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## The Megaliths of Korea and Japan: An Analysis of Origins and Functions

*This publication focuses on the origins and features of Neolithic and Bronze Age megaliths in the marginal areas of Eurasia, a topic infrequently addressed in Russian scholarship. The objective of this study is to describe the phenomenon of megalithism in Korea and the adjacent areas of Japan using archaeological evidence and science-based methods. In Korea, the megalithic sites, more than 30 thousand in number, are concentrated in the west and south, along the estuaries of major rivers flowing into the Yellow and East China Seas. Most dolmens in Korea date to the Bronze Age, and served as burial structures. In Japan, the megaliths belong to two traditions of different origin. One is local, originating from the Middle Jōmon, the other was introduced from Korea. Most specialists attribute dolmens with burials to the Yayoi culture (3rd century BC to 3rd century AD). They are distributed on Kyushu Island (prefectures of Fukuoka, Nagasaki, and Saga) and in the western and central parts of Honshu Island. The analysis of megaliths in both regions suggests that their appearance and spread were only partly related to a farming economy. The principal factors were social changes such as the emergence of tribal elites and the redistribution of territories.*

Keywords: Korea, Japan, Jōmon, Yayoi, Kofun, Bronze Age, megaliths, dolmens, burials.

### Introduction

Megaliths are a type of archaeological monument representing structures made of one or more large stones. They are both outstandingly spectacular and difficult in terms of dating and interpretation. Megaliths were built in many cultures beginning with the Stone Age. The most famous and well-studied megalithic structures (menhirs, dolmens, cromlechs, trilithons, and other varieties) are those of Western Europe and Western Asia, while other regions (Southern and Southeastern Asia) have so far been considered only preliminarily in the Russian archaeological literature (Vorobiev, 1997: 47–49; Larichev, 1978: 71; Butin, 1982: 149–155; Tikhonov, Kang Man-Gil, 2011, 56–59).

The Korean Peninsula is one of the world's largest centers of megaliths. In this region, they amount to over 30,000 complexes (Hanguk jiseonmyo..., 1999: 19, 1207). According to the dominant theory, it is precisely the megalithic tradition that accompanied the spread of agriculture and metallurgy from the Korean Peninsula to the Japanese Archipelago at the turn of the eras, and was a typical feature of the Yayoi culture (Derevianko, 1975).

We think that the most important problems in the study of megaliths are the origin, purpose, and mutual influence of various traditions of megalithic architecture in neighboring regions. Are megaliths an indicator of exclusively agricultural societies? Is it possible to view them as a special type of burial complex? It is from this perspective that we consider the phenomenon of

megaliths on the Korean Peninsula and the adjacent territories of the Japanese Archipelago, using the data of archaeology, natural science, and experimentation.

### Megalithic structures on the Korean Peninsula

The megalithic culture of the Korean Peninsula is mainly represented by dolmens—structures in the form of a box made of two or more large stones covered by a stone slab. Separately standing stones (menhirs) are also known (Hanguk jiseonmyo..., 1999: 1203). Because of the lack of associated finds, the time of construction and cultural context of menhirs cannot be established, so they will not be considered in this article. The largest centers where dolmens occur are Jeollanam-do Province of the Republic of Korea, as well as the provinces of Pyeongannam-do, Hwanghaenam-do, and Hwanghaebuk-do in the Democratic People's Republic of Korea (DPRK) (Ibid.: 13, 1132–1134; Ha Moon-Sig, 1999: 165, 166). The greatest concentration of these monuments is observed on the coasts of the Yellow and East China Seas, as well as in the basins of rivers that flow into these seas: the Chongchon, Taedong, and Imjin in the DPRK, and the Han, Geum, Yeongsan, Seomjin (with the tributary Boseong), and the Nakdong (with the tributaries Hwang and Nam) in the Republic of Korea. The number of dolmens is small in the central and eastern regions of the Korean Peninsula: only 267 dolmens are known in Gangwon-do Province, and 207 dolmens are known in Chungcheongbuk-do Province (Fig. 1).

