

ICOMOS

INTERNATIONAL COUNCIL ON MONUMENTS AND SITES
CONSEIL INTERNATIONAL DES MONUMENTS ET DES SITES
CONSEJO INTERNACIONAL DE MONUMENTOS Y SITIOS
МЕЖДУНАРОДНЫЙ СОВЕТ ПО ВОПРОСАМ ПАМЯТНИКОВ И ДОСТОПРИМЕЧАТЕЛЬНЫХ МЕСТ

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Charenton-le-Pont, 6 October 2021

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Ambassador Extraordinary and Plenipotentiary,
Permanent Delegate
Permanent Delegation of the Republic of Korea to
UNESCO
Tour Montparnasse
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75015 Paris

World Heritage List 2022 – Additional Information Gaya Tumuli (Republic of Korea)

Dear Ambassador,

ICOMOS is currently assessing the nomination of the “Gaya Tumuli” as a World Heritage site and an ICOMOS evaluation mission has visited the property to consider matters related to protection, management and conservation, as well as issues related to integrity and authenticity.

In order to help with our overall evaluation process, we would be grateful to receive further information to augment what has already been submitted in the nomination dossier.

Therefore, we would be pleased if the State Party could consider the following points and kindly provide additional information:

General questions

The nomination dossier mentions archaeological investigations of the Gaya region since the beginning of the 20th century, but from the dossier itself ICOMOS notes that it remains unclear how much information is known about the Gaya society beyond the burial tumuli. ICOMOS would appreciate if the State Party could supply information on the reason why “[t]he Gaya Confederacy has long stood outside the mainstream of historical discussion in Korea” (page 201), and on the current state of investigations regarding this matter.

From the information provided in the nomination dossier, ICOMOS understands that the seven nominated cemeteries relate to seven entities of the Gaya Confederacy. However, the existence of many other Gaya cemeteries and sites raises several questions on which ICOMOS would welcome further clarification:

- What was the area occupied by the Gaya Confederacy? The maps provided throughout the Description section indicate its location in relation to Silla and Baekje. How have these areas been derived?
- How was it determined that there were seven Gaya entities and not more (or less)? Differences in burial constructions and grave goods are mentioned as indicators of the existence of autonomous entities, but a brief summary of the historical and archaeological reasoning would be appreciated. Is the area occupied by each of the seven political entities known?
- Have geophysical or remote sensing techniques been used to determine the extent of the sites (for example to identify burials that are not marked by tumuli).

Selection of component parts

ICOMOS would appreciate some clarification about several of the maps presented in the nomination dossier (on p. 76 and pp. 84-85). It is not clear whether the orange dots on these maps refer to the total known number of Gaya cemeteries, or a wider range of Gaya site types (which are briefly described as including shell mounts and residential areas). If the full range of sites are not shown in these maps, it would be appreciated if this additional information could be provided.

Dating of the component parts

While the nomination dossier mentions dates or date ranges for the component parts, it remains unclear how the sites were dated. ICOMOS would appreciate a succinct summary of the dating methods used (radiocarbon dating, burial typologies, analysis of skeletal remains/grave goods, etc). If radiocarbon dating has been used, please provide a list of dates that have been derived for these sites.

Private ownership

ICOMOS notes that some of the component parts are not completely owned by the State. For example, more than 40% of the land of component part 1 is privately owned. The nomination dossier mentions that the legal protection is the same for both public and private land, but that the State plans to purchase the private land. Could the State Party indicate the proposed timeframe for those acquisitions? ICOMOS also wishes to know the position of private landowners regarding the foreseen purchase of their lands.

Legal protection

For some component parts, the areas of protective designations do not completely coincide with the nominated area or its buffer zone (see maps pp. 362-368). ICOMOS would appreciate if the State Party could clarify the rationale used to define those protective designations and specify whether it is foreseen to review and adjust them in the future. Furthermore, ICOMOS would also appreciate to receive more information on the protective zoning of the buffer zones, since the rationale of these subdivisions is not apparent in all cases.

Planned developments

Given that many of the component parts feature museums, roads and other infrastructure, and that many of them occur in urbanised contexts, ICOMOS would appreciate information regarding all planned developments inside the component boundaries or buffer zones or occurring near the nominated component parts. Brief summary information about any planned developments should include a map showing their proposed location, the purpose and scale of the proposed development, and an indication of whether or not the proposals are approved.

Monitoring

ICOMOS notes that detailed information on the monitoring process is provided in the nomination dossier. From the information provided, it appears that the monitoring processes are mainly based on qualitative indicators. ICOMOS would appreciate if the State Party could provide information on the possibility of introducing additional quantitative indicators that relate directly to the state of conservation of the proposed attributes (e.g. on soil movements, changes in soil acidity, number of rodent burrows, etc.). Additional information on the collection and storage of monitoring information is also requested.

Participation

ICOMOS notes that the nomination dossier mentions various forms of engagement with the local communities in relation to awareness raising and the cleaning and monitoring of the sites. The formation of residents' councils and volunteer groups is also noted. ICOMOS would be pleased if additional information about whether any further measures are foreseen to strengthen the involvement of local communities in the planning and decision making processes (in accordance with paragraph 123 of the *Operational Guidelines*) could be provided.

ICOMOS appreciates that the timeframe for providing this additional information is short. Brief responses are

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UNESCO World Heritage Centre

Gaya Tumuli

Additional Information Requested
by ICOMOS

Republic of Korea

Gaya Tumuli

Additional Information Requested
by ICOMOS

November 2021

Republic of Korea

CONTENTS

Additional Information Requested by ICOMOS

Item 1. General questions	07
Item 2. Selection of component parts	20
Item 3. Dating of the component parts	22
Item 4. Private ownership	34
Item 5. Legal protection	40
Item 6. Planned developments	45
Item 7. Monitoring	55
Item 8. Participation	58

Appendix

1. Modification to the buffer zone of the Songhak-dong Tumuli	63
2. Special Act on the Conservation, Management, and Utilization of World Heritage	64

Additional Information Requested by ICOMOS

November 2021

Item 1. General questions

Q 1-1. ICOMOS would appreciate if the State Party could supply information on the reason why “[t]he Gaya Confederacy has long stood outside the mainstream of historical discussion in Korea” (page 201), and on the current state of investigations regarding this matter.

Until the 1980s, historical research on ancient Korea was mostly concentrated on the three kingdoms of Goguryeo, Baekje, and Silla, while Gaya, another major constituent of ancient Korea, did not receive its due share of attention. This relative disregard of Gaya history is largely attributed to a lack of historical records on this confederated state. There are no surviving historical documents produced by Gaya itself, and the accounts on Gaya that can be found in contemporaneous or later histories written by other states are fragmentary at best. Academic interest in Gaya began in earnest in the 1980s with the discovery of an expanding volume of excavated material remains from Gaya and an increase in the number of Gaya researchers.

All four major powers of ancient Korea—Goguryeo, Baekje, Silla, and Gaya—took form around the beginning of the Common Era. While Gaya fell in 562, the other three states outlasted it by more than a century. Silla eventually absorbed the other two kingdoms in the late seventh century and brought the Korean Peninsula under unified rule. In the early 10th century, the Goryeo Dynasty replaced Silla and emerged as the new unifying power in Korea. This new dynasty embarked on a compilation of history as part of the effort to firmly unite the Korean Peninsula and secure its political legitimacy. During this process, focus was placed on the more highly centralized three kingdoms, and the Gaya Confederacy was overlooked. A history book named *Samguk Sagi* (History of the Three Kingdoms) was compiled in 1145 by referring to the historical documents left by Goguryeo, Baekje, and Silla. Contemporary historians mainly presume that the history of Gaya was not included in this 12th-century volume either because there were no historical documents on Gaya to refer to at the time or because the historians of the day did not perceive Gaya as an entity requiring separate attention. Historical documents compiled in the subsequent periods simply repeated what had been written in the History of the Three Kingdoms for their

accounts on ancient Korea. In this way, the ancient history of the Korean Peninsula became largely defined as consisting only of the three kingdoms. There was some academic interest in Gaya in the 18th–19th centuries, but it was confined to only a few scholars.

When Korea was colonized by Japan in the early 20th century, its territory was subject to archaeological investigation. Gaya relics were also excavated, and the territorial extent of Gaya became known among the public only during the colonial era (1910–1945).

The end of colonial rule was quickly followed by the Korean War (1950–1953) and the ongoing division of the peninsula into the North and the South. Through the rest of the 1950s and the entirety of the 1960s, South Korea could not afford to perform active historical research since it was fully occupied with its recovery from civil war. Access to remains from the Goguryeo Kingdom became physically impossible since they are located in North Korea and China. Archaeology became active again in South Korea starting in the 1970s, but in the area of ancient history the emphasis was placed on examining the capital cities of Baekje and Silla. Historical investigations based on written documents also focused on Goguryeo, Baekje, and Silla during this period. A small number of researchers was working with the historical accounts on Gaya and the archaeological materials excavated from this territory by the colonial archaeologists, but few meaningful results were published.

The country achieved relative stability in both the economic and political spheres in the 1980s, which served as a catalyst for historical and archaeological investigations into the past. An increasing number of universities opened degree courses in history and archaeology, nurturing additional future historians and archaeologists. Archaeological excavations at Gaya sites stoked public interest in this long-overlooked element of ancient Korean history, and a growing number of historians took an interest in the accounts of Gaya found in Chinese and Japanese historical documents. The provincial governments of the Gyeongsang region, the main locus of Gaya, actively supported archaeological excavations at Gaya sites and established museums at major Gaya cemeteries as a medium for disseminating awareness of Gaya culture among a wider public. There were also national-level efforts for studying and educating on Gaya. The Changwon National Research Institute of Cultural Heritage and the Gimhae National Museum were respectively established in

1990 and 1998. The former was renamed the Gaya National Research Institute of Cultural Heritage, accentuating its focus on Gaya.

Through the 1990s and the subsequent decades, a wide range of Gaya sites has been subject to archaeological investigation, and a large body of information has been amassed telling stories of Gaya's social, cultural, political, and economic accomplishments. The Gaya sites excavated to date include cemeteries, settlements, shell mounds, earthen walls, pottery kilns, iron production sites, agricultural fields, piers, and more. Among them, the cemeteries are the most prominent both in number and in the level of research attention received. Studies of historical documents have been combined with typological research on the burial types and grave goods excavated from Gaya tombs, generating a broad picture of the overall history of the Gaya Confederacy from its inception to development and eventual demise. Additionally, cultural and political characteristics unique to Gaya have been revealed. The distribution of Gaya tombs contributed to defining the perimeters of the Gaya region, and trade goods found at Gaya tombs and at burial sites of other contemporaneous states have informed about the foreign relations Gaya maintained at the time.

Today, much active research on Gaya history is taking place. Telling proof of this is the increasing number of academic articles on Gaya being produced. There were only 10 articles on Gaya found in KCI (Korea Citation Index) journals through the 1960s. Since 2000, however, 556 Gaya-related articles have been published. The subjects of the research have been greatly expanded as well, covering not only conventional areas of interest such as burial construction and pottery, but also new areas such as iron production, horse culture, production and dissemination systems, engineering technologies, earthen wall construction, settlement formation, farming, religious rites, and more. In addition, there is a growing interest in scientific methods such as human/animal bone analysis, carbon dating, and geophysical techniques.

Q 1-2. What was the area occupied by the Gaya Confederacy? The maps provided throughout the Description section indicate its location in relation to Silla and Baekje. How have these areas been derived?

The area occupied by the Gaya Confederacy has been broadly confirmed based on both historical and archaeological evidence. There are historical accounts offering information on the location of Gaya within the Korean Peninsula. The third-century Chinese history *Sangouzhi* (Records of the Three Kingdoms) includes a list of Gaya polities, presumably positioned in the southern portion of the Korean Peninsula. In *Liang Zhigongtu* (Illustration of Envoys Presenting Tribute at the Liang), a collection of paintings of foreign envoys from the sixth century, records can be found on some smaller polities located near the Baekje Kingdom. The eighth-century Japanese history *Nihon Shoki* (Chronicles of Japan) contain accounts on Gaya polities that were presumably located in the lower reaches of the Nakdonggang River, along the southern coast of the Korean Peninsula, and in the Seomjingang River basin.

In particular, the Korean history *Samguk Yusa* (Memorabilia of the Three Kingdoms) published in 1281 offers detailed information on the boundaries of the Gaya region. It defines the Gaya area by referring to mountains and rivers as its natural borders. According to this record, Gaya was bounded by Mt. Jirisan in the Sobaeksan Mountain Range and by Mt. Gayasan, respectively to the northwest and to the northeast, by the sea both to the southwest and south, and by the Hwangsangang River to its east. The names of the geographical features shown in the Memorabilia of the Three Kingdoms are mostly still in use. There is some dispute over what the Hwangsangang River might be in today's terms, but there is a general agreement in academic circles that this river corresponds with the lower reaches of what we now call the Nakdonggang River.

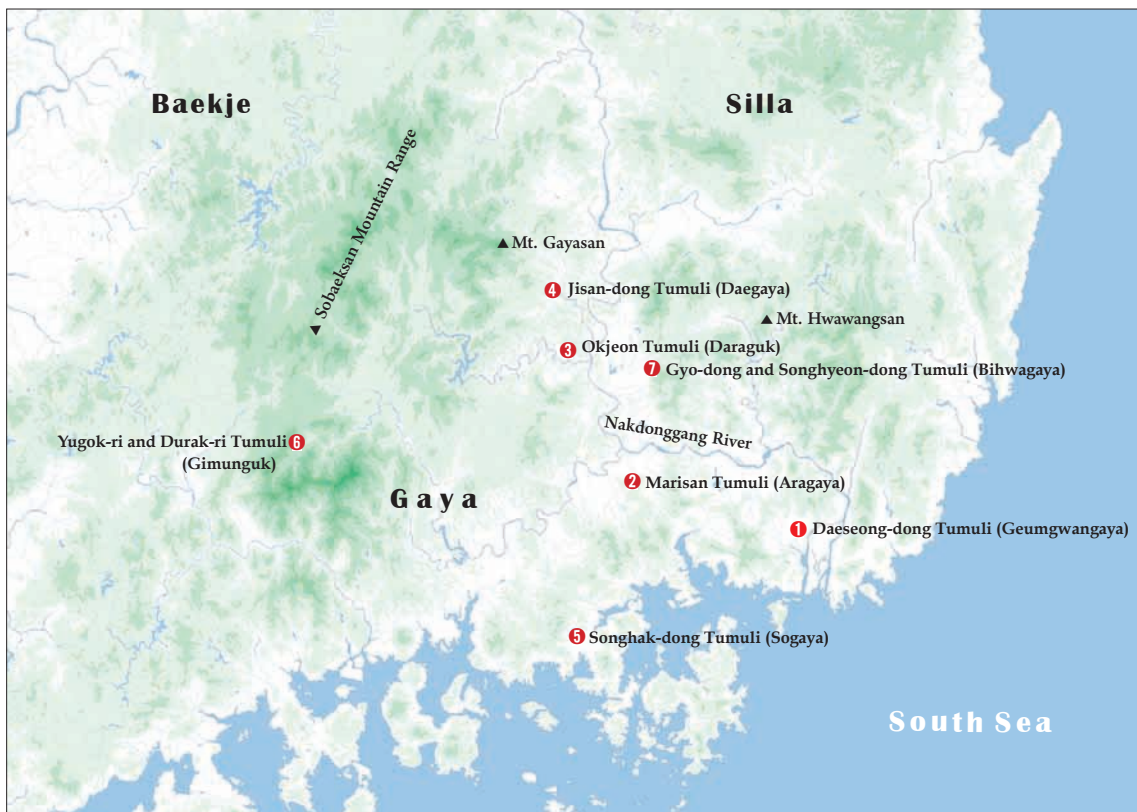
The Gaya area as defined by the records of the Memorabilia of the Three Kingdoms generally agrees with the results of archaeological investigations carried out to date. The two most important archaeological indicators marking the boundary of the Gaya area are the distinctively elongated stone-lined chamber and Gaya-style pottery. Uniquely Gaya stone-

lined chambers appear in a separate area from those where tombs constructed in the Baekje and Silla styles are found. The same is true for Gaya pottery, the definitive forms of which are the footed bowl and the jar pedestal, both known for the beauty of their curvilinear profiles. The distribution of these two types of archaeological remains indicates the boundary of the area occupied by Gaya. Local variations in them help to further delineate the perimeters of individual members of the Gaya Confederacy.

Table 1. Known boundaries of the Gaya area

	Natural borders	Administrative districts	Cemeteries
Northern limits	Sobaeksan Mountain Range, Mt. Gayasan	Goryoung County in Gyeongsangbuk-do Province	Jisan-dong Tumuli
Eastern limits	Nakdonggang River, Mt. Hwawangsan	Changnyeong County in Gyeongsangnam-do Province	Gyo-dong and Songhyeon-dong Tumuli
Western limits	Sobaeksan Mountain Range	Namwon City in Jeollabuk-do Province	Yugok-ri and Durak-ri Tumuli
Southern limits	Sea		Daeseong-dong Tumuli, Songhak-dong Tumuli

Figure 1. Known boundaries of the Gaya area



The area confirmed as having been under the control of Gaya according to the historical and archaeological research conducted to date includes the lower reaches of the Nakdonggang River and areas along the south coast, both in Gyeongsangnam-do Province; Goryeong County in Gyeongsangbuk-do Province (located in the middle Nakdonggang River basin); and Namwon City in Jeollabuk-do Province near the Sobaeksan Mountain Range. The Gaya area is separated from what was believed to be Baekje territory by the Sobaeksan Mountain Range and from Silla by the Nakdonggang River and Mt. Hwawangsan.

Positioned in the southern reaches of the Korean Peninsula, Gaya was located in between Baekje and Silla and faced Japan across the sea. Individual members of the Gaya Confederacy maintained a high level of autonomy and independently forged trade relations with their respective neighboring states. The Gaya Confederacy responded flexibly to political shifts within ancient East Asia and contributed to maintaining the balance of power in the region by cooperating internally and taking part in exchanges with neighboring states.

Q 1-3. How was it determined that there were seven Gaya entities and not more (or less)? Differences in burial constructions and grave goods are mentioned as indicators of the existence of autonomous entities, but a brief summary of the historical and archaeological reasoning would be appreciated. Is the area occupied by each of the seven political entities known?

Although there are no surviving written records produced by Gaya itself, historical documents compiled by contemporaneous or later states contain accounts on this confederation. These documents suggest the list of polity names constituting the Gaya Confederacy, the number of which ranges from six to twelve in each document. Among them, five polities also come with records indicating their political centers. They are Geumgwangaya (with its political center in Gimhae), Aragaya (Haman), Daegaya (Goryeong), Sogaya (Goseong), and Bihwagaya (Changnyeong). With its political center as a geographical point of reference, the limits of each of the five polities have been defined based on the distribution patterns of different burial constructions and pottery styles. Geumgwangaya and Sogaya were located along the south coast of the Korean Peninsula; Aragaya was set in the southern part of the Gaya area; and Daegaya and Bihwagaya respectively formed the north and east borders.

Regarding the other polity names not identified with corresponding locations for their political centers, researchers have made endeavors to define their places and find evidence of their existence. As for Daraguk and Gimunguk, there has been widespread academic agreement that these two Gaya polities were respectively positioned in the northern section of the Gaya area neighboring Silla and in the western part bordering Baekje. Meanwhile, large-scale excavations were carried out in the 1980s in the northern portion of the Gaya area prior to the building of dams and roads. These excavation projects and the subsequent analysis of the findings brought to light a new cultural sphere separate from the five Gaya subcultures that had previously been identified through historical and archaeological evidence. The existence of this new entity was identified in the eastern areas of what is now Hapcheon County. Most historians and archaeologists estimate this newly found entity in Hapcheon to be Daraguk.

The location of Gimunguk was identified through archaeological surveys in Jeollabuk-do Province in the 1980s and following decades. The entire Jeollabuk-do region had been

generally understood to be part of the area once controlled by Baekje. However, archaeological investigations have revealed that while the western section of the Jeollabuk-do region was part of Baekje territory, the eastern section was controlled by Gaya. In particular, it was revealed that approximately 40 cemeteries were concentrated on the Unbong Plateau. Further research on burial types and pottery styles in the Unbong Plateau area uncovered another separate cultural sphere within Gaya territory. This new cultural and political entity is generally considered to be Gimunguk.

Within the Gaya area, the above-mentioned seven cultural and political spheres have been identified through historical and archaeological investigations. These cultural spheres are widely dispersed across the Gaya area. The seven nominated cemeteries are presented as the main cemetery for each of the seven entities and located in their respective political centers.

Table 2. Number of Gaya polities suggested in each historic document

Historical document	Year of compilation	Number of Gaya polities suggested
Sangouzhì (China)	3rd century	12
Liang Zhigongtu (China)	<i>Circa.</i> 530	9
Nihon Shoki (Japan)	720	10
Samguk Sagi (Korea)	1145	10
Samguk Yusa (Korea)	1281	6

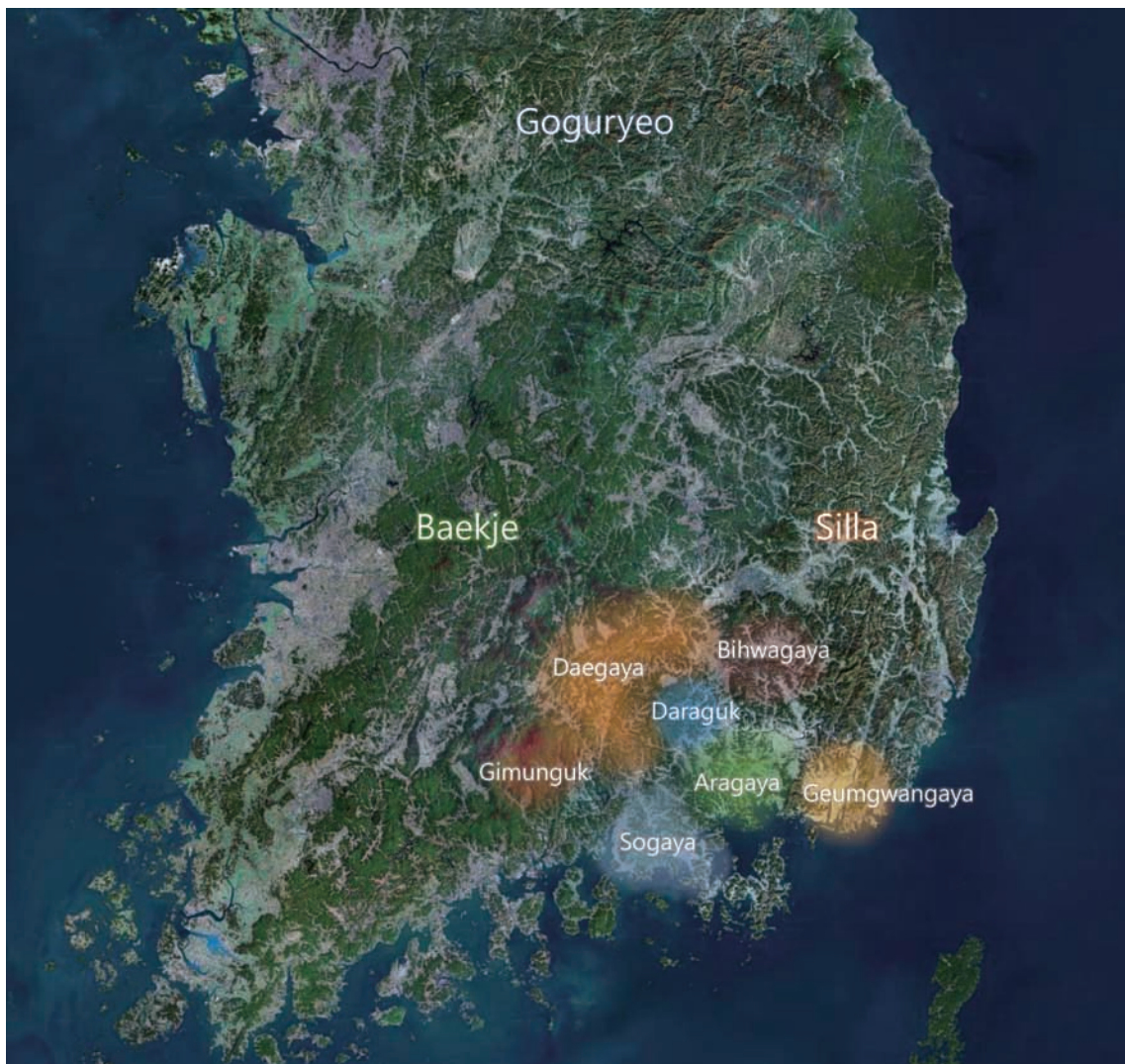
Table 3. Historical names of the Gaya polities responsible for the formation of the nominated cemeteries

Name of each nominated cemetery	Location	Names referring to the Gaya polity responsible for construction	Historical documents mentioning the names
Daeseong-dong Tumuli	Gimhae, Gyeongsangnam-do Province	Guyaguk, Garakguk, Gemgwangaya	Sangouzhì, Samguk Sagi, Samguk Yusa, Nihon Shoki
Marisan Tumuli	Haman, Gyeongsangnam-do Province	Anyaguk, Allaguk, Aragaya	Sangouzhì, Samguk Sagi, Samguk Yusa, Nihon Shoki
Okjeon Tumuli	Hapcheon, Gyeongsangnam-do Province	Daraguk	Liang Zhigongtu, Nihon Shoki
Jisan-dong Tumuli	Goryeong, Gyeongsangbuk-do Province	Balloguk, Garaguk, Daegaya	Sangouzhì, Samguk Sagi, Samguk Yusa, Nihon Shoki
Songhak-dong Tumuli	Goseong, Gyeongsangnam-do Province	Gojamidongguk, Gojaguk, Sogaya	Sangouzhì, Samguk Sagi, Samguk Yusa, Nihon Shoki
Yugok-ri and Durak-ri Tumuli	Namwon, Jeollabuk-do Province	Gimunguk	Liang Zhigongtu, Nihon Shoki
Gyo-dong and Songhyeon-dong Tumuli	Changnyeong, Gyeongsangnam-do Province	Bulsaguk, Bihwagaya	Sangouzhì, Samguk Sagi, Samguk Yusa, Nihon Shoki

Table 4. Gaya polities in terms of today's administrative districts

Name of each Gaya polity	Administrative districts today
Geumgwangaya (Daeseong-dong Tumuli)	Gimhae City and the east areas of Changwon City in Gyeongsangnam-do Province
Aragaya (Marisan Tumuli)	Haman County and the west areas of Changwon City in Gyeongsangnam-do Province
Daraguk (Okjeon Tumuli)	East areas of Hapcheon City
Daegaya (Jisan-dong Tumuli)	Goryeong County in Gyeongsangbuk-do Province; Geochang County, Hamyang County, and Hapcheon County in Gyeongsangnam-do Province
Sogaya (Songhak-dong Tumuli)	Goseong County, Sacheon County, and Jinju City in Gyeongsangnam-do Province
Gimunguk (Yugok-ri and Durak-ri Tumuli)	Eastern areas (Unbong Plateau) of Namwon City in Jeollabuk-do Province
Bihwagaya (Gyo-dong and Songhyeon-dong Tumuli)	Changnyeong County in Gyeongsangnam-do Province

Figure 2. Locations of the seven Gaya polities



Q 1-4. Have geophysical or remote sensing techniques been used to determine the extent of the sites (for example to identify burials that are not marked by tumuli)?

The boundaries of the nominated cemeteries have primarily been confirmed through archaeological excavations (carried out based on three investigation stages—field surveys, trial trenching, and full excavations). Geophysical and other remote sensing techniques, however, are being increasingly adopted for investigating individual tombs.

Several factors have prevented more active application of potentially beneficial methods based on geophysics for determining the boundaries of Gaya cemeteries. More than anything else, archaeological excavation has been considered to offer clearer information on archaeological remains compared to geophysical techniques. This understanding is largely attributable to the distinct location of Gaya cemeteries in hilly areas within a basin surrounded by mountains. This natural setting is rich in underground fieldstones that hamper the production of accurate information via geophysical methods. Another factor is the lack of skilled technicians and the consequent high cost of applying geophysical methods. All of these factors combined make geophysics a less cost-effective choice for delineating the boundaries of Gaya cemeteries.

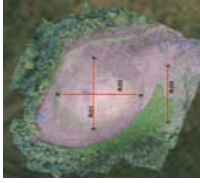
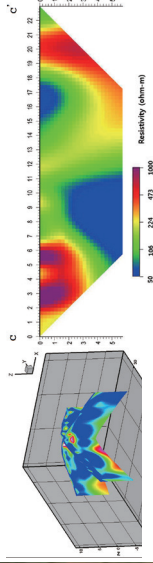


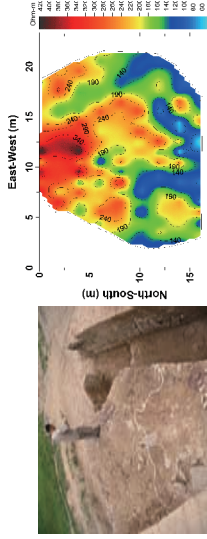

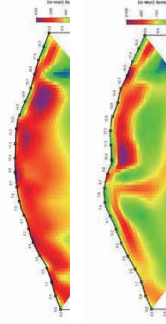
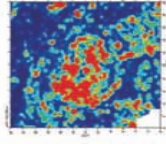
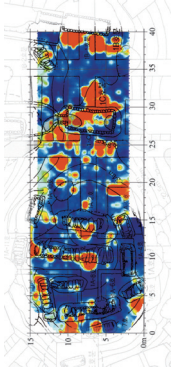
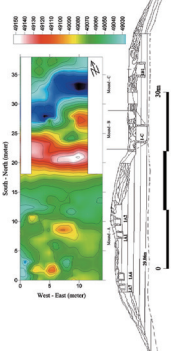
However, the benefits of geophysical investigations and other remote sensing technologies are being increasingly recognized, expanding their adoption in surveying individual tombs. Examples of geophysical investigations include the determination of the height, area, and layout of Tombs No. 6 and 13 at the Marisan Tumuli, Tomb No. 518 at the Jisan-dong Tumuli, Tomb No. 1 at the Songhak-dong Tumuli, Tombs No. 7 and 39 at the Gyo-dong cemetery, and Tomb No. 15 at the Songhyeon-dong cemetery. All of these geophysical investigations have been carried out by the National Research Institute of Cultural Heritage (the research arm of the Cultural Heritage Administration). In the case of the Yugok-ri and Durak-ri Tumuli, which is covered in thick forest, lidar was applied to determine the extent of mounded tombs, their distribution, and the contour lines of the cemetery (Table 5).

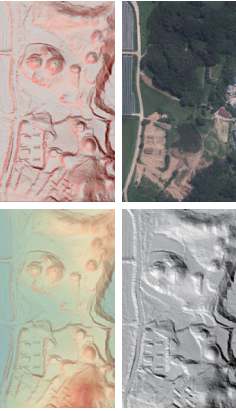

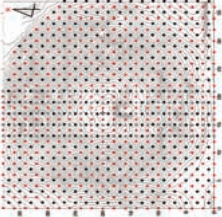
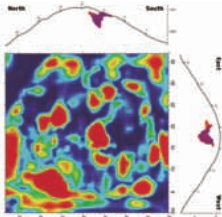
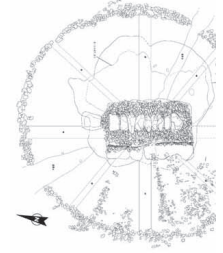
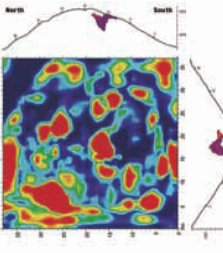


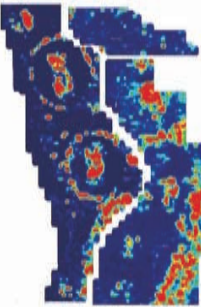
As more cost-effective technologies become available, the application of geophysical

techniques and other remote sensing methods will be further expanded in the investigation of Gaya cemeteries.

Lastly, it should be noted that the seven nominated cemeteries, each of which is registered on the national heritage list as a Historic Site, have undergone a thorough process for determining the extent of the burial sites as part of their heritage designation process. Among them, those located in urban settings have been subjected to additional processes for boundary confirmation as part of the process of housing or road construction in their surrounding areas. In all seven cemeteries, any areas that have any potential, however small, to produce further burial sites are included in the buffer zones.

Table 5. Examples of the application of remote sensing techniques at the Gaya Tumuli

Name of the cemetery	Method	Subject	Results	Photos
Marisan Tumuli	Resistivity survey	Tomb No. 13	<ul style="list-style-type: none"> - Figuring out the area and depth of the tomb and the direction of the burial chamber - Identifying construction methods 	 
	Resistivity survey / refraction survey	Tomb No. 6	<ul style="list-style-type: none"> - Identifying the layout and other characteristics of the tomb 	  
Jisan-dong Tumuli	Ground-penetrating radar / resistivity survey	Tomb No. 518	<ul style="list-style-type: none"> - Finding traces of looting - Identifying the depth and shape of the tomb 	  
Songhak-dong Tumuli	Ground-penetrating radar	Tomb No. 1, 2 and 3	<ul style="list-style-type: none"> - Confirming the overlapping of the tomb with others - Identifying the location of a large corridor-chamber and stone-lined chambers 	 

Name of the cemetery	Method	Subject	Results	Photos
Yugok-ri and Durak-ri Tumuli	Lidar	Entire cemetery	<ul style="list-style-type: none"> - Identifying the tombs, which are covered in thick forest - Figuring out the topography of the cemetery 	
Gyo-dong and Songhyeon-dong Tumuli	Resistivity survey	Areas around Tomb No. 7 of the Songhyeon-dong cemetery	<ul style="list-style-type: none"> - Figuring out the scale of hoseok curb stones and their state of conservation 	  
	Ground-penetrating radar	Tomb No. 7 of the Gyo-dong cemetery	<ul style="list-style-type: none"> - Confirming the area of the tomb and the direction of the burial chamber 	  
	Ground-penetrating radar	Tomb No. 39 of the Gyo-dong cemetery and its surrounding areas	<ul style="list-style-type: none"> - Identifying hoseok curb stones and the area of burial - Identifying 24 burial chambers 	 

Item 2. Selection of component parts

ICOMOS would appreciate some clarification about several of the maps presented in the nomination dossier (on p. 76 and pp. 84-85). It is not clear whether the orange dots on these maps refer to the total known number of Gaya cemeteries, or a wider range of Gaya site types (which are briefly described as including shell mounds and residential areas). If the full range of sites are not shown in these maps, it would be appreciated if this additional information could be provided.

The orange dots on the maps on p. 76 and pp. 84–85 indicate approximately 780 Gaya cemeteries. A total of 1,049 tomb clusters have been found within the known boundaries of the Gaya Confederation. Among them, the 780 indicated are those which have been clearly confirmed as indisputably belonging to Gaya thanks to their production of distinctively Gaya-style tombs and/or pottery.

The area known to have been under Gaya control contains 2,215 sites that are highly likely to be connected to the confederation. These sites can be divided into the categories of defensive facilities (earthen walls, mountain fortresses), residential sites (settlement sites, building sites, shell mounds), production facilities (pottery kilns, iron furnace sites, charcoal kilns), and pits and roads. There are also sites the function of which cannot be fully identified. Please see Table 6 for how many sites falling into each category have been found in each region of the country. Information on the locations of these sites is available on the online geographic information system (GIS) operated by the Cultural Heritage Administration (<http://gis-heritage.go.kr/main.do>).

As can be confirmed in the table below, the single largest category among Gaya heritage sites is cemeteries. There are also a large number of known defensive facilities at 116. However, only 22 among these have been confirmed through excavation as indisputably Gaya sites. Residential sites and production facilities respectively number 238 and 72. Gaya residential sites are mostly located within contemporary population centers, making it difficult to conduct archaeological excavations or to find examples undamaged by urban development. Among the 72 production facilities, 38 have been excavated but have not been

conserved. Twenty-nine pit or road sites have also been found. These sites do not provide much information about Gaya civilization. For the remaining 711 sites, the functions cannot be identified.

States in ancient East Asia shared the practice of building large-scale tombs for their rulers. These high-mounded tombs of political leaders involved an investment of immense labor and resources and utilized the highest architectural and craft technologies of their day. It was an act of great political significance that demonstrated the power and authority of the rulers. Gaya was no exception to this trend, and the tombs of its leaders serve as an important source of information and as living evidence of the distinct political system of this ancient confederacy.

Table 6. Gaya sites in each region (as of 2019)

Category / region	Gyeongsangnam-do Province	Gyeongsangbuk-do Province	Jeollanam-do Province	Jeollabuk-do Province	Total
Cemeteries	798	141	23	87	1,049
Defensive facilities	102	14	0	0	116
Residential sites	226	11	1	0	238
Production facilities	59	13	0	0	72
Pit or road sites	24	5	0	0	29
Others	687	23	1	0	711
Total	1,896	207	25	87	2,215

Item 3. Dating of the component parts

While the nomination dossier mentions dates or date ranges for the component parts, it remains unclear how the sites were dated. ICOMOS would appreciate a succinct summary of the dating methods used (radiocarbon dating, burial typologies, analysis of skeletal remains/grave goods, etc). If radiocarbon dating has been used, please provide a list of dates that have been derived for these sites.

The suggested date ranges for the nominated cemeteries have been defined by combining historical records with the results of archaeological analysis. First of all, there are accounts included in historical documents produced in Korea, China, and Japan that offer information on when Gaya emerged, developed, and disappeared. These records were used as points of reference for dating the nominated cemeteries. There are also ancient tombs in Korea, China, and Japan with identified occupants who have known dates of death or that included artifacts with known dates of production. These archaeological materials have undergone typological analysis and were used in dating the cemeteries. Typological analysis played a key role in determining the suggested date ranges for the component parts. Data gained through scientific dating methods, such as radiocarbon dating and dendrochronology (or tree-ring dating), have also been used. These were primarily applied for the purposes of validating the dates obtained through typological analysis. The application of scientific dating methods is gradually increasing in scope at the Gaya Tumuli and is expected to assume a larger role in dating Gaya tombs in the coming years.

The historical records, information from typological analysis, and absolute dating data used for dating the nominated cemeteries are presented below.

1. Historical records

Although fragmentary, there is information in historical documents produced in Korea, China, and Japan that relates to the birth, development, and death of the Gaya Confederacy. The 13th-century Korean history *Samguk Yusa* (Memorabilia of the Three Kingdoms) mentions that Gaya was established in 42. The third-century Chinese historical document

Sangouzhì (Records of the Three Kingdoms) offers a list of the 12 Gaya polities that existed at the time. The sixth-century Chinese history *Nanqishu* (Book of Southern Qi) describes the dispatch of an envoy from Gaya in 479. *Liang Zhigongtu* (Illustration of Envoys Presenting Tribute at the Liang), a collection of paintings of foreign envoys from the sixth century, also contains a list of Gaya polities. An eighth-century historical document from Japan, *Nihon Shoki* (Chronicles of Japan), contains records related to the fall of Gaya polities, such as Daegaya, Aragaya, Daraguk, around 560. The 12th-century Korean history *Samguk Sagi* (History of the Three Kingdoms) relates that Geumgwangaya, Bihwagaya, and Daegaya fell respectively in 532, around 555, and in 562.

2. Typological analysis

1) Ancient tombs with known dates

Ancient tombs in Korea, China, and Japan have produced a great number of artifacts, some of which were imported from other states and some that were crafted in the styles of other states. These include pottery, iron items (armor, large swords, horse trappings, iron arrowheads, etc.), accessories in gold or silver, and bronze items (mirrors, bowls, caldrons, etc.). Typological analysis has been applied to these artifacts to provide important material for dating ancient tombs in all three countries. Among them, horse trappings are particularly useful for comparative analysis based on typology as they commonly occur in similar styles across the three countries. Furthermore, Gaya pottery and Japanese Sue pottery (sueki) are also important as there are many cases where they have been found side by side. Below are major examples of tombs that have been used for dating the nominated cemeteries.

- A tomb in China is currently known to be the burial place of Feng Sufu, a scholar of the Northern Yan who died in 415. This was confirmed based on the characters inscribed on an artifact from the tomb. The stirrups excavated from this tomb are classified as an early form in the typology of Korean, Chinese, and Japanese stirrups. The stirrups excavated from the Daeseong-dong Tumuli, Jisan-dong Tumuli, and Songhyeon-dong Tumuli are comparable in style with those from the Feng Sufu Tomb and accordingly are dated to the early fifth century.

- The Inariyama Kokun tomb in Japan has produced an iron sword with an inscription including a date, which is widely interpreted as the year 471. The horse trappings excavated from this Japanese tomb are similar in style to those from Tomb No. 3 at the Okjeon Tumuli and Tomb No. 1 at the Songhak-dong Tumuli. Therefore, these two Gaya tombs are estimated to date from the late fifth century.
- The Tomb of King Muryeong of Baekje includes an inscription carved in stone confirming it is indeed the burial site of this king who died in 523. The bronze bowls excavated from Tomb No. 3 at the Okjeon Tumuli and Tomb No. 44 at the Jisan-dong Tumuli are earlier in typology than those from the Tomb of King Muryeong and therefore dated to the late fifth century. Tomb No. 39 at the Jisan-dong Tumuli has produced large swords, which are the same in style as those from King Muryeong's tomb and are estimated to date from the early sixth century. The gilt-bronze shoes found in Tomb No. 32 at the Yugok-ri and Durak-ri Tumuli are the same in style as those from this Baekje royal tomb, being estimated to come from the early sixth century.
- The Imashirozuka Kofun tomb in Japan is considered to be the resting place of Emperor Keitai, who is recorded as having died in 527 or 531 depending on the document. The Sue pottery vessels from Tomb No. 2 at the Songhak-dong Tumuli are the same in style as those from this Japanese tomb, leading to estimated production dates in the early sixth century.

2) Artifacts providing the date ranges for burial types

Coins and mirrors from China and other trade goods excavated from Gaya tombs have been used to identify the date ranges for the different types of burial. According to the comparative and typological analyses conducted to date, it is known that wooden coffins, wooden chambers, stone-lined chambers, and corridor-chambers were respectively constructed from the first to second centuries, the second to fifth centuries, the fourth to fifth centuries, and in the sixth century. Below are examples of this dating process.

The most useful artifacts for dating wooden coffins in the Gaya area are ancient Chinese

coins and bronze mirrors buried as grave goods. These are specifically Huo Quan, a Chinese cash coin issued from 14 to 40 AD; Wu Zhu, another Chinese cash coin made from the second century BC to the seventh century AD; and a particular type of bronze mirror produced during the Han Dynasty of China (221–206 BC). These coins and bronze mirrors occur widely across Gaya sites including cemeteries, shell mounds, and settlements. The Chinese artifacts and objects occurring along with them can be typologically analyzed to determine dates. Gaya sites that have produced Chinese artifacts utilized in dating the nominated cemeteries include the Daho-ri Tumuli (Tomb No. 1), Hoehyeon-ri Shell Mound, and Yangdong-ri Tumuli (Tomb No. 427), which are all close to the Daeseong-dong Tumuli.

Prestige goods from China and Sue pottery vessels and bronze objects from Japan have been used for ascertaining when wooden chambers were constructed. The Chinese bronze caldrons excavated from Tomb No. 29 at the Daeseong-dong Tumuli have been defined through typological analysis as dating from the late third century. Tomb No. 88 at the Daeseong-dong Tumuli produced belt decorations from China that are judged to come from the mid-fourth century. The bronze Chinese arrowheads found at Tomb No. 91 in the Daeseong-dong Tumuli have been judged through topographical analysis to date from the mid-fourth century.

A wide range of trade goods has been found at stone-lined chambers in the Gaya area and is used for identifying the date range for this tomb type. Telling examples in this regard include the Japanese pommel decorations from Tomb No. 4 at the Marisan Tumuli, bronze Baekje bowls from Tomb No. 3 at the Okjeon Tumuli and Tomb No. 44 at the Jisan-dong Tumuli, Sue pottery vessels from Tomb No. 1 at the Songhak-dong Tumuli, bronze Baekje mirrors from Tomb No. 32 at the Yugok-ri and Durak-ri Tumuli, and Silla headgear decoration from Tombs No. 6 and 7 at the Gyo-dong and Songhyeon-dong Tumuli.

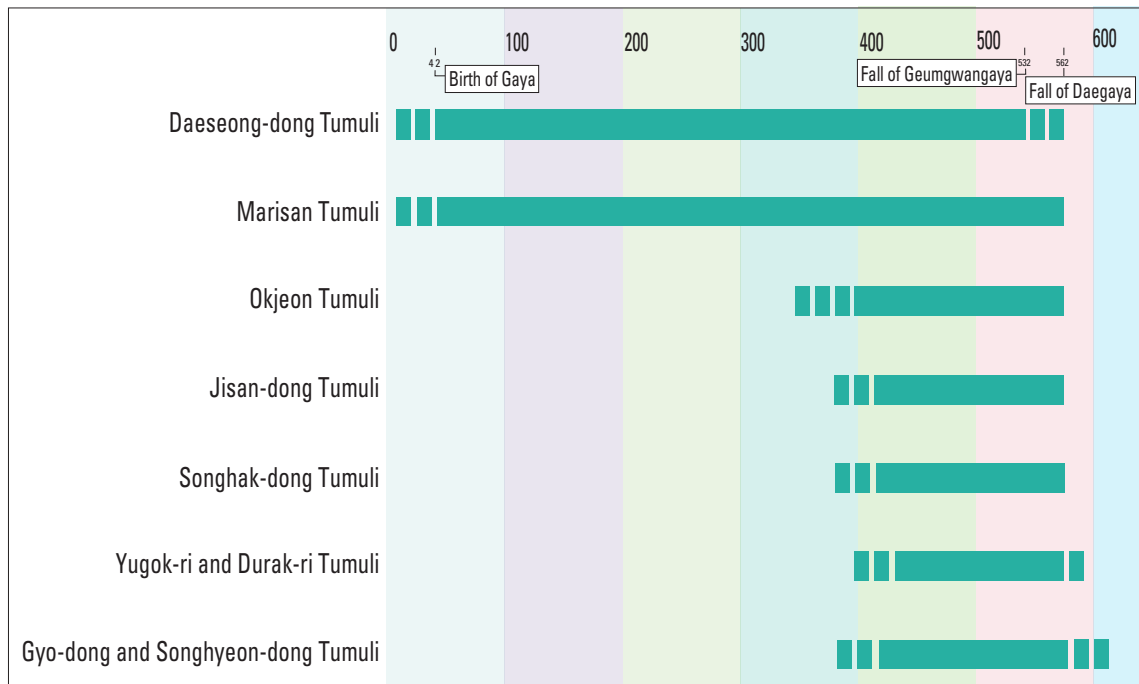
Corridor-chamber tombs began to be constructed in the Gaya area in the sixth century by adopting techniques from the corridor-chamber building traditions of Silla, Baekje, and Japan. Tombs No. 10 and 11 at the Okjeon Tumuli, respectively constructed in the Silla and Baekje styles, are estimated to date from the mid-sixth century based on the typological

examination of prestige goods excavated from them. Tomb No. 2 at the Songhak-dong Tumuli is similar in style to corridor-chambers in Kyushu, and the Sue pottery vessels found in this tomb have been typologically analyzed to produce a date of the early sixth century.

