

New Discoveries in the Korean Neolithic Archaeology

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Abstract

One of the most significant recent discoveries in the Korean Neolithic Archaeology is the excavation of the Kosanni site in Cheju Island. This early neolithic site is dated between 10,000 and 6,000 B.C., filling a significant current chronological gap between the late Palaeolithic Age and the Neolithic Age and shedding some light on this important transition period. Another important discovery was made recently when carbonized rice remains were recovered from cultural deposits in the Kimpo area of central Korea and dated to around 2,000 B.C. This discovery provides an important clue for the study of rice cultivation in Korean Peninsula. In addition to the two traditional models on rice dissemination routes, another possibility is strongly suggested on the basis of these and other carbonized rice remains discovered in the Kimpo and surrounding area.

Many new archaeological surveys and excavations in the past decade in Korea have produced a new set of archaeological data and provided us with fresh opportunities to approach Korean prehistory with different perspectives. In particular, recent achievements in the study of Korean Neolithic archaeology have enabled us to reconstruct a new picture of Korean prehistory. In this short paper, a number of recent discoveries with significant cultural implications in the study of Korean Neolithic Age will be briefly introduced.

A series of recent investigations of a Neolithic site in Kosanni, Cheju-do, an island situated in the southern sea off the Korean Peninsula, has produced valuable archaeological information about the little-known transition period from the late Palaeolithic Age to the early Neolithic Age. The Kosanni site is located on the slope of northern seashore of the Island in Hankyong-myon, Pukcheju County.

After surface surveys and a season of excavation at Kosanni (fig. 1, 2), from June 10 to August 19, 1994, by an archaeological team from Cheju University Museum, a few thousand microblade tools and by-products as well as pottery sherds were discovered (fig. 3) (Lee Chongkyu 1995).

