

Recent Archaeological Activity in North Korea (II)

THE SHELL MOUND AT SÖP'OHANG

Received 23 September 1966

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PALAEOLITHIC FIND

ONE of the more interesting finds in Korea in recent years has been the excavation of palaeolithic items from a shell mound at Söp'ohang, Kul-p'o-ri, Unggi-gun, North Hamgyöng Province. (A glossary of anglicized Korean words is provided at the end of this Article.) While a number of fossilized animal bones identified from geological strata as pleistocene, including those of the arctic hairy mammoth (*Elephas primigenius*), rhinoceros (*Rhinceros antiquitatis*), bison (*Bison exguus*), the wild cow (*Bos primigenius*), and several members of the deer, hyena, horse, goat, and rodent families, have been found near P'yongyang and at Tongkwan-chin and Ch'angdong-ni in North Hamgyong Province, until the recent find at Söp'ohang, there had been only one disputed find of pebble tools and implements of deer horn in a loess-like clay deposit identified as late pleistocene in the Tuman River area at Tongkwan-chin in 1939 (Naora 1940).

The Söp'ohang shell mound was excavated during the period 1960-1962, and a number of dwelling sites dating from the Neolithic period through the Bronze period were found in layers of the shell mound. North Korean archaeologists distinguish a Korean Bronze period whose limits they set roughly at 1500-500 B.C. This is not generally accepted by South Korean archaeologists. During the excavation in 1962, one roughhewn stone implement of quartz was found in a stratum of red clay beneath the shell mound. When it was later confirmed as palaeolithic, a further investigation of the site was begun.

The neolithic cultural layer ended some 220 cm below the surface. It was followed by a 75 cm stratum of sandy clay which in turn was followed by a 100 cm stratum of reddish-brown clay. Three roughhewn implements were found in the border region where the sandy clay and reddish-brown clay strata met, and two roughhewn implements were found in the reddish-brown clay stratum.

The implements had been fashioned from quartz and shale by work on two sides. North Korean archaeologists have given the name "Kul-p'o culture" to the site and remark that

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the implements are completely different from European palaeolithic items. Similar items from generally similar geological strata, they say, have been found in the Soviet Maritime Provinces.

To date, only a brief one-page notice on the palaeolithic find has appeared in *Munhwa yusan* 2 (1963:54) with a reproduction of the items carried as the frontispiece to the issue (Fig. 1).

However, a lengthy report was carried on the excavation of the shell mound (Kim 1961). A summary of this article follows under "Neolithic Site" and, excluding Fig. 1, all illustrations reproduced here are from that report.

While I was writing these pages, a brief notice appeared in the Seoul daily *Han'guk ilbo* on 27 April 1965, page 7, of a reported palaeolithic find on the bank of the Kum River at Kongju-gun, Changgi-myŏn, Changam-ni, South Ch'ungch'ŏng Province by a Yonsei University (Seoul) team headed by Pogi Son, director of the Yonsei University Museum. Some 500 items were recovered, 100 of which were intact and included blades, axes, scrapers, and diggers. The items were crudely fashioned from porphyry, quartzite, feldspar, and animal bones. The brief notice also mentioned that the excavation had gone through an 11 m deep clay stratum to the find.



Fig. 1 Paleolithic items from Söp'ohang.

NEOLITHIC SITE

Report of the Excavation

Geographical Location of the Site and the Excavation

Söp'ohang is located northeast along the seacoast some 20 km from Unggi station—geographically almost due east—not far from the Korean-Soviet border and at the tip of the Sosura peninsula. To the southwest are the large lakes Manp'ŏ and Söbönp'ŏ, and a relatively low mountain separates the area from the Tuman River estuary. The lakes are separated from the sea by only a few meters, with the result that the sea actually flows into the lakes. The degree of salinity is about the same in each, while salt-water fish, shellfish, and crabs are found in the lake. At hightide, fish such as the crucian carp enter the lake. At present, the lake contains primarily gray mullet, spotted sardine, crucian carp, and oysters. At Söp'ohang, there is a mountain that joins the mountain range on the border, and consequently there are

many wild animals in the area. Deer and boar are plentiful. The animal bones discarded in the mound of oyster shells indicate that an abundance of fish and game existed in the prehistoric period as well.