Table 7. Historical records and archaeological remains serving as the basis of dating the nominated cemeteries

Dates	Historical records / archaeological remains with confirmed dates	Gaya tombs and artifacts obtaining dates through topological analysis
42	Date for the beginning of Gaya written in Samguk Yusa	
14–40	Gaya pottery vessels excavated along with the Huo Quan coins from the Hoehyeon-ri Shell Mound	Gaya pottery vessels excavated from the Daeseong-dong Tumuli
249	Known date for Hashihaka Kofun and the pottery vessels excavated from the tomb	Pottery vessels excavated from Tomb No. 29 at the Daeseong-dong Tumuli
389	Dendrochronological date of the wooden object from the Uji-shigai archaeological site and the Sue pottery vessels found together	Pottery vessels excavated from Tomb No. 2 at the Daeseong-dong Tumuli
412	Dendrochronological date of the wooden object from Heijokyo and the Sue pottery vessels found together	Pottery vessels excavated from Tomb No. 1 at the Daeseong-dong Tumuli
415	Known date for the Feng Sufu Tomb and the stirrups excavated from the tomb	Stirrups excavated from Gaya tombs
412, 458	Known date for the Hwangnam Daechong Tomb and the stirrups excavated from the tomb	Stirrups excavated from Gaya tombs
450	Dendrochronological date of the wooden object from the Shimoda Higashi site and the Sue pottery vessels found along with the wooden object	Sue pottery vessels excavated from Tomb No. 1 at the Jisan-dong Tumuli / Sue pottery vessels excavated from Tomb No. 1 at the Songhak-dong Tumuli
471	Date inscribed on the iron sword excavated from the Inariyama Kofun and the horse trappings found together	Horse trappings excavated from Tomb No. 3 at the Okjeon Tumuli
525	Known date for the Tomb of King Muryeong and the bronze bowls and large swords excavated from the tomb	Bronze bowls excavated from Tomb No. 3 at the Okjeon Tumuli; bronze bowls excavated from Tomb No. 44 at the Jisan-dong Tumuli; large swords excavated from Tomb No. 39 at the Jisan-dong Tumuli
527, 531	Known date for the Imashirozuka Kofun and the Sue pottery vessels excavated from the tomb	Sue pottery vessels excavated from Tombs No. 1 and 2 at the Songhak-dong Tumuli
532	Date for the fall of Geumgwangaya written in Samguk Sagi	
<i>Circa.</i> 555	Date for the fall of Bihwagaya written in Samguk Sagi	
560–562	Date for the fall of Gaya polities written in Nihon Shoki	
562	Date for the fall of Gaya written in Samguk Sagi	

Figure 3. Date ranges for the nominated cemeteries



3. Scientific analysis

1) Tree-ring dating

As climatic and edaphic conditions on the Korean Peninsula are highly conducive to the decomposition of wood, there are few cases of tree-ring dating in the area. However, there are dendrochronological results produced in Japan that can be referred to for dating Gaya tombs. They are cases where a wooden object subject to dendrochronological dating was found along with Sue pottery pieces, meaning the dendrochronological dates obtained can be used based on a typological analysis carried out on the pottery. The production of Sue pottery in Japan began in the early fifth century under the influence of Gaya pottery techniques. Therefore, early examples of Sue pottery from this period are nearly the same in typological terms as Gaya vessels and are important for determining the age of Gaya pottery pieces. Sue pottery vessels from the late fifth through the sixth century can also be used for supporting the typological dates of Gaya pottery.

- The wooden item excavated from SD302 at the Uji-shigai archaeological site in Kyoto

has been dated to the year 389 using dendrochronology. There are 30 pieces of Gaya or Sue pottery that were found side by side at the site. Among them, the Sue examples conform with TG232, the earliest type in the typology of Kofun-era pottery. The Gaya pottery vessels are the same in type as those excavated from Tomb No. 2 at the Daeseong-dong Tumuli. The dendrochronological date of 389 for the wooden item from SD302 has served as an invaluable point of reference for dating Gaya artifacts from the late fourth to early fifth centuries.

- The wooden item found at SD6030 at Heijo-kyo in Nara has been dendrochronologically dated to 412. The Sue pottery vessels found along with it correspond to TK73, a type coming later than TG232. Gaya pottery examples similar to the TK23 type have been produced from Tomb No. 1 at the Daeseong-dong Tumuli. This dating information agrees with the typological analysis carried out for Tomb No. 1, which has indicated the tomb was built in the early fifth century.
- The material used to construct the wooden chamber of Tomb No. 1 at the Shimoda Higashi site in Nara has been dated via the tree-ring dating method to around the 460s. The Sue pottery vessels found together with it are of the TK47 type, a style coming later than TK73. Sue pottery vessels rendered in the TK47 type have been found from Tomb No. 1 at the Jisan-dong Tumuli and from Tomb No. 1 at the Songhak-dong Tumuli, two tombs that have been typologically dated to the late fifth century.

2) Radiocarbon dating

The application of radiocarbon dating has been increasing at Gaya tombs since 2000. It has so far been applied to dating tombs at four of the seven nominated cemeteries—the Daeseong-dong Tumuli, Jisan-dong Tumuli, Yugok-ri and Durak-ri Tumuli, and Gyo-dong and Songhyeon-dong Tumuli. Details are presented below.

Daeseong-dong Tumuli

- Radiocarbon dating was carried out on the human bones and red pigment excavated from Tombs No. 88 and No. 91 (the concentrations of carbon and nitrogen in the human bones was also analyzed). The samples were dated to the mid-fourth century, which agrees with the date obtained through the typological analysis of the pottery.

Table 8. Radiocarbon dating results for Tombs No. 88 and No. 91 at the Daeseong-dong Tumuli

Tomb No.	Material	14C BP	$\delta^{13}\text{C}(\text{‰})$ (Mass)	$\delta^{15}\text{N}(\text{‰})$ (Mass)	C content (%)	N content (%)
No. 88	Pigment	1700±20				
No. 88	Human bone	1610±20	-18.4	10.2	44.8	16.3
No. 91	Pigment	1770±20				
No. 91	Human bone	1740±20	-19.6	10.6	44.0	15.5

- A piece of charcoal obtained from the cast iron axe at Tomb No. 18 underwent accelerator mass spectrometry analysis in 2013. The date obtained from this analysis tells when the tree was felled to produce the charcoal, and the date when the iron casting took place must have been later than this date.

Table 9. Radiocarbon dating results for Tomb No. 18 at the Daeseong-dong Tumuli (wood)

Tomb No.	Material	$\delta^{13}\text{C}(\text{‰})$	14C BP	Calibrated age range (Cal AD)
No. 18	C extracted from cast iron	-25.6±0.1	1776±23	233–260 (45.8%) 280–292 (13.7%) 297–322 (40.5%)

- Thermoluminescence analysis was conducted in 2013 on a pottery vessel from Tomb No. 23. The resultant date range is 170–550. Although this range is quite wide, the dates generally correspond with the first to sixth centuries, the date range defined through typological analysis as the period when tomb construction occurred at the Daeseong-dong Tumuli.

Table 10. Radiocarbon dating results for Tomb No. 23 at the Daeseong-dong Tumuli (pottery)

Factors measured	Age
Plateau region (°C)	275-400
Analysis temp. (°C)	350
Paleodose (Grays)	14,15±1,65
K content (% by AFS)	1.75±0.05
kt (alpha/beta efficiency factor)	0,142±0,010
Rb content (ppm assumed)	100±25
Moisture content (% by weight)	10±3
Specific activity (Bq/kg U+Th)	87,3±2,7
Cosmic contribution (μGy/yr assumed)	185±25
Annual radiation dose (μGy/yr)	8617±125
TL age	1640±190 (360±190 AD)

Jisan-dong Tumuli

- In 2011, radiocarbon dating was conducted on horse bones, wooden pieces, and floor soil from Tombs No. 73, 74, and 75. The dates obtained from this analysis spanned from the second to ninth centuries. Although wide in range, these dates still cover the early fifth century, the date assigned to these three tombs through the typological analysis of the tomb type and the excavated pottery vessels.
- The charcoal excavated from Tomb No. 604 was subjected to radiocarbon dating in 2019 and accordingly dated to from the mid-fourth to mid-fifth centuries. This range covers the early sixth century, the date of the tomb established through the typological examination of the tomb type and the excavated pottery vessels.

Table 11. Radiocarbon dating results for Tombs No. 73–75 (2011) and Tomb No. 604 (2019) at the Jisan-dong Tumuli

Tomb No.	Material	14C BP	Sample size (mg)	$\delta^{13}\text{C}$ (‰)	pMC (%)
No. 73	Horse bone	1800±40BP		-18.40	
No. 73	Wood (from above the wooden chamber)	1860±70BP	1.4	-26.51	
No. 73	Wood (from the floor of the main burial chamber)	2890±50BP	5.3	-15.29	
No. 73	Soil (from inside the burial pit)	1240±40BP		-24.30	85.74
No. 73	Soil (from inside the main burial chamber)	1310±50BP		-26.10	84.92
No. 73	Soil (from the floor of the main burial chamber)	1800±50BP		-20.30	79.90
No. 75	Corroded layer of material on the bottom of a ritual object	1530±40BP		-26.80	82.67
No. 75	Soil (from the floor of the main burial chamber)		Insufficient C content		
No. 604	Charcoal	1610±40	7.0	-25.6	81.8

Yugok-ri and Durak-ri Tumuli

- In 2020, the human bones excavated from Tomb No. 36 were subjected to both radiocarbon dating and genetic and pathological analysis, generating information on the gender, age at death, and height of the person buried. The radiocarbon dating produced a date range of the early fifth to mid-sixth centuries. This result generally agrees with the date of the mid-sixth century produced by the typological analysis of the type of burial and excavated pottery vessels.

Table 12. Radiocarbon dating results for Tomb No. 36 at the Yugok-ri and Durak-ri Tumuli

Tomb No.	Material	14C BP	Sex	Age
No. 36	Human bone	1590±15	Impossible to determine	Adult
No. 36	Human bone	1595±15	Impossible to determine	Impossible to determine

Gyo-dong and Songhyeon-dong Tumuli

- Radiocarbon dating was conducted in 2009 on the human bones and wooden coffin from Tomb No. 15. The dates obtained from this analysis generally correspond to the typologically ascertained date of the early sixth century.

Table 13. Radiocarbon dating results for Tomb No. 15 at the Gyo-dong and Songhyeon-dong Tumuli

Tomb No.	Material	14C BP	$\delta^{13}\text{C}(\text{‰})$	1 σ SD (68.2%)	2 σ SD (95.4%)
No. 15 (006-01)	Human bone	2120±70	-8.5	350BC(9.2%)310BC210 BC(59.0%)40BC370	BC(95.4%)20AD
	Human bone	1680±50	-7.1	260AD(10.0%)290AD 320AD(58.2%)420AD	230AD(89.6%)460AD 480AD(5.8%)540AD
No. 15 (02-001)	Human bone	1590±40	-15.5	420AD(68.2%)540AD	390AD(95.4%)570AD
	Human bone	2020±80	11.1	160BC(5.0%)130BC 120BC(63.2%)70AD	350BC(95.4%)250AD
No. 15 (03-002)	Human bone	1660±50	-15.5	260AD(6.6%)280AD 320AD(59.3%)440AD 490AD(2.4%)510AD	250AD(95.4%)540AD
	Human bone	1740±60	-7.0	230AD(68.2%)390AD	130AD(95.4%)420AD
No. 15	Wood	1550±40	-27.5	430AD(68.2%)560AD	420AD(95.4%)600AD
	Wood	1540±40	-24.6	430AD(68.2%)570AD	420AD(95.4%)610AD

- In 2011, radiocarbon dating was carried out on the three pieces of wood from Tomb No. 6 and on two fragments of peach seeds and five pieces of wood from Tomb No. 7. The two tombs had been dated to the early sixth century in accordance with the results of typological analysis of their tomb types and excavated pottery vessels. Although some difference in date was found among the samples, the dates obtained from this radiocarbon analysis fall within the range of the fourth to sixth centuries and therefore fundamentally agree with the typological date.

Table 14. Radiocarbon dating results for Tombs No. 6 and No. 7 at the Gyo-dong and Songhyeon-dong Tumuli

Sample No.	Material	14C BP	$\delta^{13}\text{C}$ (‰)	Age
No. 1	Seed	1520±60	-22.55	540AD
No. 1	Seed	1590±60	-22.59	470AD
No. 2	Wood	1570±50	-24.86	500AD
No. 3	Wood	1750±50	-25.35	270AD
No. 4	Wood	1700±50	-27.42	330AD
No. 5	Wood	1660±50	-28.56	400AD
No. 6	Wood	1570±70	-28.27	490AD
No. 7	Wood	1790±50	-27.75	260AD
No. 8	Wood	1730±60	-25.54	280AD
No. 9	Wood	1590±50	-27.68	470AD

Item 4. Private ownership

ICOMOS notes that some of the component parts are not completely owned by the State. For example, more than 40% of the land of component part 1 is privately owned. The nomination dossier mentions that the legal protection is the same for both public and private land, but that the State plans to purchase the private land. Could the State Party indicate the proposed timeframe for those acquisitions? ICOMOS also wishes to know the position of private landowners regarding the foreseen purchase of their lands.

Land plots within the Heritage Area of each cemetery are all subject to government management and protection under the Cultural Heritage Protection Act, regardless of whether they are in public or private ownership. For more efficient conservation, the government at both the national and local levels has been purchasing private land plots with a goal of purchasing every private land parcel within the Heritage Area of each cemetery and is allocating related funding and conducting consultations with landowners on an ongoing basis. Since it is legally forbidden to do more than maintain the status of a property within a Heritage Area, landowners are increasingly opting to sell their plots to the government.

Although it is hard to suggest a precise target date for achieving the zero-private land goal, a clear rapid downward trend in the proportion of private land plots in the property areas of the nominated cemeteries can be seen. At the time of the submission of the nomination dossier in January 2021, the proportion of private land within the property was 15.72 percent. This has been decreasing in the intervening months to reach 15.02 percent as of September 2021 (Table 15). (Component 1, the Daeseong-dong Tumuli, which was suggested as an example in the question, was actually completely in public ownership at the time of submission of the nomination dossier. Please refer to Table 15 below.)

A telling example of this trend is the Yugok-ri and Durak-ri Tumuli. When this cemetery was registered on the national heritage list in 2018, it was entirely under private ownership. Currently only 11 percent of the property area of the cemetery remains in private ownership. As for the remaining private land parcels, purchase plans are being prepared in consultation with landowners.

Despite this strong trend among landowners to sell their land parcels, there are some cases where people wish to maintain their ownership of plots. In these cases, they either have family graves on their land or are still cultivating the land for agricultural production. In the former category, landowners are allowed to maintain the existing graves, but are legally barred from adding more. This is unlikely to change the current state of conservation at the cemetery concerned. Where agricultural efforts are taking place, landowners can continue to farm as long as their activities are considered to be harmless to the conservation of the cemetery. However, as these farmers are all very advanced in age and mostly do not have successors to carry on with the farming, it is expected that over time there will be more farmers who are willing to sell their plots to the government.

With the inscription of the Gaya Tumuli, financial support for the conservation of the nominated property will increase, which will further encourage the ongoing land purchase efforts at each of the nominated cemeteries.

Table 15. Proportion of public and private land plots in each nominated cemetery

Name of the cemetery	Property area (ha)	At the time of dossier submission				Today (as of Sep. 2021)	
		Public ownership (ha)		Private ownership (ha)		Public ownership (ha)	Private ownership (ha)
Daeseong-dong Tumuli	3.06	3.06(100%)		0(0%)		3.06(100%)	0(0%)
Marisan Tumuli	40.28	36.95(92%)		3.33(8%)		36.97(92%)	3.31(8%)
Okjeon Tumuli	14.47	Before	8.42(58%)	Before	6.05(42%)	13.04(90%)	1.43(10%)
		After	12.99(90%)	After	1.48(10%)		
Jisan-dong Tumuli	84.41	70.96(84%)		13.45(16%)		70.97(84%)	13.44(16%)
Songhak-dong Tumuli	3.16	3.12(99%)		0.04(1%)		3.12(99%)	0.04(1%)
Yugok-ri and Durak-ri Tumuli	9.52	Before	9.07(95%)	Before	0.45(5%)	8.44(89%)	1.08(11%)
		After	8.27(87%)	After	1.25(13%)		
Gyo-dong and Songhyeon-dong Tumuli	34.10	23.93(70%)		10.17(30%)		23.93(70%)	10.17(30%)
Total	189	Before	155.51 (85.43%)	Before	33.49 (14.57%)	160.61 (84.98%)	28.39 (15.02%)
		After	159.28 (84.28%)	After	29.72 (15.72%)		

* There have been found some errors in the numbers suggested in the nomination dossier (please refer to Table5-1 on page 350) with regard to the Okjeon Tumuli and the Yugok-ri and Durak-ri Tumuli. Here are presented the original numbers (marked as "before") and corrected ones ("after"). There also have been discovered some mistakes in the previous maps regarding the lines marking public and private land. The maps suggested below show correct lines.

Figure 4. Land ownership at the Marisan Tumuli (as of Sep. 2021)

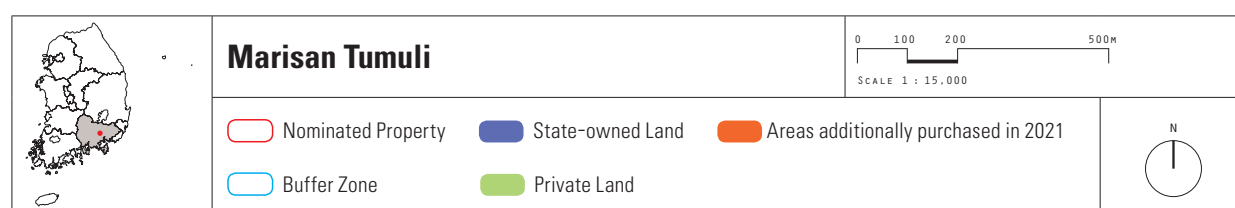
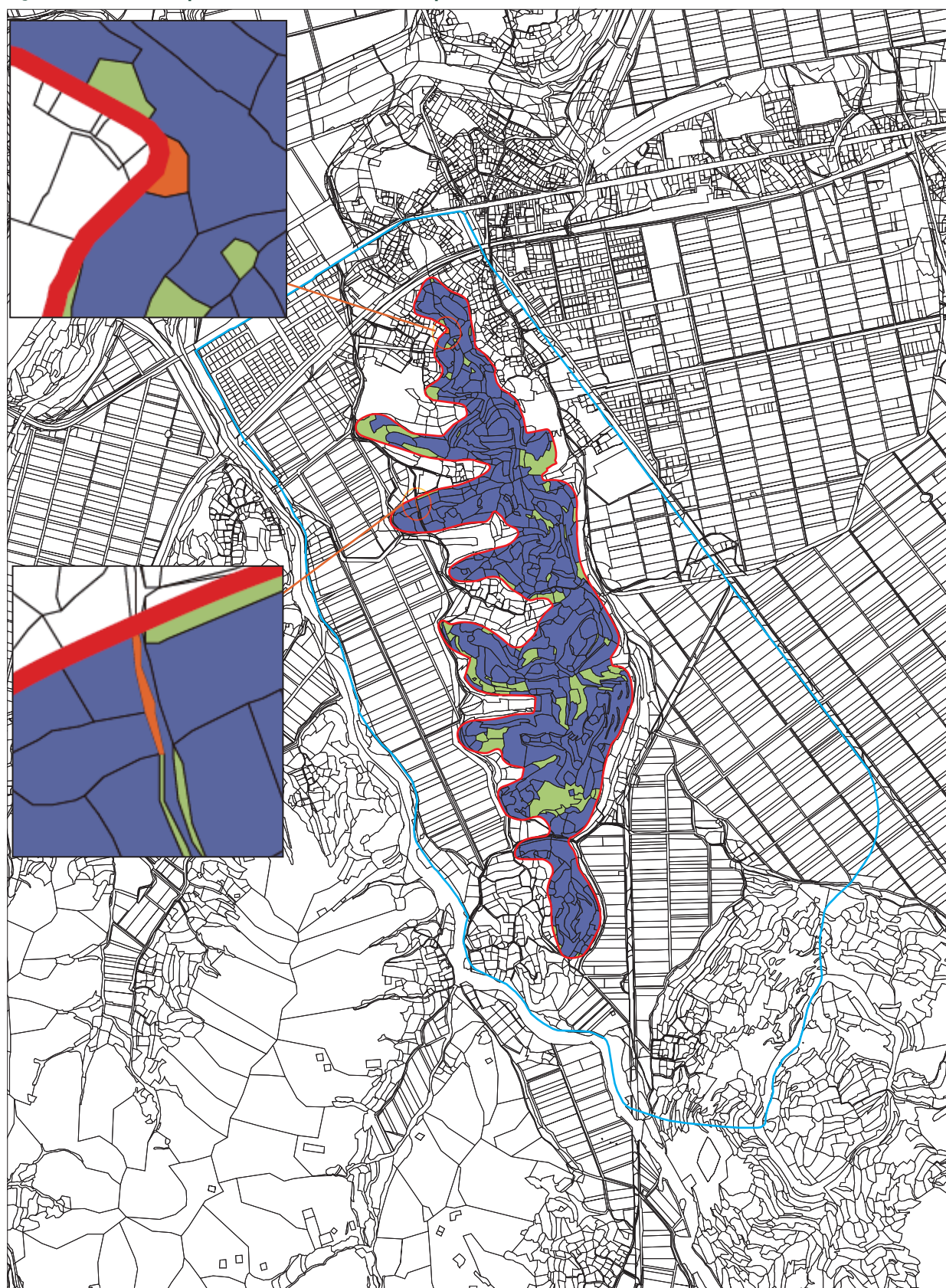


Figure 5. Land ownership at the Marisan Tumuli (as of Sep. 2021)

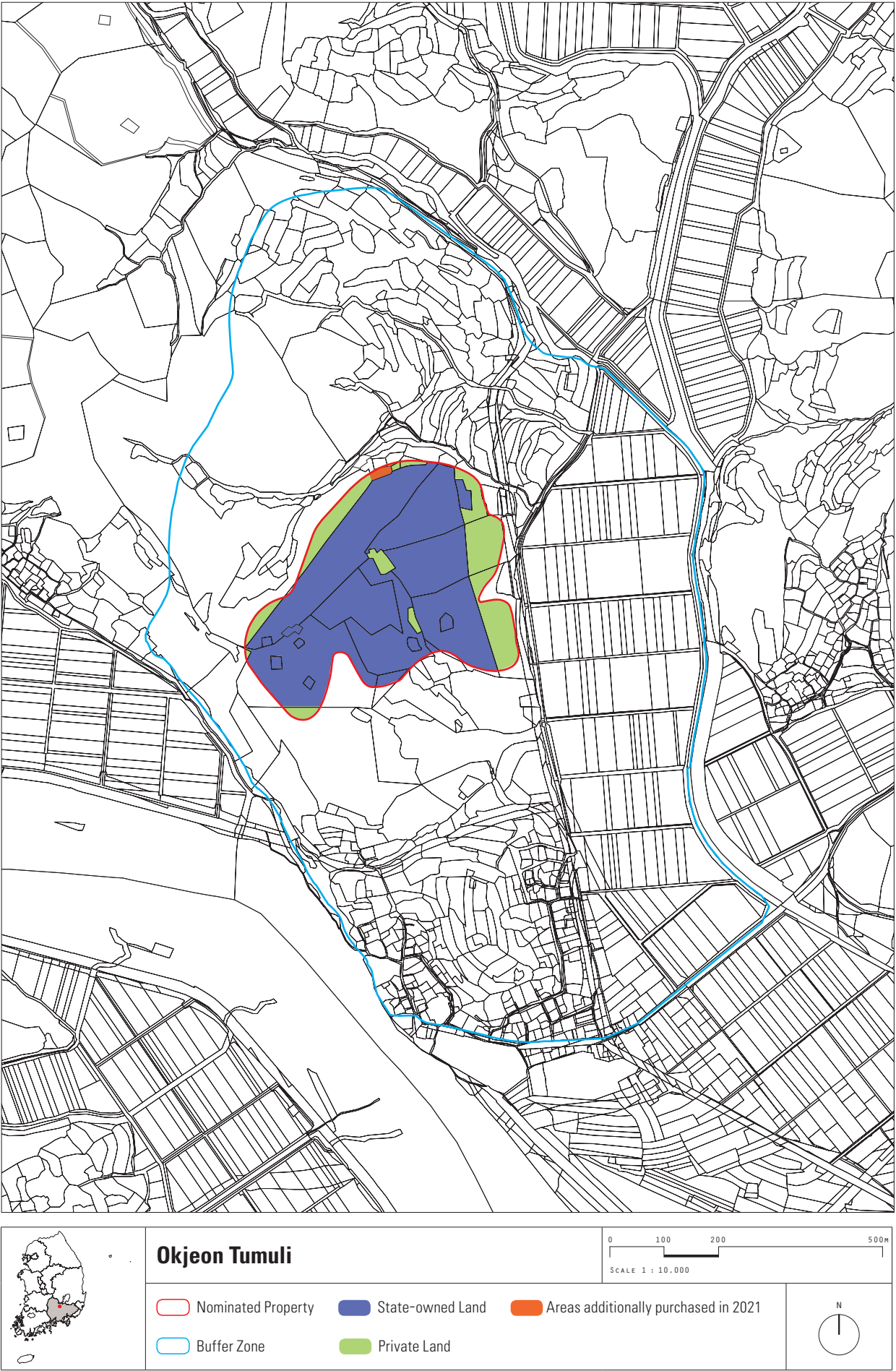


Figure 6. Land ownership at the Jisan-dong Tumuli (as of Sep. 2021)

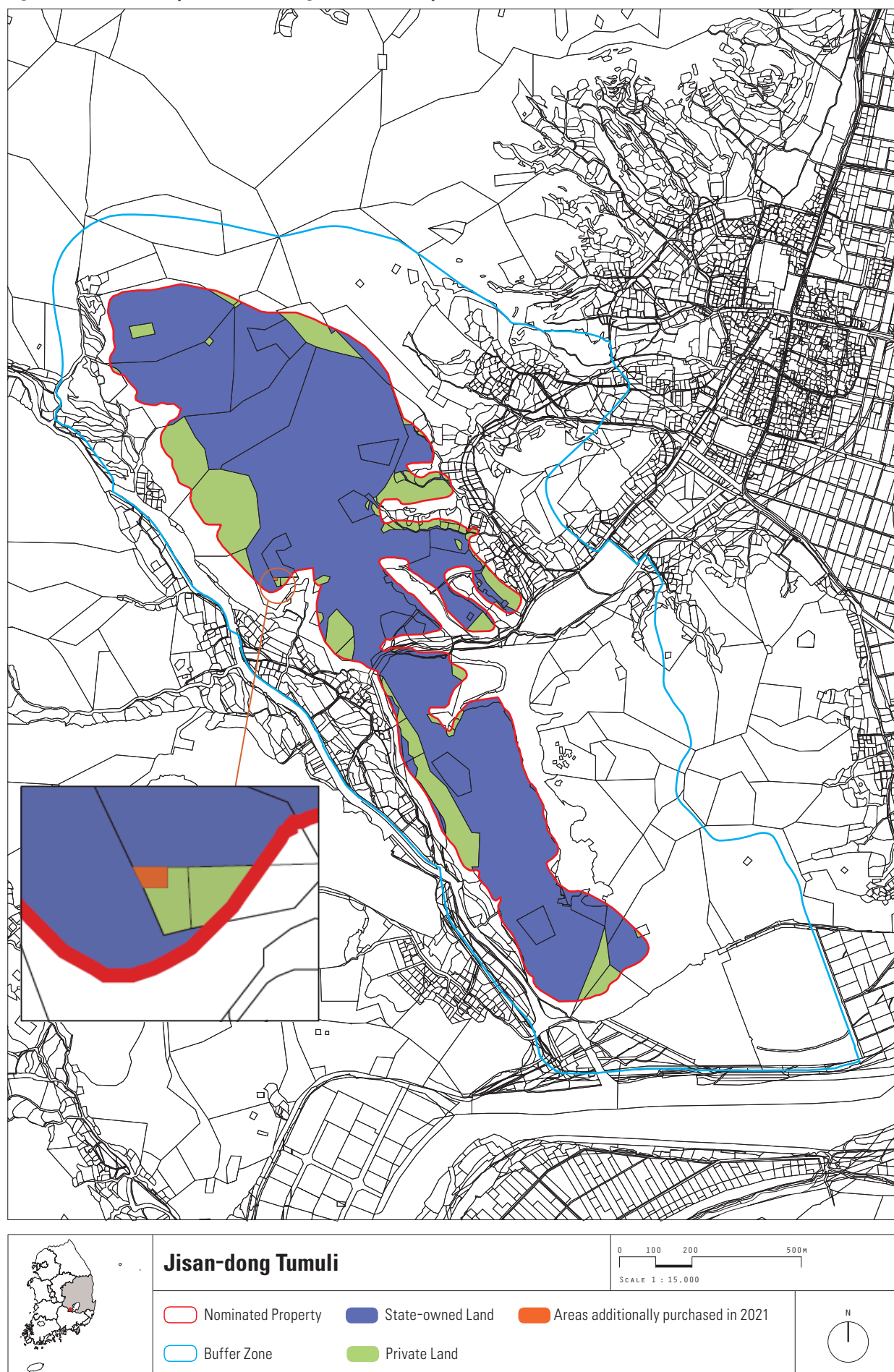
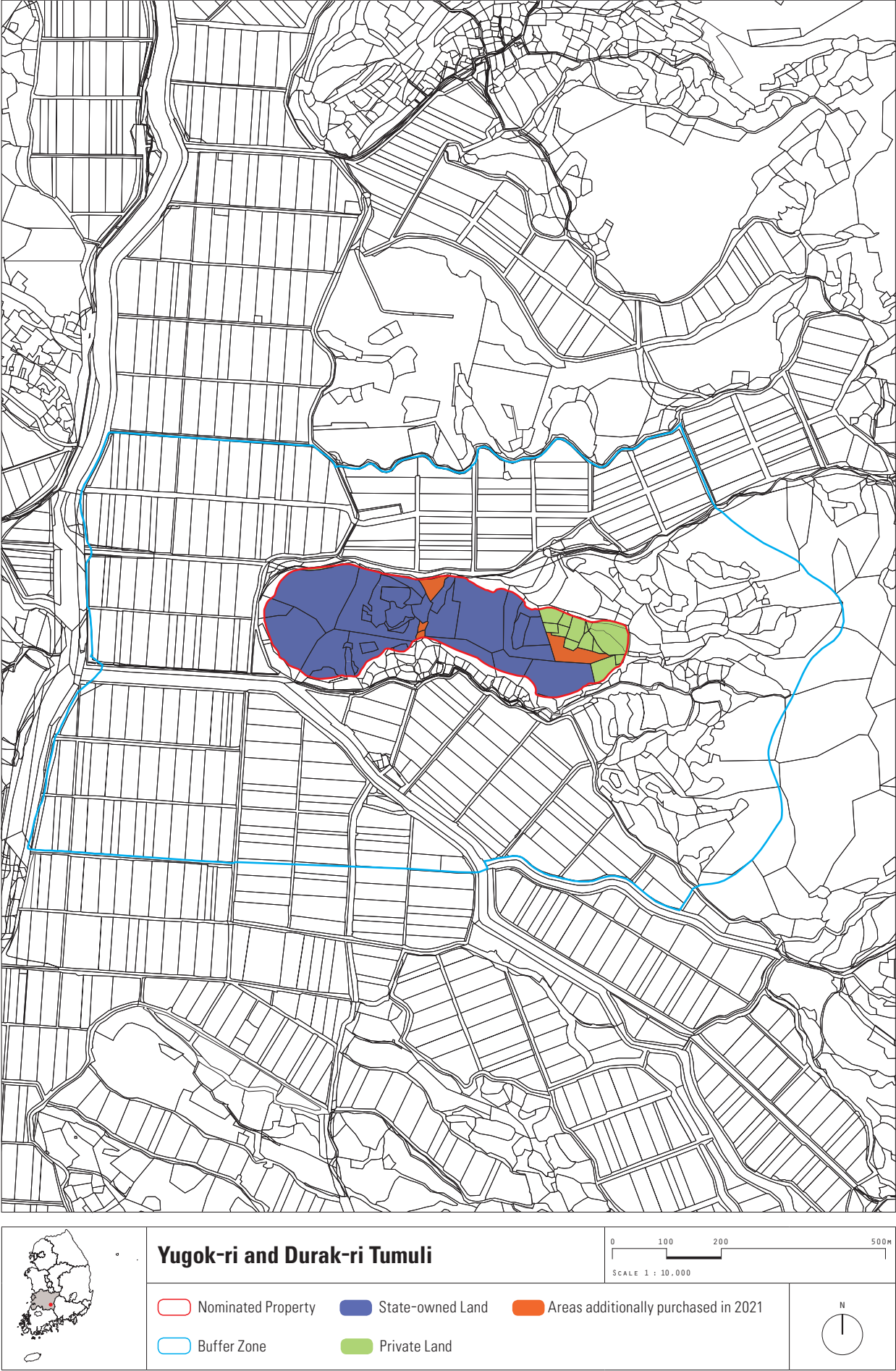


Figure 7. Land ownership at the Yugok-ri and Durak-ri Tumuli (as of Sep. 2021)



Item 5. Legal protection

For some component parts, the areas of protective designations do not completely coincide with the nominated area or its buffer zone (see maps pp. 362-368). ICOMOS would appreciate if the State Party could clarify the rationale used to define those protective designations and specify whether it is foreseen to review and adjust them in the future. Furthermore, ICOMOS would also appreciate to receive more information on the protective zoning of the buffer zones, since the rationale of these subdivisions is not apparent in all cases.

● The rationale for defining the protective designations

According to the Cultural Heritage Protection Act, the nominated cemeteries are respectively designated as a Historic Site. When a Historic Site is named, boundaries are drawn for a protected area and an additional conservation area. These two areas are respectively termed the Heritage Area and the Historic and Cultural Environment Conservation Area. The Heritage Area is a delineation to protect the designated heritage itself, while the Historic and Cultural Environment Conservation Area (hereinafter referred to as the "Conservation Area") provides an additional layer of protection to the designated heritage.

Specifically, a Heritage Area is intended to protect the designated heritage from sustaining any damage from contact with the external environment. The extent of a Heritage Area is determined after rigorous historical research and extensive expert consultation. The purpose of a Conservation Area is to prevent undesirable activities in the areas surrounding the Heritage Area and ensure that the designated heritage can harmonize with its setting. The limits of this additional protection area can be set at up to 500 meters from the outer boundary of the Heritage Area (state-designated heritage sites mostly have the maximum Conservation Area of 500 meters including all seven nominated cemeteries). The Conservation Area is divided into up to nine zones in consideration of the topographic features, level of urbanization, and existing urban plans. A set of standards is prepared prescribing the extent of development allowed within each zone. Applying different levels of development control to respective zones, the prescribed standards are primarily based on height restrictions, which is intended to protect the visual surroundings of the setting of a heritage site. Along with these visual restrictions, other environmental factors such as noise, dust, vibration, light, and heat are also managed.

● Whether it is foreseen to review and adjust the areas of protective designations in the future

Admittedly, the Heritage Areas and the Conservation Areas in the nominated cemeteries do not always coincide with the property areas and their buffer zones. This is attributed to the slightly different set of factors considered in domestic protective designation than those used as a basis for the delineation of the property and its buffer zone.

First of all, domestic conservation efforts in both financial and non-financial forms are likely to concentrate on Heritage Areas, meaning there is a strong tendency to include within the boundaries of a Heritage Area not just the areas that contain archaeological remains, but also those with the potential for producing them in the future. Another factor to take into account is that Heritage Areas are drawn according to the boundaries of land parcels that have set administrative purposes. For these reasons, the Heritage Areas of the nominated cemeteries are not precisely the same as their property areas, which are delineated based on OUV attributes. The Conservation Areas in the nominated cemeteries are set at 500 meters from the outer boundaries of the Heritage Areas. The uniform application of the 500-meter standard serves the purpose of enhancing consistency and predictability in heritage management and administration. However, the buffer zone is delineated in consideration of the benefit of OUV protection and along natural borders and clear social demarcations, sometimes differing from the existing Conservation Area.

Although there are some portions where the domestically designated areas do not perfectly conform with the delineated property area and buffer zone, it is unlikely that these cases of boundary misalignment will lead to issues with management or protection. The small portions of the property area that are not included in the Heritage Area all fall within Zone 1 of the Conservation Area. The development restrictions applied to Zone 1 are equal to those for the Heritage Area. While the buffer zone is mostly included in the Conservation Area, those areas that are not are all protected under other laws such as the National Land Planning and Utilization Act and the Farmland Act.

Besides all these existing protections, it should be noted that a legal tool has been prepared to bring the two sets of boundaries into conformity with each other after World Heritage inscription for a more integrated operation of the domestic and World Heritage systems. It is under the Special Act on the Conservation, Management, and Utilization of World Heritage that came into effect on February 5, 2021. According to this newly enforced law, the property area and its buffer zone can be respectively treated as the Heritage Area and the Conservation Area. With the inscription of the Gaya Tumuli, necessary administrative procedures will be taken within the earliest possible timeframe to erase the differences in boundaries between domestic designations and the property/buffer zone. For details on the relevant legal provisions, please refer to Articles 10 and 11 in the World Heritage law attached.

● The rationale of the protective zoning of the buffer zones

The current subdivisions in the buffer zones are a reflection of the zoning of the Conservation Areas. According to the Cultural Heritage Protection Act, a Conservation Area can be divided into up to nine zones and a set of standards prescribing the extent of development allowed within each of the zones is created. The buffer zones are subject to these development restrictions.

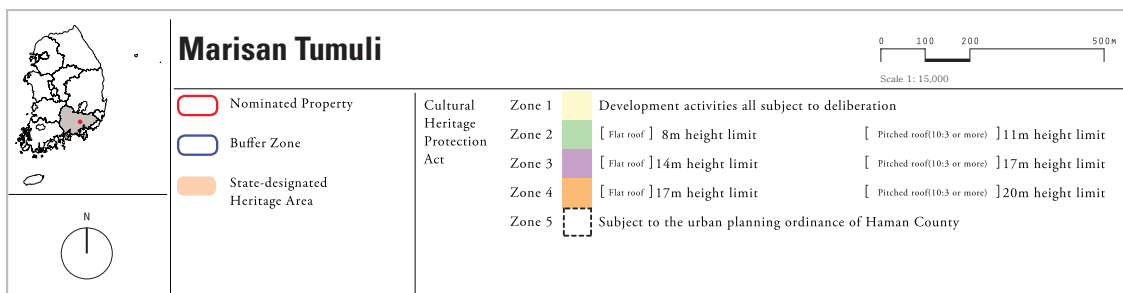
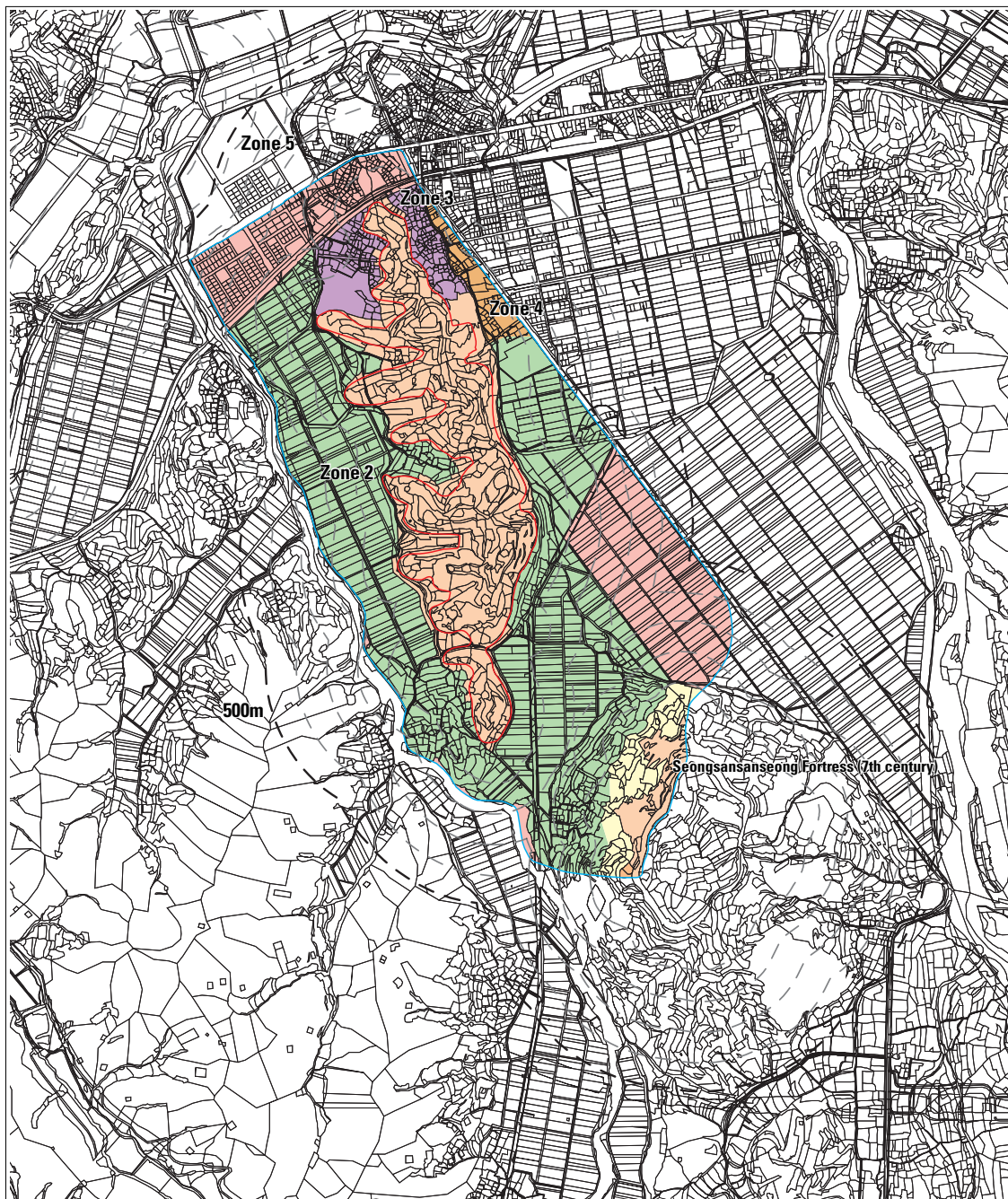
The introduction of zoning for Conservation Areas—and the irregular dividing lines among different zones in each cemetery, which will be explained below—is part of the effort to respect the rights of the communities living around heritage. The protective system for cultural heritage that is offered by the Cultural Heritage Protection Act is highly robust and rigorously controls construction activities not only in Heritage Areas, but also within their surroundings by means of the Conservation Area. This strict protection system is definitely beneficial to the conservation of cultural heritage, but it also serves as an unwanted burden for those living close to cultural heritage who may have development needs. To mitigate the potential inconveniences for local residents, a Conservation Area is not protected uniformly across its entirety, but is subdivided into several zones that are respectively subject to differing levels of development restrictions depending on their contributions to the conservation of the designated heritage.

Consideration of community benefits and respect for property rights are also the reason for the irregularity of the subdivisions in each cemetery. Ideally, the different zones within a Conservation Area should consist of several concentric circles, with the innermost circle, or Zone 1, subject to the strongest level of development control. However, the Conservation Areas in the nominated cemeteries do not conform to this concentric model because zones have to be drawn in a way that respects the social and cultural conditions of a given area. For example, there may be a time-old residential area formed close to a newly designated heritage site. In this case, the concentric model cannot be applied, but zoning is carried out with some level of flexibility considering the social history of the area dating back to before any recent heritage designation.

A case in point regarding this method of zoning is the Conservation Area in the Marisan Tumuli. According to how this Conservation Area is currently zoned, development restrictions generally strengthening as it gets closer to the designed heritage. However, the areas to the north and east of the Marisan Tumuli are placed under relatively lower levels of development restrictions, in this case Zone 3 or Zone 4, while the areas to the south and the west fall into Zone 2. This is because there are established residential areas and other community facilities such as schools and libraries located within these areas due to the construction of a railway here in the 1920s and a subsequent concentration of population. Zones were drawn taking this social situation into consideration.

* The State Party would like to note that minor modifications have been made to the buffer zone of the Songhak-dong Tumuli since the submission of the nomination dossier. For more detail, please refer to Appendix 1.