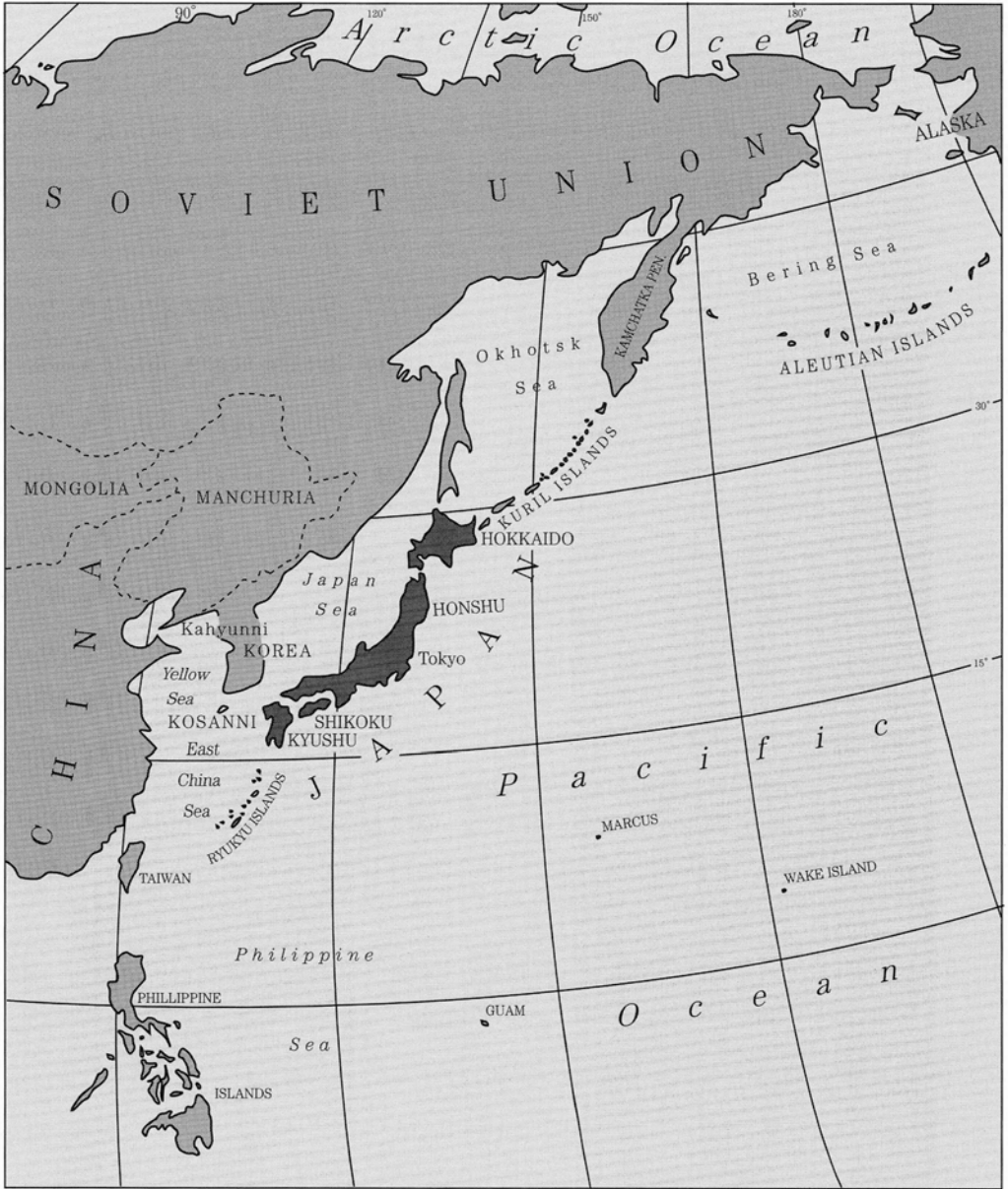


Fig. 1 Map of Japan showing its relationship to East Asia.

