Final Report

Meeting on Megalithic Culture

Comparing Prehistoric Ruins of the East and Europe

19-21 March 2003, Nara, Japan

Cultural Heritage Protection Cooperation Office,
Asia / Pacific Cultural Centre for UNESCO (ACCU)

PHOTOS

Airview of Oyu Stone Circle,
Akita Pref. Japan
(Kazuno City Education Board, Akita Prefecture)

Oyu-nonakado Stone Circle,
Akita Pref. Japan
(Kazuno City Education Board, Akita Prefecture)

Oyu-manza Stone Circle,
Akita Pref. Japan
(Kazuno City Education Board, Akita Prefecture)

Stonehenge, Wiltshire United Kingdom

West Kennet long barrow, Wiltshire United Kingdom

Singlung Siang Dolmens, Liaoning Province China

Bangchon-ri Dolmens, Chollanam-do Republic of Korea

Carnac Alignment, Brittany France

Stone jar at An village, jar plain Lao P.D.R.

Dosan-ri Dolmens No.2443, Chollabuk-do Republic of Korea

Locmariaquer menhirs, Brittany France

Brahmagiri megalithic tomb, Karnataka Province India

Tomb of stone chamber, Hang Gon ruins, Viet Nam

Gunung Padang ruins, Java Barat Indonesia

Harayama Dolmens, Nagasaki Pref. Japan
(Nagasaki Pref. Education Board)

Shinmachi No.13 Dolmen, Fukuoka Pref. Japan
(Shima Town Education Board)

Onodai Dolmens, Nagasaki Pref. Japan
(Nagasaki Pref. Education Board)

Itaogomori No.9 Dolmen, Fukuoka Pref. Japan
(Maebaru Town Education Board)

Satodabaru Dolmens, Nagasaki Pref. Japan
(Nagasaki Pref. Education Board)

Naganomiyanomae No.39 Dolmen, Fukuoka Pref. Japan
(Maebaru Town Education Board)

Published by

Cultural Heritage Protection Cooperation Office,
Asia/Pacific Cultural Centre for UNESCO (ACCU)

Nara Prefectural Government “Horen” Office 1F
757 Horen-cho, Nara 630-8113 Japan
Phone: +81-742-20-5001
F A X : +81-742-20-5701
E-mail: nara@accu.or.jp
U R L : http://www.nara.accu.or.jp

Preface

As of August 2002, there were 563 sites registered as World Cultural Heritage. If 23 sites also registered as Natural Heritage are included, the total registered number will be 586 sites.

Other than the ruins of cities and temples which are mainly above ground, there are only just over 30 prehistoric archeological sites buried underground registered as World Cultural Heritage, such as ruins of settlements, burial grounds, and production sites. However, these underground remains are also important witnesses of the course of human history.

In December 2000, a group of dolmens in Korea was registered as a World Cultural Heritage site. This group of dolmens postdates the dolmens widely found in northeastern China, and is believed to be linked to the megalithic culture that prevailed at the time in prehistoric Asia. The social background behind the development of megalithic culture and the routes by which it spread can be investigated by comparison with European megalithic culture in prehistoric times.

We invited 15 experts from Asian and European countries to the meeting held on 19-20 March, 2003 at Nara-Ken New Public Hall, sponsored by the Agency for Cultural Affairs, Nara Prefectural Government, and Nara Municipal Government. On 21 March, 2003, we visited ruins related to megalithic culture.

The purpose of the meeting was to formulate a basis for compiling a world history of prehistoric culture by confirming present progress in research into megalithic culture in Asian countries. We also aim to take this opportunity to draw attention to the importance of conserving prehistoric remains.

I believe that this meeting, consisting of keynote speeches, country report by the participants of each country, and discussion, has attained important results through informative presentations and information exchange. The outline of the meeting is summarized here to contribute to further research progress.

Lastly, I would like to take this opportunity to express my special thanks to those participants who attended the meeting and those who worked so hard to make this conference a success.

KANASEKI Hiroshi
Director
Cultural Heritage Protection Cooperation Office,
Asia / Pacific Cultural Centre for UNESCO (ACCU) Nara Office

CONTENTS

Summary ····· 2

Introduction

Proceedings

Purport ····· 7

Minutes of Meeting ····· 9

Keynote Address ····· 11

Extension of East Asian Megalithic Culture

Mr. KOMOTO Masayuki (Professor, Kumamoto University)

Prehistoric World and Megalithic Culture in Europe

Dr. Jean-Paul DEMOULE (Professeur à l'Université de Paris I)

Participants' Reports ····· 31

—India—

The Megalithic Culture of India : Its genesis, spread and continuity

Dr. R. C. AGRAWAL

(Member Secretary, Indian Council of Historical Research Ministry of Human Resource Development)

—China—

Megalithic Monuments in the Northeast area and the Eastern Coast of China

Mr. BAI Yun Xiang (Deputy Director, Institute of Archaeology, Chinese Academy of Social Sciences)

—Indonesia—

Megalithic in Indonesia:Its Characteristics and Forms

Dr. Haris SUKENDAR (Director, Research Centre for Archaeology)

—France—

The Megalithic Tombs of Southern France in their Mediterranean Context

Dr. Jean GUILAINE (Professeur au Collège de France)

—United Kingdom—

Megalithic cultures in Britain and their relationship to Western Europe

Dr. Caroline MALONE (Keeper, Department of Prehistory and Early Europe, British Museum)

—Republic of Korea—

Megalithic Culture of Korea

Mr. CHO Hyun Jong (Chief of Curatorial Department, Gwangju National Museum)

—Japan—

Dolmens in the Japanese Archipelago

Mr. NISHITANI Tadashi (Professor Emeritus, Kyushu University)

Appendices ····· 97

General Information

Programme Schedule

Opening Address

List of Participants

SUMMARY

1. Introduction

The Cultural Heritage Protection Cooperation Office, Asia/Pacific Cultural Centre for UNESCO (ACCU), held " The Meeting on Megalithic Culture - Comparing Prehistoric Ruins of the East and Europe, " supported by the Agency for Cultural Affairs, Nara Prefectural Government, and Nara Municipal Government. The Meeting was held from March 19 to 21, 2003 (see programme at the end of the book) at Nara-Ken New Public Hall. On the third day, March 21st, a field trip was made to ruins centering on the Ishibutai Mounded tomb (Asuka area, Nara) related to the megalithic culture in Japan.

Seven participants from six Asian and European countries (China: Mr. BAI Yun Xiang, France: Dr. Jean GUILAINE and Dr. Jean-Paul DEMOULE, India: Dr. R.C. AGRAWAL, Indonesia: Dr. Haris SUKENDAR, Republic of Korea: Mr. CHO Hyun Jong, and United Kingdom: Dr. Caroline MALONE), and eight Japanese participants (Mr. IZUMI Takura, Mr. OKAMURA Hidenori, Mr. KOMOTO Masayuki, Mr. SAKAI Takashi, Mr. NISHITANI Tadashi, Mr. NITTA Eiji, Mr. MORIMOTO Susumu, and Ms. YAMAGATA Mariko), in total 15 participants, attended the Meeting.

2. Proceedings

1) Meeting

① Opening Ceremony

The Meeting started at 10:00 a.m. on March 19, 2003 with attendance of all participants. First, Mr. KANASEKI Hiroshi, Director, ACCU Nara Office, in his opening address, extended

a cordial welcome to all the participants. He then explained the role and activities of the Cultural Heritage Protection Cooperation Office, Asia/Pacific Cultural Centre for UNESCO (ACCU), the background behind planning and holding this Meeting as one of their activities, and the significance of the Meeting.

Ms. OHNUKI Misako, Director of Cultural Division, ACCU, then welcomed the participants, and expressed her wish to enhance exchanges among researchers and achieve further progress in the study of megalithic culture in Asian countries through the Meeting.

② Purport of the Meeting

Mr. KURAKU Yoshiyuki, Director of Programme Operation Department, ACCU Nara Office, explained the purpose of holding the Meeting and the Meeting schedule. He also explained about the Final Report to be created after the Meeting, and asked for the cooperation of the participants in providing materials for preparing the report.

Participants then introduced themselves.

③ Keynote speech

Starting at 11:00, Mr. KOMOTO Masayuki, Kumamoto University, made a keynote speech entitled" Extension of East Asian Megalithic Culture. " After the 40-minute keynote speech using slides, the Q&A session was provided for participants.

Starting at 13:20, Dr. Jean-Paul DEMOULE, l Universit de Paris I, made a second keynote speech entitled" Prehistoric World and Megalithic Culture in Europe. " After the 40-minute keynote speech using slides, the Q&A session was provided for participants.

④ Participants ’Reports

From 14:00 on the 19th, after two keynote speeches, to the afternoon sessions on the 20th, participants from each country made 35-minute presentations on megalithic culture in their country in the following order and theme.

First Day（March 19th）

1. India
Dr. R. C. AGRAWAL, Member Secretary, Indian Council of Historical Research Ministry of Human Resource Development
“ The Megalithic Culture of India: Its genesis, spread and continuity ”

2. China
Mr. BAI Yun Xiang, Deputy Director, Institute of Archaeology, Chinese Academy of Social Sciences
“ Megalithic Monuments in the Northeast area and the Eastern Coast of China ”

3. Indonesia
Dr. Haris SUKENDAR, Director, Research Centre for Archaeology
“ Megalithic in Indonesia: Its Characteristics and Forms ”

After the above presentations, Dr. R. C. AGRAWAL and Mr. BAI Yun Xiang asked about the estimated date of megalithic culture in Indonesia and the presence of excavated relics. Mr. NITTA Eiji, Kagoshima University, asked about the relation between menhir and tombstone, and identification of the date of menhir. Dr. Jean-Paul DEMOULE and Dr. Caroline MALONE then started discussion on the difference between the megalithic culture in Asia and Europe.

Second Day（March 20th）

4. France
Dr. Jean GUILAINE, Collège de France
“ The Megalithic Tombs of Southern France in their Mediterranean Context ”

After his presentation, a question was made on buried items and purpose of megalithic monument in France.

5. United Kingdom
Dr. Caroline MALONE, Keeper, Department of Prehistory and Early Europe, British Museum
“ Megalithic Cultures in Britain and their Relationship to Western Europe ”

Dr. Haris SUKENDAR asked about decoration patterns and movement of people in the megalithic era.

6. Korea
Mr. CHO Hyun Jong, Chief of Curatorial Department, Gwangju National Museum
“ Megalithic Culture of Korea ”

After the presentation, Dr. Caroline MALONE pointed out the similarity in alignment in U.K. and Korea. Mr. BAI Yun Xiang asked about excavation of human bone, and Dr. R. C. AGRAWAL asked about the estimated date of megalithic era in Korea and community site of that time.

7. Japan
Mr. NISHITANI Tadashi, Professor Emeritus, Kyushu University
“ Dolmens in the Japanese Archipelago ”

Dr. R. C. AGRAWAL asked about identification of the date of the pot coffin.

⑤ Discussion

After presentations on each country, the participants discussed about the difference in the megalithic culture in Asia and Europe, and the present state and transmission route of the megalithic culture in each country for about 90 minutes from 13:30 on the Second Day, chaired by Mr. NISHITANI Tadashi, Professor Emeritus, Kyushu University.

Then, Mr. OKAMURA Hidenori, Associate Professor, Kyoto University, supplemented the information on menhir in North Asia, using OHP. Mr. NITTA Eiji also briefly reported on the megalithic culture in Laos and Viet Nam. The concept of the megalithic culture and megalithic monuments, and transmission route and purpose of megalithic monuments were also discussed.

Zuto

Asuka Historical Museum

⑥ Summary

Lastly, the meeting minutes（draft）was prepared by Mr. BAI Yun Xiang, Dr. Jean-Paul DEMOULE, Dr. R. C. AGRAWAL, and Dr. Caroline MALONE to summarize the two-day discussion. Comments and revisions were made by participants, and the final meeting minutes was created upon the consensus of all participants.

2) Field Trip

On the first day（March 19th）, the participants visited“ Zuto ”near the venue after the Meeting. Zuto is an earthen pyramid pagoda with stone Buddha images kept in niche on four sides.

On the last day（March 21st）, a sunny day, Mr. NISHITANI Tadashi, Dr. Jean-Paul DEMOULE, Dr. R. C. AGRAWAL, Dr. Haris SUKENDAR, and Mr. CHO Hyun Jong attended an international symposium entitled“ The Mysteries of Megalithic Culture−Comparing Prehistoric Ruins of the East and West, ” held in Nara-Ken New Public Hall, the same venue as for the Meeting. Other participants attended a one-day field trip on megalithic culture in Asuka area, the southern part of Nara, using a chartered bus. The field trip visited Emperor Sujin’s tomb, the Ishibutai Mounded tomb, Asuka Historical Museum, Takamatsuzuka Burial Mound, Kameishi（turtle shaped stone carving）, and Masuda Iwafune（stone coffin-like gigantic monument）.

PURPORT

Mr. KURAKU Yoshiyuki
Director of Programme Operation Department, ACCU Nara Office

A variety of theories concerning ancient megalithic constructions have been put forth around the world since Robert von Heine-Geldern ś approach to the philosophy of monism that was introduced in the 1920s.

Despite progress of studies focused on ancient megalithic constructions, the term“ dolmen ” that is for some megalithic sites in the Nordic countries has rarely been heard in the academic world. This international conference, however, introduces a variety of megalithic remains that differ in age, location, and characteristics. Some megalithic constructions were used for graves or offering sacrifices, some for monuments, and some as massive accumulations of stone. Among them are also those designated as cultural assets and still being used as altars and oratories. It is now clear that those megalithic constructions are not monogenetic and did not develop from a single origin. However, it is hoped that this conference will help unravel relations among megalithic constructions in geographical and chronological terms.

As of August 2002, a total of 586 constructions have been designated as world cultural heritage sites: 563 as world cultural heritage and 23 as world cultural and natural heritage.

Apart from megalithic ruins located in cities and temples, many of which were constructed above ground, only about 30 of those designated as world cultural heritage are the prehistoric ruins discovered underground, such as remains of villages, graves and manufacturing sites. They include Stonehenge, Avebury and associated site (Britain), the Neolithic Flint Mines at Spiennes (Belgium), Peking Man site at Zhoukoudian (China), Sangiran Early Man Site (Indonesia), and Ban Chiang archaeological site (Thailand). Those remains buried underground are also important evidence of the history of humankind.

In December 2000, South Korean dolmens of the Bronze Age (Kochang, Hwasun, and Kanghwa dolmens) were added to UNESCO’s World Heritage List. These dolmens, originating among those widely distributed in the northeast region of China, are positioned as part of the prehistoric megalithic culture in Asia. Comparisons between prehistoric megalithic culture in Asia and that in Europe allow us to envisage social backgrounds in those days and cultural diffusion routes. With the participation of experts in megalithic culture from France, the U.K. and Asian countries, this international conference aims to deepen understanding of the current status of ancient megalithic constructions and search for clues that may shed light on the world history of prehistoric cultures. We hope that this conference will enhance shared awareness of megalithic culture in the world and serve as an incentive for participants’ further research activities, thereby contributing to the growing trend toward the conservation of prehistoric sites.

Minutes of Meeting

1. Monuments of the so-called Megalithic culture were constructed of enormous stones. However, there is no proven single origin from which such monuments were dispersed, or linking culture across the many regions containing megalithic sites.

2. Megalithic monuments may emerge in any cultural region, provided the appropriate conditions are present. Megaliths are thus a phenomenon common across human cultural history.

3. Megalithic monuments are generally related to“ mature ”(or complex) settled societies. In most cases, megalithic monuments result from agrarian economies able to participate in various productive activities.

4. Some megalithic monuments may have developed to reflect a sense of territory and sovereignty and to mark such locations.

5. Megalithic structures can be broadly divided into two types: Funerary (or graves) and Monuments.

6. Where megaliths were built as tombs, they were often situated in cemetery groups or clusters. Monumental megaliths were constructed to reflect, through their shape, quality, stone color and orientation, different symbolic meanings.

7. The emergence of megalithic monuments heavily depends on cultural migration due to long-distance trading. The disappearance of megalithic monuments is considered as the result that a new leader governing the group appeared and a framework of a primitive nation was born.

8. Even now, such monuments exist in India, Indonesia and so on, and they tell us a precise picture of the immemorial practice.

9. The megalithic monuments are valuable cultural legacies that inscribe longtime history of human. Therefore, we must completely conserve these monuments and leave them to posterity.

Extension of East Asian Megalithic Culture

Mr. KOMOTO Masayuki
Professor, Kumamoto University

Introduction:

Representative remains related to megalithic culture developed in East Asia are dolmens, menhirs, and stone circles (Komoto, M., 1982). As long as 100 years ago, Japan's and South Korea's Yokoana Kofun, which characterizes the same structure as passage graves found in Western Europe, was introduced as part of dolmens by W. Gowland, British archaeologist (Gowland, W., 1897). Yokoana Kofun is a mound tomb whose chambers are set on the ground under the mound and entered from the side through a passageway. In the East Asian archaeological society, however, it is a widely held view that Yokoana Kofun is not included in the scope of megalithic culture. In East Asia, the term "cairn" mean both an ancient burial mound covered by small stones rather than soil, which are found in a part of Japan and in Korea (Chosen) as ruins in the age of the Kingdom of Koguryo (Kokuri), and "stone constructions arranged in a circle or rectangular shape" or "piled stone constructions," which were constructed in prehistoric times. The former is different in style from burial mounds in Europe, while the latter is smaller compared to those in Europe. On the tip of the Liaotung Peninsula are also the remains of a cairn. The cairn looks like a mound tomb because of the piled stones, but it comprises many tombs. In this respect, this mound tomb is significantly different from those that characterize the burial of multiple persons in one large burial chamber. Moreover, ancient mound tombs that share the same structural characteristics with "alignment" in the megalithic site at Carnac in Brittany, France, and Stonehenge at Salisbury, England have not been found in East Asia. Menhirs have been found in a few ruins on the Korean Peninsula, while in eastern Japan, mound tombs feature a combination of small menhirs and stone circles. Therefore, it can be said that stone circles and dolmens are representative of megalithic culture in East Asia.

During the period between late 2000 B.C. and early 1000 B.C., dolmens were constructed in the region covering from the southern part of northeastern China to the Korean Peninsula, to northwest Kyushu in Japan. Stone circles emerged mainly in northeastern China and eastern Japan, covering northeastern China and northeastern Honshu including Hokkaido, in the period prior to the

early 2000s B.C. In terms of time and geography, the two types of tombs did not coexist with each other (Fig.1, 4-1). Another important difference between them is that the dolmen culture, originating on the Liaotung Peninsula and in western Korea, spread into Northeast Asia, while stone circles discovered in northeastern China and those found in eastern Japan share no common thread, except that stone constructions were arranged in a circle outside tombs. From this it can be assumed that the two regions ' respective stone circle cultures developed independently.

1. Stone Circles

Stone circles are largely divided into two types, depending on the presence or absence of stone construction on the inside of the stone circle. In general, Type I stone circles feature that inside the stone construction, arranged in a circle 50m to 100m in diameter, are more than several dozen small-scale stone constructions arranged in circles. Type I stone constructions in circles are characterized by river cobbles paved in circles measuring 1.5m to 2m in diameter, whose outer regions are rimmed with menhirs or a low mound of stones and whose insides comprise low piles of small rubble stones. In most cases, small pit-graves lie below these small-scale stone constructions arranged in a circle. At the Akyu Ruins in Nagano Prefecture, a stone construction arranged in a circle 30m wide and 100m long was discovered (Nagano Prefectural History, 1983). Such stone constructions arranged in circles were already present in the early stage of the Jomon Period, as shown in the Wappara Ruins, and continued until the final stage of the Jomon Period, revealed by surveys of the Sengo Ruins in Shizuoka Prefecture and Kinsei Ruins in Yamanashi Prefecture. The remains of double stone constructions arranged in circles in the late stage of the Jomon Period were also found at the Oyu-nonakado and Oyu-manza ruins in Akita Prefecture. In the

Fig.1 Selected sites of Dolmen (●), Stone Circle (■) and Circular earthen enclosure (▲) in Japan.

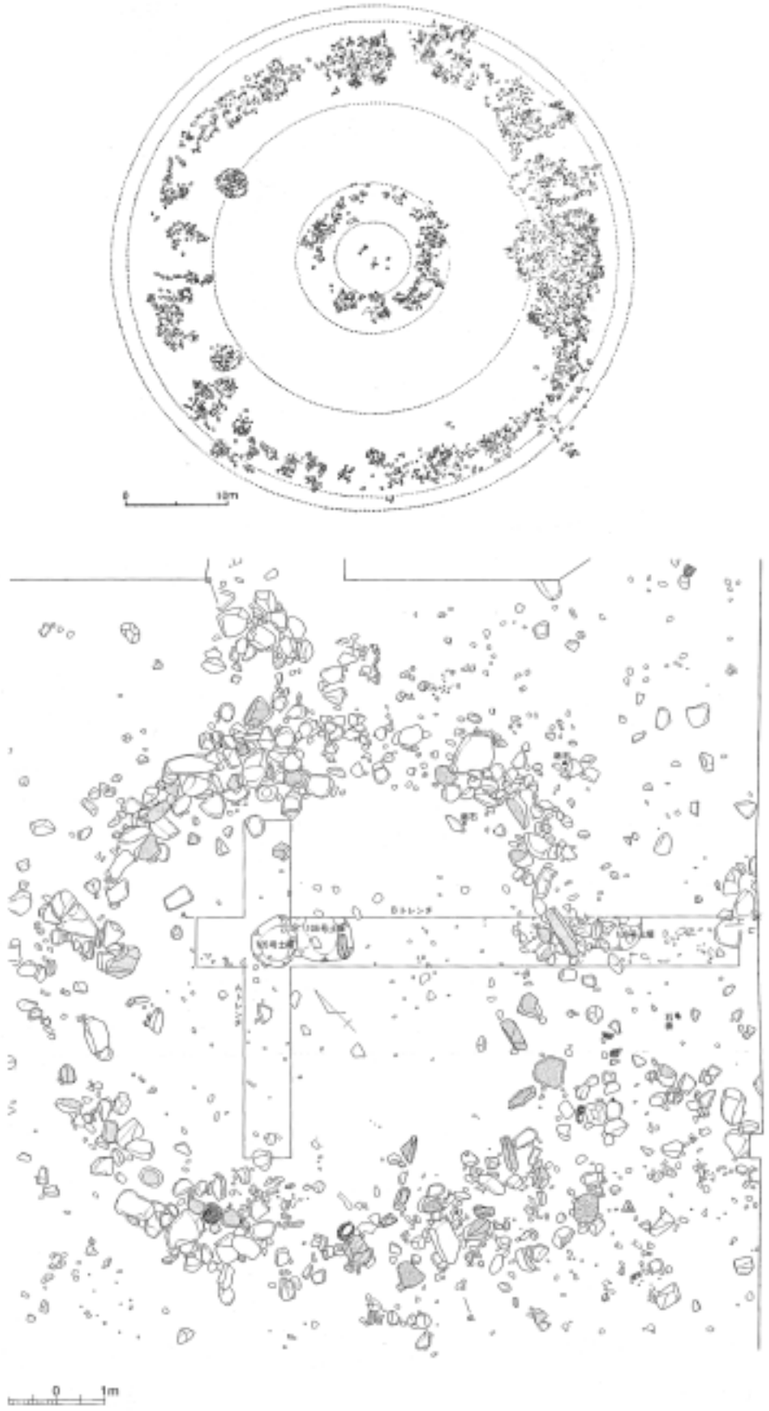


Fig.2 Oyu-nonakado Stone Circle (upper) and Kami-Shiraiwa Stone Circle (lower)

former ruins, an outer stone construction arranged in a circle measures 30m to 43m across, and an inner one 6m to 13m across, totaling 44 stone constructions including a Sun-dial placed at the center of the inner stone construction arranged in a circle (Fig.2, top). At the latter ruins, 45 stones comprising a stone construction in a circle have been found so far (National Commission for Protection of Cultural Properties, 1953).

A representative of a stone construction arranged in a circle belonging to Type II is the Kami-Shiraiwa Ruins in Shizuoka Prefecture (Fig.2, bottom). The ruins feature 2- to 2.4-meter-wide alignments placed in a circle 12m in diameter with big stones standing against one another at the center. From inside the stone circle, many pit burials without stone constructions arranged in a circle were discovered (Naka-Izu Town Education Board, 1979). Surveys on the ruins found that there were at least three stone circles. In addition to the Kami-Shiraiwa Ruins, stone circles measuring about 11m in diameter with no stone construction inside were discovered at the Okushibetsu Ruins in Hokkaido and several other ruins in eastern Japan. These cases indicate that stone circles were constructed independently of one another, and some of them, like the Teraji Ruins in Niigata Prefecture (Fig.3, right), are characterized by a complicated structure: menhirs arranged in a circle have been surrounded by stone circles whose inside are stones paving (Oume Town Education Board, 1969-73).

One characteristic shared by stone circles are pit burials inside, accompanied by a few grave items. Such grave items include earthenware, costume jewelry, stone adze and axe, phallic stone rod, and stone arrowheads.

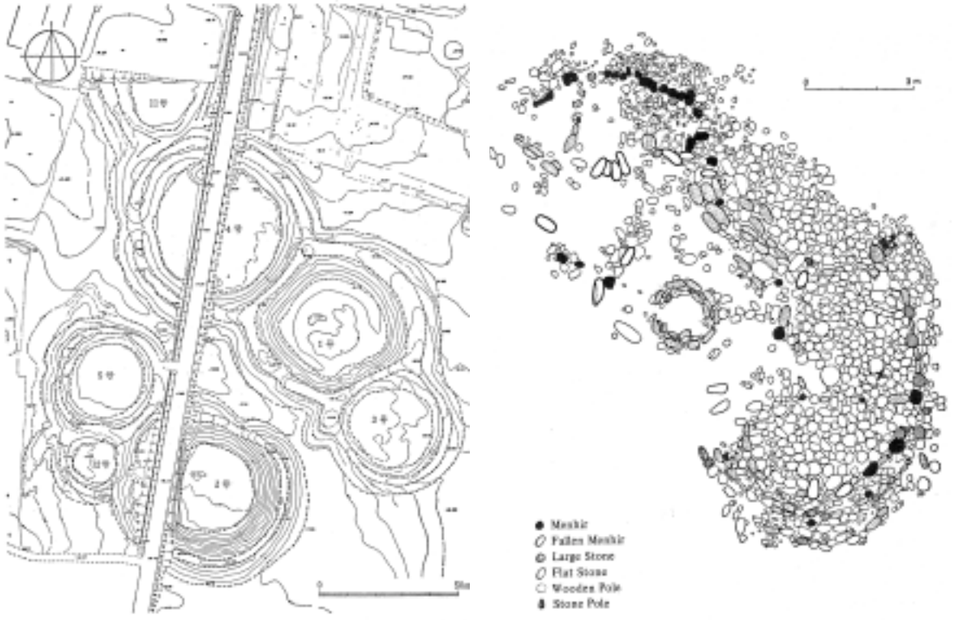


Fig.3 Kiusu Circular earthen enclosure (left) and Teraji Stone Circle

In the late stage of the Jomon Period in Hokkaido, circular earthen enclosures appeared that are similar to stone circles. The circular earthen enclosure features a high embankment instead of alignments, whose inside included pit burials. About 50 circular earthen enclosures have been discovered so far (Toshizo Otani, 1983). At the Kiusu Ruins, for example, there are 14 circular earthen enclosures (Fig.3, left); the No.2 site, the largest, has outer and inner embankments measuring 75m and 34m in diameter, respectively, with a height of 5.4m. The total amount of soil used for such a mound is more than 30,000m^3, and it is estimated to have taken 40months with a workforce of 25 people to construct. The No.4 site is also the same size as the No.2 site. The No.12 site, the smallest of the 14 sites, has an embankment measuring 16m to 30m in diameter and 0.5m in height. Those sites have the same characteristics as stone circles: stones arranged in a circle, burial remains accompanied inside, similar grave items, and geographical distribution. As a result, it is assumed that in the late stage of the Jomon Period, circular earthen enclosures appeared as an alternative to stone circles in at least one part of Hokkaido.