Figure 8. Heritage Area and Historic and Cultural Environment Conservation Area of the Marisan Tumuli



Item 6. Planned developments

Given that many of the component parts feature museums, roads and other infrastructure, and that many of them occur in urbanised contexts, ICOMOS would appreciate information regarding all planned developments inside the component boundaries or buffer zones or occurring near the nominated component parts. Brief summary information about any planned developments should include a map showing their proposed location, the purpose and scale of the proposed development, and an indication of whether or not the proposals are approved.

There is some development currently planned or already underway around the nominated cemeteries. All are subject to the provisions of the Cultural Heritage Protection Act and other relevant laws, but they are taking place for the three major purposes of heritage conservation, landscape/setting management, and improved community life as follows.

First, there are facilities required for conservation, education, and exhibition purposes. The Haman County government, which holds jurisdiction over the Marisan Tumuli, has been implementing a plan since 2018 to construct an additional exhibition building for the Haman Museum that is scheduled to be completed by 2022. The Namwon City government has been carrying out a museum construction plan from 2021 for the Yugok-ri and Durak-ri Tumuli, which is not currently equipped with a permanent exhibition space. This construction will be completed by 2023.

Second, some of the development plans aim to improve the landscapes or environments of the nominated cemeteries. The Gimhae City government has been carrying out a long-term landscaping plan for the Daeseong-dong Tumuli since 2006. Facility relocation efforts are currently underway as part of this plan. The Goryeong County government is implementing a plan to expand and newly pave the access road for the Jisan-dong Tumuli starting in 2021 since the existing road is too narrow to accommodate the current volume of motorized traffic and is causing safety issues. The Namwon City government, which is in charge of the Yugok-ri and Durak-ri Tumuli, is also planning to widen and pave a road near the cemetery from 2022. The Changnyeong County government is currently working

to devise solutions to issues related to visitor safety and the integrity of the cemetery that are being caused by the road running through the Gyo-dong and Songhyeon-dong Tumuli. This local government has prepared a repair plan for Songhyeon Reservoir and a small stream near the cemetery as part of the effort to mitigate the impact of monsoon rainfall. This plan will be implemented from 2021 to 2025.

Third, there is a development project designed to improve the living environment for people living near cemeteries. The Goseong County government is implementing an urban regeneration project starting from 2021 for a neighborhood next to the Songhak-dong Tumuli known as Muhak Village.

Table 16. Developments plans at the nominated cemeteries (the locations of development projects are marked in the maps attached)

Name of the cemetery	Purpose	Area	Period	Permission
Daeseong-dong Tumuli	- Improving landscape/setting	7.47ha	2006–2027	Permitted
Marisan Tumuli	- Building an additional exhibition building	- Lot area: 0.54ha - Building area: 0.14ha - One story underground and three stories above ground	2018–2022	Permitted
Okjeon Tumuli	-	-	-	-
Jisan-dong Tumuli	- Expanding a road	L=680m, B=20m	2021–2023	Permitted
Songhak-dong Tumuli	- Improving community life	About 5ha	2021–2023	Permitted
Yugok-ri and Durak-ri Tumuli	- Expanding a road	L=550m, B=7m	2022–2024	Not yet
	- Building a museum	- Lot area: 0.6ha - Building area: 0.03ha - One story underground and two stories above ground	2021–2023	Permitted
Gyo-dong and Songhyeon-dong Tumuli	- Restoring the integrity of the cemetery - Improving visitor safety	About 0.09ha	2022–	Not yet
	- Repairing rainwater impounding facilities	1ha	2021–2025	Permitted

Figure 9. Daeseong-dong Tumuli (scale 1:10,000)



Figure 10. Marisan Tumuli (scale 1:15,000)



Figure 11. A projected view of the additional building to be constructed at the Haman Museum



Figure 12. Jisan-dong Tumuli (scale 1:15,000)



Figure 13. Songhak-dong Tumuli (scale 1:10,000)



Figure 14. Yugok-ri and Durak-ri Tumuli (scale 1:10,000)



Figure 15. A projected view of the museum to be constructed for the Yugok-ri and Durak-ri Tumuli



Figure 16. Gyo-dong and Songhyeon-dong Tumuli (scale 1:15,000)



Item 7. Monitoring

ICOMOS notes that detailed information on the monitoring process is provided in the nomination dossier. From the information provided, it appears that the monitoring processes are mainly based on qualitative indicators. ICOMOS would appreciate if the State Party could provide information on the possibility of introducing additional quantitative indicators that relate directly to the state of conservation of the proposed attributes (e.g. on soil movements, changes in soil acidity, number of rodent burrows, etc.). Additional information on the collection and storage of monitoring information is also requested.

● The potential for introducing additional quantitative indicators

The monitoring indicators currently in place are generally based on qualitative investigation. Site managers or guards are using these indicators to monitor the state of conservation at the seven nominated cemeteries, their surrounding environments, and associated facilities either in person or through CCTV installed on the site. The records of this ongoing monitoring are utilized as reference materials for carrying out conservation activities at the cemeteries—for example, for repairing or restoring tombs after floods or natural disasters. In terms of monitoring the grave goods from the nominated cemeteries, quantitative indicators are being used to a certain extent. National or on-site public museums housing these artifacts utilize objective standards for monitoring their collections, such as in relation to the management of temperature and humidity in exhibition or storage facilities.

However, there is a growing interest in applying quantitative measures for the monitoring of the nominated cemeteries. One example is the visitor-number counting devices installed at some of the cemeteries. Keeping a record of rainfall is also a form of quantifiable monitoring. There is a plan to deploy drones at the Marisan Tumuli to monitor the state of conservation of the cemetery starting in 2022. This drone technology is expected to offer real-time information on the shape of the burial mounds and the topography and landscape of the cemetery, enabling a quick response to potential disasters.

Earnest efforts will be made in the coming years to establish an integrated system to collect, manage, and utilize quantitative data regarding the state of conservation of the Gaya Tumuli to better respond to potential long-term changes in the state of conservation of the nominated property.

● The collection and storage of monitoring information

As state-designated heritage sites, the seven nominated cemeteries are subject to national-level monitoring every three years under the Cultural Heritage Protection Act. This triannual monitoring is carried out by the Cultural Heritage Administration (CHA). It investigates the state of conservation at each cemetery, examines matters related to its management and repair, and explores issues in the surrounding areas. The results are compiled into a book that is published on its webpage. The CHA further analyzes the monitoring results, carries out follow-up measures, and utilizes them in planning future heritage policy, an obligation also prescribed in the Cultural Heritage Protection Act.

Another form of monitoring records managed at the national level relates to the history of repair projects at each cemetery. There is a digital database run by the Cultural Heritage Administration that offers information on repair projects that have taken place up to the present for each state-designated heritage site. When a repair project occurs at any given nominated cemetery, for example, the information collected through this platform is consulted to ensure the authenticity of the tomb under repair.

In addition, site managers or guards conduct daily monitoring activities at each cemetery and keep records on the site. Issues requiring particular attention are reported to the World Heritage Nomination Office for the Gaya Tumuli, which then includes them as needed on the agendas of the regular meeting between the nomination office and the local governments holding jurisdiction over the seven cemeteries so that these conservation issues can be shared among relevant stakeholders and resolved through collective efforts.

After inscription, the nomination office will have a legal basis for its role as control tower for the integrated monitoring of the seven cemeteries. The newly enacted World Heritage law (the Special Act on the Conservation, Management, and Utilization of World Heritage) prescribes that the national or local government should monitor the conservation, management, and utilization of World Heritage properties on a regular basis. The nomination office is expected to serve as the representative of the government in this regard. According to this World Heritage law, the nomination office will conduct integrated monitoring for the seven cemeteries and send the results to the CHA, which will collect and maintain the information in a separate online platform for future use in policymaking.

The nomination office, which will be expanded into the Gaya Tumuli Conservation and Management Foundation after inscription, will work to systematically analyze the monitoring results, share them with the pertinent local governments, make appropriate recommendations for the issues detected, and ensure that they are fed into the policymaking process.

The current monitoring indicators will be updated on an ongoing basis as a means to strengthen the integrated management of the nominated cemeteries and better protect their OUV attributes.

Item 8. Participation

ICOMOS notes that the nomination dossier mentions various forms of engagement with the local communities in relation to awareness raising and the cleaning and monitoring of the sites. The formation of residents' councils and volunteer groups is also noted. ICOMOS would be pleased if additional information about whether any further measures are foreseen to strengthen the involvement of local communities in the planning and decision making processes (in accordance with paragraph 123 of the Operational Guidelines) could be provided.

The newly enacted World Heritage law (the Special Act on the Conservation, Management, and Utilization of World Heritage) will ensure additional opportunities for local communities to participate in the planning and decision-making processes for the Gaya Tumuli after its inscription.

First of all, the World Heritage law (Article 18) prescribes that a conservation council be established for each World Heritage property to deliberate and decide matters related to its protection, management, and utilization. The conservation council has the authority to address issues related to the preparation of conservation plans, determination of boundaries, and creation of necessary reports or responses to requests from the World Heritage Centre. It is stipulated that the conservation council should include representatives of the local communities in its membership. World Heritage experts and civil servants will fill the remainder of the seats on the council. The community representatives speak on behalf of their communities during the council meeting, after which they will return to their communities and deliver the results of the discussion to local residents.

In addition, the World Heritage law (Article 19) prescribes that the Cultural Heritage Administration and the pertinent local governments should listen to the opinions of local communities during the process of establishing World Heritage plans. For this purpose, relevant documents and materials should be posted for more than two months on the bulletin boards and webpages of the CHA or the pertinent local governments. People may freely access this information and submit their opinions.

According to the provisions of the World Heritage law, local communities will be entitled to additional channels for having a voice in the planning and decision-making processes. Through these processes, they will gain a better appreciation of the timeless significance of the Gaya Tumuli and become a strong pillar supporting its conservation.

Appendix

1. Modification to the buffer zone of the Songhak-dong Tumuli
2. Special Act on the Conservation, Management, and Utilization of World Heritage

Appendix 1. Modification to the buffer zone of the Songhak-dong Tumuli

The buffer zone of the Songhak-dong Tumuli was originally drawn along a narrow irrigation channel in its west. After the submission of the nomination dossier, the need was raised to use a clearer natural or social demarcation as the western border of the buffer zone. Accordingly, the western limit of the buffer zone has been expanded to run along a road, marked in yellow line in the image below.

Figure 17. Songhak-dong Tumuli



Appendix 2. Special Act on the Conservation, Management, and Utilization of World Heritage

[Enforcement Date Feb. 5, 2021] [Amended by Act No. 17587, Dec. 8, 2020]

Article 1 (Purpose) The purpose of this Act is to enhance the cultural pride of the people by providing for matters necessary to conserve, manage and utilize World Heritage in relation to the Convention Concerning the Protection of the World Cultural and Natural Heritage, and contribute to the promotion of international cooperation to conserve the common assets of humankind.

Article 2 (Fundamental Concepts) (1) The underlying principle for the conservation, management and utilization of World Heritage is that the Outstanding Universal Value of the heritage, including the conditions of integrity and authenticity at the time of its inscription, shall be maintained or improved.

(2) The conservation, management and utilization of World Heritage shall be implemented in a manner to raise public awareness of and involvement in World Heritage and enhance the role of local communities concerned.

Article 3 (Definitions) The terms used in this Act are defined as follows:

1. The term “World Heritage” means any heritage inscribed on the World Heritage List of the United Nations Educational, Scientific, and Cultural Organization (hereinafter referred to as “UNESCO”), in accordance with Articles 1, 2 and 11 (2) of the Convention Concerning the Protection of the World Cultural and Natural Heritage (hereinafter referred to as the “World Heritage Convention”);
2. The term “Tentative List” means an inventory of properties considered suitable for nomination to the World Heritage List, which is submitted to UNESCO and registered therein in accordance with Article 11 (1) of the World Heritage Convention.

Article 4 (Duties of State, Local Governments, etc.) (1) The State shall establish and implement comprehensive measures for the conservation, management and

utilization of World Heritage.

(2) Local governments shall establish and implement policy measures for the conservation, management and utilization of World Heritage, in consideration of the State's measures and regional characteristics.

(3) The State and local governments shall ensure that residents, interested parties, relevant experts, etc. can actively participate in the establishment and implementation of policies on the conservation, management and utilization of World Heritage.

(4) The people shall actively cooperate with the policy measures of the State and local governments for the conservation, management and utilization of World Heritage.

Article 5 (Relationship to Other Statutes) Unless otherwise provided in other statutes, the conservation, management, utilization and support of World Heritage shall be governed by this Act: Provided, That this Act shall not apply with regard to traditional temples registered under Article 4 of the Korean Traditional Temples Preservation and Support Act.

Article 6 (Consultation on Major Policy Measures) (1) The heads of the relevant central administrative agencies, and the Special Metropolitan City Mayor, Metropolitan City Mayor, Special Self-Governing City Mayor, Do Governor, or Special Self-Governing Province Governor, (hereinafter referred to as the "Mayor/Do Governor") shall consult with the Administrator of the Cultural Heritage Administration in advance to develop major policy measures or plans in direct relation to the inscription, conservation, management, utilization and support of World Heritage: Provided, That this shall not apply where consultation with the Administrator of the Cultural Heritage Administration is held in accordance with other statutes.

(2) The kinds of major policy measures or plans subject to consultation under paragraph (1), consultation procedures, and other necessary matters shall be prescribed by Presidential Decree.

Article 7 (Promotion of International Cooperation and Support) (1) The State shall endeavor to promote cooperative relationships with international organizations

and international specialized organizations pertaining to World Heritage, and other countries.

(2) The State shall support efforts of the international community to conserve World Heritage, which include providing financial assistance to developing countries for the systematic conservation, management and utilization of World Heritage.

Article 8 (Promotion of Inter-Korean Cooperation) (1) The Administrator of the Cultural Heritage Administration shall develop an institutional framework for promoting mutual exchange and cooperation between the two Koreas regarding inscription on the World Heritage List and the conservation, management and utilization of the inscribed World Heritage.

(2) The Administrator of the Cultural Heritage Administration may request cooperation from relevant domestic and foreign organizations to support inscription of North Korea's properties on the World Heritage List and its conservation, management and utilization of the inscribed World Heritage, and may provide funds to defray all or part of the expenses incurred therein.

Article 9 (Inscription on the World Heritage List) (1) The Administrator of the Cultural Heritage Administration may submit nominations of national cultural and natural properties for inscription on the UNESCO World Heritage List in accordance with the World Heritage Convention.

(2) The State and local governments shall endeavor to ensure that the nominated properties are to be inscribed on the World Heritage List, which include conserving and managing Tentative List properties and providing support for academic research.

(3) Article 19 of the Cultural Heritage Protection Act shall apply mutatis mutandis to the conservation, management and support of World Heritage, and the process for selecting the properties for nomination under paragraph (1).

Article 10 (Designation of World Heritage Zones) (1) The Administrator of the Cultural Heritage Administration may designate areas necessary for the conservation, management and utilization of World Heritage property inscribed in accordance with Article 9, as a World Heritage Zone.

(2) A World Heritage Zone under paragraph (1) shall be designated according to the following categories:

1. World Heritage Zone: An area inscribed on the World Heritage List deemed of its Outstanding Universal Value, integrity and authenticity;

2. Buffer Zone of World Heritage property: An area surrounding the nominated property provided in the World Heritage nomination for effective protection of the property. (3) The Administrator of the Cultural Heritage Administration may, if necessary for the conservation of World Heritage, change the World Heritage Zones designated under paragraph (1) in accordance with the procedures prescribed by Presidential Decree.

(4) If any World Heritage is deleted from the World Heritage List, the Administrator of the Cultural Heritage Administration shall revoke the designation of the relevant World Heritage Zone, without delay.

(5) In order to designate or change a World Heritage Zone under paragraphs (1) through (3), the Administrator of the Cultural Heritage Administration shall undergo deliberation thereon by the Cultural Heritage Committee established under Article 8 of the Cultural Heritage Protection Act (hereinafter referred to as the "Cultural Heritage Committee"), following consultations with the heads of the relevant central administrative agencies, the relevant Mayor/Do Governor, or the head of the relevant Si/Gun/Gu (referring to the head of an autonomous Gu; hereinafter the same shall apply). In such cases, the head of an agency in receipt of such request for consultation shall present its opinion within 30 days from the date on which such request is received.

(6) When the Administrator of the Cultural Heritage Administration has designated, changed or revoked the designation of a World Heritage Zone in accordance with paragraphs (1) through (4), he or she shall give public notice thereon as prescribed by Presidential Decree, and send copies of the relevant documents to the relevant Mayor/Do Governor or the head of the relevant Si/Gun/Gu. In such cases, public notice of a topographic map, etc., shall conform to Article 8 of the Framework Act on the Regulation of Land Use; and the Mayor/Do Governor or the head of a Si/Gun/Gu shall make copies of the relevant documents available to the public without delay, and reflect the relevant content in an urban or Gun master plan and an urban or Gun management plan under the National Land Planning and Utilization Act.

Article 11 (Protection of World Heritage Zones) (1) An area designated as, or changed to, a World Heritage Zone by the Administrator of the Cultural Heritage Administration in accordance with Article 10, shall be deemed designated as follows:

1. World Heritage Zone: Designated cultural heritage under Article 23 (excluding any cultural heritage categorized as movable property), 25, 26 or 70 of the Cultural Heritage Protection Act, or protective facilities or protection zones under Article 27 of that Act;

2. Buffer Zone of World Heritage property: A historic and cultural environment conservation area under Article 13 of the Cultural Heritage Protection Act.

(2) Notwithstanding paragraph (1), if any heritage governed by a statute other than the Cultural Heritage Protection Act is inscribed on the World Heritage List, the provisions of such statute shall apply.

Article 12 (Formulation of Comprehensive Plan) (1) The Administrator of the Cultural Heritage Administration shall, every five years, formulate a comprehensive plan for the conservation, management and utilization of World Heritage (hereinafter referred to as “comprehensive plan”).

(2) A comprehensive plan shall include the following information:

1. Basic directions and objectives for the conservation, management and utilization of World Heritage;

2. Designation, change, or revocation of designation of World Heritage Zones under Article 10;

3. Promotion of international cooperation and inter-Korean exchange and cooperation relating to World Heritage;

4. Funding sources for the conservation, management and utilization of World Heritage;

5. Digitization of records on World Heritage;

6. Other matters necessary for the conservation, management and utilization of World Heritage.

(3) The Administrator of the Cultural Heritage Administration shall consult with the relevant central administrative agencies and the relevant Mayor/Do Governor to formulate or amend a comprehensive plan.

- (4) When the Administrator of the Cultural Heritage Administration has formulated or amended a comprehensive plan, he or she shall notify the relevant central administrative agencies and the relevant Mayor/Do Governor of such formulation or amendment, and publish the notice thereof in the Official Gazette.
- (5) Other matters necessary for the formulation of a comprehensive plan shall be prescribed by Presidential Decree.

Article 13 (Formulation and Implementation of Implementation Plan for Each World Heritage Property)

- (1) The Administrator of the Cultural Heritage Administration or the relevant Mayor/Do Governor shall, every five years, formulate an implementation plan (hereinafter referred to as “implementation plan”) for each World Heritage property that reflects the contents of the comprehensive plan and nominations for the World Heritage property located in his or her jurisdiction.
- (2) When the Mayor/Do Governor has formulated or reviewed an implementation plan, he or she shall obtain the approval of the Administrator of the Cultural Heritage Administration and publicly announce it.
- (3) In order to grant the approval for an implementation plan under paragraph (2), the Administrator of the Cultural Heritage Administration shall undergo deliberation thereon by the Cultural Heritage Committee after consulting with the heads of the relevant central administrative agencies. In such cases, the head of an agency in receipt of such request for consultation shall present its opinion within 30 days from the date on which such request is received.
- (4) In the event that any World Heritage comprises a contiguous area in two or more Special Metropolitan City, Metropolitan Cities, Special Self-Governing Cities, Dos, and Special Self-Governing Provinces (hereinafter referred to as “Cities/Dos”), the relevant Mayors/Do Governors shall jointly formulate the implementation plan or determine the person to establish such plan through mutual consultation. If no agreement is reached by such consultation, the Administrator of the Cultural Heritage Administration shall designate a person to formulate the implementation plan.
- (5) An implementation plan shall be formulated within two years from the date on which the relevant property is inscribed on the World Heritage List.

(6) An implementation plan shall include the following information:

1. Basic directions and objectives for the conservation, management and utilization of the relevant World Heritage;
2. Projects to be undertaken for the conservation and management of the relevant World Heritage;
3. Plans for resident participation in the World Heritage Zone designated under Article 10;
4. Measures for tourist promotion for the World Heritage Zone designated under Article 10;
5. Improvement of the quality of life for residents by supporting community activities in the World Heritage Zone designated under Article 10;
6. Promotion of education and public relations relating to the relevant World Heritage;
7. Enhancement of cooperation among institutions and organizations relating to the relevant World Heritage;
8. Funding sources for the conservation, management and utilization of the relevant World Heritage;
9. Other matters for the conservation, management and utilization of the relevant World Heritage, and support for residents.

(7) Other matters necessary to formulate and implement an implementation plan shall be prescribed by Presidential Decree.

Article 14 (Establishment and Implementation of Annual Project Plan) (1) The Administrator of the Cultural Heritage Administration or the relevant Mayor/Do Governor shall establish and implement an annual project plan (hereinafter referred to as “project plan”) for the purpose of efficiently promoting the projects for conservation, management and utilization of World Heritage as described in an implementation plan (hereinafter referred to as “preservation, management and utilization projects”).

(2) When the Mayor/Do Governor has established a project plan or completed its implementation, he or she shall submit the results thereof to the Administrator of the Cultural Heritage Administration.

(3) When the Administrator of the Cultural Heritage Administration or the Mayor/Do Governor has established a project plan, he or she shall publicly announce such plan.

(4) Other matters necessary for the establishment and implementation of project plans shall be prescribed by Presidential Decree.

Article 15 (Basic Investigations of World Heritage) (1) The Administrator of the Cultural Heritage Administration or the relevant Mayor/Do Governor may conduct a basic investigation of the following matters:

1. Appropriateness of the Tentative List and the inscription of properties on the World Heritage List;
2. Designation or change of World Heritage Zones under Article 10;
3. Formulation of and adjustments to comprehensive plans and implementation plans.

(2) The details and method of investigations under paragraph (1) and other necessary matters shall be prescribed by Presidential Decree.

Article 16 (Regular Inspections) (1) The relevant Mayor/Do Governor shall conduct regular inspections of the status of conservation, management and utilization of World Heritage on a yearly basis. In such cases, the Mayor/Do Governor shall submit the results of the regular inspections to the Administrator of the Cultural Heritage Administration.

(2) The Administrator of the Cultural Heritage Administration or the relevant Mayor/Do Governor shall analyze and assess the results of the inspections under paragraph (1), and reflect the results in the policies for conservation, management and utilization of World Heritage.

(3) The inspections under paragraph (1) shall include matters related to the fulfillment of the obligation of periodic reporting stipulated by the World Heritage Convention, and matters necessary for the method and procedure, etc. for such inspections shall be prescribed by Presidential Decree.

Article 17 (Establishment and Operation of World Heritage Information System) (1)

The Administrator of the Cultural Heritage Administration shall create a database comprising data on inscription and inspections obtained under Articles 9 through 16, and establish and operate a world heritage information system with such database.

(2) For the establishment of the world heritage information system under paragraph (1), the Administrator of the Cultural Heritage Administration may request that the heads of relevant central administrative agencies and local governments, and the heads of museums, research institutes, and other related corporations and organizations, submit necessary data. In such cases, any person in receipt of such request shall comply therewith except in extenuating circumstances.

Article 18 (Creation and Operation of World Heritage Conservation Consultative Council) (1)

The Administrator of the Cultural Heritage Administration or the relevant Mayor/Do Governor may create and operate a world heritage conservation consultative council (hereinafter referred to as “consultative council”) for each World Heritage property, to hold consultations on the following matters:

1. Matters on the formulation and review of implementation plans;
2. Matters on the establishment and implementation of project plans for the conservation, management and utilization projects;
3. Matters on the designation, change, or revocation of designation of World Heritage Zones under Article 10;
4. Other matters prescribed by Presidential Decree as necessary for the conservation, management and utilization of World Heritage.

(2) A consultative council shall consist of 10 or less members including one chairperson, who are commissioned or appointed from among the following persons:

1. A representative of residents of the municipality concerned;
2. A person engaged in the field of architecture, urban planning, tourism, or environment, who is an expert with much knowledge and experience in World Heritage;
3. A public official of the relevant central administrative agency or local government.

- (3) The head of a Si/Gun/Gu may, at his or her own discretion, create and operate a regional council of the consultative council for the relevant World Heritage.
- (4) Other matters necessary for the creation and operation of a Consultative Council shall be prescribed by Presidential Decree.

Article 18-2 (Establishment of International Center for the Interpretation and

Presentation of UNESCO World Heritage Sites) (1) There shall be established an International Center for the Interpretation and Presentation of UNESCO World Heritage Sites (hereinafter referred to as the “UNESCO World Heritage International Center”) for the purpose of promoting international cooperation in the field of World Heritage interpretation and enhancing public understanding of and access to World Heritage, based on the World Heritage Convention.

(2) The UNESCO World Heritage International Center shall be a corporation.

(3) The UNESCO World Heritage International Center shall undertake the following projects:

1. Research on comprehensive interpretation frameworks for interpretation and presentation of World Heritage, including principles, policies and guidelines;
2. Development and operation of capacity-building programs for interpretation and presentation of World Heritage;
3. Establishment of information systems and technical capabilities that serve as the basis for interpretation and presentation of World Heritage;
4. Promotion of international exchange and cooperation and establishment of networks;
5. Creation and dissemination of materials and other publications regarding interpretation and presentation of World Heritage;
6. Other projects necessary to achieve the purposes of establishing the UNESCO World Heritage International Center.

(4) The UNESCO World Heritage International Center shall have executives and necessary employees as stipulated by its articles of incorporation.

(5) Except as provided for in this Act, the provisions of the Civil Act concerning incorporated foundations shall apply mutatis mutandis to the UNESCO World Heritage International Center.

(6) The State may subsidize expenses to be incurred in operating the UNESCO World Heritage International Center, within budgetary limits.

(7) Notwithstanding the Public Property and Commodity Management Act, local governments may permit the UNESCO World Heritage International Center to use and benefit from public property without consideration, where deemed necessary for its performance of functions.

(8) Notwithstanding the Act on Collection and Use of Donations, the UNESCO World Heritage International Center may accept voluntary donations to the extent compatible with the purposes of its projects, where deemed necessary for undertaking the projects described in the subparagraphs of paragraph (3).

[This Article Newly Inserted on Dec. 8, 2020]

Article 19 (Seeking Opinions from Residents) (1) The Administrator of the Cultural Heritage Administration or the relevant Mayor/Do Governor shall seek opinions from the residents of the municipality concerned, relevant experts, etc. on the matters listed in the subparagraphs of Article 15 (1).

(2) Matters necessary for seeking opinions under paragraph (1) shall be prescribed by Presidential Decree.

Article 20 (Management of World Heritage by the State) (1) Where any of the following cases occurs, the Administrator of the Cultural Heritage Administration may directly manage the relevant heritage following deliberation by the Cultural Heritage Committee, to ensure the systematic conservation and management of World Heritage:

1. Where the relevant local government requests direct management by the State;
2. Where the World Heritage comprises a contiguous area in two or more Cities/Dos, and thus requires consistent management by the State;
3. Where maintenance of the World Heritage status is determined to be in danger, such as significant loss of value of the World Heritage property due to the negligence of the relevant local government.

(2) Necessary matters for direct management under paragraph (1), such as methods and procedures, shall be prescribed by Presidential Decree.

Article 21 (Cooperation from Relevant Agencies) The Administrator of the Cultural Heritage Administration may request cooperation from the heads of relevant central administrative agencies, the Mayor/Do Governor, or the head of a Si/Gun/Gu, if necessary to achieve the purposes of this Act. In such cases, any person in receipt of such request shall comply therewith except in extenuating circumstances.

Article 22 (Financial Support) The State may, within budgetary limits, fully or partially subsidize expenses to be incurred in undertaking the following projects to local governments or related organizations:

1. Conservation, management and utilization projects;
2. Preparation and maintenance of records relating to World Heritage, and regular inspections thereof;
3. Operation of a consultative council;
4. Research and promotion activities relating to the inscription of the Tentative List properties on the World Heritage List;
5. Academic research, study, technology development, and domestic and international exchange activities relating to the inscription, conservation, management and utilization of World Heritage;
6. Other projects prescribed by Presidential Decree for the conservation, management and utilization of World Heritage at home and abroad.

Article 23 (Delegation and Entrustment of Authority) (1) The Administrator of the Cultural Heritage Administration may partially delegate his or her authority under this Act to the head of a relevant central administrative agency, the Mayor/Do Governor, or the head of a Si/Gun/Gu, as prescribed by Presidential Decree.

(2) The Mayor/Do Governor may partially delegate his or her authority under this Act to the head of the relevant Si/Gun/Gu, as prescribed by Presidential Decree.

(3) The Administrator of the Cultural Heritage Administration or the Mayor/Do Governor may partially entrust his or her authority under this Act to an institution, corporation, organization, etc. established for the purpose of protection, conservation, proliferation or utilization of cultural heritage, as prescribed by Presidential Decree.

ADDENDA <Act No. 16932, Feb. 4, 2020>

Article 1 (Enforcement Date) This Act shall enter into force one year after the date of its promulgation.

Article 2 (Transitional Measures concerning Formulation of Implementation Plan) If any property is inscribed on the World Heritage List before this Act enters into force, the relevant implementation plan shall be formulated within two years from the date on which the comprehensive plan is publicly announced.

Article 3 Omitted.

ADDENDA <Act No. 17587, Dec. 8, 2020>

Article 1 (Enforcement Date) This Act shall enter into force on February 5, 2021.

Article 2 (Preparatory Activities for Establishment of the UNESCO World Heritage

International Center) (1) The Administrator of the Cultural Heritage Administration shall commission seven or less promoters to handle administrative affairs relating to the establishment of the UNESCO World Heritage International Center, within 30 days from the date of promulgation of this Act.

(2) The promoters shall prepare the articles of incorporation of the UNESCO World Heritage Center and obtain authorization from the Administrator of the Cultural Heritage Administration, and then register its incorporation without delay.

(3) Upon completing registration for the incorporation of the UNESCO World Heritage Center, the promoters shall transfer the administrative affairs to the chief director of the UNESCO World Heritage International Center, without delay.

(4) The promoters shall be deemed decommissioned upon completion of the transfer of the administrative affairs under paragraph (3).

Gaya Tumuli

Additional Information Requested
by ICOMOS

Gaya Tumuli

Additional Information Requested
by ICOMOS

Republic of Korea

Gaya Tumuli

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February 2022

Republic of Korea

CONTENTS

Additional Information Requested by ICOMOS

Summary	01
Item 1. Selection of component parts	13
Item 2. Excavation and exhibition of objects	111
Item 3. Protection	129

Summary

Item 1. Selection of component parts

In the nomination dossier and the additional information provided in November 2021, the State Party described how the general area of the Gaya Confederacy was defined, using the distinctive elongated stone-lined chamber burials and the Gaya-style pottery as indicators. However, the property is nominated as a serial property with seven component parts, to a certain extent due to the information from the historic sources that indicate that the confederacy had between 6 to 12 parts. The information that has been submitted also mentions that the division of the Gaya culture into its confederated sub-entities is indicated archaeologically by variations of the distinctive elements, for example the footed bowl and the jar pedestal.

- Q 1-2, ICOMOS would be pleased if the State Party could further explain how the different sub-entities are defined, what attributes or combination of attributes are used to identify a cemetery or a grave as belonging to one or another sub-entity? This information could be supplied, for example, in the form of a map and a list of frequencies of the distinctive attributes. (Main text: pp. 21–63)
- Q 1-1, For five of the polities mentioned in the historical records, a political centre is identified. The ICOMOS Panel would be grateful to understand how well do the nominated cemeteries coincide with the indicated geographical points and how were the other two cemeteries identified. (Main text: pp. 13–20)
- Q 1-3, Surveys and excavations are mentioned in the additional information. However, ICOMOS would be pleased if further detailed information could be provided on the following matters: what are the characteristics that identify a cemetery of the highest elite, and how many and which of the 1,049 known cemeteries have these characteristics? How can it be shown that the seven selected cemeteries are representing confederated political entities of comparable power? This information could be supplied through a map showing the spatial distribution of the characteristics and quantitative data, for example, in frequency tables. (Main text: pp. 64–110)

* Regarding the questions posed under the heading "Selection of component parts," the State Party would like to address them in order as numbered above in order to provide a clear explanation of the selection of the component parts.

1-1. The political centers of the seven sub-entities comprising the Gaya Confederacy have been confirmed based on historical documents produced in Korea, China, and Japan, as well as through archaeological investigations. The names of five of the seven Gaya polities (Geumgwangaya, Aragaya, Daegaya, Sogaya, and Bihwagaya) are found in the 13th-century Korean history *Samguk yusa* (*Memorabilia of the Three Kingdoms*). The place names respectively matched with these five Gaya members in this 13th-century history continue to appear in documents published in the 14th through 19th centuries. They are still used as the names for the local administrative districts today. These locations serving as the political center of each Gaya polity have been confirmed archaeologically as well. Regarding the other two sub-entities, there are no available historical accounts paring the polity name with a name for the area of its political center. However, records can be found in historical documents from Korea, China, and Japan that include allusions to their sites. Historians have studied the locations of the remaining two Gaya polities since the mid-20th century. Archaeological surveys of the areas previously controlled by Gaya began in earnest in the 1980s. Findings from the archaeological investigations carried out to date have also contributed to identifying the political centers and geographical boundaries of these two Gaya polities.

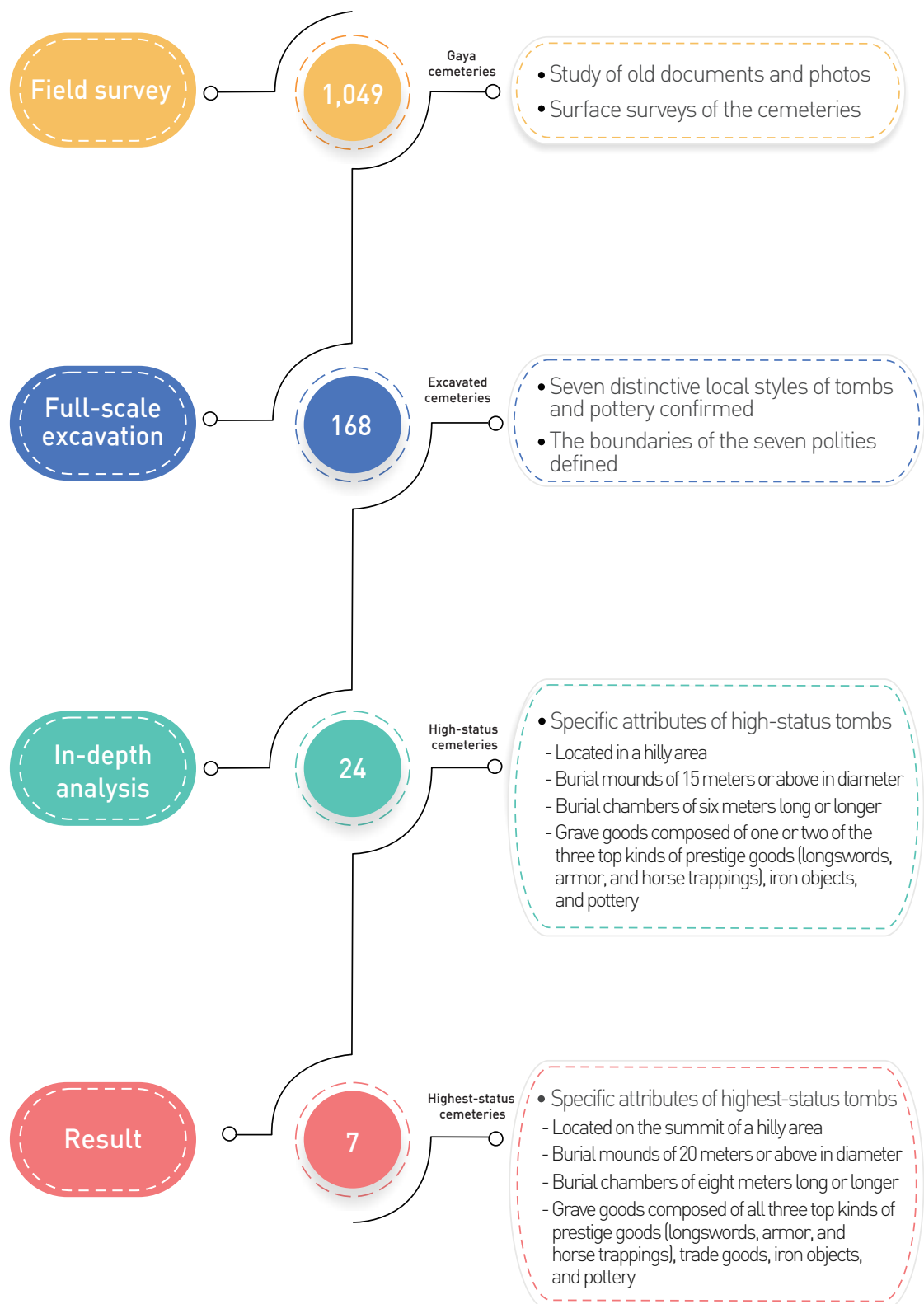
1-2. Local tomb and pottery styles have been established through excavations at major cemeteries within the individual Gaya polities and have been employed as standards for determining the Gaya polity to which a tomb or cemetery belongs. They are also used to define the boundaries of the polities. As members of a greater entity, the individual sub-entities within the Gaya Confederacy shared overall characteristics of their funerary culture, such as using hilly areas as burial grounds, constructing long, slender burial chambers, and interring pottery as burial goods. Meanwhile, they also developed distinctive local features in their burial practices, particularly in tomb construction and interred pottery. The individual Gaya polities also maintained different sets of trade partners, a fact that is reflected in

the grave goods excavated from their tombs. It is widely agreed among the archaeologists studying Gaya that tombs and pottery are effective indicators marking the geographical boundaries of the Gaya sub-entities.

1-3. Gaya tombs can be generally classified into three hierarchical tiers depending on their topographical elevation, spatial relations with other tombs, diameter of burial mounds, size of burial facilities, and the composition, volume, and sophistication of the burial goods. The three tiers are made up of the highest, second-highest, and lowest ranks, and are believed to have been respectively built for the top leaders of each polity, ordinary members of the ruling class, and commoners. Among the multiple cemeteries found within the bounds of each of the seven Gaya polities, the cemetery hosting the largest number of highest-rank tombs has been considered to be the one with the highest status for that specific polity. Out of the 1,049 known Gaya cemeteries, seven have been so selected as the loftiest for their respective polities. The seven selected cemeteries were built for the top elites of Gaya and are similar to each other in terms of the size of the burial mounds and burial chambers and in the quality of the grave goods found within them. This attests to the existence of federated states with comparable levels of power. The dispersed locations of the seven highest-status cemeteries demonstrate how Gaya was a confederation of multiple members with various political centers existing within the area. The seven cemeteries testify to the Gaya polities' status as members of a confederated entity through their distinctive local styles of tombs and pottery, shared occurrence of all three top kinds of prestige goods (longswords, armor, and horse trappings) at individual tombs, and excavation of imported objects testifying to independent diplomatic relations.

The seven cemeteries offer exceptional testimony to Gaya, a unique ancient East Asian civilization that coexisted with its more strongly centralized neighbors while maintaining a distinct confederated political system. The nominated property is important evidence of the diversity found among

ancient East Asian civilizations. The Daeseong-dong Tumuli exemplifies an early form of the funerary practices shared within the Gaya Confederacy. As tomb construction at the Marisan Tumuli took place throughout the entire span of Gaya history, this cemetery testifies to the evolution of burial practices in Gaya. The Okjeon Tumuli attests to the energetic interchanges that occurred among the Gaya polities. The Jisan-dong Tumuli embodies the distinctive funerary culture of Gaya at its apogee. The Songhak-dong Tumuli demonstrates the active maritime interchanges Sogaya conducted with Baekje and Japan. The Yugok-ri and Durak-ri Tumuli offer evidence of the extent of the Gaya Confederacy's expansion to the northwest. The types of burial and grave goods found in the Gyo-dong and Songhyeon-dong Tumuli attest to the energetic trade Bihwagaya maintained with Silla.



Item 2. Excavation and exhibition of objects

- Q 2-1. ICOMOS would appreciate if the State Party could provide details about the inventorisaton, conservation / storage and exposition of the archaeological material (including human remains) excavated at the components. (Main text: pp.111–120)
- Q 2-2. Furthermore, ICOMOS would like to know if it is planned to excavate further on the nominated property component parts? (Main text: pp. 121–123)
- Q 2-3. Has a Research Strategy / Framework for the property, with clearly defined objectives and methodology, been developed? (Main text: pp. 124–128)

2-1. Archaeological materials (including human remains) excavated from the nominated property undergo conservation treatment by the research institute that carried out the excavation. The excavated objects are inventoried by the pertinent archaeological research institute and, within two years after the completion of excavations, are uploaded to a central online platform operated by the Cultural Heritage Administration. The excavated objects are entrusted to the Cultural Heritage Administration, which then sends the items to the National Museum of Korea (including its local branches) and to the municipal museums associated with the nominated cemeteries for public display and daily management.

2-2. Four of the seven cemeteries—the Okjeon Tumuli, Jisan-dong Tumuli, Songhak-dong Tumuli, and Gyo-dong and Songhyeon-dong Tumuli—have plans for excavations within the property area. These excavations are all part of the efforts to restore the stability of damaged burial mounds and repair visitor paths or drainage systems, or they are at sites from which harmful trees are to be removed. At the Daeseong-dong Tumuli, Marisan Tumuli, and Yugok-ri and Durak-ri Tumuli, excavations are planned in the buffer zones. These are specifically excavations on the areas north of the Daeseong-dong Tumuli for the construction of a wider Gaya history belt, on a site at which

old houses are to be dismantled at the Marisan Tumuli, as well as on the site of a cemetery museum to be built at the Yugok-ri and Durak-ri Tumuli.

2-3. Research strategies for the nominated property are included in the Comprehensive Maintenance Plans and the Integrated Management Plan. The Comprehensive Maintenance Plan is a regularly-updated medium-term conservation strategy established for each of the seven cemeteries. The Integrated Management Plan, included in Chapter 7 of the nomination dossier, is a research plan established to support the conservation of the seven cemeteries as a potential World Heritage site. According to the Special Act on the Conservation, Management, and Utilization of World Heritage, after inscription the Cultural Heritage Administration draws up a framework plan for the conservation of World Heritage properties in the Republic of Korea, including the Gaya Tumuli. The provincial and municipal governments holding jurisdiction over the seven cemeteries will prepare implementation plans and annual action plans. All of these plans will also include research strategies and objectives for the Gaya Tumuli.

Item 3. Protection

- Q 3-1. ICOMOS would be pleased to receive further information on the surveys undertaken in order to detect the limits of the cemeteries. (Main text: pp. 129–136)
- Q 3-2. Where there any elements of the cemeteries affected by urban development in the past? This information can also be supplied through maps. (Main text: pp.137–141)
- Q 3-3. How will the current legal protection effectively protect the nominated property from this threat in the future? (Main text: pp. 142–144)

3-1. The limits of the nominated cemeteries were first roughly identified based on the typical topographical characteristics of Gaya cemeteries and then more precisely defined through archaeological investigations. In Gaya society, ruling-class burials were constructed on a hill within the political center of each component polity. The entire hill would be used as a burial ground for members of the ruling class. Based on this topography, it was possible to generally identify the overall boundaries of each of the seven nominated components. The visually detected contours of the seven components were then refined based on archaeological investigations carried out around the cemeteries. The boundaries of all seven cemeteries have been precisely delineated through this process.

3-2. Among the seven nominated cemeteries, some are found in urban settings and others in rural areas. While the cemeteries situated in rural environments have been spared the impact of urbanization, those located in urban clusters have been affected to different extents by the development activities around them. Areas somewhat affected by urban development are the Marisan Tumuli, Songhak-dong Tumuli, and Daeseong-dong Tumuli. At the Marisan Tumuli, the northern portion of the hilly area was severed from the rest of the cemetery during the colonial era by the construction of a railway. At the Songhak-dong Tumuli, the residential area initially

formed to the south of the hilly cemetery expanded into the areas east of the cemetery. During this process, Tomb No. 7 became surrounded by residential structures. In the case of the Daeseong-dong Tumuli, the processes of urbanization had a positive impact on the conservation of the cemetery. The presence of the Daeseong-dong Tumuli was only brought to light through a test excavation carried out amid the development boom of the 1990s. With the discovery of ancient tombs at the site of a development project planned in the area now known to be the Daeseong-dong Tumuli, the Gaya cemetery was instead placed under government protection. Although some parts of the nominated cemeteries have been affected by development in the past, they are now all rigorously protected based on the Cultural Heritage Protection Act and through the new regulations introduced into the act in the 2000s.

3-3. The current provisions of the Cultural Heritage Protection Act are fully sufficient for protecting the nominated property from future threats. Under the legal protection system provided under the Cultural Heritage Protection Act, the seven nominated cemeteries are respectively designated as a Historic Site. Each Historic Site is preserved as a protected zone called a Heritage Area, which is in turn surrounded by an additional layer of protection known as a Historic and Cultural Environment Conservation Area (or the Conservation Area). Development is restricted within a Conservation Area by dividing the area into several zones and setting standards for what is respectively allowable. The Heritage Area and the Conservation Area at each of the seven nominated cemeteries mostly correspond with its property area and buffer zone. Furthermore, the nominated property will benefit from the provisions of the Special Act on the Conservation, Management, and Utilization of World Heritage after inscription. In line with the enactment of the World Heritage law, efforts are currently underway to introduce Heritage Impact Assessment into the domestic legal protection system.

Main text

Item 1. Selection of component parts

Q 1-1. For five of the polities mentioned in the historical records, a political centre is identified. The ICOMOS Panel would be grateful to understand how well do the nominated cemeteries coincide with the indicated geographical points and how were the other two cemeteries identified.