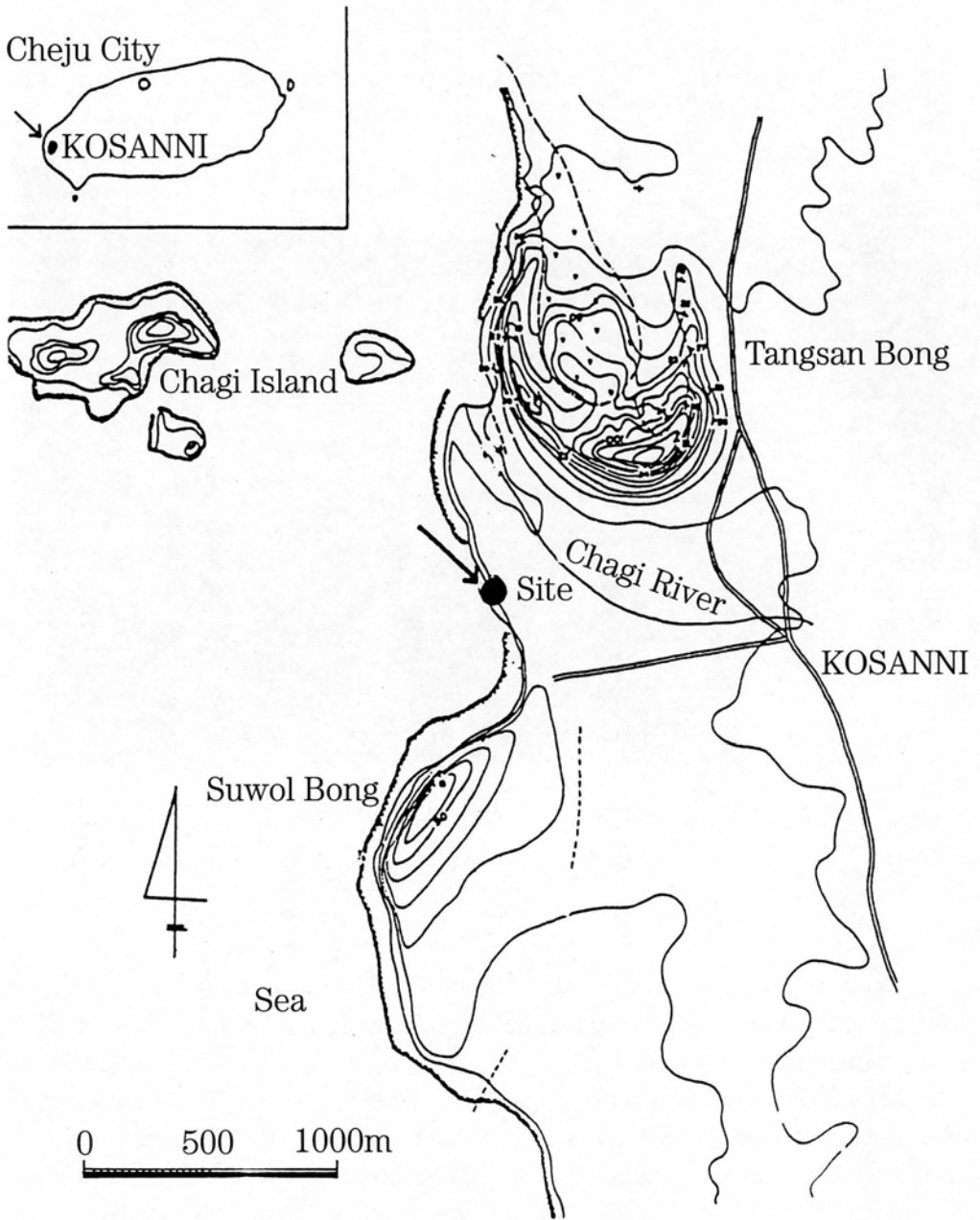


Fig. 2 Location of KOSANNI site.



Fig. 3 View of Excavation.

Among the archaeological remains there are 257 stone arrowheads, most of which are in the shape of an equilateral triangle with a short tang. This type of stone arrowheads has rarely been discovered in the mainland of Korea. Other stone tools include scrapers, engravers and other microblades. These stone tools were probably made by a pressure flint-knapping method, reflecting continuation of the earlier tool-making tradition of late Palaeolithic period (fig. 4, 5, 6, 7). Pottery sherds are numbered about fifty and are in brown color with no decoration on the surface. However, the traces of straw on the surface of pot sherds (fig. 8, 9) are very distinctive (Im Hyo-jai 1995).

The artifacts of the Kosanni site are different from ones that have been found in the mainland Korea. It is estimated that the relics of Kosanni belong to the period between the end of the Palaeolithic Age and the beginning of the Neolithic Age.