**Typology of dolmens.** There are three main types of dolmens: northern (in the form of a table), southern (with a foundation), and without supporting stones. In some studies, one more type of *wiseoksik* with ring stonework is distinguished. Dolmens of the northern type are “classical”: they have the burial chamber on the surface, and are composed of two–four slabs covered with a stone lid (Fig. 2, 1). Such structures have been found in all areas, but the majority are located on the territory of the DPRK and in the central part of the Korean Peninsula. Thus, about 120 dolmens of the northern type are known in Gyeonggi-do Province. Most of them are located on Ganghwa Island and on the territory north of the Han River. Typical dolmens of the northern type are Bugeun-ri No. 18, Bugeun-ri Jeomgol No. 24, Samgeo-ri No. 39, Bugeun-ri (Hado-ri) No. 5, Osang-ri No. 56, Daesan-ri, Gyoha-ri No. 11, and Deokeun-ri A, B1. Thirty five dolmens (Noam-ri, Yaksa-dong, Gwansanri, Odok-ri, Sokchonsan, Yongdeok-ri, and Munhung-ri) can be attributed to that type out of 93 dolmens in North Korea. A small number is known in the central regions and in the far south of the Korean Peninsula.

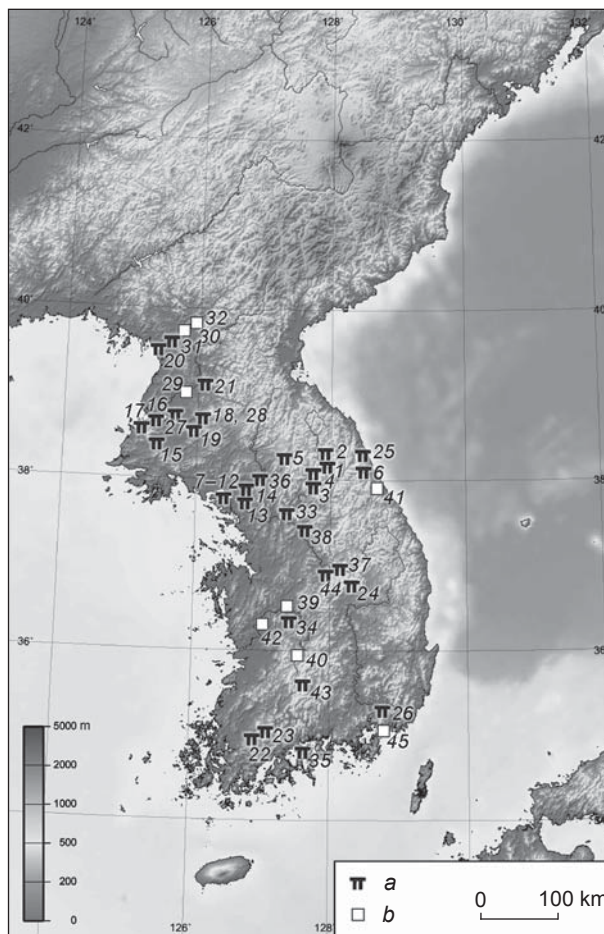


Fig. 1. Monuments of the Bronze Age on the Korean Peninsula.

*a* – dolmens; *b* – other megaliths.

1 – Gongsuri; 2 – Godae-ri; 3 – Cheonjeon-ri; 4 – Chujeon-ri; 5 – Taeseong-ri; 6 – Beombu-ri; 7 – Bugeun-ri; 8 – Bugeun-ri Jeomgol; 9 – Samgeo-ri; 10 – Bugeun-ri (Hado-ri); 11 – Osang-ri; 12 – Daesan-ri; 13 – Gyoha-ri; 14 – Deokeun-ri; 15 – Noam-ri; 16 – Yaksa-dong; 17 – Gwansanri; 18 – Odok-ri; 19 – Sokchonsan; 20 – Yongdeok-ri; 21 – Munhung-ri; 22 – Daegokri; 23 – Daesinri; 24 – Jinmok-ri; 25 – Joyang-dong; 26 – Nae-dong; 27 – Cheonjin-dong; 28 – Odok Peongchon; 29 – Namgyeong; 30 – Guryonggang; 31 – Mukbangri; 32 – Sejuk-ri; 33 – Yangsu-ri; 34 – Birae-dong; 35 – Hwajang-dong; 36 – Okseokri; 37 – Hwangseok-ri; 38 – Sangjapo-ri; 39 – Sindae-dong; 40 – Anja-dong; 41 – Bangnae-ri; 42 – Songguk-ri; 43 – Ungok-ri; 44 – Hamam-ri; 45 – Janghang.