So far, there has not been enough clues to identify the origin and descent of these stone circles and circular earthen enclosures. Many structures similar to stone constructions built inside circular stone enclosures have been discovered in the village ruins that were in the stage of incipient Jomon Pottery decorated with dowel impressed patterns-the early stage of Jomon Period-in areas from Kyushu to the Tohoku region of Japan. These structures are characterized by stones arranged in a circle measuring 1.5m to 2m in diameter, though the stones are not arranged as clearly as those in stone constructions inside of stone circles and any consistency cannot be found in such stone constructions. In the Kanto region and Hokkaido, however, ruins of the period between the middle and the late stages of the Jomon Period have been found, in which villages are surrounded by giant mounds. Given the commonality of surrounding villages and graves with stones or mounds, it can be said that a unique culture developed in the Japanese archipelago.

Stone constructions with piled pebbles inside of round-shaped zones, built during the Hongshan Period (ca. 3800-2700 B.C.), were discovered at ruins in the northeastern region of China, such as the Dong shan zui, Niu he liang, and Hu tou gou ruins (Liaoning Province Cultural Relic Archaeology Research Institute, 1997). In these ruins, stone circles rimmed with alignment have been found together with various remnants of rites of veneration and artifacts. In Hailar, a large city in the northern part of northeastern China, are ruins of stone circles with no stone construction inside, just as in the case of Japan's Kami-Shiraiwa and Okushibetsu ruins. Given the huge gap in space and time, however, it has to be said that the relationships between stone circles in China and those in eastern Japan are unknown.

2. Dolmens

In East Asia, the dolmen culture can be found in a wide region covering China's eastern

Liaotung Peninsula, the Korean Peninsula, and northwestern Kyushu. Whereas the total numbers of dolmens found on the Liaotung Peninsula and in northwestern Kyushu are about 400 and 600 respectively, more than 50,000 dolmens have been discovered so far on the Korean Peninsula. In particular, about 60% of the dolmens have been concentrated in the southwestern part of the Korean Peninsula, becoming the center of dolmen culture in the world (Masayuki Komoto, 1997) (Fig.4-1). Such a considerable difference in the number of dolmens can be attributed to the fact that many dolmens found in the eastern part of the Liaotung Peninsula and in the northern part of the Korean Peninsula were designed for added burials, while in the southern part of the Korean Peninsula and Japan for burials of individuals.

The dolmens of East Asia can be roughly divided into three styles, though they can be further subdivided in structural terms as well: southern style, table style, and checkerboard style (Masayuki Komoto, 1973a, 1980). The oldest style of dolmens found is a mega-size lid of stone cist, called“ gai shi mu ”in China (Fig.5-2, 5-3). With the development of techniques for supporting the weight of this mega-size stone cist lid, primitive dolmens gradually evolved as follows:

1) Southern Series of Dolmens

a) Simchon-ri A Style: The weight of the upper stone is supported by the top edge of a cist in the ground (Fig.4-2).

b) Simchon-ri C Style: The weight of the upper stone is supported by the top edge of a cist in the ground, with stones piled at the rear of the tomb.

c) Daebong-dong Style: The weight of the upper stone is indirectly put on the tomb chamber by placing piled stones between the upper stone and the buried tomb chamber. This style of tomb chamber can be further divided into two kinds: a tomb chamber with a cist inside and another with a wooden coffin inside.

d) Kukan-ri Style: The top of a tomb chamber buried in the ground is protected by piling up stones on top of it and placing support stones, upon which the upper stone is placed (Fig.5-4).

2) Northern Series of Dolmens

a) Simchon-ri B Style: The weight of the upper stone is supported by giant long-sides of a cist

1

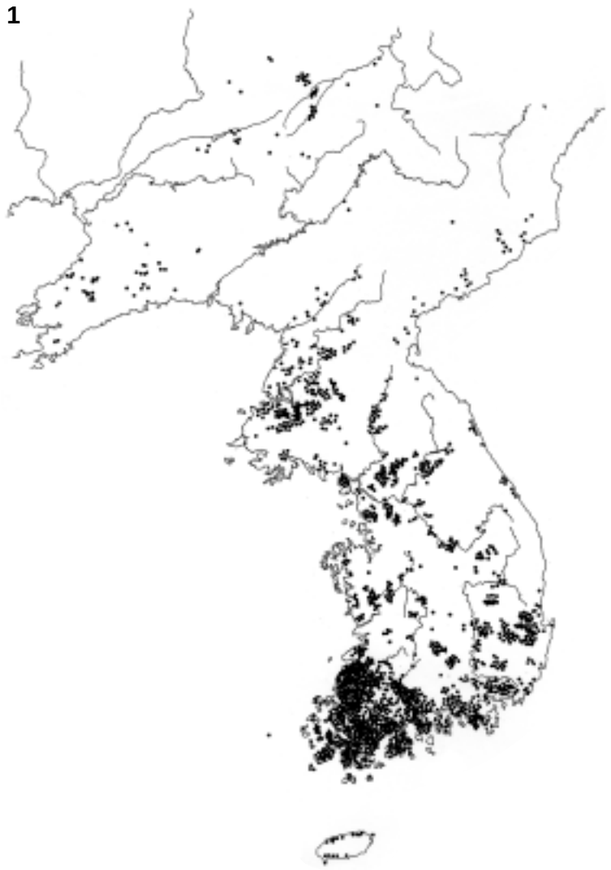
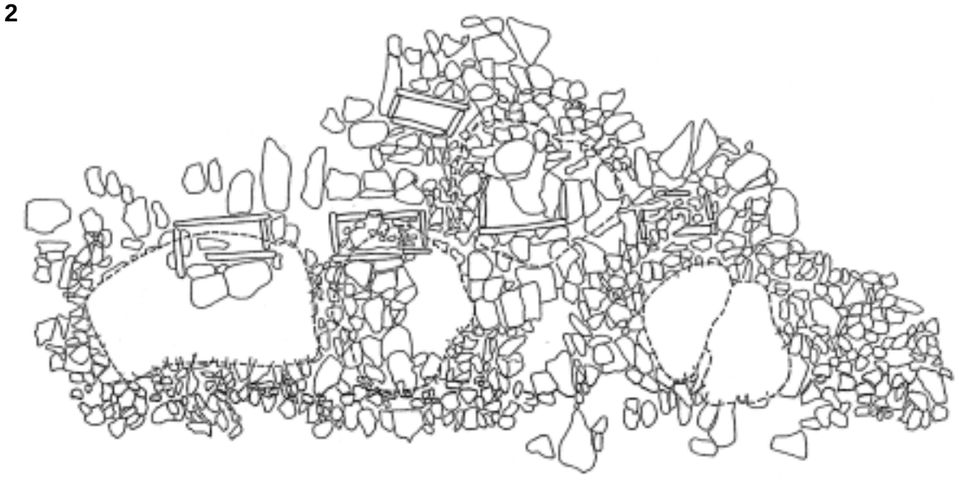
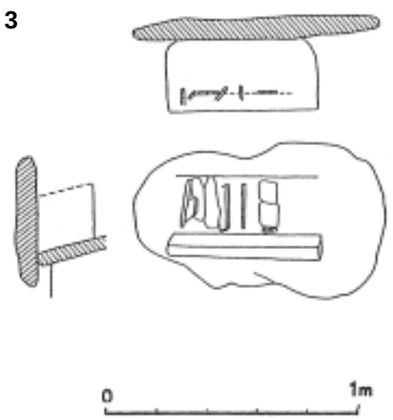


Fig.4 Distribution map of Dolmen in Northeast Asia (1), Dolmen of Kingdong (2), Songsindong (3) and Seokjeolgok (4)

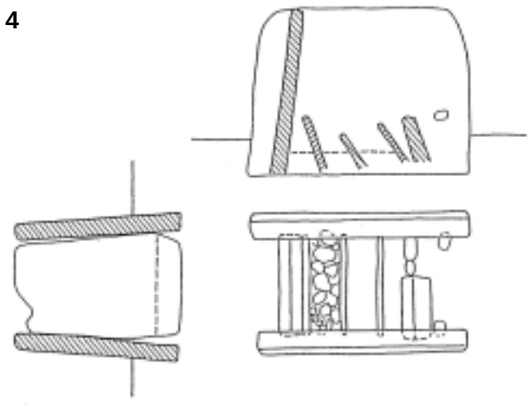
2



3



4



buried under the ground (Fig.4-3, 4-4).

b) Simchon-ri D Style: The weight of the upper stone is supported by more giant long-sides of a cist buried halfway in the ground (Fig.5-1).

c) Seokchonsan Style: The weight of the upper stone is supported by giant long-side stones placed on top of the ground (Fig.5-5).

d) Shi peng shan Style: The weight of the upper stone is supported by three plate-shaped stones placed on the ground, with the opposite-side stone used to block the opening (Fig. 6).

In a), b), c) and d), short-side stones were used to close the tomb chambers, and do not directly suffer from the pressure of the upper stone. As a result, the short-side stones were often taken away afterwards.

In addition to these types of dolmens, there is the so-called Mukpang-ri style in a part of western Korea: angular U-shaped stone chambers are buried halfway in the ground or placed on top of the ground, with its entrance on one of the shorter sides, in which the weight of the upper stone is supported by the top end of the stone chamber. This style of stone chamber has a removable stone to block the entrance, enabling additional burials, and it is assumed that this is eclectic between northern series and southern series structures.

Without distinction between the northern series and southern series of dolmens, emphasis was placed on how the gigantic stone is placed on the stone chamber by reducing pressure on the structure of the chamber. From this viewpoint, it can be said that the techniques of the southern series of dolmens evolved in the direction from a) to d), while the northern series evolved from a) to d). This is also shown by the fact that the Kukan-ri and Shi peng shan styles, both of which are in the last evolving stage of dolmens, feature the most gigantic upper stones.

The separation of the northern series and southern series is observed in the Simchon-ri B style, in which the stone chamber is subdivided for burials (Fig.4-3, 4-4). At this stage, tombs were built halfway in the ground to accommodate multiple burials, and upsizing of the upper stone and additional burials was enabled by strengthening the longer sides of the stone chamber on which the pressure of the upper stone was placed. On the other hand, the southern series evolved by securing wider space between the upper stone and the stone chamber to prevent the pressure of the upper stone from being directly placed on the stone chamber. This structure discouraged additional burials, leading to the development of dolmens as tombs for individual people. These characteristic differences of dolmens are clearly represented by the number of dolmens found. In addition, a geographical difference exists: the northern series of dolmens were constructed individually or in small groups on the tops of hilly terrain or hills dominating the plain, whereas the southern

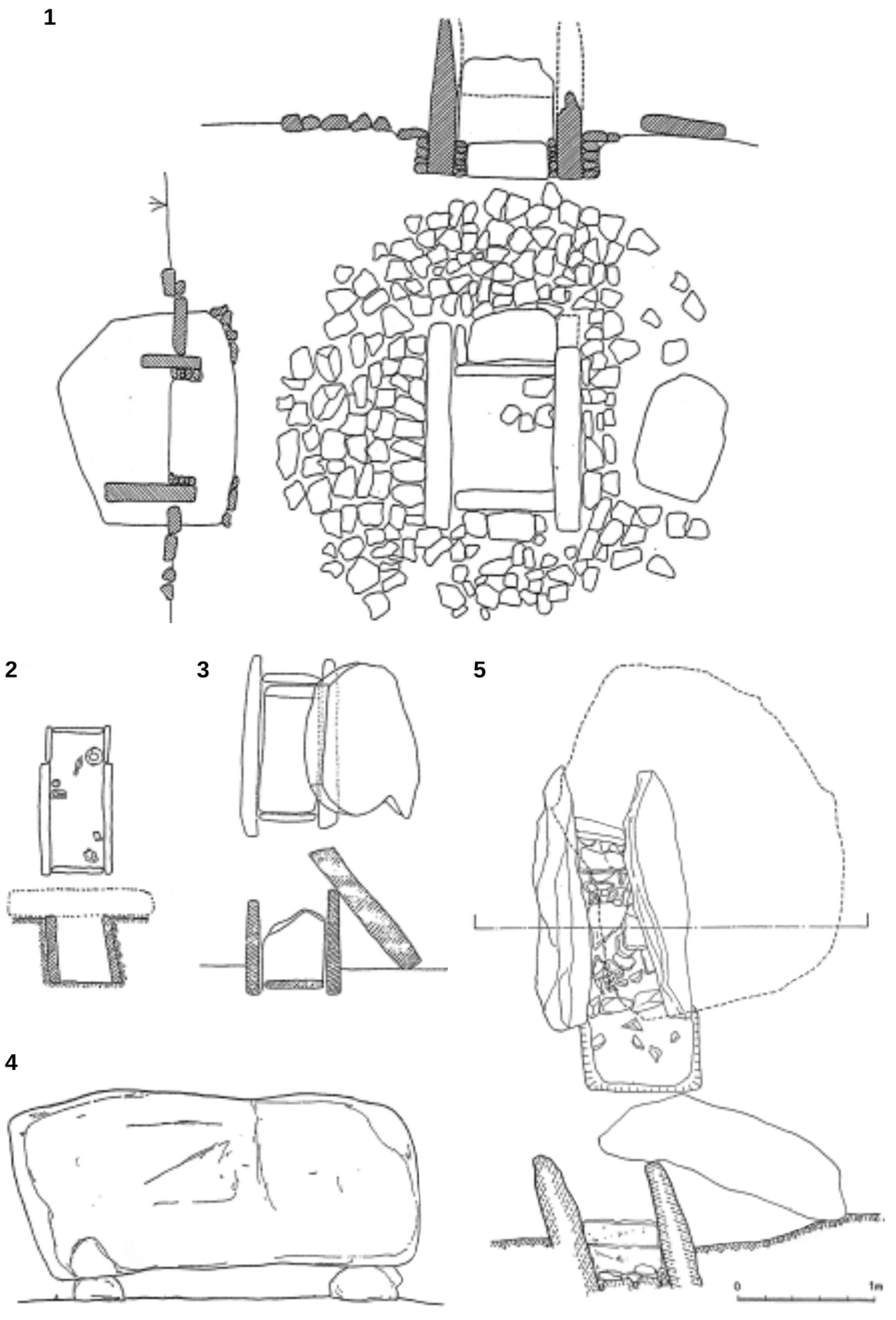


Fig.5 Dolmen of Munheungri (1), Shuang fang (2), Huo jia wo (3), Kukanri (4) and Samgeori (5)

series of dolmens were built on slight uplands on the plain or on the periphery of the plain.

The structure of the northern series of dolmens enabling additional burials is very vulnerable to robbery for grave items. Concerning grave items of the southern series of dolmens, major grave items found in the Shimchon-ri A and C styles include earthenware, stemmed stone daggers, stone arrowheads, and stone axes. Dolmens of the Daebong-dong style include earthenware, hilted stone daggers, stone arrowheads, Liaoning-type bronze daggers, and costume jewelry. Dolmens of the Kukan-ri style include earthenware, hilted stone daggers, narrow-bladed bronze daggers, and costume jewelry. The contents of grave items also support the validity of the historical development of dolmens mentioned above.

Conclusion:

Stone circles and dolmens are representative of megalithic culture in East Asia, both of which are basically related to burials. It is impossible to link these remains to megalithic monuments constructed as part of ceremonial rites, such as feasts of merit and head hunting, in India and Southeast Asia (Birket-Smith, 1965). Stone circles were constructed all over eastern Japan in the period of a hunting-gathering economy from the early to late stages of the Jomon Period. The basic idea of stone circles was to build tombs for individuals within a tract of land surrounded by stones in a circle. Given that village sites surrounded with mounds were discovered, the ideology of everyday life was reflected in life in the afterworld. In this respect, the same can be said about circular earthen enclosures (Hideji Harunari, 1983). The stone constructions that were accompanied by many burned animal bones, as found at the Kinsei Ruins, are representative of the late stage of stone circles, not reflecting the general idea of stone circles.

In Japan, dolmens were originally constructed per social group during the early agrarian society (Masayuki Komoto, 1973b). In northern Korea and the eastern part of the Liaotung Peninsula in China, however, the purpose of dolmens gradually changed toward additional burials of privileged people as a symbol of exclusive groups or influential persons, by increasing the size of stone chamber and upper stones. In southern Korea, on the other hand, dolmens continued to serve as tombs for individuals constituting a social community, and many dolmens were constructed on the same precincts. Social stratification was originally represented by the size of the upper stone of the dolmens, which gradually changed to the quality of the grave items, such as bronze daggers and bead products. In the end, tombs for persons of influence were separated from group tombs and constructed with stone walls surrounding them, as shown in the Dokchon-ri Dolmen (I Sang Gil 1994). In southern Korea as well are dolmens with gigantic upper stones each weighing more than 200 tons, which were constructed in recesses or on hilly terrain overlooking a plain, separately from group tombs. However, these are the products of the final stage of dolmen history, as in the case of the Shi peng shan style dolmens.

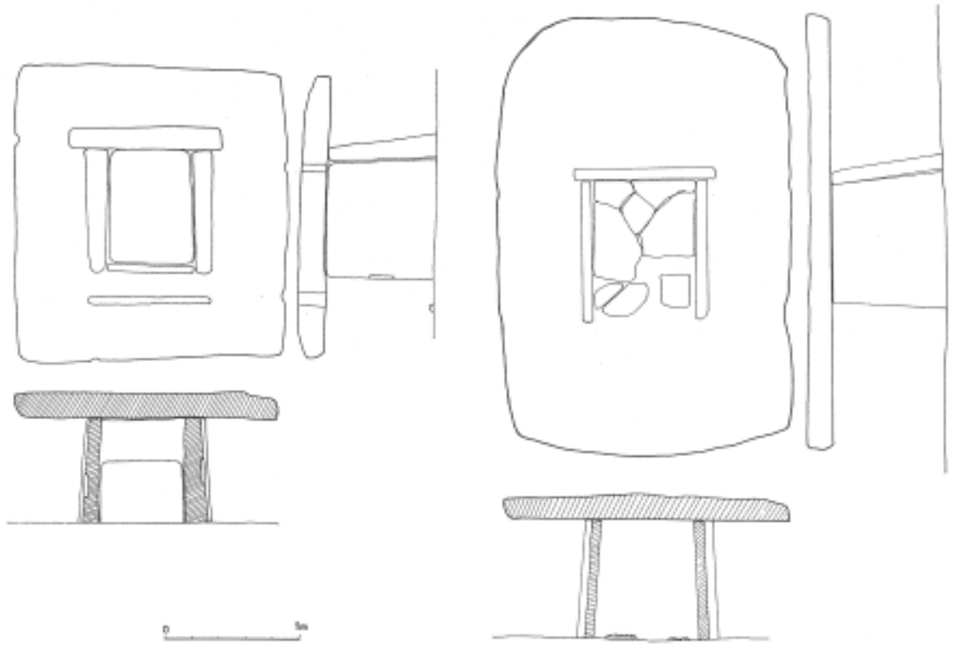


Fig.6 Dolmen of Xi mu cheng (left) and Shi peng shan (right)

References

1) Oume Town Education Board (1969-73)," Overview of a Survey on the Teraji Kogyoku Ruins, "1-4 (in Japanese).
2) Toshizo Otani (1983)," Circular Earthen Enclosures "in the" Studies of Jomon Culture, "9, Yuzankaku (in Japanese).
3) Masayuki Komoto (1973a)" Chronology of Korean Dolmens "in" Korean Gazette, "No.66 (in Japanese).
4) Masayuki Komoto (1973b)," Dolmens in Western Korea "in" Ancient Culture, "Vol.25, Nos.9 & 11 (in Japanese).
5) Masayuki Komoto (1980)," Review of Korean Dolmens "in" Ancient Culture Theory "(in Japanese).
6) Masayuki Komoto (1997)," Dolmens on the Korean Peninsula "in" Comprehensive Research on Dolmens in East Asia " (ed. Tadashi Nishitani), Kyushu University (in Japanese).
7) Naka-Izu Town Education Board (1979)," Excavation Studies of the Kami-Shiraiwa Ruins "(in Japanese)
8) Nagano Prefecture (1983)," Nagano Prefectural History: Archaeological Materials, "Nagano Prefectural History Publication Society (in Japanese).
9) Hideji Harunari (1983)," Theory on Pit Tombs "in" Hokkaido Archaeology, "No.19 (in Japanese).
10) National Commission for Protection of Cultural Properties (1953)," Stone Circles in Oyu Town, Akita Prefecture "(in Japanese).
11) I Sang Gil (Translated into Japanese by Sumikazu Takesue)" An Overview of an Excavation Survey on the Dokchon Ruins, South Korea "in" Ancient Culture, "32 Collection.
12) Liaotung Province Cultural Relic Archaeological Research Institute (1997)," Niu He Liang Ruins in Hongshan Culture, " Cultural Relics Publishing House.
13) Birket-Smith, K. (1965)," Feast of Merit in East Asia and Oceania, "Folk, Vol.7.
14) Gowland, W. (1987)," The Dolmen and Burial Mound in Japan, "Archaeologia, 55.
15) Komoto, M. (1982)," Megalithic Monuments in Ancient Japan, "Megalithic Cultures in Asia, Seoul.

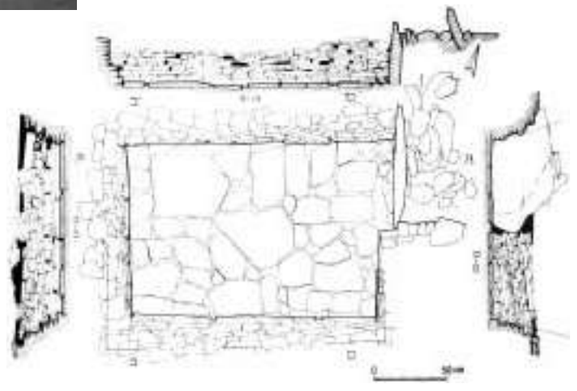
Kami-Shiraiwa Ruins, Shizuoka Pref., Japan
(Naka-Izu Town Education Board,
" Excavation Studies of the Kami-Shiraiwa Ruins "1979)

Oyu-Manza Stone Circle, Akita Pref., Japan
(National Commission for Protection of Cultural Properties,
" Stone Circles in Oyu Town, Akita Prefecture "1953)

Oshoro Stone Circle, Otaru City, Hokkaido, Japan

Mok Pang-ri Pyongyan Puk-do, North Korea

Maruyama Dolmens, Saga Pref., Japan



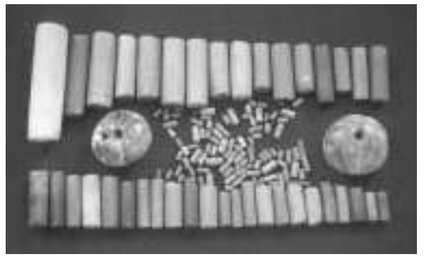
Mok Pang-ri Pyongyan Puk-do, North Korea

Kwan San-ri Hwang he Puk-ro, North Korea

Pyong Ro-dong Cholla Nam-do, South Korea

Whua Sun Dolmen, Cholla Nam-do, South Korea

Xi Mu Cheng Liaoning Province, China



Pyong Ro-dong Cholla Nam-do, South Korea

Prehistoric World and Megalithic Culture in Europe

Dr. Jean-Paul DEMOULE
Professeur à l'Université de Paris I

During the 5th millennium BC, the whole Atlantic fa ade of Europe was covered with megalithic burial monuments, from Portugal to Denmark. The thousands of monuments show a number of similarities, in terms of both shape and chronological development. These similarities have often been taken to reflect a broad phenomenum of diffusion, involving either" megalithic people " or at least a" megalithic religion "diffused by kinds of missionaries (Gordon Childe). Before the " radiocabon revolution ", diffusion from Egypt and its monumental pyramids had even been envisaged, until it had to be acknowledged that the megalithic architecture was in fact almost two millennia earlier. It should also be noted that this architecture appears in Neolithic cultures that are relatively different from one another.

From time to time, attempts have also been made to derive these monuments from the mesolithic burial customs of indigenous hunter-gatherers, as in Brittany where certain graves sometimes contain several bodies and can be covered by small heaps of stones, as in the well-known mesolithic cemeteries of Teviec and Houedic. The same hypothesis has occasionally been proposed for the Iberian peninsular.

In fact, research should above all be pursued in two directions : 1) the detailed chronology, in each region, of the appearance and development of megalithic architecture ; 2) the social and economic context of this appearance.

" Pre-megalithic "phenomena

The example of the Paris basin and the Atlantic coast of France is particularly enlightening. The monuments of Brittany, in particular, are amongst the most spectacular in Europe. They include massive stone (Barnenez) or earthen (Saint-Michel, Carnac) mounds, huge dolmens, some of which are capped by stone slabs weighing several dozen tons, others completely covered by engravings (Gavrinis), and lastly alignments of standing stones or" menhirs ", the most famous

of which is at Carnac. At first sight, these monuments appear suddenly, and this practically coincides with the Neolithic, in other words with the domestication of animals and plants in this region.

Yet a broader examination of the archaeological evidence offers a different picture. The neolithic is known to have arrived in Europe from the Near East and subsequently to have spread east-west along two separate routes, firstly the Mediterranean coast and secondly the Danube basin. It is through the second route, involving a culture termed Linear Pottery, Danubian or Bandkeramik, that the Paris basin and then the Atlantic coasts of France were reached, towards the end of the sixth and the beginning of the fifth millennium. Throughout this slow migratory movement, burial features remain simple and mostly consist of single inhumations in pits, accompanied by a few grave-goods. Nevertheless, in the first half of the fifth millennium, certain forms of more monumental burial appear. The best known example is the cemetery of Passy, in the river Yonne valley, a tributary of the Seine. A number of deceased are placed in the centre of timber and earthen structures, surrounded by ditches and preceded by passages that can be up to several hundred metres long. Certain graves contain prestige items imported over long distances. Similarly, along the Atlantic coast, in Normandy and Brittany, there are also graves, normally with single burials, covered by low earthen mounds. One of the most typical is the Le Manio mound, at Carnac. Throughout these regions, these phenomena can be attributed to the Cerny culture, which is the ultimate period of development of the“ Danubian ”neolithic. They can thus be interpreted as a sign of the beginnings of social differentiation and hierarchy, the most important individuals having exceptional burial monuments, contrary to the remainder of the population.

