or cultural significance (Figure 4.3).



Figure 4.3: Han mirrors from Kyodong (10.2cm) (MUM 2004) and Naedök (12.1cm) (Pokch'õn Museum 2009)

On the northern Korean peninsula, large quantities of Hàn artifacts, including mirrors, appear in chamber tombs of the Lelang commandery in the mid to late first century BC. These graves and their artifact inventories become more elaborate until the end of the first century AD before falling into decline beginning in the second century AD. Beginning in the third century and lasting until the destruction of the commandery institution by Koguryõ in 348 AD, grave goods including mirrors were again interred in large numbers in wood-chamber and brick tombs. This may indicate a post-Hàn revival in the fortunes of the commanderies that coincides with the establishment of the Daifang commandery to the south of Lelang (Byington 2014). But what is

important here is the fluctuating fortunes of Lelang and the differential appearance of mirrors according to each phase of its existence.

Unsurprisingly, mirrors interred in Lelang tombs until the first century AD reflect Hàn burial customs. Many mirrors dating from the first century BC were found in lacquer containers placed outside the coffin, a Hàn custom that is also seen in tomb 1 at Mawangdui, an elite early Hàn burial in the provincial region of Changsha, among many others. This is thought to represent the generally utilitarian purpose of the mirror in Hàn China; an object related to personal adornment that carried a certain amount of status but was not in and of itself a ritual object (Wang 1982:104). Conversely, in mortuary contexts, mirrors may have had additional ritual or symbolic meaning, particularly with regards to them having a preservative effect on the body of the deceased (Brashier 1995). In this sense, mirrors also performed a concrete function in the funerary ritual, one of protecting the corpse during its preparation and after its interment.

Han mirrors began to appear disproportionately in southeast Korea in the first century BC and continued to be a prominent, though not common, find until the third century AD. All are from mortuary contexts, but mirror placement is considerably more variable than the Lelang examples. The first complication is the presence of imitation mirrors (倣製鏡 kr. *pangje gyǒng*) alongside or in some cases replacing genuine Hàn objects. Determining the provenience of imitation mirrors is problematic as similar imitation mirrors also appear in much greater numbers on the Japanese archipelago. Kentaro Minami, in his technical examination of the production methods of small size bronze mirrors found at sites in northern Yǒngnam, divides small size mirrors into A and B types. Mirrors from the sites of Oũndong and P'yǒnggridong fall into the A category and are chronologically slightly earlier than B type mirrors based on the decoration of their edges, the overall thinness of the mirrors, and the positioning of the central knob (Minami

2007:240-241). No analogues of A type mirrors exist outside of Korea, making it likely, according to Minami, that these were manufactured in Korea rather than being imported. On the other hand, B type mirrors, comprising all the examples unearthed from Sara-ri in the Kyōngju region, appear more similar to mirrors produced in Northern Kyushu in much greater numbers and are more likely to have been Japanese imports (Minami 2007:241).

Larger imitation mirrors from Yangdong-ni (17 in total) in the south are, according to Lee Chaehyōn, more direct imitations of Former and Later Hàn mirror styles as well as the whirlpool and S-shaped motifs seen commonly on Qin and Hàn tiles (Lee Chaehyōn 2004:40). Several of the mirrors seem stylistically very close to those discovered at Sara-ri and therefore may have been produced in Kyushu. Other mirrors at the site are stylistically unique and feature a wide outer border with no patterning and interior patterns similar to Oūdong s-shaped spiral patterns. Further analysis of the production method of these mirrors is necessary, but stylistically it would appear that most of the Yangdong-ni mirrors originated on the peninsula and tried to copy Chinese motifs directly, while a few may have come from Japanese sources. A final imitation mirror that does not conform to any imitation mirror tradition is the mirror at Kimhae Kaya-sup, which is completely devoid of decoration (SGICP 2006).

Lee Chaehyōn does not discuss the provenience of imitation mirrors directly, but seems to tacitly assume that the majority of these objects were produced on the peninsula and were not imported from either Japan or China. He speculates that the designs may have traveled into the peninsula with refugees fleeing the chaos at the end of the Warring States period and the beginning of the Hàn period or were the direct result of contact with the Lelang commandery (Lee Chaehyōn 2004:54). Lee Yang-su also notes the similarities of the spoked edge design of

some early imitation mirrors may be aping the earlier fine-line mirror sunburst motifs (Lee Yangsu 2009b), and may simply be a continuation of the Bronze Age mirror tradition.

Apart from imitations, another phenomenon of the Iron Age is reconstituted or reshaped Hàn mirrors. Some of these examples appear to be broken mirror fragments that were re-used as ornamentation such as the mirror shard from Taesöng-dong with a hole punched through one end that may have been worn as a pendant or sewn into clothing (KSUM 2000b, 2003). More intriguing still are the small circular mirror fragments found at several sites including Imdang and Sindae-ri in Kyöngsan and Choyang-dong in Kyöngju (KCHF 1998e, KNM 2003a, and YICP 2010c). Rather than simple shards, these objects are carefully cut sections of complete mirrors and are found in a variety of contexts in Yöngnam tombs. The positioning of two such fragments in Sindae-ri tomb 37 suggests they were worn as earrings by the deceased, but in the same tomb, two additional circular fragments were discovered less carefully placed among other ceramic and iron grave goods. At Imdang, tombs A-I-122 and E-58 yielded two circular mirror fragments that appear to have been used as components in a small reflective device (Ch'oe Ch'onggyu 2001:34) or as part of a sword pommel (YUM 1994, 1998). Interestingly, the mirror pieces were displayed with their reflective side facing outwards. All four were cut out of different mirrors (Chloe Ch'önggyu 2001:34), suggesting that the decoration or object itself was rather less important than the reflective property of the metal.

Mirror placement in Yöngnam tombs varies over time and between coffin and chamber tombs, but the burial context of these objects is also highly variable from site to site. In addition to the circular fragments of Hàn mirrors from Sindae-ri and Imdang, in coffin tombs from the first century BC mirrors have been recovered in tomb fills at the site of Kyodong (MUM 2004),

behind the head of the deceased or worn as a necklace at Taho-ri (NMK 2008), or placed in sets to the side of the corpse at Choyang-dong (KNM 2003a).

There is little regional logic to this diversity, but the greater prevalence of intentionally cut fragments at sites in the Kyōngsan/Taegu region lends credence to Lee Hūijun's theory of regional trading networks as well as the idea that this region was not a center of trade (Lee Hūijun 2011b). Inhabitants of this region placed little significance on the distant Chinese origin of the objects but prized the metal itself. Nevertheless, even in sites with greater numbers of objects obtained from the commanderies (Taho-ri and Choyang-dong), mirror placement was highly variable and the burying groups at each site seems to have been evoking completely different ritual traditions. The Kyodong mirrors mimic the Lelang custom of interring mirrors outside the coffin at one end of the tomb with other luxury goods, while placing the mirror underneath the head or at the side of the corpse with a bronze dagger is reminiscent of southwestern Late Mumun 'shaman' burials at Kaldong in Wanju (HNICP 2005, 2009) and Ch'op'o-ri (KWNM 1988).

As coffin tombs became more elaborate in the first century AD, mirrors declined in northern Yōngnam but occupied a prominent position in the burial assemblage in sites in and around Kimhae and the south coast. The most common configuration were sets or lines of Hān or imitation mirrors placed around the midsection of the corpse—seen in several coffin tombs at Yangdong-ni and Kimhae Kaya-sup. Mirrors continue to appear as objects of personal adornment (Yangdong-ni tomb 55) in limited quantities, or are placed in the Mumun style under the head (Naedōk-ni tomb 19) (Pokch'ōn Museum 2009).⁵⁸ Mirrors (almost all imitations) continued to appear in Yangdong-ni chamber tombs into the second century in sets of four near

⁵⁸ The state of preservation of these tombs makes a precise designation between an object worn near the head or placed beneath the head difficult, but often the completeness of the mirror or the presence of precious stones or other metal can be used to determine if an object was worn around the neck.

the waist and in one case placed in an artifact cluster near the feet (TUM 2000, 2008). In this period, only one other tomb (tomb 130 at Sara-ri in Kyōngju far to the north) contains the objects, a line of four imitation mirrors placed at the shoulder of the corpse (YICP 2001a, 2001b).

Seen in aggregate, two features of bronze mirrors are apparent: 1) the diversity of ways a mirror could be placed within the context of a grave, and 2) the number of different traditions peninsular Iron Age burial customs drew from. Even within a single site multiple burial patterns can be observed. The placement of mirrors underneath the head of a corpse could suggest a continuation from a similar Bronze Age ritual that predates contact with China, or perhaps the incorporation of Hàn cosmological ideas about the preservative effect of the mirror on the body (Brashier 1995). Mirrors placed in this way as well as those found near the waist with a bronze dagger support the contention of some researchers that Hàn mirrors symbolically replaced Late Mumun fine-line mirrors in the ritual practice of Yōngnam (Lee Ch'ōnggyu 2010, Horlyck 2011). While possible, this would apply to only a small subset of Iron Age mirror finds. Fine-line mirrors were never a major component of Mumun burials in Yōngnam in the first place (they are much more common in the southwest), and there are too many alternative uses of mirrors to make a broad statement about ritual replacement.

Mirrors placed in artifact clusters outside the coffin or away from the body can be construed as an imitation of Lelang practice but it may also be simply that these mirrors were not placed with any special care with regards to the layout of the tomb; they were a simple marker of status or prestige (along with the iron, bronze, or trade objects they are found in association with). Interestingly, many of the mirrors interred in this way are not all from sites in regions generally considered central nodes in the trading network that included northern Korea and Lelang (such as the Kyodong mirrors). Though contact with Lelang is seen as a prime mover for social change in

many models (Lee Hyŏnhye 1998, Lee Chaehyŏn 2009), the mirror as a paramount symbol of this contact seems to indicate that China occupied a more ambivalent role in the minds of many Yŏngnam burying groups. At some sites where mirrors have a prominent place in high status tombs (Choyang-dong and Yangdong-ni), Hàn mirrors seem to have had some intrinsic value or connotations of power and prestige. Fragments of Hàn mirrors like the shaped examples from Ŏndong and P'yŏngridong retained their efficacy as ritual or decorative objects even if they had no use as reflective surfaces. In the same way, imitation mirrors do not specifically imitate other mirrors but incorporate other Chinese decorative motifs from roof tiles and pottery (Lee Chaehyŏn 2004).

In contrast, at other sites the very features that mark mirrors as Chinese are defaced (the Imdang and Sindae-ri mirror fragments) or not replicated in imitations (the completely blank imitation mirror from Kimhae Kaya-sup). There is a degree of invention and novelty in the ways these mirrors were refashioned into new objects with completely different functions. Even when mirrors were prominently placed in a tomb, it is in a configuration with no real parallels in China or the peninsular Bronze Age.

Rather than an overarching custom within the region, there was a profusion of local practices evoking and inventing a wide range of traditions that operated within an overall cultural matrix that recognized the general ritual importance of bronze mirrors in mortuary contexts. If anything, mirror function was predicated on how direct or intensified trade with Lelang was rather than pre-existing regional cultures. Even at sites like Taho-ri with particularly abundant material connections to the Lelang commandery, individual tombs still have idiosyncratic mirror placements with little resemblance to Chinese practices. There are no easily classifiable normative customs and ritual function seems to cross-cut regional divisions in ceramic and iron

placement as well as textually derived notions of the territorial extent of Chinhan and Pyŏnhan. This also introduces complications when we look at tomb assemblages holistically—different components seem to have developed along different trajectories.

Duck-shaped pottery

One of the later *wajil* vessels that make up the ceramic assemblage in chamber tombs is the avian or duck-shaped pot. It is discovered only at a handful of sites, but the pots are the only peninsular tomb object from this period (ceramic or otherwise) that depicts a real or imaginary animal. Each vessel contains two openings (one on the animal's back and one at the rear end) a stand or sculpted webbed feet, and an ornamental sculpted avian head with prominent neck, beak, and distinctive head ridge or plume (Figure 4.4). There is general agreement (Lee Hyŏnju 1995, Poch'ŏn Museum 2006, Kim Kilsik 2008) that the vessel was used to contain and pour liquids and had a specific function in the burial ceremony alongside other later *wajil* vessels like nested pots, raised dishes, and mounted jars. The pots appear in particularly elaborate and well-furnished chamber tombs in northern Yŏngnam dating to the third and fourth centuries: Sara-ri, Tŏkch'ŏn-ni and Hwangsŏng-dong in the Kyŏngju region, Chungsan-ni and Hadae in Ulsan, as well as Oksŏng-ni in P'ohang. Still other unprovenienced examples are thought to have come from Imdang (Lee Hyŏnju 1995).

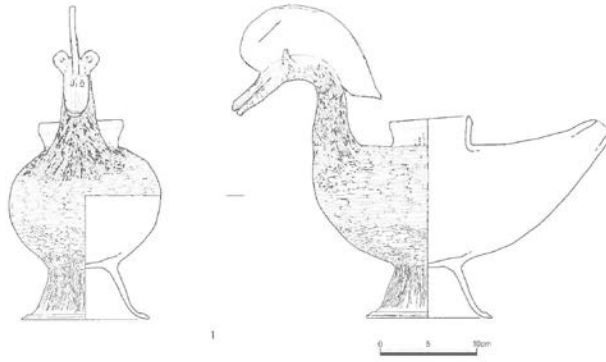


Figure 4.4: Duck pot from tomb I D-15 at Chungsan-ni (CUM 2006a:311)

Duck pots appear quite suddenly with no apparent morphological predecessors, though some stylistic evolution is discernible between the third century pots from Tökch'ön-ni to the fourth century examples from Sara-ri and Hwangsöng-dong. Earlier pots have a more bulbous body and naturalistically sculpted head compared to the fourth century examples with prominent plumes and goggle-like protruding eyes. Avian pots also appear in mounded tombs and segmented chamber tombs in the fifth and sixth centuries but these lose the exaggerated iconography and consistency of the Proto-Three Kingdoms period.

On the most basic level, the duck pots are a good example of the shift in production of later *wajil* to a prestige economy that required advanced skill in production and a relatively exclusive elite-patron community. They are not mass produced or standardized objects: the forming and shape of the pots is evidence of high-skill and high-energy production of individualized objects. Some morphological evolution is observable, but the pots exhibit a degree of stylistic consensus. The third and fourth century examples are remarkably similar, even among examples from disparate sites in northern and southern Yöngnam. Their rarity and context in pottery clusters in tombs that also frequently contain iron staff-heads and similarly rare metal objects also allow us, albeit on a very superficial level, to associate them with elite actors and they connote a prestige good in the broadest sense of the term.

Seen in their mortuary context, they indicate the increased importance of serving and display in the funerary ritual after the second century. They are a unique vessel form designed for a highly specialized purpose—most likely the serving and consumption of liquids within a larger ceremony that incorporated nested serving or heating vessels and raised dishes. The pots flourished and displayed the most stylistic unity within this ecosystem in the third and fourth centuries. The comparatively few fifth and sixth century examples from mounded tombs and segmented coffin tombs are, on the whole, more crudely fashioned, abandon the shared iconography of the elaborate plume and goggle eyes, and are not found with the same array of specialized ceramic objects. Rather than a continuation of the same function within the same ritual, fifth and sixth century pots seem archaic and designed to evoke a connection with an earlier period but stripped of their original ritual context. The duck pot, in other words, was a highly evolved creature, but the specificity of its use and the exclusivity of its iconography seems to have caused its premature extinction outside of the confines of a very specific ritual procedure in tombs in northern Yōngnam from the third to fourth centuries.

Duck pot production declines after the fourth century, but bird-like images persist and migrate to other media: much larger versions of the jagged iron staff-heads discussed in the next section in southern Yōngnam cemeteries are found adorned with repeating plumed-duck silhouettes on each side, and a few examples of Silla pottery feature the same silhouette on lids and handles. The striking similarity to the exaggerated features of the third and fourth century duck pot—even down to the sloping, square beak—make this unlikely to be mere coincidence. Though the duck with prominent head-ridge disappeared after the fourth century, ducks themselves are strangely enduring in the popular artistic culture of the Koryō and Chosōn periods and appear as sculptures, paintings, and textile patterns (see examples in Kim Kilsik 2008).

Explanations for the persistence of the duck image focus on the supposed symbolic importance of bird images in Korean folk culture. Kim Kilsik (2008:127) interprets the figure as a composite creature with avian features that first appears in two Late Mumun bronze plates from southwest Korea: a bird-like animal with a head-ridge similar to the duck pots and a horse-like body on four legs. He takes this and the fact that the duck pot was popular in the third and fourth centuries to argue that this hybrid image was associated with mythological descriptions of the supernatural birth of early Silla kings from eggs supplied by winged horses.

Beyond appeals to textual and ethnographic sources, recent archaeological investigations into the origin and transmission of similar composites or monstrous imagery in the Near East by Wengrow (2011, 2014) might also offer insight into the persistence of the duck image in the southern peninsula. Like Wengrow's monsters, the duck image appears to be an interesting composite being whose recognizable but unnatural appearance was intrinsically stimulating to several of the mental modules that make up human cognition. For Wengrow, depictions of composite beings in a variety of media are closely connected to urbanism and the control of modes of production by an emerging elite class. By regulating and disseminating a 'doctrinal' version of a composite being, elites harnessed these cognitively appealing images to "new modes of governmentality" (Wengrow 2011:144).

The establishment and dissemination of a doctrinal image of a pre-existing creature (possibly one associated with mortuary ritual and mourning) by elite groups seems particularly apt in the case of northern Yōngnam in the third and fourth centuries. The duck pots are one of many indicators of a growing elite class and site complexes in Kyōngju, Kimhae, P'ohang and Kyōngsan point toward a form of proto-urbanism in this period. Despite this, there are some important divergences from Wengrow's model in the Korean data. For one, instead of using this

image to expand the scope of elite power, the obscure function within an elaborate ritual practice, the exaggerated iconography, and the limited mortuary scope of the peninsular duck pot emphasizes more the exclusivity of membership in an elite group rather than a broad dissemination of a popular image—the duck was an artistic trope meaningful to a small group only. The image does travel to other media—in the fifth and sixth centuries ducks adorned Silla ceramics and Kaya staff-heads—but this occurs only within the category of prestige or valuable objects (another point of divergence with Wengrow’s widely popular composites).

Beyond their symbiotic relationship with third and fourth century elites, deciphering the meaning of the duck itself in the mortuary context is perhaps impossible from archaeological material alone. Close reading of the features of duck pots themselves, however, constrains the more exuberant interpretations of the meaning and transmission of the avian image. Kim Kilsik’s assertion of the connection to kingship and the foundation myths of Silla and Kaya hinges on the assumption that the duck image itself is an avian/ungulate hybrid. The majority of duck pots are certainly an exaggerated or supernatural depiction of a bird-like creature, but unlike the earlier and clearly hybrid bird-horse creature from mumun bronze objects, the pots do not possess any clearly fantastical elements. As pointed out by Lee Hyönju (1995:32), there is an extant species of duck native to the Nakdong river area that possesses a head-ridge and even facial markings that could correspond to the plume and ‘goggle’ like eyes of fourth century duck pots.

Moreover, while most pots have a stand rather than legs, the few pots without stands are depicted with two webbed duck feet rather than more fantastical appendages. The more crudely fashioned fifth and sixth century pots portray the idea of a bird or animal in more general terms with ambiguous features and in some cases adding four squat legs to the body that are in some

ways more monstrous than the exaggerated features of the third and fourth century duck. While the pots are undeniably fantastical in their portrayal of a bird image and possibly gain some features of a composite, there is nothing in either the early or late examples that suggest a strong connection with horses or horse-bird hybrids. Another assertion put forward about the meaning of the duck pots is that they have some connection to shamanistic religious practice (Nelson 2008). Rather than treat this contention in isolation, I consider the mortuary evidence in full as it relates to shamanism in Chapter 6.

Iron and prestige

As discussed in section 2, iron was an important material for the production of agricultural and craft tools throughout the Iron Age, but the conception of iron changed dramatically from the from the second century BC to the fourth century AD. In particular, certain objects such as flat axe-blades, spears, and staff-heads became essential to the creation of the ritual space of the tomb interior. A fruitful theoretical frame for assessing the role of iron in Yǒngnam tombs throughout this period is Sofia Voutsaki's exploration of the value of bronze in grave circles of Mycenae:

The constant, almost logarithmic increase in the number of offerings indicates that the deposition of mortuary wealth was undergoing considerable inflation, implying an unstable social situation and unrelenting competition between emerging elites. Different strategies—singularization, replication, multiplication, accumulation—are used to withstand inflationary tendencies and to retain the high value of prestige objects. To conclude: the manipulation of numbers constitutes yet another strategy for the creation and maintenance of value. (Voutsaki 2012:183)

The use of large numbers of flat axes in the burial space in the late first and second centuries would seem to conform to this model. Not only do the numbers of these objects increase over time, but so does the complexity of their arrangement under the corpse. Early tombs at P'aldal-dong and Imdang feature single or pairs of axe blades under the corpse while

somewhat later tombs from the same region contain multiple pairs of the objects under the limbs of the corpse or even greater numbers of axes arranged under the body. First century tombs at Hwangsöng-dong contain similar arrangements, though these are fewer number than the Imdang examples and are not nearly as elaborate. The practice reached its peak in elite second century coffin tombs at Sara-ri and Tap-dong in the Kyöngju region—Sara-ri tomb 1 contains 66 axe blades arranged under and around the corpse.

A consideration of the morphological evolution of flat and cast axes (Figure 4.5) offers insight into the conception of iron in the period.⁵⁹ Flat axes began as a recreation in iron of a Late Mumun groundstone tool (Kim Tohöñ 2004) and cast axes as an imitation of existing Yan and Lelang axes (Kim Tohöñ 2002). Both widened and flattened and standardized to some extent within the confines of local production spheres, which can be seen in the uniform lengths and weights of flat axes in single tombs at Imdang and Sara-ri. The relatively rapid dissemination of the idea that iron was a suitable material for the production of agricultural and craft tools as well as the limitations of small-scale casual or household production encouraged the use of a single shape that could be more easily forged into a number of different tools or put to different functions; depending on the handle affixed to them flat axes could function as digging or cutting tools and minor modification of their body turned them into effective plows or spades (Lee Namgyu 1997). At this stage, production of axes does not appear to have developed beyond the level of part-time specialists within individual communities (Taylor 1990) constituting a household industry (Peacock 1982).

⁵⁹ Adam D. Smith's (2008) sketch of the development of coinage in Bronze Age China forms the basis of the following analysis.

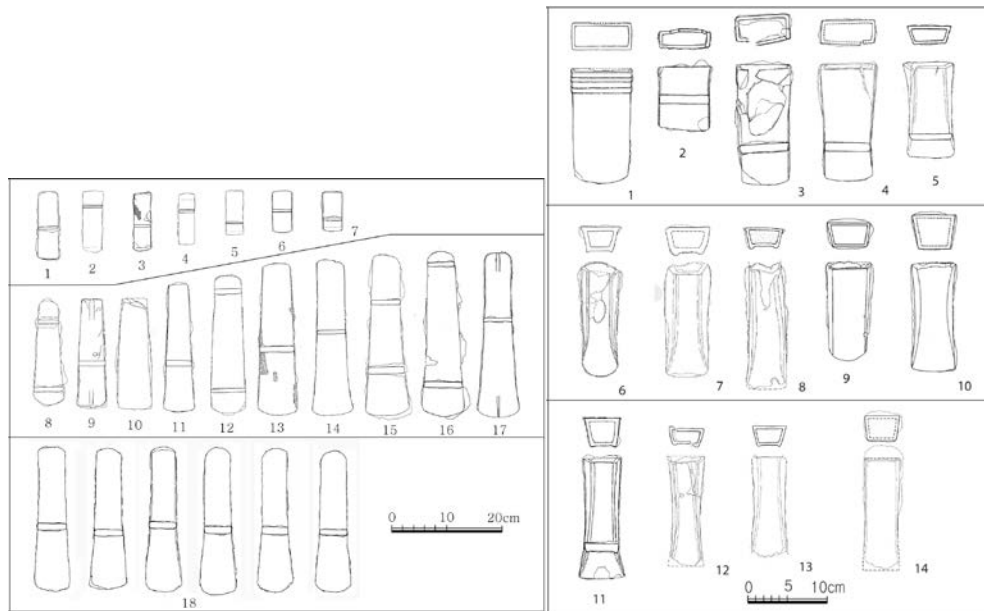


Figure 4.5: Flat axe (left) and cast axe (right) morphological development. Top row: Early Iron Age, middle row: early Proto-Three Kingdoms Period, bottom row: later Proto-Three Kingdoms Period (U Pyŏngch'ŏl 2012:366-368).

Within a production environment that was gradually becoming more efficient and focused around the replication of a few basic shapes, ritual disposal of iron by emerging elites was undergoing the processes of multiplication and elaboration suggested by Voutsaki. Within this context, I propose that the growing expectation that flat axes should be used as symbolic mortuary objects exerted a non-trivial influence on their morphological evolution. The greater demand for axes as objects that communicated prestige and value prioritized production efficiency and introduced a contradictory expectation to the idea of axes as practical agricultural tools. Expectations of what an axe 'should' look like conditioned by existing examples (Smith 2008:45) caused them to gradually become even less functional over time and constrained their use as actual tools. This demand, in turn, stimulated production demand and made household industry production of iron goods a viable part-time specialization for artisans.

Beyond mortuary and ceremonial factors, iron trade with Lelang and the Japanese archipelago also presumably exerted a strong influence. In addition to the somewhat problematic

textual sources for iron exchange with China, finds of cast iron axes of peninsular origin (Azuma 1995) attest to the growing reach of a peripheral East Asian trading network in this period. As concepts value were being negotiated through the burial of iron in tombs, so too was the practical exchange value of the axes themselves being quantified through long-distance trade.

One important difference from the evolution of coinage is that axes did not evolve in a way that made them conducive to circulation. Flat and cast axes range from 700 to 1000g and between 25 and 35cm in length. Even though I suggest that the shape of axes was influenced by the expectation that they were quantifiable measures of wealth and exchange with Lelang or groups in the Japanese archipelago, the demand that they also remain objects of prestige or value to elites and their ceremonial utility in tombs exerted an important constraint on their evolution towards smaller and more easily exchangeable forms. The necessity that the objects retain some degree of utility as templates for a wide range of other tools by those on the receiving end of the trade network likely also prevented their additional abstraction into true coinage.

The fact that iron exchange with distant groups was not possible without additional transportation infrastructure likely influenced the mode of production and status of workshops. As hypothesized in section 2, the scale of production at this time was analogous to household industries verging on individual workshops. Despite the fact that there must have still been a local market for utilitarian tools, these workshops were preoccupied satisfying elite demand for axes in tombs and were, to some extent, dependent on these same groups for distribution of finished objects across long distances. With elites and distant trade becoming an increasingly more lucrative market for axes than local demand for iron tools, the morphology of the objects increasingly reflected elite ritual useage rather than their ostensible utilitarian function.

At some point, around the mid to late first century BC, the demands of trade and ceremonial use of axes eclipsed their practical function and flat axes that could function as tools no longer found their way into tomb assemblages. Production of iron tools for agricultural and craft purposes did not end; small forged axes (鍛造鐵斧 kr. *tanjo ch'ōlbu*), sickles, knives, and other tools are still found in tombs in limited quantities well into the Three Kingdoms Period. Nevertheless, the scale of non-utilitarian flat-axe production indicates that workshop production was focused around supplying elite mortuary ritual and long-distance trade demands. It would seem, then, that production of tools fell to part-time specialists or periodic household producers.

That workshop production of iron objects was preoccupied with serving elite ritual demand is also reflected in the decline of axe blades in chamber tombs in the 2nd century. Axes were almost entirely replaced by spears and swords in northern Yōngnam and ingots in Kimhae and Honam early Kaya tombs. Ingots themselves are thought to be a functional evolution of flat axes (Kim Tohōn 2004, U Pyōngch'ōl 2012) and are evidence of the continuation of this evolutionary process towards objects more appropriate for exchange and ceremonial functions rather than utilitarian tools.

The switch from axes to spears and other weaponry in northern Yōngnam tombs also represents a shift in elite production priorities in northern Yōngnam, but the intensification of spear manufacture actually began in the first century when axe blades were still the most prominent iron object in elite coffin tombs (Lee Sōngju 1997a). A decline in the demand for axes as a prestige good was accompanied by the production of what we might call iron prestige goods like ring-pommel swords, iron staff-heads, and horse-riding equipment—rare objects with high production costs and limited practical utility. In addition, late second century tombs also saw the appearance of more common iron objects with additional elaboration: an increasing

number of spears gained decorative bracken or thorn-like spikes, ring-pommel swords become larger, and the shape of horse riding equipment becomes more swooping and dramatic (Lee Sangyul 2006). Rather than just accumulation and multiplication, strategies of valuation in the second and third century seem to have focused around elaboration and singularization of certain iron objects.

One object in particular, the jagged iron staff-head (有刺利器 *kr. yuja igi*), is notable in light of the preceding discussion of flat axes. These objects appeared in northern and southern Yōngnam tombs in the late second century, most commonly in tombs in P'ohang, Kyōngju, Kyōngsan, and Pusan. At their most simple, the objects consist of a flat iron axe with a more pronounced curved head and a base shaped to fit around a pole or handle. In the third century the staff-heads gained pairs of spiral bracken designs. After the third century, instead of flat axes, ingots form the template for staff-heads and these are decorated with short thorns branching away from the body (Figure 4.6).

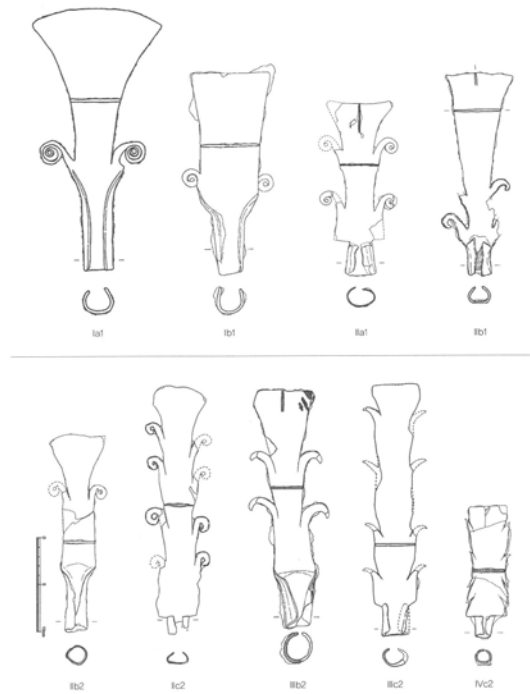


Figure 4.6: Jagged iron staff-heads fashioned from flat axes (top) and ingots (bottom) (Kim Hunhŭi 2011:51).

Staff-heads do not have a markedly different appearance throughout Yŏngnam, but there is a high degree of variation in how the decoration was accomplished both locally and regionally. In third century Kyŏngju tombs, the brackens are tightly curled and formed through a process of cutting away and shaping the two long sides of the axe. In P’ohang, the technique was replicated but there are also examples of much more elaborate multiple pairs of brackens and completely unadorned examples. Slightly later staff-heads from Hwangsŏng-dong have looser and cruder brackens similar to the thorn decoration of fourth century ingot staff-heads. In two examples, the bracken designs are not even part of the original axe body but appear to have been fashioned separately then affixed to the axe surface. Further south in the Ulsan region, at Chungsan-ni multiple pairs of brackens appear on single staff-heads, but the orientation of each pair is different—an effect that leads to only a slight difference in appearance but reflects a considerably divergent crafting process.