The burial chamber among the dolmens of the southern type is located in a ground pit, and in some cases there is no stone structure inside the grave. Several small amorphous stones, which were not a part of the burial chamber, were set up on the ground and supported a stone lid (Fig. 2, 2). In most cases, a box of flagstone was used as a burial chamber in the dolmens of the southern type; less often a tiled coffin, and sometimes simply a ground pit. Such monuments have not been found on the territory of North Korea; they appear sporadically in the eastern and central regions of the Peninsula except

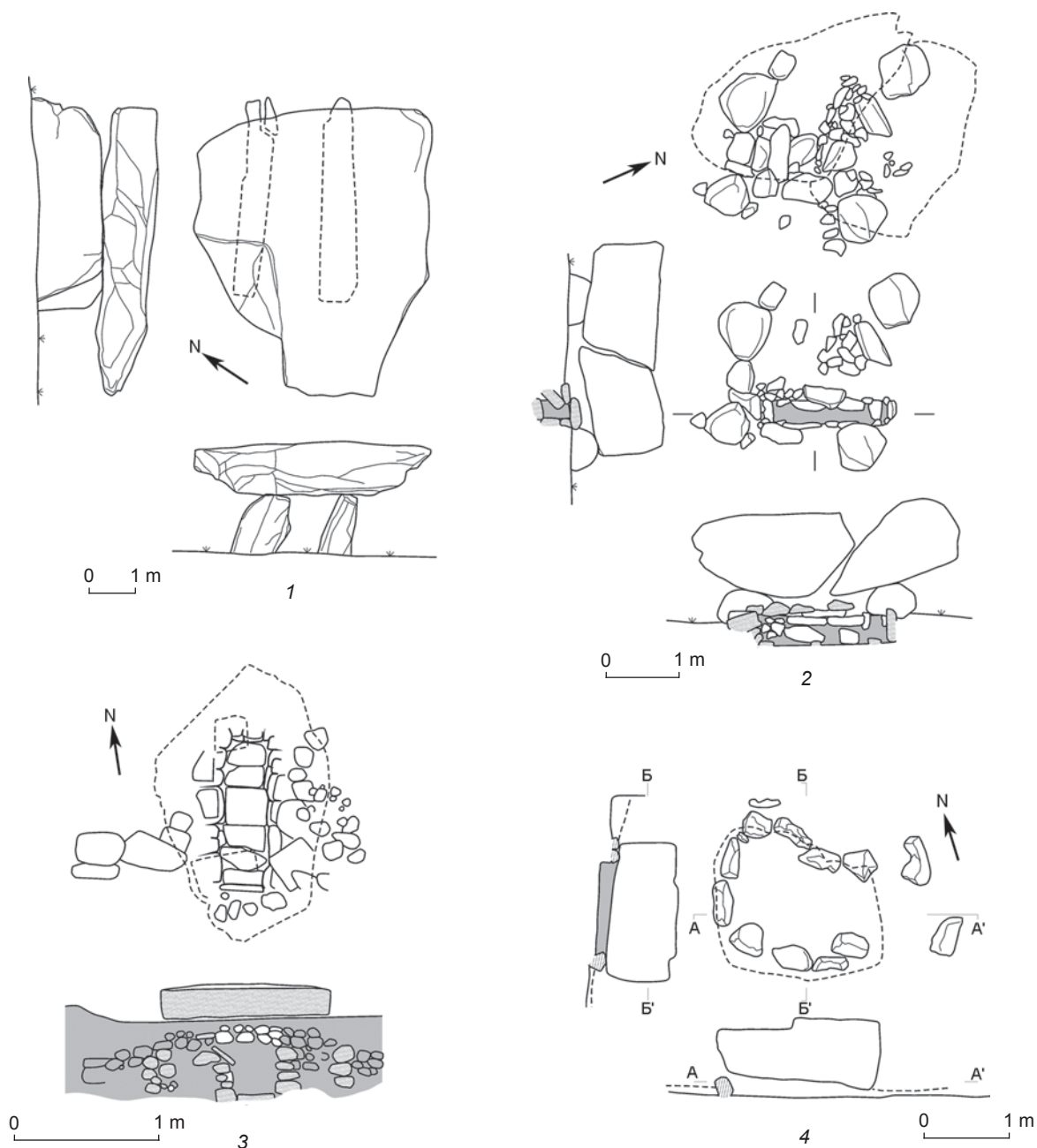


Fig. 2. Types of dolmens on the Korean Peninsula (after: (Hanguk jiseonmyo..., 1999; Jeonnam-ui..., 1996)).  
 1 – northern: Bugeun-ri No. 18, Ganghwado Island; 2 – southern: Naeu Usanri No. 44, Jeollanam-do Province; 3 – without supporting stones: Daebong-dong-5 No. 1, Gyeongsangbuk-do Province; 4 – *wiseoksik*: Bokgyo-ri No. 5, Jeollanam-do Province.