The shell mound itself is located to the north of the village of Söp'ohang, about 5-7 m up the slope of a mountain. The dimensions of the shell mound are as follows: width, 40 m; length, 100 m.

The shell layer was approximately 3 m thick, through which there were strata of yellow sandy clay and black humus. Earthenware sherds, stone, and bone items were found in the earth mingled with shell and in the shell layers themselves. Dwelling sites, fireplaces, and ashes were also found. The thickness of the cultural stratum was 2.8-3 m.

Some 184.5 sq. m were excavated during a forty-day period in June and July of 1960, and two cultural strata extending 2-3 m in thickness were investigated. Two sites were excavated: Site 1 in June and Site 2 in July. In the latter, however, work was suspended before the excavation reached the original ground level. The majority of some 18,000 items unearthed were earthenware sherds and animal bones. Some 80 pieces of earthenware were either complete or reconstructable, and stone and bone items amounted to some 850 pieces. One dwelling site was found at Site 1 and two dwelling sites were found at Site 2. Several other areas presumed by the concentration of cultural items to have been dwelling sites were also uncovered. The magnitude of the yield of this shell mound makes it uncommon, even in comparison with shell mounds excavated in neighboring countries.

The central portion of the southwest section of the site, which was the most important section, had been partially destroyed by the previous gathering of oyster shells, and the entire surface of this portion of the shell mound had been exposed. Site 1 was located at a spot some 30 m from the westernmost portion of the shell mound and away from the partially exposed area. The excavation at Site 1 was a strip 5-7 m wide running 17 m to the northwest. Site 2 was located in an undisturbed portion of the shell mound some 31 m from the base point and extended 12 m, with a width of 8 m. As Site 1 was basically the same as Site 2 in all respects, the present report includes only a few supplementary items from Site 1.

In general, the stratigraphy of the shell mound was a bit confused, and precise location by stratigraphy was difficult. The stratigraphy of Site 2 was, as far as the excavators were able to determine, as follows:

Black humus layer. Under the 20-30 cm thick layer of topsoil that covered the slope of the entire site, there was a dark humus layer some 70-120 cm thick in which shells were mixed with the humus. At spots in this stratum there were heaps of shells that at times ran to a thickness of 80 cm. From this stratum came many pieces of earthenware, stone, and bone items. A fireplace and a dwelling site were also unearthed here.

The basic type of earthenware was a black, burnished ware, but there were many painted vessels also. Forms included the *tanji* (small pot), *posigi* (small bowl), *taejöp* (large bowl), and *chopsi* (dish). Stone items included drills, arrowheads, knives, short daggers, needles, horn hoes, spoons, etc. An especially interesting find in the black humus stratum were several fragments of a female figure moulded of earth. Several other moulded or carved items of bone and clay were subsequently found.

The fireplaces were chiefly made by laying down a circle of rounded stones. In the dwelling excavated, evidence of four rows of posts were found which when erected would have formed a rectangular, semisubterranean dwelling.

In addition to oyster shells, the shells of several other bivalves were found in the black

humus stratum as well as a variety of snail shells and fish bones. Animal bones included those of the deer, dog, pig, bear, and a variety of fowl.

The designation *Cultural Level 2* was given to the black humus stratum; however, it is believed that further study will reveal that this can be subdivided into two or more cultural levels.

Yellow sandy clay stratum. Beneath the black humus stratum was a stratum composed basically of yellow sandy clay or loam. This stratum began 70–120 cm from the surface and continued to a depth of 280–300 cm. Thus, this stratum had a thickness of 150–180 cm. This stratum was not found to be as uniform as Cultural Level 2, for in some spots the sandy loam was relatively thick, while in other spots there were accumulations of oyster shells which exceeded 1 m in depth. From this stratum came a great quantity of earthenware sherds, stone and bone items, while several bone items with decorative designs incised were also found. The excavated items, the dwelling sites, and the fireplace unearthed from this stratum were vastly different from those found in Cultural Level 2. There were no undecorated earthenware pieces, and while the types of vessels found were generally similar to those from Cultural Level 2, their form was quite different.