Along with decorated spears, horse-riding equipment, and large ring-pommel swords, staff-heads attest to the growing sophistication of iron production workshops in the third and fourth centuries. This coupled with the scale of spear production may indicate that nucleated workshops or production complexes had begun to appear in southern Korea. In the absence of sites with iron production facilities of this scale, major cemeteries containing large quantities of staff-heads such as Hwangsöng-dong, Oksöng-ni, Chungsan-ni may point to the rough geographical location of these emerging production centers: northern Kyöngju, P'ohang, and central Ulsan. On the other hand, the lack of a stylistic or technical consensus on how to produce these objects attests to the relative isolation and independence of regional production facilities. Lee Söngju's (1997a) assertion of local monopolies of iron manufacture would seem to be borne out in the morphology of staff-heads and other costly iron objects.

Like mirrors and duck pots, staff-heads can be seen as a marker of high status in a very general sense. They required a large expenditure of energy to fashion and appear predominantly in well-furnished elite tombs. Unlike ritual ceramics and long-distance trade goods, the object is surprisingly well-represented at sites thought to have been peripheral to the growing power centers of Kyöngju and Kimhae in the third and fourth centuries (Lee Hüijun 2011b). The highest concentration of staff-heads (if one also counts undecorated examples) is Oksöng-ni (a large mortuary complex north of the Kyöngju plain) and they are also found at Imdang in Kyöngsan, Chungsan-ni and Hadae in Ulsan, and Hwangsöng-dong (located in Kyöngju but probably adjacent to the center of power).

All this points to a symbol of status or power that was accessible to a much larger group or one that was at least comprehensible and able to be replicated by a peripheral elite population; a marked contrast with the later *wajil* ceramics of the third century, including the duck pot. The

idea of the staff traveled widely within Yōngnam and many different burying groups attempted to replicate the design or elaborate on existing patterns without the benefit of a unified understanding of their production. The staff also has a much more enduring presence in elite tombs in the fourth century and into the Three Kingdoms Period than either mirrors or later *wajil* ceramics. Kaya staff-heads in mounded tombs from Taesōng-dong and Pokch'ōn-dong are much larger than Proto-Three Kingdoms examples and appear to have been formed from a large flat iron sheet rather than iterating on an existing ingot shape. In an interesting bit of synchronicity, several Kaya staff-heads from the Pusan/Kimhae and Honam regions are decorated not with thorns but repeated duck motifs.

Superficially, the evolution of staff-heads from a simple agricultural implement to prestige good highlights the importance of iron to elite authority and identity formation. More subtly, the distribution and variation of the object—as contrasted with the restricted and exclusive duck pot—demonstrates that it was an outward facing symbol of wealth and power and the concept of iron as a source of economic and ritual legitimacy evolved as a consensus among groups within Yōngnam.

The mortuary context of iron axe and spear displays, as well as the staff-head, suggest that the funeral ceremony was where emerging ideas of value, wealth, and exchange were confronted head on. While there may have been some abstract idea of wealth or the prestige of certain objects (particularly distant trade objects) these did not receive concrete distinctions or measurability until the occasion of their removal from circulation by burial.

IV. CONCLUSIONS

The most important lesson to glean from a close reading of many different grave-good types is an appreciation of the different developmental trajectories of the various aspects of the

tomb in Iron Age Yŏngnam. Ceramic objects became more specific and restricted over time but iron, though also a marker of high status, goes through a number of changes in perception that are reflected in their position in tombs and the morphology of iron objects. The contexts of some prestige goods such as duck pots and flat axes are remarkably consistent from site to site but others such as mirrors and staff-heads are highly variable and seemingly open to different local interpretations. Tombs as a whole embody different trends simultaneously if their composite parts are fully considered.

Overall, in each period there seems to have been three general categories of grave good. First, there were objects which fulfill, at least for a time, a highly specific function within the mortuary ritual or tomb construction. Objects of this type include flat axes placed under the body in elite tombs of the first and second centuries and non-standardized later *wajil* ceramics in the second and third centuries (duck pots and nested dishes). Other objects placed in aggregate, such as iron agricultural tools found in tomb fills, short-necked storage jars, and even the clusters of bronze and lacquer objects in Taho-ri tombs, seem to convey wealth or prestige more broadly without fulfilling a specific ritual purpose. Still other objects were placed on or around the body or held by the deceased; a proximity that may indicate their stronger connection with individual identity and a particular status (Flad 2002, Shelach 2009). One object type could fulfill different roles in each period, but this tripartite distinction applies to both the coffin and chamber period.

On the other hand, any meaning or identity communicated through personal adornment or prestige goods was highly variable. Mirrors are found in prominent positions in elite graves throughout the region, but the meaning and function of the object was construed in a number of different ways. The diverse uses of mirrors as well as the growing distinctions of practice between sites in northern and southern Yŏngnam also serves to highlight the importance of

looking at cemeteries individually and qualifies any generalizations of practice for the entire region. The concepts of prestige and competition alluded to by Voutsaki and explored in this chapter through examination of iron objects are considered again in the subsequent two chapters at the intra-site and inter-site levels.

Table 4.1: Summary of functional categories of grave goods in Yöngnam Iron Age tombs

Pre-100BC	CERAMICS	mortuary		general purpose
		black burnished jars, urns, and raised dishes		mumun urns
100BC to 200 AD		servicing and storage		
		wajil horn-handle fan-necked jars, short-necked globular jars, hourglass jars, kyöngjil shallow urns		
150 to 300 AD		display		storage
		servicing and preparation	decorative storage	
	wajil nested jars, raised dishes, raised platters, duck-shaped pottery	wajil globular jars with stands, handles, or fanned necks	wajil short-necked globular jars	

pre-100 BC	IRON	trade objects	utilitarian tools	
		cast-iron axes, bores	knife blades	
100 BC to 100 AD		prestige or ritual objects	production materials	agricultural and craft tools
		spears, decorated daggers, horse-riding equipment, flat axes (in large quantities)	cast-iron axes, flat axes	forged axes, sickles, bores, knife blades
100 to 300 AD		prestige or ritual objects	weaponry	agricultural and craft tools
		ring-pommel swords, horse-riding equipment	spears, daggers, arrowheads	forged axes, sickles, bores, knife blades

100 BC to 50 AD	PRESTIGE GOODS OR VALUABLE OBJECTS	iron trade objects, Chinese luxury goods (bronze mirrors, lacquerware, coinage), slim bronze daggers, beads	
50 150 AD		iron weaponry and horse-riding equipment, bronze personal adornment, Chinese bronze mirrors, glass beads, large numbers of flat axes	
150 to 300 AD		northern Yöngnam	southern Yöngnam
	iron weaponry (ring-pommel swords and decorated spear-heads) and horse-riding equipment, jagged staff-heads, later wajil serving and display vessels, jade and glass beads, large numbers of spear-heads	iron weaponry, bronze weaponry and decorative objects, large numbers of wajil storage vessels, large numbers of iron ingots	

Chapter 5 – Site Profiles

I. INTRODUCTION AND METHODOLOGY

This chapter engages in a close study of three cemeteries with a view to reconstructing the spectrum of mortuary ritual practice in Yōngnam and how this changed over time and in response to changing sociopolitical conditions. The ritual distinctions within artifact categories discussed in the previous chapter are applied to three sites in the Early Iron Age and Proto-Three Kingdoms period with a wealth of data that have nonetheless resisted compelling explanation: Hwangsōng-dong in central Kyōngju, Imdang and Sindae-ri in Kyōngnsan, and Tōkch'ōn-ni in southwestern Kyōngju. These cemetery profiles isolate common artifact groupings, regularities of ritual practice, and material culture stratification among tombs. The final section incorporates the results of these in a holistic assessment of common grave types and developmental trajectories at different cemeteries and brings the discussion back to the broader topic of this study: the role of mortuary ritual in the social development of Iron Age Yōngnam.

The character of each site calls for varying approaches to the material. While the rationale for particular statistical tests and procedures is introduced within the confines of each site profile, two primary dimensions drive the analysis in this chapter and are worth discussing in more detail here: tomb stratification and ritual variance at each site.

Tomb stratification and wealth

The goal of many early processual studies of mortuary variability was to reconstruct social hierarchies and systems of ranking through an examination of tomb clusters and cemeteries (Binford 1971, Saxe 1970, Tainter 1978). The supposed indicators of wealth and status in a tomb were thought to be tomb size, elaboration of furnishings, positioning, and number and type of grave goods. The primary objection to these studies was their underlying assumption

that wealth and ranking in cemeteries accurately reflected the same in a living social group (see Parker Pearson 1999). Even in later studies cognizant of the intermediating influence of ritual, assessing the overall wealth of a tomb or cemetery has been an important step in making meaningful distinctions within the data (Pader 1982, Morris 1986 and 1992). Similarly, I use distinctions of wealth within each cemetery profile to get a sense of the shape of mortuary ritual, how this changes over time, and make initial distinctions among the tombs at the site. But what actually constitutes ‘wealth’ or ‘value’ at individual cemeteries and what are valid criteria for creating hierarchical tomb categories on this basis?

Tomb furnishings and relative size often provide a good starting place and have been shown to serve as a good general indicator of rank in other East Asian contexts such as the Chinese Bronze Age (Falkenhausen 2006:137-139, Campbell 2007:chapter 8). Within southern Korea, some incomplete cemeteries at the interstice of the coffin and chamber tomb transition like Chungsan-ni show a marked distinction between large and small tombs that might have some correlation with the wealth or status of the interred (Lee and Kim 2000). At most cemeteries, including the ones profiled here, the largest tombs also contain large quantities of iron and ceramics as well as valuable objects. That said, there are also many small and average sized tombs with similar artifact inventories. Tomb size and furnishings are also highly sensitive to chronological change. Aspects of graves such as the waist-pit or surrounding ditch in coffin tombs, as well as the extravagant sizes of many long-chamber tombs, are more likely a product of their construction date than a conscious attempt to enhance the prestige of a deceased individual vis a vis their peers. At best, the presence or absence of certain features or overall tomb size can be considered potential indicators of differential wealth, but must be evaluated in the context of other aspects of the mortuary record.

Another important dimension to consider is the placement of the tomb in the cemetery itself. Tombs segregated spatially from other tombs, placed at a higher elevation, or single tombs conspicuously surrounded by others may indicate enhanced prestige or perceived kinship. This is certainly the case in many Three Kingdoms period tombs and reached its full expression in the concentric burials of Tae Kaya tombs in Chisan-dong (Lee Sŏngju 2006). Lee Hŭijun has also explored the connection between elevation, status, and kinship in the first century BC to first century AD coffin tomb site of P'aldal-dong and tentatively offers a connection between tomb centrality, elevation, and social prominence (Lee Hŭijun 2000b). This will also be considered as a possible indicator of wealth and status in the profiles, although for many of the more expansive sites considered here, the problem becomes even discerning actual clustering or placement distinctions within an already exceedingly crowded burial space.

In the context of Yŏngnam cemeteries, tomb construction, size, and cemetery organization are important considerations, but at the level of individual cemeteries, these are most useful as chronological indexes or for generating initial hypotheses. Instead, the most variable aspect of Yŏngnam tombs from the Iron Age and our best resource for investigating ritual and social distinctions are grave goods. Despite this, considering the variable ways of ascribing value and function to grave goods explored in Chapter 4, determining a measurable index of wealth or how unequal a cemetery is still a daunting task. As discussed in Chapter 4, iron seems to have communicated wealth more directly than ceramics; it did so not just through presence or amount but also through arrangement and placement. Ceramic vessels seem a better indication of the relative elaboration of the graveside ritual, but they also communicate some idea of wealth if found in large quantities (especially in southern Yŏngnam). The presence of valuable objects like bronze personal adornment, iron staff-heads, difficult to produce ceramic

objects, and trade goods of distant origin can also be said to connote greater wealth in the tombs in which they were found.

As touched on in the previous chapter, however, the value and ritual function of this latter category of grave good seem to have been understood differently at different sites. Relative rarity is a good measure of some degree of additional value. Later *wajil* serving vessels are quite rare at Hwangsöng-dong and are only found in large, tombs containing many grave goods, but at Tökch'ön-ni these were more ubiquitous and probably do not imply a greater degree of relative wealth at the site. As suggested by McCauley and Lawson (2007), consistency of placement may indicate a special function valuable object at particular sites. Decorated sword blades appear in a number of tombs at Hwangsöng-dong but are found at the waist of the deceased in all periods and all tomb types. The same can be said for axe blades at Imdang, which are not necessarily a rare grave good, but are always found in complex patterns beneath the corpse. While presence of valuable objects is an important dimension to consider when assessing hierarchical tomb categories, assigning particular objects to this category is a somewhat subjective assessment based on its relative rarity and placement within an individual cemetery.

Considering this, I use basic descriptive statistics for counts of objects in tombs as the starting point of analyses of wealth and stratification in the cemetery profiles. The mean number of artifacts subdivided into the two main types (ceramics and iron) can be compared across phases to gauge the overall shape of mortuary expenditure over time and the ritual priorities at any given site (i.e. preferencing display of iron over elaborate grave side rituals involving ceramics). The standard deviation of artifact counts in tombs also gives some idea of the homogeneity of ritual at a site, but another statistic, the Gini coefficient is perhaps a better measure of the inequality of grave goods. It is formulated and most frequently used as an index

of income inequality in modern nations, but it has been employed in a mortuary archaeological context by Morris (1987:141-142 and 1992:106-107). Calculated here as a percentage, a Gini score of zero denotes complete equality, with larger scores indicating greater and greater inequality as they approach 100%. Since the mortuary sample is fragmentary and the ‘wealth’ measured by the Gini statistic in this case is relative numbers of grave goods, we cannot assign much confidence that it is an accurate measure of wealth or resource distribution of a burying group as a whole. Nevertheless, it is still a good relative measure of *ritual stratification* within the sample and a good indicator of whether the mortuary data is biased by a small number of tombs containing a large number of artifacts.

Incorporating valuable objects into the assessment necessitates more complex measures based on relative rarity and subjective assessment of the prominence of particular objects in the burial assemblage. Flad (2002) outlines a useful application of Jørgensen’s burial elaboration methodology, which assigns a quantifiable value score to particular objects or groups of objects at a cemetery based on their rarity (a ratio of their presence in tombs compared to the overall number of tombs). Flad also makes a distinction between objects that had a ceremonial role in burial versus those that connoted an individual’s status, but this has limited application in the Korean context where the distinction is not as clear cut in the layout of tombs and valuable objects seem to have a plurality of meanings and functions dependent on each site and region. The grave-value scores produced by Jørgensen’s method also take a bit of work to properly calibrate—scores are highly affected by a few rare objects and probably over exaggerates any real measure of value or status in graves. Still, the score can quantify more subjective evaluations of value and, as Flad argues, it is a useful measure of *relative wealth* at single sites.

Campbell's (2007) extension of Flad's valuation is not particularly applicable to this case as his complex statistical calculations rely on tomb size as a measure of calibrating and corroborating rank and status determined from grave goods. Campbell does call attention to the importance of the interior space of the tomb in interpreting wealth and rank and this will be explored here too.

Ritual variance

As sketched out in Chapter 1, I assume that changes in burial ritual over time as well as synchronic variation in practice can be used to generate hypotheses about social structure and change. Describing this variation and isolating patterns within it on a methodological level requires further elaboration. Given the advantages of the Yŏngnam data—an abundance of relatively complete tombs and a consistent recording method that allows for the extraction of precise placement information for each grave good—it would be prudent to incorporate artifact placement in any measurement of how ritual varies at single sites and evolves over time.

Key diagrams serve as the starting place for quantifying this ritual variation. Primarily deployed by processual archaeologists in the 1970s, key diagrams were used as a means of classifying tombs with a view to establishing status groups within a cemetery (Saxe 1970, Tainter 1975). A number of dimensions of mortuary practice (such as method of the disposal of a corpse, orientation of the tomb, types or counts of grave goods) each with a limited set of variables (such as inhumation, cremation, secondary burial in the case of corpse disposal) are established and each tomb at a site assigned a componential definition on the basis of these variables. A componential definition with a large number of tombs that fall within it can then be said to constitute a meaningful 'type' within the cemetery.

The underlying assumptions behind use of the key diagram have been criticized; namely, that a living hierarchical status system was slavishly reproduced in burial practices or that tombs ought to fall into normative ideal types.⁶⁰ Aware of these critiques, Morris (1987:112) is ultimately sympathetic to the idea that tomb structure nevertheless represents a ‘mental template’ with a heavily redundant symbolism that is amenable to key diagram analysis when the object of study is the ritual practice itself rather than reflected social structure. But for Morris, the key diagram has only limited utility as a classificatory tool and is potentially more useful as a way of measuring variability within mortuary practice. Rather than assigning a type based on a large number of tombs falling under one componential definition, Morris first isolates the most frequently occurring variable within each dimension of mortuary practice employed in the key diagram. He then combines the variables for each dimension to produce an ‘ideal’ modal type. The degree to which each individual tomb varies from this ideal can then be measured (Morris 1987:112-113).

For example, in a cemetery for which four dimensions of mortuary practice can be isolated, each tomb potentially varies from the ideal modal from 0 to 4 degrees. 0 indicates a tomb that conforms completely to the ideal modal type, while 4 represents a tomb that shares no common features with the ideal modal type. By plotting the cumulative frequency of the variability of the entire tomb population (with the x axis representing the degrees of variance from the modal on a scale from 0 to 1 and the y axis the number of tombs also on a scale from 0 to 1), a variance score can be extracted by subtracting the area under the curve from 1. A score close to zero indicates a tomb population with very little variability while a score approaching 0.5 suggests a tomb population with a very high variability (Morris 1987:114-118).

⁶⁰ See objections to the post-processual orientation of mortuary studies collected in Parker Pearson (1999).

Morris acknowledges the problems of selecting meaningful dimensions and variables within the key diagram and interpreting the resulting variance scores in cases where the number of tombs is particularly small. In such cases, the selection of tomb attributes that represent intentional deposition is crucial to utilizing the system effectively (1987:114, 116). Variance analysis is employed here for two purposes. First, I use a modified version of Morris' variance methodology (explained in detail below) to grave good assemblages at individual sites in order to determine how much synchronic variation mortuary ritual exhibited and how this changed over the course of the life of a cemetery. Second, by determining which objects or sets of objects exhibit the most regularity at individual sites, this modified variance analysis allows for the selection of meaningful tomb attributes that can be used in a more orthodox application of Morris methodology to the region as a whole. The latter takes the form of a diachronic investigation of normative funerary practices in various subregions of Yŏngnam in Chapter 6.

The variance analysis undertaken in this chapter is not applied to tomb attributes as a whole, but to individual artifact types within a grave assemblage. Rather than dimensions of mortuary practice, I isolate dimensions of *artifact placement* within a tomb (position relative to the body, placement related to overall tomb shape, and placement within the tomb structure). By creating a key diagram for each object category (see Appendix 2, Figure 1 for an example artifact key diagram of this type), an *ideal modal placement* for that object category can be extracted. All the objects within this category at the site can then be assessed based on how many degrees they deviate from this ideal modal placement. The variance of each object category at a site or the region as a whole can be determined by following Morris' procedure (outlined above) to produce an *artifact variance score* for each object type. A concrete example

of how artifact variance is calculated can be found in the artifact variance section of the Hwangsöng-dong site profile.

Morris original methodology produces a *mortuary variance score* for an entire site or period. My modified procedure generates an *artifact variance score* for object categories within a site or period. It is also possible to use this modified procedure to produce a *tomb variance score* that measures how much an individual tomb varies in comparison to the entire tomb population at a site. First, the ideal modal placement for each artifact category at a site is determined by isolating the most frequently occurring variable within a set of dimensions of artifact placement. Next, a tomb is selected and each grave good contained within it classified as to how many degrees each varies from the ideal modal placement of that particular object type. This allows a cumulative frequency chart to be generated (following Morris' method) for the artifacts within the tomb and a tomb variance score calculated. An illustration of this method is provided in the tomb variance section of the Tökch'on-ni site profile.

Assigning each tomb a variance score based on the configuration of grave goods within it gives us another quantifiable measure of ritual behavior and is most useful as a means of assessing the distribution of highly variable ritual practices at a site and comparing the wealth of a tomb with its variance. There are a number of other possible candidates for variance analysis of this type, including tomb type, construction methods, size as well as location within the cemetery and associated features. These will be explored in future analyses of the cemetery material introduced here.

Methodology

With the preceding concerns in mind, data from a number of cemeteries were reevaluated and re-recorded with the goal of constructing individual site profiles and a regional database that

contains information on the placement of artifacts within a tomb in addition to details of tomb type, size dimensions, and grave-good assemblages. The internal spatial arrangement of Yōngnam tombs has been considered once before in Takaku's (2000) comparative study of Lelang and Samhan graves, which isolated six and 14 regions in coffin and chamber tombs, respectively and recorded artifact placement at 16 Yōngnam cemeteries. Considering Takaku's overall goal of assessing the influence of Lelang on Yōngnam mortuary ritual and a refinement of peninsular artifact chronologies, his categories are concerned primarily with tomb construction and the discrete zones in which objects are found. A similar approach was taken by Terasawa Tomoko (1984) in her analysis of Kofun period grave assemblages, although her study was more concerned with the central burial chamber itself and the placement of artifacts in relation to the body. Elsewhere in East Asia, Shelach (2009), Flad (2002), Allard (2002), and Campbell (2007) have also drawn attention to the importance of objects placed near or around the body when interpreting broad trends in burial practice.

The present study reassesses many of the tombs analyzed by Takaku, but the discovery and excavation of a number of new cemeteries and further refinements in our understanding of tomb construction in the intervening decade allows us to broaden the dataset and also consider cemeteries individually rather than a careful selection of well-preserved tombs from disparate sites. In addition, rather than focusing on just tomb construction or the body itself, variables of placement were recorded in a number of different dimensions that incorporate cardinal direction, the body, and tomb shape in addition to structural aspects of tomb spatial arrangement (see Table 5.1). Many of these dimensions overlap, but recording all these variables separately (as well as considering sites individually) minimizes the impact of variable excavation and recording

practices, allows for a greater number of tombs and objects to be considered, and makes a wider array of analyses feasible.

Table 5.1: Artifact placement dimensions and variables

Artifact placement dimension	Variables
tomb structure	coffin tomb coffin floor, in coffin, in lower fill, resting on lower fill, resting on coffin, in upper fill, resting on wood panel, tomb floor, waist-pit
	chamber tomb inside chamber on tomb floor, inside chamber not on tomb floor, pottery cluster in chamber end, artifact cluster in chamber side, diagonal central cluster, auxiliary chamber, attached auxiliary chamber
	both fill, in tomb, outside tomb, tomb mound, moat, unknown or surface find
cardinal direction	tomb center, north, south, east, west, northeast, northwest, southeast, southwest
placement in relation to the body	near the head, worn on the head or neck, near the feet, at the side of the body, worn on the waist, placed directly under the body
placement related to overall tomb shape	tomb center, at either end of the tomb, at either side of the tomb, in a corner

The most important variable recorded for each artifact is its placement within the overall structure of the tomb. For coffin tombs, most objects were found outside the coffin in various parts of the tomb fill, which, depending on the quality of preservation at the site, can be subdivided into the lower fill up to the level of the coffin, resting on this lower fill or the coffin itself, suspended in the upper fill of the tomb or placed on a wood panel often found at ground level above the upper fill. Artifacts are sometimes found within the coffin or in a separate waist-pit constructed underneath the coffin.

In chamber tombs, artifacts were found primarily within the chamber itself in a number of possible configurations: in isolation on the chamber floor, in a discrete pottery cluster at one end of the tomb or in diagonal lines near the midsection of the grave. An additional category, the upper portion of the chamber, designates objects placed on the chamber that fell into the burial

chamber. Artifacts in chamber tombs in the Kyōngnam region have also been found arranged in a line at the side of the corpse or in a much larger void space parallel to the body. In addition to the chamber, pottery also appears in the tomb fill between the chamber and tomb wall as well as in auxiliary chambers separate from, or segmented within, the main chamber. Less frequently, artifacts are discovered outside the tomb itself or in a surrounding mound or moat.

Artifact positioning relative to the body of the deceased was the most subjective placement category recorded. In the absence of good skeletal preservation, the alignment of the corpse—if discernible at all—could only be inferred from the position of objects of personal adornment, faint traces left in the soil, or tomb structural elements.⁶¹ Nevertheless, where possible, artifacts were recorded as being near or worn on the head or neck, near the feet, at the side of the corpse, worn on the waist or stomach, or placed directly under the body.

Two additional variables, cardinal direction and position relative to tomb shape, allowed for the inclusion of artifacts from tombs with poor preservation and a broad analysis of very general patterning at each cemetery. With the majority of tombs conforming to an east-west orientation, cardinal direction made it possible to discern the overall uniformity of artifact placement. Tomb shape functions as a coarser way of recording artifact placement in relation to tomb structure and the body.

Problems of recording still remain due to the heterogeneity of the data. Excavations at certain sites like Hwangsōng-dong often took place years apart and were undertaken by a number of different research institutes. Others such as Imdang and Taho-ri were among the first Iron Age tombs ever discovered on the peninsula and excavators did not enjoy the benefit of modern excavation techniques or a pre-existing framework within which to identify and record tomb

⁶¹ For example, the smaller number of tombs with skeletal remains allow us to be fairly confident that almost all pottery clusters were located near the feet of a corpse and rows of iron spears were placed beneath the head.

objects. While data input from all sites generally adheres to the nomenclature and categories of the individual reports, outdated or erroneous terms were corrected to preserve the coherency and utility of the database and a number of overlapping artifact categories were combined into single terms (for example, the ubiquitous short-necked jar variously recorded as wide-mouth jar, unadorned globular jar, round-base jar, etc. were all recorded as short-necked jar). Further refinements of artifact categories relevant to specific sites are detailed in each cemetery profile.

II. CEMETERY PROFILES

Hwangsŏng-dong

Hwangsŏng-dong is a site complex in the northern section of Kyŏngju, just north of the core area of the city that emerged as the Silla capital in the fourth century. The site contains Proto-Three Kingdoms and Three Kingdoms period tombs, dwellings, defensive fortifications, and iron production facilities. It was also in use during the Unified Silla period for the purpose of tile production. The first survey of the site took place in 1985 (NMK 1985) and, as the area became a major residential section of the city, a series of salvage excavations were undertaken by a number of different research institutes from 1994 to 2011.⁶² Most of these excavations took the form of large, open-plan projects that fully unearthed a wide area corresponding to the areas of planned building projects. As such, the area circumscribing the site is large (almost 23 hectares) but the actual excavation areas are fragmentary and our ability to reconstruct the entire complex in any one period compromised.

Despite these limitations, Hwangsŏng-dong has become one of the most important sources of information for Proto-Three Kingdoms dwellings, production technology, and transitional tomb forms. The site is also considered something of an anomaly, the majority of

⁶² See Appendix I for site report references and research institutions.

mortuary sites discovered in southern Korea as a whole are located on mountain slopes or low hills, but Hwangsŏng-dong occupies a flat plain bordered by two wide stream beds. This may represent a persistent recovery bias in the archaeology rather than a peculiarity of Hwangsŏng-dong.

What is unquestionably unique about the complex is its long period of occupation and the variety of human activities that took place in any given period. The earliest features of the site are a few first century BC and early first century AD coffin tombs in the southwest, with the majority of this initial occupation presumably destroyed by the construction of an elementary school prior to survey (KCHF 2003, An Chaeho 1995). A slightly later first century group of coffin tombs is located in the northeast portion of the site that Lee Hŭijun speculates would have been contemporary with the unrecoverable tombs in the southwest and points to at least two distinct burying groups using the area concurrently (Lee Hŭijun 2011b). After an unexplained hundred year chronological gap, more coffin tombs and early chamber tombs dating to the second century were constructed to the west of the later coffin tombs. For the first time we see the coexistence of multiple tomb traditions that continued throughout the Proto-Three Kingdoms period at the site. The next two phases of chamber tombs (second to third century) occupy roughly the same area but tend more to the east and consist of a period of square and rectangular-shaped graves and a final phase of rectangular and long-chamber graves (Ch'ŏe Kyŏnggyu 2006:118).

The earliest non-mortuary remains at Hwangsŏng-dong date to the first century AD and occupy an area just to the north of the earliest coffin tombs. Some of the regularly spaced structures in this area have been designated as dwellings (KBUM 2000a, 2000b), but they also appear to have been areas of localized, small-scale iron forging based on the anvil stones and

iron slag found within them. These were possibly small workshops that acted as communal living and working areas (Kim Segi 1994, Ch'oe Kyōnggyu 2006), although the idea that they functioned as dwellings at all has recently been questioned (Lee Hūijun 2011b).

The next phase of occupation and iron production occurred in the second century and is contemporary with the early chamber tombs at the site. These structures—located just north of the first century iron forging facilities and buildings—are larger, show more of a clear separation between production and living spaces (Kim Nayōng 2009), and are clustered in groups of three to five. Even though the prevailing assumption is that the chamber tombs were linked to the residents of these structures (Ch'oe Kyōnggyu 2006, An Chaeho 1995, YICP 2010a), Hwangbo and Lee (2009) and Lee Hūijun (2011b:164) assert that the 11 dwellings cannot account for the 139 chamber tombs from the second to third century and that there is an undiscovered village or residential zone somewhere in the vicinity of the existing site.

The area in between this production area and the chamber tomb cluster to the north probably also contained Proto-Three Kingdoms tombs and buildings, but this is obscured by a cluster of Three Kingdoms stone-chamber and piled-stone tombs and tile kilns from the Unified Silla period. Recent, unpublished excavations of this region have revealed close to 100 Proto-Three Kingdoms chamber tombs with most being disturbed or destroyed (SICP 2010a). The majority of intact Iron Age graves, however, are concentrated in the northeast section of the site. The variety of transitional tomb forms and the overlapping production and habitation areas makes generalizations about the assemblage as a whole difficult. Most researchers assign two broad periods of development: an early first century BC to first century AD phase with a small number of coffin and chamber tombs as well as limited, small-scale iron working. This is

followed by a relatively rapid period that saw burial, production, and building construction grow exponentially from the second to third centuries (YICP 2010a, Ch'ŏe Kyŏnggyu 2006).

The close proximity of Hwangŏng-dong to the Silla capital and the abundance of evidence for iron production—an important resource for the emerging rulers of Silla and Kaya—invites the argument that the site and its burials represent the earliest form of the Silla elite class that would emerge in force in the fourth and fifth centuries. The number of graves declined in the Three Kingdoms Period and this was paralleled by the growth of elite tombs in the center of Kyŏngju. Hwangŏng-dong is also the only large cemetery recovered in the vicinity of the Silla capital prior to the fourth century. Ch'ŏe Kyŏnggyu goes as far as associating Hwangŏng-dong with the reign of the early Silla king Talhae appearing in the *Samguk sagi* (Ch'ŏe Kyŏnggyu 2006).

Recently, other scholars have introduced some problems with this assertion. For one, as an 'elite' cemetery, Hwangŏng-dong is curiously devoid of large, elaborately furnished tombs in either phase and graves are much more modest than those at contemporary sites like Sara-ri and Choyang-dong elsewhere in the Kyŏngju plain (Lee Hŭijun 2011b). There are also no large mounded tombs dating to the Three Kingdoms phase of the site, something that would be expected for a burial ground associated with Silla nobility. Lee Hŭijun points instead to the single, but elaborately furnished, tomb at T'ap-dong in downtown Kyŏngju as a more likely candidate for the location of the incipient Silla core elite cemetery and argues that Hwangŏng-dong probably represents the burial ground and production area of a peripheral group (Lee Hŭijun 2011b). For Lee, Hwangŏng-dong was a long-lasting village settlement that enjoyed an important, if subordinate, role in a regional village system; its existence is an important indicator

of the long-term maintenance of the *ŭmnak/soguk* system in northern Yŏngnam (Lee Hŭijun 2000b).