The Atlantic dolmens and their burial practices

Immediately afterwards, during the second half of the fifth millennium, true megalithic monuments appear, while the Danubian Neolithic cultural tradition comes to a definitive end and is replaced by new cultural groups. These monuments undergo a common, slow development, on the French coast but also on the coasts of Britain, Germany and Scandinavia, lasting from 4500 to around 3000 BC. The earliest dolmens take the form of entirely closed chambers, in which the deceased is placed once and for all, without any possibility of later access to the chamber. These dolmens are covered by stone and earth mounds. However, there soon appear monuments whose chambers communicate with the outside by means of a passage right through the mound. Certain mounds contain several chambers ; the most famous is Barnenez, in Brittany. Next, the chambers gradually become more complex, with annexes. The passages enable more deceased to be regularly brought in, which shows that the grave was not reserved for burial of a single important person, but could be used by a particular group of people, over several generations. Thus megalithism in Europe is most often associated with the practice of collective burial.

When they are intact, these dolmens contain prestigious grave-goods. In particular, these include ornaments and, in Brittany, large jadeite axes originating from the Aoste valley in the Alps, a distance of almost 800 kilometres. This is evidence for a complex economic system, based mainly on the circulation of prestige goods, and for a marked social hierarchy. Sometimes the stone slabs used in the construction of the monuments had been transported over several kilometres, occasionally by sea. Complex techniques, costly in time and energy are thus devoted to representation of the social power of elites. In certain cases, as at Gavrinis, an earlier monument was destroyed and its stone slabs recuperated and reused in the construction of a new monument. The stone mounds covering the dolmens are often terraced, as at Barnenez or Gavrinis. Traces of ceremonial activity have sometimes been detected in front of the mounds. The interiors of the dolmens are sometimes decorated with engravings, geometric signs, axes, bovines, stylized human figures and so on. This suggests the existence of a complex ideology, covering the whole Atlantic coast.

Together with the funerary dolmens, there are also“ menhirs ”, huge standing stones (the largest, at Locmariaquer, was 21 metres high and weighed 350 tons). These can either be single, acting as a marker for a grave, or arranged in circles (cromlech) or lines (as at Carnac). Their function is not always clear, even though attempts have occasionally been made to link them to astronomical phenomena. The most famous stone circle is Stonehenge, in southern England, the stones of which were transported over considerable distances. This monument underwent a series of modifications, lasting well into the Bronze Age, in the mid-second millennium.

Development and disappearance of megalithism

Towards the middle of the third millennium, the trend is for burial monuments to become more“ democratic ”. The large dolmens disappear, as do the very visible mounds. They are replaced by elongated burial chambers, called“ gallery graves ”(all es couvertes), which are less spectacular but can hold a much larger number of burials, often several hundred. Grave-goods are far from spectacular: some coarse pottery and a few ornaments. At least for the world of the dead, there is clearly a reduction in the level of social hierarchy and in the manipulation of funerary ideology. In some cases it has been shown, including by genetical studies, that these chambers were subdivided into several areas, each of which was reserved for a particular family group. Thus the hypothesis could be put forward that a certain form of family organisation in this period may have newly offset the power of the elites of the previous period.

Then, in the course of the third millennium, megalithism disappeared and once again there are single graves. The most important people are buried beneath small mounds, however. During this time, and even later, the earlier monuments were sometimes reused for burials. This reuse was especially practiced by the Bell Beaker culture, in the second half of the third millennium.

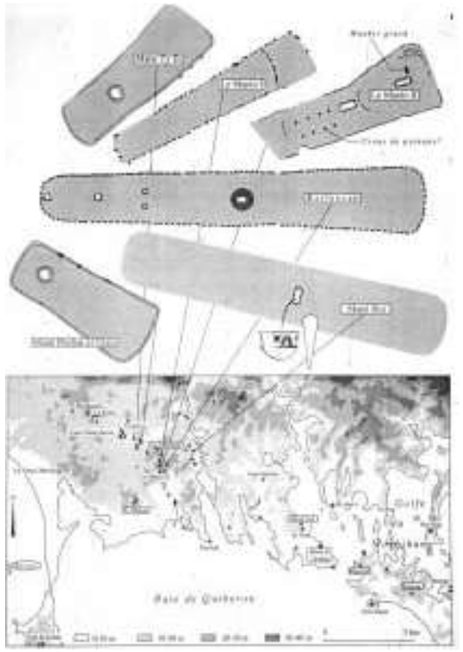
Explaining Atlantic megalithism

Two historical phenomena seem to converge to explain megalithism in north-west Europe: the appearance of social hierarchy and the end of neolithic colonization of the European territory. It is indeed towards the middle of the fifth millennium that signs of increasing social inequality emerge, in varying form in different regions. In the east of Europe, the wealth of graves is mainly apparent in grave-goods. As at Varna, one encounters the first copper and gold metallurgy, the utility of which is social rather than technical. The same is true of the very long flint blades, the longest ever produced by man, as they are up to 45cm long and can only be obtained with complex leverage equipment. Nevertheless, these blades were of no practical use, since they were much too fragile. Social differentiation is also visible in settlement patterns: areas reserved for the elite appear and the largest settlements, dominating the others, are surrounded by fortifications. In archaeological terms it appears that it was really from this period onwards that there were organized wars, violence and massacres. In the west of Europe, grave-goods are less prestigious and the energy of the living is spent rather on the external aspect of the grave, which takes on monumental form. But in both cases, the use of sophisticated techniques (metallurgy, long flint blade production, megalith building) the goal is ideological rather than practical: a" manipulation of the imaginary world ".

This phenomenun is particularly characteristic of coastal regions, no doubt because population pressure was greater here. So these monuments act as territorial markers, aimed at signifying to other communities the firm rooting in the soil of the descendants of the ancestors buried under the dolmens. Megalithic phenomena are in fact especially pronounced on the Mediterranean islands, and can be found in other regions of the world, such as Easter Island.

Thus it is not surprising that monumental burial practice can be found at different times in human history, in different, unrelated regions. The considerable expenditure of energy in their construction reflects two kinds of social tension: the necessity to affirm and justify the special power of a group within society; and the need to affirm and justify possession of a given territory. One is probably dealing with particular episodes, affecting relatively fragile societies, since megalithism only lasts for a certain time. One also notes a tendency to make the most of the monuments, since despite their prestigious nature they are used for a certain number of people.

Extension of Architectures



Carnac and the Gulf of Morbihan region

Dolmen,La Roche aux Fées, Ille-et-Vilane, France

Tumuli of Barnenez, France

Tumuli of Barnenez, France

Merchants Table, Tumulus in Locmariaquer, France

Potteries, axes and jewels, Morbihan, Brittany, France

A set of axes, Carnac, France

Pottery, stone and bone articles from Megalithic Monuments

Inside the Gallery Graves, nothern France

Artefacts from Megalithic Monuments

Pottery and metal ornaments, Varna, Bulgaria

The Megalithic Culture of India : Its genesis, spread and continuity

Dr. R. C. AGRAWAL
Member Secretary, Indian Council of Historical Research Ministry of Human Resource Development

The Megalithic burials and associated structure generally belong to the Iron Age and are largely sepulchral in Character. However, the funeral aspect of this tradition was not a new feature of the Iron Age, for the antiquity of burial practice in India dates back to the Mesolithic period and marked burials begin in the Neolithic. During the Neolithic and the Chalcolithic periods, the tradition of burying the dead continued to exist in different parts of the Indian subcontinent. Though evidence for an antecedent stage of' megalithism 'is found in the pre-Iron Age context, this tradition became very popular during the Iron Age, mostly in the southern part of India and to some extent in northern India, and it continued to survive even during the historical and up to modern times, in a few pockets of central, southern and north-eastern India.

The term' megalithic 'derives from the Greek words megas meaning' huge 'and lithos meaning' stone '. In the earlier stages of research, the term' megalithic 'was used to designate only the large stone monuments. However, subsequently, in India, the term was applied to all the burial and habitation sites yielding the pottery with' black and red 'surfaces in southern India, irrespective of their association with' megalithic 'in the Early Iron Age context.

During the nineteenth century several' Megalithic 'sites were discovered and many of them were excavated in different parts of India, mainly in the southern peninsular region, by colonial officers, missionaries, treasure hunters and others. Important discoveries and' excavation 'include that of Babington (1823), Taylor (1841, 1851, 1852, 1862), Breeks (1873), Cladwell (1877), Rivett-Carnac (1879), etc., in southern India, and Cunningham (1871), Carllyle (1883) in north.

Many of these early attempts on the megaliths were largely' antiquarian 'in nature, as the investigators were attracted by the imposing nature of the megaliths and the rich cache of antiquities they contained. Several hundreds of burials were literally robbed (1) Graves near Ooty in 1831, (2) megalithic tombs near Pullicondah in 1844, (3) Shorapur burial in 1851, (4) burials near Hyderabad in 1853, (5) burials in Tinnevally in 1859, (6) burials at Korkei in 1870, etc. and a large amount of the recovered antiquities were preserved in Indian museums (Madras) and some were

also sent abroad.

In spite of a large number of‘ excavations ’conducted during the pre-Independence phase, the megaliths could not be placed in a clear-cut chronological framework. However, the efforts and initiatives taken by the pioneers in the field for collecting, documenting, and preserving these antiquarian remains, which were being destroyed due to the expansion of settlements, land encroachment and development activities, should be appreciated. Furthermore, these investigations, irrespective of their failure to formulate a systematic methodology towards understanding the problems related to the megaliths, provided a foundation for subsequent studies.

The surveys and excavations undertaken in the post-Independence phase have shed considerable light on the distribution, typology, chronology and characteristics of the megaliths. Detailed investigation in various parts of southern, central and eastern India resulted in the discovery of over more than 1500 Megalithic sites. Krishnaswami (1949) classified and defined the Megalithic types of southern India on the basis of‘ morphological and other intrinsic features ’and also discussed the contemporary Megalithic types of north-east India. Subsequently, Y.D. Sharma (1956) investigated the rock-cut tombs of Kerala and convincingly argued that these tombs belonged to the Megalithic tradition.

The survey and exploration of the sites showed a denser distribution in the peninsula. Outside the peninsula they have been reported from Baluchistan and Baluchi and Persian Makran, Waghadur, Shah Billawal, and Murad Memon (the last three within a radius of 32 kilometres of Karachi), Asota (17 kilometres east-north-east of Mardan in Pakistan), Leh valley of Ladakh, Burzahom and Gufkral in the vicinity of Srinagar; Deosa(52 kilometres east of Jaipur), Khera (six kilometres west of Fatehpur sikri), Deodhoora about 30 kilometres south-east and Ladyura, 60 kms north-west of Almora, the outcrops of the Vindhyas in District Allahabad (Kotia), Banda, Mirzapur and Varanasi (Kakoria) in Uttar Pradesh; and Saraikola in District Singhbum, Bihar. To this formidable list may be added the‘ megaliths ’of north-eastern India extending from Manipur to Bastar in Madhya Pradesh and Hazaribagh and Singhbhum District of Bihar.

The above distribution indicates four broad regional complexes (i) peninsular, (ii) extra peninsular, (iii) Vindhyan and (iv) north-eastern.

More than 100 sites with Megalithic association have been excavated so far leading to the recovery of an enormous body of data on the nature, architecture and contents of the burials and the various features associated with the settlements. Among the excavated sites, burials form a substantial proportion; and there are a few excavations of habitation sites.

Sites with megaliths or Megalithic association occur in chronological contexts ranging from the Early Iron Age down to the modern period in different parts of India.

The megaliths of peninsular India can be tentatively dated from the end of the second millennium BC to the middle of the first millennium AD. The megaliths of northern Karnataka and Andhra Pradesh had an early beginning, while those of Tamil Nadu and Kerala are later, probably around the second quarter of the first millennium BC. It appears that in Tamil Nadu and Kerala, the Megalithic tradition continued to exist during the fourth and fifth centuries AD.

The megaliths of the Vindhyan region have been grouped into two categories, viz., pre-Iron Age megaliths and proper Iron Age megaliths. The former are dated from 1500 BC to 1000 BC, while the latter, from 800 BC to third century BC. In this region, the megaliths of Karkabhat have an important place and are spread over an area of about 10 square kms.

In northern India, the megaliths at Gufkral, Kashmir, are dated to the mid-second millennium BC. At Gagrigol, in the Kumaon region, the megaliths are placed around the middle of the third millennium BC.

BURIAL TYPES

A bewildering variety of burial types, with distinctive features, are encountered among the megaliths of India. Several sites have more than one type of burial, with a lot of variation in their external and internal architecture and content. Even broadly classified types, for example, stone circles or cairn circles of a particular site, vary considerably in their shape, size, nature of deposit and are rarely similar in all aspects, suggesting an ever changing process governing the erection of the burials. It has been noticed that the geological features influenced the burial types prevalent in a particular region. Besides, cultural choice also seems to have played a major part in the variations in burial types. There are many studies available on the typology of the megaliths and they differ in the methods adopted for classifying the burial monuments as well as in the number of basic types available. In his recent study, Moorti (1994) has grouped megaliths under two broad categories, viz., sepulchral (pit, chamber, and legged and unlegged burials) and non-sepulchral (‘ either commemorative or memorial in nature ’). Regarding the latter group Moorti says that ‘ excavations at various places have firmly proved that these are not sepulchral in nature and served some other socio-religious purpose ’.

At a few sites in south India the burials are marked by carved monoliths known as‘ anthropomorphic figures ’. The megaliths or the rocks near the megaliths are reported with rock paintings or engravings at some sites and the excavations also have revealed a large number of art objects.

CERAMICS

The characteristic ceramic repertoire of the Megalithic sites of peninsular India are Black and Red (plain and white painted varieties), Black, Red, Russet Coated and Painted and Micaceous

Red Wares. Regional variation in the distribution of ceramics has also been recognized; for instance, the Russet Coated and Painted Ware which is associated mainly with the western-interior peninsula and Kerala, is absent along the east coast; the Micaceous Red Ware is confined to the Vidarbha region. Typological aspects of ceramics mainly aimed at dating the burials have been studied by Leshnik (1974), McIntosh (1985) and Wessels-Mevissen (1991). Technical analysis on the fabric, paste, slip and firing temperature has also been carried out on the Megalithic pottery from many sites. The source and antecedent of some of these wares, especially the Black and Red Ware remained a vexed problem and could resolved some of the important queries regarding the origin and development of south Indian Megalithic tradition.

The graffiti found on the Megalithic pottery have been analysed and classified by Lal (1960). His study shows similarities between the characters found on the Harappan seals and the Early Brahmi script on the one hand and graffiti from the megaliths on the other. It has been argued that they could be potter's marks or owner's marks.

Most of the studies undertaken until the 1960s focused mainly on the 'racial' affinities of the skeletal materials in order to find out the 'origin and authorship' of the Megalithic people and identified racial elements such as Megalithic people belonging to Proto Australoid, Negroid and Mediterranean groups. Recent investigations have addressed questions related to the biological and cultural adaptations including demographic and pathological aspects. Moreover, there is a marked shift in the methodology; the earlier studies adopted only a 'limited number of anthropometric variables and minimal statistical analysis', while the recent studies use more variable comprising age and sex distribution, pathology, trauma, adaptive responses to agricultural and pastoral activities.

The Megalithic sites, especially burials, have yielded an enormous amount of metal object made of iron, copper, bronze and some in gold. They have been analysed to understand the metallurgical and smithery technologies of the period. The habitation sites have also yielded evidence for iron smelting in the form of furnaces, slag, ore and terracotta pipes (tuyeres), crucible fragments, etc.

A meagre amount of copper and bronze artefacts such as horse ornaments, bangles, rings, bowls, bells, iron daggers with copper handles, etc., are available from the Megalithic sites. The bronze artefacts from the Megalithic sites of different regions or even in a particular region have varying proportions of tin (Mahurjhari 8.5 percent, Brahmagiri 15.8 percent, Raipur 21 percent and the Nilgiri hills 29.89 percent) — suggesting different sources of origin. Srinivasan (1994) has compared the contemporary bronze artefacts of southern India with those from the Nilgiri hills graves and also the Medieval period and has noticed similarities in the technology involved.

References to the mortuary practices found in the literature and the oral traditions regarding the Megalithic burials have been a subject of study by many scholars. V.D. Krisnaswamy (1952) summarizes the beliefs prevalent in different parts of India concerning the origin of megaliths. Srinivasan (1946, 1958-9) studied the references found in the early Tamil Sangam texts to the burial customs and concluded that the Megalithic Culture became well established before 300 BC and due to the impact of Aryan ideas it gradually disappeared. Similar references to mortuary practices found in the Sanskrit texts have also been evaluated.

ETHNOGRAPHY OF MEGALITHIC PRACTICES

The belief and rituals associated with contemporary megalithism are being investigated by many scholars providing ethnographic parallels to the past. These studies suggest that Megalithic monuments are not only erected for a funerary purpose, but also to commemorate feasts of merit and other events coupled with various faiths and belief. At times it is an expensive affair and is not performed for each and every member of the community. Important studies on the contemporary burial practices include that of Bondos, Nagas, Jamir, the Khasis and the Savaras etc. These studies are more ethnographical in nature than ethnoarchaeological.

Citing the typological similarities between some types of the Indian megaliths and their counterparts from the Western world, especially in West Asia, it has been argued that either there was a migration of people or ideas from those regions. The presence of burials in the pre-Iron Age context in India has been recognized and some of the burial types such as pit burials and urn burials are considered indigenous. McIntosh suggests that the chamber burial type was an indigenous development. The excavation of the ancient mounds of Dholavira in the Bhachau Taluka of district Kutch, since 1990, the Archaeological Survey of India noticed a burial site on the back of the western side of the main mound (1998-99). The area was dominated by the cist-burials and in excavation it revealed funerary Harappan pottery but no skeletal remains. The cists which are rectangular and also circular are covered by number of cap stones. Earlier from Surkotada excavator (1972) found a cemetery belonging to Period1A to the north-west of the Harappan town beyond the fortification wall. Amongst the four burials exposed, one was a pot-burial consisting of an oval-pit, 30 cm. deep in which big and small pots were placed and then was filled with loose earth and random rubble with a horizontal slab on the top. Others devoid of such stone slabs. No grave goods were found. Thus scholars contemplate an indigenous origin for megaliths especially in peninsular India which, must have its genesis in pre-Iron Age culture.

Another major component of the Indian megaliths has been the Black and Red Ware. This ware has its antecedents in pre-Iron Age contexts. The Black and Red Ware appears from the Harappan times especially in Saurashtra and it is a characteristic ware of the Ahar Culture of Mewar which later on spread to central India and subsequently evidenced in the western Indian Chalcolithic culture, spreading as far south as Tekwada and Bahal in Khandesh of Maharashtra. The Megalithic Black and Red Ware, typo-technologically has a lot of similarity with the Black and Red Ware of the central Indian Chacolithic Culture.

Compared to the preceding Neolithic-Chalcolithic periods, the Megalithic period witnessed population increase and emergence of craft specialization and increased interaction between various regions. The trade and communication networks became well established. Long distance trade gradually increased in the late phase of the Megalithic Cultures leading to the rapid distribution of artefacts and ideas as has been evidenced from the beads and ornaments of the period. Evidence from the Early Historic Megalithic sites like Kodumanal indicate the active participation of Megalithic communities in the trade. It seems that the Megalithic people of Mahurjhari were proficient in lapidary which contributed to their economy as reflected from the abundant burial goods in comparison to the neighbouring sites.

The continuation of the tradition of erecting Megaliths did not die in this country. Megalithic Culture tradition continued to survive in the historical periods in South India up to 6th century AD. Gradually this tradition was Aryanised. But its continuity can still be seen in certain other parts of India.

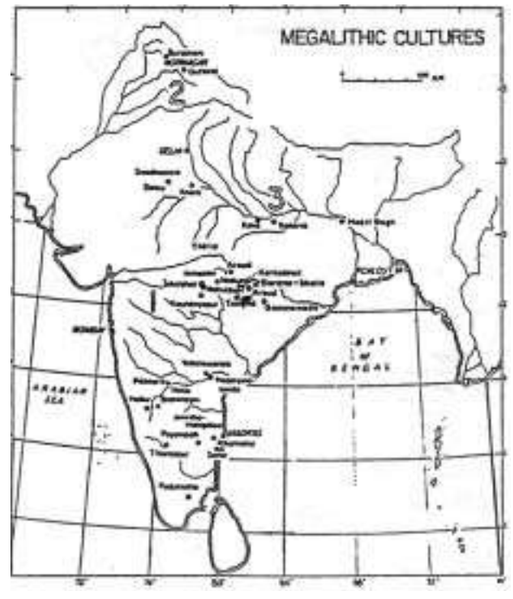
I may submit to the information of this August gathering that certain communities in the North-eastern region of India still practice the tradition of Megalithsm. The Poumis tribe of Manipur, one of the constituents of 12 Naga tribes is the leading community in the region. The community erects Megaliths in different shapes and sizes. Some of them, which are roughly circular in arrangement, are horizontal slabs and boulders often piled up to form raised platform. The dolmen are found in the groups, sometimes associated with either heap of stones or raised platform or stone circles. Menhirs are found abundantly and called‘ Chusebu ’often representing the authority of a Clan.

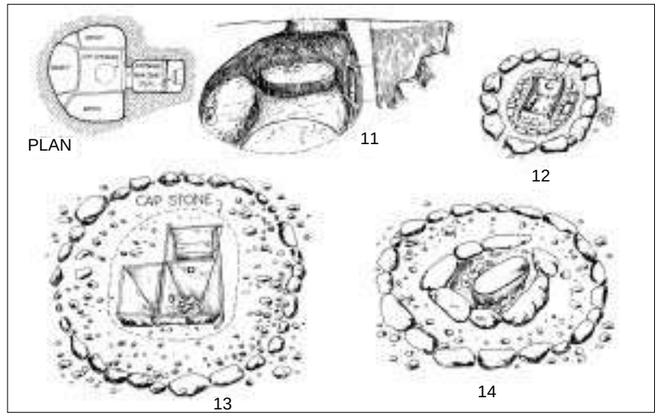
Apart from Menhirs which are erected with memorial feast, there are many up-right stones arranged in the form of alignment either in single rows or two rows outside the village or in the vicinity of rice fields.

Different megalithic types found in the Manipur are broadly dividable into two groups. The first group constitutes marphological types and the other group constitutes functional types. In the marphological group are (i) flat stones or cap stones, (ii) Menhirs, in alignment or in avenues, (iii) Cairns (with or without stone circles) (iv) stone circles, (v) stone seats.

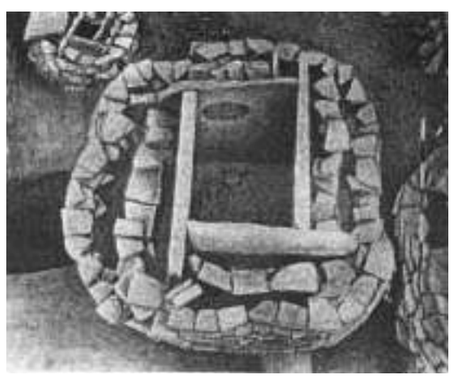
In the other parts of the world Megalithsm is a pre-historic and dead cultural phenomenon. But in Manipur, in India it is a living tradition. Therefore India occupies in the field of Megalithic Culture and monuments an important position in Asia.

• Author is grateful to Dr. R.K. Mohanty, Dr. V. Sevlakumar, Dr. A.K. Sharma, Dr. K.N.Dikshit for Providing latest information and reproducing some of their observations.



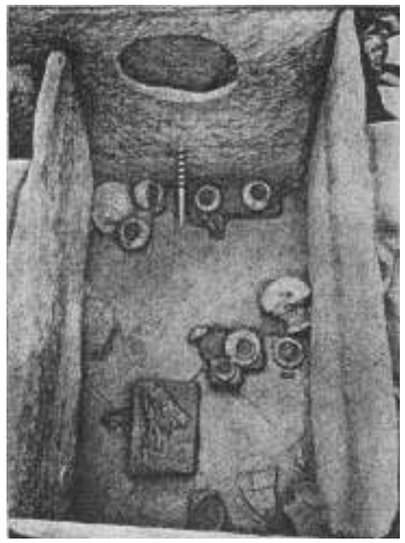


Megalithic types:
11, rock-cut cave—Kerala;
12, port-hole cist—Karnataka;
13, trancepted cist;
14,sarcophagus within a dolmenoid cist—Tamil Nadu



Brahmagiri: Megalith **I**

Brahmagiri: Megalith **V**



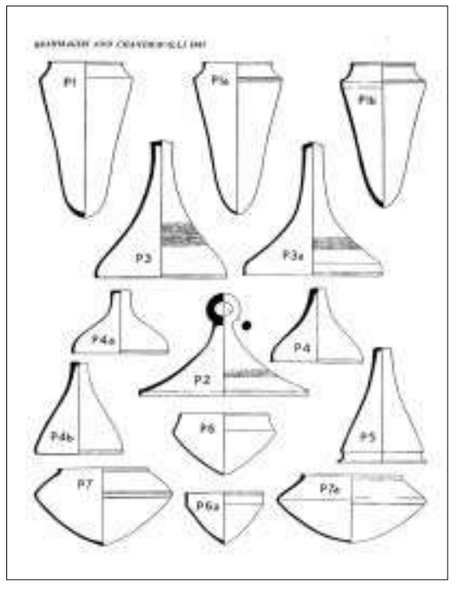
Brahmagiri: Megalith **VI**

Brahmagiri: Megalith **IX** (pit-circle),
with part of (earlier) Megalith **III** on right

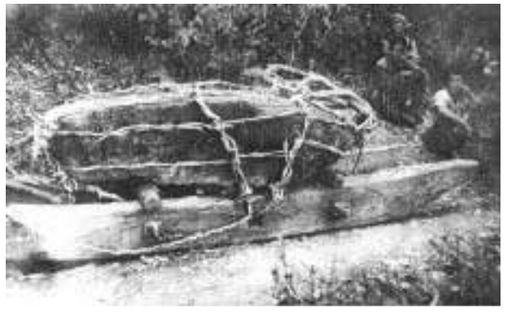
Brahmagiri: Megalith **IX** pit-floor
showing pottery and four base-stones

General View of Two Anthropomorphic figures
from Kumuti.

Small Anthropomorphic figure from Hulikunte,
Bellary Dist. Karnataka.