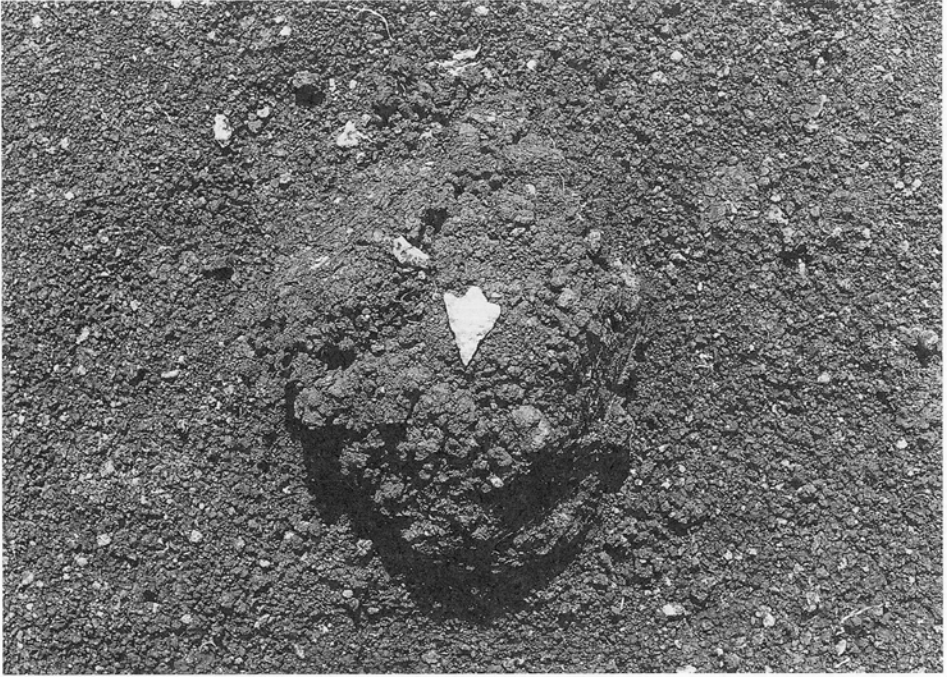


Fig. 4 Arrow head



Fig. 5 Arrow head



Fig. 6 Stone Artifacts

First of all, these artifacts were recovered from beneath the yellowish brown so-called Kikai-Akahoya ash layer (fig. 10). The eruption of the Kikai and Aira calderas in southern Kyushu, Japan, which is believed to have occurred between about 6,300 and 6,800 years ago, is known as the largest in the region of Kyushu (Arai Fusao 1995). As a result, the ash layers formed by the eruption have been located across a broad region (fig 11). These ash layers have been confirmed by geological surveys in the various areas such as the East Sea, Korean Peninsula, Cheju Island, and the ocean floor of the Indochina Sea (Im Hyo-jai 1995). The presence of the Kikai-Akahoya layer at the Kosanni site serves as *Terminus ante quem*, providing an evidence that the Kosanni remains must have been deposited before the Akahoya eruption (Im Hyo-jai 1995).