As discussed in the previous chapters, the archaeology is ambivalent regarding the material existence of this social framework but the essential insight of Lee Hŭijun's argument is worth investigating in more detail: was Hwangšŏng-dong a cemetery for a non-elite village community and production center that supported an elite core? What factors affected placement and positioning of graves and how did the organic development and crowded nature of the site affect grave placement and ritual treatment? What does the abrupt growth of the cemetery as well as the concurrent increase in the number of dwellings and iron production in the second century signify?

Relative chronology

The first task is to group tombs in a relative chronological framework. The most recent seriation, the four-phase system developed by the excavators of area 575 of the site (YICP 2010a), serves as a good foundation for this as it allows earlier chronologies (TGUM 2002, Ch'ŏe Kyŏnggyu 2006) to be easily calibrated and integrated into an overall framework. This produces 213 tombs in four chronological phases with the majority of tombs dating to phases II through IV, roughly the mid-second to early fourth century AD (Table 5.2).

Phase I-1 consists of the earliest coffin tombs at the south end of the site while I-2 is made up of those in the northeast, the latter corresponding to Ch'ŏe Kyŏnggyu's phase I and YICP's coffin phase I. Phase II contains coffin tombs and chamber tombs as well as several coffin-tomb lineage chamber tombs that maintain a coffin-tomb arrangement of artifacts but a chamber-tomb construction method. This is roughly equivalent to YICP's coffin phase II and chamber phase I and Ch'ŏe's phase II. Period III (also phase III in Ch'ŏe and YICP's schemes)

contains the largest number of tombs and is composed of square, rectangular, and long-chamber tombs with the majority of these being rectangular. Period IV saw a decline in the number of rectangular tombs and a much larger proportion of long tombs. There is a noticeable chronological shift from coffin to chamber tombs and another from rectangular to long or slender burial chambers, but it is important to note that within any given period in Hwangšong-dong, at least two tomb building methods were practiced simultaneously.

The four-phase system is based on robust ceramic, iron, and tomb-construction typologies, but it is still difficult to determine how accurate a representation it is of the development of the site or if it is a reflection of a high degree of synchronic variation in ritual practice. While the four phase framework is used in the subsequent analysis, for the purposes of the several tests especially sensitive to chronological changes, I divide the site into an initial coffin period (phase I in the four phase chronology) and then an early (phases I-2 and II; the late first century until the mid-third century) and late period (phases III and IV; the mid-third century to the early fourth century) (Table 5.3). At this broader scale, we can be certain that the differences in artifact assemblages and tomb styles actually represent distinct chronological periods. The transition from early to later *wajil* ceramics required a degree of technical sophistication that was not present prior to the second century and chamber tombs bearing similarities to coffin tombs had ceased to exist by the third century in all areas of Yōngnam.

Table 5.2: Combined site phases and tomb numbers

Phase	Rough dates	jar burials	coffin	chamber	pit	total
I	first century BC to early first century AD	0	4	0	0	4
I-2	late first century	0	5	0	0	5
II	mid second to early third century	0	9	23	0	32
III	mid-third century	0	0	48	0	48
IV	late third to early fourth century	0	0	34	0	34
undated		50	5	34	1	90
total		50	23	139	1	213

Table 5.3: Simplified site phases and tomb numbers

Phase	Rough dates	coffin	chamber	total
initial	first century BC to early first century	4	0	4
early	late first century to early third century	14	23	37
late	mid-third century to early fourth century	0	82	82
total		18	105	123

Table 5.4: Functional artifact types and counts

Type	# of artifacts	Type	# of artifacts
arrow	110	nested jar	2
big storage	5	ornament	75
bird shaped pottery	4	pottery fragment	15
cast axe	10	raised dish	13
clay ball	2	ring pommel sword	6
cup	1	serving jar	21
dagger or knife	36	short necked jar	199
decorated spear	15	spear	126
decorative storage	57	staff head	16
fan-necked jar	7	sword	55
flat axe	13	tool	201
halberd	1	unique	1
horse	4	unknown iron	13
hourglass jar	7	urn	53
mushroom shape pottery	2	Grand Total	1070

Structure and development of the site

Tomb information and grave good placement were recorded for all published coffin, chamber, and jar tombs at the site. The various terminological differences among different reports were then standardized and reorganized into a simplified functional typology based on the artifact groupings established in Chapter 4.⁶³ Next, a subjective determination of whether or not an object type should be considered valuable was made based on the rarity, difficulty of manufacture or procurement, and prominence in the burial assemblage. To assess the overall distribution of artifacts in tombs, basic descriptive statistics were generated showing the average number of grave goods per tomb as well as separate calculations for the two largest artifact categories: metal objects and ceramics (Table 5.5). Since the number of tombs in the initial phase of the site is so small, only chamber tombs from the early and late phases were considered.

Table 5.5: Descriptive statistics for the number of artifacts per tomb

Phase	Artifact	# of tombs	Mean	Median	Mode	Std. Deviation	Gini score
full site	all artifacts	136	7.45	5	5	6.355	44.57
	metal		4.33	3	0	5.361	59.67
	ceramic		2.71	2	0	2.876	55.17
Early	all artifacts	32	8.25	7	5	6.048	35.89
	metal		6.63	5.5	8	5.879	43.48
	ceramic		1.19	1	0	1.281	56.25
Late	all artifacts	74	8.77	7	3	6.572	39.97
	metal		4.3	3	0	5.319	58.32
	ceramic		4.11	3.5	2	3.095	41.43

On first inspection, artifact counts in individual tombs appear relatively stable over the lifespan of the site, but metal and ceramic objects show an interesting inverse relationship (iron objects are more prevalent in the early period while ceramics are more numerous in each tomb in the late phase). The relatively high Gini scores also suggest that artifacts were not distributed

⁶³ These types and artifact counts are summarized in Table 5.4. The original site terminology and justification for including specific artifacts are found in Appendix II, Table 1.

evenly in tombs but that the shape of this inequality is relatively constant over time (the only exception to this is metal objects, which are concentrated in a very small number of tombs in the late phase of the site). Histograms generated from the same data confirm this and show that the raw numbers are somewhat skewed by the presence of several outlier tombs in each period with high object counts (Figure 5.1). Eliminating these from the dataset (Table 5.6) produces figures that more accurately represent the average number of artifacts per tomb and the degree to which this varied (the standard deviation) for the majority of tombs at the site. While the standard deviation in the corrected table shows a marked decrease, the inverse relationship between metal and ceramics in the early and late period seems to have been unaffected by removing the small number of artifact-rich tombs. The corrected tables also show that most tombs in the early and late phases contained a modest three to six objects per grave and that ceramic vessels replaced iron tools and weaponry as the primary grave good over time.

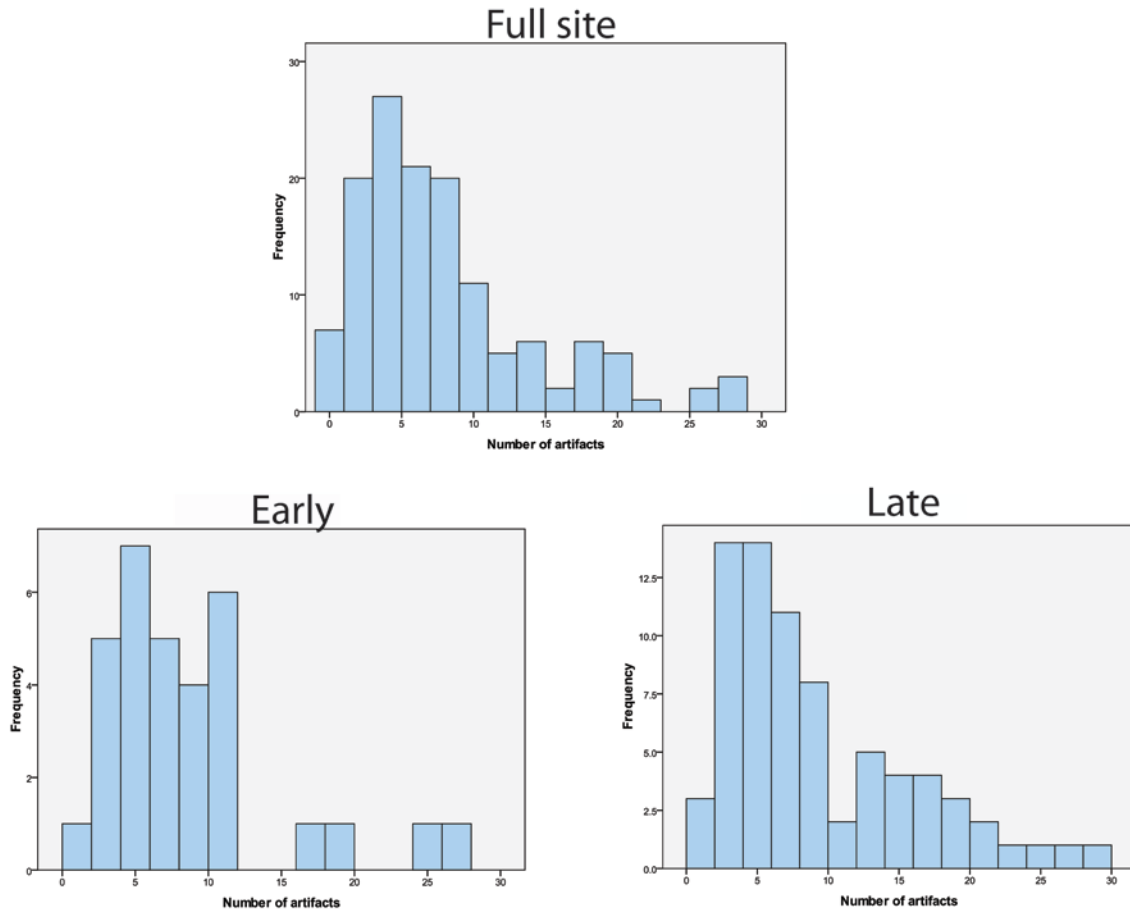


Figure 5.1: Histograms for artifact counts for Hwangsŏng-dong (full site and sub-divided by phase)

Table 5.6: Descriptive statistics with artifact-rich outlier tombs removed

Phase	Artifact	# of tombs	Mean	Median	Mode	Std. Deviation
full site	all artifacts	126	6.21	5	5	4.633
	metal		3.21	2	0	3.419
	ceramic		2.59	2	0	2.725
Early	all artifacts	29	6.69	6	5	3.465
	metal		5.14	5	8	3.346
	ceramic		1.1	1	0	1.235
Late	all artifacts	67	7.28	6	3	4.779
	metal		2.94	2	0	2.969
	ceramic		3.99	3	2	2.921

The descriptive statistics show that the average number of objects per tomb increased over time and ceramics gradually replaced metal objects as the most prominent grave good.

Despite these changes, the distribution of wealth at the site remains relatively consistent. The Gini scores for all artifacts in the early and late phases (Table 5.5) are almost the same, and the histograms for the same data (Figure 5.1) show a pattern of many tombs with ten or fewer objects and one or two outlier groups with 15 to 30 grave goods. Additional statistical tests of the mean number of artifacts per tomb (see Appendix 2 Tables 2 and 3) reinforce the pattern. This consistency in the relative wealth distribution is significant considering the long lifespan of the site and diversity of tomb types.

Artifact correlations

One key aspect of the underlying structure of the cemetery—the relative distribution of artifacts in tombs—appears to have not changed significantly over the lifespan of the site. Conversely, when variables beyond simple counts of pottery and iron are considered, the ritual practice in evidence at the site is less easily apprehended. There are no obvious patterns in the types of objects interred in tombs or sets of grave goods common to a large number of tombs.

Even with an idea of the overall trajectory of mortuary practice and the shape of wealth distribution at the site, determining how and why ritual evolved requires finding patterns within the overall noise of the cemetery. The first step of this is an attempt at finding relationships among the functional artifact categories distilled from the overall Hwangsŏng-dong assemblage. Bivariate correlations can be used for this purpose to assess whether any artifact-type pairing has a positive or negative relationship or no direct association at all. Pearson's correlation coefficient (r) is the most commonly used correlation for this purpose in archaeology and the social sciences (cf. Shennan 1997, Field 2009). Given the very heterogeneous data (Pearson's assumes that the original data are normally distributed) and the relatively small size of the sample of concern here, it is more likely to produce misleading results. The non-parametric

Kendall's tau (τ) makes fewer demands on the original data and determines whether two variables correlate by applying Pearson's correlation after the original data are ranked based on the quantities of their distribution.⁶⁴ The correlation coefficient produced ranges between -1 and 1 with values closer to -1 and 1 representing two strongly negatively or positively related variables, respectively and 0 indicating no significant relationship.

Only one significant positive correlation was detected among pottery types: short-necked jars and later *wajil* decorated storage jars ($\tau = .421, p < .001$). Considering that both these objects are similar in shape and both types are found in pottery clusters in chamber tombs, this result is hardly surprising. It does indicate that the decorative pots that appeared in the second century did not replace short-necked jars common in tombs from the first century BC onwards. Rather, they enhanced the overall array of storage vessels, which continued to be made up of short-necked jars. Running the correlation again controlling for the two different site phases (early and late) and tomb types (coffin, rectangular chamber, and long-chamber), we see the same correlation in the late phase between short-necked jars and decorative storage jars. There does not appear to have been much thought given to which kinds of pots were grouped together in any period. The correlation between the two vessel types cannot be seen in square or rectangular chamber tombs but is present in long or slender tombs. Considering this, the appearance of the later *wajil* decorative storage vessel seems to have appeared at the same time as long-chamber tombs after the second century.

There are more distinct relationships among the different types of iron objects. In the early phase of the site there is a significant positive correlation ($\tau > .475, p < .001$) among

⁶⁴ See Shennan (1997:145-147), Field (2009:chapter 6), and Drennan (2009:chapter 16) for a full discussion of non-parametric rank correlations and their applicability to archaeology. While Drennan advocates the use of Spearman's rank correlation, the high number of identical ranks in the Hwangsöng-dong data and arguments in Field (2009:181) that Kendall's tau provides a more accurate measure of correlation make it the preferable option in this case.

weapons (arrows, spears, swords). In addition to these correlations, the late phase also shows correlations between a number of newly appearing valuable objects (jagged staff-heads, decorative spears, and decorated swords). These values are also reproduced when the data are subdivided by tomb type, with the exception of arrows that are by and large absent from long-chamber tombs. Most valuable objects appear together with the exception of ring-pommel swords, which show no correlation with any other object type. Even with their small number, one would expect them to occur frequently with staff-heads, spears, swords, or other rare metal objects. Their isolation hints that these objects had a different function within the burial ritual distinct from other iron weaponry. Correlations between ceramic and iron objects produce no additional relationships, but show a general trend towards valuable objects being more likely to occur together.

Artifact variance

With no sets or modular elements of ritual practice easily identifiable from the artifactual data, how best to assess the ritual variability of the site? Considering the lack of relationships between artifacts and the difficulty of establishing coherent patterns or practices exclusive to one more tomb type, the only recourse is to move away from trying to ascertain the character or patterning of ritual at Hwangsŏng-dong to a determination of how wildly ritual practice varied in each period and among each tomb type. Morris' key diagram methodology can be applied to determine the degree of variability in the placement of each artifact type. The dimensions of placement measured for each artifact were position relative to the body, tomb structure, and tomb construction (see Table 5.1). For each of these dimensions, the most frequently occurring variable was determined and an ideal modal placement for each object category established.

Each individual artifact found at the site was then assessed against its ideal modal placement to determine how many of its dimensions diverged from this ideal (see Appendix 2 Table 4).

For instance, in the case of arrowheads, the ideal modal placement was an object at the side of the body, at the side of the tomb, and located inside the main burial chamber. Therefore, an object discovered in this exact configuration was determined to have zero degrees of differentiation from the ideal modal. 35 objects conform to this placement while 23 differ in one degree, 10 differ in two degrees, and 12 differ in all dimensions. When this distribution is plotted as a cumulative frequency curve, each dimension of differentiation scores 0.33 on the x-axis (0 degrees of differentiation from the ideal modal = 0, 1 degree = 0.33, 2 degrees = 0.67, and 3 degrees = 1) and each object scores 1/80 total objects or 0.0125 on the y-axis (0.44, 0.73, 0.85, 1). Subtracting the area of this curve from 1 produces a tomb variance score of 0.2352. By itself, this number does not have much meaning other than suggesting that about half of the arrowheads at the site conform to the ideal modal placement. When the score is compared to the variance scores of other artifact types (Table 5.7), we find that arrowheads were more variable in their method of placement in a tomb than most other objects at the site.

Table 5.7 presents the variance scores for each artifact type at the site subdivided by site phase (early and late) and tomb type (coffin, rectangular chamber, and long-chamber). An additional table in the appendix (Appendix 2 Table 4) also records the ideal modal placement for each artifact type and the number of objects used to calculate the artifact variance score. Individually, the variance of each artifact type is not particularly instructive beyond demonstrating that mortuary ritual was, on the whole, extremely variable at the site. The placement of two objects, tools and urns, show an especially high variance in all periods, while spears and short-necked jars show more consistency in all periods despite their relatively high

numbers. The object types exhibiting the least variation were swords and daggers, which were almost always located in the main chamber or coffin at the side of the deceased (probably worn on the body). Viewed by site phase, there is no clear trajectory of ritual variation. The placement of all artifacts was slightly less variable in the late phase, but some object types such as ornaments and arrowheads were highly variable. The latter is likely a result of the relatively fewer number of arrowheads in long-chamber tombs. In general, artifacts that were highly variable in the early period (urns and tools) are almost equally variable in the later period. Swords are noticeably consistent throughout both phases and are found in the same place in all tombs (at the side of the corpse in the main burial chamber).

When variability of placement is considered at the level of tomb type, some additional patterns emerge. Each tomb type seems to have had one or two objects that were placed extremely consistently—ornaments near the head in coffin tombs, swords near the waist in rectangular tombs, and daggers and swords near the waist in long-chamber tombs. Objects in coffin tombs show a slightly greater variance than those in the subsequent rectangular-chamber tombs. This trend did not continue in the long-chamber tombs that came to dominate the tomb assemblage in the late phase. In these long-chamber tombs, even objects that are rare finds show a greater variance over their counterparts in rectangular tombs. The only other artifacts with a generally low variance within long-chamber tombs are valuable objects such as later *wajil* serving vessels, bird-shaped vessels, and jagged staff-heads.

Looked at in this way, the seeming chaos of ritual practice at the site does not entirely subside, but it does become more manageable. For all periods, particular object types such as daggers, swords, and valuable objects tended to have a more consistent and careful method of placement. And while variability does not change markedly from the early to late phases at the

site, there are noticeable patterns of repeated artifact placement and some consistency within specific tomb types.

Table 5.7: Variance scores for artifacts subdivided by site phase and tomb type at Hwangšong-dong

artifact	phase	variance score	artifact	phase	variance score	artifact	phase	variance score
arrow	all	0.2352	short necked jar	all	0.2177	raised dish	all	0.0554
	early	0.144		early	0.3892		early	.
	late	0.3954		late	0.2006		late	0.0554
	coffin	0.2457		coffin	0.055		rectangular	0.0707
	rectangular	0.123		rectangular	0.2463		long	0.0412
	long	0.4043		long	0.2773		staff-head	all
dagger	all	0.188	tool	all	0.3511	early	0	
	early	.		early	0.3782	late	0.3165	
	late	0.188		late	0.3346	serving jar	all	0.2261
	rectangular	0.3325		coffin	0.2866		early	.
	long	0.133		rectangular	0.3107		late	0.2261
		long	0.3368	rectangular	0.1495			
spear (all)	all	0.2348	urn	all	0.3778	long	0.0825	
	early	0.3134		early	0.3956	ornament	all	0.2493
	late	0.202		late	0.341		early	0.15
	coffin	0.2877		coffin	0.3331		late	0.2245
	rectangular	0.2081		rectangular	0.2857		coffin	0.0714
	long	0.304		long	0.2629		rectangular	0.2423
				long	0.2995			
sword (all)	all	0.1407	decorative storage	all	0.2235	spear	all	0.2849
	early	0.1203		early	.		early	0.3134
	late	0.1224		late	0.2235		late	0.1597
	coffin	0.185		rectangular	0.1968		coffin	0.3182
	rectangular	0.0885		long	0.1798		rectangular	0.2081
	long	0.166					long	0.2217

Spatial analysis

Hwangšong-dong is highly fragmentary, and the true extent of the settlement and workshop facilities associated with the Iron Age mortuary remains are unknown. The northern portion of the site preserves the spatial distribution of at least one significant tomb cluster, but the appearance of tombs at additional excavations to the north, east, and west of this concentration suggest that the true extent of the mortuary complex was much larger than what survives today (Figure 5.2). More tombs were likely destroyed by later Three Kingdoms burials south of the main tomb cluster. Of the tombs that do survive, most conform to a general

northwest-southeast orientation and exhibit the same organic clustering present at Sindae-ri and explored in Chapter 3.

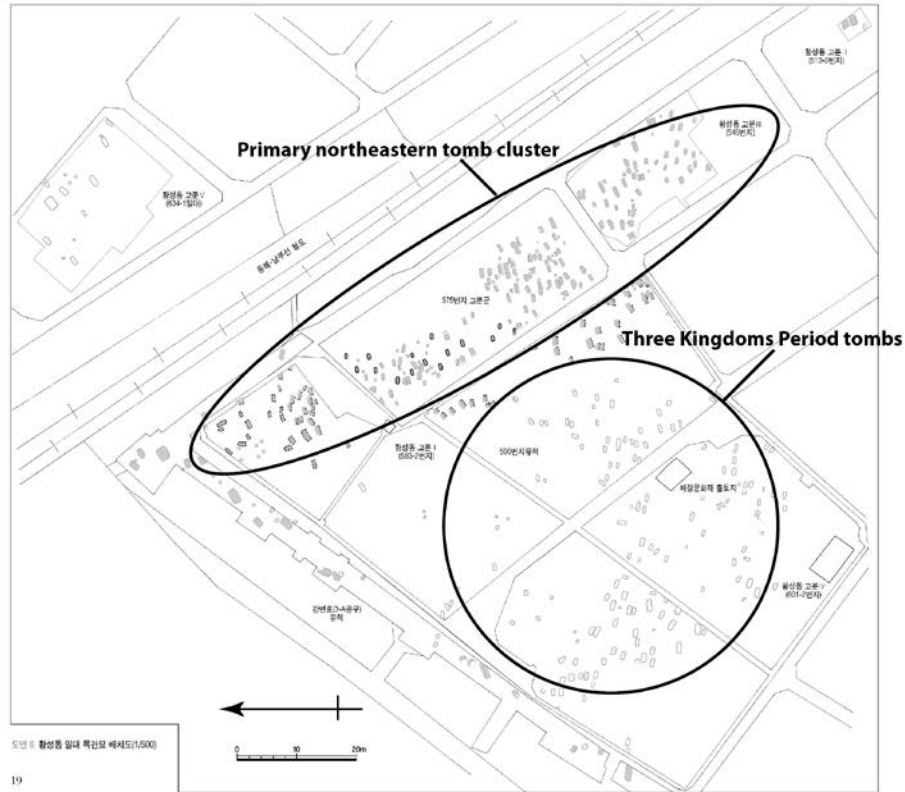


Figure 5.2: Northern section of Hwangsoŋ-dong showing tombs and major excavation areas (YICP 2010a)

Even the earliest coffin tombs in the northern portion of the site exhibit clustering, although these are similar to the evenly spaced burials of Taho-ri in southern Yōngnam. Despite the fact that the burial area expanded in the early chamber tomb phase, tombs were placed among earlier tombs rather than preserving an even spacing between graves; new tombs fill in the space of existing clusters rather than expanding the existing burial area. The site grew rapidly in the late phase and in terms of spacing, these newer interments are even more conscious of their proximity to earlier graves. While the pattern of placement at the entire site is unrecoverable, there does seem to have been a preference for siting new tombs within pre-

existing clusters (Figure 5.3). Large tombs with high artifact counts and containing valuable objects (at Hwangšong-dong these include later *wajil* serving vessels including duck-shaped pottery, iron staff-heads, horse-riding equipment, as well as decorated swords and spears) are also inserted among existing tombs rather than being set apart from other burials (Figure 54).

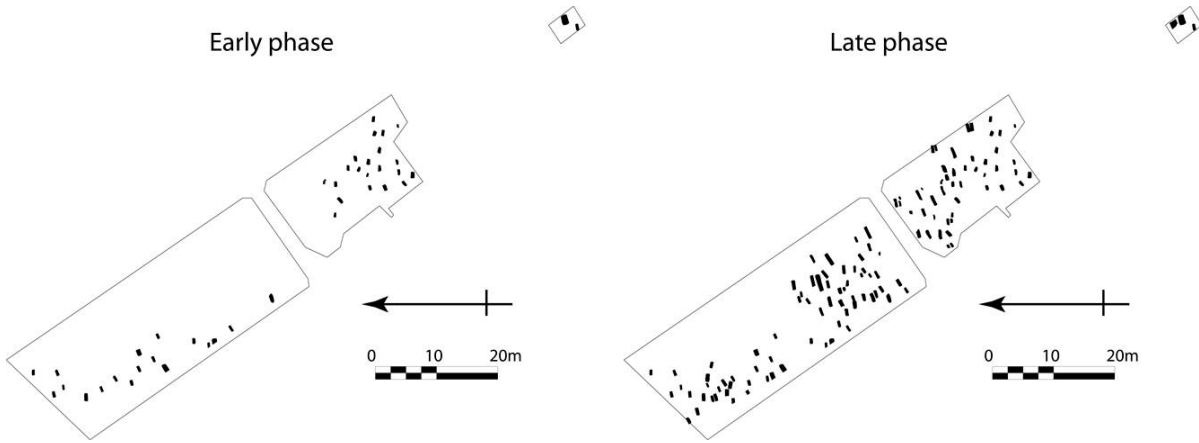


Figure 5.3: Early and late phases of the site showing clustering of graves

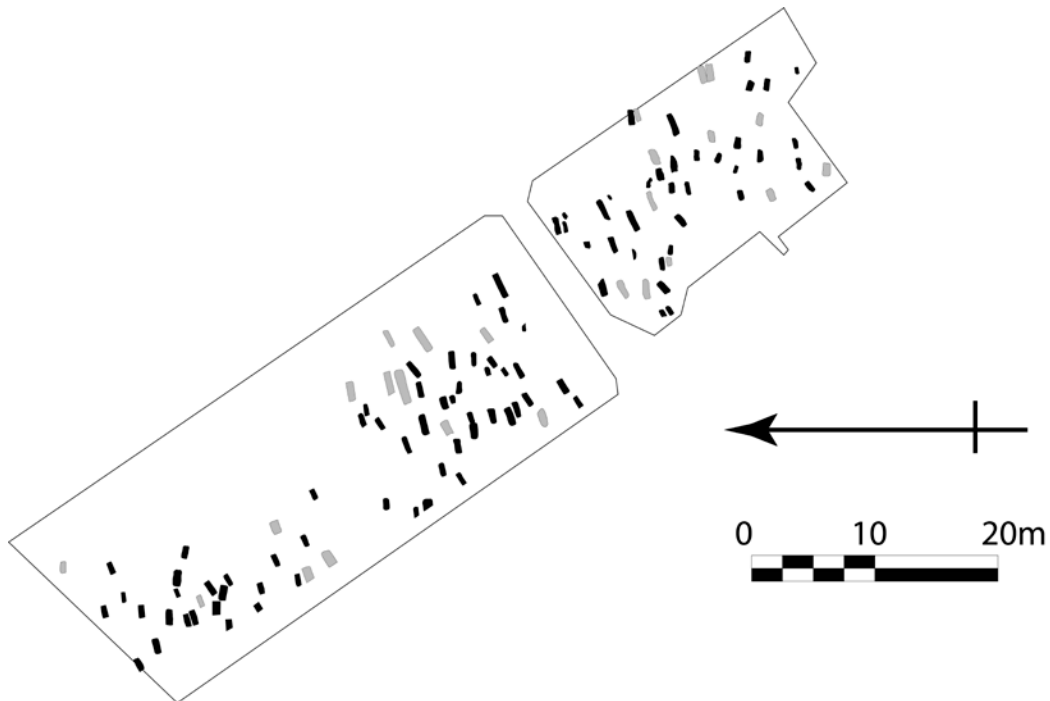


Figure 5.4: North and northeastern tombs with outlier tombs (grey) indicated

Any interpretation of this patterning is highly speculative. The clusters may indicate the importance of expressions of kinship through relative grave placement, or merely represent a lack of space at the site. The placement of a number of artifact-rich tombs within a small area in the latter half of the use of the site may also be significant; but whether this implies that emerging elites were trying to establish their place within existing social or mortuary configurations or asserting dominance over already established social structures is an open question. One final aspect of the spatial arrangement of graves is the presence of two very large long tombs from the later period within one of the most crowded sections of the site. The conscious placement of these large and elaborate graves contravenes their expected location, if practical considerations of space were of primary concern to the burying group. Several other small tombs from the later period also cluster around these large tombs and contrast with the already established east-west alignment of the majority of graves at the site. This may be an incipient version of the elaborate clustering of small tombs around prominent tombs in Kaya cemeteries of the early Three Kingdoms Period discussed by Lee Sŏngju (2006).

Assessment and regional context

Hwangsŏng-dong is a large mortuary complex that seems to have been the product of organic development process over a 400 year period. It was the result of an ad hoc process of accumulation rather than conscious planning or a well-established mortuary program. After the preceding analysis, it is also apparent that the ritual practice at the mortuary complex was diverse—multiple tomb traditions coexisted over the life of the site and artifact placement suggests that that the practices accompanying burial and tomb construction were not subject to a well-defined set of procedures or sumptuary rules. The range of objects interred in tombs is relatively small, but the role of any particular grave good in the mortuary ritual was fluid.

Earlier customs certainly informed aspects of practice (particularly in the consistent placement of swords and daggers on the waist of the corpse), but artifact placement was also strongly influenced by circumstantial and practical considerations.

Despite this, fundamental aspects of the structure of the site (relative wealth distribution, pre-defined mortuary clusters and areas) were distinctively consistent despite the almost 400-year lifespan of the site. Wealth distribution as defined by the amount and type of grave offerings was relatively stable at Hwangsŏng-dong. Phase II coffin and chamber tombs show the same distinctions as Phase IV multi-chamber long tombs. The character of ritual practice changes in the types, amounts, and placements of artifacts in tombs, but the cultural structures underlying burial were consistent.

Ritual change then, is better described as a change in fashion rather than structure (Lesure 2012). The character of this fashion can be summed up as ‘loose’ and ‘imitative’ for much of the life of the site. Outlier tombs with large counts of artifacts and containing rare or valuable objects do not conform to burial practices either within the site or in Yŏngnam as a whole. Some of these graves have seemingly randomized and carelessly placed iron objects and no pottery or an overabundance of one type of artifact placed seemingly without regard to the corpse or tomb structure. Other tombs seem to contain elements of mortuary practice found elsewhere in Kyŏngju or northern Yŏngnam but are few in number, less carefully placed than at contemporary sites, or are interesting inversions of these regional practices. Arrays of spears and swords under the head of the corpse are present at Hwangsŏng-dong and decorative later *wajil* serving and storage vessels do appear in small numbers, but rather than being evidence of the highly specific feasting or offering ritual of sites like Tŏkch’ŏn-ni, these are single vessels that evoke a connection between the burying group of the tomb with the more elaborate practices of groups in

the region, but without knowledge of the underlying structure governing how to use the vessels in a mortuary context. The single outlier tomb at the site to contain duck-shaped pottery also contains two owl-shaped vessels that evokes the very specific duck form but also violates its iconography.