for Chungcheongnam-do Province, where this type is predominant. Dolmens of the southern type are abundantly present in the coastal areas of South Korea, including the provinces of Gyeongsangbuk-do, Gyeongsangnam-do, Jeollabuk-do, and Jeollanam-do. The largest dolmens have been discovered in Hwasun County of Jeollanam-do Province: one at the site of Daegokri (with size of lid  $7.1 \times 4.0 \times 3.7$  m, and weight about 210 tons), the other at the site of Daesinri (with size of lid  $7.6 \times 4.2 \times 4.1$  m,

and weight about 260 tons) (Hanguk jiseonmyo..., 1999: 967). The majority of dolmens on Jeju Island also belong to the southern type.

In the case of dolmens without supporting stones, the structure of the burial chamber was the same as with dolmens of the southern type, but the lid was placed directly over the burial chamber (Fig. 2, 3). This type is common throughout the entire territory of the peninsula. The structures of dolmens without supporting stones also

show regional differences. In the northern and central regions (the territory of the DPRK, and the Gangwon-do and Chungcheongbuk-do provinces of South Korea), a tiled coffin was primarily used as a burial chamber, while a box made of flagstone was used in the south.

Upon visual examination, the dolmens of the *wiseoksik* type resemble those of the southern type. However, as opposed to the latter, the burial chamber in the *wiseoksik* dolmens is located on the surface, and the supporting stones serve as walls (Fig. 2, 4). The placement of the stones usually forms a round-amorphous shape in plan view, since it repeats the shape of the lid, and is not equipped with additional covering. In rare cases, the burial chamber was a ground pit, which was slightly deepened into the native soil, and stones supporting the lid were set up in the upper part of the walls. Dolmens of this type appear only in the southern regions of the Korean Peninsula and on Jeju Island (with the exception of dolmen Jinmok-ri No. 4 in Chungcheongbuk-do Province).

**Inventory assemblages.** Despite the diversity of structural variants of the Korean dolmens, they are the monuments of a single culture. This is evidenced by the assemblage of archaeological materials associated with the dolmens. The main type of find is smooth-walled pottery (Kim Won Yong, 1986: 66, 67; Kim Jangsuk, 2007: 74): top-shaped pottery, with holes or appliqué roll along the edge of the rim, of the Misongri and Mukbangri type, and red and black polished pottery. Dolmens of the northwestern part of the Korean Peninsula are associated with top-shaped pottery, as well as Misongri and Mukbangri pottery. Vessels with holes along the edge of the rim have been found in the megaliths of the northeastern and central regions. A large number of undecorated and red polished pottery, as well as a number of vessels with painted ornamental decoration and black polishing of the surface, have been found in the dolmens of the southern and central part of the Peninsula. The unique pottery tradition of the megaliths of Jeju Island consists of modified pottery with holes or appliqué roll along the rim.

Stone daggers with thin tangs, tanged arrowheads, semilunar knives, discoid and serrated maces, rectangular axes, adzes, chisels, stone spindles, “stone coins”, as well as adornments made of stone (cylindrical beads), bone, shell, and bronze, have been found at the sites with top-shaped pottery. The assemblages with the vessels with holes on the rim have stone hilt daggers, tanged and triangular arrowheads, rectangular axes, discoid maces, adzes, chisels, stone and ceramic spindle whorls, ceramic weights, and semilunar knives. A bronze celt was found at one site (Joyang-dong No. 1, Gangwon-do Province). Ritual objects are represented by stones with an “eyelet”, with a carved cross, and with an anthropomorphic representation.

Some differences can be found in the burial inventory of the dolmens in the southern regions. In addition to rectangular axes, adzes, chisels, ceramic and stone spindle whorls, weights, pestles, triangular and semilunar knives, and other household objects typical of the megalithic culture of the Korean Peninsula, stone hilt daggers with wide tangs, weighting elements for the hilt, tanged arrowheads, axes with groove and ledge, bronze arrowheads, lute-shaped daggers and a spearhead, as well as jade adornments, have been found there, while adornments made of bronze, bone, and shells have not been discovered. The inventory included a narrow-bladed bronze dagger and black pottery typical of the period from the Late Bronze Age to the Early Iron Age (Nae-dong No. 1 in Gimhae, Gyeongsangnam-do Province) (Kim Jeong-hak, 1983). Ritual objects were represented by stones with “eyelets” and carved crosses.