At the same time, the geographical environment of that time was by far more favorable for cultural exchange between the Korea Peninsula and Japanese archipelago, because two areas were nearer than today due to the rise of sea level (Im Hyo-jai 1995). Archaeological remains that are similar to those of the Kosanni site have been discovered in several places in Japan including Kamikuroiwa, Ehimeken (Esaka et al. 1967). Thus, it became possible to redefine the Palaeo-Neolithic Age because this and other discoveries in Japan can provide archaeological clues

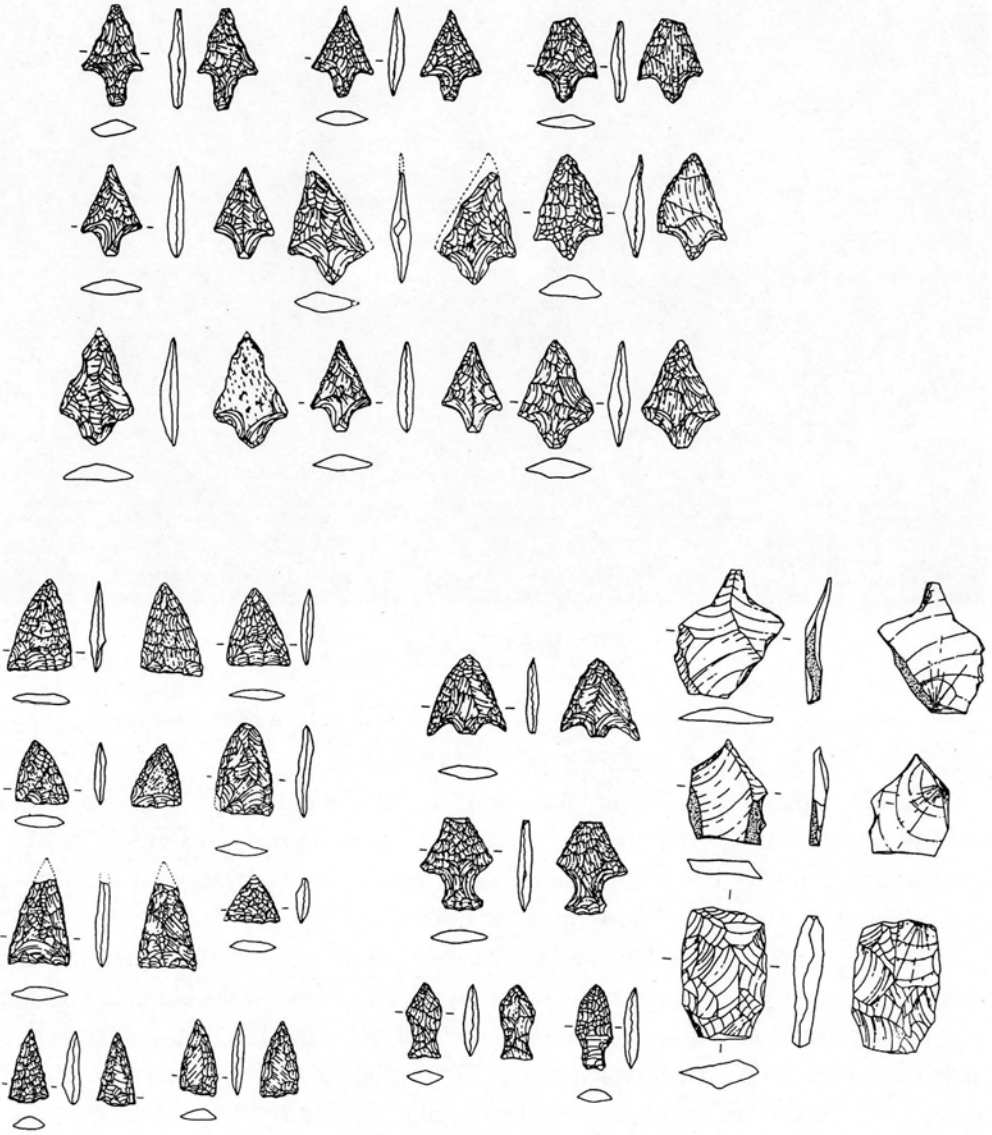


Fig. 7 Stone Artifacts

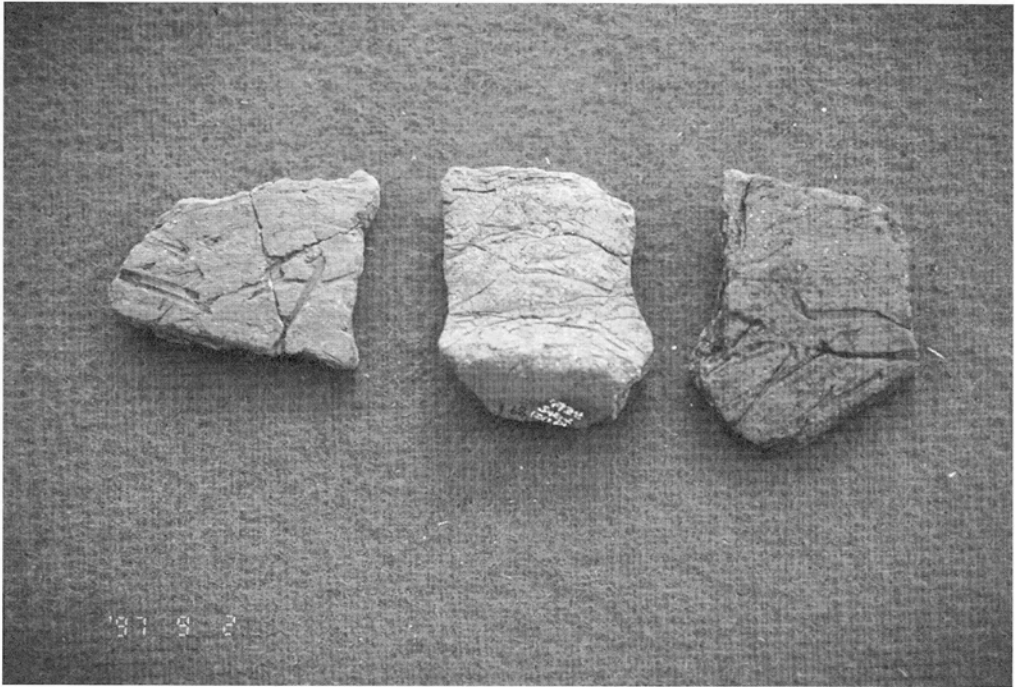


Fig. 8 Pottery

to the transition period from the end of the Palaeolithic Age to the emergence of the comb-pattern pottery culture in Korean Peninsula.

The investigation of this crucial period is considered to be helpful in removing the uncertainty of an important stage in Korean prehistory. Combined with a comparative study of the prehistoric relics of Japan, the excavation of the Kosanni site might serve to newly define the Palaeo-Neolithic Period.

Another important archaeological discovery was recently made in the Kimpo area on the west coast of central Korean Peninsula. Few archaeological investigation had occurred in this area due to the lack of scholarly interest and its location near to the borderline with North Korea. Beginning in 1986 the archaeological investigation team from Seoul National University, headed by the author, conducted an intensive survey of the area (Im Hyo-jai 1990). Archaeological remains such as stone axes, arrowheads, and grinding stones were collected and about a score of dolmens were confirmed during five field seasons of surface surveys and trial excavations.