This is consistent with the idea that Hwangsŏng-dong was the burial ground of a group peripheral to the emerging centers of power during the Proto Three Kingdoms Period. The slow abandonment of coffin tombs and the presence of chamber tombs with coffin-tomb style artifact placements also contrasts with sites elsewhere in the Kyŏngju plain like Tŏkch'ŏn-ni and Sara-ri where chamber tombs and their attendant grave goods were adopted more readily. The imitative character of many of the outlier or artifact rich graves also suggests some knowledge and emulation of the practices of nearby elite groups. An important caveat however, is that nothing in the ritual practice suggests strong control by an outside group over burial practice. This cannot be taken as evidence that no system of control existed, but it is not consistent with the idea of a subordinate peripheral group within a hierarchical network of control. In terms of burial practice, the Hwangsŏng-dong burying group seems to have been free to cobble together a distinctively chaotic array of mortuary ritual elements borrowed from other groups as well as mutations of traditions present from an early period at the site.

Imdang and Sindae-ri

Today, the only visible indicator that the site of Imdang was occupied in antiquity are a few Silla-period mounded tombs on a hillside visible from a major road into the city of Kyŏngsan. These tombs actually represent a sliver of the ancient remains of the area at the height of its occupation. The majority of the site—a patchwork of Iron Age, Three Kingdoms,

Koryŏ, and Chosŏn tomb clusters, ring-ditch fortifications, dwellings, and an earthen fortress wall—span some 400 years and lie under a modern sprawl of apartment buildings and businesses.

Together with Sindae-ri about half a kilometer east of Imdang proper, the Iron Age features of the site constitute 279 coffin and chamber tombs, 69 jar burials, a 32m ring ditch feature dating prior to the first century BC, and almost a hundred dwellings in two clusters. Like Hwangsŏng-dong, Imdang is the product of several large, open-plan salvage excavations that do not overlap and provide only hints of the spatial distribution of graves and their relationship to settlements. There are at least three major coffin tomb clusters at the site: west (areas F and G), central (areas E and D-II) and east (areas A and C-1). Many scholars (Lee Hŭijun 2004b, Chang Yongsŏk 2007, YICP 2010b) subdivide the central and east tomb group into two discrete clusters each for a total of five tomb groups spanning the entire 1.5km² area of the site (Figure 5.5).



Figure 5.5: Imdang and Sindae-ri major site excavations and coffin tomb clusters (red: pre-first century BC tombs, blue: first century BC to first century AD) (YICP 2010b)

The chronology of the three groups is not straightforward. The coffin tombs in the western cluster contain mumun and clay-rim ceramics as well as slim bronze daggers that date

prior to the first century BC, making them the earliest tombs at the site. The tombs in the central and eastern clusters all contain *wajil* ceramics dating to the first century AD. Similar artifacts are also found just north of both clusters (Choyŏng area 1B and the northern portion of Area A). Their presence indicates that there may be tombs dating prior to the first century BC in these two areas that have been lost (Lee Hŭijun 2004b). There are also some *wajil*-ceramic tombs in the west tomb group that may point to a larger first century AD tomb cluster that was destroyed by the construction of the Silla earthen fortress in this portion of the site (Lee Hŭijun 2004b). Originally, excavators argued that the site represented one burying group that began in the west prior to the first century BC and gradually moved east. The consensus in more recent studies is that each section of the site was in use from prior to the first century BC until the first century AD and represents two or three burying groups (Lee Hŭijun 2004b, Chang Yongsŏk 2007, YICP 2010b). In addition to the coffin tomb clusters in Imdang, Sindae-ri also contributes 115 tombs in at least two clusters. This area contains no pre-*wajil* ceramics and the tombs have been dated by YICP (2010d) as spanning 0 to 150 AD, though, as discussed in Chapter 3, a 0-200 AD use period is also plausible. This makes Sindae-ri roughly contemporaneous with all but the earliest pre-first century BC tombs at Imdang.⁶⁵

There are no habitation features contemporary with the coffin tombs. The earliest non-mortuary feature at the site is a 32m ring ditch north of the Silla period fortress and the west tomb group. The fill of this ditch contains ceramic fragments, stone axes and arrowheads, and a slim bronze dagger with pommel, suggesting a use period from as early as the third century BC to the late second century AD (YICP 2010b). The purpose of the structure is ambiguous. The abandonment of the feature coincides with the construction of the Silla fortress and, according to

⁶⁵ Preliminary surveys of the Sindae-ri area did uncover three coffin tombs to the southwest of the cemetery proper, two of which may be earlier than the first century and contemporary with the earliest tombs at Imdang (YICP 2009c).

Chang Yongsök (2007:53-54), the ditch and a natural cliff face to the north could have enclosed a village settlement as a defensive fortification. In contrast, excavators of a larger section of the ditch interpret possible postholes as evidence of a superstructure with a restricted entrance, and see the ceramics and bronze objects recovered from the fill and the high elevation of the interior of the ring as an indication that the feature was a raised altar of some kind and the site of ritual offerings (YICP 2010b:207-208). Nothing in the placement or character of the objects recovered make either explanation more likely, however, and there is also nothing to preclude the possibility that the ditch was simply related to field irrigation or had some other utilitarian purpose.

Sindae-ri fell into disuse in the second century, but Imdang also contains 73 chamber tombs dating to the second through fourth centuries in the west, central, and east clusters north of the primary coffin tomb groups (concentrated in areas G, C-I, and EI-III). The dating and location of these chamber tombs suggests a chronological and geographical continuity with the prior coffin tomb groupings, but coupled with a shrinking and consolidation if the more expansive coffin tomb subgroups are considered (Lee Hŭijun 2004b:16). A large number of the dwellings at the site date from this period including the more than 70 structures in areas FII and I as well as the 17 buildings around the earlier ring-ditch area. These are found primarily in the northwestern section of the site as well as directly to the east of the early Silla earthen fortress. It is also notable that there is a certain degree of stratification in the size of dwellings. Small and medium sized buildings (under 30m² and 70m², respectively) are the most numerous but a few large and very large (105m² and over) dwellings have also come to light (YICP 2008b:228). Finds within houses are comparable (primarily a small number of earthenware vessels) and larger buildings do not enjoy any special segregation from other structures.

The earthen fortress that dominates the western half of the site seems to have appeared in the chamber tomb period in the late third century and was used as a fortified residential area in the fourth century (YICP 1999b, KCPIRIA 2011b:577). It and the FII area dwellings displaced a number of early coffin tombs (Lee Hŭijun 2004b) and signal that these second century BC Iron Age tombs at the site had been forgotten by the fourth century. By this time, tomb construction had shifted from simple chamber tombs to monumental Silla style stone-chamber and eventually mounded tombs. These also show continuity of placement with clusters in the west, center, and east sections of the site. A large portion of the habitation remains in area F also correspond to the monumental tombs and the fortress itself appears to have been in use through the sixth century at least (Chang Yongsŏk 2007).

The apparent evolution of the site from a dispersed coffin tomb group to a consolidated and densely placed chamber tomb and habitation area and finally a fortified complex containing highly visible Silla elite tombs makes the site almost an ideal example of the gradual consolidation model of the *ŭmnak* system extrapolated from the *Hou Hanshu* and *Sanguozhi*. Scholars argue that not only is Imdang an important clustered village *ŭmnak* but also the central burial place of the Amnok polity of the Kyŏngsan/Taegu region that was absorbed or conquered by Silla in the fifth century (Ch'ŏe Chonggyu 2001, Chang Yongsŏk 2007).

Imdang is one of the largest Iron Age village sites yet discovered and was a significant population center by the Three Kingdoms Period, but based on the settlement data alone, it is difficult to conclude that Imdang was a *kugŭp* or elite center. There is very little in the way of spatial stratification of houses and the large number of dwellings could just as easily represent a relatively small village population in an area that was continuously occupied for several hundred years. The chronology of the settlement areas is too imprecise to extract any confident

hypotheses about the general population or number of households in either the Proto-Three Kingdoms or Three Kingdoms periods. Instead, it falls to the burial evidence to assess the hypothesis that Imdang was the central place of the paramount elite group in the Taegu-Kyōngsan area.

Chronology and grouping

Collectively, Imdang and Sindae-ri were in use for the entire span of the Iron Age. There is also evidence that the earliest occupation of the area extends back into the late Bronze Age and it continued to be an important center of human occupation well into the Three Kingdoms Period. And while the continuous occupation past this point is uncertain, there are also Koryō and Chosōn features at both sites. Despite this, or perhaps because of its considerable history, it is difficult to make finer distinctions in chronology for the Iron Age beyond a coffin tomb period (ca. third century BC to second century AD) and a chamber tomb period (second to fifth century). The coffin tombs that pre-date the first century BC are too scattered and not numerous enough to extract any useful statistics. Similarly, the 73 chamber tombs from the various sections of Imdang are incomplete and have been disturbed by Three Kingdoms and Koryō period features.

The bulk of the analyses undertaken here focuses on the first century BC to second century AD coffin tombs grouped into Sindae-ri, Imdang central, and Imdang east clusters. Among these, Imdang east and Sindae-ri provide the most fertile ground for comparative analysis. Both contain a large number of intact coffin tombs and are relatively contemporary (first to second century AD). While the few scattered tombs in the eastern section of Sindae-ri are incomplete, the western section is intact and additional survey and test trenching suggests that it is relatively complete (YICP 2009c). The true extent of the tomb cluster in Imdang east is

unknown and it is likely that there are additional pre-first century tombs north of the excavated section.

Table 5.8: Imdang chronology and intact tomb counts

Phase	Rough dates	jar burials	coffin	chamber	total
coffin I	Pre-first century BC	0	13	0	13
coffin II	first century BC to second century AD	19	60	0	79
chamber	second century to fifth century	21	0	33	54
total		40	73	33	146

Table 5.9: Imdang and Sindae-ri groups and intact tomb counts

Group	jar burials	coffin	total
Sindae-ri	47	79	127
Imdang central	10	21	31
Imdang east	9	33	42
total	66	133	200

Table 5.10: Imdang and Sindae-ri functional artifact types and counts

Type	# of artifacts	Type	# of artifacts
arrow	51	mirror	7
big storage	1	ornament	94
bird-shaped pottery	1	pottery fragment	85
bronze axe	1	raised dish	18
bronze dagger	2	ring pommel knife	5
bronze spear	1	ring pommel sword	1
cast axe	16	serving jar	5
clay ball	8	short necked jar	87
clay rim pottery	2	small globular jar	5
coin	3	spear	97
cup	5	staffhead	6
dagger or knife	25	steamer	1
decorated sword	18	stone	3
decorative storage	17	stone arrow	19
fan-necked jar	133	sword	47
flat axe	75	tool	223
Horse	9	unique	7
hourglass jar	94	unknown bronze	3
lacquer	7	unknown iron	56
lid	5	urn or bowl	96
		Grand Total	1339

Structure and artifact distribution

Simplifying the grave good assemblage for the site based on the artifact studies in the previous chapter produces 1,339 artifacts in 40 categories (Table 5.10). Like Hwangsŏng-dong, most of the grave goods are ceramic and iron, with a few key vessel types dominating the overall collection. As most of the graves are first century AD coffin tombs, fan-necked *wajil* jars with horn-shaped handles, short-necked jars, shallow urns and bowls, and various iron tools are the most common finds.

Basic statistics for the major periods and subgroups within the site (Table 5.11) point toward some interesting patterns worth examining. The first is the general decline in the mean number of objects from the coffin to chamber period, the reverse of what one would expect for the tombs of a regional elite group that was consolidating its power over time. The second is that the two major subgroups within the coffin-tomb period, Sindae-ri and Imdang east, are roughly comparable in terms of mean number of artifacts. The only difference being that Sindae-ri tombs contain more ceramics and Imdang east contain more metal objects, on the whole. The Imdang subgroup is slightly richer in terms of overall objects, especially with regard to metal objects. The standard deviation and Gini scores for each of these suggest that at Imdang east metal objects were more unequally distributed than at Sindae-ri. For the entire sample, metal object placement is the most unequal, much more-so than ceramics.

Table 5.11: Descriptive statistics for the number of artifacts per tomb

Group	Artifact	# of tombs	Mean	Median	Mode	Std. Deviation	Gini score
all coffin tombs	all artifacts	152	5.63	4	3	4.261	41
	metal		2.43	1	0	3.085	62.35
	ceramic		2.74	2	2	2.158	41.61
Sindaeri	all artifacts	79	5.56	4	3	4.329	42.42
	metal		2.01	1	0	2.284	58.77
	ceramic		2.92	2	1	2.498	45.62
Imdang	all artifacts	73	5.7	4	4	4.215	39.16
	metal		2.88	1	0	3.73	63.74
	ceramic		2.53	2	2	1.71	34.79
east	all artifacts	33	6.85	6	1	5.1	41
	metal		3.85	2	0	4.36	58.65
	ceramic		2.55	2	2	1.97	37.3
central	all artifacts	21	5.48	4	4	2.926	25.09
	metal		2.38	1	0	2.924	58.48
	ceramic		3.1	3	3	1.338	22.86
chamber tombs	all artifacts	33	3.85	3	2	2.74	37.89
	metal		2.03	1	0	2.311	59.97
	ceramic		1.39	1	1	1.413	50.99

Histograms (Figure 5.6) of average artifact counts for the Sindaeri and Imdang east tombs show pronounced differences with Hwangsŏng-dong. Hwangsŏng-dong chamber tombs were more or less normally distributed in their numbers of artifacts with several pronounced outliers in each phase of the site, but this pattern is not so clear at Imdang or Sindaeri. Instead, there are two or three possible stratified groups within each object type and while there are two or three outliers each for ceramics and metal counts, these disappear when the total artifact count is considered. For Sindaeri, the majority of tombs (45) contain 0-5 objects but there is a significant secondary grouping of tombs containing 6-13 objects (28) as well as four additional outlier tombs with 14 or more objects. At Imdang, the most inclusive distributions seem to be 0-11 objects (24 tombs), 12-16 objects (7 tombs), and an outlier tomb with 20 objects. Both tomb clusters are similar in structure, but Imdang east has more objects in each stratified group. Parametric (t-test) and non-parametric (Mann-Whitney) comparisons of the means of each group reinforces this (there are more objects per tomb in the Imdang east group: $M = 6.91$, $SE = .899$

than the graves at Sindae-ri: $M = 5.49$, $SE = .486$) but also reveals that the pattern is not statistically significant ($t(111) = 1.5$, $p > .05$). Thus, while we can be fairly confident that three tiers of grave good quantity can be isolated at each cluster, the apparent difference in overall quantity between Sindae-ri and Imdang east is probably a result of the vagaries of preservation and sample size.

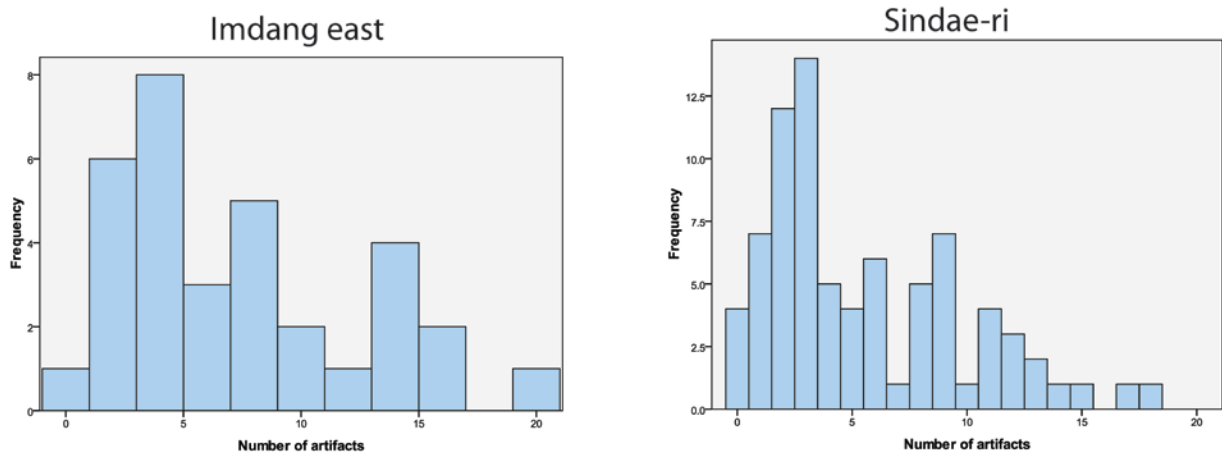


Figure 5.6: Histograms for artifact counts for Imdang east and Sindae-ri

Ritual evolution at Sindae-ri

The Imdang data are too fragmentary to trace ritual variance over a long period of time or confidently assess the progression of ritual from the coffin to chamber tomb period at the site. In addition, artifacts in coffin tombs do not lend themselves to key diagrams in the same way chamber tombs do; one of the primary dimensions measured for chamber tombs, the position of an artifact relative to the body, is often difficult to determine in a coffin tomb, which usually lacks any skeletal material or indirect means of determining the orientation of the body.

This latter problem extends to Sindae-ri, but the data at the second site are not nearly as fragmentary and, as a more recent excavation project, the details of tomb construction are recorded in more detail. This has allowed for a fairly robust four phase relative chronology to be

constructed based on the ceramic assemblage and for artifact placement to be recorded with regard to the finer details of tomb construction. After assessment and recording of artifact placement with the dimensions from Table 5.1, these initial values were re-coded to reflect the different stages of tomb creation discussed in Chapter 3: stage 1 (the waist-pit or tomb floor), stage 2 (inside the coffin), stage 3 (within the tomb fill), stage 4 (resting on the fill or coffin), stage 5 (suspended in the upper fill), and stage 6 (resting on the wood panel above the tomb chamber or found inside the mound or moat). Calculating the number of artifacts deposited at each stage of development for each period (Table 5.12) results in a table that describes the progression of the mortuary ritual over the life of the site.

Table 5.12: Counts and percentages of objects at Sindae-ri in each site phase and their location inside the tomb

Phase	1 - tomb floor	2 - coffin	3 - in fill	4 - resting on fill	5 - in upper fill	6 - in mound or moat	Total
I	10 35.71%	4 14.29%	4 14.29%	10 35.71%	0	0	28
II	0	4 17.39%	3 13.04%	12 52.17%	1 4.35%	3 13.04%	23
III	1 1.04%	19 19.79%	15 15.63%	33 34.38%	11 11.46%	17 17.71%	96
IV	0	6 5.61%	27 25.23%	50 46.73%	17 15.89%	7 6.54%	107
V	1 3.45%	3 10.34%	7 24.14%	7 24.14%	6 20.69%	5 17.24%	29
all phases	36 4.24%	56 12.72%	32 19.79%	112 39.58%	35 12.37%	12 11.31%	283

The most striking pattern is the shift in the focus of artifact placement from the early phases to the end of the life of the site. The waist-pit and tomb floor contained artifacts in only phase I, even though the waist-pit itself continued to be a prominent feature of tombs in phases II and III. The pit could have been used for perishable grave goods that do not survive, but it is still significant that weaponry, tools, and ceramics are only present in the early phase. There was a

similar decrease in the number of objects interred in the coffin over time. Despite this, certain objects like swords and beads (consisting of jade, crystal, or glass) were increasingly restricted to the coffin only while ceramics, tools, and other weaponry were relegated to various parts of the fill.

Expanding the table to look at each artifact category individually (see Appendix II, Table 6), pottery becomes a ubiquitous grave good in the latter half of the life of the site, but its placement was fairly consistent over time (being found in either stage 3, 4, or 5 of the burial ritual in each phase). Only in phase I was pottery also placed on the tomb floor before the burial of the coffin. Urns and bowls were restricted to the fill until phase IV, at which time they lost their ritual specificity. Iron placement was also consistent over time: swords were almost always in the coffin and tools were relegated to the tomb fills or the mound. Spears and arrows underwent some kind of transformation in their function or perceived value: arrows appear to have been prestigious in phase II but disappeared completely by phase III. In the same period spears moved from being waist-pit objects to being interred in the fill.

In sum, for phase I the focus of funerary practice was the coffin and pre-burial ritual. In phases II and III this shifted to the burial of the coffin in the tomb chamber, and the waist-pit became vestigial. Phase IV is somewhat anomalous in that there was a heterogeneity of practice—old consistencies of placement are not as apparent and in general there is a much greater number of tombs and artifacts. Phase V can be seen as a period of decline for the site: fewer tombs, fewer objects, and no valuable objects of bronze or iron, but the consistency of practice from phases III and earlier returned to some extent. Coffin tombs and a limited range of grave goods were consistent in all phases, but a gradual evolution of the ritual over the 150 to 200 year use period of the site results in detectable differences in the resulting mortuary

installations. Over time, new stages in the ritual process were invented, the focus of grave good interment shifted from the tomb floor and coffin, and the covering of the coffin with earth as well as the erection of a mound became important ritual events in the funeral process.

Before suggesting a reason for these changes at the site, it is important to quantify, to the extent that the data allow, the significance of the observed patterns. For this, chi square (χ^2) analysis was employed to assess the relationship between the stages of the ritual process and site phase.

The procedure measures the relationship between two categorical variables by comparing the actual distribution of the data compared to an ideal distribution that assumes there is no relationship.⁶⁶ To make the Sindae-ri artifact data amenable to chi square analysis, site phases were simplified to early (phase I-III) and late (phase IV-V) and the ritual stages simplified to coffin (tomb floor and coffin) and fill (fill, resting on the fill, upper fill, and in the mound).

Frequency tables were constructed for all objects, ceramics, and iron and the χ^2 statistic calculated for each set (Table 5.13).

Table 5.13: Frequency tables, chi square (χ^2), and Yule's Q (Q) calculations for Sindae-ri artifact placement (site phase and artifact placement)

		placement			
		coffin	fill		
all objects	early	38	89	χ^2	19.379
	late	10	114	Q	0.659
ceramics	early	3	56	χ^2	4.619
	late	0	89	Q	1
metal	early	25	38	χ^2	5.96
	late	7	34	Q	0.523

There was a significant association between the site phase and the placement of artifacts in the coffin or the tomb fill $\chi^2 (1) = 19.379, p < .001$. This seems to represent the fact that, over

⁶⁶ Not unlike the t-test used in the above section. For a full discussion of the applicability of the chi square statistic to archaeology see Shennan (1997:104).

time, the coffin was de-emphasized in the mortuary ritual and the focus of the ritual event became the act of burial itself. Calculating Yule's Q—a measure of the strength of a relationship from -1 to 1, see Shennan 1997:116-117)—also suggests that the relationship between site phase and artifact placement is quite strong: $Q = .659$.

Controlling for artifact type complicates this somewhat. When only ceramic artifacts are considered the relationship disappears. For metal objects, we are also less confident there is a relationship and this possible relationship is much less strong than when all objects are considered together $\chi^2 (1) = 5.96, p < .05, G = .523$. While this does not refute the observation that the locus of ritual moved from the coffin to the fill (and more stages of ritual were added to the actual burial component of the procedure) it suggests that the appropriate places for certain types of objects to be interred did NOT change over time. It might also offer another explanation for the movement of the ritual focus to the fill: metal objects could have been more scarce in the latter half of the life of the site or the later burying groups had less access to valuable iron and bronze objects. The absolute counts of iron objects did decrease in the latter half of the site, but not by much (22 total objects). The impetus may not have been the practice aspects of ritual that were shifting, just that the availability of objects favored the change to a more ceramic and burial focused ritual.

Spatial patterning - Sindae-ri and Imdang east

With the simplified placement categories of coffin and fill, it is also possible to compare the frequencies of artifact placement at Sindae-ri and Imdang east. The resulting frequencies and chi square calculations (Table 5.14) allow us to be fairly confident that there is a significant difference between the two areas: at Sindae-ri there is a statistically significantly greater proportion of objects in the coffin than would be expected by chance or the vagaries of survey χ^2

(1) = 35.28, $p < .001$, $G = .482$. In addition, the likelihood of a relationship is maintained when artifacts are separated into material type. There were significant differences in practice over the two areas. The Sindae-ri burial group placed much greater importance on the fill while Imdang east prioritized metal objects that were interred in the coffin. In other words, although the original observations of the ritual evolution at Sindae-ri based on percentages of artifacts are still valid, it is a trend specific to the site and not applicable to even a contemporary tomb cluster half a kilometer away. Even within a small area among tombs that were stratified in the same way, significant differences in ritual practice are detectable.

Table 5.14: Frequency tables, chi square (χ^2), and Yule's Q (Q) calculations for Imdang east and Sindae-ri artifact placement

		placement			
		coffin	fill		
all objects	Imdang east	94	127	χ^2	35.28
	Sindae-ri	90	348	Q	0.482
ceramics	Imdang east	9	48	χ^2	80.129
	Sindae-ri	2	224	Q	0.925
metal	Imdang east	77	75	χ^2	15.376
	Sindae-ri	47	115	Q	0.431

This quantifies what is perhaps already apparent from a qualitative assessment of the burial assemblage at the two clusters. Even though we cannot claim that tombs in one area are wealthier or contain comparatively greater numbers of valuable objects, there are clear preferences in the types and placements of specific grave goods. The importance of the coffin and tomb floor eroded over time at Sindae-ri (possibly as a result of restricted access to iron and bronze), but Imdang east continued to prioritize arrangements of objects in coffins and tomb floors. The most dramatic example of these being the seven tombs at Imdang east that contain rows of flat axe blades under the body—a practice similar to more distant Yōngnam sites like

Sara-ri, Choyang-dong, and Kyodong. The Imdang burials reflect a greater engagement with regional mortuary customs than do those at Sindae-ri.

What is comparable across both sites is the relative distribution of valuable objects and artifact rich graves. The few tombs that do contain a large number of objects are distributed relatively evenly at each site and are not limited to any particular period of use or tomb cluster. Interestingly, those few tombs with an overabundance of artifacts are not necessarily those that also contain the most unusual or difficult to obtain objects (Figure 5.7). Of the seven tombs that contain items of personal adornment at Sindae-ri (bronze belt hooks, bracelets, or pendants), only three of these have large counts of pottery or iron. Similarly, only six of the 15 tombs with other relatively rare or unusual artifacts such as Chinese bronze mirror fragments, lacquer objects, iron bridles, or iron swords contain high artifact counts. The same pattern extends to Imdang where no tomb contains more than two types of valuable object including mirror fragments, ornaments, lacquer, and decorated iron weaponry. Abundance of objects in general does not correlate with the presence of valuable objects. In other words, there are no clear distinctions in ritual treatment or graves that signal elites clearly in coffin tombs. It appears that for most individuals it was a more complex set of factors than simply wealth or status that determined a particular burial treatment.

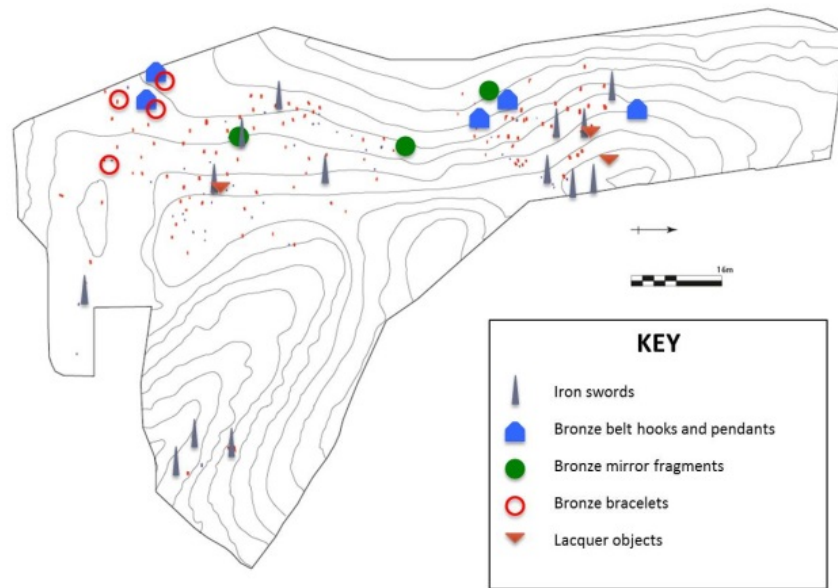


Figure 5.7: Distribution of valuable objects at Sindae-ri

Assessment

The geographical and chronological proximity of the coffin tombs at Imdang and Sindae-ri suggest that they should be considered as one coherent, if dispersed, mortuary complex within the patchwork of habitation, production, and defensive features of an early Iron Age village or town. Within this, however, distinctly different ritual strategies and developmental trends are evident at at least two of the major tomb clusters. Each burial group was relatively self-contained and operated under its own set of practical considerations and priorities. What is true for both groups is that even at the earliest stage of coffin tomb construction, burial treatment and choice of grave goods was subject to a complex, and likely unrecoverable, set of criteria that cannot be simplified into wealthy and poor or elite and non-elite.

One other trend that is recoverable due to the careful excavation procedures of the Sindae-ri material is the elaboration of the mortuary ritual over time. Additional stages were added to the burial procedure beginning in the second phase of the life of the site and there was a

gradual shift in emphasis from the coffin interior to the exterior fill and auxiliary features of the tomb like the mound. It is possible we would see these same trends at Imdang had we the same precision of measurement. There was an expansion and emphasis on careful placement of iron objects in the tomb interior at Imdang east, which contrasts with the focus on the tomb fill at Sindae-ri. Taken together, Imdang and Sindae-ri advance the argument that, over time, coffin tomb rituals became more complex, public, and focused on display. We see the same trends in the second century coffin tombs of Sara-ri and Choyang-dong.

The burial evidence can also contribute to the question of whether Imdang represents an *ŭmnak* or early polity in the process of centralization in the Taegu region. Until the second century, there is no indication that any of the tomb clusters represented an elite group or that social status was unambiguously reflected in the mortuary display of particular tombs. There is no clear social hierarchy reflected in the burial data. The divergent practices at Imdang east and Sindae-ri demonstrate that even groups within one subregion were relatively distinct from each other. If we assume that each burying group represents a coherent community within a broader human occupation zone, the association between these was still fairly loose and lacked an overarching political or hierarchical structure.

Tökch'ön-ni

Hwangsöng-dong and Imdang are challenging to understand by virtue of their scale, the abundance of different types of features present at each site, and the disjointed nature of their excavation process. Mercifully, Tökch'ön-ni presents none of these handicaps but has nonetheless found itself resilient in the face of concise and conclusive interpretation. The site is located in the southern Kyöngju basin, approximately 15km from Hwangsöng-dong and the city of Kyöngju. Although there are some nearby Bronze Age dwellings, the Iron Age portion of the

site contains only mortuary remains (14 coffin tombs from the first to second century, 122 chamber tombs from the third century, as well as 66 jar burials). The excavated area of the site amounts to 3.5 hectares that slopes gently from south to north. The coffin tombs occupy the highest ground in the south with the bulk of the chamber tombs oriented east-west and spread out in three excavation zones (Figure 5.8).