The majority of the designs found on the earthenware belonged to the comb-ceramic group, and while the lines were incised, the rows of dots had been made by pressing an implement on which the design had been carved into the paste. Other designs found included the spiral decoration and the lightning-flash design.

In the group of stone items were such items as axes, arrowheads, knives, small pounders, and net weights. In addition to a number of bone items generally similar to those from Cultural Level 2, there were harpoons with barbs, a cylinder gem made of nephrite, some carved items which seem to have been amulets or talismans, and some other carved items of bone.

It was decided to call the yellow sandy loam stratum *Cultural Level 1*, and it appears that in the future, three or more cultural levels will be distinguishable within this stratum.

A layer of shells extended for some 70 cm beneath Cultural Level 1 and beneath the shell layer were the stones of the original ground base.

Dwelling Sites

Three dwelling sites were found, two at Site 2 and one at Site 1. One was apparently from Cultural Level 1 and the other two were from Cultural Level 2. The following identification numbers have been used:

Dwelling 1: Site 1, Cultural Level 2

Dwelling 2: Site 2, Cultural Level 2

Dwelling 3: Site 2, Cultural Level 1

Dwelling 1 was a rectangular dwelling site already largely destroyed by the gathering of oyster shells from the shell mound mentioned earlier. The shoulder line of the dwelling site began about 30 cm below the surface. It was some 50 cm from the shoulder line to the floor of the dwelling. The floor of the dwelling had been firmed up with clay, and the destroyed fireplace was located approximately in the center of the dwelling.

Directly inside the lines of the two remaining wall sections were holes for posts. At the wall to the north, 6 pillar holes had been laid out in almost a straight line extending over a length of 3.5 m. The length of the remaining portion of the east wall was about 3.7 m. Then, 4 postholes linked the east wall in a straight line. Inside the dwelling, there were several

holes without apparent arrangement which appeared to have been for additional supporting posts. Parallel with the postholes, along the northern wall and separated from them about 1 m, were a row of 5 holes. The size of the postholes was a general diameter of 15–30 cm and a depth of 15–20 cm. Apparently, this dwelling site had 4 rows of posts for support of the roof similar to those associated with bronze-period sites in northeastern Korea and the Soviet Maritime Provinces.

The fireplace was made of rather small rounded stones which were spread out, judging by the remains, in a rectangular shape. A layer of red clay had been placed under the stones, while a layer of red baked clay 5 cm thick lay on top of the stones. The area about the fireplace was covered with black ash, and some 20 clam shells (*Mactra sachalinensis* Schrimmer) were scattered about in the ash. Some 60 cm from the fireplace was a large smooth rock. East of the rock near the fireplace was an overturned, undecorated crossbeam. A whetstone was found some 10 cm from the posthole in the northeast corner, and a little further away, some 25 clam shells with holes drilled in them were found in a group. They were apparently weights for fishing nets.

Many items were found on the floor of the dwelling and in the strata of deposition within the dwelling. These included earthenware sherds, obsidian arrowheads, axes, and a large variety of bone items.

Sherds of black, polished, undecorated earthenware were the most numerous sherd finds, but there were also some pieces which had flared mouths with a raised band encircling them.

A few pieces of colored, polished vessels were also found. Fragments of a small, red, polished *tanji* (small pot) collected during the excavation seemed to have come from the floor of this dwelling.

Of especial interest were the various types of modelled and carved items: (a) a bone spoon exquisitely made with diagonal lines of holes 1 mm in diameter as decoration, (b) a carved ornament of shell, (c) ornaments made of teeth, and (d) a figure of a woman fashioned of earth.