In addition, carbonized rice remains were discovered from peat layers in several locations, yielding important data for the study of prehistoric agriculture in Korea (Im Hyo-jai 1992a). It is well known that peat of a good quality is frequently found at Kahyonni, Tongjin-myon, in Kimpo (fig. 12). Since peat, a highly

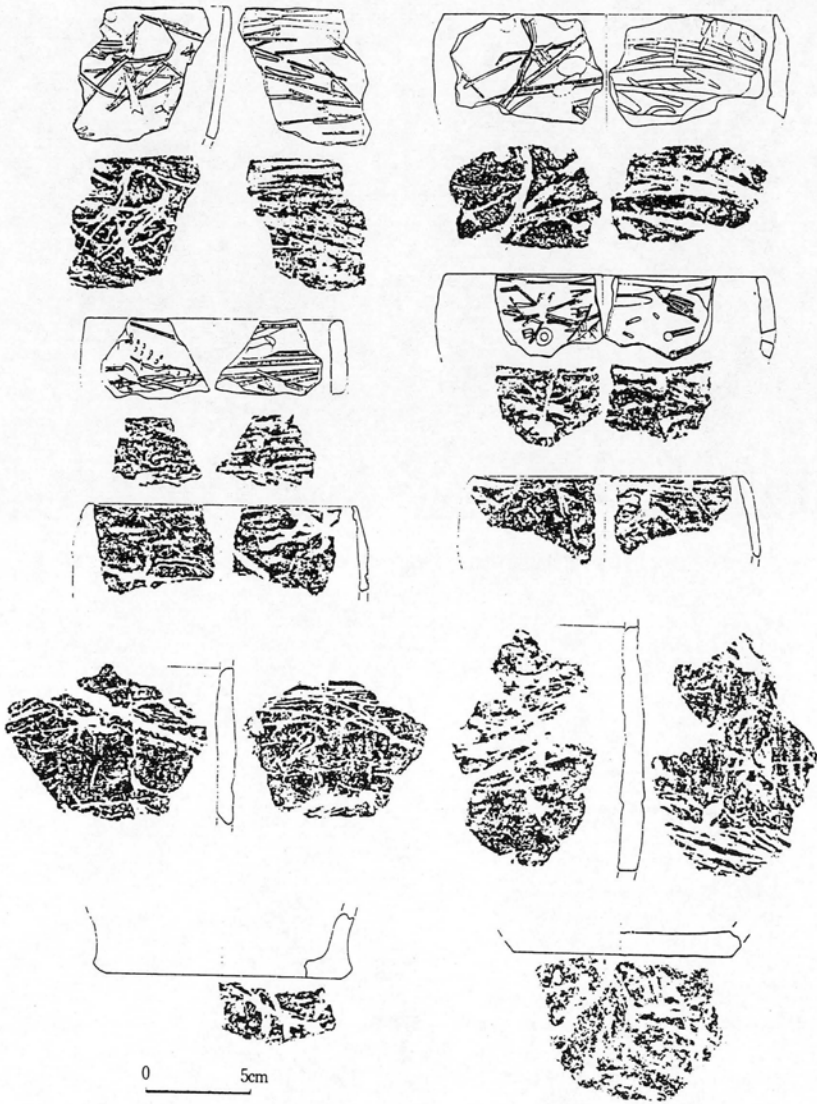


Fig. 9 Pottery

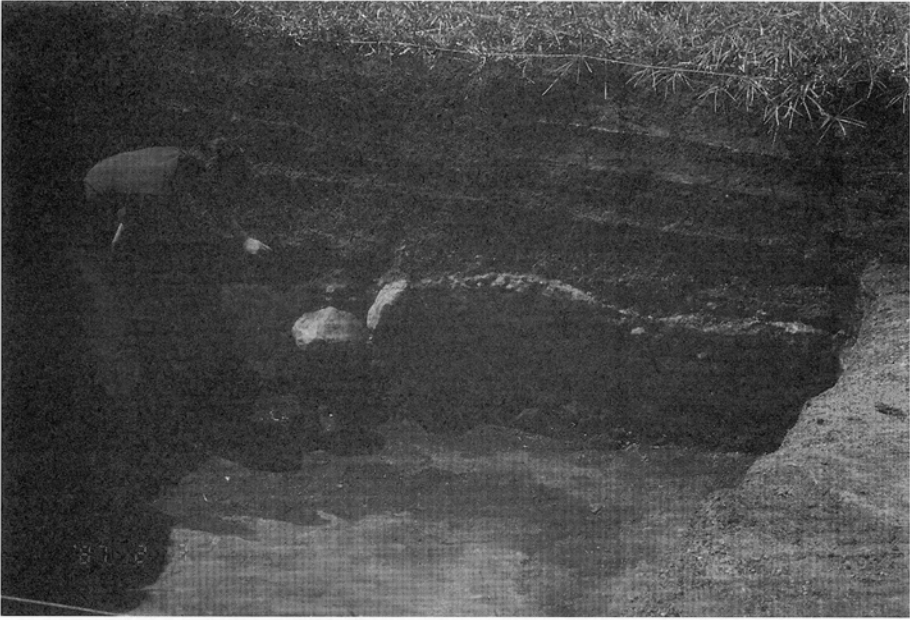


Fig. 10 Stratigraphy of KOSANNI site

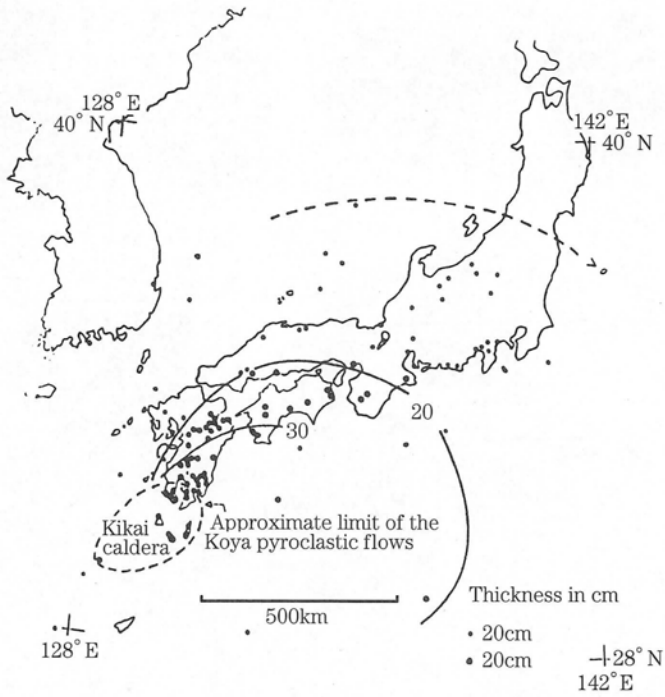


Fig. 11 Isopach map of the Kikai-Akahoya ash.



Fig. 12 Sampling of Kahyonni peat

organic soil, composed of partially decayed vegetable matter found in marshy or damp regions, is known to be highly combustible, it has been cut and dried for use as fuel since the early twentieth century. In the Kahyonni area, peat soil is sometimes as thick as a few meters over a wide area.

Several samples of peat were analyzed after contents were processed through a water flotation method, using a fine-grid screen. Plant leaves, many different kinds of grass, and unidentified seeds were easily recognizable. Cereal remains were then sent to Osaka Agricultural University in Japan for further analysis and rice (*Oryza sativa* L. Japonica) and millet (*Echinochloa crusga* II i L.) were identified.