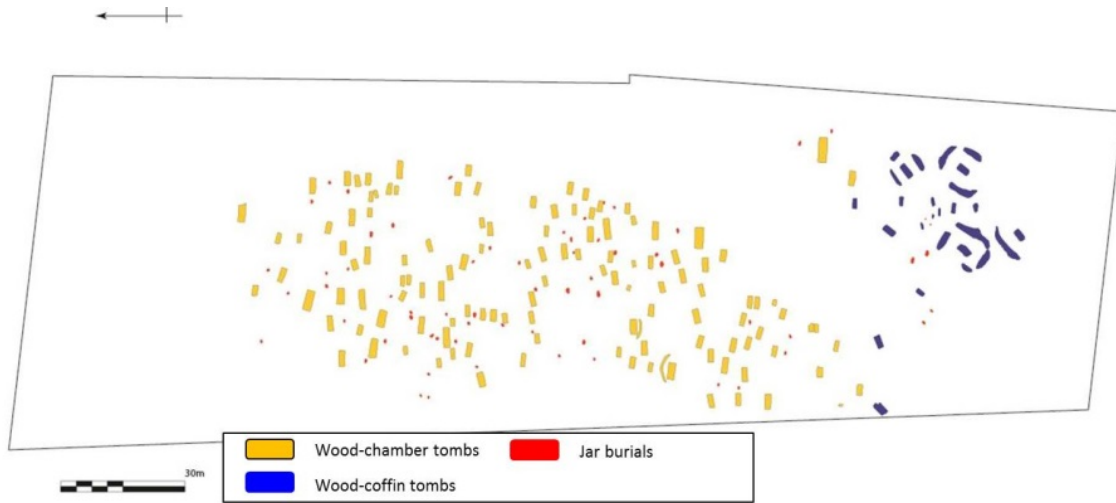


Figure 5.8: Tökch'ön-ni site plan

Similar to Hwangsöng-dong, the chamber tomb burials at Tökch'ön-ni are thought to have been the burial cluster of an elite group peripheral to the center of power, in this case the central Kyöngju region; the area from which Silla would emerge in the fifth century as the dominant power in Yöngnam. The site excavators have also advanced the hypothesis that the Tökch'ön-ni burial group exerted authority over the entire Kyöngju plain in the third century based on the scale and wealth of the Tökch'ön-ni tombs. This formulation assumes that there was political cohesion in northern Yöngnam in the Proto-Three Kingdoms Period before Silla consolidated power in central Kyöngju (YICP 2009b:410-412). This latter assumption is difficult to substantiate. Lavish mounded tombs and the spread of Silla material culture suggests that the kingdom was powerful by the fifth century, but there is very little archaeological evidence that any one group had regional political or economic control in the Proto-Three

Kingdoms period (Lee Ch'öng'gyu 2007a, Kim Yöngsong 2011). The YICP report also treats the currently discovered cemetery distribution as relatively complete and fails to consider evidence beyond the scale and size of cemeteries.

The tombs themselves, however, do suggest that they belonged to a group that could leverage considerable resources. While they conform to the typical shallow rectangular and long-chamber morphologies of northern Yöngnam tombs of the third and fourth centuries as well as the usual east-west orientation, the abundance and arrangement of grave goods sets them apart. Spears arrayed beneath the corpse are not uncommon in other Kyöngju region chamber tombs such as those at Sara-ri, Choyang-dong, Hwangsöng-dong and even in neighboring regions like Ulsan (Chungsan-ni), Kyöngsan (Imdang), and southern Yöngnam (Taesöng-dong), but the number of spears, precision, and consistency of the arrangements at Tökch'ön-ni are considerably more elaborate.

Recent research by Lee Hūijun and others emphasizes the geography of the region when modeling the relationship between Tökch'ön-ri, other peripheral cemeteries, and the central Kyöngju region (Lee Hūijun 2011b, Kim Yongsöng 2011). Tökch'ön-ni and other prominent second and third century tomb groups seem to have sprung up in relatively isolated river valleys, and Lee Hūijun argues that these valleys and the mountainous terrain that separated them fostered the development of several independent local groups in the Proto-Three Kingdoms period that eventually came under the sway of Silla some two hundred years later. Tökch'ön-ri then, would appear to belong to a relatively independent elite group with some limited contact with the rest of the Kyöngju region that shared aspects of material culture and burial customs with similarly isolated elite cemeteries (Sara-ri, Choyang-dong, and Kujo-ri, and Oksöng-ni, see Figure 5.9).



Figure 5.9: Distribution of major cemeteries in the Kyōngju plain (YICP 2008a:28)

Another feature of the site that has received less attention is the association, or lack thereof, between the coffin and chamber tomb clusters. There is a chronological gap between the mid-second century coffin tombs and earliest third century chamber tombs and the majority of the chamber tombs are some distance (70m) from the northernmost coffin tomb. Only two chamber tombs, tombs 120 and 122, are located close to the coffin tombs and these are also among the earliest and most elaborate of the chamber tombs at the cemetery. The chamber-tomb cemetery seems to have been chosen, at least in part, for its proximity to the earlier coffin tombs; they are located on lower ground in view of the earlier tombs but not close enough that they would disturb or destroy them. The lack of a contemporaneous settlement or other remains of

human activity suggests that the site was not part of a larger human occupation area. Rather, the mortuary area was a carefully chosen location and not a grave field or mortuary complex that developed organically at the margins of a village.

Chronology

The site contains remains that span 250 years but the major period of activity (the chamber tombs of the third century) amount to less than a century of continuous use. The 14 coffin tombs are probably all that remains of a larger coffin tomb site that extended farther to the south. Excavators categorize the surviving tombs by size and argue on the basis of their ceramics that the larger tombs date to the first century AD and the smaller coffin tombs and two additional pit graves date to the mid to late second century (YICP 2009b). The chamber tombs are also categorized by size (rectangular and long-chamber) and this along with the ceramic assemblage are used to assign a date of early to mid-third century for the majority of the rectangular tombs and late third century for the long-chamber tombs (YICP 2009b:409).

Table 5.15: Imdang chronology and intact tomb counts

Phase	Rough dates	jar burials	coffin	chamber	total
coffin I	first century	0	9	0	9
coffin II	mid to late second century	6	5	0	11
chamber (early and late)	third century	60	0	122	182
total		66	14	122	202

Structure and artifact distribution

Histograms generated from the number of artifacts per tomb (Figure 5.10) show that Tökch’ön-ni conforms to the same pattern as Hwangšöng-dong: a fairly consistent distribution with a few clear outliers having anomalously high grave good counts. Unlike Hwangšöng-dong, when these outliers are removed it does not lead to a normal distribution. Instead, there is an uneven distribution within all artifact categories. There are four possible groupings within the all

artifacts histogram (0-5, 5-10, 10-15, 16+) all with their own normal distributions. There are also fewer tombs than at Hwangšong-dong that are either ceramic-rich or iron-rich. Instead, iron and ceramic-rich graves tend to be the same. Also, histograms generated for the number of metal objects per grave displays a linear downward curve rather than a normal distribution. The vast majority of tombs contain no metal objects at all—perhaps an early indicator that it would be hasty to designate the entire site as an ‘elite’ cemetery. Descriptive statistics for the site subdivided by tomb and artifact type (Table 5.16) are difficult to interpret. The number of coffin tombs is too small to compare directly to the chamber tomb period. Probably the only significant pattern is the decline in the mean of all types of objects from early to late chamber-tomb periods, which may point to an overall decline in the cemetery over time.

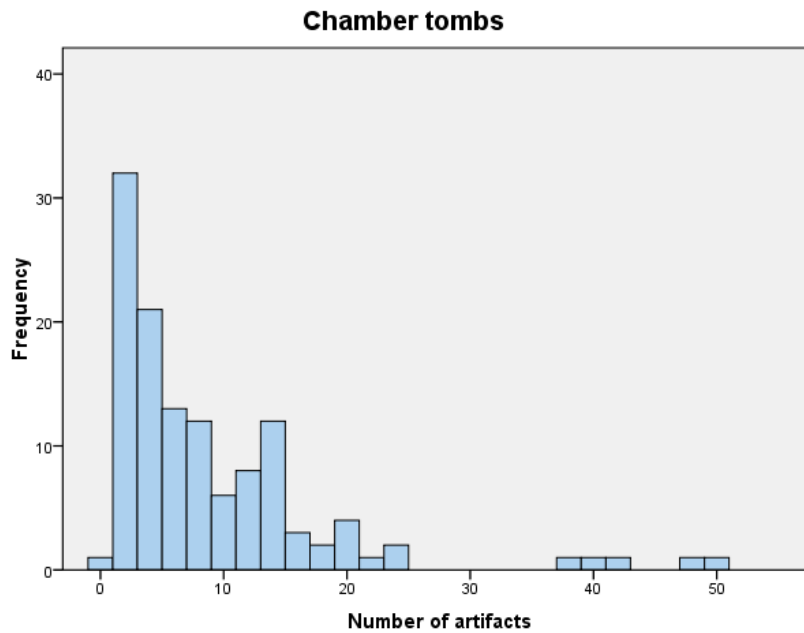


Figure 5.10: Histogram of total number of artifacts per tomb for Tökch’ön-ni

Table 5.16: Descriptive statistics for counts of major artifact categories at Tökch’ön-ni

Group	Artifact	# of tombs	Mean	Median	Mode	Std. Deviation	Gini score
full site	all artifacts	136	8.17	5.5	1	8.863	50.37
	metal		3.68	2	0	5.588	67.11
	ceramic		4.03	2.5	2	3.992	48.2
coffin tombs	all artifacts	14	5.36	3.5	1	4.551	44.29
	metal		3	1	0	3.883	66.03
	ceramic		1.14	1.5	2	0.949	41.96
chamber tombs	all artifacts	122	8.49	6	1	9.187	50.44
	metal		3.75	2	0	5.759	67.11
	ceramic		4.36	3	1	4.076	46
early	all artifacts	25	16.8	13	13	13.342	38.93
	metal		8.84	6	0	9.195	52.92
	ceramic		7.36	7	7	4.864	32.43
late	all artifacts	25	11.64	11	3	9.128	41.54
	metal		4.6	4	0	5.18	55.1
	ceramic		6.64	5	5	4.829	38.75

Ritual evolution

The care in placement and tomb layout at Tökch’ön-ni is readily apparent from the graves themselves, but to what degree does the ritual practice and variance differ from Hwangšöng-dong and Imdang? Non-parametric correlations suggest that there are potentially several discrete ‘sets’ of artifacts that are common to a number of tombs. There are several significant ($p < .001$) correlations between later *wajil* decorative storage and serving vessels throughout the site and high counts of undecorated short-necked jars also correlate with tombs with a variety of decorative ceramics (Table 5.17). The correlations provide evidence, albeit circumstantial, for a feasting or display ‘set’ of ceramics at the site. The longest surviving ceramic morphologies (urns, bowls, and raised dishes) are present in many tombs, but these show no relationship with any decorative or storage vessels and are probably an additional component to the ritual separate from presentation or storage.

Table 5.17: Non-parametric correlations among grave good types at Tökch'ön-ni

object pair	kendell's tau	significance level
decorative storage and bird-shaped pottery	0.337	p < .001
nested jar and bird-shaped pottery	0.617	p < .001
decorative storage and nested jar	0.383	p < .001
decorative storage and serving jar	0.345	p < .001
serving jar and nested jar	0.29	p < .001
short-necked jar and decorative storage	0.319	p < .001
short-necked jar and serving jar	0.271	p < .001
arrow and dagger	0.405	p < .001
arrow and spear	0.356	p < .001
arrow and tool	0.537	p < .001
spear and tool	0.578	p < .001
tool and dagger	0.372	p < .001
nested jar and arrow	0.227	p < .001
serving jar and spear	0.325	p < .001
short-necked jar and spear	0.382	p < .001

It is more difficult to see clear sets or patterns in the relationships between iron objects. Rather than discrete pairs or sets of iron objects, it seems that all iron grave goods correlate with each other. This is more an indicator that the mortuary practice was fairly standardized in its placement metal objects rather than an indication of the presence of sets of iron objects. Interestingly though, swords of any kind (either decorated, ring-pommel, or unadorned) are extremely rare in the Tökch'ön-ni material and do not correlate with any other iron objects, even the ubiquitous spear blades. The lack of these objects is an interesting foil to Hwangsöng-dong, where the sword remained a prominent, conspicuous, and consistently placed object throughout the life of the site. The remaining high correlations between short-necked jars, decorative *wajil* ceramics, and iron weaponry are expected considering the prevalence and overall consistency of the burial assemblage at the site. Unexpectedly, uncommon or valuable objects do not necessarily co-occur. Iron staff-heads, duck-shaped pottery, and ring-pommel swords have no discernable positive or negative relationship.

The correlations agree with the overall variance of artifact placement at the site. Using the same dimensions of placement employed for the Hwangsöng-dong material allows us to make direct comparisons regarding the variance of artifact placement between the two sites (Table 5.18).

Table 5.18: Ideal modal dimensions and variance scores for major artifact categories at Tökch'ön-ni

artifact	ideal modal placement			number of tombs x degrees of var. from the ideal				# of tombs	variance score
	body	tomb	placement	0	1	2	3		
arrow	head	end	chamber	28	12	27	0	67	0.23104478
bird-shaped pottery	feet	end	auxiliary chamber	10	1	0	0	11	0.015
dagger or knife	side/waist	end	chamber	0	32	2	0	34	0.18470588
decorative storage	feet	end	pottery cluster	59	46	3	0	108	0.08416667
flat axe	under	center	chamber	10	0	1	0	11	0.04545455
nested jar	feet	end	auxiliary chamber	8	4	0	0	12	0.055
ornament	head	end	chamber	26	1	9	0	36	0.12958333
raised dish	feet	end	pottery cluster	79	32	9	5	125	0.11164
ring pommel sword	side/waist	end, side	chamber	3	3	0	0	6	0.0825
serving jar	feet	end	pottery cluster	34	21	6	1	62	0.11774194
short necked jar	feet	end	pottery cluster	96	41	1	3	141	0.06929078
spear	head	end	chamber	104	1	74	0	179	0.2076257
staffhead	head	end	chamber	3	1	1	0	5	0.133
tool	feet	end	chamber	25	69	33	0	127	0.21956693
urn or bowl	feet	end	pottery cluster	18	5	5	1	29	0.14344828

As expected from the correlations and cursory observation, the variance in artifact placement is extremely low compared with either Hwangsöng-dong or Imdang. In some respects, the key diagram and variance score is not as good a measure of ritual variance for all artifact types at Tökch'ön-ni since spears were placed extremely carefully but their variance score is relatively high compared to other objects like daggers and tools. This is due to the fact that

spears were interred in such high numbers. If an artifact has two major placements that differ in more than one dimension, it produces a misleadingly high variance score.

Even with this limitation, the scores provides a good relative measure of variability at the site and demonstrates that pottery was much more consistently placed than any iron object. Using the artifactual variance data to assign a tomb variance score for all tombs at the site and plotting these tomb variance scores as a histogram produces two very distinct outlier tombs and two further possible groupings (Figure 5.11). The outliers and high variance group tombs do not present any initial spatial patterning when mapped on the site, but they will be useful when considering the wealth of tombs in the subsequent section. The statistical analyses confirm what is apparent from a cursory look at the site: ritual practice at Tökch'ön-ni was considerably more codified and elaborate compared to its peers in the region, especially the rectangular and long-chamber tomb clusters at Hwangsöng-dong discussed above.

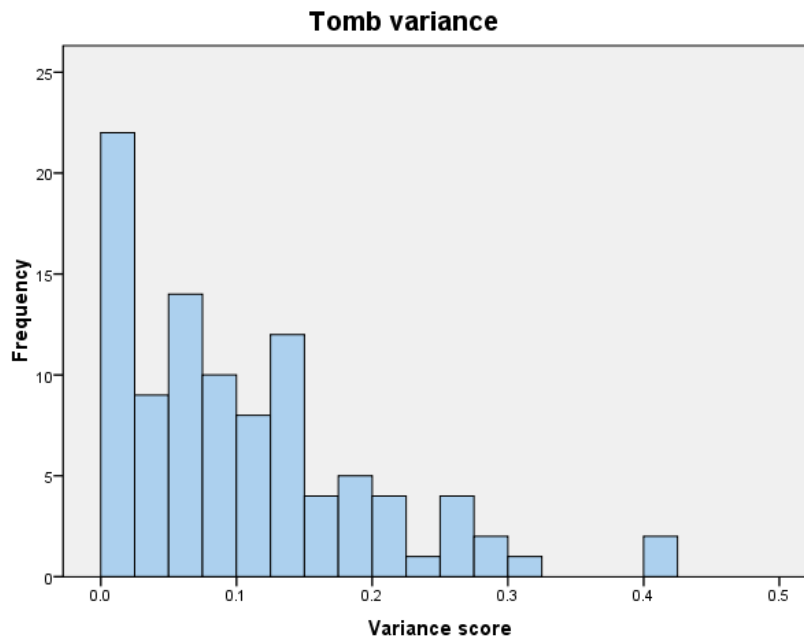


Figure 5.11: Tomb variance scores for Tökch’ön-ni chamber tombs

Wealth and ranking

The mortuary ritual was clearly more coherent at Tökch’ön-ni than at Hwangsöng-dong, but assessing whether this means Tökch’ön-ni was more ‘elite’ or contained discrete categories of wealth requires an additional set of analyses. Beyond simple measurements of the quantity of artifacts in a tomb, how can the wealth of tombs be assessed and categorized in a site hierarchy? Starting with the expansion of Jørgensen’s value score methodology suggested by Flad (see methodology section), artifacts and groups of artifacts were assigned a value score based on their overall rarity at the site (see Table 5.19).⁶⁷ The variables selected prioritize the valuable objects from Chapter 4 and divide artifacts into several broad categories based on general patterns from histograms of individual artifact types. The preceding analyses of the cemetery have pointed to the importance of serving and display ceramics and the possibility of a feasting or offering set of objects. From this, three categories of these serving sets were isolated based on the distribution

⁶⁷ The score is a simple ratio of the number of tombs divided by the number of tombs containing the artifact or number of artifacts in question.

of these ceramic types in all tombs (one serving vessel, 2-10 vessels, and 2-10 vessels and also containing a duck pot). Decorative storage vessels are also an important ceramic category, as are the presence of uncommon metal objects such as staff-heads and ring-pommel swords (although some tombs contain several of these objects, presence or absence is used in order to prevent extremely high value scores). Based on their elaborate placements, spears seem to be an important category worth considering on their own while counts of additional iron and non-decorative ceramics are also assigned value scores.

Table 5.19: Jørgensen scores for major artifact categories at Tökch’ön-ni

Artifact	score
serving set 1	3.211
serving set 2-10	6.778
serving set 2-10 with ducks	24.4
decorative storage 1-10	2.905
spear 1-10	2.346
spear 11+	24.4
ornament	3.813
staff-head	24.4
ring pommel sword	20.333
other ceramics 1-5	1.089
other ceramics 6-10	9.385
other iron 1-10	1.718
other iron 11+	40.667

Calculating an overall grave value for each tomb and plotting these as a histogram produces three tiers of ‘wealth’ at the site as defined by their grave goods (Figure 5.12). The majority of tombs have a value score below 20 and there is a much smaller group between 20 and 80 can be distinguished as well as a set of outliers with scores ranging from 90 to 120. This distribution is more or less maintained when only ceramic or iron objects are considered, although not all high-value ceramic tombs are also high-value iron tombs. The outlier tombs with

the highest value score are predominantly early chamber tombs. There is a trend toward lower-value tombs over time.

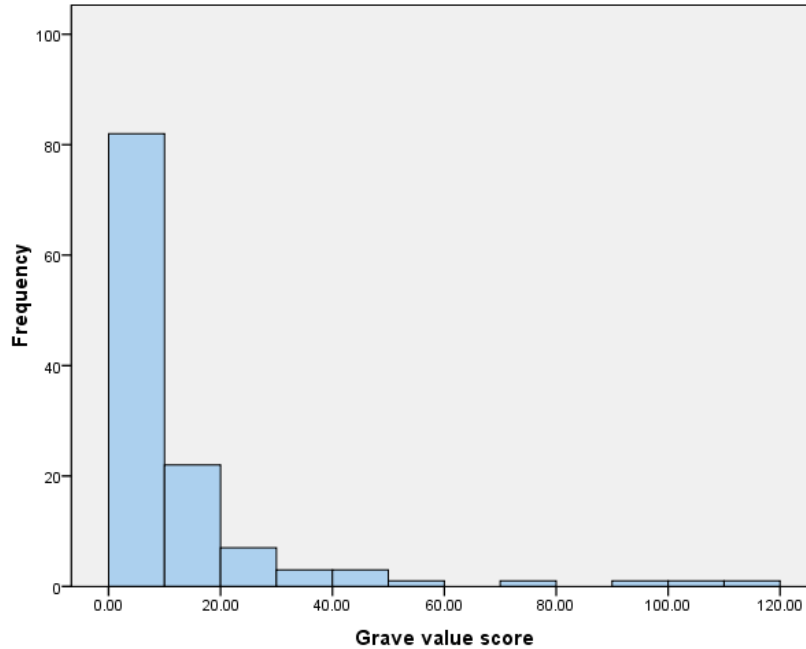


Figure 5.12: Histogram of grave value scores for Tökch'ön-ni tombs

Comparisons of rank and ritual

With calculations of both wealth (value score) and ritual (variance) it becomes possible to directly compare these two aspects of the cemetery. The correlation coefficient between value and ritual variance produces a significant positive relationship ($\tau = .216, p < .001$) and suggests that, on some level, we are really just measuring the same thing when we calculate each.

It is unclear how helpful the correlation is as there are a large number of tombs with low variance and low wealth scores that skew a ranking method of correlation finding, such as the Kendell's Tau correlation used here. Breaking the chamber tombs up by phase (early and late), and producing another non-parametric correlation yields no significant correlations in either phase. The apparent correlation when all chamber tombs are considered together may be a result of the large number of low-variance and low-value tombs at the site. Where we are interested in

the comparison between value and variance—the tombs with high-values in either category—the correlation disappears.

When high-value and high-variance tombs are plotted on the site map, we find that there is actually quite a bit of variation between high-variance versus high-value tombs. There are also no immediate clusters in either group. The highest-value tombs are spread evenly throughout the site, if anything they are set apart from each other and from other tombs (but this would be difficult to prove either way). Two high-value tombs, 120 and 122 (tomb 120 being the highest-value tomb at the site), are found near the coffin tombs and set apart from the main chamber-tomb cluster. This is possibly an indication that the greater elaboration of the mortuary ritual was necessary for establishing legitimacy in the same way positioning near the original coffin-tomb cluster was. It also appears that late period high-value tombs were placed in relation to earlier high-value tombs. In particular, there are at least two ‘lines’ where an earlier high-value tomb sees later tombs placed in a line moving west or east (Figure 5.13).

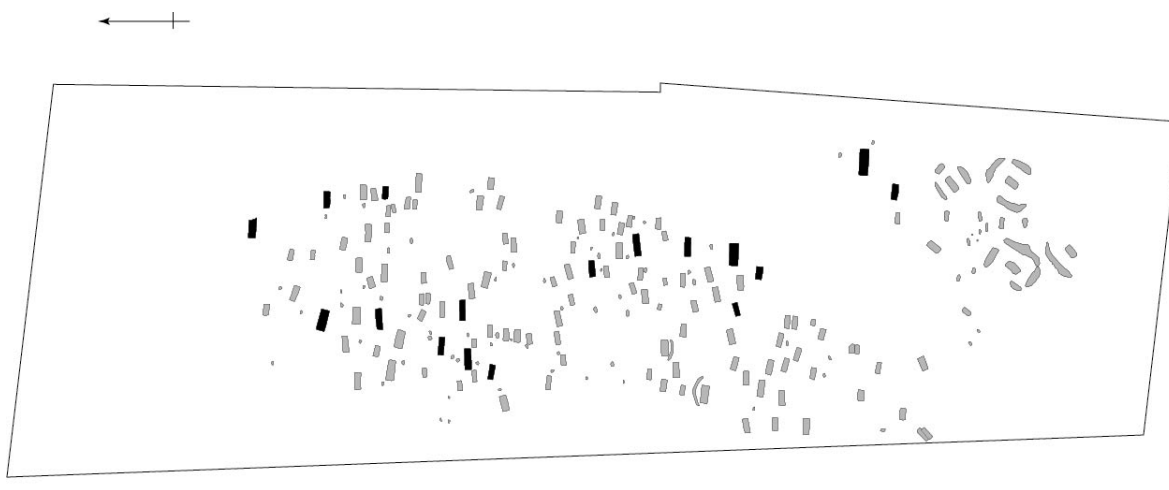


Figure 5.13: Distribution of high-value tombs (indicated in black) at Tökch'ön-ni

When variance is plotted on the site plan, there is minimal overlap with high-value tombs. When compared with early and late chamber tombs, early tombs have higher variance and the greater share of highly variant tombs suggesting that ritual became more codified over time.

Assessment

Compared to contemporaneous chamber tomb sites, Tökch'ön-ni is considerably more elaborate and consistent. Each burial was carefully considered from its placement in relation to other graves to the precision and quantity of its burial-good array. Despite this, it is still difficult to declare the site outright to have been an elite burial ground. The majority of tombs at the site are fairly plain graves containing two to three common metal and ceramic objects. Based on the ritual evidence, Tökch'ön-ni was still an inclusive burial ground with significant differences in wealth within the site. The burying group was not composed solely of social elites, but burial display was a much higher priority for this group compared to those at nearby cemeteries like Hwangsöng-dong. Rather than attempting a regional synthesis that sees certain cemeteries and central and others as peripheral, the picture from the mortuary practice is of relatively autonomous groups within northern Yöngnam linked through a shared ritual practice that was more of a priority for some groups than it was for others. This may indicate that there was an emerging wealth gap between groups, but it does not follow that there was a unified political structure or strict hierarchical ranking at the regional level.

The meticulousness of the burial practice at the site also allows us to distinguish modular elements within the mortuary ritual. Later *wajil* ceramics seem to have constituted a set of ceremonial vessels that were vital to the burial process and interred together in one part of the tomb with other storage vessels. The number and variety of these vessels seems to constitute several discrete categories with tombs that contain one or two serving vessels, three to five different vessel types, or more than five with considerable redundancy of vessel types and the presence of duck pots. Prominent spear displays also fall into one of several discrete categories in different tombs including rows of spears beneath the head, the body, lines or piles of spears at

either side of the corpse, or some combination of these. Both of these ritual elements are replicated at other sites in northern Yōngnam but in less elaborate and consistent ways (Hwangsōng-dong and Oksōng-ni). At other sites, these elements are even more exaggerated through quantity and redundancy of object types (Kuō-ri).

III. CONCLUSIONS

In the coffin-tomb period, the developmental trajectories of cemeteries were unique, and each site seems to have developed along its own lines, often in direct contrast to other nearby cemeteries. Ritual distinctions were also variable, there was no consensus within the region or even within individual sites as to which grave goods indicated a particular status or what certain object groupings signified. The ritual practice at each site seems to have been internally driven, distinctions of grave goods as well as the Sindae-ri cemetery developmental trajectory suggest a concern for what was going on within the cemetery and not what nearby groups in the region were doing. Iron-axe arrangement does speak to a degree of mortuary ritual cohesion throughout Yōngnam, but the placement of these axes was relatively unique at each site (especially at two of the sites profiled in this chapter: Hwangsōng-dong and Imdang).

If any regional trends can be isolated, it is that there was a general agreement over the types of ceramic grave goods and iron objects appropriate for burial and the increasing importance over time of burial rather than preparation of the corpse and coffin. Stretching this observation further, I hypothesize that this was due to the increasing importance of the public aspects of grave rituals in the second century. Burials became not just an occasion to cope with the removal of the deceased from the community, but also an opportunity to re-affirm status.

The more public role of burial and the corresponding increase in spectacle continued into the chamber-tomb period in the late second century. For the first time we can distinguish

modular elements within the ritual (spear placements and later *wajil* vessel sets) and these were expressed in different degrees of elaboration at different sites. Special function ritual objects such as staff-heads and duck pots also appear at this time.

Within this shared language of practice in the chamber-tomb period, sites themselves are somewhat idiosyncratic. At Tökch'ön-ni, mortuary practice was elaborate, standardized, and clearly a priority for the burying group. Hwangsöng-dong was imitative in its practice and its participation in the ritual conversation of the region was tentative rather than confident. The distinction between the two sites does suggest something of a ritually unequal relationship. This does not necessarily imply political subordination of the Hwangsöng-dong group. The diversity of expression of common ritual practices as well as the fact that elite mortuary symbols could be borrowed, imitated, and reinterpreted at will by the Hwangsöng-dong burying group suggests an absence of sumptuary laws or clearly codified social distinctions at the regional level.

Under scrutiny, the idea of 'elite' cemeteries disappears. Even at the ritually consistent and richly furnished site of Tokch'ön-ni, the majority of tombs contained very few objects and even among those that do, many of these are ritually 'abnormal' in a way that suggests they were not elite. Though Tokch'ön-ni shows evidence of social stratification in the richest tombs, it was not an elite cemetery. Better models for understanding the relationship between sites in the region as well as how cemeteries functioned in Iron Age society are the subject of the next chapter.

Chapter 6 – The Regional Context of Cemeteries and Mortuary Ritual

The previous chapters have attempted to reframe the analysis of Iron Age mortuary ritual by focusing on scales not typically considered in regional syntheses. From the artifact and site studies presented, we suspect that the context of placement of many common grave good categories significantly altered their function and value and that the developmental trajectories of individual cemeteries was highly idiosyncratic even among geographically and chronologically similar sites. In this section these new assumptions are applied to Yōngnam as a whole to ascertain the character of the mortuary landscape and situate burial practice in its wider social context.

I. NORMATIVE PRACTICE AND THE MORTUARY LANDSCAPE

An important initial observation of the data is that the current mortuary evidence already points to a considerable degree of cultural unity without any need for further analysis. All cemeteries within Yōngnam (and southern Korea as a whole) conform to a few basic tomb types and contain the same kinds of grave goods. Coffin tombs are ubiquitous in the first century BC, and though there are a variety of transitional forms, chamber tombs had replaced coffins in most regions by the end of the second century AD. Chamber-tomb development is also relatively consistent (but square and rectangular tombs are more common in different regions), and by the Three Kingdoms Period, two distinct northern and southern burial traditions had emerged. Shared ceramic and iron objects also point to deeply enmeshed production and technological networks that extended well beyond the mortuary sphere.

Thus, the evidence suggests some degree of consensus throughout Yōngnam with regards to mortuary practice. To take this observation further, we can isolate what John O’Shea (1996) terms the “normative funerary program” and determine to what degree individual sites diverged

from broader regional practices. O'Shea's context is the Bronze Age Maros groups in Eastern Europe, and his basic criteria for establishing what constitutes normative practices are burial posture, grave orientation, head direction, and a number of consistent vertical and horizontal social markers (such as the presence or absence of particular weaponry, body ornament, and exotic objects). The lack of skeletal material and coherent grave-good sets at most Yōngnam sites makes most of O'Shea's dimensions inapplicable to southern Korea, but a few generalities of practice are possible to trace at the regional level.

For coffin tombs, the first of these is the presence or absence of the waist-pit, a feature found in tombs throughout Yōngnam that also serves as a chronological marker (early coffin tombs are more likely to have waist-pits). The second dimension is grave orientation, which was predominantly east-west for the coffin tomb period but more inconsistent among chamber tomb sites. Quantity of ceramic and metal objects in tombs is also considered, although simplified into distinct categories for the purposes of comparison and calibrated to the overall distribution of these grave goods in coffin and chamber tombs. Chapter 5 attempted to quantify the level of artifact placement variance within cemeteries, but the final dimension of regional analysis here is tomb variance: a more straightforward application of the method employed by Morris (1987) and Papadopoulos (2005) to determine the relative variability of tomb types and treatments among cemeteries. Here, the dimensions used are based on the regularities of tomb construction discussed in Chapter 3 and the patterns of artifact distribution explored in Chapter 5: presence or absence of a waist-pit; tomb orientation (N-S, E-W, NE-SW, NW-SE); number of ceramic vessels (0, 1-5, and 6 or more); metal objects (0, 1-10, and 11 or more); and presence or absence of rare and ritually significant objects as discerned in Chapters 4 and 5 (consolidated in a dimension labeled value group, with tombs assigned a group based on the combination of

valuable objects within them: decorated swords, ornaments, trade objects, and horse-riding equipment) (see Table 6.1).