Information on the Gaya Confederacy and its members is present in a range of historical records from Korea, China, and Japan. The most extensive records can be found in the 13th-century Korean history *Samguk yusa* (*Memorabilia of the Three Kingdoms*). It includes an account that pairs the name of a Gaya polity with its seat of power. It reads, "... Aragaya, located in what is now Haman; Goryeonggaya, located in what is now Hamnyeong; Daegaya, located in what is now Goryeong; Seongsangaya, located in what is now Gyeongsan or Byeokjin; Sogaya, located in what is now Goseong; ... Geumgwan, located in what is now Gimhae-bu; ... Bihwa, located in what is now Changnyeong or Goryeong." These polity and place names continue to appear in subsequent records from the 14th through 19th centuries as well. Out of these seven provided in *Samguk yusa*, five—Geumgwangaya (the political center located in what is now Gimhae City), Aragaya (Haman County), Daegaya (Goryeong County), Sogaya (Goseong County), and Bihwagaya (Changnyeong County)—have been confirmed archaeologically. The place names matched with these five Gaya polities in the 13th century are still in use as the names of the local administrative districts, and five of the seven nominated cemeteries are respectively found in these administrative districts. In addition, the 12th-century Korean history *Samguk sagi* (*History of the Three Kingdoms*) records the new place names that the Silla Kingdom assigned to areas it captured when it conquered the confederated Gaya polities in the 8th century, offering critical information in tracing how the names of the Gaya areas evolved over time.

Although not included in *Samguk yusa*, the names of the two polities respectively centered in what are now Hapcheon County and Namwon City are recorded as part of the Gaya Confederacy in other Korean, Chinese, and Japanese documents. Historical research on these two Gaya polities has been actively carried out since the early 20th century. Archaeological investigations that have been conducted in the Gaya region since the 1980s have identified two distinct cultural spheres apart from the five known Gaya sub-entities. Within each of these two cultural zones, the area with the greatest number of high-status tombs, largest burial facilities, and the quantity and quality of burial goods has been identified as its political center. The process of confirming the political center of each Gaya polity based on archaeological evidence is detailed in Section 1-2. The historical records mentioning the political center of each Gaya polity are as follows.

Geumgwangaya is recorded in *Samguk yusa* as being centered in "Gimhae," which corresponds with today's Gimhae City in Gyeongsangnam-do Province. The 13th-century Korean history also recounts that in 42 CE King Suro set Geumgwangaya's seat of power in Gimhae and constructed a palace there. The 12th-century history *Samguk sagi* relates that the tenth ruler of "Garakguk" surrendered to Silla in 532 and Silla renamed the newly acquired area "Geumgwanguk." It goes on to note that in the 8th century King Gyeongdeok of Silla changed the name again to "Gimhaesogyong." Narratives similar to this 12th-century version can be found in 15th-century documents as well, such as *Joseon wangjo sillok* (*Annals of the Joseon Dynasty*) and *Gyeongsangdo jiriji* (*Geography of Gyeongsang-do Province*). The 3rd-century Chinese history *Sanguozhi* (*Records of the Three Kingdoms*) includes the name Byeonjin Guyaguk. Along with this name, the terms Garakguk and Geumgwanguk in *Samguk sagi* are considered to refer to the Gaya polity named Geumgwangaya in this nomination. Today's Gimhae City, which previously housed the political center of Geumgwangaya, has produced a great volume of Gaya archaeological remains ranging from cemeteries to earthen walls, residential sites, and shell mounds. Within the bounds of

Geumgwangaya, cemeteries have been discovered in 120 places. Based the size of individual tombs and the quantity and quality of the burial goods, the Daeseong-dong Tumuli has been determined to be the burial ground for top members of the ruling class of Geumgwangaya.

Samguk yusa accounts that Aragaya was centered in "Haman," which is what is known today as Haman County, Gyeongsangnam-do Province. Other names are found in historical records that are thought to refer to Aragaya, including "Byeonjin Anyaguk" in *Sanguozhi* and "Asiryangguk" and "Anagaya" in *Samguk sagi*. It is recorded in *Samguk sagi* that Aragaya was conquered by King Beopheung of Silla in the 6th century, and its political center was renamed as Haman County in the 8th century during the reign of King Gyeongdeok of Silla. Present-day Haman County, which once housed the political center of Aragaya, has many sites dating to the Gaya period, including cemeteries, earthen walls, residential sites, and kiln sites. About 140 cemeteries have been discovered within the area previously controlled by Aragaya. At the Marisan Tumuli, a total of 127 mounded tombs are concentrated in a two-kilometer-long hilly area.

The polity Daegaya is paired with a place named Goryeong in the 13th-century Korean record *Samguk yusa*. Goryeong corresponds with today's Goryeong County in Gyeongsangbuk-do Province. Korean historical records from the 15th to 19th centuries relate that Goryeong County used to be "Daegayaguk," which lasted 520 years and was ruled by a succession of 16 sovereigns. These records also state that Daegayaguk was taken over by King Jinheung of Silla in 562 CE and immediately renamed "Daegaya County." It was later renamed "Goryeong County" in the 8th century during the reign of King Gyeongdeok of Silla. The 16th-century Korean geography *Sinjeung dongguk yeoji seungnam* (*Enlarged Edition of the Augmented Geography of Korea*) offers relatively extensive information on Daegaya, including on its founding myth, high-status cemeteries, palace sites, and eventual demise. The founding myth from this 16th-century document describes the founders of Daegaya and Geumgwangaya as brothers, making an important

contribution to the current understanding of Gaya as a confederated state. Previously accommodating the political center of Daegaya, Goryeong County has a rich reservoir of Gaya-period archaeological sites, including burial grounds and residential areas. There are also several fortresses identified as belonging to the Gaya period. Roughly 220 Gaya cemeteries have been discovered in the former Daegaya region, with the Jisan-dong Tumuli topping the list in terms of the size of individual tombs and the volume and quality of burial goods. At the Jisan-dong Tumuli, 704 mounded tombs can be found on a hilly area stretching 2.4 kilometers long and one kilometer wide.

Sogaya is mentioned in the 13th-century Korean history *Samguk yusa* as have been centered at "Goseong," which refers to present-day Goseong County in Gyeongsangnam-do Province. Historians agree that the Gaya polity centered in Goseong is the same entity as those referred to by different names in various historical records, such as "Gojami Dongguk" in the 3rd-century Chinese history *Sanguozhi* and "Gosapoguk" in the 12th-century Korean history *Samguk sagi*. Later documents produced in Korea from the 15th through 19th centuries relate that Goseong used to be known as "Sogayaguk," which was taken over by Silla, given the name "Goja County," and then renamed "Goseong County" in the 8th century during the reign of King Gyeongdeok of Silla. *Samguk yusa* also gives an account of a war waged against Silla by eight small Gaya states, including Sogaya. Historians interpret this war as a military confrontation between the Gaya Confederacy and Silla over control of maritime trade. Recorded as the center of Sogaya, today's Goseong County has an abundance of Gaya-period archaeological remains such as tombs, residential sites, and shell mounds. The recently discovered earthen fortress at Mt. Mallimsan in this area has been dated to the Gaya period as well. Within the limits of the area previously controlled by Sogaya, about 160 Gaya cemeteries have been found. Among them, the Songhak-dong Tumuli is believed to have been the burial ground for the top leaders of Sogaya. The Songhak-dong Tumuli has a concentration of 11 tombs topped with mounds that are 15 to 35 meters in diameter.

According to *Samguk yusa*, Bihwagaya had its political center at "Changnyeong," what is now known as Changnyeong County in Gyeongsangnam-do Province. Historians believe that Bihwagaya was referred to by different names in other historical records, including "Bulsaguk" in *Sanguozhi* and "Bijiguk," "Bisabeol," and "Bijahwa" in *Samguk sagi*. *Samguk sagi* offers further information on Bihwagaya: What is now Changnyeong was originally called Bijahwa County, and it was conquered by King Jinheung of Silla in 555 and renamed "Hwawang County" in the 8th century upon orders from King Gyeongdeok of Silla. Hwawang County was again renamed in the 10th century, this time to Changnyeong County. About 110 Gaya cemeteries have been found within the former territory of Bihwagaya. Given the size of the individual tombs and the quality and quantity of their grave goods, the Gyo-dong and Songhyeon-dong Tumuli is believed to have been the highest-status cemetery of Bihwagaya. A total of 115 mounded tombs were constructed at the Gyo-dong and Songhyeon-dong Tumuli in a hilly area 1.8 kilometers long.

Records on the Gaya polity of Daraguk can be found in the 6th-century Chinese document *Liang Zhigongtu*. A collection of paintings illustrating foreign envoys presenting tribute to Liang China, *Liang Zhigongtu* contains an image of Baekje emissaries and names nine polities near Baekje. Among these nine is Daraguk. Hapcheon County, where the Okjeon Tumuli is located, was previously known as Daeryang or Daeya, names phonetically similar to Dara. In addition, the area around the Okjeon Tumuli is addressed as Dara in the genealogical record of a prominent local family. The neighborhood formed to the east of the Okjeon Tumuli is in fact still named Dara. Based on this body of evidence, historians presume that today's Dara-ri area in Hapcheon County, where the Okjeon Tumuli is located, is the former center of Daraguk. With the discovery of Gaya sites and objects in the eastern portion of Hapcheon County in the 1980s, archaeologists came to realize that this area used to form part of the Gaya area. As the uncovered burial constructions and pottery types were distinct from those discovered in other Gaya polities, they entertained the possibility of a separate Gaya sub-entity having existed in this area. Further archaeological work carried out at the Okjeon Tumuli and its

surrounding areas in the following decades have confirmed the existence of an independent Gaya polity here through the excavation of distinctive burials and pottery that can be understood as marking a unique cultural sphere. There are about 50 cemeteries in the eastern portion of Hapcheon County that are believed to have been constructed by people from Daraguk. Among them, the Okjeon Tumuli is presumed to have served as the burial ground for the elite members of the ruling class given the size of individual tombs and the volume and artistic sophistication of the burial goods.

Accounts on the Gaya polity centered in what is now Namwon City are contained in various Korean, Chinese, and Japanese historical records. Names referring to this Gaya polity differ slightly from document to document, such as Gimul, Samun, and Gimun. Historians generally agree that this Gaya polity was located on what is today the Unbong Plateau. In the 1970s, archaeologists realized that the Namwon and Jangsu areas once fell within Gaya territory based on the discovery of Gaya tombs and pottery there. High-status cemeteries were also found concentrated in the Unbong Plateau area. In the 1980s, the Unbong Plateau in Namwon City was subjected to extensive archaeological investigations. The excavations found a body of burial constructions and pottery pieces that present a set of local variations distinct from the surrounding Gaya areas. Based on these historical and archaeological findings, scholars generally agree that an independent Gaya sub-entity variously addressed as Gimul, Samun, and Gimun in different historical records was formed in the Namwon and Jangsu areas and that this polity was centered on the Unbong Plateau, specifically the Ayeong-myeon neighborhood where the Yugok-ri and Durak-ri Tumuli is located. Opinions vary regarding the extent of the area controlled by this Gaya polity—ranging from as extensive as the Namwon, Jangsu, and Imsil areas in the upper reaches of the Seomjingang River to covering just the Namwon and Jangsu areas or even to a space restricted to the Unbong Plateau in the Namwon area. However, there is a consensus that there existed an independent Gaya polity in the Unbong Plateau area. About 40 Gaya cemeteries have been discovered on the Unbong Plateau, and among them the

Yugok-ri and Durak-ri Tumuli is believed to be the highest-status cemetery based on the size of the individual tombs and the volume and artistic sophistication of the grave goods. The Yugok-ri and Durak-ri Tumuli has a concentration of 40 tombs with burial mounds of 10 to 35 meters in diameter.

• **Historical names of the Gaya polities responsible for constructing the nominated cemeteries**

Although Gaya itself left no written historical records, accounts on this confederated state on the Korean Peninsula can be found in contemporaneous and later documents compiled in Korea, China, and Japan. Among these accounts are the names of sub-entities of Gaya. Each polity is referred to using diverse names in the various historical records, including a name with the suffix *gaya*. These names are the ones most widely applied not only in academia, but also among local communities. For the purpose of this nomination, the names with the suffix *gaya* are preferred. Five of the seven Gaya polities have this type of name recorded in historical records: Geumgwangaya, Aragaya, Sogaya, Daegaya, and Bihwagaya. For the Gaya polity located in what is now Hapcheon County, its name consistently appears as "Dara" across different historical records. Therefore, this polity is expressed as Daraguk with the suffix *guk* denoting "state" or "polity." Regarding the remaining polity located on what is now known as the Unbong Plateau in Namwon City, historical records offer diverse names that share certain similarities. This polity is termed Gimunguk in the nomination dossier. However, for the purpose of this supplemental information, the State Party would like to present all these diverse names for this polity Gimul from *Samguk sagi*, Samun or Gimun from *Liang Zhigongtu* (for your information, the Chinese characters 巳 (*sa*) and 己 (*gi*) are easily mistaken for each other in the process of producing manuscripts), and Gimun from other historical records.

It is assumed that this Gaya polity on the Unbong Plateau was given diverse names during the process of transcribing orally-transmitted local names into Chinese characters or due to careless mistakes by scribes while producing manuscripts. Irrespective of the slight phonetic differences among the historical names referring to this polity, historians and archaeologists agree that there existed a distinct Gaya polity in this area.

Item 1. Selection of component parts

Q 1-2. ICOMOS would be pleased if the State Party could further explain how the different sub-entities are defined, what attributes or combination of attributes are used to identify a cemetery or a grave as belonging to one or another sub-entity? This information could be supplied, for example, in the form of a map and a list of frequencies of the distinctive attributes.

Tomb and pottery styles that have been identified in association with individual Gaya polities based on early excavations at major cemeteries have been adopted as barometers to determine the Gaya sub-entity to which a particular grave or cemetery belongs, and ultimately to define the boundaries of the areas controlled by the respective Gaya polities. In this section, general attributes characterizing Gaya cemeteries will be presented first, followed by detailed information on how the areas of individual Gaya polities have been identified using local tomb and pottery styles.

• General characteristics of Gaya cemeteries

Topographical characteristics of Gaya cemeteries

Large overground tombs were being built all across the Korean Peninsula in the first centuries CE. What distinguished the tombs constructed by Gaya from those of the contemporaneous states on the Korean Peninsula (Goguryeo, Baekje, and Silla) was their clustering along the ridges of hills.

The Bronze Age started in Korea around the 20th to 15th centuries BCE and lasted until the 3rd century BCE. During this period, dolmens and ground-level stone chambers without a burial mound were widespread. Over the course of the centuries from the 3rd BCE to the start of the Common Era underground wooden coffins were the dominant form of burial. Large burial mounds had not yet appeared.

Around the start of the Common Era, the burial practice of constructing a large overground structure came into being. In Goguryeo, large-scale stone-piled tombs were built in a rectangular or circular form. In Baekje, Silla, and Gaya, tombs were topped with a large burial mound. Gaya burial mounds were relatively low until large burial mounds started being constructed in the area controlled by Gaya in the fifth century. Gaya burial mounds were mostly more than five meters in diameter and sometimes even surpassed 50 meters. Gaya fell to Silla in the late 6th century, a point when the predominant burial practices in Korea were shifting toward smaller mounds and independent compounds for high-status tombs. Silla brought the Korean Peninsula under unified rule in the late 7th century, and a funerary custom of installing steles and images of humans or animals around tombs was introduced in the 8th century. During the Joseon era, various architectural structures and stone images were built at royal tombs. Some mounded tombs from later periods remain in the area previously controlled by Gaya, but they are clearly distinct from those constructed by Gaya in terms of both their size and the presence of stone images.

Large Gaya burial mounds are found in dense clusters on hilly areas. The preference for hilly areas and high tomb density are important attributes of Gaya tomb clusters that mark the extent of the area previously ruled by Gaya. There have been found 1,049 Gaya tomb clusters or cemeteries within the Gaya region.

Figure 1. Tombs clustered at the Jisan-dong Tumuli (left) and the Gyo-dong and Songhyeon-dong Tumuli (right)



Characteristics of Gaya tombs

The first excavations at Gaya cemeteries took place in the early 20th century under Japanese colonial rule. However, a relatively firm understanding of Gaya burial constructions was not reached until the 1970s when archaeological investigations of Gaya cemeteries were undertaken under the government of the Republic of Korea. At the time, Gaya tombs in the Gimhae, Changnyeong, and Goryeong areas were excavated, revealing the first example of a Gaya wooden chamber (dating to the 4th century) and indicating that stone-lined burial chambers with a long and slender form exist across the region previously controlled by Gaya. Tomb No. 44 at the Jisan-dong Tumuli was excavated in 1977, bringing to light a particular tomb construction consisting of 32 stone-lined chambers under a single burial mound. The 32 chambers are made up of one main chamber and 31 subsidiary chambers used for interring grave goods or human sacrifices. This tomb style consisting of multiple elongated stone-lined chambers that was discovered at the Jisan-dong Tumuli clearly set Gaya tombs apart from those built by Goguryeo, Baekje, and Silla, serving as an opportunity to spark public interest in Gaya burial practices.

During the 1980s, many more cemeteries within the Gaya area were subjected to archaeological excavation. Through extensive explorations, it was confirmed that the predominant form of burial in the Gaya area evolved from wooden coffins in the 1st and 2nd centuries to wooden chambers in the 2nd to 5th centuries and then to stone-lined chambers in the 4th to 6th centuries and chamber-corridor tombs in the 6th century. In addition, comparative analysis was carried out between Gaya tombs and those built by Baekje and Silla. Through these efforts, the concept of a Gaya-type stone-lined chamber burial was established, which is characterized by an elongated shape defined by a length-to-width ratio of 4 to 1 or greater. The Marisan Tumuli, Jisan-dong Tumuli, and Gyo-dong and Songhyeon-dong Tumuli were excavated during this period, revealing different local variations in tomb construction and giving rise to the conceptualization of a Gaya Confederacy consisting of multiple cultural spheres defined by distinctive local

types of burial. Archaeologists were increasingly perceiving tomb constructions as a critical indicator for identifying the geographical limits of the respective Gaya polities.

The 1990s witnessed active archaeological investigation of the entire Gaya region. Investigations focused on cemeteries in the political centers of the individual Gaya polities, bringing to light local characteristics of tomb construction and pottery and analyzing them in comparison with those found in the political centers of other Gaya polities. A large body of research findings were published arguing that sub-entities of the Gaya Confederacy shared funerary practices while developing distinctive local traditions. Archaeologists were working to establish the particular style of tomb construction characteristic of the individual Gaya members and, based on the distribution of these local styles of tomb construction, to identify the geographical bounds of each polity. During this period, determination of a distinctive style took place at two of the nominated cemeteries—the Daeseong-dong Tumuli and Okjeon Tumuli. Archaeological excavation was carried out at the Daeseong-dong Tumuli for the first time in the 1990s and produced wooden chamber burials with two pits, one for the tomb occupant and another for the burial goods. Archaeologists termed this type of wooden chamber burial the Daeseong-dong style. Later excavations found that this type of wooden chamber burial widely occurred in Gimhae City and other areas in the lower Nakdonggang River basin, and it was subsequently renamed the Geumgwangaya style. Excavations took place at the Okjeon Tumuli for about 10 years starting in 1985. These investigations discovered a particular form of stone-lined chamber characterized by an interior wall dividing the space between the tomb occupant and the burial goods. This type of stone-lined chamber was named the Daraguk style.

In the 2000s, investigations were expanded beyond the political centers of the Gaya polities to include the surrounding areas, contributing to defining the geographical bounds of each sub-unit of Gaya. First investigated in 1999, the Songhak-dong Tumuli produced examples of a particular style of tomb

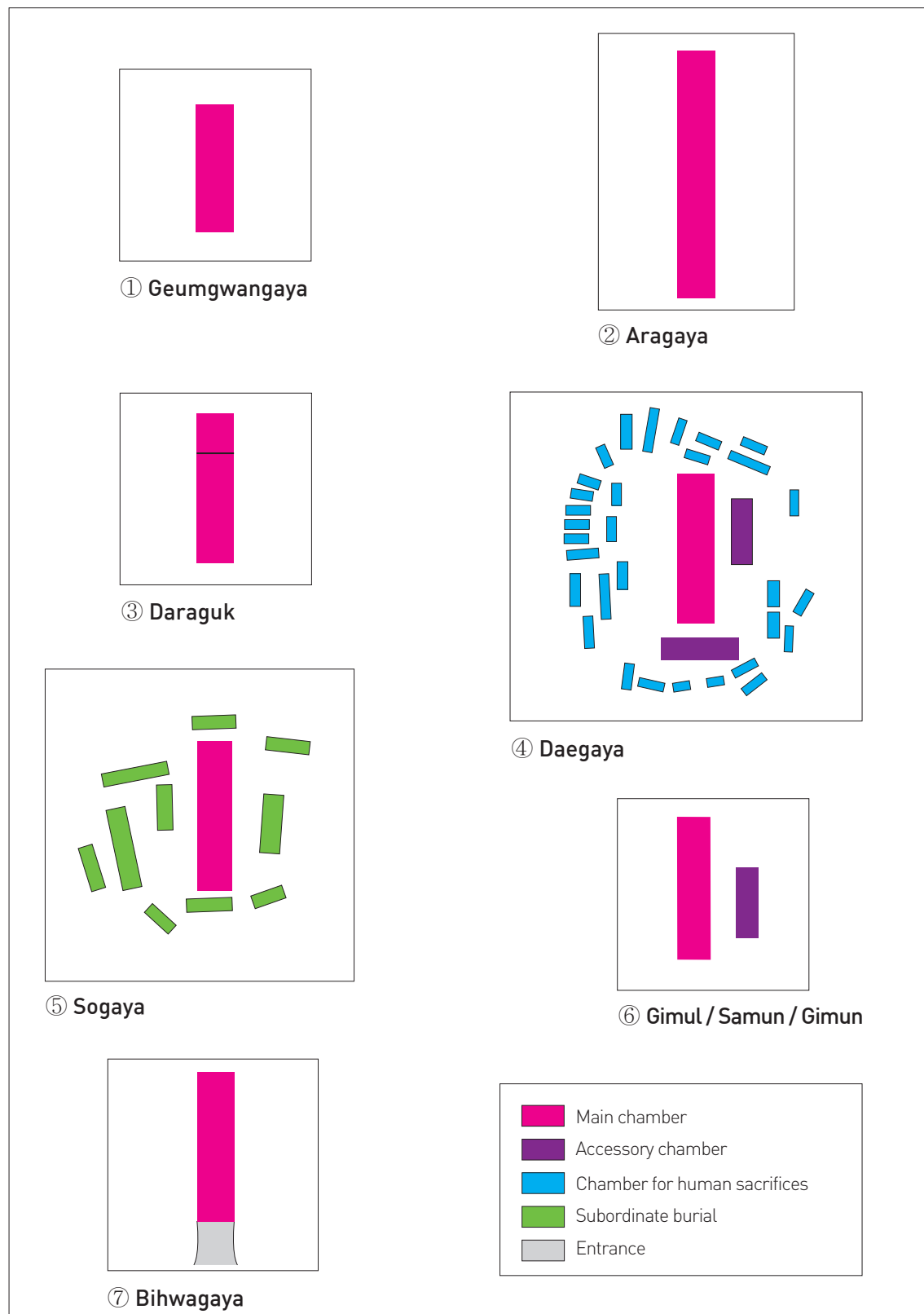
construction comprised of a large chamber surrounded by smaller chambers. This form of stone-lined chamber was defined as the Sogaya style. In the following years, more cemeteries in and around Goseong County (the Naesan-ri Tumuli in Goseong County, the Gajwa-dong Tumuli in Jinju City, and the Myeongdong Tumuli in Sancheong County) were excavated. They all produced Sogaya-style tombs that contributed to defining the geographical limits of the Sogaya polity. Aragaya-style stone-lined chambers are characterized by the division of the burial space. The internal space of a distinctively elongated stone-lined chamber is separated without walls to allow three uses from top to bottom: for placing burial goods, interring the tomb occupant, and burying human sacrifices. This type of stone-lined chamber has been found not only at the Marisan Tumuli, but also at other cemeteries in Haman County (including the Ogok-ri Tumuli and Hyeon-dong Tumuli) and at others in the western portion of Changwon City. The defining attribute of the Bihwagaya style is an opening made on one side of the stone-lined chamber. This tomb type was first discovered in the 1980s with the excavation of the Gyo-dong and Songhyeon-dong Tumuli. However, it only came to be fully identified as a particular local style in the 2000s with the excavation of additional cemeteries in the area previously controlled by Bihwagaya. Excavation of cemeteries located on the Unbong Plateau, including the Yugok-ri and Durak-ri Tumuli, in the 1980s confirmed that the area's tombs exhibit characteristics of Gaya tombs. At the time, however, investigators were not focused on determining local styles of tomb construction. With the acceleration of archaeological investigation in the Sobaeksan Mountain Range area in the 2000s, it could be confirmed that stone-lined tombs constructed on the Unbong Plateau are characterized by a set of two chambers respectively used for the tomb occupant and for burial goods.

Since the start of the 2010s, the focus of research has extended beyond stone-lined burials and on to corridor-chamber tombs. Corridor-chamber tombs appeared in the sixth century and were exclusively constructed for members of the ruling class. Academic investigations into the architectural structure and construction methods adopted for corridor-chamber tombs

have provided information on the relations among the ruling groups of different Gaya polities and the extent of the territory over which particular sub-entities in the Gaya Confederacy had influence. For example, the corridor chambers built by Daegaya are characterized by a length-to-width ratio of 2:1 and by an entrance set on one side far to the left or right. Corridor chambers rendered in this style are widely found in what is now known as Goryeong and Hapcheon Counties, which were previously controlled by Daegaya. Daegaya corridor chambers can also be found as far from Daegaya's political center as Sancheong and Uiryeong Counties. Sogaya constructed its corridor chambers in a distinctively elongated form with an entrance set in the center of one side. They are found in abundance in Goseong County and Jinju City and also in Suncheon City. Research to study the characteristics, distribution, and origins of the corridor chambers is being carried out on an ongoing basis.

The tombs constructed in the Gaya period offer critical information for defining the areas under the control of the Gaya Confederacy. Their local variations also serve as key indicators for confirming the geographical bounds governed by each Gaya polity. Construction of stone-lined chambers and corridor chambers exhibiting distinctively Gaya attributes came to a halt in the late 6th century. Around this period Silla-style corridor-chambers began to appear in the former Gaya area. Archaeologists have described this as an eloquent piece of evidence testifying to the fall of Gaya.

Figure 2. Distinctive stone-lined chamber styles of the Gaya polities



Characteristics of Gaya pottery

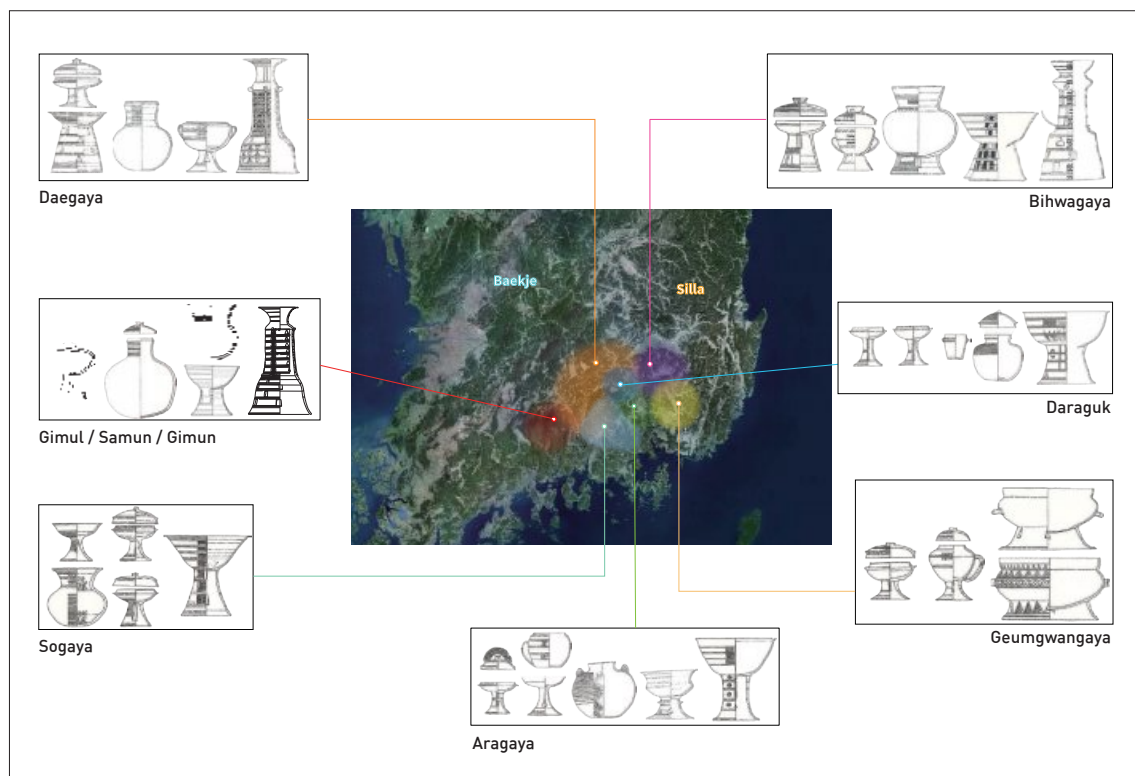
Gaya pottery was produced throughout the history of the Gaya Confederacy. It was based on existing plain pottery and fold-rimmed pottery traditions, but adopted Chinese ceramic technologies to allow reaching high temperatures in closed kilns. Gaya pottery encompassed earthenware (*yeonjil*), stoneware (*dojil*), and Wajil, a special type of wares fired at approximately 900 Celsius degrees, not enough to cause vitrification but higher than conventional earthenware. Wajil pots were manufactured from the 1st through 3rd centuries, while stoneware emerged in the late 3rd century and was produced through the fall of the Gaya Confederacy in the mid-6th century. Earthenware vessels were manufactured throughout the entirety of Gaya history. It has been concluded by scholars that earthenware, Wajil, stoneware vessels were all used for everyday purposes while Wajil and stoneware pots were reserved for ceremonial purposes and interred as grave goods.

Gaya pottery is understood as spanning roughly 20 different types depending on its use and form. The surfaces of Gaya pots show clear marks from paddling or throwing and are decorated with incised lines, dots, and waves. The definitive decorative characteristic of Gaya pottery is perforations on the foot in diverse shapes including circles, triangles, and rectangles. These variously-shaped perforations enhance the artistic quality of Gaya pottery, but they were not just rendered for decorative purposes. They also helped prevent the pots breaking or warping inside the kiln by improving the circulation of heat. The body of Gaya pottery excavated to date is distinctive from that excavated in the Baekje and Silla areas, serving as an important indicator of the extent of Gaya territory. In addition, there are local variations within the overarching body of Gaya pottery. Along with the tomb styles developed by individual Gaya polities, these local characteristics are critical archaeological evidence for determining the bounds of each Gaya member polity.

Until the end of the 1970s, research on Gaya pottery was focused on understanding its general characteristics and identifying the geographical extent of its distribution. Archaeologists spotted features distinct from those of Baekje or Silla pottery in vessels supported by a pedestal pierced with holes and round-bottomed, long-necked jars decorated with incised wave patterns. Through the 1970s, they gradually came to understand how these uniquely Gaya pots were distributed across the southern coastal areas and the lower Nakdonggang River basin.

During the 1980s, the understanding of Gaya pottery deepened with the identification of local variations on Gaya pottery in the political centers of the Gaya sub-units. Archaeologists named these local variations of Gaya pottery based on the place of their discovery, such as the Gimhae style, Haman style, Goryeong style, Goseong style, and Changnyeong style. In the 1990s, efforts began in earnest to confirm the boundaries of the sub-entities within the Gaya Confederacy. The areas subjected to archaeological investigation began to extend beyond the political center of each polity to include its surrounding areas. After years of research, it was confirmed that particular forms of pottery that had been excavated from the political center of a Gaya polity were distributed across a certain area. The names given to pottery styles in the previous period based on the modern name of the place of discovery were revised to denote the original polity names: the Geumgwangaya style, Aragaya style, Daegaya style, Sogaya style, and Bihwagaya style.

Figure 3. Distinctive pottery styles of the Gaya polities



Endeavors to investigate pottery styles of the two Gaya polities respectively centered in what are now Hapcheon County and Namwon City were launched later than those for the above-described sub-entities of the Gaya Confederacy. The Gaya polity centered in today's Hapcheon County came to be known with the archaeological investigation of the Okjeon Tumuli starting in 1985. The specific types of pottery excavated from the Okjeon Tumuli were also discovered in the surrounding areas. Excavations on the Unbong Plateau in the 1980s brought to light the existence of the independent sub-entity of Gaya variously known as Gimul, Samun, and Gimun. With an increasing number of high-status cemeteries on the Unbong Plateau, including the Yugok-ri and Durak-ri Tumuli, Wolsan-ri Tumuli, and Cheonggye-ri Tumuli, being subjected to excavations in the 2000s, a distinctive form of Gaya pottery is gradually being delineated.

According to the research findings published to date, Gaya pottery can be categorized into seven distinct sub-styles, the distribution of which denotes the boundaries of individual Gaya polities. The tombs found in the Gaya area dating to later than the mid-6th century reveal Silla-style pottery vessels. This is understood as decisive evidence of the demise of Gaya at that time.

• Geumgwangaya

Local characteristics identified in tombs and pottery have served as critical indicators for defining the geographic bounds of Geumgwangaya, which corresponds with what is today known as Gimhae City and the eastern portion of Changwon City in Gyeongsangnam-do Province. Geumgwangaya-style tombs were predominantly wooden chambers during the 2nd to 5th centuries and stone-lined chambers from the 5th to 6th centuries. With regard to pottery, the Geumgwangaya style is most eloquently expressed in the examples dating from the 3rd to 6th centuries.

In the political center of Geumgwangaya, present-day Gimhae City, the construction of tombs began to increase in volume starting in the 1st century, testifying to the emergence of a local political entity there at that time. The cemeteries from this period include the Daeseong-dong Tumuli and Yangdong-ri Tumuli. In the 1st through 2nd centuries, wooden coffins less than three meters long were constructed using hollowed-out logs or wooden boards. They did not clearly express any stylistic characteristics. However, wooden chambers and stone-lined chambers dating to the 2nd through 6th centuries embody distinctive local characteristics. Wooden chambers, which appeared from the 2nd through 5th centuries, show a length-to-width ratio of 2 to 1, wider in overall form than those from other Gaya polities. In a Geumgwangaya wooden chamber burial, an accessory chamber is prepared separately from the main chamber as a means to allow a lavish interment of burial goods. People would be sacrificed and buried in the accessory chambers. The practice of flooring the main chamber of a wooden-chamber

tomb with stones emerged in Geumgwangaya as well. The overall form of Geumgwangaya stone-lined chambers is long and slender, but less so than in other Gaya areas. This relatively moderate length-to-width ratio in the stone-lined chamber is thought to be a reflection of the wooden chamber tradition from the previous period. From the mid-6th century, Silla-style corridor chambers started to be constructed in the former Geumgwangaya area, testifying to the fall of this Gaya polity.

Figure 4. Geumgwangaya-style tombs (from left to right: wooden chamber at Tomb No. 39 and stone-lined chamber at Tomb No. 73 at the Daeseong-dong Tumuli)



Wajil pottery was produced in Geumgwangaya in the 1st through 3rd centuries and stoneware was created starting in the late 3rd century. The Geumgwangaya style is most notably expressed in such forms of pottery as footed bowls (*gobae*), jar pedestals (*gidae*), small jars, and jars called *pasubuh*. Geumgwangaya-style footed bowls are characterized by a flared rim; jar pedestals by flat handles; small jars by a wide rim compared with the body size; and *pasubuh* by a foot and long handle. Decorative perforations in the form of circles, triangles, or rectangles appeared in Geumgwangaya pottery in the 4th century. The 5th century saw the emergence of new types of Geumgwangaya pottery such as long-necked jars and large jars.

Geumgwangaya pottery declined in the early 6th century, giving way to Silla-style pottery. Geumgwangaya-style pottery played a critical role in the formation and development of Gaya pottery and contributed to the emergence of Sue pottery in Japan.

Geumgwangaya was positioned in the southeastern portion of the Gaya area, bordered by the Nakdonggang River to the east and north and by the sea to the south. The Geumgwangaya styles of tombs and pottery were generally described in the 1990s following the excavation of the Daeseong-dong Tumuli. The geographical extent of their distribution was explored through excavations at cemeteries in other places in Gimhae City such as Hwajeong-ri, Yean-ri, and Toerae-ri, and the Dogye-dong Tumuli in the eastern portion of Changwon City. The Geumgwangaya area was further defined in the 2000s with the excavation of Geumgwangaya-style tombs and pots at cemeteries located along the Nakdonggang River and near the southern coast, such as the Yeorae-ri Tumuli, Gadal Tumuli, and Ugye-ri Tumuli.

Figure 5. Geumgwangaya-style pottery






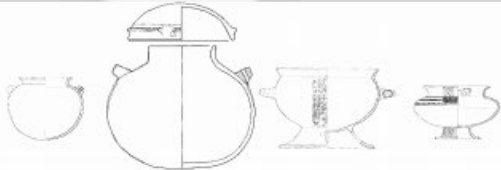

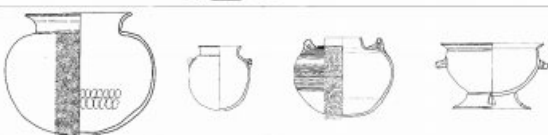

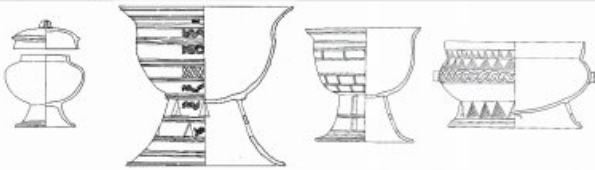

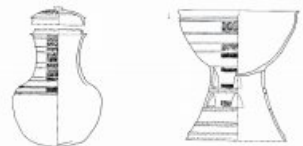


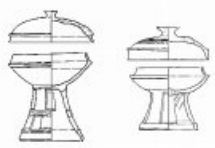
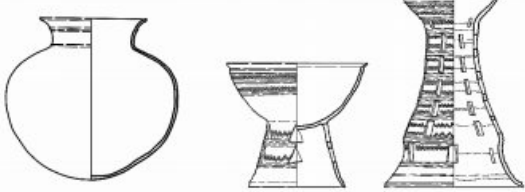

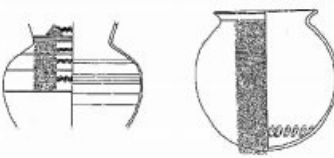
	footed bowls / small jars S=1/12·S=1/15	jars / jar pedestals S=1/15
1st C		
2nd C		
3rd C		
Early 4th C		
Late 4th C		
Early 5th C		
Mid-5th C		
Late 5th C		
Early 6th C		

Figure 6. Distribution of Geumgwangaya-style tombs and pottery



1. Daeseong-dong Tumuli, 2. Guji-ro Tumuli, 3. Hwajeong Tumuli, 4. Dugok Tumuli, 5. Wonji-ri Tumuli, 6. Deokam-ri Tumuli, 7. Chilsan-dong Tumuli, 8. Hupo Tumuli, 9. Naedeok-ri Tumuli, 10. Yangdong-ri Tumuli, 11. Mangdeok-ri Tumuli, 12. Gwandong-ri Tumuli, 13. Witdeokjeong Tumuli, 14. Neungdong-Tumuli, 15. Sanbon-ri Tumuli, 16. Dang-ri Tumuli, 17. Gomo-ri Tumuli, 18. Soeop Site in Toerae-ri, 19. Toerae-ri Site I, 20. Toerae-ri Site II, 21. Jukgok-ri Tumuli, 22. Sinan-ri Tumuli, 23. Songjeong-ri Tumuli, 24. Sirye-ri Tumuli, 25. Yeorye-ri Tumuli, 26. Bonsan-ri Tumuli, 27. Anyang-ri Tumuli, 28. Ugye-ri Tumuli, 29. Yean-ri Tumuli, 30. Mieum-dong Tumuli, 31. Jisa-dong Tumuli, 32. Guryang-dong Tumuli, 33. Gadal Tumuli, 34. Deokcheon-dong Tumuli, 35. Hwamyong-dong Tumuli

• Aragaya

Characteristics of tomb construction and pottery identified as the Aragaya style have been used to determine the area controlled by Aragaya, which falls within what is now known as Haman County and the western section of Changwon City in Gyeongsangnam-do Province. Gaya-style tombs began to be constructed in the Aragaya area from the 1st century. Distinctive Aragaya characteristics emerged in the polity's wooden chambers and then in the stone-lined chambers that were built from the 4th century. An Aragaya style came to be prominent in pottery in the 4th century.

In the Aragaya area, wooden coffins, wooden chambers, stone-lined chambers, and corridor-chambers gradually appeared from the 1st through 6th centuries. The wooden coffins of the 1st through 2nd centuries are simple in structure and therefore not used as a point of reference for an Aragaya style. Meanwhile, wooden coffins at the Marisan Tumuli have produced iron weapons and accessories along with pottery vessels, indicating the formation of a ruling class and the development of a political clique. Wooden chambers built in the 4th and 5th centuries are long and thin. About 300 wooden chambers of this type have been discovered at the Marisan Tumuli and other cemeteries along the Namgang River and southern coast, such as the Hwangsa-ri Tumuli, Yedun-ri Tumuli, and Hyeon-dong Tumuli. The distribution of this type of wooden chambers indicates the extent of the Aragaya area during its formative period. In the 5th century, wooden chambers increased in size to reach as long as seven meters. The 5th century also saw the emergence of stone-lined chambers in the Aragaya area. Aragaya stone-lined chambers are characterized by a markedly elongated form with a length-to-width ratio of 4 to 1 or greater, as well as by a clear division of the interior space of the burial chamber into three sections respectively housing burial goods, the tomb's main occupant, and human sacrifices. Stone-lined tombs believed to have contained top members of the ruling class of Aragaya have been found in the Marisan Tumuli. They are about 10 meters long and

about 1.8 meters wide. Along with pottery, they have produced an abundance of iron objects (such as longswords, armor, and horse trappings) and items imported from China and Japan as well as two to five sacrificed humans. These stone-lined tombs had wooden beams installed as a device to support the heavy burial mound. This beam structure is unique to the highest-status tombs of Aragaya. Stone-lined tombs thought to have contained commoners from Aragaya are less than five meters long and generate a small collection of pottery vessels and iron objects. In the 6th century, corridor-chambers were constructed for members of the ruling class, examples of which can only be found at the Marisan Tumuli and Nammunoe Tumuli. Aragaya-style tombs were no longer constructed after the mid-6th century.

Figure 7. Aragaya-style tomb (Tomb No. 21 at the Marisan Tumuli)



Pottery created in Aragaya from the 1st through 3rd century only shows general Gaya characteristics. Starting in the 4th century, however, uniquely Aragaya attributes begin to appear. These local characteristics were most clearly manifested in *gobae* footed bowls, cups, short-necked jars, jar pedestals, and lids. These *gobae* had a cylindrical foot, cups had a foot and a large handle, short-necked jars were decorated with cord patterns, jar pedestals were given a neck that widened toward the top, and lids were incised with diverse geometric patterns. In the 5th through 6th centuries, distinctive flame-shaped perforations began to be featured on the foot of *gobae*. Figurative pottery objects shaped in the form of a wheel, animal, or lamp emerged in this period as well. Aragaya-style pottery vessels have also been found in the Silla region and in Japan, testifying to Aragaya's active trade with neighboring states.

Aragaya was situated in the center of the southern portion of the Gaya area. It was bounded by the Nakdonggang River and the Namgang River to the east and north, sheltered by a high mountain to the north, and approached the coast to the south. Aragaya-style tombs and pottery began to be understood in the 1980s with the excavation of the Marisan Tumuli. Their distribution was explored through excavation projects at other cemeteries in Haman, including the Hwangsa-ri Tumuli and Yunoe-ri Tumuli. In the 2000s, the distribution of Aragaya-style tombs and pottery was more clearly defined by excavations at cemeteries along the Nakdonggang River and near the south coast, such as the Yedun-ri Tumuli, Ogok-ri Tumuli, and Daepyeong-ri Tumuli. In 2018, it was confirmed that the Hyeon-dong Tumuli in the Masan area had been constructed by Aragaya, bringing to light the fact that Masanman Bay provided a trade port for Aragaya.

Figure 8. Aragaya-style pottery


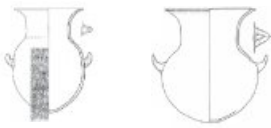





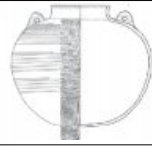









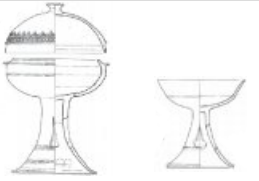








	small jars / footed bowls S=1/12	cup-shaped vessels / jars / brazier-shaped jar pedestal S=1/15	shorted-necked jars / cylindrical jar pedestals S=1/20
1st C			
2nd C			
3rd C			
Early 4th C			
Late 4th C			
Early 5th C			
Mid-5th C			
Late 5th C			
Early and mid-6th C			

Figure 9. Distribution of Aragaya-style tombs and pottery



1. Marisan Tumuli, 2. Nammunoe Tumuli, 3. Seonwang-dong Tumuli, 4. Pil-dong Tumuli, 5. Ogok-ri Tumuli, 6. Sopo-ri Tumuli, 7. Hyeon-dong Tumuli, 8. Deokchon Tumuli, 9. Naebongchon Tumuli, 10. Geomdan-ri Tumuli, 11. Gupo-ri Tumuli, 12. Sindeung Tumuli, 13. Sinsan Tumuli, 14. Yuha Tumuli, 15. Geomam-ri Tumuli, 16. Yedun-ri Tumuli, 17. Hwangsa-ri Tumuli, 18. Yunoe-ri Tumuli, 19. Wolchon-ri Tumuli, 20. Bakgok-ri Tumuli, 21. Sinam Tumuli, 22. Singi Tumuli, 23. Junggwang Tumuli, 24. Dongjisan Tumuli, 25. Sinsa-dong Tumuli, 26. Myeongdong Tumuli, 27. Sangpa Tumuli, 28. Gangji Tumuli, 29. Eumchon Tumuli, 30. Daechon Tumuli, 31. Daepyeong-ri Tumuli

• Daraguk

The forms of tombs and pottery that define the Daraguk style have been used as critical indicators for determining the Daraguk area, which conforms basically with the eastern portion of Hapcheon County. Tombs and pottery in this area from the 5th to 6th centuries clearly manifest distinct local characteristics.