Pottery from the Brahmagiri pit-circles



Malaysia-cap-stone

Megalithic Monuments in the Northeast area and the Eastern Coast of China

Mr. BAI Yun Xiang
Deputy Director, Institute of Archaeology, Chinese Academy of Social Sciences

Stone buildings of the Neolithic Age and Bronze Age are widely found in China. For example, there are the big stone tombs in southwest Sichuan and west Yunnan, stone-wall buildings in Karuo, Changdu on the Tibetan Plateau, stone-slab-lined chamber tombs and stone structures tombs in Qugong and Shannan in Tibet, rounded gravel altars and gravel circled remains and stone-piles in Nileke County in Xinjiang, earthen mound stone tombs in the Taihu and Hangzhou Bay districts, stone towns, stone buildings and stone pits in the lower layer of Xiajiadian culture delegated by Kajiatun in Liaoning, stone mounds, stone-chamber tombs and stone-structure tombs widely distributed across the northeast. But, megalithic monuments—a kind of monumentalize stone-structure building with big block on the surface—are mainly found in Liaoning, Jilin, Shandong and Zhejiang provinces along the eastern coast. So far, the archaeological discoveries indicate the megalithic monuments in the northeast and along the eastern coast of China include two types: dolmen and big-stone-covered tombs.

1. The dolmens

A dolmen is a stone-structure building on the ground with slate or blocks in the under part as support and a huge block on top to cover it. Because of its shape and shed-like frame, the Chinese scholars call it a " stone-shed ". Considered generally, we would say the stone-shed is a building with three or four slates as support. I call all kinds of building remains with slate or blocks as the supports in China " dolmen ". The discovery and research of dolmen began in the late nineteenth century.

1) Dolmen of Northeast China

So far about 200 dolmen were found in Liaoning and Jilin provinces. They are scattered mainly in the Liaodong Peninsula and southwestern Jilin, especially in the Liaodong Peninsula, for which reason research originally focused on the Liaodong Peninsula. The dolmen in northeastern China usually have a stone bottom, about three or four artifactitious slates as the chamber and a huge

stone on it. Shape-wise, it looks like a shed or table, so it is often called a “stone shed”or “stone-table tomb”; the Japanese and Korean scholars refer to them as northern type dolmen or table-type dolmen. They can be divided into three types by structure, shape, size and location (named by the location of the typical dolmen).

Shipengshan Type: Belong to the big dolmen, represented by the dolmen found at Shipengshan, Gaizhou City, Liaoning Province. They are more than 1.5m high, with capstones about 4-5m long and 0.3m thick. All the stones had been processed, and they were rather carefully constructed. The supported-stone leaned slightly entad and tightly integrated with the capstone protruding over them, making the shape of this kind of dolmen like an eave. For example, the dolmen found in Shipengshan, Gaizhou City—about 2.33m high, with a rounded corner trapezoidal capstone 8.6m long and 5.1-5.7m wide—is the biggest dolmen in the Liaodong Peninsula. The dolmen found at Shipengyu in Yingkou City is 2.05m high, with a quadrate capstone about 4.35m long and 4.5m wide. This kind of dolmen commonly was built on the top of a massif or upper mesa. They were found at Ximucheng in Haicheng City, Taizi in Wafangdian City, Xinglong in Xiuyan County, Dahuangdi in Zhuanghe City, Shipenggou in Pulandian City, etc.

Xiaoguantun Type: Belong to medium-sized dolmen, represented by the dolmen found in Xiaoguantun, Jinzhou City, Liaoning Province. They are 1-1.5m high, with capstones about 2-3m long and wide. All the stones had been simply processed, but not very regular. The supported stone integrated with the capstone protruding over them, but not tightly. For example, the dolmen found at Xiaoguantun in Jinzhou City, is about 1.35m high with a fragmentary capstone 4.3m long and 2.5m wide. The dolmen found at Baidianzi in Zhuanghe City is 1.5m high with a square capstone about 4.35m long and 4m wide. This kind of dolmen was built mainly on a low platform and can be found at Shuangtataizi in Pulandian City and Huatongkuang in Wafangdian City in Liaoning Province and at Dashatan in Liuhe County in Jinlin Province.

Xinglong Type: Belong to small dolmen, represented by the dolmen found at Xinglong, Xiuyan County, Liaoning Province. The height is within 1m, while the capstone is about 2m long and wide. The stone generally had not been processed, and the supported stone protrudes a little. The combination between support-stone and capstone is irregular. For example, the dolmen found at Xinglong in Xiuyan County in Liaoning Province is 0.9m high with an irregular rectangle capstone about 2.2m long and 1.6-1.8m wide. The dolmen found at Dayingshan in Zhuanghe City is about 0.75m high with an irregular capstone about 1.8m long and 1.3m wide. This kind of dolmen is mainly scattered in a row on a low platform or flatland. They can be found in the dolmen area of Liaoning Province. Most of the dolmen in the south Jinli Province belongs to this type.

Because dolmen were built on the ground, they were easily destroyed and few coexist with relics, so it is difficult to determine the time of the dolmen in the northeastern area. Unearthed around the dolmen found at Huatongkuang in Wafangdian City were a folded lip canister-shaped clay jar, straight-neck plump-abdomen clay kettle and stone club head with many lumps. The dolmen found at Huojiawobao in Gaizhou City unearthed a folded lip canister-shaped clay jar, straight-neck plump-abdomen clay kettle, stone axe, stone shovel, stone chisel and stone arrowhead. The dolmen found at Shuangfang in Pulandian City unearthed a fishnet design clay pot and stone spinning wheel. The dolmen found at Baidianzi in Zhuanghe City unearthed a stone spinning wheel. The dolmen found at Yangtun in Gaizhou City unearthed a three-ridge stone arrowhead and the bones with copper rust. Of all these unearthed relics, the folded lip canister-shaped clay jar is a kind of typical pottery on the Liaodong Peninsula. This kind of clay jar occurred firstly in the upper Xiaozhushan culture. It later had a contracted mouth and plump-abdomen flat-bottom with a stabbed pattern on the outside of the folded lip. The time of the folded lip canister-shaped clay jar unearthed in dolmen is close to that of the upper Shangmashi culture. The upper Shangmashi culture is an early bronze culture that spread over the southwestern part of the Liaodong Peninsula. It can be dated to 1200 B.C. It is seen as the upper limit of the dolmen in northeastern China, while the lower limit is about 500 B.C. As for the origin of the dolmen, the prevalent opinion is that they were derived from the stone mounds of the late Neolithic Age on the Liaodong Peninsula. Furthermore, the distribution of dolmen spread from south to north and from west to east.

The prevalent opinion concerning the relationship among the different types of dolmen in the northeast is that they reflected a difference of period. Some think the dolmen changed from big to small sizes and from high to low places. Some consider big and medium-size dolmen are earlier than the small ones, and the small dolmen were a degraded form. Contrary to that, some think small dolmen were earlier than the big ones. However, most of these viewpoints were conjecture and lack sufficient evidence. And, a chronological table of the dolmen in the northeast has not been established yet. I think the dolmen went through a course of emergence, development and disappearance. The big dolmen represented by the Shipengshan type are the mature form. Besides the difference in time, the dolmen of different types might relate to the owner's status and social class.

2) Dolmen Along the Eastern Coast

Since the 1920s, dolmen have been found along the eastern coast of China in Shandong and Zhejiang, but only those at Nanding in Shandong Province and Ruian in Zhejiang Province could be confirmed to be dolmen.

The dolmen at Nanding, Shandong Province lie in the northern end of Wangmushan hill in Zibo City. Three support-stones are 0.7m high. The capstone is 1.84m long, 1.16m wide and 0.88m thick. Some stone axes and mahogany pottery relics were found on the earth's surface in excavations in 1928 and 1941. Judging from the relics, this dolmen perhaps belonged to the Yueshi culture, not later than 1600 B.C.

In Ruian of Zhejiang Province, 31 dolmen have been found: 28 in Daishishan, 4 in Qipanshan and 1 in Yangmeishan. For example, one dolmen found on Daishishan has a capstone 2.7m long and 2.1m wide and 0.48-0.56m thick. The irregular supported-stones under the foursquare are 0.75m high. The big block surrounds the north of it, while south of it is gravel. The No.1 dolmen at Dongshantou on Qipanshan lies in the center on the hillock. It has an irregular triangle capstone 4m long, 3m wide and 0.5m thick and the supported-stones under it had broken down, therefore we do not know its original appearance. The No.1 dolmen at Xishantou in Qipanshan lies in the

center on the hillock, with an irregular trapezoidal capstone 4.5m long, 3m wide and 0.6-0.7m thick. The supported-stones on the western side are short, the four supported-stones in northern side had broken down and only one supported-stone was preserved. The investigator considered that there were a group of dolmen in Qipanshan. Judging by the proto-porcelain and impressed stoneware collected in Daishishan and Qipanshan, it can be dated to the Western Zhou period, namely the 10th century B.C.

The dolmen along the eastern coast are different from the northern-type dolmen in the north-east, but similar to the southern type found in Korea and Japan. This might indicate a relationship between them. The relationship among the dolmen in the northeast and the eastern coast of China, the Korean peninsula and Kyushu in Japan still needs to be deeply studied.

2. Big-Stone-Covered Tombs

The big-stone-covered tomb is a kind of stone tomb with two parts: an underground tomb chamber and a huge slab of stone on the earth's surface that covers the tomb's mouth. It is also called a "stone tomb", "stone inner coffin covered with stone" and "stone-covered tomb". Some archaeologists regard the tomb as one type of dolmen. However, according to the structure and characteristics of the tomb, I think it should belong to the family of the megalithic monuments, since it is not only different from the typical underground stone tomb, but also different from the dolmen. We could divide the tombs into six different types by form and structure.

Type A: Shaft Soil Tomb Covered with Huge Slab-Stone

The underground shaft soil tomb is rectangular in shape. The four walls are raw soil, and the ground is either raw soil or mixed with a little amount of cobblestone. A typical example is the No.4 tomb of Dongshan in Fengcheng County of Liao Ning Province. The tomb chamber is rectangular, at 1.73m in length, 62cm in width, 40cm in depth. The stone cover is half-visible on the earth's surface and is 2.05m in length, 1.1m in width and 40cm in thickness. Another example is the No.1 tomb of Zhaoqiugou in Dongfeng of Jilin Province. At the tomb mouth, 3 layers of slab-stones of different sizes are piled up in order to strengthen the tomb mouth. The covering stone is 2.4m in length and 2.7m in width .

Type B: Shaft Soil Tomb with Stone Outer Coffin and Covered with Huge Slab-Stone

The rectangular tomb chamber is covered with rocks or slab-stones and thus made into an outer stone coffin. There are two ways of constructing the outer stone coffin. The first is that the four walls of the grave are piled with rocks, while the ground is raw soil. The No.3 tomb of Dongshang in Fengcheng County is a good example. The tomb chamber is 1.65m in length, 65cm in width and 60-80cm in depth. Three or four layers of raw rocks are piled up on the four walls in a tidy way. The covering stone is on the earth's surface and 2.7m in length, 1.1m in width, and 50cm in thickness. The No.1 tomb of Gaogucun Village in Liaoyuan City in Jilin Province is another example. The four walls of the tomb are made of man-made rocks thus forming an outer coffin, while the ground is paved with slabs of stone. The covering stone is 2.2m in length, 1.6m in width, and 32cm in thickness. The second way of constructing the outer stone coffin is that the four walls are piled upright with huge slab-stones, and the ground is also paved with slab-stones. A good example is the No.6 tomb of Shuangfang in Pulandian City of Liaoning Province. The tomb lies from east to west. It is 1.68m in length and 60cm in width. The southern and northern wall are pieced together with big and small slab-stone respectively, while the eastern and western walls are piles of vertical slab-stone 60cm in length. The covering stone is round in shape, and the diameter is about 1.7m. Unfortunately, the cover does not exist any more. A bronze dagger, steatite axe mold, clay pot, and clay urn were unearthed. Another example is the No.2 tomb in Gaogucun Village, Liaoyuan City. The stone outer coffin is made of rock and slab-stone, while the ground is paved with rocks. There are two covering stones; one is 2.3m in length and the other is 2.15m in length.

Type C: Shaft Soil Tomb with Stone Box and Covered with Slab-Stone

The tomb chamber is inside the shaft soil tomb. On the one side of the chamber, there is a small stone box for funerary objects. A representative example is the No.24 tomb of Qiaotun at Shuangta in Pulandian City. The tomb chamber is inside the shaft soil tomb. It is 1.5m in length, 78cm in width, and 36cm in depth. On one side of the chamber is a small stone box piled with slab-stones. Inside the box, there was one clay urn, while outside there was 1 stone axe. The covering stone is 2.68m in length, 1.5m in width and 50cm in thickness, and it is visible on the earth's surface.

Type D: The grave is on the earth's surface and it is covered with huge slab-stone

The structure of this type of the tomb shares the characteristics of dolmen and stone-covered tombs. Such tombs are found among the huge stone-covered tomb groups at Anbo and Shuangta of Pulandian City.

Type E: Soil Tomb and Stone Outer Coffin with Tomb Path and Covered with Slab-Stone

The tomb is in the shape of the Chinese character 凸. Inside the tomb, there is a stone outer coffin and a tomb path. The No.5 tomb in Gaogucun Village in Liaoyuan City is a good example. The tomb chamber is 1.9m in length, 1m in width, and 1.95m in depth. The four walls are piled with rocks. On the west wall, there is a tomb gate, which is blocked by 4 slabs of stone. Outside the gate is the tomb path, 1.2m in length and 1.2m in width. On either side of the path slab-stones are uprights. The ground of the tomb is paved with rocks. The covering stone is 1.8m in length and 1.4m in width .In some cases, there is a pile of rocks just beside the stone outer coffin. The No.1 tomb of Shanglong in Fushun County of Liaoning Province serves as a good example.

Type F: Stone Tomb with Tomb Path and Covered with Huge Slab-Stone

Both the tomb chamber and tomb path are chiseled in rock. An example comes from the No.3 tomb of West Huangshangtun in Huadian County of Jilin Province. The tomb chamber is 2.2m in length, 1.2m in width, and 2.9m in depth. The tomb path is to the east. It is rectangular and sloped. The tomb path is 2.8m in length and 1m in width.

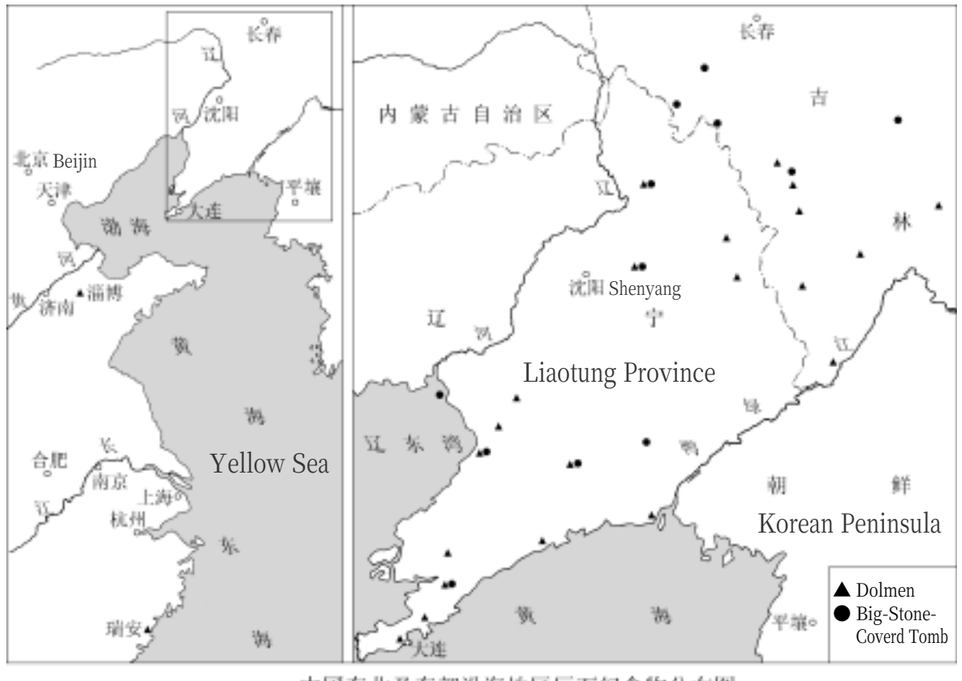
Up to now, about 100 tombs covered with huge slab-stones have been found in more than 20 different places in China. They are mainly located in the northeastern China, especially in two areas, namely, the southern area centered on the Liaodong Peninsula, and the northern area centered on the mid and southern parts of Jilin Province. These tombs are located either on the top of hills, on slopes or the earth's surface. In general, more than one or even 10 such tombs are found in the same place, thus they form a large tomb group. For instance, archaeologists found 6 tombs at Qiaotun, Shuangta of Pulandian City, and 11 tombs on the top and slope of Dongshan Mountain in Fencheng County. There are also 7 large tomb groups of the same kind found in Gaogucun Village of Liaoyuan City. From the remains of the burned human bones unearthed in these tombs, we can deduce that stone-covered tombs once functioned as a cremation facility. The structure of the tomb and the burial system differ from area to area in a quite obvious way. For example, type A and type B are found both in the southern area and the northern area. Type C and type D are found only in the southern area, while type E and type F are found in the northern area. In the southern area, the tomb chamber is small and shallow, while the covering stone is huge and heavy. The body is cremated outside the tomb chamber, and then the ash is moved into the chamber. Normally, just one person is buried in the tomb. In the northern area, the tomb chamber is huge and deep, however the covering stone is comparatively small and light. The body is cremated immediately inside the chamber. The burial is held collectively and repeatedly for some people. For instance, in the No.1 tomb of Gaogu Village in Liaoyuan City, there are 7 people buried all together.

The time of the stone-covered tombs can be dated according to the typical unearthed objects. In the tomb group of Dongshang in Fengcheng County of Liaoning Province, 11 tombs of type A and type B were found. The unearthed objects included two-eared plain clay pots, two-eared plain pots with bow-string pattern, long-necked plain pots, stone axes, stone adzes, stone knives with two holes and stone spinning wheels. No bronze was found. Among them, two-eared plain clay pots and some other pottery objects are similar to those unearthed from Cave B at Miaohoushang in Benxi City, which can be dated back to 1600 B.C.-1300 B.C. The No.6 tomb of Shuangfang in Pu Landian City of Liaoning Province is the type B of stone-covered tomb. The unearthed objects include one bronze dagger, a pair of steatite axe molds, two clay pots with bow-string pattern, and two tube-shaped clay urns with overlapping rims. By comparing with the similar unearthed objects, they are dated back to the 10th Century B.C.-7th Century B.C. There are three big-stone-covered tombs of type A at Zhaoqiugou in Dongfeng County of Jilin Province. The unearthed objects are a clay urn, clay spinning wheel, bronze loop, bone pipe, loop-shaped stone object, and pillow-shaped stone object. They belong to the local Baoshang Culture and can be dated back to about the 4th Century B.C. The No.3 tomb of West Huangshangtun in Huadian County of Jilin Province is a typical type F tomb. The unearthed objects include a bronze ring, bronze bracelet, the handle of the bronze dagger, stone ball with a punched hole, iron sickle, clay urn, and clay cup. They are dated back to about the 2nd Century B.C. All in all, the stone-covered tombs in northeastern China are dated from 1300 BC to 200 B.C. Meanwhile, such tombs have experienced a change from type A and type B, and from to type E and type F. Generally speaking, the tombs in the southern area are earlier than those in the northern area, which probably indicates that the tombs may have spread from the south to the north. As for the origination of the stone-covered tombs, it is agreed that they are developed from the piled-stone tombs on the Liaodong Peninsula.

3. Conclusion

The dolmen and big-stone-covered tombs were Chinese megalithic monuments. They were mainly distributed over northeast China and along the east coastal area, and belonged to the Bronze Age culture. With regard to their nature and usage, the big-stone-covered tomb was the furniture for this type of burial, which has been proven by field archaeological excavation. The cover stone above the ground not only functioned as tomb mound, but also as a landmark for the tomb. However, with regard to the supported-stone tomb, there are several different views such as a location for religious sacrifice, place for public activity in a clan society, tomb furniture, mortuary and crematorium. Based on structural analyses, the combination of funerary objects and geographical location, the supported-stone tomb might be the burial furniture with multiple functions as a crematorium, burial chamber and sacrificial altar.

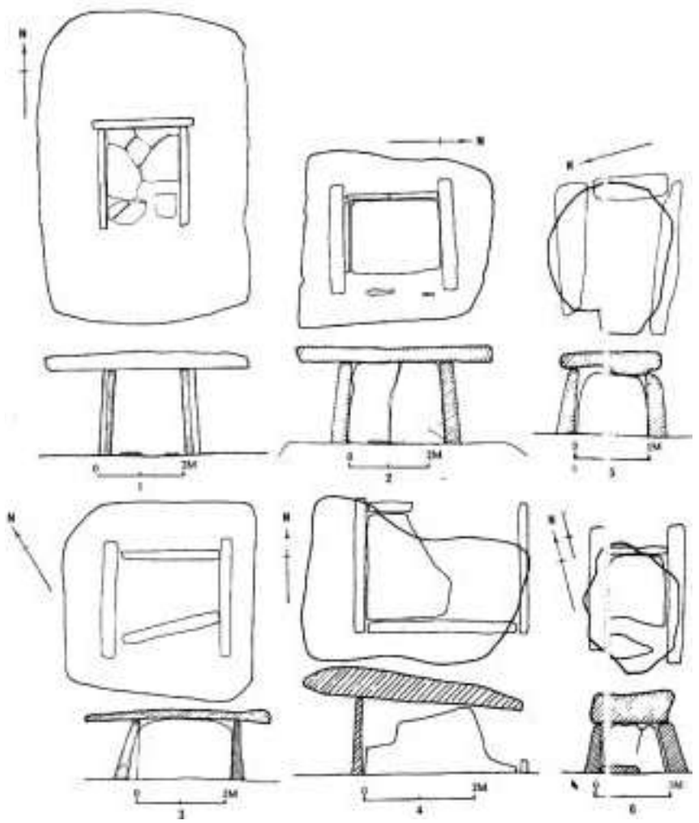
It must be noted that the dolmen and big-stone-covered tombs of northeast China were closely related, and they almost coexisted at the same time. Although the two were identical in structure and type, the dolmen were built above ground level; while the big-stone-covered tombs laid



中国东北及东部沿海地区巨石纪念物分布图

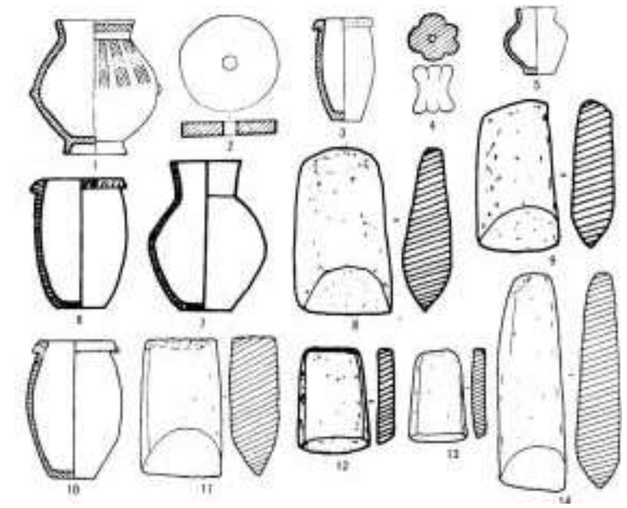
Distribution of Megalithic Monuments in Northeast Area and Eastern Coast in China

the cover stone on the ground surface, while the tomb chamber was beneath the ground. As the burial custom, both adopted cremation. As the distribution area, the two crisscrossed. In some locations, the two coexisted and formed a complex. For example, on the hill to the west of Shangfang Village in Pulandian City, Liaoning Province, a cemetery consisting of six dolmen and 3 big-stone-covered tombs was discovered. In addition, 12 big-stone-covered tombs were found near the dolmen complex at Shaotun in Pulandian City. As for grouping, large and medium sized dolmen often were individually isolated, while the small ones were buried in groups. Contrary to this, the big-stone-covered tomb seldom occurred by itself as they were always appeared in groups. As for the date, the two emerged in the same period, while the extinction date of the big-stone-covered tomb was later than that of the dolmen. Although the relationship between the two is still unclear, their common features and differences probably were due to the social status and identity of the tomb owner.