Table 6.1: Normative mortuary practices for coffin tombs in Yöngnam. Numbers in parentheses indicate the number of tombs at each site and region that conform to each mortuary treatment.

Region	Area	Site	waist pit		no. of ceramic vessels			no. of metal objects			variance
			east-west		0	1 to 5	6+	0	1 to 10	11+	
Kyöngbuk	Kyöngju-P'ohang	all	5% (25)	81% (356)	10% (38)	83% (306)	7% (26)	40% (146)	56% (205)	5% (18)	0.151
		Choyang-dong	2% (2)	77% (61)	23% (16)	73% (52)	4% (3)	27% (19)	62% (44)	11% (8)	0.221
		Tökch'ön-ni	7% (2)	93% (28)	18% (4)	73% (16)	9% (2)	23% (5)	65% (14)	14% (3)	0.182
		Hwangsöng-dong	0	43% (6)	36% (5)	64% (9)	0	36% (5)	64% (9)	0	0.207
	Taegu-Kyöngsan	all	0	95% (19)	19% (4)	81% (17)	0	19% (4)	67% (14)	14% (3)	0.172
		Imdang	7% (22)	82% (261)	7% (19)	85% (228)	7% (20)	43% (114)	54% (143)	3% (9)	0.134
		Sindae-ri	1% (1)	80% (69)	8% (6)	86% (62)	6% (4)	38% (27)	56% (40)	7% (5)	0.112
		P'aldal-dong	17% (19)	98% (97)	11% (9)	75% (59)	14% (11)	37% (29)	63% (50)	0	0.136
	Söngju	P'aldal-dong	1% (1)	71% (65)	1% (1)	94% (74)	5% (4)	56% (44)	41% (32)	3% (2)	0.131
		Wölsöng-dong	0	63% (12)	0	95% (18)	5% (1)	58% (11)	42% (8)	0	0.100
Kyöngnam	Söngju	Paekjön-Yesan-ni	3% (1)	91% (31)	11% (3)	79% (22)	11% (3)	39% (11)	57% (16)	4% (1)	0.159
	Pusan-Kimhae	all	6% (10)	63% (105)	16% (15)	82% (75)	2% (2)	32% (29)	63% (58)	5% (5)	0.145
		Kujiro	4% (2)	78% (35)	26% (11)	71% (30)	2% (1)	38% (16)	52% (22)	10% (4)	0.205
		Tasesöng-dong	0	100% (11)	33% (3)	67% (6)	0	44% (4)	56% (5)	0	0.144
	Milyang	Kyodong	0	79% (15)	28% (5)	72% (13)	0	50% (9)	44% (8)	6% (1)	0.161
	Ch'angwön	Taho-ri	5% (1)	67% (14)	5% (1)	90% (19)	5% (1)	14% (3)	81% (17)	5% (1)	0.129
	Haman	Tohang-ni	11% (7)	60% (38)	-	-	-	-	-	-	-
Ulsan	all	0	41% (12)	14% (3)	86% (18)	0	24% (5)	76% (16)	0	0.125	
	Tasean-ni	0	58% (23)	59% (20)	41% (14)	0	15% (5)	85% (29)	0	0.190	
			59% (17)	61% (14)	39% (9)	0	13% (3)	87% (20)	0	0.126	

From the aggregated data, it is clear that the use of waist-pits in the mortuary ritual does not show any pronounced regional patterns. Waist-pits were slightly more common at certain sites such as Sindae-ri and Taho-ri, but in all regions this feature was present in less than a third of all tombs. The east-west alignment of tombs was also consistent throughout the region, especially so in Kyöngju-P'ohang (the discrepancy observed for Tökch'ön-ni is probably a result of the sample size and the fact that the majority of the site has been lost). The Taegu-Kyöngsan area (where there are the most coffin tombs) probably shows the most accurate reflection of the real distribution of tomb alignments, and here too, the majority of graves conform to an east-west alignment. P'aldal-dong is slightly earlier than the other cemeteries in Taegu-Kyöngsan, and the relative lack of consistency in grave orientation probably reflects this. It is interesting that

regions outside of the major areas of Kyōngju, Taegu, and Kimhae show the least consistency, especially Taho-ri, an unambiguously elite cemetery containing a preponderance of Hàn trade objects. The number of ceramic vessels in tombs was also consistent throughout each region and possibly evidence for a relatively unified practice throughout Yōngnam. This is also true of the number of metal objects, but there were more tombs that contain no metal objects whatsoever. The amount of variance is roughly equivalent for all regions with some slightly higher variance scores for Kyōngju and Kimhae. Sites in the Taegu region were quite consistent in terms of ritual practice, while the other two main regions were not.

The relative frequency of rare and ritually significant grave goods (Table 6.2) also reinforces the idea of regional cohesiveness. The prevalence of decorated swords throughout the major sites and regions is consistent, as are trade objects and horse-riding equipment. Body ornamentation in the form of precious stones, bronze buckles, and bracelets show a different pattern, however. Compared to Kyōngju and Kimhae, ornamentation of this kind was clearly less important in Taegu sites.

Chapter 4 demonstrated that the placement of rare or valuable objects, especially trade goods like mirrors, introduces some significant complications into this seemingly regionally homogeneous distribution. Nevertheless, at this broad scale we can designate a normative or modal tomb treatment for the region as an east-west oriented grave with no waist-pit that contained one to five ceramic vessels (primarily fan-necked, hourglass, and simple short-necked storage vessels as well as wide-mouthed urns and bowls), one to ten metal objects (predominantly iron tools, flat-axe blades, and daggers), and no difficult to procure trade items, iron weaponry, or body ornamentation. Examination of the variance scores for each region suggests that close to 70 percent of all tombs conformed to this description.

Table 6.2: Percentages of rare grave goods in coffin tombs in Yöngnam

Region	Area	Site	rare grave goods			
			decorated sword	ornament	trade object	horse-riding equipment
Kyöngbuk	Kyöngju-P'ohang	all	7% (32)	18% (81)	3% (12)	2% (9)
		Choyang-dong	7% (6)	48% (39)	4% (3)	2% (2)
		Tökch'ön-ni	7% (2)	47% (14)	7% (2)	3% (1)
		Tökch'ön-ni	7% (1)	79% (11)	0	0
		Hwangsöng-dong	9% (2)	39% (9)	0	0
	Taegu-Kyöngsan	all	6% (21)	10% (33)	3% (9)	2% (6)
		Imdang	11% (10)	7% (6)	7% (6)	2% (2)
		Sindae-ri	4% (5)	16% (18)	2% (2)	2% (2)
		P'aldal-dong	4% (4)	9% (8)	0	0
		Wölsöng-dong	0	0	0	0
Söngju	Paekjön-Yesan-ni	12% (4)	24% (8)	0	3% (1)	
Kyöngnam	Pusan-Kimhae	all	7% (12)	18% (31)	4% (6)	2% (4)
		Kujiro	4% (2)	39% (18)	7% (3)	0
		Kujiro	0	64% (7)	0	0
		Tasesöng-dong	0	21% (4)	0	0
	Milyang	Kyodong	5% (1)	24% (5)	10% (2)	5% (1)
	Ch'angwön	Taho-ri	11% (7)	8% (5)	2% (1)	5% (3)
	Haman	Tohang-ni	7% (2)	10% (3)	0	0
Ulsan	all	Tasean-ni	3% (1)	13% (5)	0	0
		Tasean-ni	0%	7% (2)	0	0

On a more qualitative level, there are interesting parallels among the richly adorned elite tombs of each region. In Ch'angwön, Kyöngsan, Haman, and Söngju, the earliest wealthy or extravagant tombs exhibit identical placement of decorated slim-bronze daggers under the midsection of the corpse. As iron objects replaced bronze, similar arrangements of flat-axe blades under the corpse were also deposited in tombs in the major subregions of Taegu and Kyöngju, as well as the less densely occupied areas of Milyang and Haman. The regional extent and number of tombs conforming in some way to these practices reinforce the hypothesis that there was broad agreement regarding the essential features of burial. The striking similarity of aspects of elite burial practices in disparate regions supports the idea that burial ritual united the upper stratum of society and was an important tool of social differentiation. Most of the sites with elite tombs contained one or more of these arrangements. These tombs never make up more

than a fraction of the mortuary installations at any given site, but they attest to some degree of communication and conscious imitation throughout southern Korea. We can also speculate that some regions like Kimhae and Ulsan that do not have any of these tombs were not as integrated into these networks as the more inland areas along the Nakdong River and Kyōngju plain.

Overall, there is strong evidence for a widely acknowledged normative mortuary program throughout Yōngnam with no one subregion conspicuously aberrant. There is evidence for cross-regional communication among elites and perhaps indicators that some areas were less invested in this network than others. This is most likely related to the location of Ulsan and Kimhae along the east and southern coasts, respectively, and their greater engagement with trade with China and the Japanese archipelago. If we ignore placement of artifacts, practice is more consistent in coffin tombs compared to chamber tombs.

For chamber tombs, tomb data are more numerous but come from a smaller number of sites in a few key regions. For this reason it is more appropriate to compare sites directly rather than compare subregions or broad geographic areas within Yōngnam. The dimensions for establishing the normative funerary program are similar to those isolated for coffin tombs, but the auxiliary chamber takes the place of the waist-pit as the most significant alternative tomb construction. The parameters of the ceramic and metal object groups have also been altered to reflect the larger quantity of each in chamber tombs. Variance is again calculated by assigning a modal value for each dimension (presence or absence of the auxiliary chamber, cardinal alignment, ceramic and metal quantity groups, and value group) for each site and region and calculating the degree to which tombs vary from this (Table 6.3).

Table 6.3: Normative mortuary practices for chamber tombs in Yŏngnam

Region	Area	Site	aux. chamber	primary align.	no. of ceramic vessels			no. of metal objects			variance
					0 to 5	6 to 15	16+	0 to 10	11 to 30	31+	
Kyongbuk	Kyongju	all	5% (16)	E-W (67%)	79% (279)	19% (67)	1% (5)	89% (313)	10% (35)	1% (3)	0.199
			6% (16)	E-W (70%)	75% (199)	24% (63)	2% (4)	89% (223)	10% (27)	1% (2)	0.208
		Choyang-dong	0	E-W (75%)	78% (7)	22% (2)	0	44% (4)	56% (5)	0	-
		Tokchon-ni	1% (1)	E-W (98%)	71% (87)	26% (32)	2% (3)	92% (112)	7% (9)	1% (1)	0.171
		Hwangsong-dong	9% (13)	E-W (58%)	81% (92)	19% (22)	0	89% (102)	11% (12)	0	0.217
		Kujo-ri	23% (3)	E-W (100%)	33% (2)	50% (3)	17% (1)	83% (5)	17% (1)	0	-
		Sara-ri	3% (3)	NE-SW (69%)	73% (11)	27% (4)	0	93% (14)	7% (1)	0	0.150
Pohang	Oksong-ni	0	E-W (58%)	91% (49)	7% (4)	2% (1)	83% (45)	15% (8)	2% (1)	0.231	
Taegu-Kyongsan	Imdang	0	E-W (64%)	100% (31)	0	0	100% (31)	0	0	0.097	
Kyongnam	Pusan-Kimhae	all	0	N-S (55%)	52% (34)	41% (27)	8% (5)	88% (58)	12% (8)	0	0.295
		Kujiro	0	N-S (70%)	43% (10)	48% (11)	9% (2)	87% (20)	13% (3)	0	0.309
		Yangdong-ni	0	NW-SE (54%)	56% (24)	37% (16)	7% (3)	88% (38)	12% (5)	0	0.279
Ulsan		all	15% (5)	E-W (65%)	49% (16)	49% (17)	3% (1)	63% (21)	29% (10)	9% (3)	0.234
		Chungsan-ni	17% (3)	E-W (83%)	42% (5)	50% (6)	8% (1)	50% (6)	33% (4)	17% (2)	0.367
		Chungsan-dong	4% (1)	E-W (86%)	40% (6)	60% (9)	0	67% (10)	27% (4)	7% (1)	0.193
		Chungsan	15% (4)	E-W (85%)	41% (11)	56% (15)	4% (1)	59% (16)	30% (8)	11% (3)	0.270
		Taun-dong	6% (1)	NE-SW (94%)	75% (6)	25% (2)	0	75% (6)	25% (2)	0	-

Auxiliary chambers were a consistently rare tomb embellishment typically associated with very late, long-chamber chamber tombs at all sites. The primary orientation of graves is our first indicator that there are increasingly divergent practices evident at different sites, in contrast to the coffin tomb period. Northern Yŏngnam and Ulsan tombs maintained the east-west orientation of coffin graves, but the percentage of tombs conforming to this at each site are very divergent. Kyŏngnam sites also eschew the earlier orientation and are less consistent overall. For sites like Yangdong-ni, this is likely a side effect of the location of the cemetery on sloping terrain and a concern with orienting graves along the contours of ridges and hillsides. We might see similar patterns in northern Yŏngnam if we did not have several sites on relatively flat land dominating the assemblage (Hwangsong-dong, Oksong-ni, and Imdang). Even within the cemeteries with a predominantly east-west alignment, only sites with a strong elite component like Tŏkch'ŏn-ni and Chungsan-ni maintained a consistent alignment. Other sites with a more imitative and diverse mortuary practice like Hwangsong-dong, Oksong-ni, and Imdang show much more heterogeneity in grave orientation. Quantities of ceramics and metal in graves are

also more erratic and site specific than in the coffin tomb period. Most Kyŏngju and Kimhae sites are consistent, but P’ohang, Taegu, and Ulsan have large numbers of tombs with almost no objects in them.

Variance scores show striking patterns. Sites with elite tombs, or those with a greater number of grave goods, valuable objects, and a large size are much more consistent than those that do not have as many or as strikingly lavish tombs. This re-affirms the previous analysis of the chapter that shows that low variance or greater adherence to a coherent mortuary program is a marker of elite actors dominating the mortuary practice at a particular cemetery. Within this, however, variance scores also show divergent regional trends: Kimhae and Ulsan are much more variable than Kyŏngju and even Kyŏngbuk as a whole. Overall, there was much more consistency of regional practice northern Yŏngnam. This is also seen in the distribution of iron staff-heads (Table 6.4), which are almost entirely absent in Kyŏngnam tombs. Even though there was a shared language of symbols and objects such as body ornamentation, ring-pommel swords, and horse-riding equipment, Kyŏngnam did not engage in these regional networks to the extent that northern Yŏngnam did.

Table 6.4: Percentages of rare grave goods in coffin tombs in Yöngnam

Region	Area	Site	rare grave goods				
			ring-pommel sword	ornament	staffhead	horse-riding equipment	iron armor
Kyongbuk	Kyongju	all	4% (12)	26% (88)	11% (38)	1% (4)	1% (2)
		Choyang-dong	5% (12)	27% (66)	9% (23)	2% (4)	1% (2)
		Tokchon-ni	0	56% (5)	11% (1)	33% (3)	0
		Hwangsong-dong	5% (6)	26% (30)	4% (5)	0	0
		Kujo-ri	5% (5)	27% (28)	11% (11)	1% (1)	0
		Sara-ri	17% (1)	0	33% (2)	0	17% (1)
	Pohang	Oksong-ni	0	20% (3)	27% (4)	0	7% (1)
	Taegu-Kyongsan	Imdang	0	26% (14)	24% (13)	0	0
Kyongnam	Pusan-Kimhae	all	0	21% (8)	5% (2)	0	0
		Kujiro	6% (4)	25% (18)	4% (3)	1% (1)	1% (1)
		Yangdong-ni	4% (1)	30% (7)	4% (1)	0	0
Ulsan		all	6% (3)	23% (11)	4% (2)	2% (1)	2% (1)
		Chungsan-ni	3% (1)	18% (6)	32% (11)	6% (2)	6% (2)
		Chungsan-dong	9% (1)	45% (5)	36% (4)	18% (2)	18% (2)
		Chungsan	0	7% (1)	27% (4)	0	0
		Taun-dong	8% (1)	23% (6)	31% (8)	8% (2)	8% (2)
			0	0	38% (3)	0	0

Looking at ritual more directly by comparing the two modular ritual elements identified in the previous chapter (spear arrangements and later *wajil* serving vessel sets), we see more evidence for divergent and localized ritual patterning at chamber tomb cemeteries (Table 6.5). Spear arrangement numbers refer to the ways spears are found arrayed under or around the corpse at different sites: (1) rows of spears under the head; (2) lines of spears under the head; (3) lines of spears at the site of the body; (4) rows of spears under the body; (5) rows under the head and lines at the side of the body; and (6) single spearheads placed near the head. Later *wajil* groups refer to the number and type of later *wajil* vessels part of a feasting or display component of the funerary ritual: (0) no later *wajil* ceramics; (1) one or two serving, display, or decorative storage vessels; (2) a set of serving, display, and decorative storage vessels; and (3) elaborate and redundant vessel assemblages, including duck-shaped pots. The distribution of spear arrangements does not appear to be a matter of elite versus non-elite but a regional cultural distinction. The elite graves at Yangdong-ni do not generally contain spear arrangements, but

even rather sparsely furnished tombs in the northern Yŏngnam sites of Oksŏng-ni and Hwangsŏng-dong seem to have engaged in some form of this shared mortuary practice. Arrangements of iron ingots and spears can be seen in the early Three Kingdoms Period in Kyŏngnam at Yean-ni and Taesŏng-dong, but in the Proto-Three Kingdoms period, Kyŏngnam sites did not follow the practice.

Table 6.5: Chamber tomb ritual components

Region	Area	Site	period	spear arrangement	later wajil group			
					0	1	2	3
Kyongbuk	Kyongju	all		1,2,3,4,5,6,7	63%	28%	7%	2%
		Choyang-dong		1,2,3,4,5,6,7	56%	34%	7%	2%
		Tokchon-ni		1,3	22%	44%	33%	0
		Hwangsong-dong		2,3,4,5	52%	33%	11%	4%
		Kujo-ri		1,2,3,7	63%	36%	1%	0
		Sara-ri		1,6,7	50%	50%	0	0
				6,7	67%	20%	7%	7%
	Pohang	Oksong-ni		1,2,3,5,7	56%	30%	13%	2%
Taegu-Kyongsan	Imdang		1,2,3,7	87%	13%	0	0	
Kyongnam	Pusan-Kimhae	all		1,3,7	54%	28%	18%	0
		Kujiro		1,7	39%	30%	30%	0
		Yangdong-ni		3,7	60%	27%	13%	0
Ulsan		all		1,2,3,4,5	26%	65%	3%	6%
		Chungsan-ni		1,2,3,4,5	9%	64%	9%	18%
		Chungsan-dong		1,3,4	13%	87%	0	0
		Chungsan		1,2,3,4,5	12%	77%	4%	8%
		Taun-dong		1,3	75%	25%	0	0

The same is true for the later *wajil* ceramic set, which was not expressed nearly as strongly in Kyŏngnam as it was in northern Yŏngnam and Ulsan. Even in these northern sites, the vessel set reached its most elaborate expression at only a limited number of sites. Mortuary complexes with fewer and less elaborate elite tombs like Hwangsŏng-dong, Imdang, and Taun-dong do not contain any group 3 vessel sets. The degree of elaboration or commitment to the ritual use of a ceramic set in burial seems to have been site-specific. While spear arrangements

indicate a broad mortuary consensus, the distribution of *wajil* vessels shows just the opposite. Many of the tombs at Sara-ri could be considered elite due to the preponderance of valuable objects, large tombs, and quantity of grave goods at the site, but they conspicuously lack sets of later *wajil* vessels. Kyŏngnam sites were later to adopt these vessels than sites in Kyŏngju, and no Kyŏngnam sites contained duck pots until the Three Kingdoms Period, long after they had declined in northern Yŏngnam. Again, we have cultural consensus on the general applicability of these objects to burial practice, but in this case local agency dictated the degree of commitment to the ceremony and its scale.

Comparing this to the artifact variance explored in the previous chapter, we see how burial practice might reflect social distinctions in a nuanced way from site to site. There are no ‘elite’ and ‘commoner’ cemeteries per se, but the lack of variance in the overall ritual (either at the tomb-level or the artifact-level) and the commitment to particular aspects of the mortuary ritual are indicators that elites were driving the ritual practice at particular sites. This contrasts with the more imitative and diverse mortuary styles of Oksŏng-ni and Hwangsŏng-dong.

Differing levels of ritual sophistication at various sites in the Kyŏngju region seems to support the idea of the consolidation of regional centers and constellations of site hierarchies suggested by the *ŭmnak* model. On the other hand, rather than elite and non-elite sites organized in a regional political hierarchy, it is more likely that the elites of some groups were becoming more adept at resource accumulation, regional communication, and controlling ritual practice as a means of legitimization. It is not that Tŏkch’ŏn-ni was central and Hwangsŏng-dong peripheral, just that the Hwangsŏng-dong group was less invested in and perhaps less adept at participation in the emerging regional ritual practices. The Hwangsŏng-dong group was clearly aware of iron as its primary source of wealth and likely participated in regional exchange, but in

the second and third centuries, the burying group was imitating other groups rather than carving out a symbolic mortuary language for itself. In the relative sophistication of mortuary practices at different sites in northern Yōngnam, we are glimpsing an early version of the contours of political authority of the Three Kingdoms period. In a sense, the region was primed for the arrival of Silla by the social networks and mortuary practices established in the Proto-Three Kingdoms period. We lack the same breadth of sites in southern Yōngnam, but a different pattern is evident here. In Kimhae and Pusan, regional mortuary practices emphasized accumulation of resources, cemetery location, and foreign trade as opposed to displays of weaponry and elaborate ceramic sets.

These patterns of mortuary ritual do not change our understanding of the broad cultural strokes of the region, nor do they disagree with the historical assertion of distinct Chinhan and Pyōnhan polities. But they do offer insight into how this consolidation took place and posit a later start date and more restricted core for these groups. Patterns of mortuary practice suggest that regional culture differences in Proto-Three Kingdoms and Three Kingdoms period Yōngnam were more a byproduct of participation in regional social networks rather than a result of the gradual consolidation of two previously existing culture groups.

II. MORTUARY PRACTICE, ANCESTORS, AND RELIGION

Often, burial data can only be understood and contextualized with other archaeological material and a contemporaneous historical record. Chapter 3 situated and assessed cemeteries in relation to historical narratives and settlements, while Chapter 4 sought to understand common grave good types from the perspective of production, interaction, and innovation. Here, the burial data are approached in the opposite manner: using what we now know of trends in mortuary practice and the development of ritual at cemeteries to enrich our understanding of the

broader religious and political landscape of southern Korea in the Iron Age. After summarizing some of the approaches to religion by historians and archaeologists, I use the mortuary record to explore the perception of ancestors in everyday life, assess the theory that shamanism and religious authority was central to Iron Age society, and estimate the economic implications of mortuary expenditure.

Religion and ritual in studies of ancient Korea

Many studies of ancient Korea make reference to the religious beliefs or religious authority in the Iron Age, but few have approached the archaeological material from the perspective of religion itself. As outlined by Richard McBride (2006), most analyses of ancient Korean belief start from the premise that the religious landscape of the Korean peninsula from the Bronze Age through Silla periods was essentially shamanic and originated from the ecstatic ritual specialists of the Siberian Tungusic tradition, as defined by Mircea Eliade (1964). In addition to the historical and anthropological tradition McBride discusses, the influx of northern culture and shamanism at the end of the Neolithic was an essential feature of Kim Chŏnghak's model of the development of Korean culture. Kim Wŏnyong also contextualized Bronze Age mirrors and bells, as well as Silla crowns, on the basis of their supposed Siberian or Scythian shamanic elements (Kim Chŏnghak 1963a, 1963b Allen 1990, Kim Wŏnyong 1973, 1986).

More recent, textually based approaches to the Iron Age operate under this set of assumptions but shy away from any all-inclusive declarations of the character of religious belief in the period. For Iron Age historians, the specifics of belief and ritual are not as important as the role of religion and ritual as the basis for political authority until the Proto-Three Kingdoms Period. No Chungguk (1989) and Lee Hyŏnhye (2003, 2009) argue that, prior to the Proto-Three Kingdoms period, group solidarity and leadership was predicated on localized, communal rituals

with bronze ritual objects serving as an ideological focal point. As discussed in Chapter 2, Lee Hŭijun assesses this idea with the material record through a reading of the burial inventories of tombs in northern Yŏngnam. The ‘elite’ burials of Tongsŏ-ri, Ch’opo-ri, and Hapsong-ni containing bronze daggers, bells, and shield and bamboo-shaped objects are said to reflect the strong ideological and religious component of authority in the period (Lee Hŭijun 2011a).

No Chungguk, Lee Hyŏnhye, and Lee Hŭijun see the disappearance of bronze and the greater prominence of iron tools, weaponry, and ceramics in the first century BC as evidence of a decline in the importance of ideology as the scaffolding for political authority. This is somewhat at odds with the prevalent characterization of Three Kingdoms Silla monarchs until the fifth or sixth century as shaman-kings who derived their legitimacy from their divinity and monopolized religious practice.⁶⁸ In his re-examination of the *Samguk sagi* and *Samguk yusa*, McBride also questions the notion that shamanism or religious authority was central to kingship or even the religious life of the peasantry on the Korean peninsula. For McBride, the historical record indicates that the indigenous religion of the Three Kingdoms period can be characterized better as a blend of veneration for mythical ancestors, the gradual adoption and assimilation of Sinitic calendrical rituals, and worship of deities associated with mountains, domestic activities, and other gods borrowed and naturalized from China, Japan, and northern tribal societies. Shamanism may have been a part of the fabric of religious practice, but it was by no means central to the Three Kingdoms aristocracy or the sole means of accessing the supernatural.

Mortuary ritual, religion, and authority

As discussed in Chapter 1, this study generally follows the distinctions outlined by Whitehouse (2002, 2004) between imagistic and doctrinal modes of religiosity as the foundation of inquiry into ritual practice. There are difficulties in declaring a mortuary tradition as

⁶⁸ See Lee Kibaek (1966), Kim Wŏnyong (1986), Nelson (2008).

‘imagistic’ or ‘doctrinal’ given the nature of the death ritual and its ambiguous place within a larger patchwork of religious and ritual practice. Nevertheless, assessing the overall coherency of Yōngnam rituals can be used to infer something about the relative importance of the mortuary ceremony and its role in elite legitimization. The emphasis on the shamanic content of ancient peninsular belief would also make it a primarily imagistic religious scheme with highly variable regional practices and a pronounced performative dimension.

The greater ritual cohesion within chamber tomb cemeteries beginning in the second century and lack of variance in certain cemeteries like Tōkch’ōn-ni imply that burial ritual was becoming more of an ‘event’, an important social activity of high sensory pageantry (McCauley and Lawson 2007). We might also see this in the movement of these cohesive and elaborate rituals to specific graveyards or cemeteries rather than grave fields and mortuary complexes. But more significantly, this process of elaboration, the growing public component of burial, and the move away from habitation areas was not uniform in the region among all groups. Rather, we see it happening to different degrees in the Kyōngju plain, and in Kyōngnam there was less a separation of the dead from the living as a conscious and strengthened connection between burial space and centralized human occupation. From this evidence alone, it is difficult to characterize Yōngnam mortuary traditions as either doctrinal or imagistic.

Even though peninsular burial rituals of the Late Mumun and Early Iron Age are explicitly or tacitly assumed to have been the product of an essentially shamanistic belief system, the evidence put forward to support this assertion is paltry. At most, researchers point to particular grave goods as being linked to shamanic practice in some way. Late Mumun fine-line mirrors are usually interpreted as the ritual paraphernalia of shamans along with bronze bells, rattles, and slim-daggers. The reflective property of the metal, the fact that the objects seem to

have been worn on clothing, and the appearance of these objects in tombs are used to suggest their use in a broad range of shamanic rituals and a connection with sun worship (Lee Chaehyŏn 2004, Lee Yangsu 2009b, Yang Chongsŭng 2009). Even studies that are not concerned explicitly with shamanism or religious practices assume that mirrors and other bronze objects had some connection to shamanism (KWNM 1988, Lee Hyŏnhye 2009). In this formulation, Hàn mirrors replace fine-line mirrors in the Early Iron Age and point to a continuity of the shamanic character of religion in this period.

The idea that fine-line mirrors point to shamanism is not inherently implausible but, few studies have been able to link the objects to shamans explicitly, either the Siberian Tungusic tradition or the modern manifestation of the practice in Korea. In addition, as discussed in Chapter 4, the idea that Hàn mirrors replace Mumun fine-line mirrors in the first century BC is, at best, an oversimplification. In cases where Hàn mirrors are found in a context similar to fine-line mirrors (such as being placed behind the head of the deceased in a coffin tomb), these associations are poor evidence of an direct connection with shamanism. Hàn mirrors fulfilled a variety of ritual and symbolic roles in burial, one of which was to evoke the earlier ritual practices of the Late Mumun period.

Bells, rattles, and other bronze objects of the Late Mumun are also difficult to link explicitly with shamanistic practice. The assertion that rattles would have aided a shaman in assuming a trance state (Tong Chinsuk 2006) is conceivable, but so are any number of alternative explanations. The objects may have simply enhanced the presence of the deceased or funeral participant, been used to coordinate or signal aspects of the mortuary ritual, or acted as status symbols of non-shamanic religious or political leaders. The tenacity of the belief that these objects must be shamanic is more a product of superficially similar objects used by Siberian

shamans (Eliade 1964) or an attempt to connect ancient peninsular practices with the activities and rituals of contemporary shamans in South Korea. This assertion of a tenable link between the Late Bronze Age and modern religious traditions calls to mind Horden and Purcell's (2000:410) caution against interpreting comparable but chronologically distant cultural practices as survivals (long-enduring ethnic artifacts that associate modern ethnic groups with a fictive prehistoric origin). In actuality, a whole range of folk beliefs, local legends, and indigenous traditions are grouped under the heading of shamanism in modern Korea (Kendall 1985, Howard 1998). The popularization of the idea that it represents a more authentically Korean religious tradition is largely a product of the democratization movements and student protest culture of the 1970 and 80s (Tangherlini 1999).

In a similar vein, some scholars argue that duck pots in chamber tombs had a strong religious significance and were connected in some way with shamanism, possibly in the form of an animal familiar or shamanic transformation (Kim Kilsik 2008, Nelson 2008). The pots have also been linked to descriptions of the belief system of Pyŏnhan in the *Sanguozhi*, which references the symbolic importance of birds in mortuary ritual as transports of the soul of the dead to the next realm (Lee Hyŏnju 1995, Pokch'ŏn Museum 2006:105, Kim Kilsik 2008).

As discussed in Chapter 4, the pots had a relatively fixed or doctrinal iconography in the third and fourth centuries and are only found in richly adorned elite chamber tombs. This seems to contradict the primary components of an imagistic or shamanic religious tradition: fluid transformations in form and internally generated, localized meanings (Whitehouse 2002). This is reinforced by Wengrow's ethnographic characterization of shamanism as "an ontology in which fluidity and flexibility are everything" (Wengrow 2014:32). If anything, such an established and

enduring trope among an elite population suggests a turning away from the subjective and transformative paradigm in which shamanism thrives.