Daraguk tombs featured wooden chambers, stone-lined chambers, and corridor-chambers across its history. Their distinctive style is clear in the stone-lined chambers from the 5th century marked by an interior wall that divides the space into one section for interring the tomb's occupant and the other for burying grave goods. Stone-lined chambers thought to have entombed individuals of the highest political status have been found at the Okjeon Tumuli. Tomb No. M3 at the Okjeon Tumuli is a good example of these highest-status tombs. The stone-lined chamber at Tomb No. M3 measures 10.6 meters long by 2.7 meters wide. This chamber had 121 iron axes spread out on the floor and an abundance of lavishly decorated burial objects such as helmets with gilt-bronze decoration, horse trappings, and longswords embellished with dragon and phoenix designs. From the 6th century, stone-lined chambers began to be constructed in the Baekje or Silla style as well as in the Daraguk style, reflecting the active exchanges Daraguk carried out with its neighboring states. Daraguk-style stone-lined chambers declined in the late 6th century and Silla-style ones became dominant in the area, testifying to the demise of Daraguk.

Figure 10. Daraguk-style tomb (Tomb No. M3 at the Okjeon Tumuli)



As for pottery, the Daraguk style is most clearly manifested in its footed bowls, jar pedestals, and long-necked jars. Daraguk footed bowls are distinguished by linearly arranged rectangular perforations on the foot and by small handles on the body. Daraguk jar pedestals are characterized by a voluminous body and long-necked jars by a remarkably long neck that widens toward the top. Local characteristics began to emerge in the 4th century in just a few types of pottery, but in the 5th century they became firmly established across the entire local pottery repertoire. In the 5th century, diverse incised patterns began to be applied to the surface of pottery. Meanwhile, the 5th century saw the arrival of pottery from neighboring Gaya polities such as Sogaya and Bihwagaya, and the 6th century witnessed a great inflow of Daegaya-style pottery. The influx of pottery from other areas into Daraguk territory attests to the latter's active relations with other Gaya polities. As the number of local pottery types decreased in the 6th century, vessels grew smaller, and their decorative patterns coarsened. The production of Daraguk-style pottery came to an end in the late 6th century and tombs in the Daraguk area from after this point have Silla pottery interred within them.

Daraguk was located in the center of the northern portion of the Gaya area. This polity was bounded by high mountains to the north, south, and west, and by the Nakdonggang River to the east. Seemingly locked in by its natural borders, Daraguk still managed to carry out active trade with its neighbors via the Hwanggang River, which ran through the Daraguk area. Daraguk tomb and pottery styles were initially conceptualized during the 10-year excavations that took place at the Okjeon Tumuli starting in 1985. The distribution of this local style was subsequently explored through excavations at nearby cemeteries such as the Dara-ri Tumuli and Sangpo-ri Tumuli. In the 2000s, excavations at the Yeongchang-ri Tumuli, Hapcheon-ri Tumuli, and Jeongyang-ri Tumuli revealed that Daraguk-style tombs and pottery vessels were distributed across a wider area than was previously believed.

Figure 11. Daraguk-style pottery

	footed bowls S=1/8	footed jars S=1/8	cup-shaped vessels S=1/8	jars S=1/12	jar pedestals S=1/12
Late 4th C					
Early 5th C					
Mid-5th C					
Late 5th C					
Early 6th C					
Mid-6th C					

Figure 12. Distribution of Daraguk-style tombs and pottery



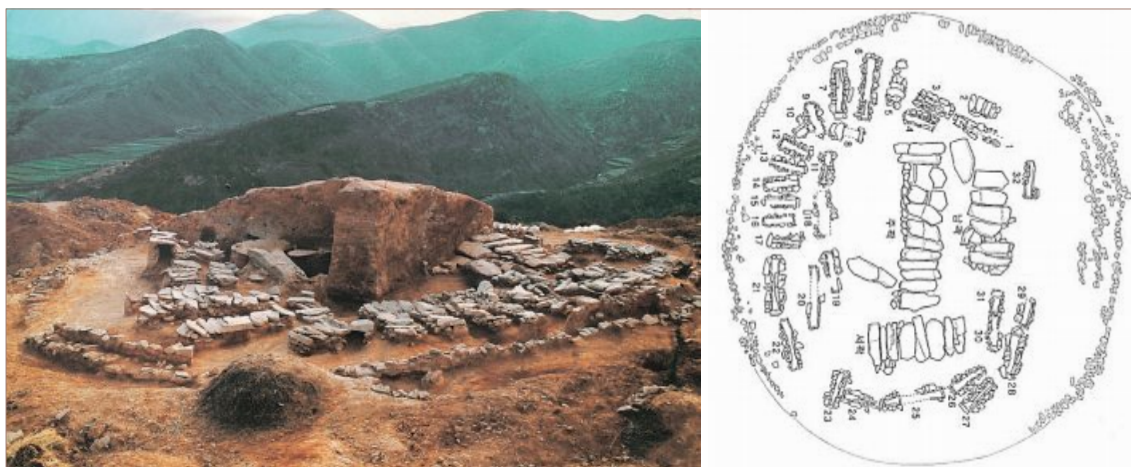
1. Okjeon Tumuli, 2. Hapcheon-ri Tumuli I, 3. Hapcheon-ri Tumuli II, 4. Jeongyang-ri Tumuli, 5. Mullim-ri Tumuli, 6. Sangpo-ri Tumuli, 7. Oseo-ri Tumuli, 8. Dara-ri Tumuli, 9. Hasilli Tumuli, 10. Jungsan-dong Tumuli, 11. Jukgo-ri Tumuli, 12. Jeongto-ri Tumuli, 13. Mo-ri Tumuli, 14. Hak-ri Tumuli, 15. Youngchang-ri Tumuli, 16. Seosan-ri Tumuli, 17. Yuljin-ri Tumuli

• Daegaya

The distribution of Daegaya-style tombs and pottery indicates the boundaries of the Daegaya area, which conforms with present-day Goryeong County, Geochang County, Hamyang County, the northern portion of Sancheong County, and the western portion of Hapcheon County. Recently, jewelry and horse trappings that manifest local characteristics are also being used to confirm the Daegaya area.

Daegaya tombs are defined by stone-lined chambers built in the 5th through 6th centuries with a single burial mound constructed over various chambers that serve multiple purposes, such as interring the tomb's primary occupant, holding grave goods, and burying human sacrifices. The earliest example of a Daegaya-style tomb is Tomb No. 73 at the Jisan-dong Tumuli, which is from the early 5th century. By the late 5th century, the Daegaya style had reached its apogee (as evidenced by Tomb No. 44 with 32 burial chambers) and began to spread to surrounding areas as confirmed through excavations at the Baekcheon-ri Tumuli in Hamyang County and Saengcho Tumuli in Sancheong County. Daegaya-style tombs continued to be built into the 6th century. Meanwhile, the 6th century saw the appearance of Baekje-style stone-lined tombs within the Jisan-dong Tumuli, evidencing a close relationship between Daegaya and Baekje. In the late 6th century, Daegaya-style tombs were no longer being built in the area and gave way instead to Silla-style corridor-chambers. This is interpreted as indicating the fall of Daegaya.

Figure 13. Daegaya-style tomb (Tomb No. 44 at the Jisan-dong Tumuli)



Daegaya-style pottery is defined by examples such as lids with a fedora-shaped knob, footed bowls pierced with wide, rectangular perforations on the foot, long-necked jars decorated with raised bands and incised wave patterns on the neck, jar pedestals with a shallow holder, cylindrical jar pedestals embellished with snake designs, and ring-shaped jar pedestals. Daegaya pottery was produced in what is now Goryeong County and the western section of Hapcheon County in the early 5th century and was subsequently spread into Geochang County and Hamyang County. This local pottery-making style came to be widely disseminated across the northern portion of the Gaya area. The Daegaya style was extinguished in the late 6th century, giving way to Silla pottery.

Daegaya was situated in the northernmost portion of the Gaya area bordering Silla to its north and east with a high mountain and the Nakdonggang River in between. Daegaya had valleys and small streams to the south and west through which it expanded its influence toward the Geochang, Hamyang, and Hapcheon areas. Daegaya was landlocked, but it actively carried out trade with the Baekje Kingdom through overland routes and with Silla and Japan using the Nakdonggang River and its tributaries. Local characteristics of Daegaya tomb construction and pottery were discovered in the 1970s following the excavation of the Jisan-dong Tumuli. The distribution

of Daegaya-style tombs and pottery was broadly ascertained through the Malheul-ri Tumuli in Geochang County, Baekcheon-ri Tumuli in Hamyang County, and Bangyeje Tumuli in Hapcheon County. The boundaries were refined in the 2000s after excavations at the Bongwan-ri Tumuli in Goryeong County and Saengcho Tumuli in Sancheong County. Daegaya-style tombs and pottery vessels have also been found in what are now Hapcheon County and the Unbong Plateau area, demonstrating that Daegaya was expanding its influence widely across northern Gaya.

Figure 14. Daegaya-style pottery


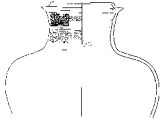






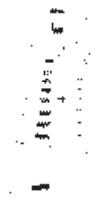

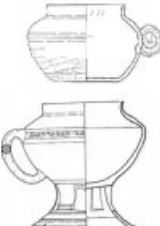



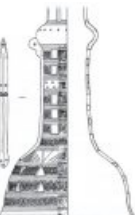

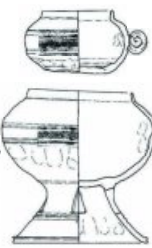



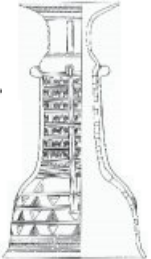
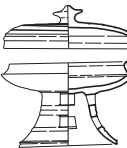


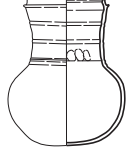
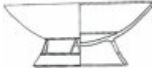
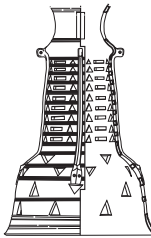

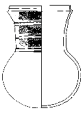


	footed bowls S=1/8	jars with handles S=1/8	lidded jars S=1/8	long-necked jars S=1/16	bowl-shaped jar pedestals S=1/16	cylindrical jar pedestals S=1/18
Late 4th C						
Early 5th C						
Mid-5th C						
Late 5th C						
Early 6th C						
Mid-6th C						

Figure 15. Distribution of Daegaya-style tombs and pottery



1. Jisan-dong Tumuli, 2. Kwaebin-ri Tumuli, 3. Goa-ri Tumuli, 4. Bongwan-ri Tumuli, 5. Junghwa-ri Tumuli I, 6. Banun-ri Site, 7. Yangjeon-ri Tumuli, 8. Bakgok-ri Tumuli, 9. Allim-ri Tumuli III, 10. Dojin-ri Tumuli, 11. Bonggye-ri Tumuli, 12. Bangyeje Tumuli, 13. Jungbangye Tumuli, 14. Jeopo-ri Tumuli, 15. Chang-ri Tumuli, 16. Seokgang-ri Tumuli, 17. Mureung-ri Tumuli, 18. Malheul-ri Tumuli, 19. Sangbaek-ri Tumuli II, 20. Docheon-ri Tumuli, 21. Baekcheon-ri Tumuli, 22. Gongbae-ri Tumuli, 23. Ieun-ri Site, 24. Songkok-ri Tumuli, 25. Saengcho Tumuli, 26. Pyeongchon-ri Tumuli

• Sogaya

Sogaya-style tomb construction and pottery has been used to identify the area previously governed by Sogaya, which conforms to present-day Goseong County, Jinju City, and the southern portion of Sancheong County.

In terms of tomb construction, the Sogaya style is defined by stone-lined chambers dating to the 5th through 6th centuries. In these tombs, the main chamber is surrounded by several smaller chambers. It is theorized that people related to the tomb's primary occupant were buried in these smaller chambers. For example, Tomb No. 1 at the Songhak-dong Tumuli consists of 11 stone-lined chambers. Another distinctive feature of the Sogaya style is making a burial pit by digging into the top of the mound. In addition to the Songhak-dong Tumuli, Sogaya-style tombs have been found at the Naesan-ri Tumuli and Yuldae-ri Tumuli in Goseong County, Gajwa-dong Tumuli in Jinju City, and Myeongdong Tumuli in Sancheong County. The distribution of Sogaya-style corridor chambers has also been confirmed, adding to the determination of a clear boundary for the Sogaya area. Sogaya-style tombs eventually declined in the area and Silla-style corridor chambers took over.

Figure 16. Sogaya-style tombs (Tombs No. 1, 2, and 3 at the Songhak-dong Tumuli)



The characteristics of Sogaya pottery are most evident in such pottery types as lids, footed bowls, jar pedestals, and long-necked jars. Lids have a small button-shaped knob; footed bowls are decorated with triangular perforations on the foot; long-necked jars have a rim that flares out to the perpendicular and a neck embellished with wave patterns; and jar pedestals have a trumpet-shaped foot. Sogaya-style vessels were disseminated across the southern coast and along the Namgang River in the early 5th century. Around this time, the Sogaya style further spread to incorporate the lower Seomjingang River. The distribution of Sogaya pottery was closely related to the polity's maritime trade activities. Sogaya-style pottery was no longer being produced by the late 6th century and Silla-style pottery became dominant in the area.

Sogaya made up the southwestern portion of the Gaya area. Baekje bordered it to the west with the Sobaeksan Mountain Range as the dividing line. The Namgang River was to the north, high mountains to the east, and the sea to the south. Sogaya formed active trade relations with Baekje and Japan through maritime routes. Sogaya-style tombs and pottery were initially conceptualized in the 1990s through archaeological investigations at the Yuldae-ri Tumuli and Yeondang-ri Tumuli in Goseong County, and the Gajwa-dong Tumuli and Muchon Tumuli in Jinju City. In 1999, the conception of these local tomb and pottery styles was given a clearer form after excavations at the Songhak-dong Tumuli. In the 2000s, the Sogaya area was clearly identified via the excavation of the Naesan-ri Tumuli in Goseong and Jungchon-ri Tumuli and Myeongdong Tumuli in Sancheong County. In particular, the excavation of the Oksan-ri Tumuli in the middle Namgang River basin and of the Nampyeong-ri Tumuli on the southern coast brought to light the extent of Sogaya's expansion to the north and south.

Figure 17. Sogaya-style pottery

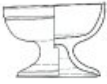


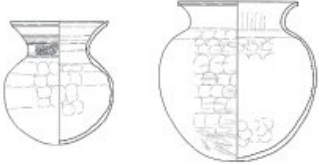








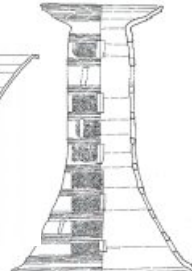



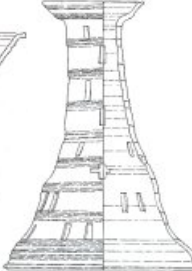



	footed bowls S=1/8	cup-shaped vessels S=1/8	jars S=1/16	jar pedestals S=1/10
Late 4th C				
Early 5th C				
Mid-5th C				
Late 5th C				
Early 6th C				
Mid-6th C				

Figure 18. Distribution of Sogaya-style tombs and pottery



1. Songhak-dong Tumuli, 2. Yuldae-ri Tumuli, 3. Naesan-ri Tumuli, 4. Yeondang-ri Tumuli, 5. Sinyong-ri Tumuli, 6. Obang-ri Tumuli, 7. Nampyeong-ri Tumuli, 8. Yesu-ri Tumuli, 9. Yonghyeon Tumuli, 10. Hwagae-ri Tumuli, 11. Gajwa-dong Tumuli, 12. Muchon-ri Tumuli, 13. Changchon-ri Tumuli, 14. Gagok Tumuli, 15. Yihyeon-dong Tumuli, 16. Usu-ri Tumuli, 17. Naechon-ri Tumuli, 18. Daechon Tumuli, 19. Jungchon-ri Tumuli, 20. Myeongdong Tumuli, 21. Mukgok-ri Tumuli, 22. Oksan-ri Tumuli, 23. Samga Tumuli, 24. Cheongok-ri Tumuli

• Gimul / Samun / Gimun

The local styles of tombs and pottery characteristic of the Unbong Plateau area have been used to identify the area previously controlled by the Gaya polity variously known as Gimul, Samun, and Gimun. The defined area is equivalent to the Unbong Plateau in the eastern portion of Namwon City.

This Gaya polity centered in the Unbong Plateau sequentially built wooden chambers, stone-lined chambers, and corridor-chambers over its history, which spanned the 5th and 6th centuries. In the early 5th century, the wooden chambers simply present general Gaya characteristics of being long and thin and no local attributes can be identified. A distinctive local style only came to be expressed with stone-lined tombs dating to the 5th century. They are comprised of two chambers—one for the tomb's occupant and the other for burial goods. This type of stone-lined chamber has been found at the Yugok-ri and Durak-ri Tumuli, Wolsan-ri Tumuli, and Cheonggye-ri Tumuli. By the mid-6th century, Baekje-style corridor-chambers began to appear in this area, attesting to the close relationship between the two ancient states. The construction of distinctively local-style tombs on the Unbong Plateau came to a halt in the late 6th century and Silla-style corridor-chambers became dominant, indicating the fall of the Gaya polity that had existed in this area.

Figure 19. Local-style tomb in the Unbong Plateau area (Tomb No. 32 at the Yugok-ri and Durak-ri Tumuli)



As for pottery, a local style is most evident in footed bowls, jar pedestals, and long-necked jars. Local footed bowls were produced with a widely flaring foot, jar pedestals had triangular perforations aligned on the foot, and long-necked jars showed a voluminous body and several raised bands around the neck. Overland routes connecting Gaya to Baekje ran across the Unbong Plateau area, so an abundance of pottery vessels from Aragaya, Daegaya, and Sogaya; iron weapons and horse trappings from Daegaya; and prestige goods from Baekje have been uncovered in the area. It is estimated that the local pottery style of the Unbong Plateau area formed under the influence of the pottery traditions of other Gaya polities and Baekje. Among the pottery excavated from this area, 5th-century vessels express distinctive local characteristics while those dating to the 6th century were made in the Daegaya style. This is presumed to indicate the growing influence of Daegaya over the northern areas of Gaya in the 6th century. By the late 6th century, local-style pots were no longer being produced and Silla pottery took their place.

This Gaya polity was positioned in the northwestern portion of Gaya territory and controlled the Unbong Plateau, part of the Sobaeksan Mountain Range. This polity controlling the Unbong Plateau area actively traded with Baekje through overland routes. General Gaya-style tombs and vessels were discovered in areas around the Unbong Plateau in the 1980s. A distinctive local style was identified in the 2000s. In the 1980s, just a few tombs at the Yugok-ri and Durak-ri Tumuli and Wolsan-ri Tumuli were excavated, but investigations were expanded to the Cheonggye-ri Tumuli, Im-ri Tumuli, Haengjeong-ri Tumuli, and Geonji-ri Tumuli in the 2000s. The area controlled by the Gaya polity located in the Unbong Plateau was eventually clearly outlined based on the distribution of local-style tombs and pottery.

Figure 20. Local-style pottery from the Unbong Plateau area





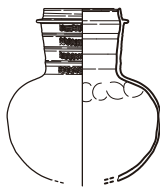
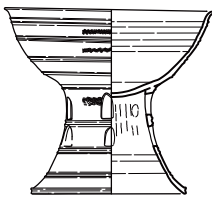

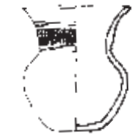

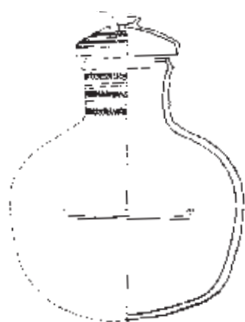

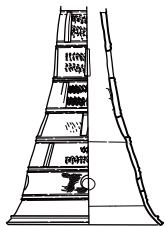
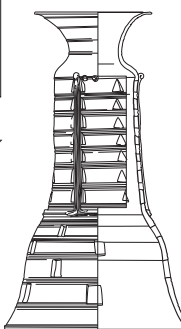



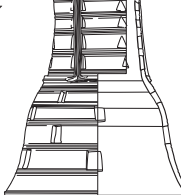


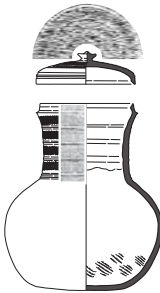
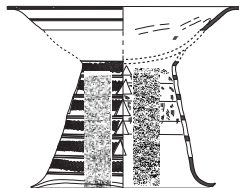

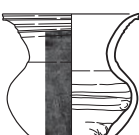
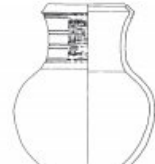
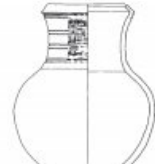





	footed bowls S=1/8	jars S=1/8	long-necked jars S=1/10	bowl-shaped jar pedestals S=1/12	cylindrical jar pedestals S=1/12
Late 4th C					
Early 5th C					
Mid- 5th C		 			 
Late 5th C		 			
Early 6th C	 				
Mid- 6th C		 		 	  

Figure 21. Distribution of local-style tombs and pottery in the Unbong Plateau area



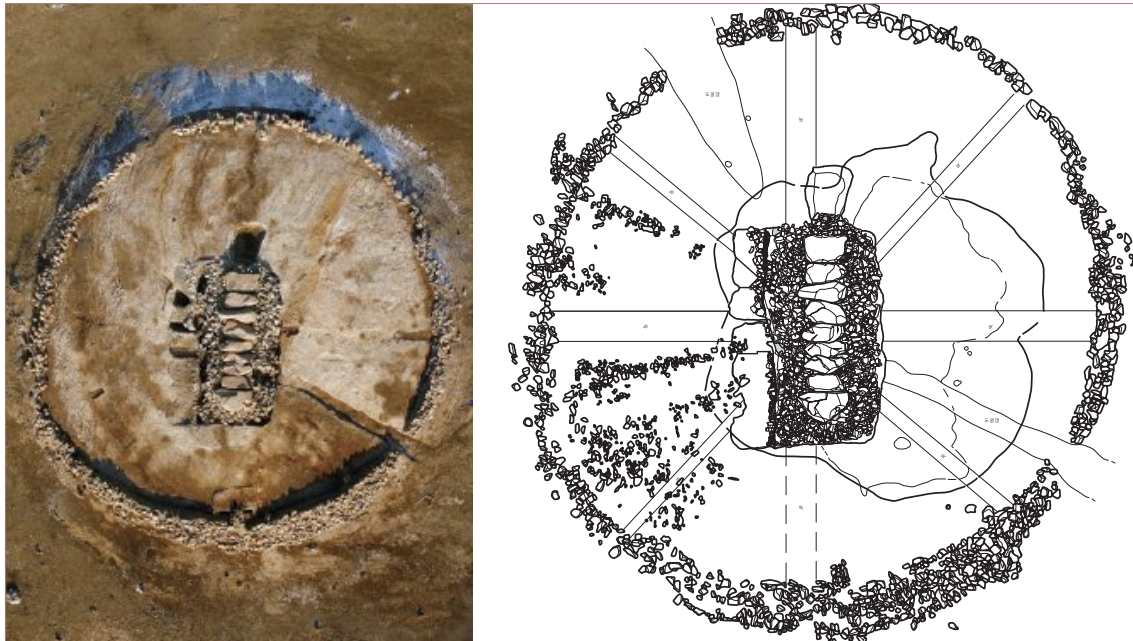
1. Yugok-ri and Durak-ri Tumuli, 2. Seongnae Tomb, 3. Wolsan-ri Tumuli, 4. Budong Tumuli, 5. Cheonggye-ri Tumuli, 6. Gwangpyeong Tomb, 7. Sangseong Tumuli, 8. Galgye Tomb, 9. Oegeon Tomb I, 10. Naegeon Tumuli, 11. Oegeon Tomb II, 12. Jarae Tumuli, 13. Seongsan Tumuli II, 14. Seongsan Tumuli I

• Bihwagaya

The distribution of Bihwagaya-style tombs and pottery allows us to know the boundaries of the area previously governed by Bihwagaya, which corresponds to present-day Changnyeong County.

In Bihwagaya, stone-lined chambers that clearly express a distinctive local style were constructed through the 5th and 6th centuries. A Bihwagaya-style stone-lined tomb is distinguished by an opening rendered in one side of an elongated chamber. This opening served as a channel through which the tomb's primary occupant and the burial goods were transported into the burial chamber. The occupant was placed in the middle of the chamber with grave goods to both sides and sometimes human sacrifices. Stone-lined tombs rendered in this style have been found at the Gyo-dong and Songhyeon-dong Tumuli and many other cemeteries, including the Gyeseong Tumuli, Yeongsan Tumuli, and Ugang-ri Tumuli. It is believed that Bihwagaya enjoyed an active trade relationship with Silla and was culturally and politically influenced by the kingdom. In the Bihwagaya area, Silla-style gourd-shaped tombs began to appear and personal adornments in the Silla tradition came to be buried in abundance in the 6th century. The construction of Bihwagaya-style stone-lined chambers came to an end into the mid-6th century in the area and Silla-style corridor-chambers began to appear. This indicates the fall of Bihwagaya around this time.

Figure 22. Bihwagaya-style tomb (Tomb No. 7 at the Gyo-dong and Songhyeon-dong Tumuli)



In terms of pottery, Bihwagaya characteristics are most evidently expressed in such types as lids, footed bowls, jar pedestals, and long-necked jars. Bihwagaya pottery with its distinctive blending of Gaya and Silla pottery traditions stopped being produced in the mid-6th century. Bihwagaya lids have a cylindrical knob with perforations, footed bowls are decorated with rectangular perforations rendered in an alternating order on the foot, jar pedestals include a foot with a linear outline, and long-necked jars are embellished with multiple incised lines. Bihwagaya-style pottery has been excavated from 5th-century tombs at the Okjeon Tumuli and widely across the lower Nakdonggang River basin. This reflects the active exchanges Bihwagaya carried out with other Gaya polities along the Nakdonggang River.

Bihwagaya was situated in the easternmost portion of the Gaya region and its cemeteries are concentrated in the Changnyeong Basin. The area controlled by Bihwagaya was rather restricted compared with those of other Gaya sub-entities, which is attributed to the natural conditions surrounding this polity. Bihwagaya was bounded by the Nakdonggang River to the north

and west and had high mountains (Mt. Hwawangsan and Mt. Yeongchwisan) to the east, beyond which was Silla territory. Bihwagaya traded with Silla through overland routes and with other Gaya polities and Japan through the Nakdonggang River. Bihwagaya tomb and pottery styles were first recognized in the 1980s, with the excavation of the Gyo-dong and Songhyeon-dong Tumuli and Gyeseong Tumuli. Bihwagaya-style tombs and pottery vessels were further excavated in the 2000s, not only at the Gyo-dong and Songhyeon-dong Tumuli and Gyeseong Tumuli, but also at the Yeongsan Tumuli, Sojangmi Tumuli, and Ugang-ri Tumuli, more clearly defining the boundary of the area controlled by Bihwagaya.

Figure 23. Bihwagaya-style pottery

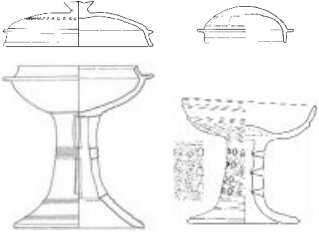



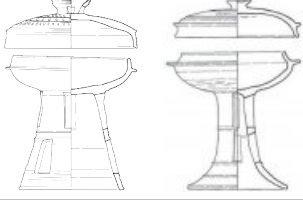

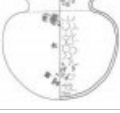


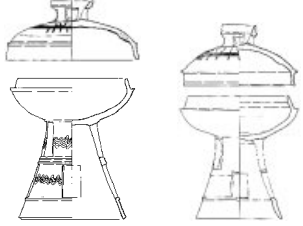
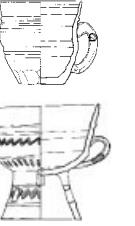



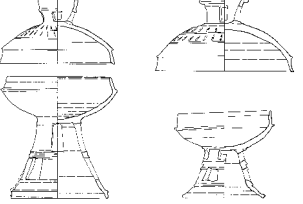



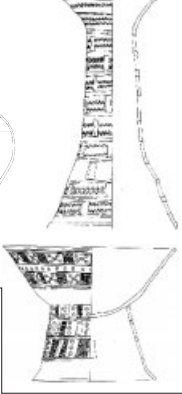
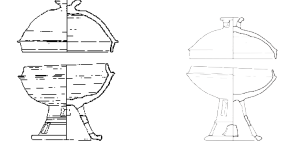




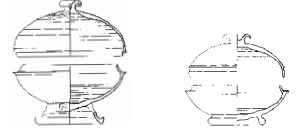



	footed bowls S=1/8	cup-shaped vessels / bowls with a pedestal S=1/10	short-necked jars S=1/15	long-necked jars with a pedestal S=1/15	cylindrical jar pedestals S=1/20
Late 4th C					
Early 5th C					
Mid- 5th C					
Late 5th C					
Early 6th C					
Mid- 6th C					

Figure 24. Distribution of Bihwagaya-style tombs and pottery



1. Gyo-dong and Songhyeon-dong Tumuli, 2. Gyeseong Tumuli, 3. Yeongsan Tumuli, 4. Guhakmaeul Tumuli, 5. Sojangmi Tumuli, 6. Hap-ri Tumuli, 7. Musol Tumuli, 8. Masanteo Tumuli, 9. Jumaegol Tumuli, 10. Wangmimaieul Tumuli, 11. Wolmi Tumuli, 12. Ucheon-ri Tumuli, 13. Eokman-ri Tumuli, 14. Seonso-ri Tumuli, 15. Geounae Tumuli, 16. Ujinji Tomb, 17. Sangtocheon Tumuli, 18. Okcheon-dong Tumuli, 19. Jidongji Tumuli, 20. Sanji-ri Tumuli, 21. Myeong-ri Tumuli, 22. Silla Royal Tomb, 23. Gang-ri Tumuli, 24. Gyo-ri Tomb, 25. Geomun-ri Tumuli, 26. Ugang-ri Tumuli

Item 1. Selection of component parts

Q 1-3. ICOMOS would be pleased if further detailed information could be provided on the following matters: what are the characteristics that identify a cemetery of the highest elite, and how many and which of the 1,049 known cemeteries have these characteristics? How can it be shown that the seven selected cemeteries are representing confederated political entities of comparable power? This information could be supplied through a map showing the spatial distribution of the characteristics and quantitative data, for example, in frequency tables.

The first six centuries after the beginning of the Common Era witnessed the emergence of social stratification across the Korean Peninsula, including in the southern portion occupied at the time by the Gaya Confederation. For Gaya's ruling class, the construction of tombs was an act of great political importance involving an immense expenditure of labor and resources to display their power and authority. Gaya leaders gradually enlarged their burial chambers over the 1st through 4th centuries in an effort to secure more space for grave goods and consequently express even greater power. In the 5th through 6th centuries, a large burial mound was constructed over the tomb as an additional device to manifest authority. The size of burial chambers and mounds and the volume and artistic sophistication of grave goods provide critical indicators of the political status and power of a tomb's owner.

In addition, the social class of the tomb occupant is manifested in the tomb's topographical and spatial characteristics. Members of the ruling class concentrated their tombs in hilly areas that were clearly visible from the settlements of the common people. Within a given hilly cemetery, tombs with higher status occupied areas higher in elevation (such as ridges). They were also placed more to the center in relation to other tombs. These topographical and spatial mechanisms created high visibility for the tombs of political leaders.

Tombs for those lower in status were situated in less conspicuous places within the same cemetery, like on the slopes of the hills.

Numerous cemeteries were formed in Gaya from the 1st through 6th century, with 1,049 confirmed to date in the region. This signals how important the act of tomb construction was in Gaya society. Among the 1,049 known cemeteries, 840 fall within the boundaries of one of the seven Gaya polities that have been clearly delineated. The remaining 209 are found in areas not yet clearly assigned to a Gaya political entity. Out of the 840 within the known polities, 168 have been archaeologically investigated and clearly characterized.

The metrics by which tombs for the top leaders of Gaya were identified (the diameter of burial mounds, length of burial chambers, and composition of grave goods) are as follows. Although the precise details of these three criteria for highest-rank tombs differ slightly from polity to polity, the information below offers general guidelines.

First, the size of a burial mound is a key indicator. In ancient societies, the construction of a large burial mound was reserved for the ruling class since it required not only massive investments of labor and capital, but also the authority to mobilize the most sophisticated technologies of the day and to oversee the complex process of construction. Tombs from Gaya vary greatly in the size of their burial mounds, ranging from 2 to 50 meters in diameter. There are also burials without mounds. Mounded tombs are categorized into five groups by the diameter of the mound—below five meters, from 5 to 10 meters, from 10 to 15 meters, from 15 to 20 meters, and 20 meters and above. According to the research conducted to date, tombs with a burial mound of at least 15 meters in diameter are judged to belong to the ruling class, and those with a burial mound 20 meters or larger as belonging to its very highest members. The cemetery with the greatest number of tombs with the very largest mounds among the cemeteries within the geographical bounds of each Gaya polity is considered to be the highest-ranking cemetery of the polity.

Second, while generally long and thin in shape, Gaya burial chambers differ in area depending on the social status of the tomb occupant. Wooden chambers predominated in Gaya from the 2nd through 5th centuries and can be divided into four categories in terms of their length: less than two meters, from 2 to 4 meters, from 4 to 6 meters, and six meters and above. Wooden chambers six meters or longer are estimated to have been built for members of the ruling class. Wooden chambers in the Geumgwangaya area most evidently manifest the realities of the stratified society of the time. Stone-lined chambers were dominant from the 5th through 6th centuries, and their lengths ranged from 1 to 11 meters. The stone-lined chambers excavated from the Gaya area can be grouped into four categories based on length: below two meters, from 2 to 4 meters, from 4 to 6 meters, and six meters and above. Stone-lined chambers measuring six meters or above are understood as having been built for the ruling class, and those as long as 8 to 11 meters as having been built for its highest members. Among the cemeteries within the bounds of the seven identified Gaya sub-entities, the one showing the highest concentration of largest-category chambers is estimated to have been the highest-ranking cemetery of the polity.

Third, the items that were buried along with the body are also a critical signifier of the power and authority of a tomb's occupant. In Gaya, various grave goods in diverse materials—particularly clay, wood, iron, and bronze—were deposited in tombs, and human sacrifice was practiced. The composition of items buried in tombs evolved over time and varied considerably depending on the social status of the tomb occupant in terms of variety, volume, and quality. Based on classifications made in the studies carried out to date, the make-up of grave goods can be assigned to one of four different types. Type 1 contains all three kinds of the most prestigious grave goods in Gaya society: longswords, armor, and horse trappings. Type 1 must also include objects imported from neighboring states, various adornments, and dozens of iron weapons. Human sacrifices should also be present for a tomb to be considered Type 1. Type 2 has just one or two of the three top kinds of prestige goods. When present in Type 2, horse trappings typically consist only of stirrups

and bits. Prestige goods are rendered in iron in Type 2 tombs rather than gilt-bronze, the material of choice for prestige goods in Type 1. Also considered an indicator of Type 2 is adornments that do not go beyond earrings and/or necklaces and a smaller amount of iron weapons than commonly found in Type 1 tombs. Unlike Type 1, Type 2 tombs rarely include imported items and never produce remains of human sacrifices. Type 3 is assigned to limited arrays of around ten iron weapons, agricultural tools, and pottery vessels. Tombs with just one to five iron objects and pottery vessels are assigned to Type 4.

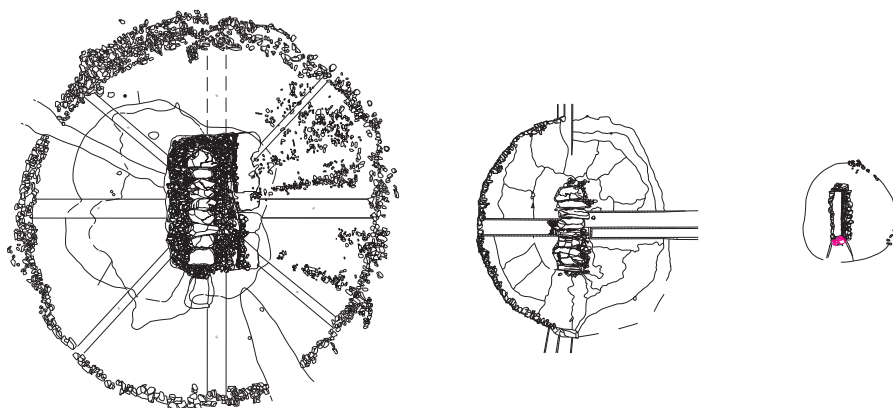
Tombs producing Type 1 grave goods are hypothesized to have contained the top leaders of Gaya. The prestige goods, trade goods, and human sacrifices excavated from these tombs are understood as testifying to the elevated status of the tomb occupant. The longswords, armor, and horse trappings found in these highest-ranking tombs demonstrate how each sub-entity of the Gaya Confederacy maintained its own armed forces and used military power as a major means of ruling. The precious items imported from neighboring states seem to indicate top Gaya leaders' control of trade activities. Type 2 tombs are thought to have belonged to ordinary members of the ruling class. Type 2 tombs fail to produce all three of the loftiest style of prestige goods, but still generate some body adornments as well as various other items in diverse materials, signifying considerable wealth and authority on the part of the tomb occupant. Adornments excavated from Gaya tombs include ceremonial headwear, bracelets, rings, ankle bracelets, gilt-bronze shoes, earrings, and necklaces, all of which could come in stone, iron, or glass. While other adornments were mostly reserved for the tombs of top leaders, earrings and necklaces occur widely among the high-status tombs and therefore considered to have been a more everyday object among the ruling class of Gaya. Type 3 tombs do not include any type of prestige goods but do have iron weapons and are considered to have been built for soldiers and other groups of a certain social status. The greatest proportion of Type 4 grave goods is agricultural implements, and therefore it is considered these tombs were mainly built for farmers and other commoner occupations.

All in all, high-status tombs are characterized by a burial mound measuring from 15 to 20 meters in diameter, a stone-lined chamber six meters or more in length, and the production of one or two kinds of supreme prestige goods (longswords, armor, and horse trappings) and accessories. Among them are those built for top leaders, which are generally capped with burial mounds 20 meters or more in diameter, have a stone-lined chamber eight meters or greater in length, and contain trade goods and all three kinds of highest-status prestige goods. Among the 840 cemeteries falling within the defined bounds of the seven known Gaya sub-entities, 24 cemeteries are considered high-status. Among them, seven have been selected as the highest in status within their polity.

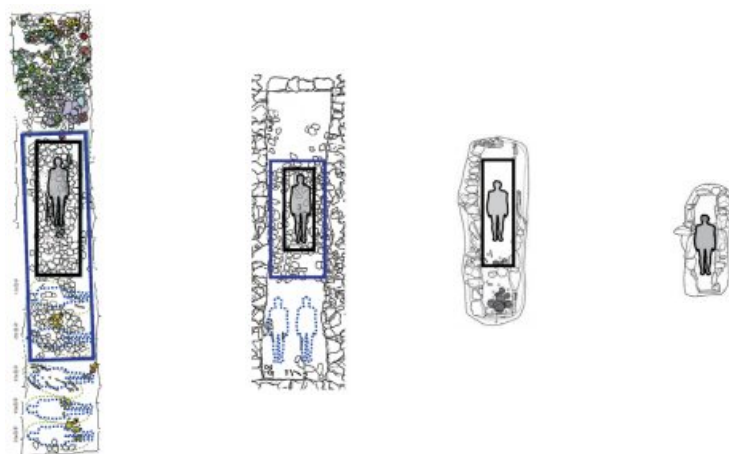
Below are details on how the highest-ranking cemetery in each polity was selected based on the above-mentioned three indicators—the diameter of burial mounds, the length of burial chambers, and the composition of the grave goods.

Figure 25. Hierarchy of Gaya tombs (from left to right: from highest to lowest ranks)

Burial mounds (Bihwagaya tombs) (S=600)



Burial chambers (Aragaya tombs) (S=160)



Grave goods



Figure 26. A highest-ranking stone-lined tomb and its grave goods (Tomb No. M3 at the Okjeon Tumuli)

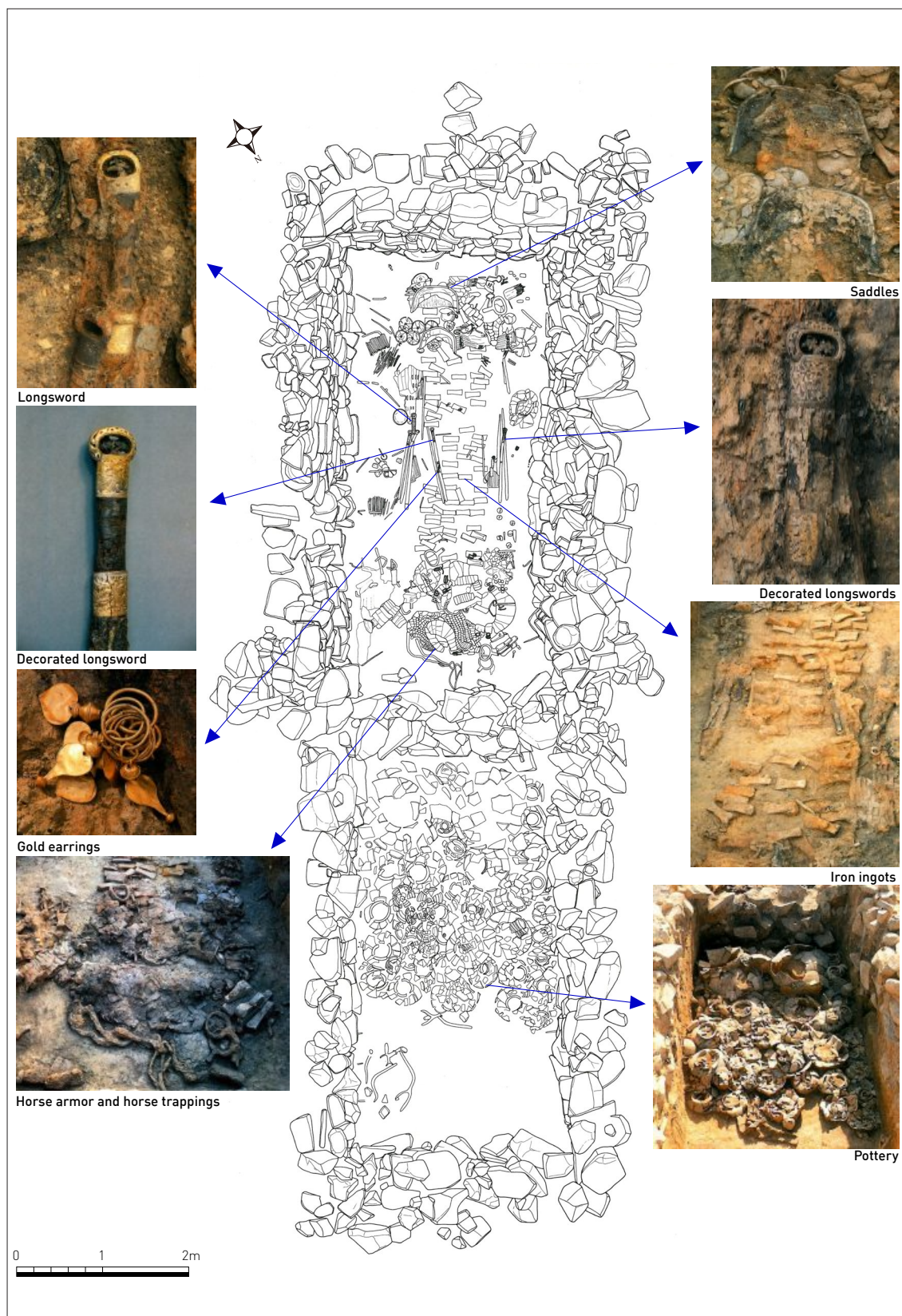
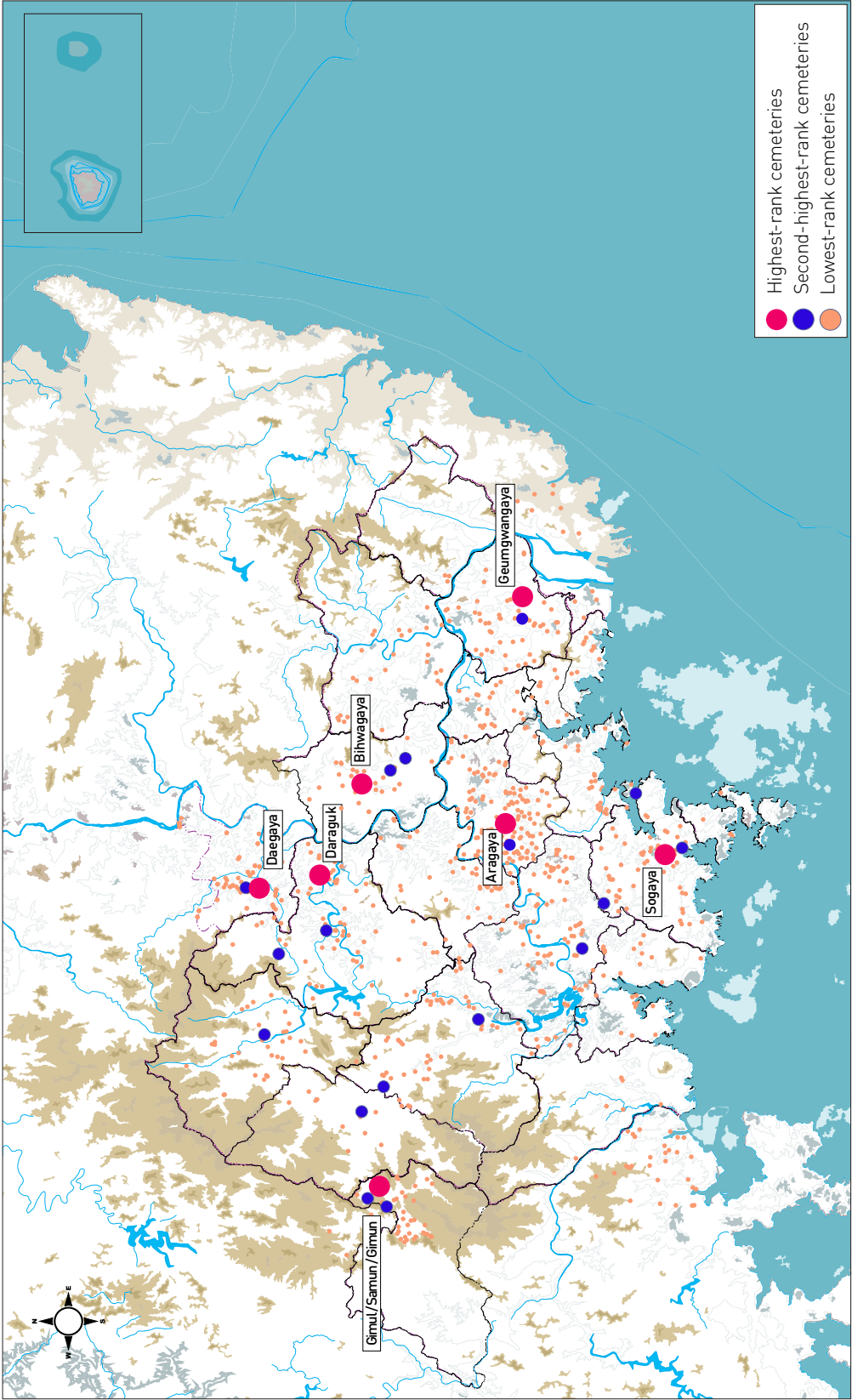


Figure 27. Distribution of Gaya cemeteries



• **Hierarchies of Gaya cemeteries**

Hierarchy of cemeteries in the Geumgwangaya area

The area previously ruled by Geumgwangaya has been identified as corresponding to present-day Gimhae City and the eastern portion of Changwon City. About 120 Gaya cemeteries have been found within the Geumgwangaya area, and 35 of them have been investigated. These 35 cemeteries show clear differences in their status in terms of the size of their burial chambers and composition of burial goods.