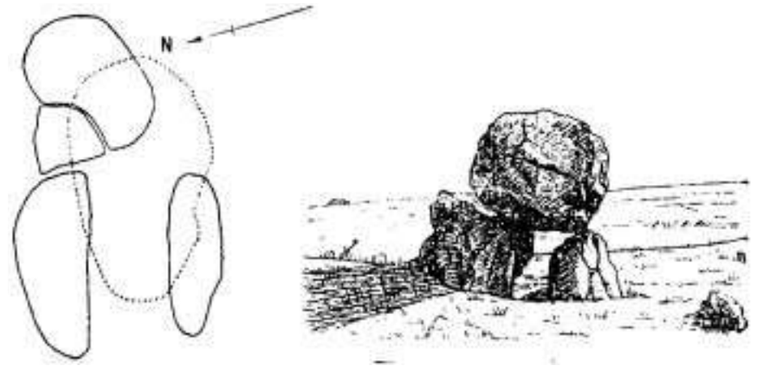
Types of Dolmens in the Northeast of China

1～2. Shipengshan type（From Shipengshan in Gaizhou City;Shipengyu in Yingkou City）
3～4. Xiaoguantun type（From Baidianzi in Zhuanghe City; Xiaoguantun in Jinzhou City）
5～6. Xinglong Type（From Xinglong in Xiuyan County;Dayingshan in Zhuanghe City）

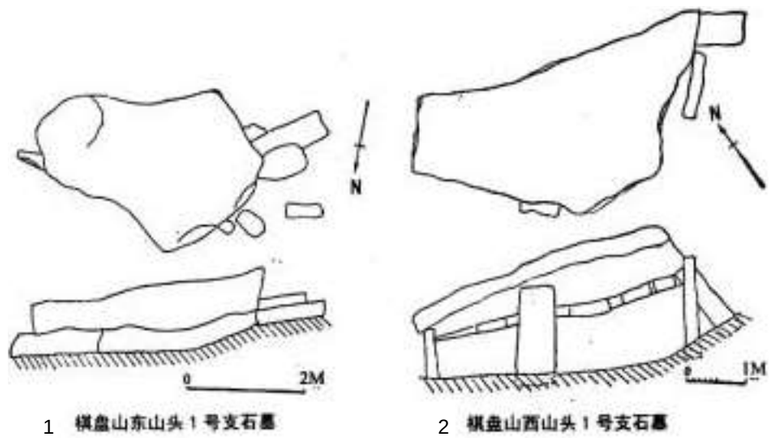


Artifacts from the Dolmens in the Northeast of China

1～2.From Dolmen No.2 at Shuangfang in Pulandian City
3～5.From Dolmen at Huatongkuang in Wafangdian City
6～9,12. From Dolmen No.1 at Huojiawobao in Gaizhou City
10～11,13～14. From Dolmen No.3 at Huojiawobao in Gaizhou City

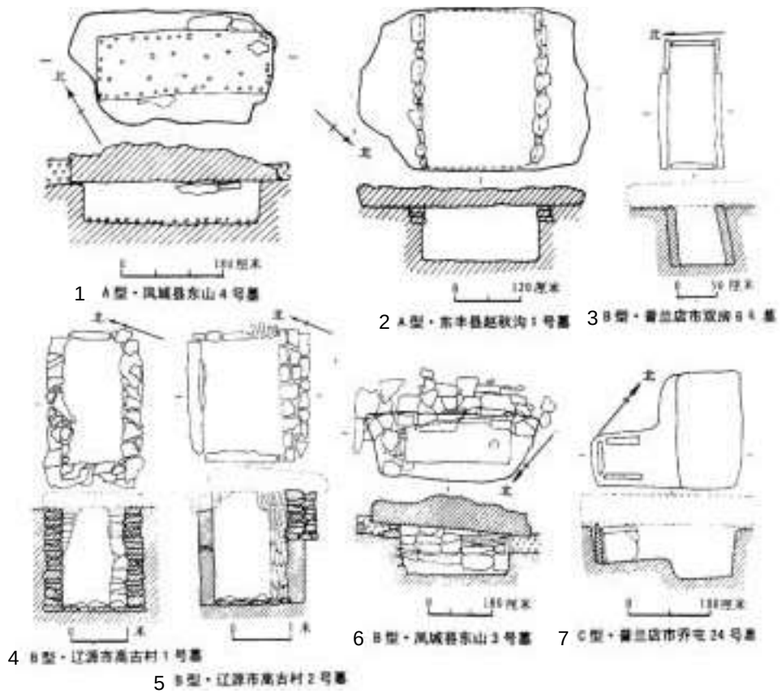


Dolmen at Nanding in Shandong Province



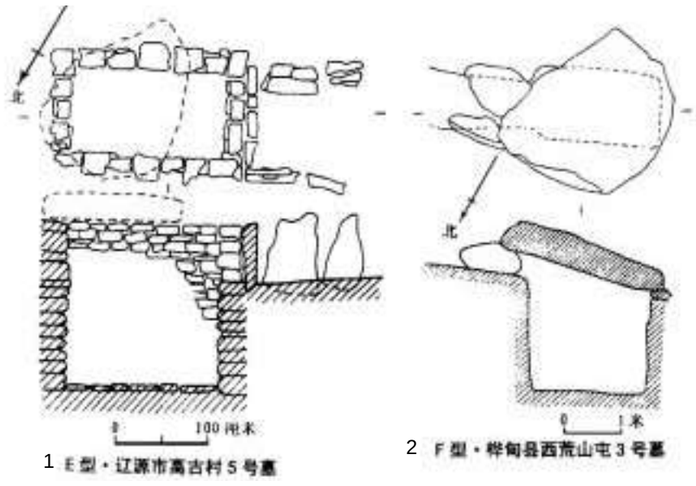
Dolmens at Ruian in Zhejiang Province

1. Dolmen No.1 at Dongshantou of Qipanshan
2. Dolmen No.1 at Xishantou on Qipanshan



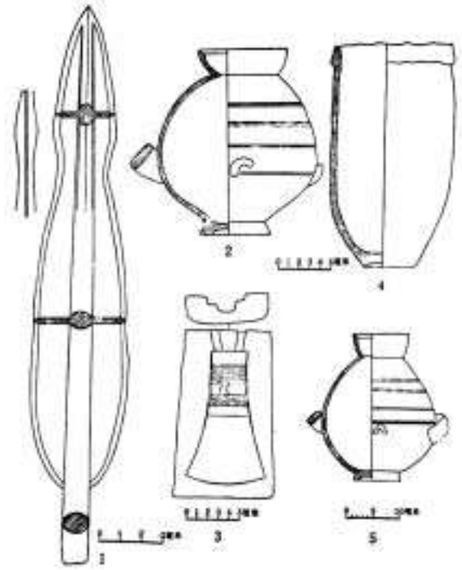
Big-Stone-Covered Tombs in the Northeast of China（One）

1. Type A:Tomb No.4 at Dongshan in Fengcheng County
2. Type A:Tomb No.1 at Zhaoqiugou in Dongfeng County
3. Type B:Tomb No.6 at Shuangfang in Pulandian City
4. Type B:Tomb No.1 at Gaogucun in Liaoyuan City
5. Type B:Tomb No.2 at Gaogucun in Liaoyuan City
6. Type B:Tomb No.3 at Dongshan in Fengcheng County
7. Type C:Tomb No.24 at Qiaotun in Pulandian City

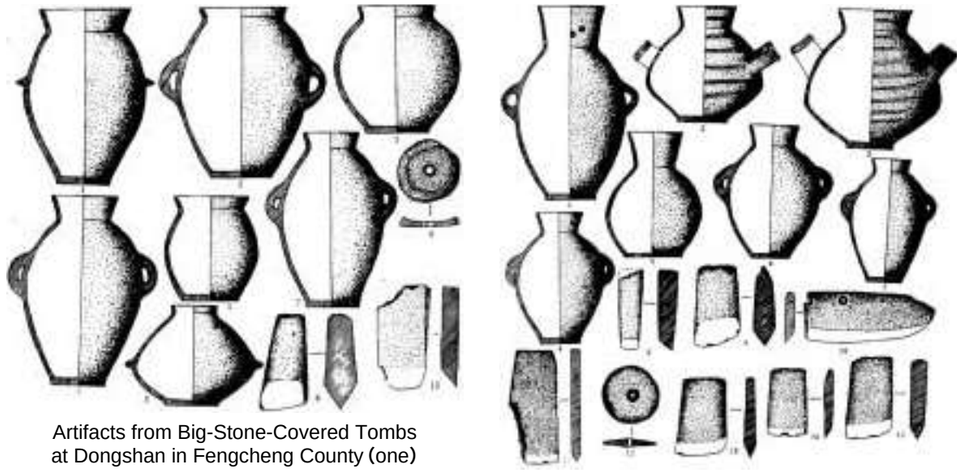


Big-Stone-Covered Tombs in the Northeast of China（Two）

1. Type E:Tomb No.5 at Gaogucun in Liaoyuan City
2. Type F:Tomb No.3 at Xihuangshantun in Huadian County

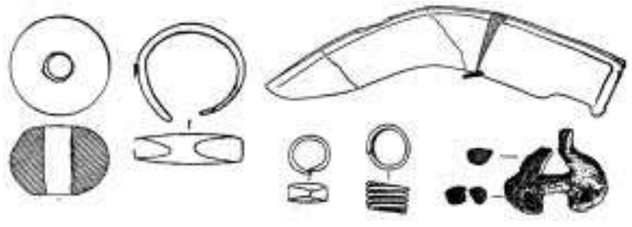


Artifacts from Big-Stone-Covered Tomb No.6 at Shuangfang in Pulandian City



Artifacts from Big-Stone-Covered Tombs at Dongshan in Fengcheng County（one）

Artifacts from Big-Stone-Covered Tombs at Dongshan in Fengcheng County（two）



Artifacts from Big-Stone-Covered Tomb No.3 at Xihuangshantun in Huadian County

Big Dolmen at Shipenggou in Pulandian City,Liaoning Province

Big Dolmen at Taizi in Wafangdian City, Liaoning Province

Medium Dolmen at Xiaoguantun in Jinzhou City,Liaoning province

Small Dolmen at Wangjiagou in Lizifang Town, Zhuanghe City,Liaoning Province

Two Small Dolmens at Laofenfang in Lizifang Town, Zhuanghe City,Liaoning Province

Dolmen at Daishishan in Ruian City, Zhejiang Province

Dolmen at Xishantou of Qipanshan in Ruian City,Zhejiang Province

Big-Stone-Tomb at Xianghucun in Dongyang City,Zhejiang Province

Cover Stone of A Type Big-Stone-Covered Tomb No.21 at Qiaotun in Shuangta Town, Pulandian City,Liaoning Province

Megalithic in Indonesia :Its Characteristics and Forms

Dr. Haris SUKENDAR
Director, Research Centre for Archaeology

Some heritages that can be grouped into the age of Megalithic tradition are " *teras berundak* " (platform with stairs), " *batur punden* ", " *lumping batu* ", " *batu berlubang* " (stone with whole), " *batu bergores* " (stone with scratch), " *menhir* ", " *arca batu* " (stone statue), sarcophagus, etc. The word *Megalithic* comes from *mega*, which means" big ", and *lithos*, which means" stone ". In other words, Megalithic can be defined as a tradition whereby a society has built many tools made of big stone. Those tools were used for their daily life activities.

The origin of Megalithic tradition has made some controversial debate with some different opinions. There are still some discussions on the existence of cultural diffusion. Some say that the Megalithic tradition was started in Egypt and spread to eastern areas as their society looked for their needs such as pearls, gold, etc. This opinion has been brought by McMillan Brown. This idea was not as popular as the opinion of Von Heine Geldern, the expert from Germany who said that those traditions came from Asia, especially South China, and continued onto southern and eastern areas. This theory has been written in his paper entitled" Prehistoric Research in the Netherlands Indie " (1945). And, it has received a positive response from other experts like Van Heekern, R.P. Soejono, Teguh Asmar, etc. Furthermore, he said that the spreading or the migration of people from Megalithic culture happened in the Neolithic age which was approximately from 2500 BC. This migration of Austronesians also brought Megalithic culture, which included the expertise to make the stone tools. At a later time, this culture produced" *beliung* " (stone pickaxe), " *belincung* ", " *gelang batu* " (stone bracelet), etc.

At a later time, precisely in the Bronze-iron age, the spread of these states brought also Metal tools (bronze) which were created with the idea of making the big stone tools. Some forms of Megalithic culture in this age were the" *waruga* "sarcophaguses that functioned as a grave on Bali island. They contained a human skeleton inside, hence functioning as a grave. There were also items like" *tajak* ", " *kapak* " (axes), " *gelang* " (bracelet), " *tombak* " (spear), and bronze sticks. It showed this culture had been influenced by Dongson culture.

Megalithic Forms in Indonesia

1) *Teras Berundak*

These items vary in size from big to small. The“ *teras berundak* ”was also the result of creativity of the people of Megalithic tradition, and it can be grouped as Old Megalithic. These platforms were spread across some of Indonesian, together with“ *batu datar* ”(the flat stone),“ *dolmen* ”, and “ *menhir* ”. According to Von Heine Geldern, those items appeared together in the Neolithic age. It means that“ *teras berundak* ”,“ *dolmen* ”,“ *menhir* ”and“ *batu datar* ”were recognized by Megalithic people since 2500 BC. Some“ *teras berundak* ”at Pungung Raharjo were built with special meanings related to ancestor worship.

“ *Teras berundak* ”was formed like a pyramid and it reminds us of the type of worship in Sumeria (Middle East). It was called“ Zigurat ”by the local people. This Zigurat is a symbol of a holy mountain. Megalithic people believed that higher places like mountain were also holy.

These people also believed that souls continued living in the spiritual world. Mountains are usually treated as sacred places and the existence of mountains is always connected to the direction in which Megalith face. Many of the stone graves face the mountains or the top of the highest hills. It was done as a way to worship ancestors who dwelled there.

In some research on places where Megalithic tradition still survives (study of Etno-archaeology), it was discovered that mountains still hold an important role on Sumba island, especially in relation to their beliefs. In this“ living Megalithic tradition ”where people still have their Megalith beliefs, like in East Sumba, they believe that the ancestor ’s soul still dwells on the highest hill at the top of Sasar mountain. In west Sumba, people of the Marapu culture (belief in the soul) also believe that the ancestor ’s soul dwells on Pornombo hill. These two mountains are still treated as sacred and scary places. The people do not even have the courage to go there.

2) *Menhir*

The word *menhir* originates from *men*, which means“ stone ”, and *hir*, which means “ standing ”. Generally, it means“ standing stone ”. *Menhir* is a heritage from Megalithic tradition found abundantly in different ages, even until the age of Hinduism and Islam in Indonesia. Menhir still has an important role and is evolving even today. In this long term of development, menhir ultimate has a lot of variations.

At some Megalithic sites in Tundrombaho (Nias), Gunung Kidul (Yogyakarta), Sukasari (Bondowoso), Middle Sulawesi, there are menhir of long rounded form with a picture of a human face at the top. This kind of menhir form is called“ *Arca Menhir* ”(menhir statue) because this form can be said a transition from menhir to Megalithic statue (Van der Hoop 1932, Van Heekern 1931, Kaudern 1938, Sukendar 1980).

The other interesting menhir is that in the form of a“ phallus ”. This kind of form is not found much and appears only at a later age -- the age of Hinduism.

The more recent menhir are rectangular or rounded and decorated with designs. They were found at younger sites which, according to Von Heine Geldern, can be grouped into“ living Megalithic tradition ”(Von Heine Geldern, 1945). This kind of menhir can be found in Nias, Toraja, Sumba, Flores, etc.

Based on some archaeological research, in several archaeological sites, menhir functioned as a boundary between sacred places. It can be seen in Ciarca and Terjan. Moreover, there are some other functions; for example, it was used as a tool for worship, or as burial ceremony, to inflict punishment, and as a symbol of ethnic or cultural leaders. This kind of menhir can be seen in Nias, Minangkabau, Lampung, West Java and Middle Java.

As for menhir in Europe, Ferguson has brought a theory that menhir were built to commemorate victories and as symbols for marking graves. Furthermore, in the same book, Van der Hoop has written about one idea from Major Godwin Auston, which mentions that menhir were a symbol of gratitude made after escaping from illness or ethnic difficulties on Khasia hill (Van der Hoop 1932).

3) *Dolmen*

Dolmen in Indonesia can be grouped into two types. Simple dolmen were made from used stones. The first dolmen were usually found in living megalithic tradition, such as in Sumba and several places in Eastern Indonesia. Meanwhile, the second type is usually found in regions where megalithic tradition has died, i.e., South Sumatra, Lampung, Kuningan, etc. The differences of those dolmens are closely related to the age when dolmen existed. They were certainly connected to the advancement of technology. That is why in living megalithic tradition, the form of dolmen is more advanced and accompanied by various decorative designs, like the ones in Sumba. This is also based on research of dolmen in South Sumatra, Lampung, Jawa, Sumba, Sabu, etc. And, geographical factors did not influence the form of dolmen in Indonesia. This can be proven by the fact that the two types have been found together.

Dolmen that were made from monolith stone were not only found in Sumatra, but also on other islands in Eastern Indonesia. Similarly, dolmen made from board stone that were found in Eastern Indonesia can also be found in Cidaresi, Pandeglang. In the study of typology, those types are grouped into a Sumatran type (West Indonesia) and an East Indonesian type.

Dolmen in Indonesia were not always used as burial sites, but also as a place of worship. Dolmen used in burial sites have different forms based on the social status of the deceased. The living megalithic tradition in Sumba clearly marks the form of graves by social status. A dolmen for a king or nobleperson of Sumba usually has a magnificent and beautiful form. The figurative differences of dolmen, such as the size of the foot-stone, does not indicate a difference in function. But, excavation is still needed to understand the background of these differences in the above dolmen.

Some dolmen are used for burial ceremonies, while others have nothing to do with that purpose. Dolmen in Sumba are big and shaped by carving the stone. On the body, there are various decorative designs, which look like humans (anthropomorphic), animals, plants and other geometrical forms. And, there are some other natural items like stars, the moon and the sun. The decorative design in Sumba usually has a meaning, which sometimes is related to religious magic, while others are a description of the leader ’s attitude or character. The decorative design of a turtle represents the smooth attitude of the king, a crocodile bravery, and a horse or buffalo symbolize wealth. In contrast, the geometrical forms only function as decoration or for esthetical purposes.

A dolmen for burial purposes in Sumba has four feet and six feet. But, there was also a dolmen without any feet (its feet were buried underground). Those dolmen originate from prehistory or megalithic tradition. Many dolmen used as burial tools have been found in continuing megalithic sites such as in Sumba, Flores, and Timor.

4) *Arca menhir*

" *Arca menhir* "is a monolith statue which was carved in the form of a human being. This " *arca menhir* "usually represents an ancestor's soul, or even an ethnic leader, king or respected cultural leader." *Arca menhir* "come in different shapes from simple to complete." *Arca menhir* "in Indonesia have the form of an oval stone. At the top of this menhir is a carving of a human face including the eyes, nose and ears. But, sometimes it is not complete. This form was made for worship only (not for burial purposes), but others are for burial purposes, too." *Arca menhir* "that served for burial purposes were found in Gunung Kidul (Yogyakarta), Sumba, Flores and Timor. Statues that were used for burial purposes were found at stone-grave sites, dolmen and burial platforms.

" *Arca menhir* "used for worship purposes were" *temugelang* "stones," *teras berundak* "and piles of soil made to look like mountains. The interesting thing is that" *arca menhir* "from prehistory until living megalithic tradition (until now) have not changed significantly. In general," *arca menhir* "are usually described with the head, neck and footless body. The" *arca menhir* "from Corsica, Europe and Pacific or even from South American have a similar form.

5) *Sarcophagus*

A sarcophagus is a stone grave that consists of one basin and one cover. Sarcophaguses in Indonesia have been found in Bali and Bondowoso. Sarcophaguses are from the Iron-bronze age. In excavations, experts found various items made of bronze. The bronze tools functioned as burial provisions. The purpose of them was to help the soul of the deceased make the journey and reach the final resting place in the spiritual world. The burial provisions were usually in the form of bronze" *tajak* ", bronze" *tapak* ", decorative bracelets, finger protection, etc.

On the sarcophagus, there are usually some carvings of human faces (masks), sometimes scary sometimes funny. These faces are tools for warding off evil spirits. The grave of a sarcophagus was used for one or more people. Based on the analogical study of ethnography in living megalithic tradition in Sumba, Flores and Timor, it was learned that the persons buried in sarcophagus were family related.

The stone graves with sarcophaguses in East Java and Bali have a similar form to the sarcophaguses (stone grave) of Japan.

Some of sarcophaguses have forms like a boat, while others are carved with decorative designs of " *manusia kangkang* "(human Kangkang), and also pictures of buffalos.

Conclusion

The megalithic tradition in Indonesia originated from the Asian mainland (South China) and began to develop in the Neolithic and Paleometalic ages around 4500-2500 BC. The background of megalithic heritage is ancestor worship. It was a belief that the ancestors 'souls were still dwelling in the mountains. Therefore, many megalithic heritages face toward the mountains, i.e., the grave stones in Pasemah, Kuningan and Bali face the mountains of Dempo, Ciremai and Agung.

The megalithic heritage has continued until today. A strong base has kept megalithic tradition alive during the development of Hinduism, Buddhism and Islam. And, it sometimes brought unity amongst those three religions through cultural articles.

The megalithic tradition in Indonesia was grouped into two types: prehistoric megalithic and advanced megalithic. The advanced megalithic is marked by a society who still makes and uses stone for worship and burial tools. Over time, the form of megalithic varied and became full of decorative designs.

Megalithic Statue of Pasemah plateau, South Sumatera prov.

Menhirs of Mahat, West Sumatera prov.

Menhir of Sidomukti, Lampung prov., Sumatera island

Dolmen of Bondowoso, East Java prov.

Dolmen of Bondowoso, East Java prov.

Sarcophagus of Tegawasa, Bali prov.

The Megalithic Tombs of Southern France in their Mediterranean Context

Dr. Jean GUILAINE
Professeur au Collège de France

The megalithic tombs of southern France, with their extension into Spain as the dolmens of Catalonia on the southern slope of the Pyrenees, stretch for 700km along the Mediterranean fa ade. At the ends of this large arc, the megalithic presence ends in Liguria, to the East, and in the lower Ebro valley and in the area of Valencia, to the Southwest. The densest zones of monuments in this well delimited area are not on the coasts but in the limestone interior. The highest concentrations of monuments are moreover located in the southernmost regions of the Massif Central, between 100 and 200km from the coast: there, the 2,500 or so listed monuments are distributed from the Rhone valley to the Quercy; they represent one of the highest megalithic densities in the world. Overall, the number of dolmens of Southern France and Catalonia can be estimated at more than 4,000 tombs.

In the broader western Mediterranean context, the existence of megalithic tombs on islands such as Sardinia, Corsica and the Balearics should be noted. In contrast, dolmens are practically absent from the Italian peninsula and Sicily, except for the monuments in Apulia. Some tombs are also found in Malta, but in this archipelago, megalithism is above all expressed through sanctuaries, with a really particular trefoil-shaped architecture without any equivalent in the other expressions of western Mediterranean megalithism.

∴

The historical interpretation of this megalithism has oscillated between the two main explanatory tendencies of diffusionism and autochthonism. Until about 1960, in the wake of V. Gordon Childe s ideas, the origin of the western Mediterranean dolmens was assumed to be located in the Near East, the source of the European Neolithic and, it was also thought, of the first great stone architecture. The important nucleus of dolmens in Syria, Israel and Jordan was then regarded as the plausible heartland of western megalithism. From the sixties onwards, the use of radiocarbon dating and, some time later, its calibration, quickly made obsolete the assumption of a Near Eastern source of the Mediterranean megalithism. Whereas the dates of the eastern dolmens are

concentrated in the 3rd millennium (Early Bronze Age), the graves of the Atlantic fa ade were attributed to the Neolithic, and the oldest were dated from the 5th millennium, which made them the most ancient dolmenic manifestations known at that time. This inversion of explanation prompted the researchers to see in the Western Mediterranean megalithism a process derived from the Atlantic constructions. Today, the Mediterranean dolmens, characterized by a rather wide variety of architectural schools, are more often considered to be the result of indigenous developments, which emerged within the framework of the social evolution of the Neolithic populations.

∴

Evolutionary chronology and architectures

Western Mediterranean dolmenism is a long-term process which continued from the 5th to the 2nd millennium BC. In spite of the variety of architectures, it is possible to establish an overall chronological evolution.

˚*4500/3500BC:" proto-Megalithism "* (Middle Neolithic)

In southern France, Catalonia, Corsica and Sardinia, stone cists appear, from 4,500 BC, inserted in circles of blocks (Arzachena, Sardinia; Caramany, Eastern-Pyrenees) or in tumuli, the largest of which (in Catalonia) can reach up to 20 metres in diameter. Those stone cists house individual tombs. Two subjects can sometimes be buried in those monuments, but rarely more. The artefacts which accompany the deceased — flint knives, cutting or piercing arrowheads, polished axes, sometimes of great technical quality, shell bracelets, maces, decorated ceramics, etc. — are classic products of Middle Neolithic cultures (Bonu Ighinu, Montbolo, Chassean, Sepulcros de fosa).

˚*Circa 4000 BC: early Megalithism* (Middle Neolithic)

In Catalonia and Sardinia, several passage-graves with polygonal chambers (Arreganyats, Tires Llargues in Catalonia, Motorra in Sardinia) have revealed artefacts or have been radiocarbon dated to around 4000 BC, and thus from the Middle Neolithic. Monuments of this date have never been found in southern France.

˚*Circa 3500/3000BC: Expansion of Megalithism* (Late Neolithic)

Throughout the western Mediterranean, Late Neolithic cultures generate an intense dolmenism characterized by very varied architectural forms. There are collective tombs intended to receive, over the generations, the remains of several individuals, more or less numerous.

The most typical architectural styles are:

- Passage-graves of the Eastern Languedoc. They are made up of a paved quadrangular chamber, a narrow passage and a round tumulus. The more elaborate examples have an antechamber (Le Lamalou, Feuilles, Le Capucin, in the H rault *département*);
- Passage-graves of the Lower Rhone Valley, known both in the Languedoc and in Provence. There are sometimes elongated (Coutignargues, Bouches-du-Rh ne; Le Pouget, H rault), sometimes short (eastern Provence) and have a narrowed corridor and chambers with lateral drystone walls;
- The" Hypogea "of Arles are elongated monuments, carved out of limestone but roofed with megalithic slabs. Only four examples of these tombs are known and they are constructed to a high degree of architectural perfection. The largest," L ' p e de Roland "(" Sword of Roland "), is 43m long, and is one of the most impressive prehistoric monuments in Europe;
- The gallery graves of the Aude and Catalonia are rectangular or trapezium-shaped tombs sometimes divided into several parts by porthole slabs. The length of the tomb generally varies from 5 to 15m. The largest one is the dolmen of Les Fades in P pieux (Aude), which is 24m long. The mounds are round and sometimes reinforced by radiating upright pillars (St Eug ne, Aude; Puig Roig, Torrent in Catalonia).

Some monuments with identical plans also exist in Sardinia (Corte Noa, Laconi);

-" Simple "dolmens, made up of a single quadrangular stone chamber, occur commonly from the Pyrenees to the Rhone valley. They are very numerous in the Causses where they often have a short vestibule which sometimes opens onto a rectilinear fa ade (Lower-Quercy). The vestibule can sometimes be bent at an angle (Loz re).

The entrances of the gallery-graves of the Languedoc, the dolmens of the Lower Rhone valley and the Hypogea of Arles are south - or southwest-facing. Most of the monuments of the Pyrenees, the Causses, Corsica or Sardinia open to the east. These differences do not seem to be chronologically significant.

These monuments were built by the diverse Neolithic cultures whose artifacts they contain. The narrow passage graves and the Arles Hypogea are related to the Ferri res culture (3300/2900 BC), which is notably characterized by vases decorated with incised chevrons, foliated piercing arrowheads, pearls of various types (winged, pointed, with" Durfort buttons ", etc.). The gallery-graves of the Aude and the dolmens of the Pyrenees are attributed to the Late Neolithic of the St Ponian-early Verazian type, which is defined by vases with cordons and asymmetric or foliated arrows. The dolmens of the Causses relate to the Crosian, a facies essentially characterized by simple vessel forms, sometimes with grooved decoration.

˚*Circa 3000/2100 BC: continuation of the use of megaliths* (Chalcolithic)

During the 3rd millennium, all these monuments were still in use, with the addition of a few others. The abundance of funerary material which can be attributed to the cultures of the classic Copper Age (3000～2500 BC: Fontbo se, Verazian, Artenacian) and then to the late Copper Age (2500～2100 BC: groups with Bell Beakers) show the long operational life of most of these megaliths.

˚*Circa 2200/1500 BC: Decline and abandonment* (beginning of the Bronze Age)

In the course of the Early Bronze Age (2200 - 1800 BC) and the Middle Bronze Age (1800 - 1500 BC), deposits of individuals and materials still occurred in these monuments, but, they progressively fell out of use in favour of other, non-megalithic, smaller scale collective graves (sepulchral caves) or of single tombs.

The decline of megalithic tombs goes hand in hand with that of the large collective graves, which had been, in western Mediterranean, a characteristic feature of the 4th and 3rd millennia BC. This disaffection could be linked to the progressive abandonment of a social organisation based on extended families, implying more or less developed networks of blood relationships. The use, starting from the Bronze Age, of individual graves or sepulchres to a limited number of corpses therefore indicates an organization that is based on smaller family units. We can also suppose that the individual had a more defined position in relation to the group.