Duck pots are also indirectly linked to shamanism through their supposed connection to the early Silla and Kaya ruling class. The apparent Central Asian elements of Silla mounded tombs and burial adornment has been noted by a number of prominent scholars and these contribute to the assumption that the character of the Silla monarchy was in some sense shamanic.⁶⁹ The elaborate gold crowns interred in many of the richest Silla tombs of the fifth and sixth centuries do suggest, at the very least, some type of connection with tombs of the Eurasian steppe associated with the nomadic Scythian culture of the first millennium BC. Several prominent crowns or headdresses in Central Asia including the fourth century BC Issyk headdress with its bird and tree motifs and second century BC three pronged gold crown of Tillya Tepe bear strong similarities to Silla headwear. As discussed by Bailey (1994), the prominent antler, tree, and wing design elements of these objects are also found on Silla crowns but not on headwear from Koguryŏ and Paekche.

The gold filigree and twisted wire decoration of the mid-second century BC Tillya Tepe crown are also similar to the decorative technique of Silla crowns (Pak Young-sook 1988). The few Koguryŏ examples of this gold working procedure suggest that it reached the peninsula through the north via Liaodong (Pak Young-sook 1988, Bailey 1994), but the Silla examples are much more elaborate and closer to the Tillya Tepe crown than any Koguryŏ metalwork.⁷⁰

Koguryŏ and Paekche headwear is also stylistically very similar to examples from the Northern

⁶⁹ As detailed in the previous section, Lee Kibaek (1966) and Kim Wŏnyong (1986) both allude to the Scythian and shamanic elements of the crown and personal adornment of Silla monarchs. Other studies in this vein are summarized in English by Bailey (1994).

⁷⁰ As Bailey points out, this may simply be due to the dearth of excavations of Koguryŏ sites in North Korea.

Wei and Southern Dynasties, respectively, and displays none of the tree, deer, and bird imagery of Central Asia (Bailey 1994).

The tree and deer antler motifs common to Central Asian headwear of the first millennium BC and fifth to sixth century Silla crowns have been taken as evidence that early Silla cosmology took its cue from Central Asia and Manchuria, and that the Silla ruler was in fact a shaman in the Scytho-Siberian tradition (Nelson 2008). Jacobson (1984), in her analysis of stag and tree motifs in Central Asian and Siberian art, interprets these designs as aspects of a belief system common to the Eurasian steppe as a whole that the fourth and third century BC focused around intermediaries between the human and spirit world, animal totemism, and ritual sacrifice. Ornaments and pictorial representations of stags and trees as well as headwear bearing these designs allowed the wearer to act as a spiritual intermediary, and the tree a pathway to the spirit realm. Jacobson argues that the initial form of this cosmological system had disappeared by the fifth and fourth centuries BC. Nevertheless, she contends that the prevalence of the motifs throughout Central Asia can be taken as an indication that remnants of this belief system persisted in the steppe throughout the first millennium BC and that these motifs became the characteristic symbols of the mobile warrior societies of the steppes. Bailey (1994) hypothesizes that the tree and antler designs of the Silla crowns may have had similar cosmological implications on the peninsula.

Though undoubtedly connected to Central Asia, it is still unclear how and why these aspects of distant northern culture made their way into Silla, especially considering the fact that these connections seem so much more pronounced than those of Koguryŏ, the logical polity to have been most influenced by steppe culture. In addition, despite being strikingly similar in form and manufacturing technique, there is a considerable time gap between the latest Central Asian

headwear (the Tillya Tepe crown in the second century BC) and the earliest Silla crowns (fifth century AD).

Further aspects of Silla crowns prevent us from accepting the argument that they were purely shamanic in the Central Asian sense of the term. In addition to their supposed shaman motifs, Silla crowns contain many stylistic elements that are not strictly Central Asian including the use of comma shaped jades as decorative elements, a prominent forked central prong, and hanging decorations attached to the base of the crown by thick rings. The crowns were also just one component of an elaborate burial regalia that included gold earrings and gold belts with a number of hanging decorations including peapod, fish, blade, and bell shaped gold plates. A few of the more elaborate crown burials also contained large necklaces of precious stones and gold or gilt-bronze shoes with gold wire decorations similar to the crowns themselves. Some aspects of this additional accoutrement such as the belt are also evocative of elite Xiongnu burials in Manchuria, but the iconography employed on the Silla belts is unique and does not suggest a single point of origin.

In sum, Silla crowns are a complex blend of icons, styles, craft techniques, and materials derived from a multitude of sources. Central Asia and the steppe were one of many cultural sources Silla rulers drew upon in crafting these symbols of their authority and legitimacy. This is not to say that there was no direct cultural link between Silla and either the steppe zone or Central Asia or that the crowns are not an expression of a deeply embedded northern culture within Silla, but these existed within a complex and syncretic religious and political tableau. The interpretation of Silla crowns and other elite burial accouterments as essentially shamanistic is more likely to indicate a conscious borrowing of these aspects of Scythian culture passed through Koguryō by Silla elites rather than direct evidence of the shamanic nature of rulership.

Looking beyond the ‘meaning’ of specific grave goods towards a more general conception of the value of objects interred in tombs, the ideological component of burials seems to have only increased in importance over time. Not only did the scale of expenditure increase from the second century onwards, there was also a growing emphasis on spectacle in mortuary practices. The basic constituents of the mortuary program were relatively consistent throughout Yōngnam in any given period (construction techniques, ceramic assemblages, and other grave goods), but the aspects that vary most greatly (iron object displays, the placement of valuable objects, the numbers and types of later *wajil* vessels) attest to the increased ideological importance of burial over time and the relative flexibility of the mortuary program. While concrete hypotheses regarding the religious character of authority are difficult to determine, the spectacle represented by elite burial was probably an essential ritual event of high pageantry necessary for the maintenance of a social system and a component of an increasingly doctrinal mode of religiosity.

Creating ancestors and forgetting them

Any burial practice or death ritual is a form of ancestor veneration by definition, but how was the southern Korean idea of ancestors different from the specific concept of the ancestors from the Chinese cultural tradition from the Shang through Hàn periods? The period in China roughly contemporaneous with the Korean Iron Age, the early to mid-Hàn, was actually a period of considerable change and reorganization of funerary practice and it is difficult to even pin down a unified conception of the ancestors or a ‘correct’ burial procedure. Longstanding traditions developed in the Neolithic and Bronze Age, such as the casket or coffin tomb and focus on sacrificial offerings via bronze ritual vessels commensurate with rank or status of the deceased, had undergone a variety of regional permutations in the Warring States. By the Hàn,

the nested coffin tomb type surrounded by a chamber had been replaced with more architectural tomb types that reconceptualized the grave as a home for the dead (Thote 2009, Wu 2010).

As discussed in Chapter 2, elements of these traditions find their way into southern Korea via the Hàn commanderies, but the varied and disjointed adoption process and local innovation in burial practices suggests that little of their social and cosmological context travelled with them. Kim Yongsǒng (2011) has suggested that the depth of coffin tomb interments in the Korean peninsula may be explained with reference to the Chinese concept of the *hun'po* or dual soul that ascends to heaven as well as remaining in the tomb, but this belief was out of fashion by the Hàn if it was ever widely believed at all (Brashier 1996, Lewis 2006). Similarly, the interment of objects of Chinese manufacture such as mirrors, coinage, and lacquer followed highly localized site-specific customs, which, in most cases, had little connection with their original functions.

The increase in the importance of ceramic vessels over the course of the Iron Age (particularly ornate, special-function objects) could be seen as evidence of the adoption of practices mimicking Chinese ritual bronze vessels. In the Western Zhou, the specific vessels that constitute a ritual set of bronzes or vessels never reached the level of regional consensus and varied considerably over time, but ranked cemeteries attest to a degree of uniformity and the widely-held idea that status should be represented by a certain number of specific vessel types in burial (Falkenhausen 2006). Interpreting the ceramic assemblage of the Iron Age in Korea in this vein is tempting, but as Chapters 4 and 5 have shown, while there is some evidence for a set of special function ceramic vessels that probably functioned in a similar way in the burial ceremony as they did in China, there is very little evidence for a gradation in the number, type, or elaboration of vessels that would suggest explicit ranking of the deceased. Any stratification

on the basis of these objects would only be meaningful within the confines of a single cemetery, such as the different vessel sets at T'ökch'ön-ni.

The *wajil* ceramic set of Early Iron Age coffin tombs (fan-necked, hourglass, short-necked storage, and wide-mouthed shallow urns) do co-occur at enough sites to suggest a similar ritual use. Rank or status does not appear to have affected this aspect of mortuary practice, however. The variable numbers of these objects do not correlate with other markers of ritual elaboration like the presence Chinese luxury goods, precious stones, or large amounts of iron. The same is true of the chamber tomb period, where later *wajil* serving and storage vessels attest to an expansion of this aspect of burial with little evidence that this marked specific grades of status. Even at T'ökch'ön-ni, the cemetery with the most codified and elaborate burial assemblage in Yöngnam, we cannot say much beyond the fact that more of these later *wajil* vessels are present in larger and more elaborate tombs. The repertoire of later *wajil* types is also far smaller than the large array of shapes and functions of Chinese ritual bronzes. While both the Chinese and peninsular traditions seem to be connected by a sense of obligation with regards to offerings to ancestors at the time of burial, this is likely an indicator of a more fundamental cultural connection among East Asian groups rather than evidence of exclusively Chinese practices and ideologies that filtered into the peninsula.

If not derivative of China, what was the concept of the ancestors in Iron Age Korea? First, ancestors (as indicated by the graves of previous generations) appear to have had a clear importance when placing later graves—both as something to be avoided and something to consider when orienting the burial of a recently deceased individual. Coffin tombs tended to be spaced evenly and often had mounds and moats that marked their location above ground. At Imdang and Sindae-ri, later tombs were clearly placed in relation to earlier graves, and the

relatively uniform orientations of most chamber tomb sites suggest a careful placement in relation to earlier graves. The growth of cemeteries and mortuary complexes may also have prompted or influenced the creation of the concept of a generalized group of ancestors that the recently deceased joined and were eventually forgotten amongst. This is seen in the loss of coherent tomb clusters at Sindae-ri and the multiple overlapping graves of southern Yŏngnam at Yangdong-ni and Tasesŏng-dong. Rather than a conscious belief in a collective group of ancestors, the necessity of burial within the delineated, limited spaces allowed by the dispersed human occupation zones could have nudged peninsular groups in the direction of generalized ancestor veneration. The fact that cemeteries persisted for several generations and eventually abandoned the spatial separation of graves in some sense caused this ideological shift to occur.

Cemetery layout and the development of grave distribution over time also offer a clue as to the lifespan of an ancestor or group of ancestors. Despite the fact that we see careful consideration of the placement of graves respecting the space of previous graves in both the coffin and chamber tomb periods, in two of the cemeteries profiled in Chapter 5, Imdang and Hwangsŏng-dong, whole swathes of earlier graves are not merely forgotten but the burial space completely re-used (either for more burials or, in the case of Imdang, for the erection of a fortress wall and the expansion of habitation areas). The lifespan of a grave cluster in the Iron Age appears to have been in the vicinity of 100 years before concerns of practicality, as opposed to the earlier dead resulted in the eventual destruction of prior burials. We can also see a distinction between organic cemeteries associated with a habitation area versus more isolated and elaborate cemeteries like Tŏkch'ŏn-ni. In these, the connection with prior burials was likely seen as more important, and the space of earlier graves was respected for a longer period of time.

In sum, the establishment of cemeteries encouraged the creation of ancestors and the separation of the living from the dead. In China, ancestor veneration included an organizational system of the dead that in some ways paralleled living social distinctions, but in Iron Age Korea, cemeteries and graves decoupled from living social groupings in favor of a legitimizing association with a generalized ancestor group.

A sacralized economy

The term ‘sacralized economy’ is borrowed from Peregrine Horden and Nicholas Purcell (2000), who deploy the term to characterize the essential inter-connectedness of economic activity and religious practice in the Mediterranean in antiquity. The concept is particularly useful here when considering to what degree the burial record can be used to comment on production and exchange. Although limited in its extent and applicability to society as a whole, the expenditure of tomb construction and resource disposal represented by grave goods was considerable. The shift from log to panel coffins in the Early Iron Age has been explained by immigration and ethnic differences (Lee Hŭijun 2000b), but a simpler explanation might be that, after the first century BC, it was not feasible to sacrifice such a significant natural resource to the process of corpse disposal. The net amount of wood necessary to construct a panel coffin would have been considerably less than the loss of an entire tree trunk hollowed out and buried.

The interment of iron in tombs also gives a sense of the scale of metallurgical production and the secondary resources necessary to produce it. After a certain point, iron disposal in tombs became an indicator not of the importance of the material but its ubiquity. The increasing elaboration in the amount and mode of placement of iron, as well as the creation of a new class of valuable object from previously unremarkable axe-blades (staff-heads), attest to how central and how common iron had become. The large amounts of *wajil* jars and the highly

individualized production of serving and display vessels also point to the creation of a prestige economy with production and exchange systems predicated to some extent on the demand for these objects in funerals. We can also see evidence for an elite prestige economy in the movement of precious stones and glass in necklaces discovered in tombs, as discussed by Lee Söngju (2009).

The inflation of resource expenditure in burial over the course of the Proto-Three Kingdoms period would seem to fit the model put forward by McCauley and Lawson (2002, 2007) regarding the strategies of religious authorities in maintaining the sensory pageantry of periodic ritual events. The relatively sudden appearance of human sacrifice in the early Three Kingdoms period (Lee and Kim 2011) is perhaps an indication that the threshold of sustainability in resource consumption for the purposes of burial had been reached, prompting the exploitation of another resource base (human slaves). While our picture of Yöngnam archaeology is too fragmentary to conceptualize the whole economic and production system, burial seems to have exerted a significant effect not just on resource depletion, but also in creating a demand for new and different ceramic and iron production systems.

Chapter 7 – Conclusions

This dissertation has analyzed the mortuary record of Iron Age southeastern Korea from a number of different perspectives and scales to determine how the historical polities of the Three Kingdoms Period came into existence. Given the nature of the evidence and the focus of previous historical and archaeological research, I have been concerned primarily with how well the mortuary ritual both reflects and contributed to social development and elite authority in the period. While each section has circled around these issues, I will end by summarizing and integrating the overall findings of each each chapter and emphasizing how they contribute to our understanding of social development in the Iron Age.

Chapter 1 briefly laid out a theoretical foundation that advocated looking at mortuary ritual as a phenomenon in and of itself rather than a biasing factor that needs to be isolated and controlled for. I suggested a methodology drawn from practice-based approaches to ritual activity and recent evolutionary models of cultural change, both memetic and epidemiological. In Chapter 2, I adopted a skeptical perspective toward theories of social development for Iron Age Korea that prioritize migration and conquest as prime movers of social change. Theories that rely on a model of gradual regional consolidation from village hierarchies to regional confederations to the appearance of centralized kingdoms are also limited in their ability to explain the material record of Yōngnam.

On the basis of previous research into the origin, construction process, and social context of cemeteries in Yōngnam, I argued that the incorporation of new practices and objects into the mortuary ritual was unsystematic and occurred at different rates in different parts of Yōngnam in Chapter 3. Rather than arguing that the influx of groups in northern Korea and Manchuria displaced or introduced new practices into the region, I argue for a high degree of indigenous

agency in the selective adoption of aspects of Chinese mortuary practices and the incorporation of these into pre-existing mortuary traditions. Although there was gradual evolution from coffin tombs to chamber graves that bore some resemblance to Lelang chamber tombs, this was not a conscious move towards more Chinese practices or hybridity resulting from in-migration or conquest.

The lack of skeletal evidence in cemeteries makes impossible a thorough demographic reading of any site, but estimates based on the size of burial clusters at Sindae-ri suggest several burying groups of extended families of fewer than ten individuals. I concluded that cemeteries do not represent single villages or communities in any period but were communal burial grounds within the patchwork of decentralized human occupation zones in the coffin-tomb period. By the second century AD, they had become more generalized burial areas for larger groups or abandoned in favor of discrete cemeteries.

With this enhanced but still limited understanding of the constitution of cemeteries and burying groups, I adopted a semiotic approach to determining what grave goods represented in tombs and their function within the overall mortuary ritual in Chapter 4. The overriding argument of the chapter was that there was an inextricable connection between mortuary ritual, craft production, and conceptions of elite authority. I explored this in the evolution of ceramic and iron grave goods from the third century BC to the fourth century AD and determined that each presents unique patterns of development. From the earliest period, there were distinct mortuary vessels reserved for funerary purposes. Over time, the number of vessel types increased and the overall number and importance of pottery vessels in the mortuary assemblage expanded. In the second century AD, the appearance of a number of difficult to produce *wajil* vessels with highly specific functions and a considerable degree of elaboration points to the

creation or expansion of a feasting or offering component to the burial ritual that was restricted to elite graves. This is represented best by the duck-pot, an object whose obscure function and iconography limited its usage to a small segment of the population.

Iron in tombs went through a process of exponential growth from the coffin to chamber to early Three Kingdoms tombs. Over the same span of time, the primary types of objects interred in tombs changed from tools to weaponry. Rather than the highly specific ceramic sets that are consistent only at the level of individual sites, iron displays represent a more outward focus and the creation of ritual practices common to the region as a whole (or at least two distinct traditions in northern and southern Yōngnam). The morphological evolution of flat axes from agricultural implements to units of exchange, as well as the appearance of decorated staff-heads, reflects the changing conception of iron as a quantifiable symbol of wealth. I suggested that the mortuary ritual itself contributed substantially to this process by encouraging an expansion of axe production and a move towards flatter, non-utilitarian objects. More subtly, the distribution and variation of the staff-head—as contrasted with the restricted and exclusive *wajil* duck pot—demonstrates that it was an outward facing symbol of wealth and power. The concept of iron as a source of economic and ritual legitimacy evolved as a consensus among groups within Yōngnam.

A close examination of so-called prestige goods also determined that what was important or valuable about certain objects and their ritual function varied from site to site. Bronze mirrors are the most prominent example of this, with different cemeteries valuing the connection of the objects to China, the reflective property of the metal, or their similarity to late Bronze Age fine-line mirrors. Mirrors alone are not sufficient to prove this conclusively, and future analysis of other objects representing long distance trade such as lacquer and glass beads will be used to

evaluate this hypothesis. The placement of iron objects in tombs both reflects and contributed to conceptions of what iron was, as well as suggesting a connection to authority and the political economy of the region. Iron began as an exotic trade object but quickly became an essential material for the creation of agricultural and craft tools. Eventually, iron in tombs developed into not just a quantifiable measure of wealth but also the means through which ideas regarding wealth and value were communicated among regional groups in the form of elaborate displays of iron axes and weaponry.

Chapter 5 returned to the evolutionary models of ritual change outlined in the introduction and traced both the synchronic variability and development of the mortuary ritual at three cemeteries from the first century BC to the fourth century AD. The evidence presented for each site attests to the wholly different trajectories of development at each site despite a limited set of shared grave goods. In tracing the development of the burial process at Sindae-ri, I was able to quantify the hypothesis in Chapters 3 and 4 that the grave-side ritual, as opposed to the preparation of the body and corpse, became increasingly important over time. This may not have been true of every site in Yŏngnam: at nearby Imdang coffin tomb ritual was consistently focused around the corpse and coffin.

The chamber tomb period shows increased intra-site consistency and allows us to isolate modular elements within the burial ritual, but the degree of rigor in how regional mortuary customs were expressed was demonstrably different at two of the sites profiled: Hwangsŏng-dong and Tŏkch'ŏn-ni. At Tŏkch'ŏn-ni, ceramic assemblages suggest a graded access to decorative display and storage vessels as well as carefully placed rows of spears under and around the corpse. In contrast, I characterized the ritual practice at Hwangsŏng-dong as imitative and tentative; even well furnished tombs at the site contain only one or two later *wajil*

vessels, and axe arrangements are haphazard and inconsistent. Contrary to researchers proposing a strict regional hierarchy, I argue that while the artifact assemblages suggest a ritually unequal relationship between the two sites, there is little evidence for sumptuary laws or restricted access to particular ritual treatments that extended beyond the confines of individual sites.

Expanding this analysis to consider the coherency of mortuary ritual on a regional scale, I evaluated the evidence for a normative funerary practice in Yŏngnam in Chapter 6. At the broadest level of practice (tomb construction, orientation, number of ceramic and iron grave goods, presence or absence of valuable objects), coffin tomb cemeteries were highly consistent throughout the region. At a smaller scale, when artifact placement and a qualitative assessment of the overall burial space were considered, this consistency largely disappeared. Chamber tomb sites were less coherent on a regional scale than coffin tombs, although specific sites demonstrated more internal regularity of practice. After the second century AD there were also two distinct regional divisions. Sites within the Kyŏngju plain were engaged in a complex ritual network characterized by the arrangement of spears and use of later *wajil* ceramics. In Kimhae and Pusan, the focus was less on weaponry and elaborate ceramics in favor of large quantities of simple iron ingots and short-necked jars. As a whole, however, Yŏngnam sites shared similar modular ritual elements that were variably expressed at different sites.

Based on this, the mortuary record of the southeast can co-exist with the Chinhan and Pyŏnhan cultures of the *Sanguozhi*, but the mortuary evidence alone suggests the material expression of these cultural distinctions was relatively late (the third century AD). Rather than the broad northern and southern distinction researchers have suggested as the territorial extent of these groups, a more restricted core in the Kyŏngju plain and the Kimhae-Pusan region is more likely. What is absent is any indication of hierarchical political networks or evidence for

confederations or *soguk* that evolved into Silla and Kaya. Instead, the common ritual practices point toward relatively independent polities that engaged with regional trade and communication networks with varying degrees of enthusiasm. Out of these regional networks, a common culture was constructed rather than consolidated.

Focus on the mortuary record naturally limits what we can say about regional development and cultural unity. While this is a specific limitation of this study, it is also one represented in the variety of site types currently excavated and the research priorities of Iron Age archaeology in Korea as a whole. The growing sophistication and number of village and agricultural field excavation projects has the potential to be an important foil to the mortuary data. In addition to illuminating areas about which we currently know very little, future projects can offer corrective evidence, especially in the areas of social structure and demography.

The regional scope of this study also reflects a general preoccupation with the southeastern peninsula and the development of Silla and Kaya within research on ancient Korea that ignores the connections between Yŏngnam, Honam, northern Korea, and southwestern Japan. This is partially a logistical necessity because a sincere engagement with the vibrant archaeological scholarly communities of any one of these regions is a significant undertaking, especially given the abundance of material discovered in Yŏngnam. While I have offered what I believe is a viable alternative to existing models of social development, in future work, I hope to apply a similar methodology to the whole of southern Korea and southwestern Japan to determine how representative Yŏngnam is of broader development patterns in peripheral East Asia. This is a research agenda already being reflected in current Korean scholarship, which has started to pay more attention to Mahan archaeology in southwestern Korea as well as the

economic and production links between southern Korea and Kyushu (YAS and KSAS 2012, NRICH 2012).

A more considered approach to the Hàn commanderies that acknowledges their material culture as a unique expression of Hàn China and indigenous elements is also reflected in the latest scholarship on the topic.⁷¹ Similarly, this study attempted to problematize the ‘foreign’ artifacts in the Iron Age tombs of the southeast. Rather than clearly isolated objects that can be neatly separated and excised from an essentially ‘Korean’ material culture tradition, more nuance is needed in deciding what may have been considered foreign in any particular tomb to those who constructed it, and also how these foreign objects were redefined and repurposed on the peninsula.

⁷¹ See articles in Byington (2014).

Appendix I — List of Sites Mentioned in the Text

Site	Hancha	Region	Period	Reference	Map no.
Ch'ilgok	漆谷	Taegu	Early Iron Age	KCHF 2000	45
Ch'op'o-ri	草浦里	Hamp'yŏng	Early Iron Age	KWNM 1988	5
Changyŏn-dong	蔣峴洞	Ulsan	early first century to late third century	UICP 2013	57
Chedae-ri	堤大里	Milyang	Proto-Three Kingdoms Period	TIC 2008	33
Chinae-dong	池内洞	Kimhae		Sim Ponggun 1982	8
Chŏn Sap'o-ri	前沙浦里	Milyang	Proto-Three Kingdoms Period	TIC 2008	34
Chŏp'o-ri	苧浦里	Hapch'ŏn	Early Iron Age	PUM 1987, CUM 1988	6
Choyang-dong	朝陽洞	Kyŏngju	late first century to the mid third century	KNM 2003a	15
Chuktong-ni	竹東里	Kyŏngju	late second century to early fourth century	KNM 1998	16
Chungmyŏng-ni	中明里	P'ohang	first century BC	SICP 2009	36
Chungsan-dong	中山洞	Ulsan	second century to early fourth century	UICP 2008, 2011a, 2011b	58
Chungsan-ni	中山里	Ulsan	late second century to early fourth century	CUM 2006a, 2006b, 2006c, 2006d	59
Hadae	下垈	Ulsan	late first century to early fourth century	PUM 1997, 1998	60
Hagu-ri	下邱里	Kyŏngju	second century BC	SCHRI 2010c	17
Hakchŏng-dong	鶴亭洞	Taegu	first and second century	YICP 2009d	46
Hasamjŏng	下三亭	Ulsan	second century to early fourth century	KCHF 2007, KICP 2009	61
Hwach'ŏn-ni	花川里	Kyŏngju	Proto-Three Kingdoms Period	YICP 2012a, 2012b, 2012c	18
Hwangsŏng-dong	隍城洞	Kyŏngju	late first century to early fourth century	NMK 1985, KBUM 2000a, 2000b, TGUM 2002, KUM 2003, KCHF 2003, 2005, KMUM 2000, KNM 2000a, 2000b, 2000c, 2003b, KUM 2003, SICP 2010a, YICP 2010a	19

hyangsan-ni ch'öngnyong	香山里 青龍	Ulsan	late first century	UICP 2005	62
Imdang	林堂	Kyöngsan	second century BC to early second century AD	YUM 1994, 1998, KCHF 1998a, 1998b, 1998c, 1998d, 1998e, YICP 1999a, 1999b 2001c, 2008b, 2010b	28
Indong-ni	仁洞里	Kyöngju	late first century	CICP 2004	20
Kach'ön-dong	佳川洞	Taegu	late first century to second century	YICP 2004a	47
Kaltong	葛洞	Wanju	Late Mumun Period	HNICP 2005, 2009	71
Kaya ũi Sup	伽倻의 금	Kimhae	late first century BC to early 1st century AD (coffin tombs)	SGICP 2006	9
Koejön-dong	槐田洞	Taegu	late second century to early third century	YICP 2004b	48
Kujiro	龜旨路	Kimhae	early second century to late fourth century	KSUM 2000a	10
Kujöng-dong	九政洞	Kyöngju	early fourth century	KNM 2006	21
Kuö-ri	九於里	Kyöngju	early first century	YBCP 1998a, YICP 2002, 2011	22
Kyo-dong	校洞	Milyang	late first century BC	MUM 2004	35
Mundang-dong	文唐洞	Kimch'ön	Early Iron Age	KICP 2008a	7
Munsan-ni	汶山里	Kyöngju	late second century BC to early first century BC	SCHRI 2009	23
Naeri-ri	内里里	Kyöngsan	first to second century	HICP 2011a, 2011b	29
Nop'o-dong	老圃洞	Pusan	first century and third century to early fourth century	PUM 1985a, 1988a, 1988b, KDI 2007	39
Nük-to	勒島	Sach'ön	Early Iron Age	PUM 1989, 2004, KAI 2003, 2006a, 2006b, 2006c, 2006d, TAUM 2005, 2008	43
Okkok-tong	玉谷洞	Kyöngsan	first to second century	KCHF 2009	30
Oksöng-ni	玉城里	P'ohang	early second century to early seventh century	YBCP 1998b, 1998c, KICP 2000, KNM 2000d, 2000e, 2000f, SICP 2010	37
Öün-dong	漁隱洞	Yöngch'ön	Proto-Three Kingdoms Period		70

P'aldal-dong	八達洞	Taegu	late second century BC to late second century	YICP 2000	49
Paekch'ŏn-Yesan-ni	栢田禮山里	Sŏngju	early first century BC to late second century	KICP 2005	44
Panggong-ni	芳谷里	Pusan	late first century BC	UUM 2007a, 2007b PMCM 1999, PMM 1990, Pokch'ŏn Museum 2004a, 2004b, 2008, 2010a, 2010b	40
Pokch'ŏn-dong	福泉洞	Pusan	early second century (Proto-Three Kingdoms tombs)	YICP 2010e	41
Pongmu-dong	鳳舞洞	Taegu	Proto-Three Kingdoms Period	SCHRI 2010b, 2011	50
Pukt'o-ri	北吐里	Kyŏngju	early first century BC to second century	SHICP 2010a	24
Sangin-dong	上人洞	Taegu	Proto-Three Kingdoms Period	KCPIRIA 2011b	51
Sanha-dong hwa'am	山下洞花岩	Ulsan	early fourth century	YICP 2001a, 2001b	63
Sara-ri	舍羅里	Kyŏngju	early second century to late third century	UICP 2003	25
Sayŏn-ni nŭmne	泗淵里 늪네	Ulsan	late first century to early second century	KICP 2004	64
Simch'ŏn-ni	深川里	Ch'ilgok	Early Iron Age to Proto-Three Kingdoms Period	SHICP 2010b	3
Sinch'ŏn-dong	新川洞	Taegu	Early Iron Age	UDI 2009	52
Sinch'ŏn-dong	新泉洞	Ulsan	Early Iron Age	YICP 2009c, 2010c, 2010d	65
Sindae-ri	新垈里	Kyŏngsan	early first century to second century	TAUM 2010, 2011, KIC 2011	31
Sinhwa-ri	新華里	Ulsan	Proto-Three Kingdoms Period	KCPIRIA 2011b	66
Sinsŏ-dong	新西洞	Taegu	first half of the 1st century to first half of the 2nd century	HICP 2012a, 2012b, 2012c, 2012d	53
Sŏnggong-ni	城谷里	P'ohang	Proto-Three Kingdoms Period	KCHF 2010, KCPIRIA 2011b	38
T'ap-tong	塔洞	Kyŏngju	early second century	SGU 1989	26
T'oerae-ri	退來里	Kimhae	Early Iron Age	UUM 2002	11
Tae-an-ni	太安里	Ulsan	second century	UICP 2006	67
Taetae-ri	太垈里	Ulsan	late first century to early fourth century	KAI 2009	68
Taegŭm-ni	太錦里	Kŏje	Early Iron Age		14

Taesöng-dong	大成洞	Kimhae	late first century to early second century (coffin tombs) early second century to early fifth century (chamber tombs)	KSUM 2000b, 2003	12
Taewön-Sinje-Kwangsöng-ni	大院里-新堤里-廣石里	Kyöngsan	Proto-Three Kingdoms Period	HICP 2011c	32
Taho-ri	茶戶里	Ch'angwön	second century BC to early second century	NMK 2008	1
Taun-dong	茶雲洞	Ulsan	early second century to early fourth century	UDI 2003, 2005, CUM 2006e	69
Togye-dong	道溪洞	Ch'angwön	Early Iron Age	CUM 1987, TUM 1996	2
Tohang-ni	道項里	Haman	early first century to early second century (coffin tombs)	CNCHI, 1997a, 1997b, 1999a, 1999b, 2000a, 2000b, 2001, 2004, KAI 2000	4
Tökch'ön-dong	德川洞	Pusan	third century	TAUM 2006	42
Tökch'ön-ni	德泉里	Kyöngju	first century BC to late third century	YICP 2008a, 2009a, 2009b	27
Tongnae-dong	東內洞	Taegu	Proto-Three Kingdoms Period	YICP 2001d	54
Uksu-dong	旭水洞	Taegu	late first century	YICP 2003, 2005b	55
Wölsöng-dong	月城洞	Taegu	late second century BC to late first century BC	KICP 2008b	56
Yangdong-ni	良洞里	Kimhae	late second century BC to first century BC and early first century to early fifth century	Munhwajae yön'guso 1989, TUM 2000, 2008	13
Yean-ni	禮安里	Kimhae	fourth to sixth century	PUM 1985a, 1992	11
Yongjön-ni	永田里	Yöngch'ön	first century BC		72



Figure AI.1: Study area and sites mentioned in the text

Appendix II — Additional Figures and Tables for Chapter 5

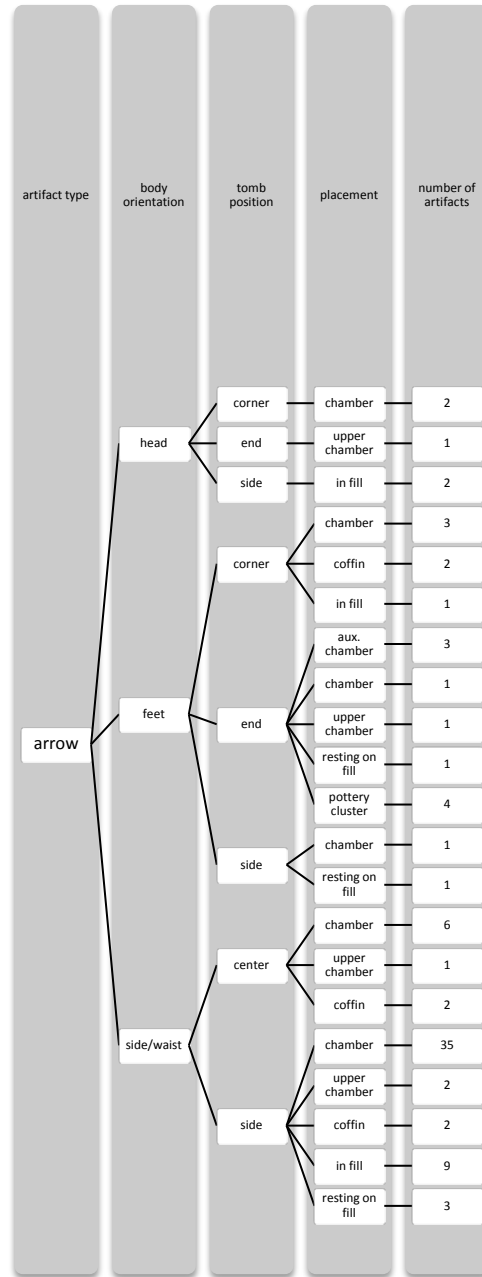


Figure All.1: Example artifact key diagram

The figure shows the number of arrows conforming to different tomb placements at Hwangsoŋ-dong. For example, a total of two arrowheads at the site were found near the head at one corner of the tomb and within the burial chamber. For this particular object, the vast

majority of examples (35 objects) were found near the waist of the corpse at the side of the tomb in the main burial chamber, which demonstrates a high consistency of placement.