**Chronology.** At present, there are no doubts that most of the dolmens on the Korean Peninsula belong to burial sites of the Bronze Age, since they contain a typical assemblage of inventory, but there are also some reservations. First, in comparison with the huge number of megalithic structures studied in this territory, the accompanying inventory is extremely scarce. Second, the amount of absolute dates for the dolmens is insufficient. Finally, most of the dates were obtained in the 1960s–1990s, and their accuracy raises some doubts. That is why, in order to establish the chronological framework for the existence of the megalithic culture on the Korean Peninsula, the method of cross-dating was also used in addition to absolute dates.

Top-shaped pottery and the pottery of the Mukbangri type play a special role in determining the dates of the dolmens of North Korea. Top-shaped pottery has been found in most of those dolmens. The fragments of rims from the dolmens of Noam-ri, Cheonjin-dong No. 6, and Odok Peongchon No. 10 are similar to the fragments found in the dwelling Namgyeong No. 1, and its style of ornamental decoration in the form of notches resembles the pottery from the Guryonggang site. A fragment with broad bottom typical of the modified top-shaped pottery which appears among the materials of dwelling No. 2 of the Namgyeong site was found in the dolmen of Noam-ri. The cultural layer of the Bronze Age at this site is divided into three periods according to the specific features of dwelling structures, top-shaped pottery, and other aspects. Coal from dwelling No. 36, attributed to the first period, gave the date of  $2890 \pm 70$  BP (13th–10th centuries BC). The date of  $2740 \pm 70$  BP (11th–8th centuries BC) was obtained for the Guryonggang site. Thus, the 11th–10th centuries BC can be taken as the lower boundary of the period when the dolmens were made (Ha Moon-Sig, 1999: 270).

Among the sites of North Korea, the site of Mukbangri in the vicinity of the city of Gaecheon in Pyeongannam-



do Province belongs to a relatively late period. In terms of their structure, the dolmens of Mukbangri differ from other similar structures of this region: they do not have supporting stones, and their burial chamber has the form of a box made of flagstone. A pottery vessel of the Mukbangri type was found in dolmen No. 24 of that site. Such pottery is considered to be a late version of pottery of the Misongri type. Fragments of pottery of the Mukbangri type were also found in the dwellings of the second layer of the Sejuk-ri site. The third layer, which covered it, contained about 2500 Ming Dao coins; in accordance with the period of their use, the layer belongs to the late Zhanguo period (3rd century BC). Thus, the layer below with the pottery of the Mukbangri type can be dated to the 4th–3rd centuries BC (Butin, 1982: 197–200, 210; Ha Moon-Sig, 1999: 157, 271).

The Bronze Age in South Korea dates back to the 13th/10th–3rd/2nd centuries BC (Kim Won Yong, 1986: 68; Choi Sung-rak, 1998: 105, 129, 229, 231). The absolute dates of dolmens (see *Table*) generally fit the Bronze Age and show that the megaliths were built throughout the entire period. An exception is the date of the dolmen of Yangsu-ri (second millennium BC), which belongs to the Middle Neolithic. Most likely, this can be explained by incorrect sampling.

The earliest absolute date was obtained at the site of Birae-dong No. 1 (12th–9th centuries BC). A lute-

shaped dagger, red polished pottery, and stone triangular arrowheads with notches in their bases were found in the burial chamber. At the settlements of Sindae-dong and Anja-dong in the same area, stone daggers with stepped hilts and blood grooves were found in similar inventory assemblages instead of lute-shaped daggers. The settlement of Sindae-dong existed in the 10th century BC, which is consistent with the dating of the dolmen of Birae-dong No. 1. The inventory of dolmen Joyang-dong No. 1 (the city of Sokcho), which included a fan-shaped bronze celt and triangular arrowheads, is similar to the finds from the settlement of Bangnae-ri near the city of Gangneung. The settlement is of the Heunamni type, which is dated to the 9th century BC, but judging by the absolute dates (1279–980, 1230–395, 1208–544, 794–431 BC), it is earlier (10th century BC). In the tiled coffin of dolmen Songguk-ri in Buyeo County, stone narrow-bladed arrowheads, a dagger with a solid hilt, and a lute-shaped dagger were found. The dates of 979–762 and 894–412 BC (9th century BC) were obtained for the associated dwelling. In the dolmens of the Hwajang-dong site, stone daggers with a solid hilt have also been found. They are considered to be of a later date than the daggers with stepped hilts. At this site, the dates of 1024–801, 976–811, and 895–769 BC have been obtained, which makes it possible to assign it to the 9th–8th centuries BC. A dwelling at Okseokri, discovered in the layer below a