However, it is possible to see that the system of large collective tombs still survived in the initial Bronze Age on certain Mediterranean islands. Here, they developed a specific, original and late Megalithism at this stage. Thus blossomed the“ Giants ’Tombs ”in Sardinia, with their very long and narrow galleries, made with slabs or stone blocks and preceded, in the oldest examples, by a curved fa ade of big pillars and a low entrance with a large sculpted pediment. In the Balearic Islands, the deceased were placed in the“ Navetas ”, made up of elongated galleries built with large blocks that give the monument the shape of an overturned ship hull. They are the last great expressions of funerary Megalithism in the Western Mediterranean.

Physical Anthropology

The osteological contents of the dolmens of the South of France vary significantly — from a few subjects to several hundreds（St Eug ne）— according to the size of the tomb. However we must underline the complex operation of those vaults, where frequent processes of reduction of the dead bodies were carried out（arrangement of the skulls, bones grouped together in bundles）and from which the bones were periodically emptied. These misfortunes make it difficult to estimate correctly the number of bodies deposited inside the sepulchre throughout its use. Moreover, the long duration over which specific monuments were used（sometimes a millennium or even longer）means that any demographic estimates are likely to be uncertain.

Heritage Issues

The very high number of megaliths, from the Alps to Catalonia and on the Mediterranean islands, raises an obvious problem of conservation. Precise inventories exist, accompanied by measures intended to designate the sites as conservation areas. But, as the megaliths are especially numerous in the most physically remote, isolated and sparsely populated regions, it is difficult to keep a watch over them. Moreover, the preservation of many monuments is often poor. Only the most famous tombs can be efficiently protected. Vandalism can occur even to World-Heritage-listed monuments! The wrecking in 2001 of the megalithic temples of Mnaidra in Malta is one regrettable example among others. The preservation of the megalithic heritage in southern France reveals an often alarming situation.

Ggantija, Malta

Tarxien Temples, Malta

Neolithic Cists of Caramany, France

Dolmen of Font del Roure, Spain

Dolmen of Ferrussac-Esquirol, France

Dolmen of Saint-Eugène, France

Arles Hypogeum, France

Gallery Grave of Cova d ẻn Daina, Spain

Dolmen of Tiergues, France

Giant tomb of Capichera, Sardinia

Temples of Mnaidra, Malta

Naveta of es Tudons, Minorca

All illustrations from Jean GUILAINE

Megalithic cultures in Britain and their relationship to Western Europe.

Dr. Caroline MALONE
Keeper, Department of Prehistory and Early Europe, British Museum

1. Introduction - time and types, chronologies, interpretations and models

Megalithic monuments in western Europe have been central to scholarly debate for decades. From the later nineteenth to mid twentieth century explanation for the origins and spread of megalithic architecture was diffusion from the east, normally from Egypt, the Mediterranean or beyond. From the colonial standpoint of scholars in industrial Europe, it seemed inconceivable that such ancient traditions could have arisen in western Europe. Typical views were expressed by James Fergusson in his great study of Megaliths -" Rude Stone Monuments throughout the World "published in 1872. Such ideas resulted from a period of growth in geographical knowledge of ancient sites, in regions such as India and Egypt. Very extreme views were developed around the turn of the twentieth century by the" Egyptocentrics "such as Elliot Smith, who believed that all complexity and indeed civilisation emerged from Egypt! At the time such ideas were not necessarily out of place, and followed a long tradition of extreme explanations which had been devoted to questions about prehistoric megaliths. It is well known, for example, how 18th century ideas of Romanticism were employed by scholars such as William Stukeley, who attributed the building and use of Stonehenge and Avebury circles to the Druids of the pre-Roman period.

Such explanations are now seen as limited because they failed to acknowledge the diversity and complexity and sheer antiquity of prehistoric monuments. Instead over the last 70 years or so, many robust models exploring the building and adoption of megaliths across western Europe have provided a stimulating debate fired continually by developments in scientific methods and dating. The major impact of course has been the application of ^{14}C dating from the 1950s, which has demonstrated that megalithic structures along the so-called" Atlantic Fa ade "are amongst the oldest in Europe, and often predate the adoption of fully agricultural settled societies, which developed in the fifth millennium BC. The ideas that had supported a diffusion of architectural tradition from the east were thus disproved. Instead, local invention and development were explored, and shown to be accurate interpretations for the many classes of megalithic sites found from the central Mediterranean region (Malta and Italy) through France, Spain and Portugal to northern and

western areas (Britain-Ireland, Germany, Denmark, Sweden).

2. The general European Background

The earliest megalithic structures emerge in the 5th millennium BC in western Europe, and very often along the Atlantic Fa ade of France, Spain and Portugal. Megalithic building activity took place at the same time as the spread of farming societies across Europe. It is probably not coincidental that the movement of ideas, peoples, and changing economies and attitudes to land and territory triggered responses that resulted in the construction of large communal monuments. The characteristic of the early megaliths of western Europe is that they were communal burial places for the dead, often embellished with additional standing stones and structures. A good example is the great tumulus of Barnenez in Brittany. This site - really a" proto-megalith "- came to notice only in the 1950s, and provided one of the earliest ^{14}C for megaliths in Europe (mid 5th millennium BC). There are now several sites of this period - but invariably located around the Atlantic fringes of Europe. The developed form of the Atlantic megaliths emerged from about 4000 BC with transepted and passage graves that had greater diversity of chamber form and covering structure and shape. These have many local variations, which I shall describe in relation to Britain and Ireland.

Another megalithic tradition developed in central-north European, and seems largely unrelated to the Atlantic developments. The northern-central European megalithic tradition developed around the fringes of the Linearbandkeramik (LBK pottery) farming zone, and in particular as the TRB culture of N.Germany and Denmark. These sites seem to be the formalisation of mortuary houses built specially for the dead, and often included stone chambers and cists set within a substantial rubble mound. In Germany and Switzerland, the structures are often very long, and imitate the form of the LBK long houses in the late 5th- early 4th millennia BC. On the island of Guernsey in the Channel Islands, a monument excavated in the 1980s - Les Fouillages (Kinnes 1982), provides an early date alongside the presence of pottery of LBK descent, a clear indicator of a central European connections. So here is a background against which to set the complex megalithic origins of Britain and Ireland - one which combines different sources of megalithic origin and tradition, connected almost certainly with the movement of people, ideas and new economic technologies during the 5th millennium BC which then crossed to Britain at the beginning of the 4th millennium. How the ideas moved is still an open debate - many have suggested that the Atlantic Fa ade was peopled by fishermen and maritime communities, well used to travelling by boat between the islands of Britain and Ireland. Others suggest colonisation from Europe via the English Channel. In my view, this small geographic zone was populated from many directions, by a variety of peoples, and that is what produced one of the most distinctive megalithic traditions anywhere in the world, one that produced possibly the most extraordinary building - Stonehenge!

3. Early Megaliths in Britain

The first monuments constructed in stone in Britain and Ireland are the communal Neolithic burial monuments (tombs built of stone megaliths and of earth and wood) and they date from about 3800 - 3000 BC, and of many thousands originally built, only remnants of 2500-3000 survive. The distribution of megalithic structures is largely dictated by the availability of building stone, and thus they are found in the western and northern areas of Britain, and across Ireland. A parallel tradition of tomb building in earth, stone and timber has been recognised over the rest of Britain as long barrows and cairns. In many ways it is important to see the monuments as a single phenomenon, where the function of the monuments is similar, but the realisation of it through the constraints of local resources results in great regional variation. Contemporary with the first major communal burial sites were the Causewayed Enclosures which are found across southern Britain, and they seem to have had many functions including ceremonial, industrial, domestic, ritual and exchange (Oswald et al 2001). The ditches of the enclosures have frequently produced human remains, and it is thought that some site, such as Hambledon Hill in Dorset, may have been used to expose human corpses prior to the selection of bones for placement in the ossuaries of the barrows and megalithic tombs (Mercer 1980).

There are many classes of megalithic tomb in Britain, and they vary from simple stone structures consisting of uprights supporting a capstone, and probably buried under a mound, as in the Kent examples (Kit's Coty House), or the Cornish quoits, such as Trevethy. In central England, the Severn-Cotswold tombs form a particular group, with a variety of passages and chambers under trapezoidal mounds. In some areas such as Derbyshire and the Scilly isles of the west, tombs have short passages beneath a round mound surrounded by a kerb of retaining stones. Grave goods were sparse and included flint tools, worked bone, beads, and pottery, some of which bears close parallels to European forms and styles. In north Wales, Ireland and the Orkneys, the development of the great passage graves of Newgrange, Knowth, Maes Howe and others represent a distinctive culmination of tomb building at the end of the 4th millennium. These vast mounds can be over 100m diameter as at Knowth and Dowth, and 10m high with passages 30-40m long penetrating the mound and ending with a cruciform or corbelled chamber. Apart from their size, these sites are also strategically located within landscapes dense with other monuments and smaller burial sites. The passages are often orientated towards the rising or setting sun at particular times of the year. At Knowth, the east and west chambers observe the extreme movements of the sun at March and September equinox, and at Newgrange, the south-east orientation of the single passage observes the rising mid-winter sun. (The apparent concern with solar and lunar movements is likely to have been important in the positioning and orientation of entrances for many of the long barrows and megalithic tombs, which generally are orientated to the East, SE or NE.) (This concern with simple astronomic observation becomes a major preoccupation in the building of stone circles and henges in the later Neolithic). The Passage Graves are also significant for their art. More inscribed stone slabs are known from the Boyne valley in Ireland, than from the rest of Europe, with over 200 stones alone at Knowth. Studies of the art show that it falls into vari-

ous styles such as angular or spiral, and that particular patterns were intentionally located within special areas of the tombs and around their peripheries (Eogan 1986). Another variant of passage graves are the long cairns of Scotland, where the Orcadian Stalled Cairns and the Caithness Horned Cairns provide examples of local interpretations (Davidson and Henshall 1989).

The significance of these earlier sites is the generally large scale, locally prominent positions in the landscape, relationship to other sites nearby, and communal identity of collective burial rites. This identity changes considerably in the later Neolithic where a different set of preoccupations are made manifest in monumental megalithic structures, and where burial rites begin to focus on individuals in non-megalithic burial monuments.

4. Later Britain - Henges, circles and alignments - monumental landscapes

The later Neolithic period, from about 2700 to 1900 BC, represents a major shift away from megalithic burial monuments, and an emphasis instead on ceremonial complexes and what is often termed, landscapes of sacred geography. Similar geographical constraints on building materials in the later Neolithic show that monuments were mostly built from timber and earth in the lowlands of eastern Britain and from large stones where it was available in the west and the north. It is in the later Neolithic of Britain and Ireland where monuments begin to become wholly distinct from Europe. Whereas in the earlier Neolithic, tombs were broadly linked to developments seen across the European continent, the henges, enclosures, alignments and stone circles of later Neolithic Britain are principally unique island developments. Whilst enclosures are known in Europe, the Henge monuments are a unique phenomenon. These large, bank and ditch enclosed sites with 1 - 4 causewayed entrances have a number of forms (classified by scholars into various groups) (Wainwright 1989). The largest sites cover as much as 14ha (530m diameter), and many have diameters of over 100m. Closely associated with henges are other enclosures constructed of posts, pits, stones and ditches, and in all some 300 sites have been identified. The importance of henges and their relatives to megalithic studies is that many have megalithic stone circles, avenues, alignments and settings associated. Stonehenge of course is the most famous of these, but studies over the last century have revealed that many other henges contain either circular wooden structures or have/had stone ones. Even Stonehenge had a timber phase early in its development, in the first half of the third millennium BC, which was then replaced and embellished on several occasions before the final version of the monument we know today. Recent work at the stone circle of Stanton Drew in Somerset has shown a pre-stone wood phase of at least 9 concentric wood circles of closely place upright timbers, set within the more familiar out circular ditch. Clearly there was a close relationship between earlier timber settings and constructions in monuments, and their eventual permanent interpretation in large stones. As we learn more about prehistoric sites in Britain, it is becoming clear that nearly all these large ceremonial sites were built over a long period, with many stages of change and enlargement. The final stone circles built, as we see in Cornwall, Devon, Ireland and the Peak District of Derbyshire, probably have shorter developments, probably without a timber phase. They date from the Beaker period/Early Bronze Age in the early centuries of the second millennium BC and were often the final constructions of a ceremonial complex. It is in this period, that stone circles (and former henges with later inserted circles and settings) form the focus of some of the large early Bronze Age barrow cemeteries. At Stonehenge, located on Salisbury Plain in Wiltshire, there are some 500 round barrows within a 5 km radius of the sites. These barrows were built principally for individuals (usually male), furnished with rich grave goods typically of copper/bronze weapons and personal ornaments of exotic material and fine workmanship. Thus we see a great change from the communal collective burial sites of the early megalithic sites, to these landscapes of the dead, celebrating the individual within a communal landscape. Recent interpretation of these ceremonial landscapes have linked the stone of the circles with the identity of dead ancestors, whereas wood and earth is associated with the domestic and the living (Parker Pearson and Ramilisonina 1998). Clearly there is still much research to be done on the interpretation of materials and what they symbolised in prehistory.

By the middle of the second millennium BC, the obsession with monumental landscape construction and megalithic buildings within them had faded. Instead the landscapes of Britain became the focus of domestic industry, and ceremonial sites were abandoned. As far as we can assess, apart from occasional later burials inserted into the banks for enclosures and mounds, the significance of megalithic monuments ceased to exert influence over people. Instead, cremation cemeteries, fortifications, settlements and industrial exploitation became dominant as the old sites were left to decay.

5. Conclusions

The distinctive nature of the landscape of Britain and Ireland with their unprecedented range of natural resources of rock, earth, chalk or wood, must in part be a factor behind the development of the distinctive megalithic cultures of Britain. However, the strong European links that we can identify in the early stages of the Neolithic with continental tomb building traditions and styles demonstrate many origins. Pottery styles, the movement of axes and other raw materials and the introduction of southwest Asian Agricultural foodstuffs and animals show how significant were the early links with Europe. In many respects, burial monuments show close parallels with continental European all e couverts, dolmen etc, and they are paralleled in many stoney areas of Britain. The later developments though, pay little regard to European trends, and instead the megaliths of later Britain, with its circles, henges and avenues develop a distinctive identity. The physical isolation of islands as shown by the particular developments of the Orkney islands, the Scillys, Ireland and Anglesey, not to mention the melting pot of the Channel Islands linking Britain with France, all reinforce the impression of special island identities manifested through megalithic and monumental building. The importance beyond the structure alone is also evident, as shown in the careful location, orientation, decoration and detail that went into building these monuments, together with the immense investment of time, labour and social organisation. Megaliths in Britain and Ireland thus represent one of the most important links with the regions early societies and enable our

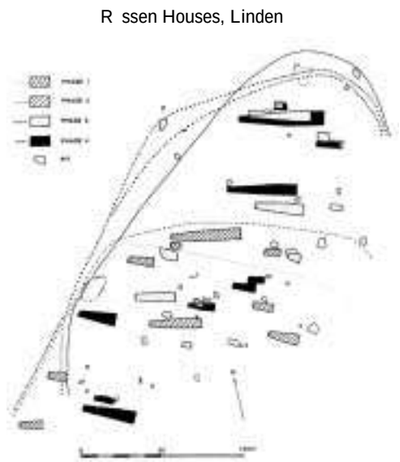
modern interpretations of them.

References

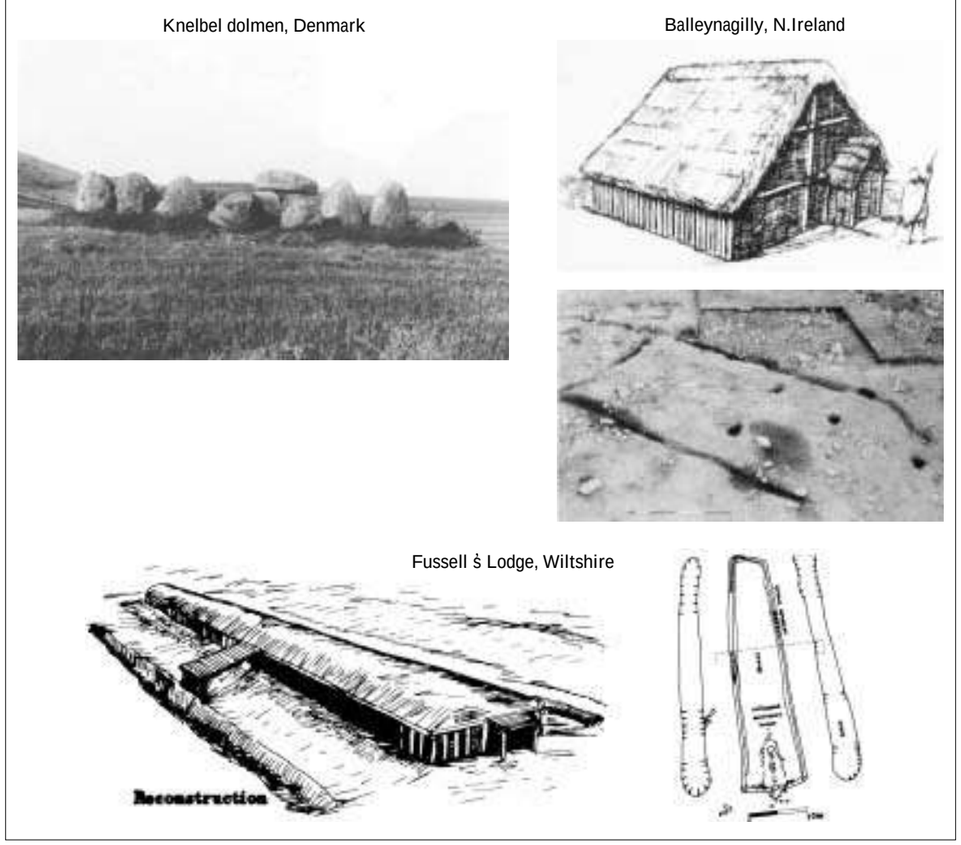
1) Davisdon, J.L. and Henshall, A. 1989 The chambered cairns of Orkney. Edinburgh, Edinburgh University Press.
2) Eogan, E 1989 Knowth and the Passage Graves of Ireland. London, Thames and Hudson
3) Fergusson, J. 1872 - Rude Stone Monuments of All Countries throughout the World. London
4) Kinnes, I. 1982 Les Fouillages and megalithic origins. Antiquity 56, 24 - 30.
5) Mercer, R. 1980 Hambledon Hill: A neolithic landscape. Edinburgh, Edinburgh University Press.
6) Oswald, A; Dyer,C. and Barber, M. 2001 The creation of monuments : Neolithic causewayed enclosures in the British Isles. English Heritage, London.
7) Parker, Pearson, M. and Ramilisonina 1989 Stonehenge for the Ancestors. Antiquity 72, 308-26.
8) Wainwright, G. 1989 The Henge Monuments. London, Thames and Hudson.

The Main Megalithic Regions of Europe

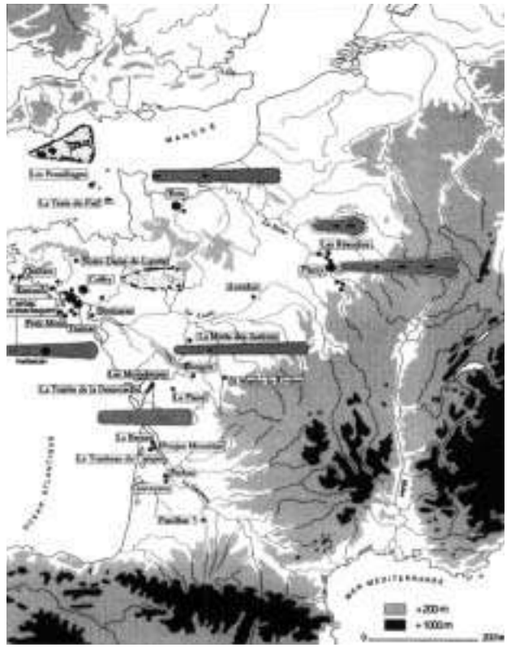
Barnenez, France



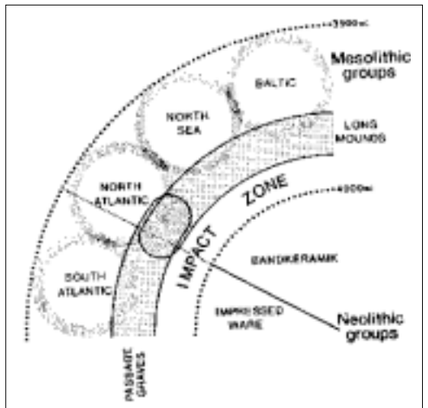
Tomb relationships with long-house traditions across N.Europe



Early Neolithic houses and long cairns - northern Europe



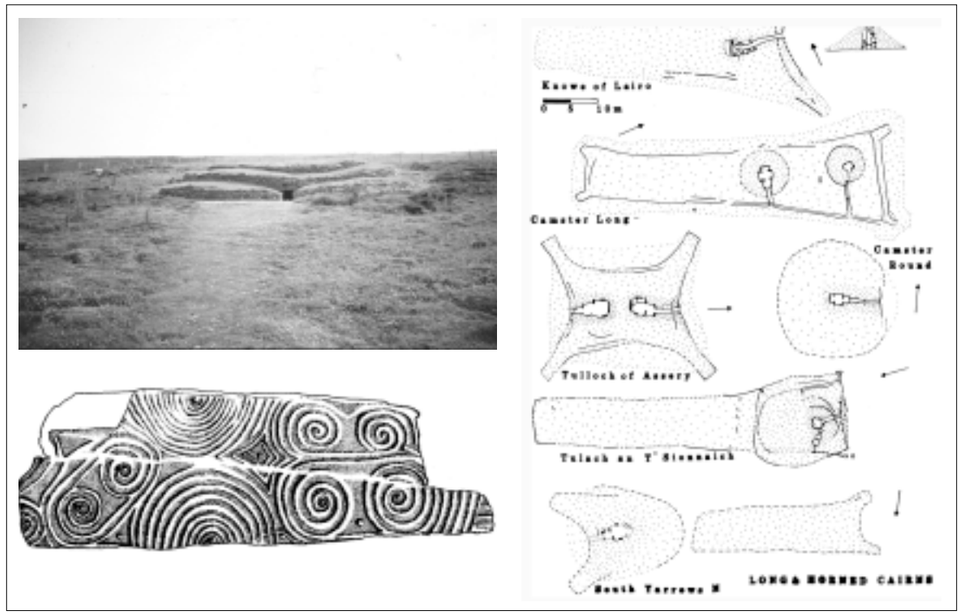
Atlantic Façade



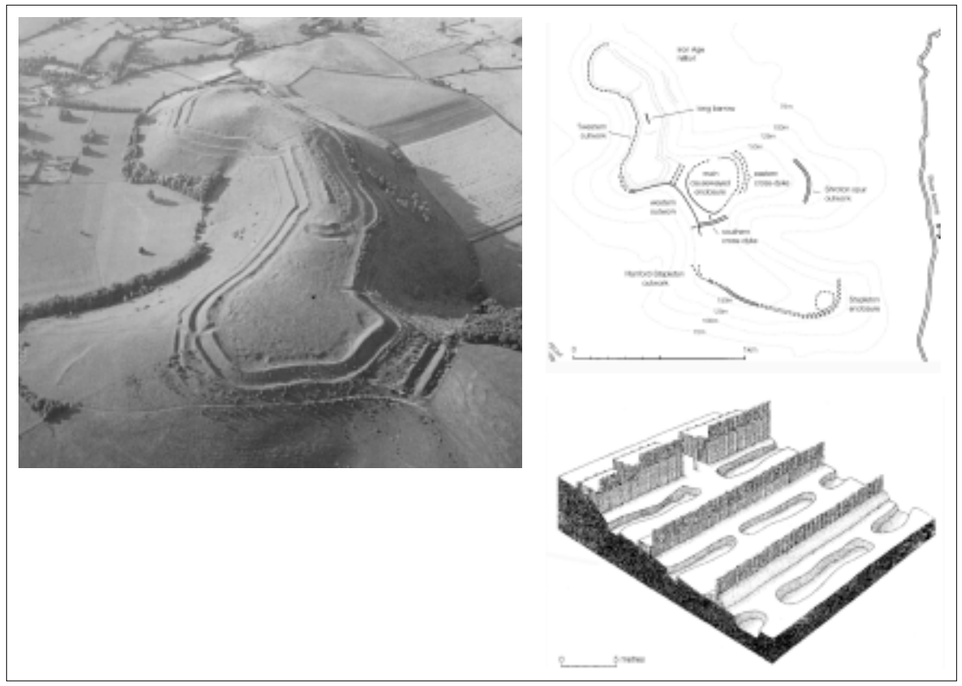
Kinnes model and les Fouillages, Guernsey

British Megalithic tombs, Belas Knap

British Megalithic tombs, Wayland ȣ Smithy

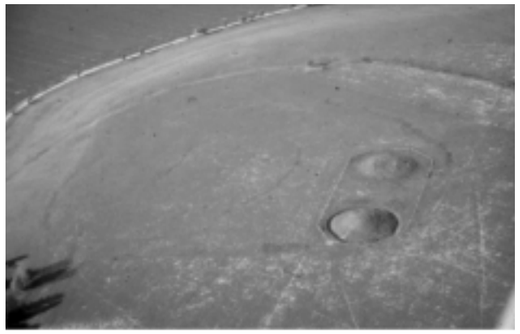


Scottish and Orkney Long cairns



Causewayed Enclosures, Hambledon Hill, Dorset

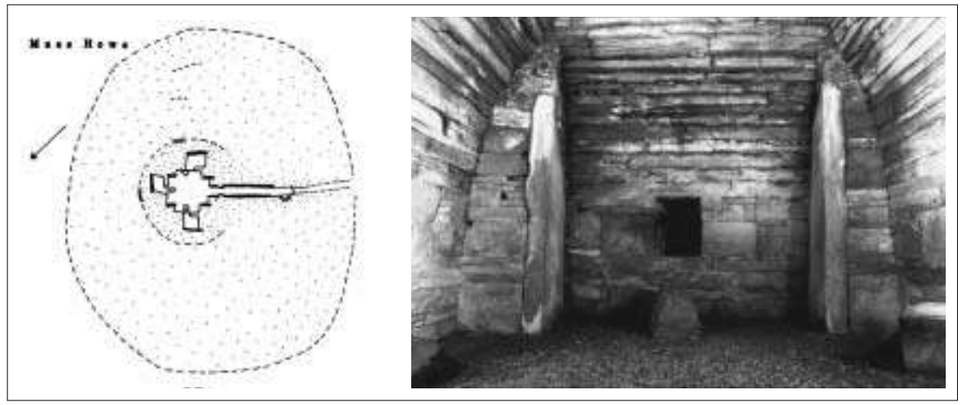
The distribution of megalithic structures