Another peat sample from Kahyonni, Kimpo, was sent to Kyoto Industrial University in Japan for a scientific dating and the date of 4010 ± 25 B.P. was acquired. This date of around 2,000 B.C. suggests that the origin of rice cultivation in Korea may have been much earlier than previously thought (Im Hyo-jai 1992a).

In the past, the introduction of rice cultivation in Korea Peninsula had been considered to be around 1,000 B.C., on the basis of archaeological data and dating of the Hunamni site in Yoju in central Korea and the Namkyong site near Pyongyang. From the Houses nos. 12 and 14 of the Hunamni site, which is located on a low hill of the Namhan River valley, remains of carbonated rice (*Oryza sativa*

L.), foxtail millet (*Setaria italica* B.), sorghum (*Andropogon sorghum* B.), and barley (*Hordeum sativum* J.) were recovered (Seoul National University Museum 1978). Among the rice remains, thirty-one grains were completely preserved and of the so-called short rice. These are relatively smaller than those from the Songgungni and Namkyong sites. According to the several radiocarbon dates from the Hunamni site, these rice remains can be dated around the tenth century B.C. Along with the Namkyong site, the Hunamni site is regarded as one of the earliest sites in which rice cultivation was practiced for the first time in Korean Peninsula.

However, the rice remains from the peat deposit of Kahyonni in Kimpo and their related date indicate that the origin of rice cultivation in Korean Peninsula may have occurred about a thousand years earlier than previously thought.