**Absolute dates of the dolmens in South Korea\***

Site	Location	Material of the sample	<sup>14</sup> C-date, years BP	Index of the laboratory, year	Calibrated date, years BC
Yangsu-ri	Yangpyeong County, Gyeonggi-do Province	Charcoal	3900 ± 200	–	1950 (2910–1783)
Birae-dong No. 1	Daejeon City, Chungcheongnam-do Province	"	2860 ± 50	–	1005 (1145–900)
Hwajang-dong No. 1	Yeosu City, Jeollanam-do Province	"	2770 ± 40	SNU00-076, 2000	910 (1000–820)
Hwajang-dong No. 4-1	"	"	2630 ± 40	SNU00-075, 2000	840 (900–760)
			2744 ± 60	R 24842, 2000	907 (1012–802)
Okseokri	Paju County, Gyeonggi-do Province	"	2590 ± 105	GX0554, 1965	640 (930–410)
Daesinri No. 27	Hwasun County, Jeollanam-do Province	"	2500 ± 80	SNU00-072, 2000	555 (796–415)
Hwangseok-ri No. 13	Jecheon County, Chungcheongbuk-do Province	Anthropological	2360 ± 270	GX0555, 1965	410 (1120 BC to 212 AD)
Sangjapo-ri No. 4	Yangpyeong County, Gyeonggi-do Province	Charcoal	2170 ± 60	AERIK-91, 1972	220 (378–56)

\*Compiled after: (Hanguksa..., 1997: 28; Hanguk jiseonmyo..., 1999: 399, 702; Lee Young Moon, 2002: 258; Kim Jae-Won, Youn Moo Byong, 1967: 49, 124, 125; Lee Young Moon, Kim Jin Young, 2001: 109–114; Lee Young Moon et al., 2002: 165–168).

dolmen of the northern type, was dated to the second half of the 9th century BC on the basis of the date of 930–409 BC. It seems that the lower boundary of the megalithic culture in the south of the Korean Peninsula can be moved back to the 11th–10th centuries BC (Lee Young Moon, 2002: 258–260).

The dolmens with vessels with appliquéd roll on the rim, black polished pottery, narrow-bladed bronze daggers, and other materials from the Late Bronze–Early Iron Age have been found on the territory of South Korea. Absolute dates have been received only for two monuments with narrow-bladed bronze daggers: for the dolmen of Sangjapo-ri No. 4 (3rd century BC) and for a stone box with a wooden coffin of Daegokri (Jeollanam-do Province) (early 8th–2nd century BC). Judging by these dates, as well as by the presence of narrow-bladed bronze daggers, which began to be used on the Korean Peninsula in the 3rd century BC, the monuments can be dated to the 4th–3rd centuries BC (Ibid.: 261). The dolmen Nae-dong No. 1, with a similar assemblage of inventory, also goes back to that period. Fragments of roller pottery typical of the Early Iron Age, were found at the site of Ungok-ri (Chungcheongbuk-do Province), in the layer with non-decorated vessels. According to the pottery fragments, the dolmens of that site were dated to the late 3rd–2nd century BC (Hanguk jiseonmyo..., 1999: 230). Iron slag was discovered in the dolmen of Hamam-ri No. 5 (Chungcheongbuk-do Province). This find confirms the existence of such megaliths in the Early Iron Age. In addition, the upper boundary of the dates of the dolmens on Jeju Island is ca 1st–2nd centuries (Ibid.: 1108).

Thus, the time when the megalithic culture existed was the 11th–4th/3rd centuries BC in the northern part of the Korean Peninsula and the 11th–3rd/2nd centuries BC in the southern part. In the future, the upper limit of this period may be dated to the turn of the eras.