Among the 35 cemeteries, wooden coffins dating to the 1st through 2nd centuries have been excavated at the Daeseong-dong Tumuli, Yangdong-ri Tumuli, Naedeok-ri Tumuli, and Cheongcheon-ri Tumuli. These wooden coffins do not exhibit great differences in length, all measuring from 2 to 3 meters. They differ in terms of the composition of the burial goods, however. Those producing bronze mirrors and bronze swords and iron weapons as well as agricultural tools and pottery are considered high-status. These high-status tombs have been found at the Daeseong-dong Tumuli and Yangdong-ri Tumuli.

Wooden chambers were constructed from the 2nd through 5th centuries, providing a larger burial space and allowing the deposition of more grave goods than before. Wooden chambers have been found at about 20 cemeteries, including the Daeseong-dong Tumuli, Yangdong-ri Tumuli, Mangdeok-ri Tumuli, and Hwajeong Tumuli. These wooden chambers vary in length and can be grouped into four categories based on their length: less than two meters, from 2 to 4 meters, from 4 to 6 meters, and six meters or longer. Wooden chambers of six meters or more in length have been excavated at the Daeseong-dong Tumuli and Yangdong-ri Tumuli (15 tombs and one tomb, respectively). Wooden chambers measuring 4 to 6 meters in length have been found at seven cemeteries, including the Daeseong-dong Tumuli, Yangdong-ri Tumuli, and Mangdeok-ri Tumuli.

These wooden chambers have yielded various patterns in their burial goods that can be categorized into three types. Type 1 includes the highest level of prestige goods (gilt-bronze longswords, armor, and horse trappings), items imported from China and Japan, dozens of iron weapons, agricultural tools, and pottery. Type 2 may not feature anything using gold or gilt-bronze, but it should include iron weapons, a simple set of horse trappings consisting only of bits and stirrups, and pottery. Type 3 should have a small amount of iron weapons along with agricultural tools and pottery. These three types of tombs are understood as respectively having belonged to top members of the ruling class of Geumgwangaya, ordinary members of its ruling class, and commoners. In terms of the composition of their burial goods, 24 wooden chambers have been assigned to Type 1. Nineteen of these are found in the Daeseong-dong Tumuli, three in the Yangdong-ri Tumuli, and one in the Guji-ro Tumuli. Among the Type 1 tombs, some examples produced a huge amount of iron weapons and had dozens of iron axes and ingots spread out across the floor. This symbolizes the control the ruling class of Geumgwangaya maintained over the production and distribution of iron. Geumgwangaya wooden chambers also produced the earliest examples of human sacrifice in Gaya, a funerary practice that later spread to other polities.

Although few in number, stone-lined chambers have been excavated in the Geumgwangaya area. One example is Tomb No. 73 at the Daeseong-dong Tumuli. It measures 8.2 meters long 4.9 meters wide. Roughly ten other cemeteries in the Geumgwangaya area have produced stone-lined chambers, including the Yangdong-ri Tumuli, Chilsan-dong Tumuli, and Donggye-dong Tumuli. Those found at these cemeteries are mostly shorter than six meters.

According to the analysis presented above, tombs in the Geumgwangaya area can be categorized into three groups: tombs for the highest members of the ruling class, for ordinary members of the ruling class, and for commoners. Tombs of the highest rank are characterized by wooden chambers six meters long or longer. They produce, among other items, imported objects and the

highest level of prestige goods. Tombs for ordinary members of the ruling class are made of smaller wooden chambers measuring from four to six meters in length. Commoners' tombs are comprised of wooden chambers four meters long at most. They typically generate just a small amount of iron weapons, agricultural tools, and pottery vessels. A similar set of standards can also be applied to stone-lined chamber tombs.

All in all, there are 15 tombs at the Daeseong-dong Tumuli that are considered to be of the highest rank, and one at the Yangdong-ri Tumuli. It is therefore concluded that the Daeseong-dong Tumuli is the highest in status in the Geumgwangaya area. The Yangdong-ri Tumuli is ranked below the Daeseong-dong Tumuli. The remaining cemeteries in the Geumgwangaya area—including the Jukgye-ri Tumuli, Gadai Tumuli, and Ugye-ri Tumuli—are believed to have all been reserved for commoners.

Figure 28. Hierarchy of wooden-chamber tombs in the Geumgwangaya area

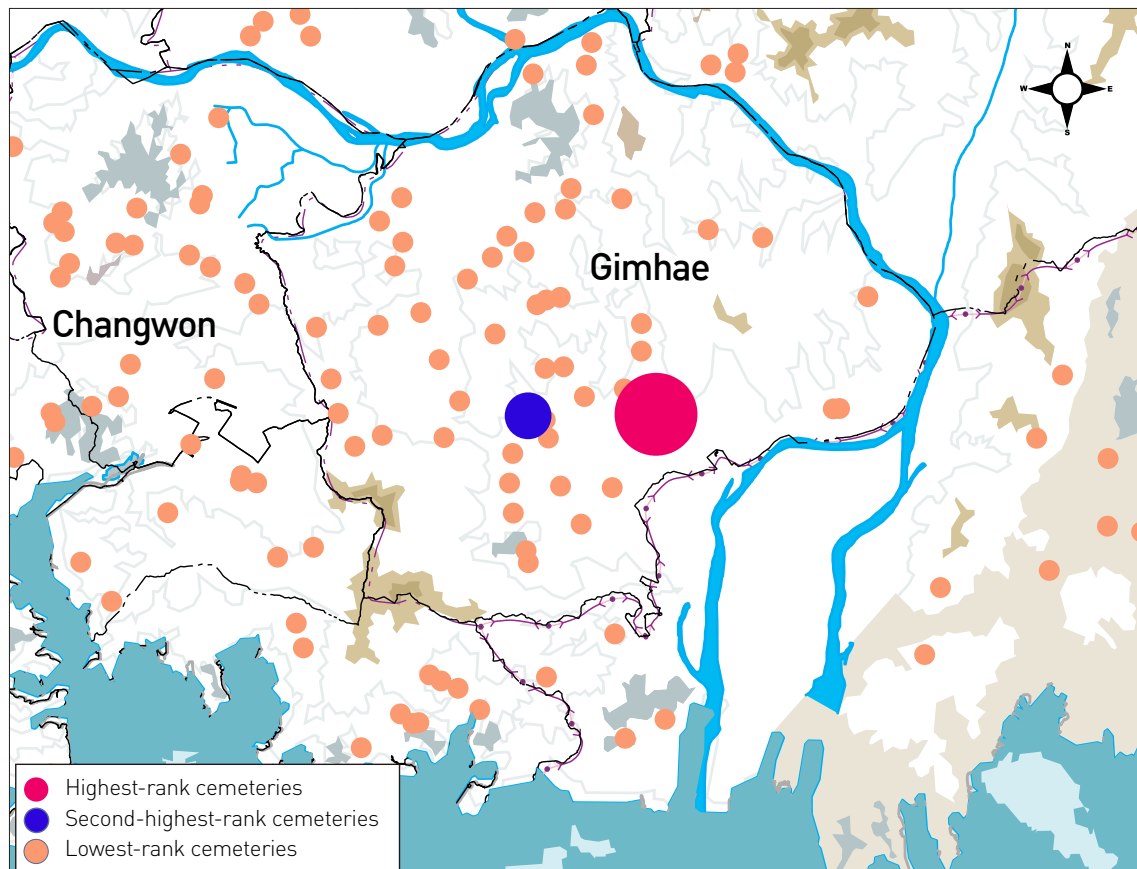
(cm)

1200	1										
1100	1										
1000	3										
900	2										
800	1										
700	7	1									
600	10	2	7	1							
500	12	14	20	1	1	1	1				
400	19	32	84	0	10	5	0	19	8		
300	35	25	102	6	29	9	2	53	11	6	
200	15	5	59	1	10	5	6	7	8	0	2
100	2	0	12	0	10	1	2	0	0	0	0
	Daeseong-dong Tumuli	Yangdong-ri Tumuli	Mangdeok-ri Tumuli	Seop Site in Toerae-ri	Guji-ro Tumuli	Toerae-ri Site	Hwajeong Tumuli	Jukgok-ri Tumuli	Deokam-ri Tumuli	Gadal Tumuli	Ugye-ri Tumuli

Table 1. Compositions of grave goods in the Geumgwangaya area

Cemetery	Accessories					Iron objects												Others			Trade goods																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	Gold objects					Longswords	Armor		Horse trappings					Weapons			Agricultural tools	Iron ingots	Mineulsoe iron plates	Jade or stone objects																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
	Headaddresses	Earrings	Necklaces	Bracelets	Others		Decorated longswords	Armor	Helmets	Horse armor	Saddles	Bits	Stirrups	Horse strap pendants	Harness fittings for crossbelt	Swords						Spears	Arrowheads																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Daeseong-dong Tumuli	●	●	●				●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Figure 29. Distribution of cemeteries in the Geumgwangaya area



Hierarchy of cemeteries in the Aragaya area

According to the archaeological investigations conducted to date, the area previously governed by Aragaya is believed to correspond with present-day Haman County and the western section of Changwon City. This Aragaya area has about 140 Gaya cemeteries, 31 of which have been investigated archaeologically. Analysis of the archaeological findings from these 31 cemeteries has informed on the hierarchical relations among these cemeteries with one at the apex.

Among the 31 cemeteries, 1st- or 2nd-century wooden coffins have been excavated from the Marisan Tumuli and the Sopo-ri Tumuli. About 50 of these are clustered at the Marisan Tumuli, while just 12 are found scattered

widely around the Sopo-ri Tumuli. Although the wooden coffins at the two cemeteries are similar in length at 2 to 3 meters, those at the Marisan Tumuli are distinguished by their production of large amounts of iron weapons, agricultural tools, and crystal or jade necklaces. This suggests that the social group responsible for the construction of the Marisan Tumuli was emerging as a ruling elite in the area during this period.

About 1,000 wooden chambers constructed from the 3rd through 5th centuries have been excavated in the Aragaya area. These wooden chambers can be categorized into different groups by length: four meters or less, from 4 to 6 meters, from 6 to 8 meters, and eight meters or above. Those in the longest category have only been found at the Marisan Tumuli (three in total). Chambers in the second-longest category have been excavated at the Marisan Tumuli, Ogok-ri Tumuli, and Taepyeong-ri Tumuli. These two categories of wooden chambers are estimated to have respectively entombed the very top and the standard members of the ruling class. In highest-rank wooden chambers, the tomb's owner was interred in the center section of the wooden chamber and burial goods were placed at both ends. Grave goods were deposited at either end of the wooden chamber in lower-ranking tombs. Highest-rank wooden chambers have produced longswords, armor, horse trappings, and trade goods, but lower-rank wooden chambers only yield pottery, agricultural tools, and a small volume of weapons.

During the 5th and 6th centuries, burial mounds would be constructed over underground facilities in the Aragaya area. The mounded tombs from this period are divided into several categories depending on the diameter of the burial mound: those with a burial mound measuring from 5 to 15 meters in diameter, from 15 to 20 meters, and 20 meters and above. Burial mounds in this last group—20 meters or above in diameter—have only been found at the Marisan Tumuli and Nammunoe Tumuli (52 and 10, respectively). Those at other cemeteries are mostly between 5 and 15 meters in diameter.

In the 5th century, wooden coffins were replaced by stone-lined chambers as the dominant form of burial in Aragaya. The stone-lined chambers excavated in the Aragaya area are categorized into different groups by their length: those four meters or less in length, from 4 to 6 meters, from 6 to 8 meters, and eight meters and longer. Stone-lined chambers longer than eight meters have only been excavated at the Marisan Tumuli—13 of them in total. The second longest group (measuring from 6 to 8 meters in length) contains 14 examples from the Marisan Tumuli and two from the Nammunoe Tumuli. Other cemeteries contain only chambers six meters or less in length. This means that 27 high-status stone-lined chambers are concentrated at the Marisan Tumuli.

The bodies of burial goods found in the stone-lined chambers excavated in the Aragaya area are grouped into one of four different types by composition. Type 1 is distinguished by longswords, armor, horse trappings, and trade goods. Type 2 includes only a simple set of horse tack consisting of bits and stirrups as along with around ten examples of iron weapons and some pottery. To be in Type 3, just three or four iron weapons can be found along with agricultural tools and pottery. Type 4 contains only pottery. According to the studies carried out to date, Types 1 and 2 respectively signify the top and the ordinary members of the ruling class, while Types 3 and 4 are associated with commoners. The tombs falling in Type 1 have also produced evidence of one to six human sacrifices.

As described above, the tombs investigated in the Aragaya area show a clear hierarchy consisting of three main ranks. The highest-rank tombs built for the top members of Aragaya's ruling class are characterized by a burial mound of 20 meters or more in diameter, a stone-lined chamber eight meters or longer, and contain (among other items) imported objects and the highest class of prestige goods. The second-highest-ranking tombs constructed for ordinary members of the ruling class have a burial mound

measuring from 20 to 15 meters in diameter and a stone-lined chamber from 6 to 8 meters in length. Along with iron weapons and pottery vessels, they house bits and stirrups. Commoners' tombs measure 15 meters or less in terms of the diameter of the burial mound and have stone-lined chambers six meters or less in length. They only contain a small amount of iron weapons along with agricultural tools and pottery.

In sum, the Marisan Tumuli is considered to be the highest-status cemetery in the Aragaya area since it possesses the greatest number of highest-rank tombs (16). The Nammunoe Tumuli is deemed to be the second, and the rest—such as the Pil-dong Tumuli, Yedun-ri Tumuli, and Saeteo Tumuli—are all believed to be cemeteries for commoners. It should be noted that 52 tombs with burial mounds in the category of largest mounds are found at the Marisan Tumuli, meaning the number of highest-rank tombs at this cemetery could be as high as 52.

Figure 30. Hierarchy of burial mounds in the Aragaya area

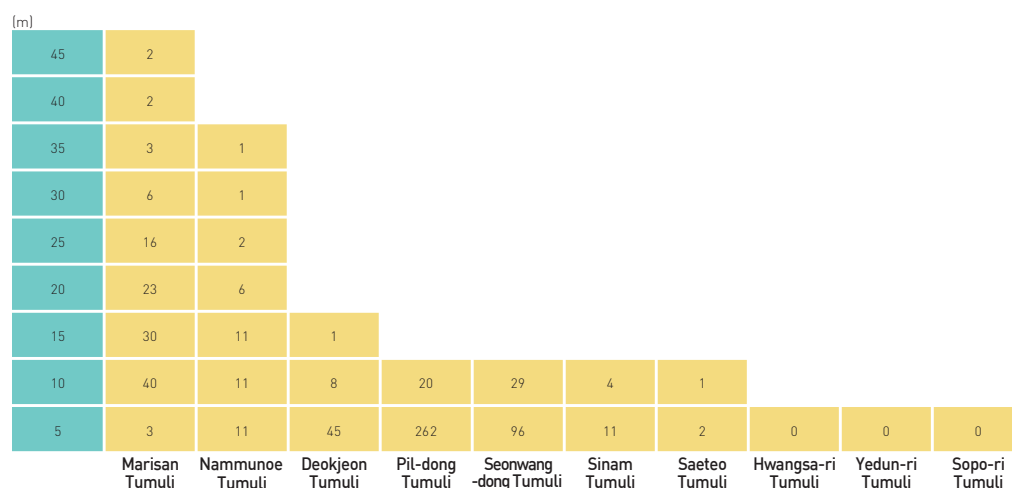


Figure 31. Hierarchy of wooden chambers in the Aragaya area

(cm)

1000	1							
950	0							
900	0							
850	1							
800	1							
750	0							
700	0	2						
650	0	0						
600	2	1	2					
550	3	0	2	1	1			
500	2	1	0	3	1	2	1	2
450	3	1	5	0	0	7	0	0
400	8	1	5	12	1	26	11	1
350	17	3	5	11	2	49	12	6
300	11	3	10	12	3	43	16	3
250	8	2	8	14	2	42	9	18
200	11	0	5	2	0	14	4	4
150	3	0	3	0	0	2	2	5
100	1	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0
	Marisan Tumuli	Ogok-ri Tumuli	Hwangsa-ri Tumuli	Daepyeong-ri Tumuli	Jangji-ri Tumuli	Hyeon-dong Tumuli	Hapseong-dong Tumuli	Yedun-ri Tumuli

Figure 32. Hierarchy of stone-lined chambers in the Aragaya area

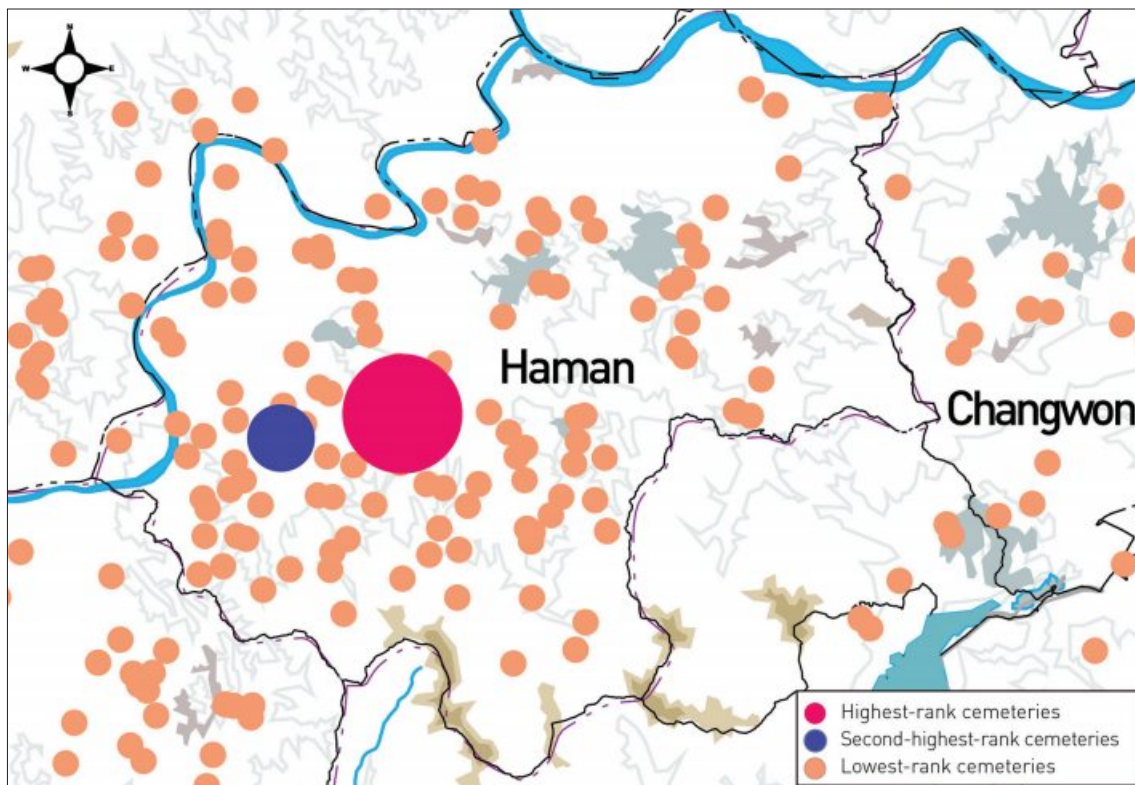
(cm)

1100	3									
1050	2									
1000	2									
950	1									
900	4									
850	0									
800	1									
750	5	1								
700	1	1								
650	4	0								
600	3	0								
550	5	5	1	1	1					
500	5	1	1	0	0					
450	4	0	13	1	2	3	2	1	1	
400	0	1	37	6	3	10	7	0	0	
350	3	0	34	2	1	19	3	0	0	
300	4	2	10	8	3	8	0	2	0	1
250	4	2	15	8	3	10	2	0	1	1
200	0	2	14	4	1	6	0	0	0	1
150	2	0	5	6	2	13	2	0	1	1
100	1	0	0	2	0	1	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0
	Marisan Tumuli	Nammunoe Tumuli	Ogok-ri Tumuli	Hyeon-dong Tumuli	Yedun-ri Tumuli	Sopo-ri Tumuli	Jangji-ri Tumuli	Daepyeong-ri Tumuli	Seonwang-dong Tumuli	Hapseong-dong Tumuli

Table 2. Compositions of grave goods in the Aragaya area

Cemetery	Accessories				Iron objects												Others			Trade goods
	Gold objects				Longswords	Armor		Horse trappings						Weapons			Agricultural tools			
	Headresses	Earrings	Necklaces	Bracelets		Armor	Helmets	Horse armor	Saddles	Bits	Stirrups	Horse strap pendants	Harness fittings for crossbelt	Swords	Spears	Arrowheads				
Marisan Tumuli	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Celadon vessels from China Armor from Japan
Nammunoe Tumuli		●	●	●		●			●			●		●			●			
Hyeon-dong Tumuli		●	●							●				●	●	●	●			
Yedun-ri Tumuli		●	●	●										●	●	●	●	●		
Ogok-ri Tumuli		●	●											●	●	●	●	●		
Sopo-ri Tumuli		●												●	●	●		●		
Daepyeong-ri Tumuli			●											●	●	●	●			
Seonwang-dong Tumuli															●	●		●		
Jangji-ri Tumuli														●		●		●		
Hwangsa-ri Tumuli			●												●	●				
Hagi-ri Tumuli														●	●					
Yunoe-ri Tumuli																●			●	

Figure 33. Distribution of cemeteries in the Aragaya area



Hierarchy of cemeteries in the Daraguk area

The distribution of Daraguk-style tomb constructions and pottery indicates that the boundaries of the area conform with the eastern portion of present-day Hapcheon County. About 50 Gaya cemeteries have been identified within the Daraguk area, 17 of which have been subjected to archaeological investigation. Among these investigated cemeteries, the Okjeon Tumuli is clearly set apart from the others by the status expressed in the size of the burial mounds and the volume and artistic sophistication of the grave goods.

The burial mounds found within the Daraguk area can be divided into different groups by size: those measuring ten meters or less in diameter, from 10 to 15 meters, from 15 to 20 meters, and 20 meters or above. The Okjeon Tumuli hosts seven burial mounds falling into the 20-meter-or-

above category, and 16 in the 15-to-20-meter category. There are eight burial mounds with a diameter of 20 meters or above at the Yeongchang-ri Tumuli and two with a diameter of 15 to 20 meters at the Mo-ri Tumuli. Burial mounds at five cemeteries (the Oseo-ri Tumuli, Sangpo-ri Tumuli, Jeongam-ri Tumuli, Hak-ri Tumuli, and Jukgo-ri Tumuli) all measure ten meters or less. There are no mounded tombs found at other cemeteries.

The lofty position of the Okjeon Tumuli within Daraguk is more clearly expressed in the length of the stone-lined chambers. Two stone-lined chambers measuring from 9 to 10 meters in length and another 30 measuring from 4.5 to 7.5 meters have been excavated at the Okjeon Tumuli. Three stone-lined chambers measuring 4.5 to 5.5 meters in length have been found at the Ange-ri Tumuli. At the area's other cemeteries (such as the Mullim-ri Tumuli, Jeongyang-ri Tumuli, Hapcheon-ri Tumuli, Seongsan-ri Tumuli, and Dara-ri Tumuli), all the stone-lined chambers are 4.5 meters or shorter.

A small number of tombs within the Daraguk area has been excavated and, by extension, the amount of excavated grave goods is limited. Therefore, it is hard to define specific types of compositions of burial goods. However, a clear distinction can be noted between the Okjeon Tumuli and other cemeteries. Necklaces made of jade, agate, or glass beads; gold earrings; and metal bracelets have been found at the Okjeon Tumuli. Multiple earrings and necklaces have been found in individual tombs at the Okjeon Tumuli. Body adornments have also been excavated from the Mullim-ri Tumuli, Hapcheon-ri Tumuli, and Jeongyang-ri Tumuli. However, only a small number of earrings and necklaces have been excavated from these cemeteries, and they are less splendid in their materials and designs. In addition, the Okjeon Tumuli has also yielded objects imported from other states—like gilt-bronze vessels from Baekje and Roman glass. This suggests that the social group responsible for the construction of tombs at the Okjeon Tumuli had a monopoly on trade in Daraguk.

The Okjeon Tumuli is also distinguished from other cemeteries within the Daraguk area in terms of iron objects. It has produced armor, horse armor, highly embellished horse trappings such as saddles, bits, stirrups, horse strap pendants, harness fittings for cross-belts, and large quantities of weapons. Other cemeteries have generated only a few of these iron items excavated from the Okjeon Tumuli and in much smaller quantities. This demonstrates that the social group responsible for the Okjeon Tumuli held considerable military power. In particular, longswords decorated with dragon and phoenix designs, which are believed to symbolize supreme authority, are only found within the Daraguk area at the Okjeon Tumuli.

In conclusion, it is believed that the Okjeon Tumuli is the highest in status among the cemeteries located within the Daraguk area. Few tombs have been excavated at the Yeongchang-ri Tumuli, which have eight burial mounds measuring 20 meters or more in diameter, so little exact information is available on its burial chambers and grave goods. However, the cemetery is widely considered to come below only the Okjeon Tumuli in status based on its burial mounds. Besides these two high-status cemeteries, the other cemeteries in the Daraguk area—including the Mullim-ri Tumuli, Jeongyang-ri Tumuli, and Hapcheon-ri Tumuli—are believed to have belonged to commoners.

Figure 34. Hierarchy of burial mounds in the Daraguk area

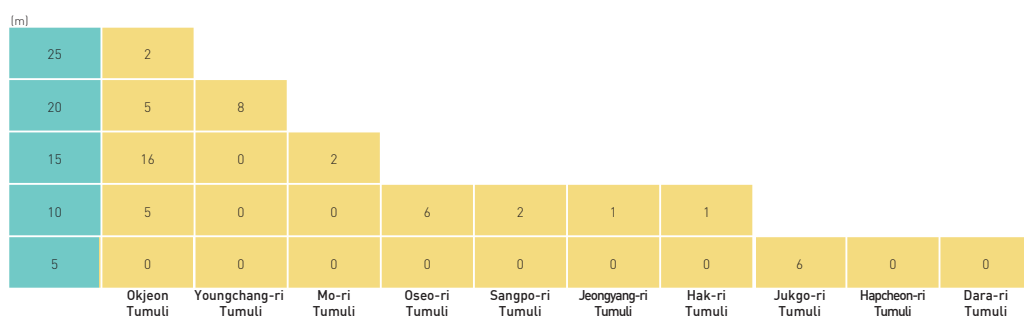


Figure 35. Hierarchy of stone-lined chambers in the Daraguk area

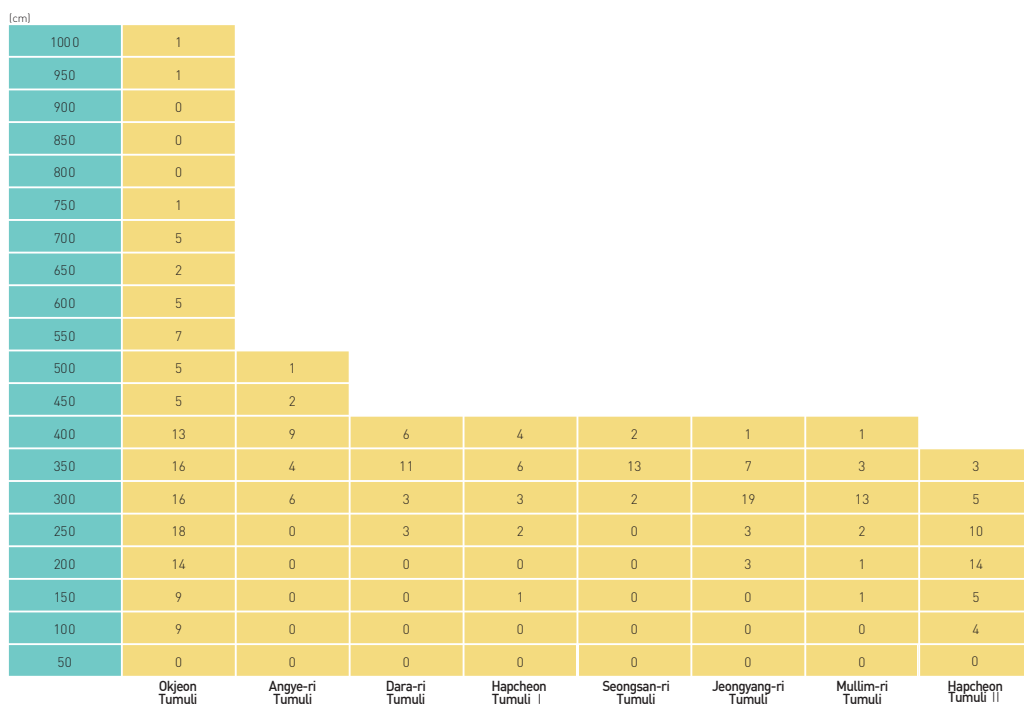
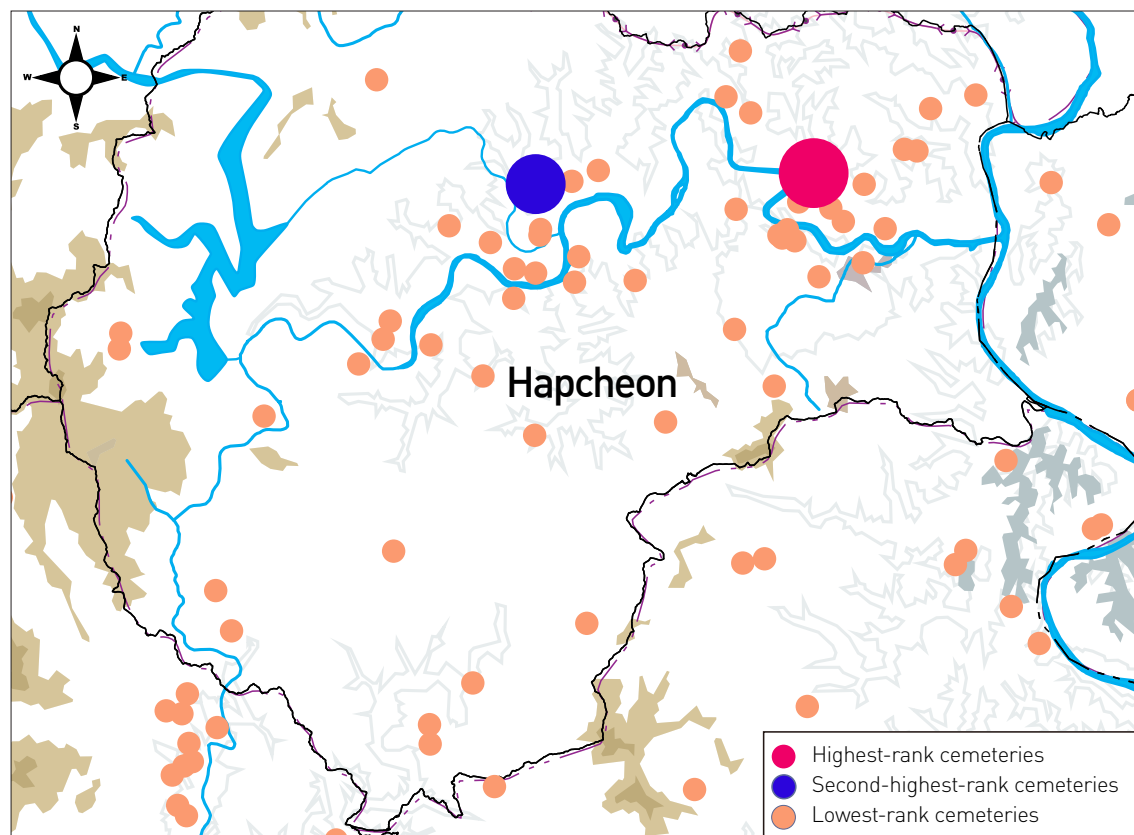


Table 3. Compositions of grave goods in the Daraguk area

Cemetery	Accessories					Iron objects													Others			Trade goods																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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	Headresses	Earrings	Necklaces	Bracelets	Gilt-bronze shoes							Decorated longswords	Armor	Helmets	Horse armor	Saddles	Bits	Stirrups	Horse strap pendants	Harness fittings for crossbelt	Swords		Spears	Arrowheads																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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Okjeon Tumuli	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Figure 36. Distribution of cemeteries in the Daraguk area



Hierarchy of cemeteries in the Daegaya area

Based on the research into the distribution of Daegaya-style tombs and pottery, the area has been determined to correspond with present-day Goryeong County, Geochang County, Hamyang County, the northern section of Sancheong County, and the western section of Hapcheon County. Within this Daegaya area about 220 Gaya cemeteries have been identified, 26 of which have been archaeologically investigated. Analysis of the findings of these investigations has revealed distinct differences in status among the cemeteries. These differences are evident in such indicators as the diameter of the burial mounds, size of the stone-lined chambers, and composition of the burial goods.

The burial mounds found within the Daegaya area can be divided into different groups depending on their diameter: five meters or below, from 5 to 10 meters,

from 10 to 20 meters, from 20 to 30 meters, and 30 meters and above. At 704, the Jisan-dong Tumuli contains the greatest number of burial mounds in the Daegaya area. Four of them fall into the largest-burial-mound category, measuring 30 meters or above in diameter, and one of these surpasses 40 meters in diameter. The Jisan-dong Tumuli also has 14 tombs with a burial mound of 20 to 30 meters and 91 tombs with a burial mound of 10 to 20 meters. In terms of the number of burial mounds, the Jisan-dong Tumuli is followed by the Saengcho Tumuli, which is home to 24. Among them, four measure from 20 to 30 meters and three from 10 to 20 meters. The Bongwan-ri Tumuli, Mureung-ri Tumuli, Seokgang-ri Tumuli, Baekcheon-ri Tumuli, and Bangyeje Tumuli have burial mounds with a diameter measuring from 10 to 25 meters. At the remaining cemeteries, tombs have a burial mound of ten meters or below in diameter or have no mounds at all.

The stone-lined chambers excavated in the Daegaya area vary widely in length from one up to ten meters. These variously sized stone-lined chambers can be categorized into several groups: those 4.5 meters or less in length, from 4.5 meters to 8 meters, and eight meters and longer. The stone-lined chambers in Daegaya are relatively shorter than those in other Gaya polities. However, this does not mean that there is less burial space within an individual tomb since Daegaya-style stone-lined tombs are characterized by multiple chambers. When the spaces of all the chambers comprising a single tomb are combined, the resulting area is no smaller than those from any other Gaya polity. Within the Daegaya area, stone-lined chambers eight meters in length or longer are only found at the Jisan-dong Tumuli. Examples in the 4.5-to-8-meter category are also found at the Bongwan-ri Tumuli, Bonggye-ri Tumuli, Baekcheon-ri Tumuli, Mureung-ri Tumuli, Bangyeje Tumuli, Malheul-ri Tumuli, and Seokgang-ri Tumuli. At other cemeteries, stone-lined tombs are mostly 4.5 meters in length or less.

The hierarchy among the cemeteries is also demonstrated through the composition of the burial goods, which is classified into four different types. Type 1 includes longswords embellished with dragon or phoenix designs, armor, and horse trappings decorated with gold and silver. Also included in Type 1 are gilt-bronze headgear, necklaces made from glass or jade beads, gold earrings, and gilt-bronze quivers as

along with iron weapons and pottery. Type 2 also features longswords, armor, and horse trappings along with pottery and iron weapons, but there are no dragon or phoenix designs on the longswords and the composition of the horse trappings is simple (consisting only of bits and stirrups). There are no ceremonial headdresses or other body adornments included in Type 2. Type 3 is comprised of three or four iron weapons, agricultural tools, and pottery. Consisting mostly of pottery, Type 4 rarely includes iron objects. It is believed that Type 1 goods were reserved for only the very top members of the ruling class and Type 2 was allowed to regular members of the ruling class. Types 3 and 4 indicate the graves of commoners. Tombs producing Type 1 or Type 2 burial goods are found at the Jisan-dong Tumuli, Bongwan-ri Tumuli, Seokgang-ri Tumuli, Saengcho Tumuli, and Baekcheon-ri Tumuli. Highest-ranking tombs in the Daegaya area have produced larger quantities of gold earrings than their counterparts in other polities.

Based on the analysis suggested above, scholars believe that tombs in the Daegaya area can be arranged into three hierarchical ranks. Highest-rank tombs are distinguished by a burial mound 30 meters or greater in diameter with a stone-lined chamber of eight meters or greater in length and the burial goods falling into Type 1. Human sacrifices are also found in these tombs for top leaders. Second-highest-rank tombs are characterized by a smaller burial mound and a stone-lined chamber measuring 10 to 30 meters in diameter and 4.5 to 8 meters in length. These tombs for ordinary members of the ruling class produce Type 2 grave goods. Commoners' tombs have a burial mound 10 meters or less in diameter and a stone-lined chamber four meters or less in length. They contain Type 3 or 4 burial goods.

In sum, the Jisan-dong Tumuli has four highest-rank tombs while others have none. Therefore, it is concluded that the Jisan-dong Tumuli is the highest in status among the cemeteries in the Daegaya area. Immediately below the Jisan-dong Tumuli in the hierarchy of Daegaya cemeteries are the Bongwan-ri Tumuli, Mureung-ri Tumuli, Seokgang-ri Tumuli, Baekcheon-ri Tumuli, and Saengcho Tumuli. It is estimated that other Gaya cemeteries in the Daegaya area, including the Bonggye-ri Tumuli, Allim-ri Tumuli, and Janggi-ri Tumuli, all fall within the lowest rank.

Figure 37. Hierarchy of burial mounds in the Daegaya area

(m)													
45	1												
40	0												
35	3												
30	7	2											
25	7	2	3	1	1	1							
20	15	2	16	5	2	8	2						
15	76	1	18	13	6	8	0						
10	545	2	25	46	12	3	2	3	2	1			
5	50	0	0	21	0	0	0	0	0	0	0	0	0
Jisan-dong Tumuli Saengcho Tumuli Bongwan-ri Tumuli Mureung-ri Tumuli Seokgang-ri Tumuli Baekcheon-ri Tumuli Bangyeje Tumuli Anrim-ri Tumuli Malheul-ri Tumuli Bonggye-ri Tumuli Jungbangye Tumuli Junghwa-ri Tumuli													

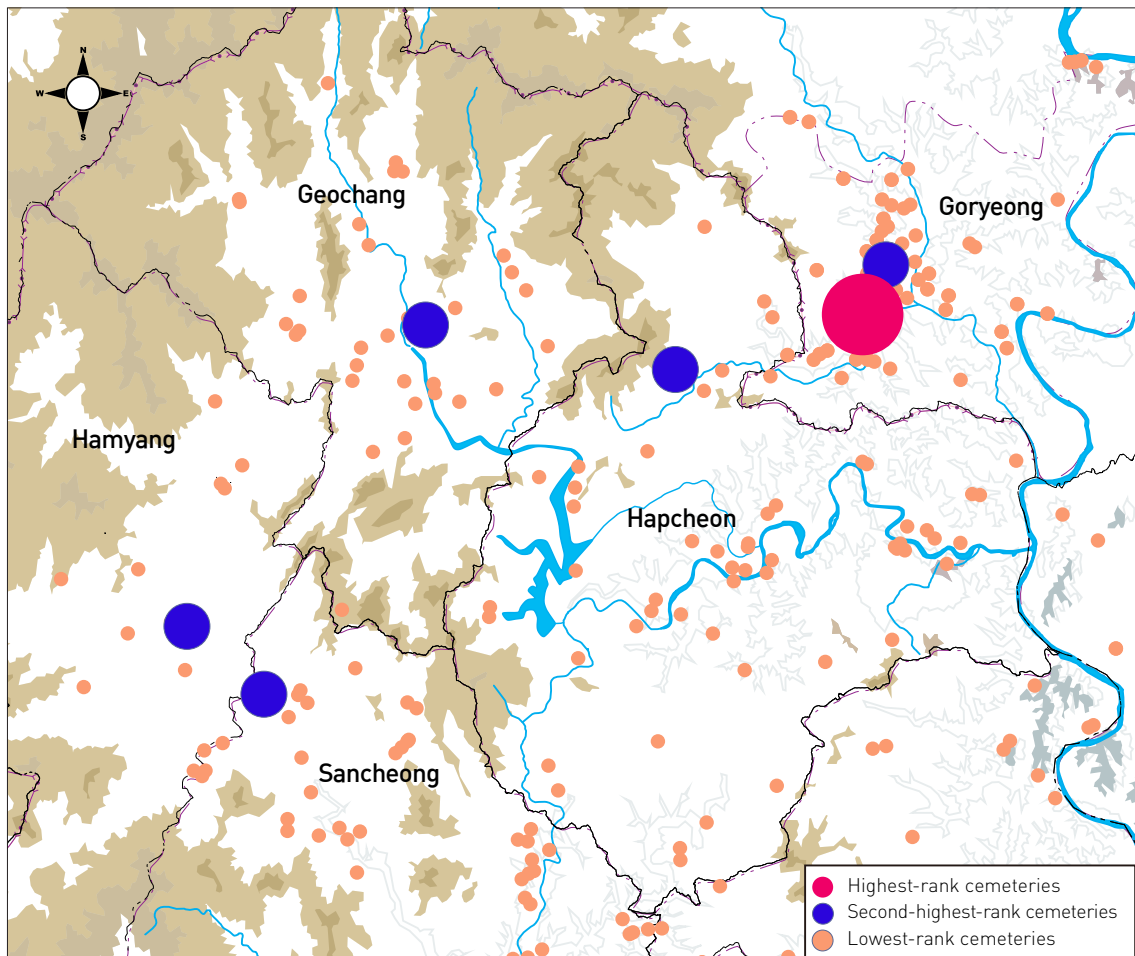
Figure 38. Hierarchy of stone-lined chambers in the Daegaya area

(cm)									
950	1								
900	0								
850	0	1							
800	0	0	1						
750	2	0	0	1					
700	2	0	0	0	1				
650	2	1	0	0	0	1			
600	2	1	0	2	1	0	1		
550	0	1	0	0	0	1	0	1	
500	8	3	1	1	1	0	0	0	
450	19	4	1	3	0	1	0	0	5
400	30	0	11	3	0	2	0	1	12
350	29	1	35	2	0	3	0	0	26
300	40	0	44	0	0	3	1	0	7
250	30	2	33	0	0	3	0	0	8
200	34	0	26	0	0	1	0	0	13
150	23	0	36	0	0	2	0	0	6
100	10	0	12	0	0	4	0	0	4
50	1	0	1	0	0	0	0	0	0
Jisan-dong Tumuli Bongwan-ri Tumuli Bonggye-ri Tumuli Baekcheon-ri Tumuli Mureung-ri Tumuli Bangyeje Tumuli Malheul-ri Tumuli Seokgang-ri Tumuli Saengcho Tumuli									

Table 4. Compositions of grave goods in the Daegaya area

Cemetery	Accessories						Iron objects										Others			Trade goods					
	Gold objects						Armor			Horse trappings				Weapons			Agricultural tools								
	Headresses	Earrings	Earrings with pendants	Necklaces	Bracelets	Belt decorations	Longswords	Armor	Helmets	Horse armor	Saddles	Bits	Stirrups	Horse strap pendants	Harness fittings for crossbelt	Swords	Spears	Arrowheads							
Jisan-dong Tumuli	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Cone-snail shell ladle from Japan
Saengcho Tumuli		●	●	●	●		●				●	●		●	●	●	●	●	●						
Bongwan-ri Tumuli		●	●	●				●				●			●	●	●	●	●			●		●	
Baekcheon-ri Tumuli		●	●			●	●				●	●	●			●	●	●	●			●		●	
Bangyeje Tumuli	●	●	●				●	●	●							●	●	●	●				●		
Seokgang-ri Tumuli		●	●	●	●			●					●	●		●			●				●		
Sangbaek-ri Tumuli								●				●	●	●	●	●	●	●	●						
Jeopo-ri Tumuli		●		●		●										●	●	●	●			●		●	
Bonggye-ri Tumuli		●			●							●					●	●	●				●		
Pyeongchon-ri Tumuli		●		●								●				●	●	●	●				●		
Chang-ri Tumuli		●		●			●									●	●	●	●						
Matheul-ri Tumuli		●										●	●				●	●	●						
Songok-ri Tumuli		●														●	●	●	●				●		
Balgok-ri Tumuli		●														●	●	●	●				●		
Mureung-ri Tumuli																●	●	●	●						
Banun-ri Site																●	●	●	●						
Kwaebin-ri Tumuli		●															●	●	●			●			
Jungbangeye Tumuli		●																●	●						
Dojin-ri Tumuli		●																							
Junghwa-ri Tumuli																			●						

Figure 39. Distribution of cemeteries in the Daegaya area



Hierarchy of cemeteries in the Sogaya area

The distribution of Sogaya-style tombs and pottery indicates that the area previously ruled by Sogaya conforms with present-day Goseong County, Jinju City, and Sancheong County. The Sogaya area has within its bounds about 160 Gaya cemeteries, 25 of which have been archaeologically investigated. Based on an analysis of the research findings from these 25 cemeteries, a hierarchical organization of the Sogaya cemeteries has been determined. Their differences in status are most clearly manifested in the diameter of the burial mounds, length of the stone-lined chambers, and the makeup of burial goods.