Table All.1: Hwangsöng-dong original artifact terminology and functional revisions

Excavation report	Translation	Material	Revised type	Valuable object?
8字形銅器 8자형동기	figure-8 shaped object	bronze	ornament	yes
장식	ornament	bronze	ornament	
靑銅環 청동환	bronze ring	bronze		
靑銅釧 청동천	bronze bracelet	bronze	ornament	yes
따비	plow	iron	tool	
쇠스랑	rake	iron	tool	
재갈	bridle	iron	horse-riding	yes
不明鐵器 불명철기	unknown type	iron	unknown iron	
刀子 도자	knife blade	iron	dagger or knife	
小刀 소도	short sword	iron	sword	
曲刀 곡도	curved sword	iron	sword	
有刺利器 유자이기	flat barbed object	iron	staff-head	yes
板狀鐵斧 판상철부	flat iron axe	iron	flat axe	
板狀鐵矛 판상철모	flat iron spear	iron	staff-head	
環頭刀 환두도	ring-pommel sword	iron	ring-pommel sword	yes
環頭大刀 환두대도	ring-pommel great sword	iron	ring-pommel sword	yes
蕨手形板狀鐵矛 귄수형판상철모	curled-handle flat iron spear	iron	decorated spear	yes
蕨手形鐵器 귄수형철기	curled-handle shaped iron object	iron	decorated spear	yes
蕨手形鐵矛 귄수형철모	ornamented spear	iron	decorated spear	yes
轡 비	bridle	iron	horse-riding	yes
鉸具 교구	buckle	iron	ornament	
鍛造鐵斧 단조철부	wrought iron axe	iron	tool	
鍛造鐵鏃 단조철수	wrought iron short-spear	iron	spear	
鐵刀 철도	iron sword	iron	sword	
鐵劍 철검	iron sword	iron	sword	
鐵戟 철극	iron halberd	iron	halberd	yes
鐵斧 철부	iron axe	iron	tool	

鐵斧形鐵鉞 철부형철모	axe-shaped iron spear	iron	staff-head	yes
鐵矛 철모, 鐵鉞 철모	iron spear	iron	spear	
鐵鉞 철사	iron short spear	iron	spear	
鐵鎌 철검	iron sickle	iron	tool	
鐵鏃 철촉	iron arrowhead	iron	arrow	
鐵鑿 철착	iron bore	iron	tool	
鑄造鐵斧 주조철부	cast iron axe	iron	cast axe	
長身斧形鐵器 장신부형철기	long-body axe-shaped iron object	iron	staff-head	yes
鐵劍 철검	iron sword with bronze pommel	iron and bronze	decorated sword	yes
有蓋兩瘤附大壺 유개양유개대호	two-knobbed big jar with lid	ceramic	decorative storage	
부엉이모양토기	owl-shaped pottery	ceramic	bird bird- shaped pottery	yes
주머니호	hourglass jar	ceramic	hourglass jar	
兩乳附壺 양유개호	two-knob globular jar	ceramic	short-necked jar	
兩乳附甕 양유개옹	two-knob globular urn	ceramic	urn or bowl	
兩耳附平底短頸壺 양이부평저단경호	two-eared flat-base short-necked jar	ceramic	short-necked jar	
圓底短頸壺 원저단경호	two-eared flat-base short-necked jar	ceramic	short-necked jar	
壺片 호편	jar fragment	ceramic	pottery fragment	
巫 무	shallow bowl	ceramic	unique	
平底直口壺 평저직구호	flat-base straight- mouth jar	ceramic	short-necked jar	
廣口壺 광구호	wide-mouth jar	ceramic	fan-necked jar	
把手附杯 파수부배	cup with handle	ceramic	cup	
有蓋臺附廣口壺 유개대부광구호	wide-mouth jar with lid and base	ceramic	decorative storage	
有蓋臺附直口壺 유개대부직구호	straight-mouth jar with lid, handles, and stand	ceramic	decorative storage	
爐形土器 로형토기	oven shaped pottery	ceramic	serving jar	
甕 옹	urn	ceramic	urn	
盧形土器 노형토기	oven shaped pottery	ceramic	serving jar	
組合牛角形把手附壺 조합우각형파수부호	fan neck globular jar with horn handles	ceramic	fan-necked jar	
臺脚片 개각편	base fragment	ceramic	pottery fragment	

臺附壺개대호	globular jar with stand	ceramic	decorative storage	
臺附壺개대호	globular jar with stand, handles, and lid	ceramic	decorative storage	
臺附廣口壺개대광구호	straight mouth jar with base	ceramic	decorative storage	
臺附短頸壺개대단경호	short neck jar with base	ceramic	decorative storage	
臺附長頸壺대부장경호	long-neck jar with stand	ceramic	decorative storage	
複合器形土器복합기형토기	complex-shape pottery	ceramic	unique	yes
長胴壺 장동호	tall jar	ceramic	short-necked jar	
長胴甕 장동옹	tall urn	ceramic	urn or bowl	
鴨形土器	duck shaped pottery	ceramic	bird-shaped pottery	yes
兩瘤附大壺양유개대호	two-knobbed big jar	ceramic	decorative storage	
兩耳附壺 양이부호	two ear jar	ceramic	short-necked jar	
口緣部片 구연부편	rim fragment	ceramic	pottery fragment	
圓底壺 원저호	rounded-base jar	ceramic	short-necked jar	
圓底短頸壺 원저단경호	rounded-base short-necked jar	ceramic	short-necked jar	
土器片 토기편	ceramic fragment	ceramic	pottery fragment	
大壺 대호	big jar	ceramic	big storage jar	
短頸壺 단경호	short-necked jar	ceramic	short-necked jar	
小壺 소호	small jar	ceramic	urn or bowl	
神仙爐形土器신선로형토기	wide mouth vase	ceramic	nested jar	yes
高杯 고배	mounted cup	ceramic	raised dish	
牛角形兩耳附甕우각형양양이부옹	horn-shaped two-ear globular urn	ceramic	urn or bowl	
盥 완	bowl	ceramic	urn or bowl	
鉢 발	bowl	ceramic	urn or bowl	
土球 토구	clay ball	clay	clay ball	
귀걸이	earring	bone	ornament	yes
	bead (comma, hexagonal, or circular)	stone	bead	
多面玉	hexagon	stone	ornament	

琉璃製 유리제 환옥	perforated cylinder	stone	ornament
紡錘車 방추차	perforated cylinder	stone	ornament
頸飾	necklace	stone	ornament

Table All.2: Comparison of mean number of artifacts per tomb between early and late phases at Hwangsŏng-dong, Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Std. Error	95% Confidence Interval of the Difference	
								Lower	Upper	
total	Equal variances assumed	3.84	0.05	-0.6	94	0.548	-0.594	0.984	-2.549	1.361
	Equal variances not assumed			-0.68	72.3	0.496	-0.594	0.869	-2.326	1.138
ceramic	Equal variances assumed	20.5	0	-5.11	94	0	-2.882	0.564	-4.002	-1.761
	Equal variances not assumed			-6.79	93.99	0	-2.882	0.424	-3.724	-2.04
metal	Equal variances assumed	1.44	0.23	3.204	94	0.002	2.198	0.686	0.836	3.56
	Equal variances not assumed			3.055	47.97	0.004	2.198	0.719	0.751	3.644
log of total	Equal variances assumed	2.37	0.13	-0.11	94	0.915	-0.00586	0.05477	-0.1146	0.10288
	Equal variances not assumed			-0.12	64.03	0.908	-0.00586	0.05073	-0.1072	0.09548

log of ceramic	Equal variances assumed	0.68	0.41	-5.6	94	0	-0.35339	0.06311	-0.4787	-0.2281
	Equal variances not assumed			-6.08	64.99	0	-0.35339	0.05812	-0.4695	-0.2373
log of metal	Equal variances assumed	0.79	0.38	3.169	94	0.002	0.2267	0.07154	0.08467	0.36874
	Equal variances not assumed			3.282	57.81	0.002	0.2267	0.06908	0.08842	0.36498

The table shows the results of the *t*-test analysis of the dataset with outlier tombs removed as well as log transformations of the original dataset. Preliminary analysis of the output suggests that, with either outliers removed or the log transformation, there is no significant difference between the mean number of artifacts in the early (M = 6.69, SE = .643) and late (M = 7.28, SE = .584) phase: $t(94) = -.603, p > .05$.

Table All.3a: Comparison of mean number of artifacts per tomb between early and late phases at Hwangŏng-dong, Ranks

	phase	N	Mean Rank	Sum of Ranks
ceramic	1	29	27.43	795.5
	2	67	57.62	3860.5
	Total	96		
metal	1	29	62.26	1805.5
	2	67	42.54	2850.5
	Total	96		
total	1	29	48.55	1408
	2	67	48.48	3248
	Total	96		

Table All.3b: Comparison of mean number of artifacts per tomb between early and late phases at Hwangšong-dong, non-parametric tests^a

	ceramic	metal	total
Mann-Whitney U	360.5	572.5	970
Wilcoxon W	795.5	2850.5	3248
Z	-4.928	-3.209	-0.012
Asymp. Sig. (2-tailed)	0	0.001	0.99
Exact Sig. (2-tailed)	0	0.001	0.992
Exact Sig. (1-tailed)	0	0.001	0.496
Point Probability	0	0	0.002

a. Grouping Variable: phase (early and late)

The Mann-Whitney U shows a significant variation in the number of ceramics and metal per tomb in the two phases (exact sig 2-tailed is below .05) and the ranks also show an interesting inverse trajectory for metal and ceramics (ceramics get larger in the later period while iron gets smaller).

Table All.4: Hwangšong-dong artifacts ideal modal placements and variance scores

artifact	phase	ideal modal placement			number of objects x degrees of var. from the ideal				# of tombs	variance score
		body	tomb	construction	0	1	2	3		
arrow	all	side/waist	side	chamber	35	23	10	12	80	0.2352
	early	side/waist	side	chamber	24	14	5	2	45	0.144
	late	side/waist	side	chamber	9	3	7	8	27	0.3954
	coffin	side/waist	side	in fill	8	6	5	2	21	0.2457
	rectangular	side/waist	side	chamber	31	4	4	3	42	0.123
	long	side/waist	end	chamber	0	4	10	0	14	0.4043
dagger	all	side/waist	side	chamber	11	6	5	1	23	0.188
	early	.	.	.						

	late	side/waist	side	chamber	11	6	5	1	23	0.188
	rectangular	side/waist	end	chamber	0	3	3	0	6	0.3325
	long	side/waist	side	chamber	9	3	3	0	15	0.133
spear (all)	all	head	side	chamber	2	78	11	5	96	0.2348
	early	head	end	chamber	10	3	8	4	25	0.3134
	late	head	side	chamber	1	61	4	2	68	0.202
	coffin	side/waist	side	coffin, in fill	4	3	2	2	11	0.2877
	rectangular	head	end	chamber	20	5	15	0	40	0.2081
	long	side/waist	side	chamber	14	1	17	2	34	0.304
	sword (all)	all	side/waist	side	chamber	30	12	9	1	52
early		side/waist	side	chamber	18	6	5	0	29	0.1203
late		side/waist	side	chamber	11	5	3	0	19	0.1224
coffin		side/waist	center	coffin	5	2	1	1	9	0.185
rectangular		side/waist	side	chamber	20	7	3	0	30	0.0885
long		side/waist	side	chamber	2	2	1	0	5	0.166
short necked jar	all	feet	end	pottery cluster	61	48	21	16	146	0.2177
	early	head	corner	upper fill	2	0	3	1	6	0.3892
	late	feet	end	pottery cluster	60	46	16	14	136	0.2006
	coffin	head	end, corner	upper fill	4	2	0	0	6	0.055
	rectangular	feet	end	chamber	3	20	7	1	31	0.2463
	long	feet	end	pottery cluster	51	3	45	8	107	0.2773
tool	all	side/waist	side	chamber	28	26	53	14	121	0.3511
	early	side/waist	corner	chamber	0	16	13	4	33	0.3782
	late	side/waist	end	chamber	0	42	37	2	81	0.3346
	coffin	side/waist	side	coffin	3	15	10	1	29	0.2866

	rectangular	side/waist	side	chamber	15	10	24	3	52	0.3107
	long	feet	end	chamber	5	16	18	3	42	0.3368
urn	all	feet	side	chamber	1	16	16	4	37	0.3778
	early	side/waist	side	upper fill	1	3	2	2	8	0.3956
	late	feet	end	chamber	1	9	9	1	20	0.341
	coffin	feet, head	corner	upper fill	2	2	3	1	8	0.3331
	rectangular	side/waist	side	chamber	6	3	2	3	14	0.2857
	long	feet	end	chamber	1	8	2	1	12	0.2629
decorative storage	all	feet	end	pottery cluster	22	8	4	7	41	0.2235
	early	.	.	.						
	late	feet	end	pottery cluster	22	8	4	7	41	0.2235
	rectangular	feet	end	pottery cluster	6	3	0	2	11	0.1968
	long	feet	end	pottery cluster	14	5	4	2	25	0.1798
raised dish	all	feet	end	attached, cluster	10	1	1	0	12	0.0554
	early	.	.	.						
	late	feet	end	attached, cluster	10	1	1	0	12	0.0554
	rectangular	feet	end	pottery cluster	4	3	0	0	7	0.0707
	long	feet	end	attached or auxiliary	3	1	0	0	4	0.0412
staff head	all	head	corner	chamber	3	6	3	0	12	0.2075
	early	feet	corner	chamber	0	0	0	0	0	0
	late	head	corner	chamber	3	1	6	0	10	0.3165
bird shaped pottery	late	feet	end	attached or auxiliary	4	0	0	0	4	0
serving jar	all	feet	end	pottery cluster	7	4	0	3	14	0.2261
	early	.	.	.						
	late	feet	end	chamber	7	4	0	3	14	0.2261
	rectangular	feet	end	pottery cluster	5	4	0	1	10	0.1495
	long	feet, head	corner end	pottery cluster	2	2	0	0	4	0.0825

ornament	all	head	end	chamber	9	17	10	2	38	0.2493
	early	head	end	coffin	7	1	1	1	10	0.15
	late	head	end	chamber	7	6	7	0	20	0.2245
	coffin	head	end	coffin	12	0	2	0	14	0.0714
	rectangular	head	end	chamber	5	1	5	0	11	0.2423
	long	head	end	chamber	2	3	5	0	10	0.2995
spear	all	head	end	chamber	27	19	31	6	83	0.2849
	early	head	end	chamber	10	3	8	4	25	0.3134
	late	head	side, end	chamber	18	32	2	3	55	0.1597
	coffin	side/waist	side	coffin, in fill	4	1	5	1	11	0.3182
	rectangular	head	end	chamber	20	5	15	0	40	0.2081
	long	head	corner	chamber	7	9	3	2	21	0.2217

Table All.5: Imdang and Sindae-ri original artifact terminology and functional revisions

Excavation report	Translation	Material	Revised type	Valuable object?
漢鏡 한경	Han mirror	bronze	Han mirror	yes
青銅釧 청동친	bracelet	bronze	ornament	yes
虎形帶鉤 호형대구	tiger-shaped belt hook	bronze	ornament	yes
馬形帶鉤 마형대구	horse-shaped belt hook	bronze	ornament	yes
不明銅器 불명동기	unknown bronze	bronze	unknown bronze	
五銖錢 오수전	Chinese bronze coin	bronze	coin	yes
細形銅劍 세형동검	slim bronze dagger	bronze	bronze dagger	yes
劍把頭飾 검과두식	sword pommel ornament	bronze	decorated sword	yes
圓形銅器 원형동기	circular bronze object	bronze	ornament	
青銅斧 청동부	bronze axe	bronze	bronze axe	yes
青銅鉞 청동사	bronze short spear	bronze	bronze spear	yes
동펜던트	pendant	bronze	ornament	yes
재갈	bit	iron	horse-riding	
鐵矛 철모, 鐵鉞 철모	iron spear	iron	spear	
鐵鎌 철검	iron sickle	iron	tool	
鐵鏃 철족	iron arrowhead	iron	arrow	
刀子 도자	knife blade	iron	dagger or knife	
環頭刀子 환두도자	ring-pommel knife	iron	ring-pommel knife	yes
鐵斧 철부	iron axe	iron	tool	
鍛造鐵斧 단조철부	wrought iron axe	iron	tool	
鑄造鐵斧 주조철부	cast iron axe	iron	cast axe	

板狀鐵斧 판상철부	flat iron axe	iron	flat axe	
鐵劍 철검	iron sword	iron	sword	
鐵刀 철도	iron sword	iron	sword	
不明鐵器 불명철기	unknown type	iron	unknown iron	
鐵鑿 철착	iron bore	iron	tool	
鐵鐫 철준	iron foot	iron	tool	
鐵環 철환	iron ring	iron	ornament	
쇠스랑	iron rake	iron	tool	
살포	iron spade	iron	tool	
따비	plow	iron	tool	
環頭刀 환두도	ring-pommel sword	iron	ring-pommel sword	yes
轡 비	iron bridle	iron	horse-riding	
小刀 소도	small sword	iron	dagger or knife	
鑣轡 표비	bit	iron	horse-riding	
圓形鐵器 원형철기	circular iron object	iron	ornament	
鑿形鐵器 착형철기	bore shaped iron object	iron	tool	
鐵製釣針 철제낚시	fishhook	iron	tool	
斧刃形鐵鉞 부인형철모	axe-shaped spear	iron	staff-head	yes
靑銅劍把附屬具	iron sword with bronze	iron	decorated	
청동검파부속구	pommel	iron	sword	yes
슬래그	iron slag	iron	unknown iron	
長頸壺	long necked jar	ceramic	fan-necked jar	
粘土帶土器 점토대토기	clay rim pottery	ceramic	clay rim pottery	
土器片	pottery fragment	ceramic	pottery fragment	
蓋 개	lid	ceramic	lid	
把手附壺 파수부호	jar with mug handle	ceramic	cup	
組合牛角形把手附壺	fan neck globular jar	ceramic	fan-necked jar	
조합우각형파수부호	with horn handles			
兩鈕附壺 양뉴부호	two knob jar	ceramic	short-necked jar	
주머니호	hourglass jar	ceramic	hourglass jar	
扁球小壺 편구소호	small globular jar	ceramic	small globular jar	
甕 옹	urn	ceramic	urn or bowl	
小型시루	small steamer	ceramic	steamer	yes
爐形土器 로형토기	oven shaped pottery	ceramic	serving jar	yes
有蓋臺附廣口壺	wide-mouth jar with lid	ceramic	decorative storage	
유개대부광구호	and base			
兩耳附壺 양이부호	two ear jar	ceramic	short-necked jar	
臺附壺개대호	globular jar with stand	ceramic	decorative storage	

牛角形把手附壺 우각형과수부호	jar with cow horn handles	ceramic	fan-necked jar	
鴨形土器	bird-shaped pottery	ceramic	bird-shaped pottery	yes
大壺 대호	big jar	ceramic	big storage jar	
小壺 소호	small jar	ceramic	urn or bowl	
臺附長頸壺 대부장경호	long-neck jar with stand	ceramic	decorative storage	
兩乳附壺 양유개호	two-knob globular jar	ceramic	short-necked jar	
長胴甕 장동옹	tall urn	ceramic	urn or bowl	
複合器形土器 복합기형토기	complex-shape pottery	ceramic	unique	
巫 무	shallow bowl	ceramic	unique	
直口壺 직구호	straight-mouth jar	ceramic	decorative storage	
鉢形器臺附壺 발형기대부호	bowl shaped raised jar	ceramic	raised dish	
有蓋臺附壺 유개대부호	raised jar with lid	ceramic	decorative storage	
臺附주머니호 대부주머니호	raised hourglass jar	ceramic	raised dish	
盥 완	bowl	ceramic	urn or bowl	
短頸壺 단경호	short-necked jar	ceramic	short-necked jar	
鉢 발	bowl	ceramic	urn or bowl	
高杯 고배	raised dish	ceramic	raised dish	
臺附盥 대부완		ceramic	raised dish	
牛角形把手附甕 우각형과수부옹	urn with horn-shaped handles	ceramic	urn or bowl	
器臺 기대	base	ceramic	unique	
臺附兩耳附壺 대부양이부호	two-eared jar with base	ceramic	decorative storage	
圓底甕 원저옹	round-bottom urn	ceramic	urn or bowl	
豆 두	dish	ceramic	unique	
把杯	cup with handles	ceramic	cup	
土球 토구	clay ball	clay	clay ball	
컵형 漆器	cup-shaped lacquer object	lacquer	lacquer	yes
원통형칠기	circular lacquer object	lacquer	lacquer	yes
漆痕 칠흔	lacquer object outline	lacquer	lacquer	yes
砥石 지석	whetstone	stone	tool	
紡錘車 방추차	perforated cylinder	stone	ornament	
石鏃 석촉	stone arrow	stone	stone arrow	
頸飾	necklace	stone	ornament	

Table All.6: Sindae-ri counts and percentages of objects at Sindae-ri in each site phase and their location inside the tomb

Phase and artifact type	1 - tomb floor	2 - coffin	3 - in fill	4 - resting on fill	5 - in upper fill	6 - in mound or moat	Total
I	10 35.71%	4 14.29%	4 14.29%	10 35.71%	0	0	28
decorated sword	2 100%						2
fan-necked jar	1 50%			1 50%			2
flat axe				3 100%			3
hourglass jar	1 33.33%		1 33.33%	1 33.33%			3
lid				1 100%			1
ornament		2 50%	2 50%				4
spear	3 100%						3
sword		1 100%					1
tool	2 50%		1 25%	1 25%			4
unknown iron	1 50%	1 50%					2
urn or bowl				3 100%			3
II	0	4 17.39%	3 13.04%	12 52.17%	1 4.35%	3 13.04%	23
arrow		1 50%		1 50%			2
fan-necked jar			1 50%	1 50%			2
hourglass jar				3 100%			3
pottery fragment				3 60%	1 20%	1 20%	5
spear		1 50%		1 50%			2
sword		1 100%					1

tool	1	1	3	1	6	
	16.67%	16.67%	50%	16.67%		
unknown iron		1			1	
		100%				
urn or bowl				1	1	
				100%		
III	1	19	15	33	11	17
	1.04%	19.79%	15.63%	34.38%	11.46%	17.71%
arrow	1	1				2
	50%	50%				
dagger or knife		1				1
		100%				
decorated sword		2				2
		100%				
fan-necked jar			3	11	6	20
			15%	55%	30%	
horse					2	2
					100%	
hourglass jar			3	4	2	9
			33.33%	44.44%	22.22%	
lacquer		2	1			3
		66.67%	33.33%			
ornament		6			3	9
		66.67%			33.33%	
pottery fragment				1	6	7
				14.29%	85.71%	
short-necked jar			1	3	1	8
			12.50%	37.50%	12.50%	
small globular jar		1				1
		100%				
spear		1		2	2	5
		20%		40%	40%	
tool		2	4	7	3	16
		12.50%	25.00%	43.75%	18.75%	
unknown bronze		1				1
		100%				
unknown iron		2	3	2		7
		28.57%	42.86%	28.57%		
urn or bowl				3		3
				100%		
IV	0	6	27	50	17	7
		5.61%	25.23%	46.73%	15.89%	6.54%
arrow			1			1
			100%			

decorated sword	2						2
	100%						
fan-necked jar	8	13	7				28
	28.57%	46.43%	25%				
horse	1						1
	100%						
hourglass jar	3	11	2				16
	18.75%	68.75%	12.50%				
lacquer	1						1
	100%						
lid						2	2
						100%	
mirror		1					1
		100%					
ornament	1						1
	100%						
pottery fragment	1	6			1		8
	12.50%	75.00%			12.50%		
short-necked jar		5	1		2		8
		62.50%	12.50%		25.00%		
spear	1	2					3
	33.33%	66.67%					
sword	3						3
	100%						
tool	10	10	4				24
	41.67%	41.67%	16.67%				
urn or bowl	1	2	3		2		8
	12.50%	25%	37.50%		25%		
V	1	3	7	7	6	5	29
	3.45%	10.34%	24.14%	24.14%	20.69%	17.24%	
fan-necked jar			1	2	2		5
			20%	40%	40%		
hourglass jar				2		1	3
				66.67%		33.33%	
ornament	2						2
	100%						
pottery fragment						4	4
						100%	
short-necked jar		2	2	1			5
		40%	40%	20%			
stone		1					1
		100%					
tool		3	1	1			5
		60%	20%	20%			

unknown iron	1 50%	1 50%					2
urn or bowl					2 100%		2
Grand Total	36 4.24%	56 12.72%	32 19.79%	112 39.58%	35 12.37%	12 11.31%	283

Table All.7: Tökch'ön-ni original artifact terminology and functional revisions

Excavation report	Translation	Material	Revised type	Valuable object?
虎形帶鉤 호형대구	tiger shaped belt hook	bronze	ornament	yes
馬形帶鉤 마형대구	horse shaped belt hook	bronze	ornament	yes
靑銅製品 청동제품	bronze object	bronze	unknown bronze	
劍把頭飾 검과두식	sword pommel ornament	bronze	decorated sword	yes
鐵鎌 철검	iron sickle	iron	tool	
鐵矛 철모, 鐵鉞 철모	iron spear	iron	spear	
鐵鏃 철족	iron arrowhead	iron	arrow	
刀子 도자	knife blade	iron	dagger or knife	
環頭刀子 환두도자	ring-pommel knife	iron	knife	
鐵斧 철부	iron axe	iron	tool	
鑄造鐵斧 주조철부	cast iron axe	iron	cast axe	
板狀鐵斧 판상철부	flat iron axe	iron	flat axe	
鐵劍 철검	iron sword	iron	sword	
不明鐵器 불명철기	unknown type	iron	unknown iron	
鐵鑿 철착	iron bore	iron	tool	
鐵環 철환	iron ring	iron	ornament	
따비	plow	iron	tool	
有刺利器 유자이기	flat barbed object	iron	staff-head	yes
鐵鋸 철거	iron saw	iron	tool	
曲刀子 곡도자	curved knife	iron	dagger or knife	
環頭刀 환두도	ring-pommel sword	iron	sword	yes
環頭大刀 환두대도	ring-pommel great sword	iron	sword	yes
鉢 발	bowl	ceramic	urn or bowl	
粘土帶土器 점토대토기	clay rim pottery	ceramic	clay rim pottery	
短頸壺 단경호	short-necked jar	ceramic	short-necked jar	
주머니호	hourglass jar	ceramic	hourglass jar	
土器片 토기편	pottery fragment	ceramic	pottery fragment	
甕 옹	urn	ceramic	urn or bowl	
尖底甕 침저옹	pointed base urn	ceramic	urn or bowl	
蓋 개	lid	ceramic	lid	

爐形土器 로형토기 有蓋臺附直口壺 유개대부직구호	oven shaped pottery globular jar with stand, handles, and lid	ceramic ceramic	servicing jar decorative storage decorative	yes
有附直口壺 유부직구호 兩耳附壺 양이부호 有蓋爐形土器 유개노형토기	globular jar with stand two ear jar oven shaped pottery with lid	ceramic ceramic ceramic	storage short-necked jar servicing jar decorative	yes
臺附壺 대부호 平小甕 평저옹 平底小甕 평저소옹	jar with base flat base urn flat base small urn	ceramic ceramic ceramic	storage urn or bowl urn or bowl decorative	
臺附短頸壺 대부단경호 臺附廣口壺 유개대부광구호 牛角形把手附壺 우각형과수부호 兩鈕壺 양뉴호	short neck jar with base wide-mouth jar with base jar with cow horn handles knobbed jar knobbed jar with knob base	ceramic ceramic ceramic ceramic	storage decorative storage fan-necked jar short-necked jar	yes
兩鈕附壺 양뉴부호 臺附小壺 대부소호	mounted small jar	ceramic ceramic	short-necked jar cup bird-shaped pottery	yes
鴨形土器	duck shaped pottery	ceramic	decorative storage	
臺附短頸壺 개대단경호 有蓋臺附廣口壺 유개대부광구호 把手附壺 과수부호 長胴壺 장동호	short neck jar with base wide-mouth jar with lid and base jar with mug handle tall jar straight mouth jar with base	ceramic ceramic ceramic ceramic ceramic	storage decorative storage cup short-necked jar decorative storage	
臺附廣口壺 개대광구호 有蓋異形土器 유개이형토기 異形土器 이형토기 盧形土器 노형토기 筒形土器 통형토기 有蓋半圓桶形土器 유개반원통형토기 神仙爐形土器 신선로형토기 高杯 고배	nested dish with lid nested dish hourglass pottery pipe shaped pottery semi-circular hollow pottery wide mouth vase raised dish	ceramic ceramic ceramic ceramic ceramic ceramic ceramic	servicing jar servicing jar servicing jar unique unique nested jar raised dish	yes yes yes
紡錘車 망추차 砥石 지석 頸飾	perforated cylinder whetstone necklace	stone stone stone	ornament tool ornament	

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