The origin of the phenomenon of megaliths seems to be complicated. Traditionally, the emergence of the megalithic culture on the Korean Peninsula was explained by the change of the populations (the Paleo-Asiatics were replaced by the Tungus-Manchu people) (Butin, 1982: 153; Vorobiev, 1997: 100; Tikhonov, Kang Man-Gil, 2011: 47, 48). However, the popular theory on the spread of megaliths from north to south (from the territory of Southern Manchuria) is not entirely justifiable in the light of radiocarbon dating. In any case, the origin of the Korean megaliths cannot be attributed solely to migrations. Local tradition might have played some role at the initial stage, which is partly confirmed by the use of stone in the burial and ritual-funerary practices of the Neolithic. Some of the skeletons at the recently investigated Janghang burial ground on Gadeaodo Island, in the vicinity of Busan, are covered with stones. A territory with contemporaneous stonework and pits

constituting a commemoration complex associated with a burial ground, joins the Janghang site to the southwest (Kim Sang Hyeon, 2011: 27). Janghang is still the only monument of the Neolithic where stone was used in the structures. Further identification of Neolithic burial grounds and individual burials, as well as ritual complexes, will make it possible to solve the problem of the origin of the tradition of the megaliths' construction. Nevertheless, it can be confidently argued that megaliths were not typical of the Neolithic on the Korean peninsula, and the flourishing of the megalithic culture occurred in the Bronze Age.

As far as the purpose of Korean dolmens is concerned, most of them undoubtedly constitute burial structures. Moreover, dolmens prevail among the forms of burial typical of the Bronze Age on the Korean Peninsula (dolmens, tiled coffins, stone boxes, or urns). The results of reconstruction and experiments show that the construction of dolmens required a high level of concentration of human resources and social stratification (Lee Young Moon, 2002: 329–330; Yu Tae Young, 2000: 220, 221). Whether the emergence of megaliths on the Korean Peninsula was associated with the development of agriculture is a question that does not find an unequivocal answer. The earliest evidence of agriculture in the region goes back to the Neolithic (Lim Sang Taek, 2007: 60, 61; Goseong Munam-ri..., 2013: 172–181, 267, 268, 271), and therefore the origin of the Korean megaliths cannot be explained exclusively by the transition from an appropriating economy to a producing economy.

### **Traditions of megalithic structures on the islands of the Japanese Archipelago**

Archaeological data suggest that on the territory of the Japanese Archipelago, megaliths were built starting from the Jōmon period, and in the Yayoi and Kofun periods. Various megalithic structures, the most famous of which are stone circles, were made in the Jōmon period. The most representative group among the megaliths of the later period consists of dolmens.

From the 3rd century BC to the 3rd century AD, radical changes took place in almost all cultural components on the islands of the Japanese Archipelago. These changes included the replacement of an appropriating economy by a producing economy, the emergence of new technologies, and the improvement of available technologies, as well as changes in the burial rituals and social structure. The earliest evidence of the construction of dolmens belongs to the final stage of the Final Jōmon period, while the flourishing of the construction of dolmens occurred in the early and first half of the Middle Yayoi period.

In the Japanese tradition, dolmens were associated with burial practices. Structures above the grave have

been found in the Jōmon culture starting from the late period, and represent stonework with a central stone in the middle; stone boulders or slabs placed around the grave form a structure of rectangular, square, oval, or round shape.

The megalithic structures of the Yayoi period are represented by dolmens. Their main area is confined to the northwestern prefectures of Kyushu - Fukuoka, Nagasaki, and Saga. In the western part of Honshu, this tradition is represented by the Late Yayoi burial complex of Tatetsuki (Okayama Prefecture). In total, over 50 sites with dolmens are known as of now. This figure is approximate, since soil graves with stone lids are also included in the number of burials with dolmens (Sim Bong-geun, 1999: 174; Yayoi bunka..., 1991: 97–103).

The Kinryu group of dolmens (Saga Prefecture) is of particular interest. It is dated to the end of the Final Jōmon to first half of the Early Yayoi period. These dolmens are located on the territory of the later burial ground of Kuboizumi-Maruyama, which belongs to the Kofun culture (5th–6th centuries AD). Sixteen dolmens, one grave with a burial urn, two stone coffins in the shape of a box, eight burial mounds, and three stone tombs have been found there. The dolmens have five or six supporting stones; the length of the slabs reaches 3 m. In total, 118 burials of the Final Jōmon to the Early Yayoi period, and 12 burials of the Kofun period have been excavated at that site (Morita Takashi, 1997).