Rice remains as well as their imprints on pottery sherds have been confirmed in many other places on the west coast of central Korea in the past ten years (Im Hyo-jai 1992b). Carbonized rice grains as well as stone agricultural tools were identified from peat deposits at the Kawaji (fig. 13) and Songjori sites, in Ilsan, Kyonggi-do (Hanguk Sonsa Munhua Yonguso and Kyonggi-do 1992). Some of these rice remains are thinner and longer than the typical Japonica-type rice and maintain some characteristics of the Indica-type rice (Yi Yungjo et al. 1994). Two

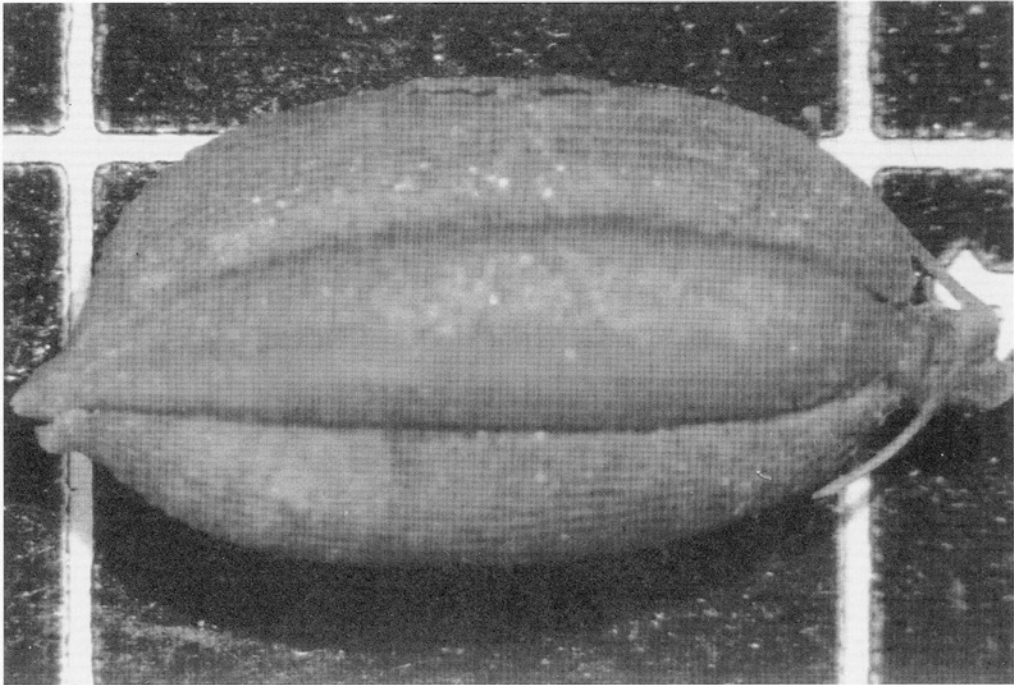


Fig. 13 Carbonized rice(Kawaji) near Kahyonni peat site.

related radiocarbon dates are known to be around 2,000 B.C. (Hanguk Sonsa Munhwa Yonguso and Kyonggi-do 1992).

One of the earliest evidence of rice cultivation in China is found at the Hemudu site on the lower reaches of the Yangzi River, which is dated to around 5,000 B.C. The introduction of rice cultivation from China to Korean Peninsula has been a major issue in Korean archaeology. At the moment, two contending hypotheses are presented. The northern-route hypothesis maintains that rice cultivation was introduced through northern China and northern part of Korean peninsula. The southern-route model claims that it was introduced from southern China over sea directly to southern Korean peninsula (Im Hyo-jai 1992b). However, recent archaeological data from Kimpo and adjacent areas present another possibility that rice cultivation was introduced from the lower Yangzi River valley directly to the western coast of Korean peninsula over sea. The presence of rice remains at Kahyonni may have been the result of this dissemination process of rice cultivation.

In this paper, two recent major achievements in the study of Korean Neolithic Age are briefly introduced. The excavation of the Kosanni site has filled a significant chronological gap between the Palaeolithic and Neolithic Age, and shed some light on this important transition period. The carbonized rice remains from the Kimpo might turn out to be a turning point in our study of the introduction of rice cultivation to Korean Peninsula. In addition to the two conventional models of rice dissemination route, another possibility is strongly suggested by a series of recent discoveries of carbonized rice remains in the Kimpo and surrounding area.

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