The burial mounds within the Sogaya area come in diverse sizes ranging from 5 to 35 meters in diameter. They are normally categorized into a 15-meter-and-below group, 15-to-30-meter group, and 30-meter-or-above group. These three categories of burial mounds are associated with the top members of the ruling class, ordinary members of the ruling class, and commoners. The Songhak-dong Tumuli hosts five burial mounds falling into the largest category and six into the second-largest category. Burial mounds in the second-largest category can also be found at the Naesan-ri Tumuli (eight), Yeondang-ri Tumuli (four), Yeongdae-ri Tumuli (three), Jungchon-ri Tumuli (two), Yuldae-ri Tumuli (one), and Gajwa-dong Tumuli (one). Burial mounds measuring 15 meters or below can be found in a number of other cemeteries, including the Myeongdong Tumuli, Usu-ri Tumuli, and Oksan-ri Tumuli.

Five hundred eighty-eight stone-lined tombs in the Sogaya area have been subjected to excavation. Their sizes are diverse, ranging from 0.5 to 8.5 meters long. The stone-lined chambers in the Sogaya polity are generally grouped into three categories depending on their length: 5.5 meters and below, 5.5 to 6.5 meters, and 6.5 meters and above. The Songhak-dong Tumuli has three stone-lined chambers falling into the category of the largest. Examples from the category of second-largest chambers are found at the Jungchon-ri Tumuli, Yuldae-ri Tumuli, Naesan-ri Tumuli, Yeondang-ri Tumuli, and Gajwa-dong Tumuli. The remaining cemeteries house stone-lined chambers of mainly four meters or less in length.

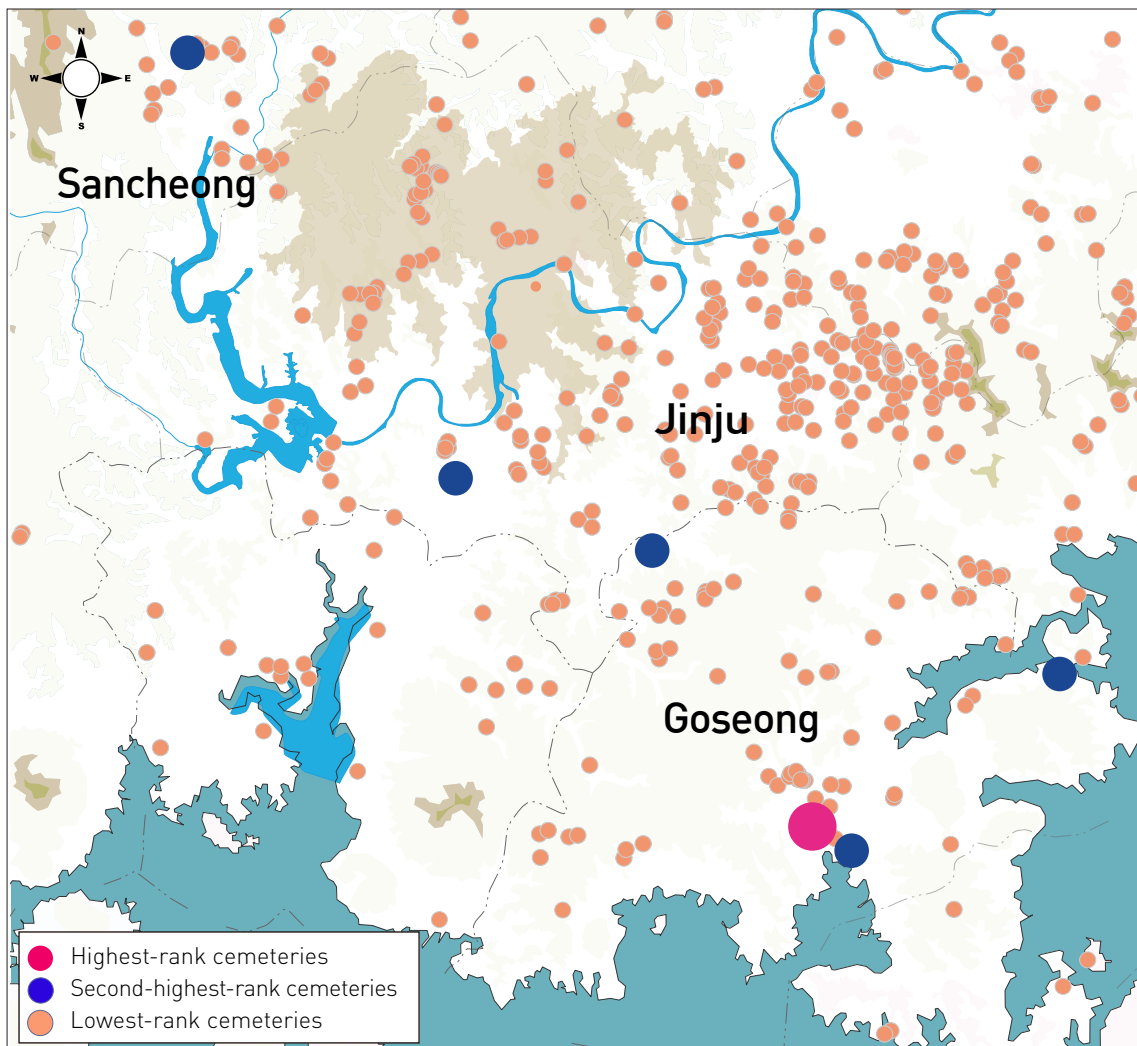
The 588 excavated stone-lined chambers have produced various compositions of burial goods, which are usually considered to come in one of three different types. Type 1 includes longswords, armor, horse trappings, accessories, and trade goods as well as iron weapons and pottery. Type 2 has horse trappings, but their composition is simple and consists of only bits and stirrups. Type 2 also includes iron weapons and pottery. A small amount of iron weapons can be found in Type 3, as well as agricultural tools and pottery. Type 1 is estimated to be associated with the very highest-ranking members

of the ruling class, while Type 2 is believed to have been buried with ordinary members of the ruling class. Type 1 tombs are only found at the Songhak-dong Tumuli, while Type 2 have also been discovered at the Yuldae-ri Tumuli, Naesan-ri Tumuli, and Yeondang-ri Tumuli.

It is believed that tombs in the Sogaya area can be categorized as highest-rank tombs, second-highest-rank tombs, and commoners' tombs. Tombs highest in status are set apart from others by a burial mound of 30 meters or more in diameter, a stone-lined chamber 6.5 meters or longer, and the deposition of Type 1 burial goods. Tombs built for ordinary members of the ruling class are characterized by a somewhat smaller burial mound and stone-lined chamber, respectively measuring 15 to 30 meters in diameter and 5.5 to 6.5 meters long. They are also marked by burial goods falling into the Type 2 category. Commoners' tombs have a burial mound 15 meters or less in diameter, a stone-lined chamber 5.5 meters or shorter, and Type 3 burial goods.

In conclusion, it is understood that the Songhak-dong Tumuli is highest in status among the cemeteries of Sogaya, followed by the Yuldae-ri Tumuli, Naesan-ri Tumuli, Yeondang-ri Tumuli, Gajwa-dong Tumuli, and Jungchon-ri Tumuli in a second tier. In the case of the Yeongdae-ri Tumuli, three burial mounds have been found measuring 15 to 20 meters in diameter. However, this cemetery is thought to pertain to the lowest rank as its stone-lined chambers are small, measuring 5.5 meters or below and the burial goods there all fall into the Type 3 category. Along with the Yeongdae-ri Tumuli, the remaining cemeteries within the Sogaya area—including the Usu-ri Tumuli, Myeongdong Tumuli, and Oksan-ri Tumuli—have been determined to belong to the lowest rank.

Figure 42. Distribution of cemeteries in the Sogaya area



Hierarchy of cemeteries in the Unbong Plateau area

Archaeological investigations into cemeteries on the Unbong Plateau have indicated that an independent Gaya polity variously known as Gimul, Samun, and Gimun existed in this area. About 40 cemeteries have been identified within the bounds of the Unbong Plateau, and eight of these have been investigated by archaeologists. Examinations of these eight cemeteries focusing on the size of the burial mounds and burial chambers and the composition of the grave goods have discovered differences in status.

Burial mounds on the Unbong Plateau vary in their diameter from 5 to 35 meters. They are normally grouped into ten-meter-and-below, 10-to-20-meter, and 20-meter-and-above categories. Burial mounds with a diameter of 20 meters and above are presumed to have been built for the most powerful members of the ruling class. The Yugok-ri and Durak-ri Tumuli has 20 of these tombs, and the Cheonggye-ri Tumuli has one. Burial mounds with a diameter of 10 to 20 meters are believed to have been burial sites for ordinary members of the ruling class. There are 20 such tombs at the Yugok-ri and Durak-ri Tumuli, nine at the Wolsan-ri Tumuli, and one each at the Cheonggye-ri Tumuli, Im-ri Tumuli, and Ipam-ri Tumuli. Burial mounds measuring ten meters or less in diameter have been identified at the Geonji-ri Tumuli, Jarae Tumuli, and Gwangpyeong Tumuli. No burial mounds have been found at the Bongdae Tumuli and Haengjeong-ri Tumuli.

Few stone-lined chambers have been excavated on the Unbong Plateau—totaling just about 100. However, they exhibit clear differences in status. These stone-lined chambers are diverse in length, with some two meters and shorter, from 2 to 4.5 meters, 4.5 to 6.5 meters, and others 6.5 meters and longer. Stone-lined chambers falling into the category of the largest chambers have been excavated at the Yugok-ri and Durak-ri Tumuli and at the Wolsan-ri Tumuli (two and four, respectively). Although more stone-lined chambers in the largest-chamber category have been found at the Wolsan-ri Tumuli, it should be noted that six of the ten mounded tombs there have been excavated while at the Yugok-ri and Durak-ri Tumuli only six out of the 40 known mounded tombs have been excavated and there accordingly remain many unexcavated burial mounds that are large in size. It is estimated that there must be many more top-rank stone-lined chambers among the unexcavated tombs at the Yugok-ri and Durak-ri Tumuli. Stone-lined chambers measuring 4.5 to 6.5 meters occur at the Yugok-ri and Durak-ri Tumuli (two), Wolsan-ri Tumuli (two), and Cheonggye-ri Tumuli (five). In the remaining five excavated cemeteries (Geonji-ri Tumuli, Haengjeong-ri Tumuli, Bongdae-ri Tumuli, Im-ri Tumuli, and Gwangpyeong Tumuli), the stone-lined chambers are all 4.5 meters long or shorter.

Burial goods found in individual tombs in the Unbong Plateau area show clear distinctions between high-status tombs and commoners' graves. The Yugok-ri and Durak-ri Tumuli has produced not only longswords, armor, and horse trappings, but also imported items such as gilt-bronze shoes and gilt-bronze mirrors from the Baekje Kingdom. Likewise, the Wolsan-ri Tumuli has yielded longswords, armor, horse trappings, gold earrings, necklaces made of glass beads, and celadon vessels imported from China. The Cheonggye-ri Tumuli was severely impacted by looting and has produced few grave goods. However, the burial goods excavated from this cemetery still include longswords, horse trappings, and shards of celadon vessels imported from China. Meanwhile, the remaining cemeteries (the Geonji-ri Tumuli, Bongdae-ri Tumuli, Im-ri Tumuli, Haengjeong-ri Tumuli, and Gojuk-dong Tumuli) have produced iron weapons, agricultural tools, and pottery, albeit in small quantities.

Given the analysis of the burial mounds, stone-lined chambers, and grave goods described above, it has been determined that tombs within the Unbong Plateau area can be categorized into highest-rank tombs, second-highest-rank tombs, and commoners' tombs. The first category of tombs is distinguished by a burial mound 20 meters or more in diameter and a stone-lined chamber 6.5 meters or longer. Meanwhile, the second category of tombs is characterized by a smaller burial mound and stone-lined chamber than those in the first category, specifically a mound measuring 10 to 20 meters in diameter and a stone-lined chamber 4.5 to 6.5 meters in the length. These high-status tombs have all produced longswords, armor, horse trappings, and trade goods. Commoners' tombs have burial mounds ten meters or less in diameter and stone-lined chambers of 4.5 meters or less in length. They produce small quantities of burial goods consisting only of iron weapons, agricultural tools, and pottery.

All in all, it is estimated that the Yugok-ri and Durak-ri Tumuli is the highest in status among the cemeteries in the Unbong Plateau area. The second-highest group includes the Wolsan-ri Tumuli and Cheonggye-ri Tumuli. The remaining cemeteries, including the Geonji-ri Tumuli, Bongdae-ri, and Im-ri Tumuli, belong to the lowest rank.

Figure 43. Hierarchy of burial mounds in the Unbong Plateau area

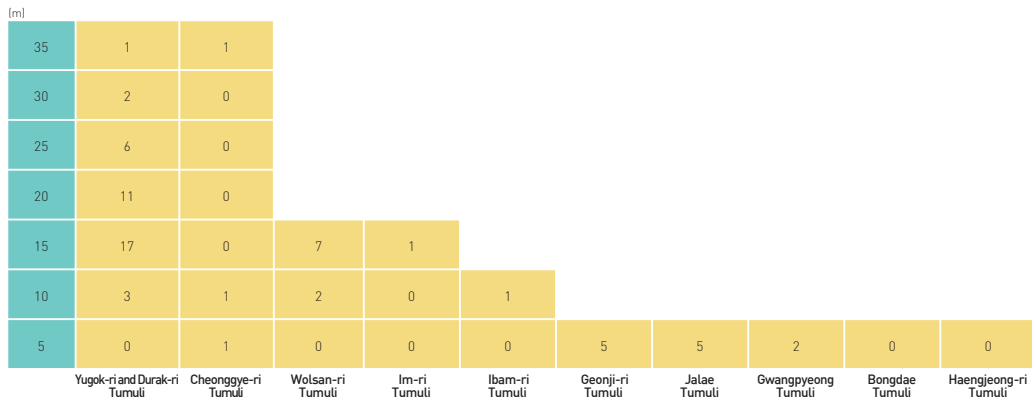


Figure 44. Hierarchy of stone-lined chambers in the Unbong Plateau area

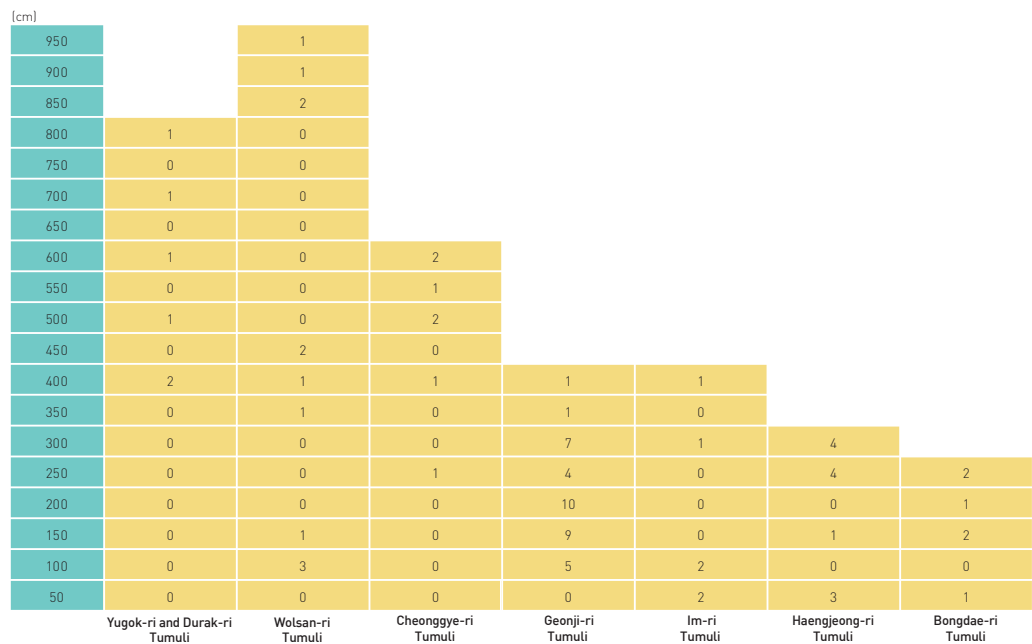
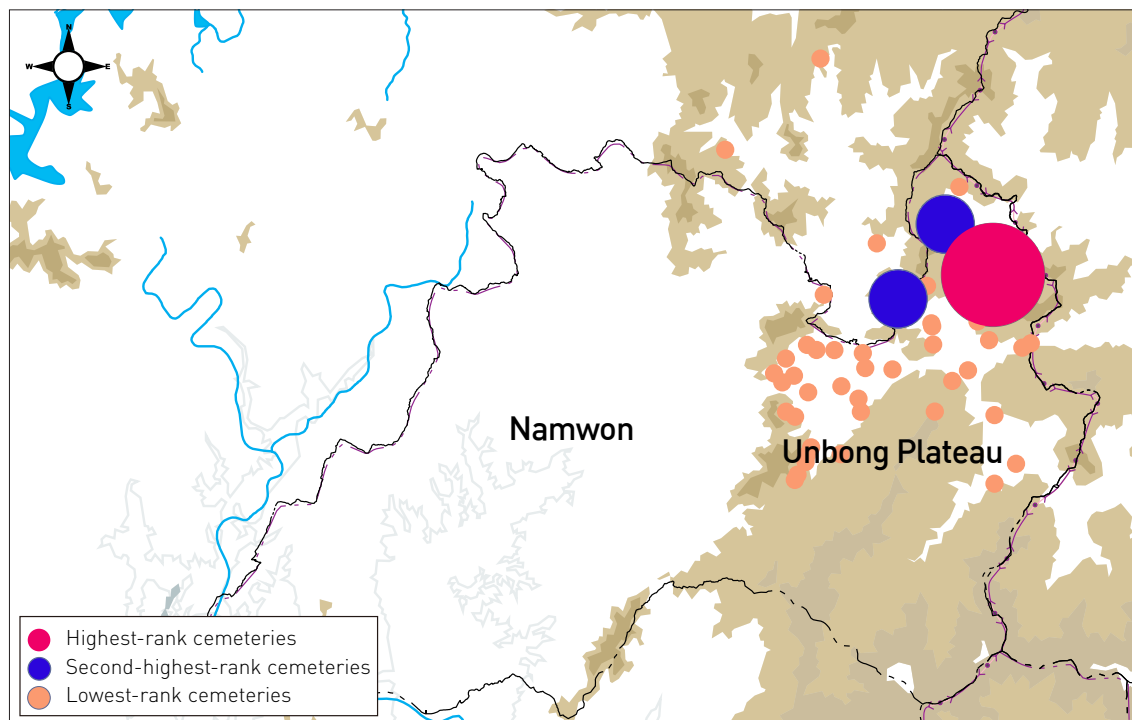


Table 6. Compositions of grave goods in the Unbong Plateau area

Cemetery	Accessories					Iron objects											Others			Trade goods																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	Gold objects					Longswords	Armor		Horse trappings					Weapons			Agricultural tools																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
	Head dresses	Earrings	Necklaces	Bracelets	Gilt-bronze shoes		Decorated longswords	Armor	Helmets	Horse armor	Saddles	Bits	Stirrups	Horse strap pendants	Harness fittings for crossbelt	Swords		Spears	Arrowheads																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Yugok-ri and Durak-ri Tumuli		●	●		●	●		●		●	●	●		●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Figure 45. Distribution of cemeteries in the Unbong Plateau area



Hierarchy of cemeteries in the Bihwagaya area

The distribution of Bihwagaya-style tombs and pottery indicates that the area previously governed by Bihwagaya corresponds with present-day Changnyeong County. About 110 Gaya cemeteries have been identified within the bounds of the Bihwagaya area, and 26 of them have been investigated archaeologically. Findings from these 26 cemeteries indicate clear distinctions in status among the cemeteries in the area.

Burial mounds in the Bihwagaya region are diverse in size, ranging from 2 to 45 meters in diameter. They have been grouped into the categories of five meters or below in diameter, from 5 to 15 meters, from 15 to 25 meters, and 25 meters or above. Burial mounds in the largest-size category, considered to signify the highest level of status, are found at the Gyo-dong and Songhyeon-dong Tumuli, Gyeseong Tumuli, Yeongsan Tumuli, and Hap-ri Tumuli (18, ten, two, and one tomb, respectively). Those ranging from 15 to 25 meters

in diameter occur at eight cemeteries. They include 57 at the Gyo-dong and Songhyeon-dong Tumuli, 36 at the Gyeseong Tumuli, and 12 at the Yeongsan Tumuli. Tombs with a burial mound 5 to 15 meters in diameter have been identified at 13 cemeteries.

Stone-lined chambers excavated in the Bihwagaya area are diverse in size, ranging from 0.5 to 9.5 meters in length. These stone-lined chambers can be grouped by length into the five-meter-or-below category, the 5-to-8-meter category, and the 8-meter-or-above category. The category of largest chambers has only been found at the Gyo-dong and Songhyeon-dong Tumuli (four in total). Examples in the category of the second-largest chambers have been found at the Gyo-dong and Songhyeon-dong Tumuli, Gyeseong Tumuli, and Yeongsan Tumuli (23, seven, and two tombs, respectively). The stone-lined chambers at the other cemeteries are all five meters or below in length.

The burial goods that have been excavated to date from the Bihwagaya area mostly come from the Gyo-dong and Songhyeon-dong Tumuli, Gyeseong Tumuli, and Yeongsan Tumuli. Two types of composition of burial goods have been identified. Type 1 includes longswords, horse trappings, armor, gold or gilt-bronze earrings, metal bracelets, necklaces made of glass beads, and iron weapons. Type 2 consists only of around ten iron weapons, agricultural tools, and pottery. Type 1 is estimated to belong to members of the ruling class and Type 2 to commoners. Type 1 tombs are concentrated in the Gyo-dong and Songhyeon-dong Tumuli, Gyeseong Tumuli, and Yeongsan Tumuli. The Gyo-dong and Songhyeon-dong Tumuli in particular have produced gold items from Silla, lavishly decorated horse trappings, longswords imported from Daegaya or Baekje, and armor and wooden coffins from Japan. In comparison, the burial goods excavated from the Gyeseong Tumuli and Yeongsan Tumuli rarely include trade goods and include many fewer body adornments. In addition, evidence of human sacrifice has been discovered at the Gyo-dong and Songhyeon-dong Tumuli, but not at the Gyeseong Tumuli or Yeongsan Tumuli.

Given the above, tombs in the Bihwagaya area have been hierarchically arranged from highest-rank tombs to second-highest-rank tombs and to commoners' tombs. Highest-rank tombs built for elite leaders are distinguished by a burial mound measuring 25 meters or more in diameter and a stone-lined chamber eight meters long or longer. Their burial goods should include longswords, armor, horse trappings, and trade goods. Second-highest-ranking tombs, which belong to ordinary members of the ruling class, have a burial mound of 15 to 25 meters in diameter and a stone-lined chamber 5 to 8 meters in length. These tombs typically produce undecorated iron swords, armor, and a simple set of horse trappings composed only of bits and stirrups. They contain iron weapons, but not trade goods. Commoners' tombs are characterized by a burial mound of 15 meters or below in diameter and a stone-lined chamber of five meters or less in length. These tombs in the lowest category of the tomb hierarchy have only generated small quantities of iron weapons, agricultural tools, and pottery.

All in all, it is estimated that the Gyo-dong and Songhyeon-dong Tumuli is the highest in status among the cemeteries of Bihwagaya. The Gyeseong Tumuli and Yeongsan Tumuli fall into the second-highest rank. The others, including the Ugang-ri Tumuli, Musol Tumuli, and Ucheon-ri Tumuli, are assigned to the lowest rank. The mounded tombs from the early 5th century at the Gyeseong Tumuli are comparable to those at the Gyo-dong and Songhyeon-dong Tumuli in terms of the diameter of the burial mounds and the quality and quantity of the burial goods. However, a distinction between the two cemeteries began to emerge toward the later 5th century, as evidenced by the size of later tombs and their burial goods found at the Gyo-dong and Songhyeon-dong Tumuli and Gyeseong Tumuli. Archaeologists believe that the two groups respectively responsible for the construction of the two cemeteries simultaneously emerged as local powers in the Bihwagaya area in the early 5th century, but toward the later part of the 5th century power became increasingly concentrated within the Gyo-dong and Songhyeon-dong Tumuli group.

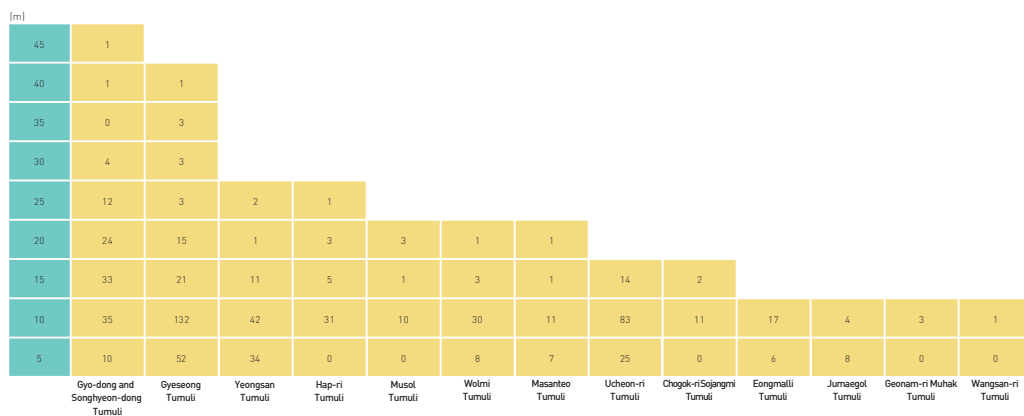
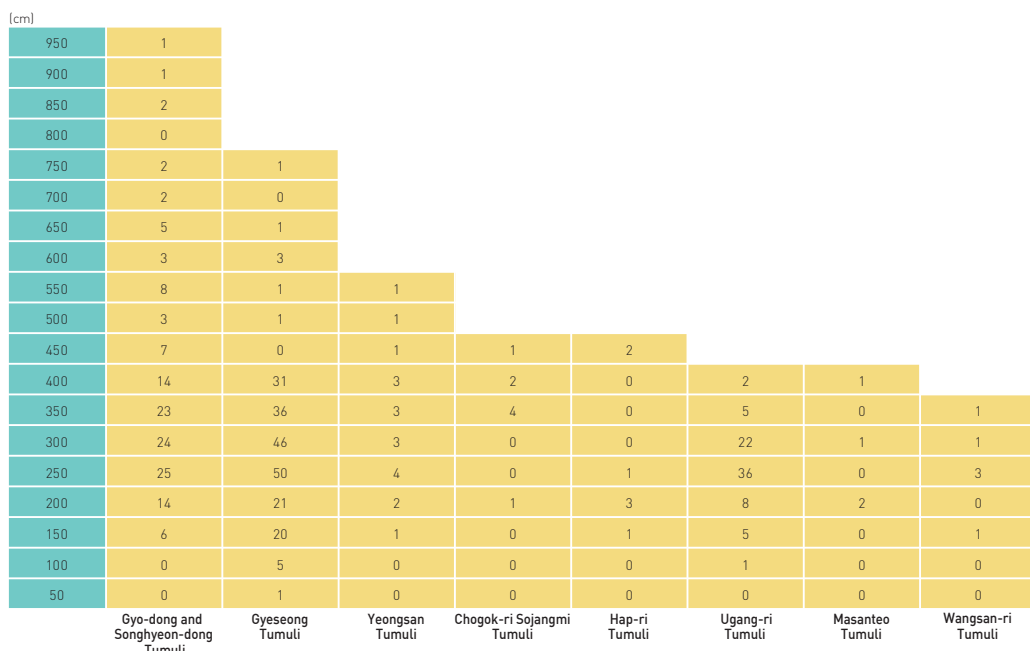
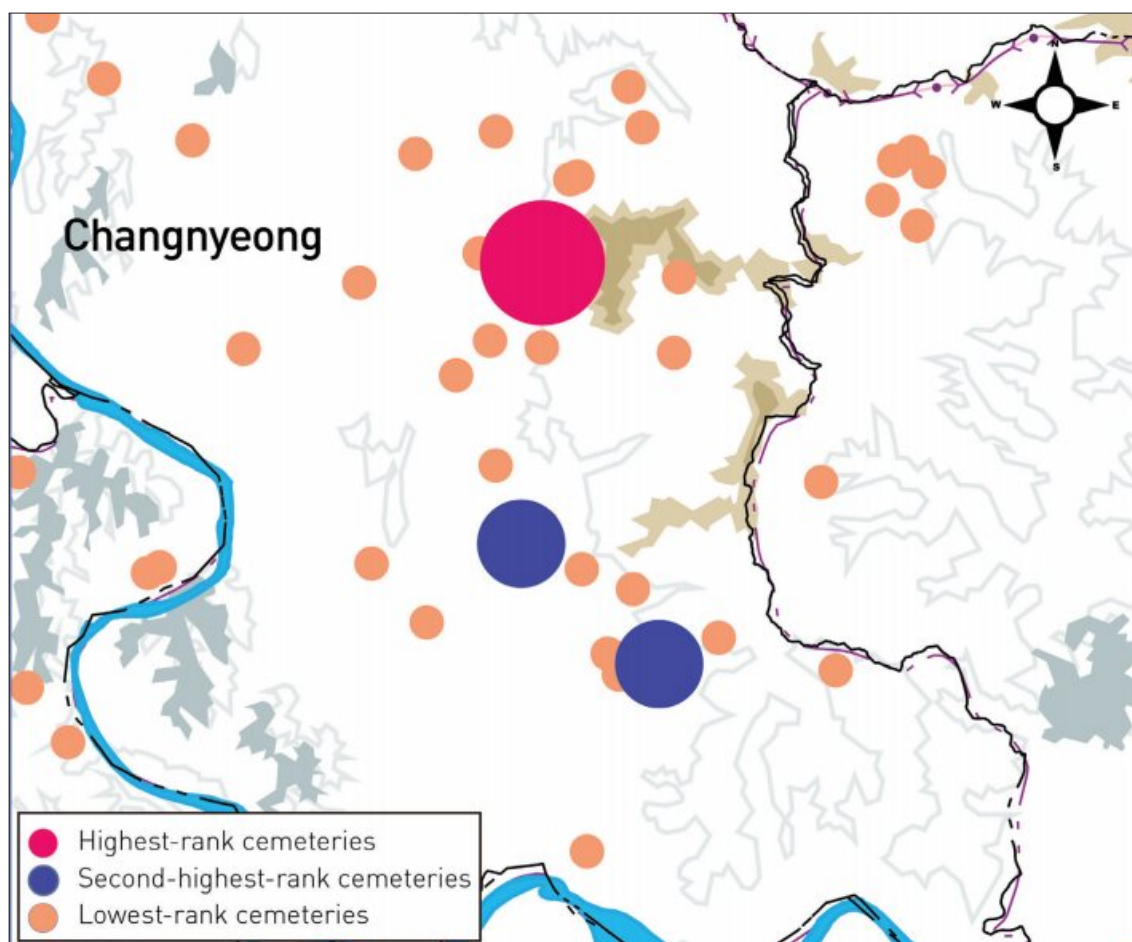
Figure 46. Hierarchy of burial mounds in the Bihwagaya area**Figure 47. Hierarchy of stone-lined chambers in the Bihwagaya area**

Table 7. Compositions of grave goods in the Bihwagaya area

Cemetery	Accessories					Iron objects										Others			Trade goods
	Gold objects					Longswords	Armor		Horse trappings						Weapons			Agricultural tools	
	Head dresses	Earrings	Necklaces	Bracelets	Longswords / Gilt-bronze shoes	Decorated longswords	Armor	Helmets	Horse armor	Saddles	Bits	Stirrups	Horse strap pendants	Harness fittings for crossbelt	Swords	Spears	Arrowheads		
Gyo-dong and Songhyeon-dong Tumuli	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	Accessories from Silla
Gyeseong Tumuli	●	●	●	●	●	●				●	●	●	●	●	●	●	●	●	Accessories from Silla
Yeongsan Tumuli		●					●			●	●	●	●		●	●	●	●	
Ugang-ri Tumuli		●													●	●			
Masanteo Tumuli													●			●			
Chogok-ri Sojangmi Tumuli		●															●		
Hap-ri Tumuli																			
Wangsan-ri Tumuli																			●

Figure 48. Distribution of cemeteries in the Bihwagaya area



• Gaya Tumuli as evidence of confederated political entities of comparable power

As explained in the nomination dossier, the geographical locations, topographical characteristics, size of component tombs, and composition of burial goods at the seven nominated cemeteries testify to the presence of a group of confederated entities of comparable power known as the Gaya Confederacy. Specifically, the respective highest-rank cemeteries from the seven sub-entities of Gaya are similar in terms of the size of the individual tombs and the composition of the burial goods. These highest-rank cemeteries are dispersed across the area previously controlled by Gaya. These characteristics demonstrate the balance in the level of authority held by each sub-entity of Gaya. Details regarding these attributes of the seven nominated cemeteries are explained below.

The seven nominated cemeteries each served as the burial ground for the top members of the ruling class of the respective Gaya polities. They are widely distributed across the Gaya area, attesting to the relative independence maintained by the local Gaya units. Geographically bounded by the Sobaeksan Mountain Range to the north and west, the Nakdonggang River to the east, and the sea to the south, the region that gave birth to the Gaya civilization was well positioned for the development of an independent culture. This naturally isolated southern section of the Korean Peninsula was further divided into several sub-areas by the tributaries of the Nakdonggang River and the mountains stretching from the Sobaeksan Range. Within these sub-sections emerged individual Gaya polities. These natural borders that eventually formed the boundaries of the Gaya polities nourished their autonomy and contributed to the development of Gaya as the multi-centered alliance that we understand today. The autonomous cultural development achieved by the Gaya members is demonstrated by the distinctive funerary practices found in their political centers.

The largest mounded tombs from each nominated cemetery are all similar in size, demonstrating that the sub-entities of Gaya each supported a ruling elite of relatively comparable power. Members of the Gaya Confederacy shared the practice of concentrating the large tombs of their leaders in a hilly area in the political center. In ancient societies, the construction of huge burial mounds was a symbolic political art demonstrating the investment of immense amounts of resources and labor. The grand burial mounds lining the ridges of the hilly cemetery in each political center clearly exhibit the level of authority held by the top members of the ruling class of each Gaya polity. The political centers of the Gaya polities, the sites where these highest-rank cemeteries are found, have also produced large building sites and earthen fortresses dating to the Gaya era. Such features are not found in the areas outside the political centers.

The nominated cemeteries demonstrate how the members of the Gaya Confederacy shared general burial customs but developed their own local funerary characteristics. However, they all constructed similarly sized burial chambers for their top leaders. This displays the political parity the Gaya polities maintained among themselves. Burial chambers across the Gaya area greatly differ in size between tombs for the ruling class and for commoners. Members of the ruling class gradually constructed larger burial chambers over time to secure additional space for burial goods. The highest-ranking tombs excavated in each sub-area of Gaya are all comparable in size. This is a far cry from the funerary patterns in more centralized contemporaneous states where a clear hierarchy existed between the center and periphery in terms of tomb sizes and burial types.

The nominated cemeteries are comparable with each other in terms of the quality and quantity of excavated prestige and trade goods, testifying to the autonomous and equitable relations among the polities. Gaya tombs have produced an abundance of burial goods, including ceremonial pottery, iron armor and weapons, body adornments, and trade goods. The composition of

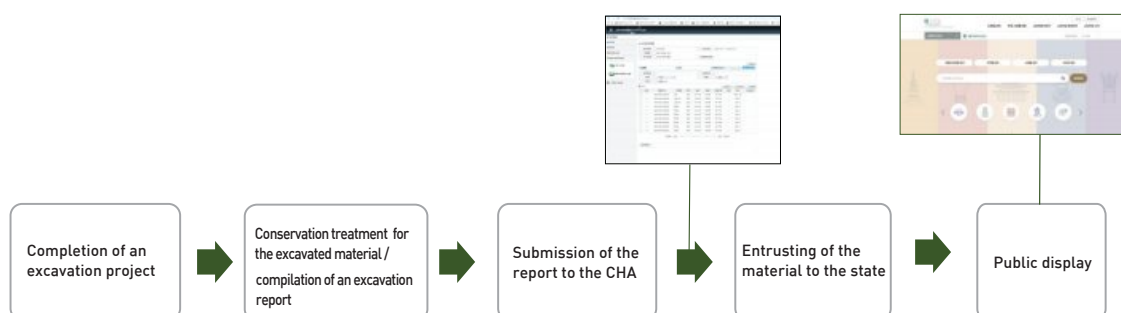
burial goods excavated from a Gaya tomb, their quantity, and their quality all vary greatly depending on the social status of the tomb occupant. Longswords, armor, and horse trappings—the three supreme prestige markers of the time—are found in the tombs built for the top leaders along with adornments and trade goods. These grave goods exclusively excavated from the highest-ranking tombs in each sub-entity of Gaya show how the political elite of Gaya used military power as a fundamental means of ruling and that members of the Gaya Confederacy maintained comparable levels of military might. The trade goods yielded by the tombs of the top leaders in each area indicate that the Gaya polities maintained a degree of independence as members of a greater alliance and autonomously traded with neighboring states. In contrast, wealth concentrated significantly in the political capitals of Gaya's more centralized neighboring states, and accordingly clear differences are displayed between the burial goods excavated in the center and the periphery. In these states, trade with the outside world was monopolized and imported items were distributed to local areas only through the rulers. However, each of the seven Gaya polities maintained its own distribution system.

Item 2. Excavation and exhibition of objects

Q 2-1. ICOMOS would appreciate if the State Party could provide details about the inventurisation, conservation/storage and exposition of the archaeological material (including human remains) excavated at the components.

According to the Republic of Korea's Cultural Heritage Protection Act, any archaeological excavation at the nominated property may only be carried out after receiving permission from the central government (in this case, the Cultural Heritage Administration) and be performed by a registered archaeological research institute equipped with the required storage, research facilities, and professional personnel. Archaeological material (including human remains) excavated from the nominated property undergo conservation treatment by the pertinent archaeological research institute. The excavated objects are inventoried by the archaeological research institute and then uploaded to a central online platform. The excavated objects are entrusted to the Cultural Heritage Administration, which then sends the entrusted items to the National Museum of Korea (including its local branches) and to the municipal museums associated with the nominated cemeteries for public display as well as daily management. Details on this process are presented below.

Figure 49. The process of conservation of the archaeological material (including human remains) excavated at the nominated cemeteries



• Conservation treatment

According to the provisions of the Act on Cultural Heritage Maintenance, Etc., conservation treatment for artifacts excavated from the nominated property is to be conducted by certified conservationists. The archaeological research institute involved carries out the conservation treatment utilizing its own equipment and personnel in cooperation with the National Research Institute of Cultural Heritage (a research arm of the CHA) and the National Museum of Korea. The excavated objects that have completed conservation treatment are inventoried and placed temporarily in its storage.

• Inventorisation

According to Article 15 of the Act on Protection and Inspection of Buried Cultural Heritage, the archaeological research institute should submit an archaeological report to the CHA within two years after the completion of an excavation. As part of the archaeological report, it also submits an inventory of excavated objects by entering the information into the Electronic Administration System for Cultural Heritage, a centralized online platform established by the CHA for facilitating cooperation and sharing information among the central government, local governments, and private partners like archaeological research institutes. Data on each excavated object is uploaded to this platform along with photos and information including its name, era, material, place of excavation, etc.

The Electronic Administration System for Cultural Heritage was launched in 2011, and it has been used to inventory and electronically archive the archaeological items excavated from the nominated property ever since. Previously, inventories were submitted and maintained on paper. This analog information is steadily being digitized and integrated into the Electronic Administration System for Cultural Heritage. Information on the Electronic Administration System for Cultural Heritage is shared among the central and local governments and their private partners.

Meanwhile, an online museum known as the E-Museum (<http://www.emuseum.go.kr/introList>) is being operated by the National Museum of Korea. It presents textual and photographic information on the artifacts excavated from the nominated property with open access by the public.

Figure 50. Electronic Administration System for Cultural Heritage



Figure 51. E-Museum



According to the Electronic Administration System for Cultural Heritage, the number of artifacts that have been excavated from the nominated cemeteries stands at 42,641, categorized as follows:

Table 8. Number of artifacts excavated from each nominated cemetery by material

Cemetery	Pottery	Iron	Jade/stone	Gilt-bronze	Bronze	Human remains	Animal remains	Other (glass, wood, shell, etc.)	Total
Daeseong-dong	1,029	1,975	66	12	123	12	8	424	3,649
Marisan	3,066	3,679	457	50	7	3	0	415	7,677
Okjeon	1,691	3,626	61	361	16	0	2	1	5,758
Jisan-dong	5,377	3,846	325	943	92	29	1	1,072	11,685
Songhak-dong	737	326	89	16	6	0	0	1,153	2,327
Yugok-ri and Durak-ri	179	414	47	4	7	2	1	0	654
Gyo-dong and Songhyeon-dong	6,674	3,130	60	78	48	4	476	421	10,891
Total									42,641

The table above does not include items from excavations undertaken during the Japanese colonial era (1910-1945). As these colonial excavations are rarely accompanied by archaeological reports and some of the artifacts so excavated have been stolen, it is difficult to secure information on items excavated from the nominated property during that period. Efforts are underway at the National Museum to catalogue and investigate the colonial-era items and records in its collection and to trace the locations of the Korean artifacts taken abroad. It is expected that we will have a clearer picture of the kinds and numbers of artifacts excavated from the nominated property during the colonial period.

• Storage and management

Artifacts excavated from the nominated property are entrusted to the state and managed by the National Museum of Korea, specifically by the five local branches holding jurisdiction over the areas where the nominated cemeteries are located, as well as by the municipal museums associated with the nominated cemeteries.

The Gimhae National Museum holds jurisdiction over the Daeseong-dong Tumuli, Marisan Tumuli, and Gyo-dong and Songhyeon-dong Tumuli. The Jinju National Museum is responsible for the Okjeon Tumuli, Songhak-dong Tumuli, and the Daegu National Museum is in charge of the Jisandong Tumuli. Archaeological objects found at the Yugok-ri and Durak-ri Tumuli are managed by the Jeonju National Museum.

In addition, municipal museums have been established in the vicinity of the nominated cemeteries. Each cemetery has a museum nearby except for the Yugok-ri and Durak-ri Tumuli, where there is a temporary exhibition space in the form of a promotion hall that is planned to be replaced soon by a fully-fledged museum. These are the Daeseong-dong Tombs Museum, Haman Museum, Hapcheon Museum, Daegaya Museum, Goseong Museum, and Changnyeong Museum.