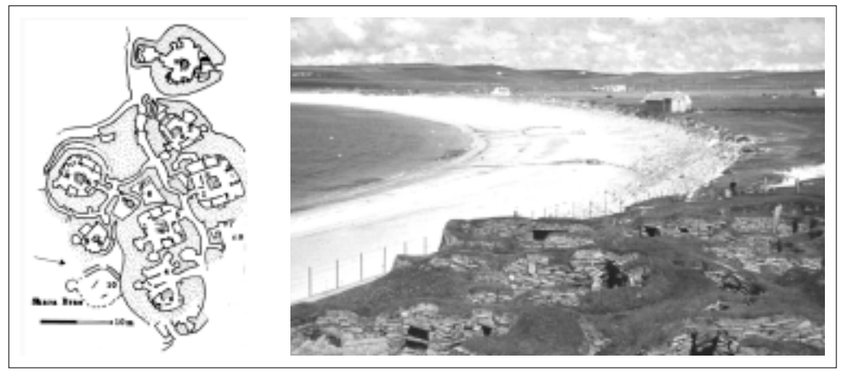
Causewayed Enclosure, Windmill Hill, Wiltshire

Avenues and alignments, Callanish, Lewis

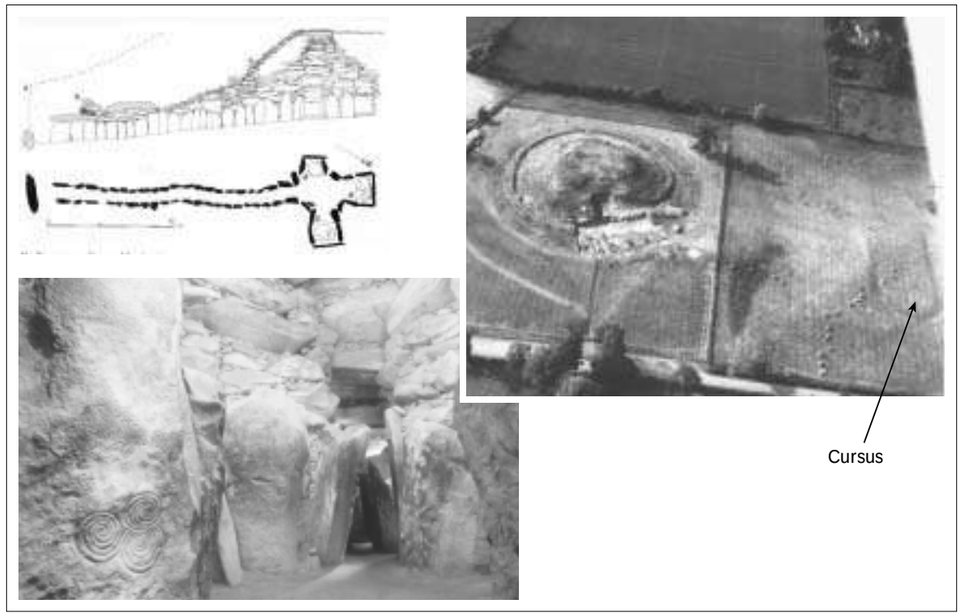
Avenues and alignments, Stonehenge, Wiltshire



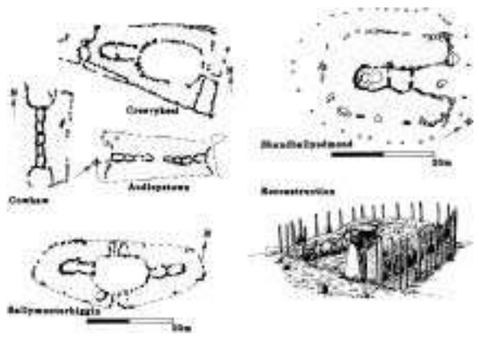
Maes Howe Tomb



Houses at Skara Brae, Orkney



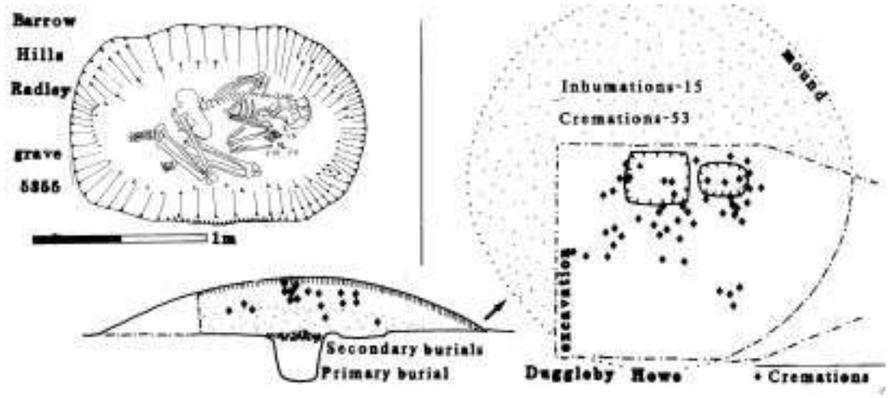
Irish Passage Graves, Newgrange



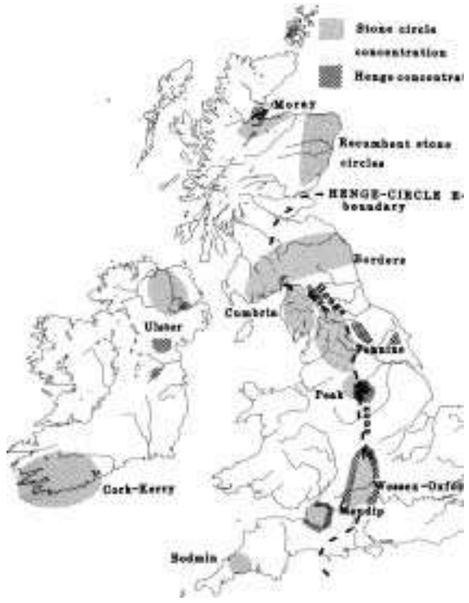
Irish Court Cairns

Court Tombs, Creevykeel, Ireland

Late Neolithic Burials, artefacts & individuals
Folkton Drums (left), Peterborough Pot (center), Whitesands (right)



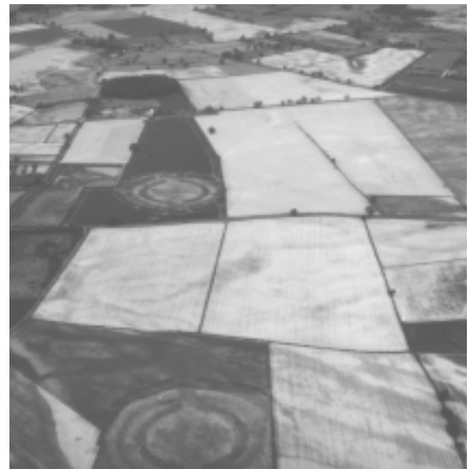
Late Neolithic Burials



Stone circles & henges

Ring of Brodgar, Orkney

Knowlton Henges, Dorset



Thornborough Henge, Yorkshire

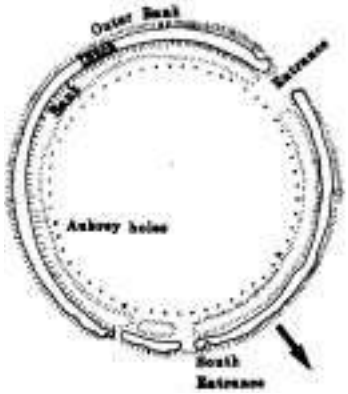
Callanish

Brodgar

Stenness

United Kingdom

Avebury, Wiltshire



Stonehenge, Wiltshire

Megalithic Culture of Korea

Mr. CHO Hyun Jong
Chief of Curatorial Department, Gwangju National Museum

1.

Korean megalithic culture used to prevail greatly in the Bronze Age from the 10th Century BC to the 3rd Century BC. Its typical relics are dolmen and menhir. Dolmens are spread worldwide from Northern Europe and the Mediterranean area to India, Southeast Asia, China, Korea and Japan. The times of construction ranges from the Neolithic Age to the Early Iron Age. They are different in type. Korea has the largest quantity of dolmen in Asia; approximately 40,000 dolmens have been found throughout the whole of the Korean peninsula. More than 20,000 dolmens are collectively spread in Jeollanam-do province, the southwestern plain area of Korea. Particularly the dolmen in the Gochang and Hwasun areas are designated as the world cultural heritages by UNESCO and are under protection.

In Korea, dolmen is also called " Goindol "(propped stone). A lid stone is propped by two to several stones. This is closely related to the megalithic worship of the Bronze Age. Most of such dolmens are used as tombs, but they remind us common symbols such as tombs or meeting places of races or groups and altar for rites.

In the meantime, a menhir, which is a stone erected straightly, represents Korean megalithic culture alongside dolmen. Menhir has been erected for a long time from the prehistoric age to the historic age. They have existed for the marking of borders between villages and as objects of folk beliefs related to male sexual organ worship that were used to pray for prolificacy.

2.

In Korea dolmen are spread nationwide except in the northeastern parts of the Korean peninsula. They are usually located in the alluviums of large rivers, low hillside or mountainside facing the plains. They are frequently located in a place easy to move heavy stones or the corners people

frequently pass by within a range of human activity. This shows that they also were within a certain living sphere in the prehistoric age.

Some are constructed independently, but most are constructed in groups of 5-10, tens or as many as 200. Particularly, in Sanggap-ri, Gochang of Jeollabug-do, there are 400-500 dolmens extending along the mountainside for approximately 2.5km, which is the largest dolmen group in the Korean peninsula. It is confirmed that there are about 850 dolmens in the group in Yeontan and Hwangju, Hwanghae-do, which is the northwest of Korea.

The lid stone of a dolmen is used as it is found in the nature or taken from a bigger rock. As for the method to breaking off the stone, there is discussed a method of putting a wooden wedge into a crack or artificially made hole and swelling the wood with water. It seems that levers and rope have been used to carry the stone.

It seems that they laid earth in a slope to the height of the stone chamber or prop stones above or under the ground, pulled the lid stone up to its place on the chamber and then removed the earth. This is proven by the tracks of earth filled between the lid stone and prop stones. It would require the manpower of an entire group and sometimes the manpower of neighbors, which shows that there used to exist a social cooperation system or a powerful leadership in the community.

3.

The types of dolmen may be subdivided into " Northern Type Dolmen " and " Southern Type Dolmen ". Northern type dolmen have a rectangular tomb chamber customized with 4 sheets of stone slabs, on which a huge lid stone is laid and under which the tomb chamber is exposed on the ground. It is also called a" table type dolmen ", and spread throughout the northern area of the Korean peninsula. Lid stones are usually 2-4m, but large ones of more than 8m have been found in Unsan-ri, Eunyul of Hwanghae-do. The southern type dolmen have a tomb chamber made by laid river stones or broken stones, on which a large lid is put in a checkerboard pattern. Some of this type has prop stones and some don t. This type prevails in the southern area of the Korean peninsula. The shapes of lid stones of the southern type dolmens are not fixed, but they are generally oval or rectangular. They are generally 3m×4m in plan, but there exist mammoth ones like the dolmen in Hyosan-ri, Hwasun of Jeollanam-do, which is L.7.6m×W.4.2m×T.4.1m and weighs more than 200 tons.

These types are found in the north of the Korean peninsula and its neighboring district northeast of China, as well as in the south of the peninsula and in Kyushu, Japan, their names used to indicate the differing distribution. The Han River acts as the border between the northern and southern types on the whole. However, it does not mean that both districts show an absolute difference in type around this border. They compose of mainstream approximate distribution. In other words, there are sometimes found northern type dolmen in the west and south of the Korean peninsula, as there are also southern type dolmen in groups with northern type dolmen in the northwest of the peninsula. Particularly, in China, a considerable number of southern type dolmen have been found together with northern type ones. They call " large stone lid tombs ".

However, the classifications of the types of dolmen are differ amongst scholars, and there are also available various classifications based on the structure of the tomb chambers located underneath the lid stone..

4.

Various relics, which had been buried in construction, have come from dolmen. Relics are classified into those buried in the tomb chamber and those laid between the neighboring stones. Bronze daggers, stone daggers, stone arrowheads, jade, and red-polished pottery are usually found in the former; these are considered as conventional relics buried together with the corpse during the funeral. On the other hand, the livelihood tools such as stone sickles, axes, adzes, chisels, grindstones, spindle whorls, fishing net sinkers and so forth are frequently found in the latter. Stone daggers and stone arrowheads are mostly found in combination, and sometimes one stone dagger and several or tens of stone arrowheads are found in a single location.

The typical relics out of the bronze artifacts are Liaoning bronze daggers, and recently Korean bronze daggers have also been found buried with other relics. Although the origin of the Korean Bronze Age culture may be traced back to the Liaoning bronze dagger culture, the Korean bronze dagger culture has its own unique features, as demonstrated by the typology and styles of the Korean bronze culture. Such difference is assumed to have reflected features of groups or social status in addition to a chronological difference.

The place where buried relics are located mostly is near the wall of one side, but this changes with stone daggers. Stone daggers are often buried near feet or the right waist, but sometimes are stabbed at the corner of the stone chamber. As for the location of buried relics, stone daggers and stone arrowheads are near the right waist or foot, bronze artifacts are near the feet, jade is near the head, and red-burnished pottery or red-polished pottery is above the head. Therefore, we may learn the orientation of the buried person by observing the location of relics. It is assessed that the weapons such as stone daggers and stone arrowheads are relics for men and earthenware or jades are for women.

5.

The megalithic culture differs in chronological background by area, but most of the relics are

the products of prehistoric times from the Neolithic Age to the Bronze Age. It is understood that the early megalithic relics of West Europe were made over a period of 3000 years from 5000 BC, which is the mid-Neolithic Age to the early Bronze Age.

In the meantime, the period and characteristics of the dolmen culture of the Korean peninsula has been discussed by many scholars thus far. It is thought that the dolmen had been constructed over the entire period from the 10th Century BC in the Bronze Age to 100 BC based on uncovered relics particularly of which earthenware. It goes without saying that the period of occurrence and disappearance may differ depending on the difference in structural type or area, but there may be considered a cultural development that the earliest dolmen appeared in the northwest of the Korean peninsula and spread to the south. As the origin of such dolmen, there are three theories: the northern theory says that it is related to the stone cist tomb system, which is the megalithic culture of Karasuk of Siberia; the southern theory states that it is influenced by Southeast Asia and bone-washing funerals; and indigenous theory states that it took place independently in the Korean peninsula.

A Dolmen at Bugeun-ni
in Ganghwa county-‘ Northern Type ’

A Dolmen at Jugnim-ni
in Gochang county-‘ Southern Type ’

A Dolmen at Dosan-ni
in Gochang county-‘ Northern Type ’

A Dolmen at Seongdong-ni
in Muan county-‘ Northern Type ’

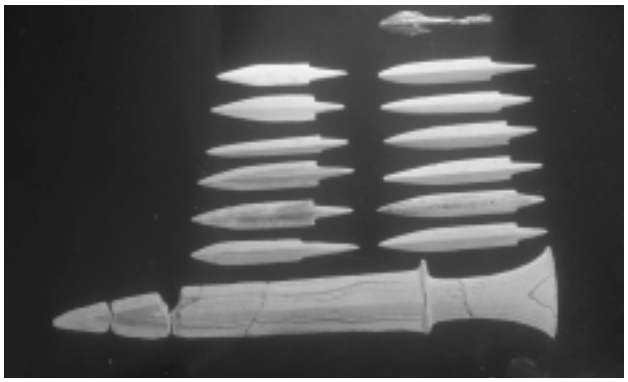
A Dolmen at Jugnim-ni
in Gochang county-‘ Southern Type ’

Petroglyphs on the capstone
of a Dolmen at Orim-dong
in Yeosu city

The Burial structure of Southern Type Dolmen
at Seongdong-ni in Muan county

The Burial structure of Southern Type Dolmen
at Pyeongna-ri in Boryeong county

The Artefacts in Burial chamber of a Dolmen
at Daegok-ri in Yeosu city



The Artefacts from a Dolmen
at Deokchi-ri in Boseong county

A Jar with Aubergine design
from a Dolmen in South Korea

Dolmens in the Japanese Archipelago

Mr. NISHITANI Tadashi
Professor Emeritus, Kyushu University

Concerning megalithic cultures in the Japanese archipelago, William Gowland called a corridor-style stone chamber (yokoana-shiki sekishitsu) in the late 6th century as a dolmen. In general, however, megalithic cultures are usually associated with dolmens.

Dolmens[1] developed in the Japanese archipelago are representative of the grave system characterizing northern Kyushu in the formative stage of Yayoi culture. The Dolmen usually refers to a grave with a huge upper stone supported by several stones, under which there are a variety of burial facilities, such as a pit dug in the ground for burial (pit burial), wooden coffin, cist, jar used for burials (jar burial), and stone constructions arranged in a circle or rectangle. Dolmens existed in the period from the second half of the final stage of the Jomon Era (Yamanotera-type pottery) to the second half of the mid stage of the Yayoi Era (Sugu II-type pottery). Surveys show that there were pits dug underground for burial throughout the period, whereas there were wooden coffins and cists during the early period, and they were replaced by jar burials in the late period.

A lot of dolmens of the final stage of the Jomon Era or the incipient era of the Yayoi Era were discovered on the Karatsu and Saga Plains of Saga Prefecture, the Itoshima District of Fukuoka Prefecture, and northwest coast and the Shimabara Peninsula of Nagasaki Prefecture. From the early stage until the mid stage into the Yayoi Era, the distribution of dolmens became widespread on the Fukuoka and Chikugo plains of Fukuoka Prefecture and in the Kikuchigawa valley, further to the Satsuma Peninsula of Kagoshima Prefecture. A major feature of dolmens excavated in the Japanese archipelago is the concentration of their distribution in and around northwestern Kyushu (Fig.1).

In Kyushu, Oita and Miyazaki are the only prefectures where the remains of dolmens have not yet been discovered. Noteworthy, however, is the discovery that most of the 15 burial facilities at the Hiraishi Ruins in Chitose Village, Ono-district, Oita Prefecture, including two pit burials, had jars used for burials in the early stage of the Yayoi Era. It is said that there were three huge stones in the ruins, one of which still remains. This indicates the possibility of the existence of dolmens.[2] In addition to the Hiraishi Ruins, there is a huge stone that might have been used as

the upper stone of a dolmen in the Ajimu Basin, Oita Prefecture. From these, further investigation will be necessary to determine if dolmens existed in Oita Prefecture.

In geographical terms, Yamaguchi Prefecture, adjacent to Kyushu and located in the western-most part of Honshu Island, is another important location where a lot of remains and artifacts related to the Korean Peninsula in the early stage of the Yayoi Era were discovered. In particular, the dolmen discovered in the Nakanohama Ruins in Toyoura Town, Yamaguchi Prefecture is seen as a rare example in the early stage of the Yayoi Era when pit burials were predominant.[3)]

In terms of their existence, dolmens were not usually constructed in a large-scale group, unlike other styles of tombs but in a group of several or dozens of units at most. However, exceptions to this rule are the Kuboizumi Maruyama Ruins in Saga Prefecture; the Harayama Ruins in

Fukuoka Prefec.
1. Sukuokamoto
2. Kota
3. Shito
4. Ishigasaki
5. Asada
6. Hayamadai

Saga Prefec.
7. Gotanda
8. Hayamajiri
9. Ukisetoguchi
10. Wariishi
11. Tokusue
12. Sakogashira
13. Morita
14. Kishidaka
15. Minamishoji

Nagasaki Prefec.
16. Satodabaru
17. Onodai
18. Tanukiyama
19. Matsubara
20. Izaki
21. Fukandake
22. Keikaen
23. Harayama

Kumamoto Prefec.
24. Kokanyama
25. Fujio
26. Toshinokami

Fig.1 Distribution map of Dolmens in northwest Kyushu
" Research report of Cultural properties, Isahaya City "No.1, 1976

Kita-arima Town, Minami-takaki-district in Nagasaki Prefecture; and the Shinmachi Ruins in Shima Town, Itoshima-district, Fukuoka Prefecture, where there are 118 units, more than 90 units, and 57 units, respectively. Although there were several styles of burial facilities as mentioned above, dolmens were rarely mixed with other kinds of grave styles. A representative example of exceptional cases is the Hayamadai Ruins (Zone C)[4)] in Omuta City, Fukuoka Prefecture, where there were one dolmen, three pit burial tombs, two wooden coffin tombs, and three jar burial tombs together in a small group of a necropolis. The burial facility used in the dolmen is a jar burial style, which became popular in the early mid stage of the Yayoi Era when large-scale jar burial tombs were predominant.

There were few grave goods in burial facilities of dolmen. One of the rare cases is a dolmen (No.8) at the Shito Ruins of the early stage of the Yayoi Era in Maebaru City, Fukuoka Prefecture, where polished stone arrowheads with shafts were excavated. Another exceptional case is the Sugu Okamoto Ruins of the mid stage of the Yayoi Era in Kasuga City, Fukuoka Prefecture, where a large number of grave goods were excavated, including 30 bronze mirrors, bi-glass disks, bronze swords, and socketed bronze spearheads and bronze halberds. It is a remarkable example in term of both quality and quantity. In structural terms, the dolmen seemed to serve as a symbol rather than its original purpose of being a tomb. In some ruins, there were small jars which seemed to have been placed in the dolmens after burial (Fig.2). In the mid stage of the Yayoi Era, dolmens for family tombs appeared. For example, in a dolmen (No.1) at the Hayamajiri Ruins in Karatsu City, Saga Prefecture, six jars were used for burial: two jars were placed beneath the upper stone, and the other four jars were placed around them. In this case, the upper stone appears to have been a marker.

Next, I will give consideration to the structure-based type classification of burial facilities of dolmens as well as their changing process[5)].

Type I (pit burial):

Classified as Type I is a pit burial, or a pit dug beneath the upper stone for burial. In many cases, plans of pits are circular or rectangular. A representative in the final stage of the Jomon Era is a dolmen (No.34) at the Harayama Ruins in Nagasaki Prefecture, where a pit had been covered with a thin plate stone. The Fukandake Ruins in Isahaya City, Nagasaki Prefecture and Kishidaka Ruins in Karatsu City, Saga Prefecture belong to the same period. As dolmens at the Gotanda and Hayamajiri ruins in Karatsu City, Saga Prefecture, this type was popular in the early stage of the Yayoi Era.

Type II (wooden coffin):

When a pit beneath the upper stone is clearly rectangular with vertical walls, it is natural to assume that the pit had accommodated a wooden coffin. An example is the aforementioned Shinmachi Ruins in Fukuoka Prefecture (Fig.2). In addition, parts of the bottom and side panels of a wooden coffin were excavated in the Ishizakiyakaze Ruins in Nijo Town, Itoshima-district,

Fukuoka Prefecture. This type of burial facility had already emerged in the final stage of the Jomon Era.

Type III (stone coffin):

The Type III burial facility is characterized by a small square-formed cist beneath an upper stone. In one case, the upper stone is supported by several stones, and there is the stone coffin with a cover stone beneath it. A representative example is a dolmen (No.5) of the Tanukiyama Ruins in Saza Town, Kitamatsuura-district, Nagasaki Prefecture. The upper stone of the dolmen is relatively small and close to square in shape, being 13m long, about 1m wide, and about 20cm thick. Beneath the upper stone, which was supported by eight stones, there was a small-sized square-closed stone with a length of about 60cm, a width of about 40cm, and a depth of 40cm. Among the supporting stones, some remains of pottery with notched clay bands were discovered, which seemed to have been used as containers of vessels for dedicating goods. For this type of burial facility, there are the Onodai Ruins in Shikamachi Town, Kita-Matsuura-district and Harayama Dolmens in Nagasaki Prefecture, and the Setoguchi Dolmens in Karatsu City, Saga Prefecture.

As with a dolmen (Group D, No.1) of the Harayama Dolmens in Nagasaki Prefecture, some remains of dolmens feature a horseshoe-shaped stone enclosure, which seem to be a simplified cist, with the upper stone placed on piled stones of relatively large size, not on supporting stones. In this case, what is most noteworthy is that a small jar coffin-with the mouths of two jars joined to each other-was discovered under the ground inside the stone enclosure. In a dolmen (Group C, No.3) at the same ruins, there was not a clearly shaped stone coffin but an oval-shaped stone enclosure used for burial. The stone enclosure consisted of six side stones, whose tops were covered with a thin stone, and it was covered with pebbles. Further, there were supporting stones on them, and the upper stone was put on the supporting stones.

The dolmen (No.2) at the Kota Ruins in Fukuoka Prefecture is characterized by an upper stone placed directly on the side walls of a stone coffin, which can be called a transformed Type III style. Most dolmens classified as Type III belong to the final stage of the Jomon Era, when pottery with notched clay bands also appeared. As shown at the Isaki Ruins in Konagai Town, Kitatakaki-district, Nagasaki Prefecture, some dolmens were constructed in the early stage of the Yayoi Period as well.

Type IV (jar burial):

In many cases of dolmens, small jar coffins were used for burial. For example, the Harayama Ruins in Nagasaki Prefecture are well known for small jars used for the burial of infants. This tendency still continued until the early stage of the Yayoi Era. A representative example is the Setoguchi Ruins in Saga Prefecture. As big jar coffins became predominant during the period from the end of the early stage to the early mid stage of the Yayoi Era, the size of them in dolmens also became large, which is observed at the Hayamadai Ruins in Fukuoka Prefecture. Some dolmens accommodated only one jar coffin, while others contained more than one. In the latter case, the upper stone is placed on the top of multiple jar coffins as a marker. This type of dolmens is limited only in the mid stage of the Yayoi Era, which is observed in the dolmen (No.1) at the Hayamajiri Ruins, where there were six jar coffins beneath and near the upper stone.