At the burial ground of Shinmachi (Fukuoka Prefecture), 57 soil graves have been discovered, including graves with dolmens on three or four supporting stones, and graves with burial urns (Yayoi bunka..., 1991: 99). The complex of Shito (Fukuoka Prefecture) can be considered a dolmen without supporting stones. The complex is represented by ten graves covered with stone slabs, and eight graves with burial urns. In some cases, the walls of soil graves with dolmens were strengthened

by stone slabs (Shito shisekibo gun..., 1956: 5–8). The accompanying inventory included Early Yayoi pottery of the Yūsu style (flat-bottomed pots with a widened rim, jars with narrow necks, bowls on a stand), as well as cylindrical beads *kudatama*, and globular beads *kodama*, retouched arrowheads, and individual bronze objects (Yayoi bunka..., 1991: 97–103).

Burials in ceramic urns and earthen embankments gradually started to replace burials with dolmens. Megalithic structures of the middle and late Yayoi period are represented by the unique complexes of Sugu Okamoto (Fukuoka Prefecture) and Tatetsuki (Okayama Prefecture). The former includes graves with mounds, funeral urns, as well as traces of workshops for manufacturing bronze implements. At the burial ground, sector D is especially notable, containing a megalithic construction of two stone slabs over a ground grave with a burial urn (Fig. 3, 1). One stone, 3.6 m long, 2 m wide, covers the grave pit, while the other stone is located vertically at the edge of the first stone; its height is 1.5 m and width is 1.2 m. The thickness of the slabs varies from 30 to 40 cm. Three hundred burials with inventory, including adornments, bronze swords, halberds, arrowheads, and mirrors, were found at the burial ground. The presence of such a rich inventory and a megalithic structure over the burial suggests that the woman whose remains were found in the urn was a representative of the elite, possibly a chief (Shizen..., 2013: 138–140).

A second unique complex belongs to the Final Yayoi period and is represented by the Tatetsuki burial mound. The mound consists of three parts located along the northeast-southwest line, and consists of a central part of round shape (43 m in diameter) and two lateral rectangular parts (up to 4.5 m high). Stonework can be seen along the entire outline of the burial mound. A structure of five vertically standing stones (up to 2 m high) around the



Fig. 3. Megalithic structures of the Yayoi period. The Japanese Archipelago.

1 – Sugu Okamoto complex (by: (Shizen..., 2013)); 2 – Tatetsuki complex (after: (Kondō Yoshirō, 2002)).



central burial was located on the surface of the burial mound (Fig. 3, 2). A wooden burial chamber (3.5 × 1.5 m) with a wooden coffin (2 m long, 0.7 m wide) containing an iron sword, over 2000 glass beads, and clay *magatama*, was found inside the burial mound. It can be assumed that the grave belonged to a person with high status (Kondō Yoshirō, 2002: 10–15, 114–116).

Thus, speaking of the megalithic structures of the Yayoi culture, we primarily imply burials with dolmens. Despite the fact that during the Late-Final Jōmon period, stone structures were used in burial practices on the territory of Kyushu Island, the tradition of constructing dolmens goes back to the time when the population migrated from the Korean Peninsula.

### Conclusions

Thus, the phenomenon of megaliths not so much consists of the size and shape of the structures, but of a specific relationship between the viewer and the object, of the symbolism of culture, and of the forms of cultural self-identification and differentiation.

While the chronology of the megaliths on the Korean Peninsula and the Yayoi dolmens on Kyushu Island generally fits the Metal Ages (not earlier than the third millennium BC), the chronology of the early megalithic tradition in the northern part of the Japanese Archipelago still remains an open question. Complexes with stone circles started to be created there already in the Middle Jōmon period, ca 4500 BP.

Notably, making a connection of megaliths with burials on the Korean Peninsula and the Japanese Archipelago is by no means mandatory, and in the cases when the megalithic structures were accompanied by burials, they belonged to the members of the tribal elite. It is also clear that megaliths are not an unequivocal mark of agricultural and cattle breeding societies both on the Korean Peninsula and in the Japanese Archipelago. Agriculture on the Korean Peninsula emerged in the Middle Neolithic, that is, in the pre-megalithic time (Choe Chong Pil, 2001: 49). The Jōmon tradition of constructing megaliths is in no way associated with agriculture. This phenomenon deserves a special study.

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