Figure 52. Locations of the relevant national and municipal museums

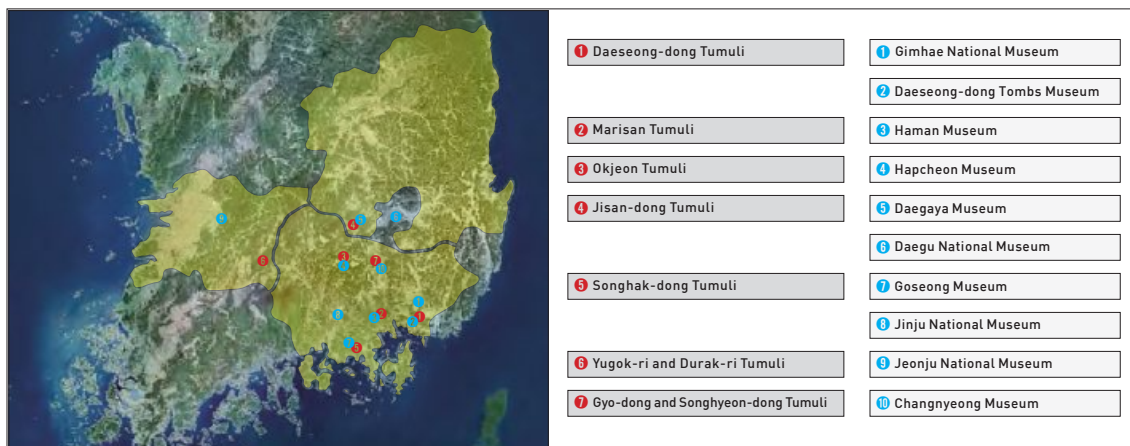
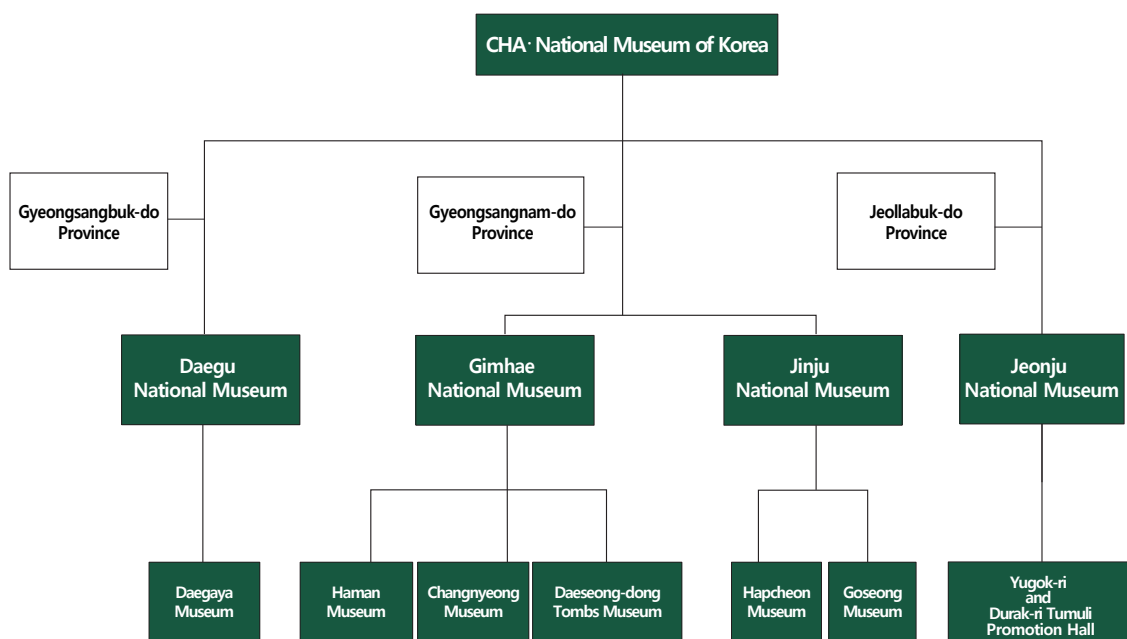


Figure 53. Structure of the management of archaeological material excavated from the nominated property



Artifacts from the nominated property held at these museums are stored in a double-walled space designed to minimize damage from water leaks and condensation. The storage areas are also equipped with fire detectors and a fire suppression system. Artifacts with different materials are stored separately, and optimal temperature and humidity for each material are consistently maintained.

Table 9. Temperature and humidity of storage by material (specified in the Temperature and Humidity Guidelines for the Management of Artifacts, published by the National Museum of Korea)

Category	Pottery	Iron	Wood	Others
Temperature	20±4	20±4	20±4	20±4
Humidity	40–60	40–50	50–60	40–60

• Public display

Archaeological artifacts excavated from the nominated property are on exhibit to the public at the aforementioned museums, mainly through the means of permanent and special exhibitions.

The National Museum of Korea and the local branches responsible for the areas where the nominated cemeteries are located maintain permanent Gaya exhibition spaces displaying the artifacts from the Gaya Tumuli that are included in their collections. Through these permanent exhibitions, the museums present Gaya's history and culture from a chronological perspective. They also hold special exhibitions on Gaya focusing on particular themes and gather relevant Gaya artifacts in a single space. Some of the special exhibitions held to the date include Gaya Pottery (1988), Gaya Culture and Objects (1991), Jar Pedestals of Gaya (1999), and Archaeology's Encounter with Prehistory and Gaya (2000). The most recent example is Gaya Spirit, which was held from 2019 to 2020 at the National Museum of Korea and provided the public with an excellent opportunity to gain a comprehensive understanding of the advances made in the archaeology and history of Gaya. For those who could

not enjoy the exhibition due to the outbreak of COVID-19, a three-dimensional tour of Gaya Spirit is available online free of charge (https://www.museum.go.kr/museum/2019/gaya_spirit/). There have also been cooperative projects with institutions in Japan, such as at the Tokyo National Museum and the Kyoto National Museum.

Figure 54. Examples of exhibition catalogs

					
Speical Exhibition of Gaya Pottery (National Museum of Korea, 1988)	Gaya Culture and Objects (National Museum of Korea, 1991)	Gaya Culture (Kyoto National Museum, 1992)	Jar Pedestals of Gaya (Gimhae National Museum, 1999)	Archaeology's Encounter with Prehistory and Gaya (Gimhae National Museum, 2000)	Gaya Spirit (National Museum of Korea, 2019)

Figure 55. Armor and pottery on display at the Gaya Spirit exhibition



The municipal museums (six museums and one promotion hall) geographically proximate to the nominated cemeteries all feature information and objects specific to each cemetery. They contribute to offering an integral experience to people visiting the nominated cemeteries. These municipal museums deploy diverse methods to help deepen public understanding of the nominated cemeteries. Examples include the on-site display of an excavated tomb, presentation of a recreated tomb, a virtual experience of tomb construction, and a sensory experience of making Gaya pottery or iron objects.

Figure 56. On-site exhibition at the Daeseong-dong Tumuli (left); a tomb recreation at Jisan-dong Tumuli (right)



The municipal museums hold both permanent and special exhibitions on Gaya. In the case of the Daegaya Museum, a municipal museum next to the Jisan-dong Tumuli, it operates permanent exhibition rooms respectively themed Dawn of Daegaya, Formation of Daegaya, Development and Growth of Daegaya, and Goryeong after Daegaya. The museum recently held a special exhibition entitled "Treasures from the Road" that exhibited horse trappings, iron helmets, longswords, and ceramic vessels found during an excavation carried out prior to the planned installation of CCTV cameras.

Figure 57. Treasures from the Road



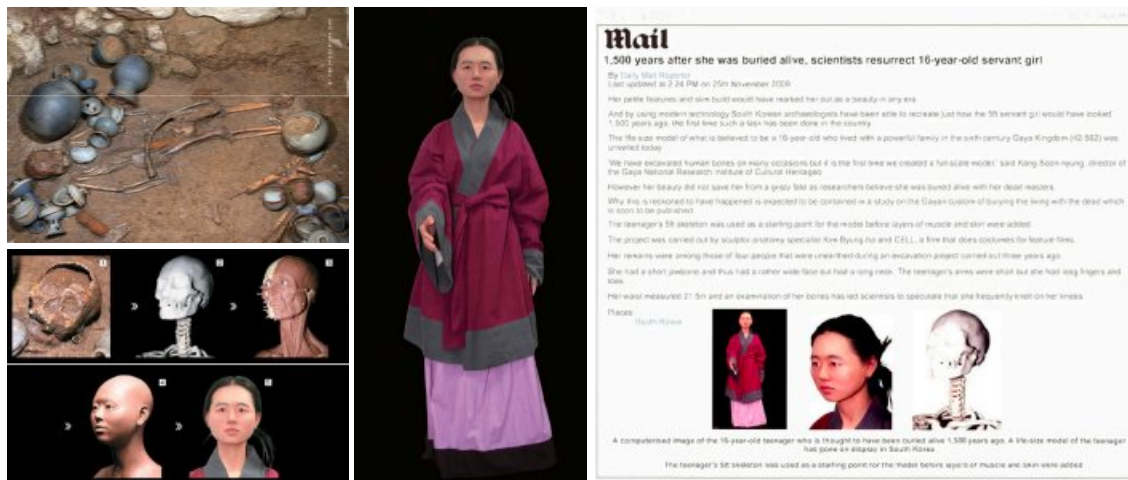
• **Management of human remains**

Soil in Korea is generally high in acidity and created an environment unfavorable for the preservation of bones, leaving not many excavations producing human or animal remains. The human remains entrusted to the state undergo the same process of conservation as explained above. Out of the seven nominated cemeteries, four have produced human remains: the Marisan Tumuli, Yugok-ri and Durak-ri Tumuli, Jisan-dong Tumuli, and Gyo-dong and Songhyeon-dong Tumuli. Human remains in the form of bone pieces or powder were excavated from the Marisan Tumuli and Yugok-ri and Durak-ri Tumuli, but relatively intact skeletons were found at the Jisan-dong Tumuli and Gyo-dong and Songhyeon-dong Tumuli. Human bones buried in soil for a long time are typically found in a highly fragile state. Upon excavation, they are immediately placed in a room with constant temperature and humidity. Human bones excavated from the nominated cemeteries are mostly used for research purposes rather than being put on public display. These bones are chemically and biologically analyzed to learn about the genetic and dietary characteristics of the people of Gaya.

The most prominent case of human bone research is the Lady Songhyeon project. A skeleton found during the process of excavating Tomb No. 15 at the Gyo-dong and Songhyeon-dong Tumuli was retrieved, recorded, and analyzed through collaboration among specialists from diverse disciplines. It provided valuable information on this teenage girl sacrificed at the tomb. A recreation of the girl was produced using this information and is currently being displayed at the Changnyeong Museum.

The Cultural Heritage Analysis and Information Center opened in 2021 as a subsidiary organ of the National Research Institute of Cultural Heritage. Equipped with state-of-the-art technology and equipment, the center is expected to enable a more scientific and systematic analysis of human and animal bones excavated from heritage sites, including the nominated properties.

Figure 58. Recreation of a sacrificed human based on a skeleton excavated from the Gyo-dong and Songhyeon-dong Tumuli (left); a report in the British newspaper Daily Mail (right)



Item 2. Excavation and exhibition of objects

Q 2-2. Furthermore, ICOMOS would like to know if it is planned to excavate further on the nominated property component parts?

Excavation at the nominated property is carried out at a minimum level using state-of-the-art research methods and purely for conservation and academic purposes. There are currently some plans in place for excavations at the nominated cemeteries. Details on these plans are as follows.

No plans exist for further excavation at the Daeseong-dong Tumuli. Meanwhile, education facilities north of the property area within the buffer zone will be relocated under a broader plan to establish a wider Gaya history belt integrating the Gimhae National Museum and the Daeseong-dong Tumuli. Upon the relocation of the educational facilities, excavation will be carried out on the site where they have been located in order to confirm the potential presence of archaeological features.

At the Marisan Tumuli, some old houses located along the western border of the property area are planned to be pulled down to eliminate their visual impact on the landscape of the cemetery. After their dismantlement, the site will be subjected to archaeological research.

At the Okjeon Tumuli, excavations will be conducted in the eastern section of the cemetery as part of its overall conservation plan. The eastern section of the Okjeon Tumuli has a concentration of wooden chamber tombs that have been rendered indiscernible by the natural decomposition of the burial chambers and the subsequent collapse and leveling of the burial mounds. A field survey of the entire cemetery was carried in 2018, bringing to light the existence of a significant number of burials in the eastern portion of the Okjeon Tumuli. Efforts have been underway since 2020 to draw up a detailed

plan for the conservation of this eastern portion. The conservation plan will also include a vegetation management scheme to remove damaging species. After the felling of harmful trees, excavations will be carried out.

In the case of the Jisan-dong Tumuli, plans are in place to refurbish visitor paths, reinforce the burial mounds that have suffered losses of soil, and reinvestigate Tomb No. 5, which was excavated during the colonial era but has no available relevant records and shows a looting hole.

At the Songhak-dong Tumuli, excavations will be conducted on damaged tombs. And archaeological investigations may be needed during the preparations to install further security devices and refurbish visitor paths within the compound.

For the Yugok-ri and Durak-ri Tumuli, plans have been made to conduct investigations to identify archaeological features in areas that have been leveled for agricultural use (a satellite photo from 1954 shows agricultural activities being conducted at the cemetery). Tomb No. 14 will be excavated and reconstructed as it is showing structural problems due to rainwater running underground through a tunnel made in the burial mound by looters. The site set aside for a cemetery museum will also be subjected to excavation prior to commencing construction.

Regarding the Gyo-dong and Songhyeon-dong Tumuli, private land plots within the property area will be purchased and excavation will be subsequently carried out. Excavations will also be conducted as part of the process of reinforcing the drains in the cemetery and after removing harmful trees.

Table 10. Excavation plans for each nominated cemetery

Cemetery	Period	Plans
Daeseong-dong	2022–2027	Education facilities north of the property area to be relocated, and the site to be excavated
Marisan	2022	Old houses around the boundary of the property area to be pulled down, and the site to be excavated
Okjeon	2023–2026	Excavations to be conducted at tombs in the eastern portion of the cemetery and on sites from which harmful trees will be removed
Jisan-dong	2022–2027	Excavations to be conducted as part of the process of refurbishing visitor paths, reinforcing burial mounds that have suffered loss of soil, and investigating Tomb No. 5
Songhak-dong	2022–2030	Excavation to be conducted as part of the effort to restore the structural stability of damaged tombs; security devices to be installed and visitor paths to be refurbished
Yugok-ri and Durak-ri	2022–2026	Excavations to be conducted on areas that have been leveled for agricultural use; Tomb No. 14, which suffers structural problems due to a looting hole; and the site where a cemetery museum is to be constructed
Gyo-dong and Songhyeon-dong	2024–2030	Excavations to be conducted on private land plots to be purchased; as part of the process of reinforcing the drains; on the sites from which harmful trees will be removed; and as part of the effort to improve the structural stability of the tombs

Item 2. Excavation and exhibition of objects

Q 2-3. Has a Research Strategy / Framework for the property, with clearly defined objectives and methodology, been developed?

Research strategies for the nominated property are included in the Comprehensive Maintenance Plans and the Integrated Management Plan.

The Comprehensive Maintenance Plan is a regularly-updated mid-term conservation strategy established for each of the seven cemeteries. These individual conservation plans for the nominated cemeteries focus on the preservation of authenticity and heritage values with a particular emphasis on academic research.

The Integrated Management Plan is a research plan established to support the conservation of the seven cemeteries as a potential World Heritage site. The plan focuses on improving conservation of the OUV of the Gaya Tumuli. It is accompanied by various component action plans.

The research strategies presented in the individual and integrated conservation plans for the nominated property are based on the existing national- and local-level plans. They include the central government's Framework for the Management and Utilization of Cultural Heritage (2022–2026, updated every five years) and Long-term Research Master Plan for the Gaya Cultural Area (2017) and the Cultural Heritage Conservation, Management, and Utilization Plans prepared and annually updated at the provincial government level.

After inscription, the Gaya Tumuli will benefit from the Special Act on the Conservation, Management, and Utilization of World Heritage as well. According to provisions of this World Heritage law, the Cultural Heritage Administration will draw up a framework plan for the conservation of World

Heritage properties in the Republic of Korea's, including the Gaya Tumuli. The provincial and municipal governments holding jurisdiction over the seven meteries will prepare implementation plans and annual action plans. All of these plans will include research strategies and objectives for the Gaya Tumuli.

Table 11. Present and future plans / strategies

Category		Present plans/strategies	Plans/strategies to be added after inscription
Central government (CHA)		Framework for the Management and Utilization of Cultural Heritage	Framework for the Management and Utilization of Cultural Heritage
		Long-term Research Master Plan for the Gaya Cultural Area	
Provincial government	Gyeongsangnam-do	Conservation, Management, and Utilization Plan for Cultural Heritage	Implementation plans
		Inter-provincial Framework for the Establishment of the Gaya Cultural Area	
	Gyeongsangbuk-do	Implementation Plan for the Conservation of Cultural Heritage	
	Jeollabuk-do	Implementation Plan for the Conservation, Management, and Utilization of Cultural Heritage	
Municipal government	Gimhae City	Comprehensive Maintenance Plan for the Daeseong-dong Tumuli	Annual action plans
	Haman County	Comprehensive Maintenance Plan for the Marisan Tumuli	
	Hapcheon County	Comprehensive Maintenance Plan for the Okjeon Tumuli	
	Goryeong County	Comprehensive Maintenance Plan for the Jisan-dong Tumuli	
	Goseong County	Comprehensive Maintenance Plan for the Songhak-dong Tumuli	
	Namwon City	Comprehensive Maintenance Plan for the Yugok-ri and Durak-ri Tumuli	
	Changnyeong County	Comprehensive Maintenance Plan for the Gyo-dong and Songhyeon-dong Tumuli	
Nomination office operating in cooperation with the CHA and the relevant provincial and municipal governments		Integrated Management Plan for the Gaya Tumuli	

• **Comprehensive Maintenance Plans**

The seven cemeteries comprising the Gaya Tumuli are individually registered on the national heritage list as Historic Sites. As with other Historic Sites, each of the seven cemeteries maintains a Comprehensive Maintenance Plan established by the municipal government according to Article 34 of the Cultural Heritage Protection Act in cooperation with the provincial government and the CHA. The CHA has drawn up a set of guidelines detailing the preparation and operation of Comprehensive Maintenance Plans that recommends that Historic Site conservation plans be regularly updated within a period of less than ten years and, in the case of World Heritage properties, every six years in concurrence with the Periodic Reporting. The guidelines provide principles for the establishment of Comprehensive Maintenance Plans as follows:

Paragraph 3. Primary principles for the establishment of Comprehensive Maintenance Plans

- (1) Focus is to be placed on the preservation of the original form of the heritage.
- (2) Repairs are to be conducted only following thorough academic research and in a manner that maintains the authenticity of the heritage and its value. Restoration based on speculation is to be avoided.
- (3) The legal, social, environmental, and financial conditions surrounding heritage are to be taken comprehensively into consideration in order to strike a balance between conservation and utilization. Efforts are to be made to implement plans so established in a timely fashion.

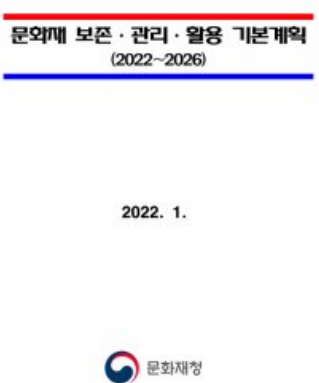
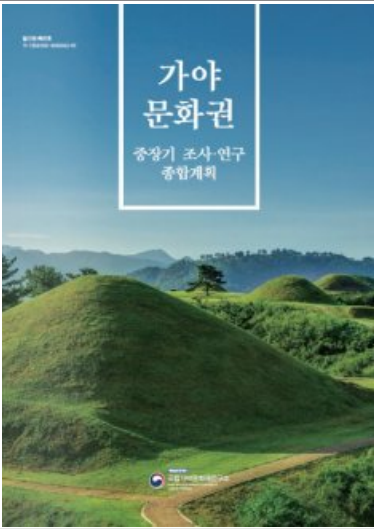

While prepared in line with the principles detailed in the upper-level plans made by the CHA and provincial governments, the Comprehensive Maintenance Plans for the seven nominated cemeteries include objectives, strategies, and plans reflecting the distinct characteristics of each cemetery.

• **Integrated Management Plan**

During the process of preparing the nomination for the Gaya Tumuli, the CHA, pertinent provincial and municipal governments, and Gaya nomination office all perceived a need for integrated research and management for the nominated property and have been making efforts in various areas such as legislation, strategy development, and budget allocation. One of the results of these efforts is the Integrated Management Plan for the nominated property that is included in Chapter 7 of the nomination dossier. Within the integrated Management Plan are research plans aimed at ensuring sustainable conservation and establishing research governance.

The research plans for the Gaya Tumuli focus on three strands of activities—in-depth research of the OUV of the property, creating a cooperative research environment, and sharing research results. Research will be carried out to more deeply and comprehensively explore the OUV of the property, and the findings will be utilized in the conservation of the cemeteries. Efforts will be made to support a research environment conducive to cooperation between the government, academia, and civil society. For the purpose of widely disseminating research findings among the public, diverse activities will be conducted, including the publication of collection of research papers, organization of conferences, and establishment of research archives. The funds required for the implementation of these activities will be provided by the CHA and the 10 pertinent local governments according to a memorandum of understanding they signed in 2018.

Figure 59. Examples of the existing national and local plans/strategies established for the nominated property

		
<p>Framework for the Management and Utilization of Cultural Heritage (CHA, 2022–2026)</p>	<p>Long-term Research Master Plan for the Gaya Cultural Area (CHA, 2019)</p>	<p>Inter-provincial Framework for the Establishment of the Gaya Cultural Area (Gyeongsangnam-do Province, 2020)</p>

Item 3. Protection

Q 3-1. ICOMOS would be pleased to receive further information on the surveys undertaken in order to detect the limits of the cemeteries.

The limits of the nominated cemeteries have been roughly identified based on the typical topographical characteristics of Gaya cemeteries and then more precisely defined through archaeological investigations. These involve the three progressive steps of field survey, trial trenching, and full-scale excavation.

In Gaya society, ruling-class burials were conducted on a hill within the political center of each component polity. The entire hill was designated as a burial ground for members of the ruling class. Based on this topography, it was possible to generally identify the overall boundary of each of the seven nominated components.

These visually detectable contours of the seven components have been refined based on the results of archaeological investigations carried out around the cemeteries. The boundaries of all seven cemeteries have been delineated through a similar process. The cases of the Marisan Tumuli and Songhak-dong Tumuli are described below as examples.

At the Marisan Tumuli, mounded tombs can be found along the ridges of a hilly area stretching north to south. Archaeological investigations took place at this cemetery starting in the 1910s under colonial rule. However, it is difficult to obtain information from these colonial research projects as there are few pertinent records remaining today.

New efforts to investigate the Marisan Tumuli and its surrounding areas started in earnest in the late 1980s.

Field surveys took place around the Marisan Tumuli mainly from 1992 to 2013. Research was performed through old documents and photos, interviews

with local residents and relevant experts, and surface surveys of the site. From these activities it was confirmed that the steep eastern side of the hilly cemetery is comprised of bedrock and therefore has no burials constructed around it. No signs of burial construction were found in the low-lying areas west of the hill, which have been traditionally subject to flooding. Old documents and satellite photos indicate that the northern section of the hill was partially damaged during the construction of a railway in the 1920s and the subsequent concentration of residential and commercial facilities.

Trial trenching was carried out around the Marisan Tumuli from the 1980s. Based on the findings from the trial trenching, full-scale excavations have been conducted since 1986. Sites along the ridges and slopes of the hill have been excavated, revealing a great volume of tomb structures and grave goods exhibiting Gaya characteristics. The areas surrounding the hilly cemetery have also been subjected to excavation as a prerequisite for constructing exhibition and education facilities. Residential and production sites dating from the Bronze Age to the Joseon Dynasty have been discovered, but no remains of burials have been uncovered.

Regarding the northern section of the hilly area that was damaged for the construction of a railway in the 1920s, it has been confirmed through excavations that the processes of urbanization that started in the colonial era destroyed most of the Gaya tombs constructed there (as a result, this area is not included in the nominated property).

Based on the findings of these archaeological investigations, the boundaries of the property at the Marisan Tumuli have been delineated.

Table 12. Archaeological investigations occurring around the Marisan Tumuli (Bronze Age: 2000–400 BCE; Three Kingdoms (covering the Gaya period): 1st–7th centuries; Unified Silla: 7th–10th centuries; Joseon: 14th–17th centuries)

No.	Type	Site	Year	Date of the site	Presence of Gaya cemeteries
1	Japanese colonial era	Marisan Tumuli	1910	Three Kingdoms	o
			1914	Three Kingdoms	o
			1915	Three Kingdoms	o
			1917	Three Kingdoms	o
			1918	Three Kingdoms	o
2	Field survey	Marisan Tumuli	1992	Three Kingdoms	o
			1997	Three Kingdoms	o
			2006	Three Kingdoms	o
			2013	Three Kingdoms	o
		Around the Marisan Tumuli	1997	From Bronze Age to Three Kingdoms	x
			2006	From Bronze Age to Three Kingdoms	x
3	Trial trenching	Site for the reconstruction of a multi-purpose hall at Ara Elementary School	2018	Unknown	x
4	Trial/full excavation	Marisan Tumuli	1995	From Bronze Age to Three Kingdoms	o
			1996	Three Kingdoms	o
			1997–1998	From Three Han to Three Kingdoms	o
			2005	From Bronze Age to Three Kingdoms	o
			2005–2006	From Bronze Age to Three Kingdoms	o
			2014	From Bronze Age to Three Kingdoms	o
			2015	Three Kingdoms	o

No.	Type	Site	Year	Date of the site	Presence of Gaya cemeteries
4	Trial/full excavation	Marisan Tumuli	2015	Three Kingdoms	o
			2016	From the Bronze Age to Joseon	o
			2018	Three Kingdoms	o
			2018–2020	From Bronze Age to Three Kingdoms	o
			2019	Three Kingdoms	o
5	Trial/full excavation	Magapchong Tomb	1992	From Three Han to Three Kingdoms	o
6	Trial/full excavation	Damaged tombs at Dohang-ri	1997	Three Kingdoms	o
7	Trial/full excavation	Dohang-ri, Malsan-ri	1997–1998	From Three Han to Three Kingdoms	o
8	Trial/full excavation	101-5 Dohang-ri	2001	Three Kingdoms	o
9	Trial/full excavation	101-2 Malsan-ri	2002	Joseon	×
10	Trial/full excavation	Site for the construction of a multi-purpose hall at Myeongdeok High School	2003	Bronze Age	×
11	Trial/full excavation	Site for the construction of a public park near the Haman Museum	2003–2004	Bronze Age, Joseon	×
12	Trial/full excavation	Site of the Haman Urban Natural Park	2004	Bronze Age	×
13	Trial/full excavation	Housing development site at Dohang-ri	2005	From Bronze Age to Three Kingdoms	o

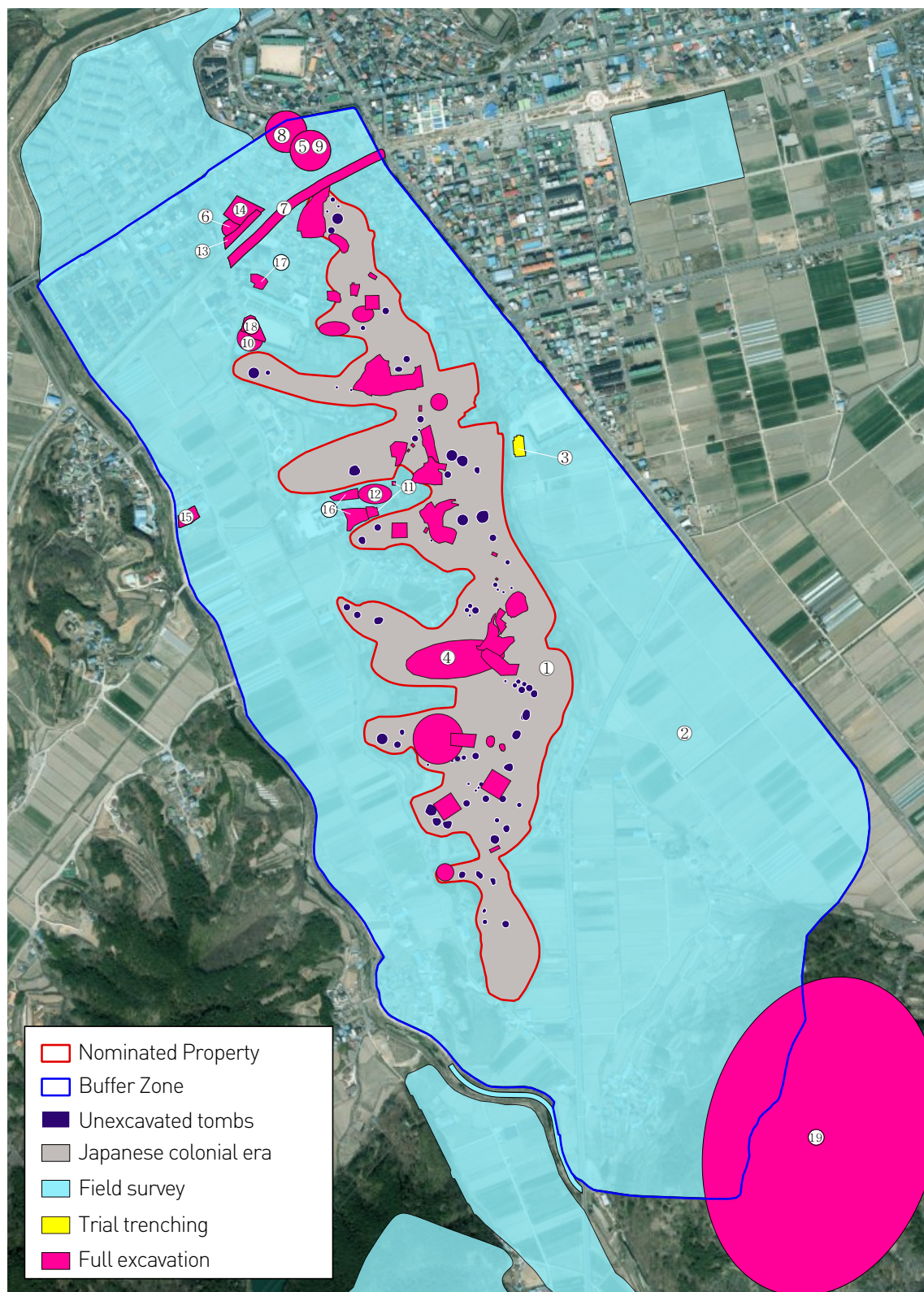
No.	Type	Site	Year	Date of the site	Presence of Gaya cemeteries
14	Trial/full excavation	428-1 Dohang-ri	2009	From Three Kingdoms to Joseon	o
15	Trial/full excavation	670 Dohang-ri	2011	Bronze Age	×
16	Trial/full excavation	Site for the construction of an exhibition hall at the Marisan Tumuli	2003–2004 2017–2018	Bronze Age	×
17	Trial/full excavation	462-1 Dohang-ri	2018	Three Kingdoms	×
18	Trial/full excavation	Sites at Haman Girls Middle School	2019	Bronze Age	×
19	Trial/full excavation	Seongsan Fortress	1991–present	Unified Silla	×

Selection of component parts

Excavation and exhibition of objects

Protection

Figure 60. Map of the excavations around the Marisan Tumuli



* Trial trenching and excavation projects that have taken place within the property area are all marked as No. 4.

The Songhak-dong Tumuli is formed on a low-rising hill near the south coast. The first archaeological investigation of the cemetery was carried out by a Japanese archaeologist in 1914. This excavation was not conducted properly, however, and few records of this project remain beyond some scattered photos. From the mid-1980s, serious archaeological efforts began to be made at the Songhak-dong Tumuli.

According to field surveys carried out from 1984 to 2004, there were no burials found on the south and southeast slopes of the hilly cemetery where the slopes reach 60 to 80 degrees. No remains of tombs were discovered in the areas west of the hilly cemetery where old roads and agricultural fields are found. Satellite photos from 1969 indicate that the north slopes of the hill had been damaged at that time by agricultural activities and pedestrian pathway construction. However, it is hard to confirm precisely when this damage took place.

From 1999 to 2000, Tombs No. 1, 2, and 3 and their surrounding areas were subjected to trial trenching. The present lawn areas and part of the parking lot north of the hilly cemetery were also treated with trial trenching, but they simply revealed layers of mud.

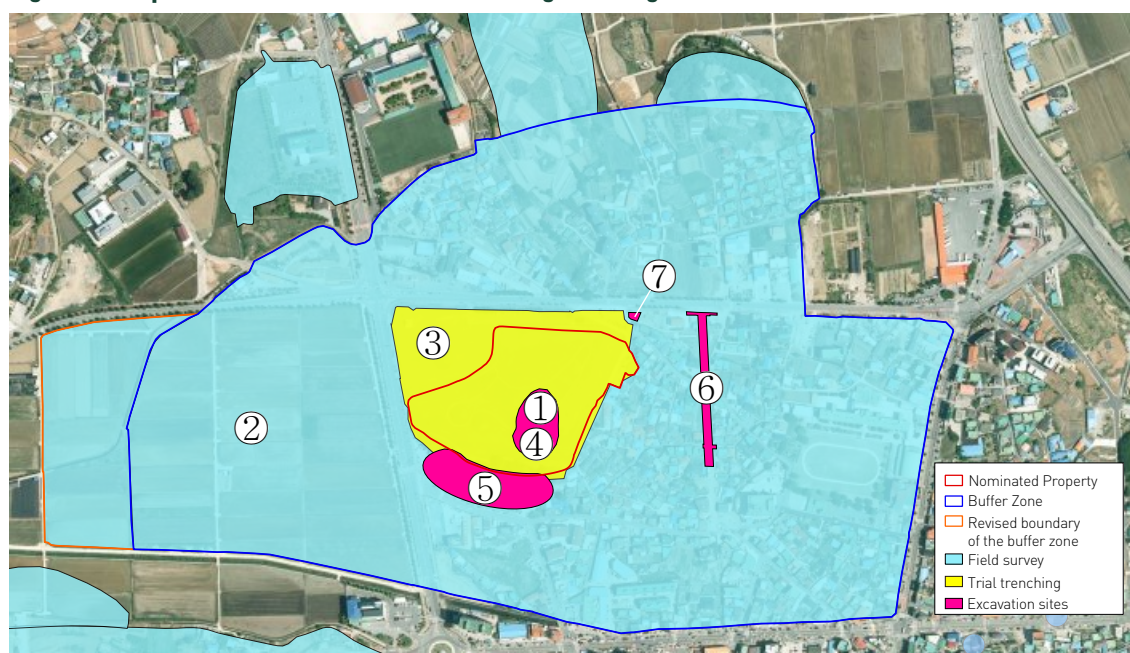
The trial trenching was followed by full-scale excavations at Tombs 1, 2, and 3 from 2000 to 2002. In the following years, private land plots south of the cemetery that had been used as residences were purchased to prepare the site for the Goseong Museum, and excavation was carried out. The excavation of the museum site produced archaeological remains, but it was hard to date them as the archaeological layers had been severely damaged during the construction of houses at the site. Excavations in the areas north and east of the cemetery where a neighborhood is currently formed and in the areas to the east of the cemetery have only produced remains of residential areas and roads from the Joseon era.

The results of all these archaeological investigations have been combined to define the boundaries of the property at the Songhak-dong Tumuli.

Table 13. Archaeological investigations occurring around the Songhak-dong Tumuli (Bronze Age: 2000–400 BCE; Three Kingdoms (covering the Gaya period): 1st–7th centuries; Joseon: 14th–17th centuries)

No.	Type	Site	Year	Date of the site	Gaya Tumuli
1	Japanese colonial era	Songhak-dong Tumuli	1914	Three Kingdoms	o
2	Field survey	Songhak-dong Tumuli	1984	Three Kingdoms	o
			1994	Three Kingdoms	o
			2000–2002	Three Kingdoms	o
			2004	Three Kingdoms	o
		Around the Songhak-dong Tumuli	2000–2002	Bronze Age, Joseon	x
			2004	Bronze Age, Joseon	x
3	Trial trenching	Around the Songhak-dong Tumuli	1999–2000	-	x
4	Trial/full excavation	Songhak-dong Tumuli	1999–2002	Three Kingdoms	o
5	Trial/full excavation	Site for the construction of an exhibition hall	2006	Unknown	x
6	Trial/full excavation	456-3 Songhak-ri	2019	Joseon	x
7	Trial/full excavation	Site for an urban regeneration project	2020	Joseon	x

Figure 61. Map of the excavations around the Songhak-dong



Item 3. Protection

Q 3-2. Were there any elements of the cemeteries affected by urban development in the past? This information can also be supplied through maps.

Among the seven nominated cemeteries, some are found in urban settings and others in rural areas. While the cemeteries situated in rural environments have been spared the impact of urbanization, those located in urban clusters have been affected to varying extents by the development activities in their surroundings.

Areas somewhat affected by urban development are Marisan Tumuli, Songhak-dong Tumuli, and Daeseong-dong Tumuli. As can be seen in Figure 62, the northern portion of the hilly area was severed from the rest of the cemetery by the construction of a railway during the colonial era. Please see the satellite image taken in 1948 in the figure. The opening of the railway in the 1920s greatly attracted residential and commercial facilities to the surrounding area, adding to the damage at the northern tip of the hilly area.

At the Songhak-dong Tumuli, a satellite photo taken in 1969 that is provided as Figure 63 shows a residential area formed to the south of the hilly cemetery. In a satellite photo from 1994, however, it is confirmed that the southern residential area had expanded to the areas east of the cemetery. During this process, Tomb No. 7 became surrounded by residential structures.

The case of the Daeseong-dong Tumuli is quite different from the above-mentioned two cemeteries in terms of how urbanization has impacted its conservation. This is a heritage site that was discovered during the process of urbanization and accordingly protected. As the tombs constructed at the Daeseong-dong Tumuli mainly used wood in their burial facilities, the

underground wooden facilities decayed over time and the aboveground burial mounds collapsed into the cavity and became indistinguishable. With no burial mounds visible at the ground level (as can be seen in the 1982 satellite photo in Figure 64), the cemetery had long remained unknown among the wider public. The presence of the Daeseong-dong Tumuli was brought to light through an excavation carried out amid the development boom of the 1990s. With the discovery of ancient tombs, a development project planned for the site of today's Daeseong-dong Tumuli was scrapped and the Gaya cemetery was subsequently placed under government protection. The Daeseong-dong Tumuli and many other similar cases led to the introduction of a domestic law in the 2000s for the compulsory excavation of a planned development site prior to the beginning of construction.

The Okjeon Tumuli and Yugok-ri and Durak-ri Tumuli have not been affected by the forces of development as they are located away from any city center. Although near a city center, the Jisan-dong Tumuli and Gyo-dong and Songhyeon-dong Tumuli are set at a relatively high elevation on a high-rising hill and accordingly were sheltered from the impacts of urbanization.

Although some parts of the nominated cemeteries have been affected by development processes in the past, they are now all rigorously protected from development based on the Cultural Heritage Protection Act and new regulations introduced into the act in the 2000s.

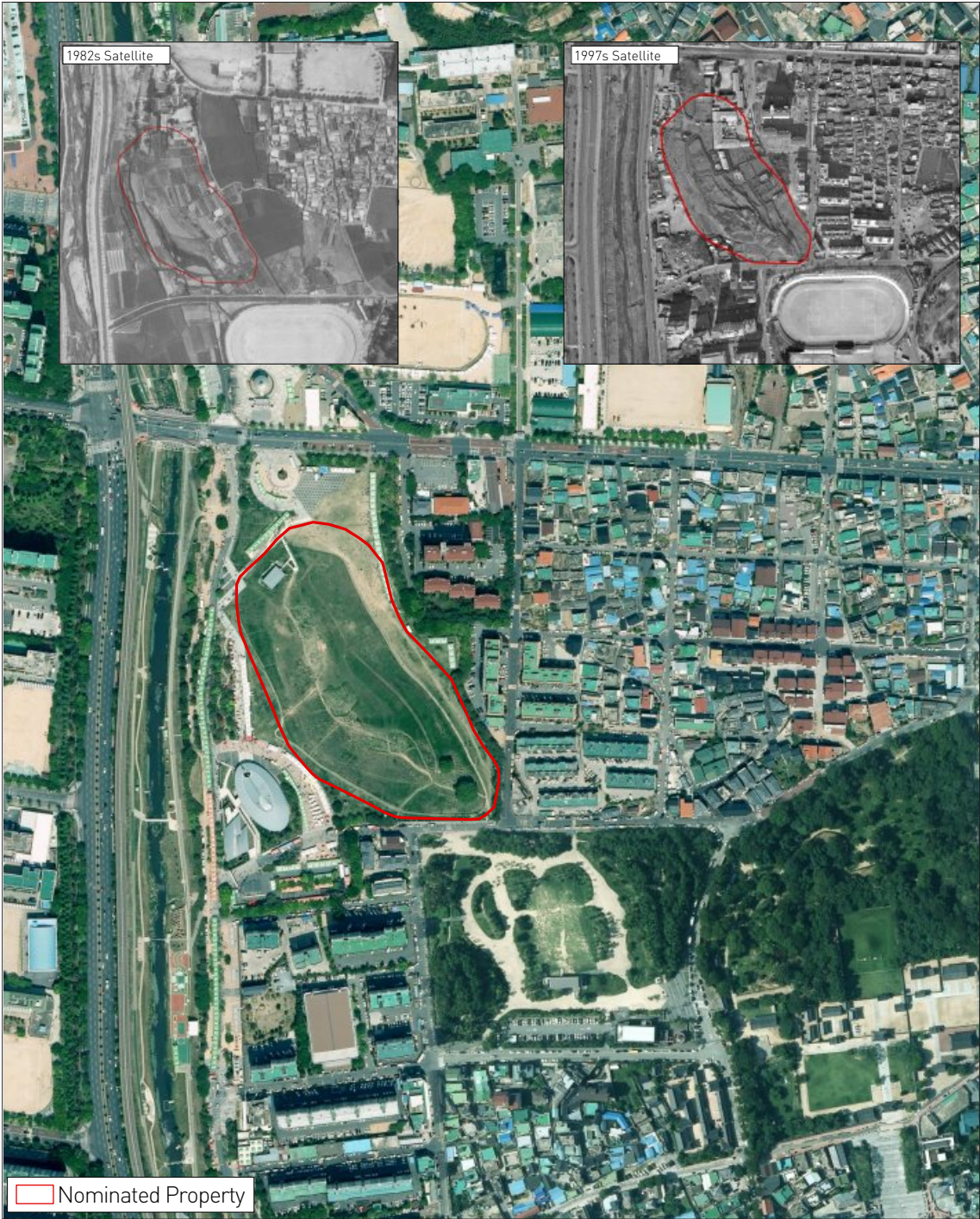
Figure 62. Marisan Tumuli and urban development



Figure 63. Songhak-dong Tumuli and urban development



Figure 64. Daeseong-dong Tumuli and urban development



Item 3. Protection

Q 3-3. How will the current legal protection effectively protect the nominated property from this threat in the future?

The cases introduced in the previous section as examples of the impact on the nominated property of urban development all took place before the adoption of the Cultural Heritage Protection Act in 1962 and the addition of further protection measures in the 2000s. The current provisions of the Cultural Heritage Protection Act are sufficient for protecting the nominated property from similar threats. In addition, upon its inscription the nominated property will benefit from the recently enacted World Heritage law.

Under the current legal protection system, it is completely impossible for the Marisan Tumuli to suffer any similar kind of damage as it did in the 1920s with the construction of a railway and the subsequent emergence of sprawling residential and commercial areas around the station. The Marisan Tumuli is now designated as a Historic Site in accordance with the Cultural Heritage Protection Act, which strictly bans any development activity within the bounds of a Historic Site.

In the case of the Songhak-dong Tumuli, the landscape of the cemetery was partially affected by the construction of houses in the surrounding areas in the 1990s. This was before the introduction into the Cultural Heritage Protection Act of a mechanism for protecting the areas around a heritage site that is now known as the Historic and Cultural Environment Conservation Area. Introduced in the 2000s, these Conservation Areas now provide an additional layer of protection, sheltering the landscape of a Historic Site from the impact of development.

Following the discovery of the Daeseong-dong Tumuli in the 1990s, Article 12 was introduced to the Cultural Heritage Protection Act in the early 2000s to mandate that a project site be excavated prior to the initiation of construction in order to examine the potential existence of underground archaeological remains. With this compulsory step in place, Gaya relics that may remain underground in the areas surrounding the nominated cemeteries will not be carelessly destroyed in the face of development, but will be appropriately protected.

The current legal protection system provided under the Cultural Heritage Protection Act operates as follows. The seven nominated cemeteries are respectively designated as a Historic Site. The bounds of the Historic Site are protected as a Heritage Area, which is surrounded by an additional layer of protection known as the Historic and Cultural Environment Conservation Area (hereinafter called the Conservation Area). The Heritage Area and the Conservation Area at each of the seven nominated cemeteries mostly correspond with its property area and buffer zone.

All construction activities are completely prohibited within a Heritage Area beyond those fundamentally required for conservation and management purposes. Even when these conservation and management activities are to take place, prior permission from the CHA must be obtained.

The Conservation Area plays the role of maintaining a harmony between a heritage site and its surrounding areas by preventing intrusive buildings from being constructed around the heritage site (according to Article 13 of the Cultural Heritage Protection Act). Development control within a Conservation Area is carried out by dividing the area into several zones and setting standards for what is allowable within each. Development plans going beyond the prescribed standards are sent to the CHA and thoroughly examined through expert deliberation. Although those falling within the standards are generally allowed, they are also evaluated by experts at the local government level before being

permitted. Through this system, construction activities can be permitted in the areas surrounding a heritage site only when they are absolutely proven to be doing no harm to the landscape of the heritage site. Once given, Article 37 of the Cultural Heritage Protection Act allows permission to be withdrawn when unexpected potential for damage is discovered.

The Cultural Heritage Protection Act also mandates disaster-preparedness measures at heritage sites through such efforts as preparing disaster-response manuals, providing firefighting training, installing firefighting equipment, and more.

Furthermore, the nominated property will benefit from the provisions of the World Heritage law after inscription. The World Heritage law enacted in 2021 is designed to better integrate into domestic law the conservation principles and methods set out by the World Heritage Convention.

In line with the enactment of the World Heritage law, efforts are currently underway to introduce Heritage Impact Assessment into the domestic legal protection system. This is intended to bring the current development control mechanisms for the areas surrounding of a heritage site into greater accordance with the UNESCO system. With the introduction of HIA into the domestic procedures, it is expected that the OUV of World Heritage properties in the country will be more effectively protected.

In addition, the World Heritage law prescribes several other conservation measures for World Heritage properties, including but not limited to the establishment of national and local plans for World Heritage sites and the performance of annual monitoring. These measures are expected to make great contributions to preventing any activities that would be harmful to the OUV of World Heritage properties and to ensure the timely detection and response to any damage done to them.