Type V (stone construction arranged in a circle or rectangle):

A representative example of dolmens featuring stone construction arranged in a circle or rec-

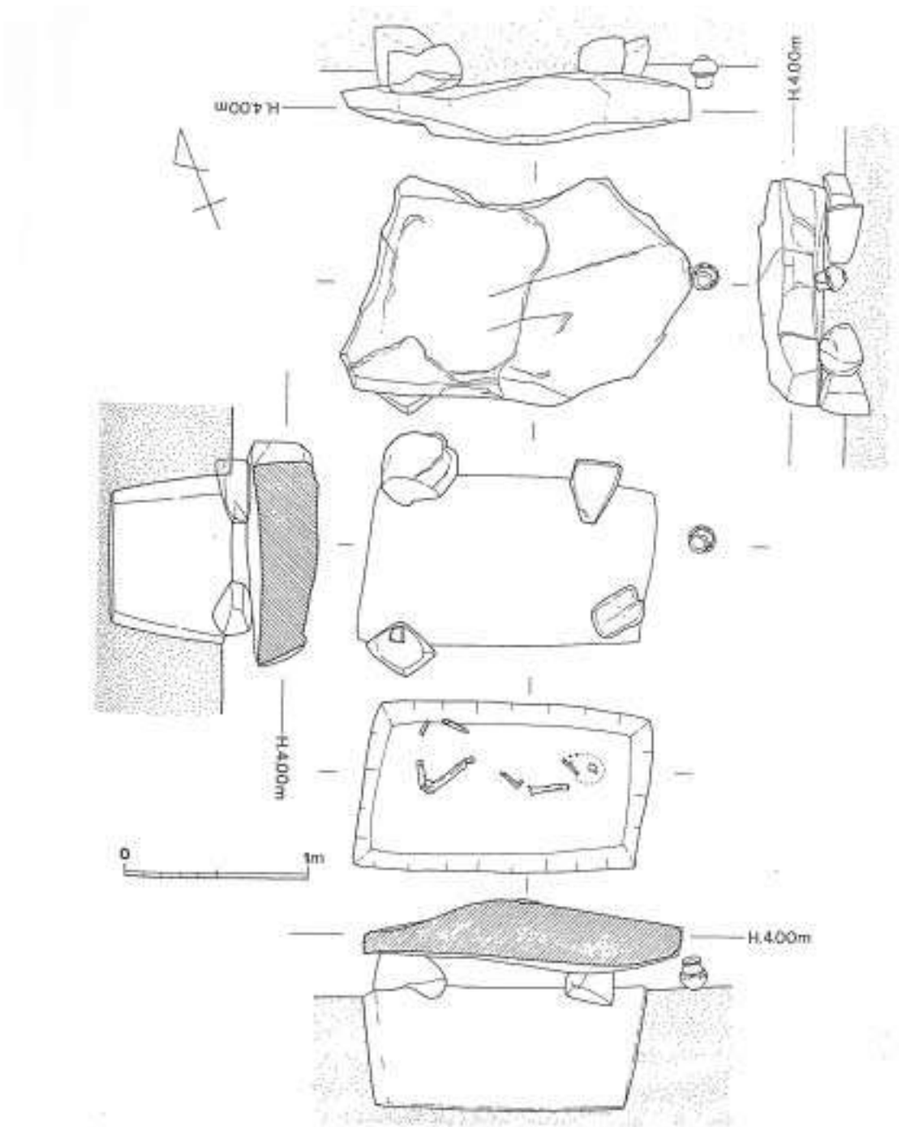


Fig.2 Plan, elevation and section of No.11 Dolmen, Shinmachi ruins (Fukuoka Prefec.)
" Research report of Cultural properties, Shima Town "No.7, 1987

tangle is the Fujio Ruins in Kyokushi Town, Kikuchi-district, Kumamoto Prefecture. Inside the stone construction is either a pit for burial or a small jar coffin for infants. Considering that this type of dolmen belongs to the late mid stage of the Yayoi Era, it can be said that dolmens ended with this style.

Thus, a variety of dolmens in the Japanese archipelago were briefly examined, and now a summary should be given of the relationship between the dates and distribution pattern of the dolmens. Dolmens appeared for the first time in Japan[6] in the period of Yamanotera-type pottery, or pottery with notched clay bands in the second half of the final stage of the Jomon Era. In the earlier stage they are largely characterized as Type III dolmens, or small square-formed cists. Among these are dolmens featuring a mixture of pit burials, jar coffins and stone enclosures, as at the Harayama Ruins in Nagasaki Prefecture. Most noteworthy is that most dolmens of this type have been discovered in Nagasaki Prefecture, and that the distribution is concentrated in northwestern Kyushu covering Kita-matsuura, Nishi-sonogi, and the Shimabara Peninsula. Moreover, in the stage of pottery with notched clay bands Type II dolmens (dolmens featuring wooden coffins) appeared in the Itoshima district, Fukuoka Prefecture.

In the early stage of the Yayoi Era, Type I (pit burial) dolmens became predominant, with Type III (cist) and Type IV (jar coffin) dolmens. The Harayama Ruins, located in the southeastern-most area in the distribution pattern of dolmens in the second half of the final stage of the Jomon Era, would belong to the latest period, if dolmens were diffused from northwestern to southeastern areas of Kyushu. In terms of the distribution pattern and dates, it is understandable that in addition to Type III, Type I and Type IV dolmens also appeared. So, primitive Type III dolmens remained in the early stage of the Yayoi Era and were replaced with Type I and Type IV dolmens in later years. However, the distribution of Type I dolmens is concentrated on the Karatsu Plain of Saga Prefecture facing the Genkai Sea and the Fukuoka Prefecture ś coast of Hakata Bay, showing a difference from Type III dolmens. During the end of the early stage of the Yayoi Era, there was a transformation from small jar coffins for infants to jar coffins for adults. This tendency continued until the middle of the mid stage of the Yayoi Era. The Type IV dolmens featuring such big jar coffins prevailed in the inland areas of the Chikugo Plain in Fukuoka Prefecture. In the first half of the mid stage of the Yayoi Era, dolmens were distributed to as far as the Satsuma Peninsula in Kagoshima Prefecture, as proved at the Iriki Ruins in Fukiage Town, Hioki-district, Kagoshima Prefecture, where Type I dolmens featuring pit burials were discovered. Concerning the Type V dolmens featuring a great change from others in style, it can be considered that they came into existence in the process of the wide distribution of dolmens around the second half of the mid stage of the Yayoi Era.

When I give consideration to the descent of Japan ś dolmens and their historical background, the importance is that dolmens in their earlier stages of development were mainly box-type coffins, and the distribution was concentrated in northeastern Kyushu. In this period there were also jar coffins, which are peculiar to Japan, but dolmens featuring cists and pit burials were popular on the Korean Peninsula. In the case of cists, however, their small size and square shape are unique to Japan.

On the Korean Peninsula, the prototype of Type III (cist) dolmens can be identified in the area covering Hwanghaebuk-Do, Chollanam-Do, and Kyongsangnam-Do, notably in the southwestern and southeastern parts of these areas. Some dolmens, which were discovered in the southwestern part of these areas, are characterized by stones on the box-type stone coffins and pit burials. This structure can be shared with that of the dolmen (Group C, No.3) from the Harayama Ruins of Nagasaki Prefecture. The dolmen at the Harayama Ruins is characterized by an elliptic encircling of six side stones. There are also similar types in the dolmen (Zone A, No.10) of Aradong in Cheju City, Cheju Island. This dolmen could be featured by 11 encircling side stones supporting an upper stone. In this respect, the dolmens that appeared for the first time in Japan seems to have had, in structural terms, a close relationship to those in the southwestern and southeastern areas of the Korean Peninsula.

Regarding the diffusion of dolmens, I can assume two routes: one is a route from the southeastern part of Korea to Tsushima and Iki to northwestern Kyushu; and the other is a route from the southwestern part of Korea to Cheju Island to northwestern Kyushu. The former route had been used for bilateral exchanges since the early stage of the Jomon Era. On the other hand, there is a problem with the latter route. It is difficult to imagine that people in those days had the necessary navigation skills to travel and there is not enough material evidence to prove that. From a broad viewpoint, therefore, it can be said that dolmens of Korea were introduced to Japan via the southwestern and southeastern parts of Korea.

Thus, it can be concluded that dolmens in the formative period of the Yayoi Era were diffused first to the coastal area of northern Kyushu and then to the Karatsu Plain, Fukuoka Plain, and Saga Plain. In these areas, the Type IV dolmens, which are peculiar to Japan, had been used since the final stage of the Jomon Era, but they were gradually replaced with Type I dolmens featured pit burials. A lot of Type I dolmens have been discovered in southeastern Korea, indicating that this type of dolmen originated in that area. This theory is also supported in that stone arrowheads and other imported funeral goods, which are unique to southeastern Korea, have been discovered in dolmens at the Shito Ruins of Fukuoka Prefecture. The grave styles developed in the early stage of the Yayoi Era include cists and tombs featured stone constructions arranged in a circle or rectangle. Cists have been excavated at the Izumi Ruins of Kami-agata-district, located in the northern part of Tsushima, Nagasaki Prefecture, and other coastal areas facing the Hibikinada and Suonada Seas. Tombs featured by stone constructions arranged in a circle or rectangle have been also discovered in areas from the northern part of Kyushu to the western part of the Chugoku region. Artifacts from these tombs include polished stone swords, polished stone arrowheads, and funeral goods such as imported bronze swords with narrow blades and geometric bronze mirrors. In these respects, it should be considered that Japanese dolmens take their origin from Korea. There is a slight difference in distribution patterns between dolmens and cists. This is probably because the

diffusion of cists occurred later than dolmens. In Japan, dolmens combined with big-sized jar coffins were developed, based on dolmens imported from Korea during the period from the second half of the final stage of the Jomon Era to the first half of the early stage of the Yayoi Era.

When considering the historical background of the diffusion of dolmens, they are unique compared to pit burials, which were typical graves during the formative period of Yayoi culture. Given that dolmens were very common in Korea and that the grave style is essentially unique to ethnic groups and tribes, it can be assumed that as a background to the diffusion of dolmens there was immigration from Korea. At the same time, it is true that dolmens in the initial stage of development clearly show the characteristics of Jomon and Yayoi cultures. However, it can be concluded that immigrants from Korea would become natives over the years. From these viewpoints, I suggest that in the second half of the final stage of the Jomon Era, a handful of people from Korea settled in the northwestern part of Kyushu and introduced dolmens. In the early stage of the Yayoi Era, Korean people settled in the coastal area of northern Kyushu and constructed dolmens, with some of them constructing cists and tombs featured by stones aligned around the dead. It is also considered that during the period between the end of the early stage and the first half of the mid stage of the Yayoi Era, following immigrants or descendents of those who settled earlier constructed dolmens with huge upper stones. But they were very different from those in Korea while reflecting a remnant of them. Additionally, some of them moved from coastal areas to inland areas, and then further to southern Kyushu along the coast.

Studies of human remains excavated from ruins around the area provide important clues to this hypothesis about immigrants from Korea. It is only recently that human remains in the same periods of the development of dolmens have began to be excavated from dolmens, including the Shinmachi Ruins in Fukuoka Prefecture and Ukumatsubara Ruins in Nagasaki Prefecture. It is necessary to wait for further accumulation of information on these human remains as one of many further research issues.

References

1) Tadashi Nishitani (ed.) (1997)," An Integrated Study of Megalithic in Dolmens in East Asia "(in Japanese).
2) Yoshihiro Sakamoto (1993)," Inland Area of Eastern Kyushu in the Early Period of the Yayoi Era, "*Ancient Culture Anecdotes*, Vol.30-2, p. 971 (in Japanese).
3) Naokazu Kokubu et al. (1970)," Brief Excavation Report on the Nakanohama Ruins "(in Japanese)
4) Omuta Town Education Board (1975)," Hayamadai Ruins-Survey on Zone C of Hayamadai, which is the location of Omuta City "(in Japanese)
5) Tadashi Nishitani (1980)," Issues Confronting Dolmens in the Primitive Age in Japan and Korea, "*Lecture Course on Ancient Japanese History in East Asia*, Vol.1, pp. 181-186, Gakuseisha (in Japanese)
6) Teijiro Mori (1969)," Early-Stage Dolmens in Japan, "Essays Contributed in Celebration of Dr. Kim Chewon's 60th Birthday, Seoul

The view of North-eastern Asia

Location of Shinmachi Ruins, Fukuoka Pref.

The Dolmens of Shinmachi Ruins, Fukuoka Pref.

Uku-matsubara Ruins, Nagasaki Pref.

Otomo Ruins, Saga Pref.

Suku-okamoto Ruins, Fukuoka Pref.

Suku-okamoto Ruins, Fukuoka Pref.

General Information

The Cultural Heritage Protection Cooperation Office, Asia/Pacific Cultural Centre for UNESCO (ACCU Nara Office) will organize the Meeting on Megalithic Culture in cooperation with the Agency for Cultural Affairs, Japan, the Nara Prefectural Government and the Nara Municipal Government.

1. Background

As of August 2002, there were 586 sites on World Cultural Heritage List, including 563 Cultural Heritage sites and 23 Natural mixed sites.

Of the cultural sites, the great majority are ruins of cities or structures that are still visible above the ground. Only a little over 30 prehistoric archaeological sites, where the remains of settlement sites, cemeteries or production sites have disappeared under ground, have been registered as Cultural Heritage Sites. This is because the surveys of prehistoric sites have met with many problems which have made it difficult for researchers to set up wide-ranging research programmes beyond national borders. However, since the underground sites are important evidence of the many paths of human history, it is necessary for us to make a comprehensive review and comparison of research from Asia and Europe on the methods and findings of investigations of these sites and to find the most effective means of preservation.

2. Objectives

In December 2000, a set of Bronze Age Dolmens in Republic of Korea, which shows symbolic aspects of megalithic culture in Asia, was newly added to the World Cultural Heritage Lists. Making thorough comparisons of Asian and European megaliths through archaeological research will lead to find out information on the existence and routes of transmission of Asian dolmens which have not yet become uncovered. The purpose of the Meeting are to consolidate the current information on megalithic cultures from various Asian countries, to share information about current research, and to lay the groundwork for a global history of prehistoric cultures, thereby contributing to raising the awareness of preserving prehistoric sites among peoples in the region.

3. Organizer

The Cultural Heritage Protection Cooperation Office, Asia/Pacific Cultural Centre for UNESCO (ACCU Nara Office)

4. Time and Venue

The meeting will take place at the International Conference Room, Nara-Ken New Public Hall in Nara from Wednesday, 19 to Friday, 21 March 2003.

5. Participants

China

Mr. BAI Yun Xiang, Deputy Director, Institute of Archaeolog, Chinese Academy of Social Sciences

France

Dr. Jean GUILAINE, Professeur au Coll ge de France

Dr. Jean-Paul DEMOULE, Professeur 1 'Universit de Paris Ⅰ

India

Dr. R. C. AGRAWAL, Ministry of Human Resource Development

Indonesia

Dr. Haris SUKENDAR, Director, Research Centre for Archaeology

Japan

Mr. IZUMI Takura, Professor, Nara University

Mr. OKAMURA Hidenori, Associate Professor, Institute for Research in Humanities, Kyoto University

Mr. KOMOTO Masayuki, Professor, Kumamoto University

Mr. NISHITANI Tadashi, Professor Emeritus, Kyushu University

Mr. NITTA Eiji, Professor, Kagoshima University

Mr. SAKAI Takashi, High Researcher, Gunma Archaeological Research Foundation

Mr. MORIMOTO Susumu, Nara National Cultural Properties Research Institute

Ms.YAMAGATA Mariko, Rikkyo University

Republic of Korea

Mr. CHO Hyun Jong, Head of Curatorial Department, Gwangju National Museum

United Kingdom

Dr. Caroline MALONE, Keeper, Department of Prehistory and Early Europe, British Museum

(countries in alphabetical order)

6. Provisional Schedule

●Day 1 Wednesday, 19 March

—A M—

1) Opening Ceremony

2) Explanation of the meeting's purport

3) Election of Office Bearers and adoption of Agenda

4) Keynote Address Ⅰ(Extension of Asian Megalithic Culture)

—P M—

Keynote Address Ⅱ(Prehistoric World and Megalithic Culture in Europe)

5) Country Report Presentations

India, China, Indonesia

●Day 2 Thursday, 20 March

—A M—

6) Country Report Presentations (Cont,d)

France, United Kingdom, Rep. of Korea, Japan

—A M—

7) Session (information sharing)

8) Final Discussion

9) Closing Ceremony

●Day 3 Friday, 21 March

1) Study tour of historical relics (at archaeological sites)

2) Participating in International Symposium" Megalithic Culture-Comparing Prehistoric Ruins of the East and Europe "

7. Working Language

The working language of the meeting will be English. Simultaneous interpretation will be provided between English and Japanese.

8. Financial Arrangements

ACCU Nara Office will cover the following expenses:

1) International Travel: a round-trip economy class air ticket designated by ACCU between the international airport nearest to the participant's residence in his/her own country and Kansai International Airport (KIX).

2) Daily Subsistence Allowance (DSA): A fixed DSA to cover participant's food and lodging from 18 to 21 March 2003. A reserved hotel room will be provided for the participants by ACCU.

9. Secretariat

KANASEKI Hiroshi (Mr.), Director

Cultural Heritage Protection Cooperation Office, Asia/Pacific Cultural Centre for UNESCO (ACCU)

Nara Prefectural Government Office (" Horen "Office)

757, Horen-cho, Nara, 630-8113

Japan

Tel: +81-742-20-5001

Fax: +81-742-20-5701

E-mail: nara@accu.or.jp

Opening Address

Mr. KANASEKI Hiroshi
Director, Cultural Heritage Protection Cooperation Office,
Asia / Pacific Cultural Centre for UNESCO (ACCU) Nara Office

Good morning, ladies and gentlemen. I would like to extend to you my sincere thanks for coming all the way to Japan from Europe, India, Southeast Asia, China, and Korea to attend this" Meeting on Megalithic Culture. " I would also like to thank experts from different regions in Japan for attending today.

The Asia / Pacific Cultural Centre for UNESCO is an NPO established in 1971. We have been working mainly on items of intangible cultural heritage, in cooperation with the Ministry of Foreign Affairs and Ministry of Education, Culture, Sports, Science and Technology. In particular, we have been devoting our efforts to literacy education in the Asia and Pacific region. Japan ratified UNESCO s Convention for the Protection of World Cultural and Natural Heritage in 1992. In response to the need for Japan to cooperate at the international level to conserve our global cultural heritage, the Cultural Heritage Protection Cooperation Office was opened in Nara, Japan's ancient former capital.

At the Cultural Heritage Protection Cooperation Office of the Asia / Pacific Cultural Center for UNESCO, we have three missions. The first mission is to collect and provide information on protection of cultural heritage. The second is to provide training opportunities to those who protect world cultural heritage and other cultural heritages around the world, particularly in the Asia and Pacific region. The third is to hold international conferences such as this meeting to assist with the protection of world cultural heritage and other cultural heritages. This is the first academic meeting we have held.

In 2001, three years ago, Professor Demoule from France, who is here today, visited Japan, sponsored by Maison franco-japonaise. We were deeply impressed by his account of advanced research on prehistoric times in France. At that time Professor Demoule discussed with the late Makoto Sahara the need for understanding the cultural relationship between Europe and Asia from the viewpoint of a comparative study of civilization history. For this purpose, they decided to hold an international meeting in France or Japan. Mr. Sahara told me of this plan, which is being realized here today as" Meeting on Megalithic Culture. " It is indeed sad that Mr. Sahara cannot be here with us today. I would like to dedicate this meeting to the memory of Mr. Sahara.

Recently, dolmens of Gochang, Ganghwa, and Hwasun in Korea were registered as a world cultural heritage site. This was good news for us here in Japan, where no prehistoric ruins have yet been registered. There are numerous prehistoric remains, some buried, in Asian countries, many of which we believe are important enough to be registered as world heritage sites. It is our deepest hope that this meeting will provide an opportunity to identify the characteristics of Asian remains by comparing them with Europe s.

Research on megalithic culture first started in Europe and India. East Asian countries have also begun to study megalithic culture. I would like to end these words of welcome by expressing my hope that this meeting will lead to a significant advance in the comparative study of culture, and that our achievements here will lead to better conservation of our cultural heritage.

Thank you for your attention.

Ms. OHNUKI Misako
Director, Cultural Division,
Asia / Pacific Cultural Centre for UNESCO (ACCU)

Dear participants, and eminent guests,

It is my great pleasure and honour to welcome all of you to the Meeting on Megalithic Culture - Comparing Prehistoric Ruins of the East and Europe — in this World Cultural Heritage city of Nara.

My name is Ohnuki and I am a director of Cultural Division of ACCU main office in Tokyo. I should like to take this opportunity, on behalf of our Director General of ACCU, to thank all the distinguished experts for coming all the way to attend this Meeting.

ACCU is a non-profit and semi-governmental organization established in Tokyo in 1971. The primary objective of the Centre is to work for the promotion of mutual understanding and cultural cooperation among people in the region, in line with the principles of UNESCO. We have been covering programmes on Tangible and Intangible Cultural Heritage nearly since our inception, and now for Tangible Heritage Programme being covered by Nara Office, and for Intangible Heritage Programmes by Tokyo office. Both of us are carrying out programmes in close cooperation with UNESCO, National Commissions for UNESCO in respective countries, ICCROM, ICOMOS, and other international organizations.

I believe that this meeting will enhance shared awareness of megalithic culture in the world and serve as an incentive for participants' further research activities, thereby contributing to the growing trend toward the conservation of prehistoric sites.

Once again, I welcome you all and I hope that you will have a good time in Nara, and enjoy becoming acquired with each other and also with Japanese experts. Thank you very much.

Programme Schedule

Wednesday, 19 March

8:45	Leave Hotel by Chartered bus
9:10-10:00	Preliminary meeting with interpreters
10:00-10:15	Opening address by Mr. KANASEKI Hiroshi, Director of ACCU Nara Office and Ms. OHNUKI Misako, Director of Culture Division of ACCU
10:15-10:30	Self-Introduction by participants
10:30-10:50	Explanation of meeting's purport by Mr. KURAKU Yoshiyuki, ACCU Nara Office
10:50-11:00	Explanation of meeting's schedule
11:00-11:40	Keynote address Ⅰ by Prof. KOMOTO（from Asia）
11:40	Group photograph
	Lunch
13:20-14:00	Keynote address Ⅱ by Prof. DEMOULE（from Europe）
	Presentation of Participants' Reports
14:00-14:35	India
14:35-15:00	Recess
15:00-15:35	China
15:35-16:10	Indonesia
16:30-	Visit Zutou

Thursday, 20 March

8:45	Leave Hotel by Chartered bus
	Presentation of Participants' Reports
9:30-10:05	France
10:05-10:40	United Kingdom
10:40-11:00	Recess
11:00-11:35	Republic of Korea
11:35-12:10	Japan
12:10-13:30	Lunch
13:30-15:00	Discussion
15:00-15:30	Recess
15:30-16:00	Summary
16:00	Closing remarks
18:30-20:30	Reception at Nara Royal Hotel

Friday, 21 March

9:15-17:00	Tour of Related Site Ⅰ
9:00-11:00	Tour of Related Site Ⅱ（Participants in the Symposium）
13:00-16:30	International Symposium

List of Participants

China

Mr. BAI Yun Xiang
Deputy Director, Institute of Archaeology Chinese Academy of Social Sciences
27 Wangfujing Dajie, Beijing, 100710, China
tel: +86 10 65249694 fax: +86 10 65135532
E-mail: baiyx@history.cass.net.cn

France

Dr. Jean GUILAINE
Professeur au Collège de France
11, Place Marcelin-Berthelot 75005 France
Tel: +33 1 44 27 12 11
E-mail: guilaine@aurore.cict.fr

Dr. Jean-Paul DEMOULE
Professeur à l'Université de Paris
7 rue de Madrid,75008 Paris France
Tel: +33 1 40 08 80 83 Fax: +33 1 43 87 18 73
E-mail: jpdemoule@wanadoo.fr

India

Dr. R. C. AGRAWAL
Member Secretary, Indian Council of Historical Research
Ministry of Human Resource Development
35, Ferozeshah Road, New Delhi 110 001 India
Tel: +91 11 338 7877 Fax: +91 11 338 7829
E-mail: rcagrawal_asi_india@hotmail.com

Indonesia

Dr. Haris SUKENDAR
Director, Research Centre for Archaeology
Jl Raya Condet Pejaten No.4 P.O.Box 292/Kby
Jakarta Selaten, 12001 Indonesia
Tel: +62 21 7988171 Fax: +62 21 7988187
E-mail: arkenas@bit.net.id

Japan

Mr. IZUMI Takura
Professor, Nara University
1500 Misasagi-cho Nara 606-8501
Tel: +81-742-44-1251
E-mail: izumita@daibutsu.nara-u.ac.jp

Mr. OKAMURA Hidenori
Associate Professor, Institute for Research in Humanities, Kyoto University
47 Higashiogura-cho, Kitashirakawa Sakyo-ku Kyoto 606-8265
Tel: +81-75-753-6964 Fax: +81-75-753-6999
E-mail: okamura@zinbun.kyoto-u.ac.jp

Mr. KOMOTO Masayuki
Professor, Kumamoto University
2-40-1 Kurokami Kumamoto 860-8555
Tel: +81-96-342-2423 Fax: +81-96-342-2423
E-mail: komatop@gpo.kumamoto-u.ac.jp

Mr. SAKAI Takashi
High Researcher, Gunma Archaeological Research Foundation
784-2 Shimohakoda, Hokkitsu-mura, Seta-Gun Gunma-Prefecture 377-0061
Tel: +81-729-52-2511
E-mail: sakaitak@tg.rim.or.jp

Mr. NISHITANI Tadashi
Professor Emeritus, Kyushu University
5-4-30-3507 Kasii Higashi-ku, Fukuoka 813-0011
Tel: +81-92-671-6448 Fax: +81-92-671-6448

Mr. NITTA Eiji
Professor Kagoshima University
1-21-30 Korimoto Kagoshima 890-0065
Tel: +81-99-285-8909 Fax: +81-99-259-4844
E-mail: nitta@leh.kagoshima-u.ac.jp

Mr. MORIMOTO Susumu
Senior Researcher, Centre for Archaeological Operations
Nara national Cultural Properties Research Institute
2-9-1 Nijo-cho Nara 630-8577
Tel: +81-742-30-6854 Fax: +81-742-30-6841
E-mail: susumu@nabunnken.go.jp

Ms.YAMAGATA Mariko
Rikkyo University
6-13-12-401 Honkomagome, Bunkyo-ku, Tokyo 113-0021
Tel: +81-3-5976-3565
E-mail: myamagata@nifty.com

Republic of Korea

Mr. CHO Hyun Jong
Chief of Curatorial Department, Gwangju National Museum
83-3 Maegok-Dong, Buk-Gu, Gwangju, Republic of Korea
Tel: +82 62 571 7112 Fax: +82 62 570 7033
E-mail: archae@hanmir.com

United Kingdom

Dr. Caroline MALONE
Keeper, Department of Prehistory and Early Europe
British Museum
Great Russell Street London WC1B 3DG
Tel: +44 20 7323 8293 Fax: +44 20 7323 85588
E-mail: cmalone@british-museum.ac.uk

Secretariat

Mr. KANASEKI Hiroshi, Director
Mr. YOSHIOKA Toshiyasu, Deputy Director
Mr. KURAKU Yoshiyuki, Director of Programme Operation Dep.
Mr. KODA Yoshihiro, Chief

Cultural Heritage Protection Cooperation office,
Asia/Pacific Cultural Centre for UNESCO（ACCU）
Nara Prefectural Government Office
(" Horen Office ")
757, Horen-cho, Nara 630-8113
Tel: +81-742-20-5001, Fax: +81-742-20-5701
E-mail: nara@accu.or.jp