Dwelling 2 was found at Site 2 in the course of excavation of a pit filled with oyster shells. The east, west, and north shoulder lines of the dwelling appeared during the course of removal of the oyster shells and about 1 m further down, the line of another section of the wall appeared. Following the shoulder line to a depth of ca. 40 cm, the floor of the dwelling was reached. The floor had been made firm with earth. The shoulder line of the dwelling began in Cultural Level 2 in the black humus layer and continued into the yellow sandy loam strata of Cultural Level 1. A section of the floor of this dwelling had been destroyed by the pit in which oyster shells had been heaped. A portion of three walls of the dwelling could be ascertained: northeast, northwest, and south.

Directly inside the northeast wall line, set some 1.2 m back, were 4 postholes; there were 2 at the northern edge, and directly inside the western wall line, there were 2 more. The diameter of the postholes was 15–37 cm with a depth of 20–30 cm. The southern portion of the dwelling had already been destroyed, and only a portion of the fireplace remained. The fireplace was of hardened earth of a thickness of 15 cm; its east-west length was 95 cm, and the remaining portion of the north-west length was 20 cm.

At a level some 10 cm lower than the floor of this dwelling, at a distance of 1 m from the south side of the dwelling, 2 fireplaces were found, separated by a distance of some 40 cm. These fireplaces were made with large stones placed in a circle. It was evident that the dwellings to which the fireplaces had originally belonged had been destroyed when Dwelling 2 was erected.

Many items came from the floor of the dwelling and from the accumulated deposits on the floor. Representative items included: red-colored, polished vessels and black polished vessels; bone drills, delicately fashioned bone needles, bone arrowheads, items made of green and black stone and obsidian such as arrowheads, axes, net weights, and spindle whorls.

The pieces of 5 or 6 colored, polished vessels were found, among which 1 *taejöp* (large bowl) was completely reconstructable, while the forms of *tanji* (small pot) and *posigi* (small bowl) were also apparent.

Two armlets or bracelets made of shell were found on the floor of the dwelling as were finger rings made of pumice or shell and several ornaments made of animal teeth.

Dwelling 3 was a semisubterranean dwelling that was circular in shape and had a diameter of 4.2 m. The shoulder line of the dwelling began about 2 m below the surface. The dwelling was located midpoint in Cultural Level 1. Continuing through several divisions of accumulation, the floor of the dwelling appeared about 2.7 m below the surface. The floor of the dwelling was on top of a pure oyster-shell deposit over 70–100 cm in thickness. A thin layer of clay into which oyster shells had been mixed had been used to pave the floor, and the floor was then baked, making it as hard as concrete. A similar floor was found at the lowest level of Cultural Level 1 at Site 1.

Following the edge of the dwelling at intervals of 70–120 cm were postholes laid out in a circle. However, in the north were 4 postholes running in a straight line. Since there were no facilities for an entrance anywhere else, it was assumed that this might have been the entrance. The majority of the postholes were roughly the same size, but a few were almost twice as large as the others. A fireplace was located in the center of the dwelling. An ovoid of stones was formed, and then some of the earth was scooped out from inside the fireplace. In the fireplace was a 10-cm thick layer of soft white ash. Below this was the clay and oyster-shell bottom of the fireplace. Many burnt bone fragments were found in the soft white ash.

From the floor and the accumulated deposit within the dwelling came a variety of items including many decorated vessels, net weights, stone axes, stone arrowheads, and bone items. Among the bone items were harpoons and drills of every shape, piercing implements, and decoratively carved pieces of bone. The bones of a deer and the jawbone of a dog were found on the floor of the dwelling.

Excavated Items

Stone implements included those made by chipping pieces of obsidian or flint and those fashioned by polishing and grinding crystalline shist and green-colored rock. There was a great variety of bone implements and earthenware, while spindle whorls, ornaments, and carved items were plentiful. Many animal, fowl, and fish bones, as well as a variety of shells were found. But not one item associated with the metallic period was found, nor were any high-footed earthenware vessels associated with early iron-age sites unearthed. A brief description of artifacts by type follows.

Earthenware. A precise distinction could be made between the pottery from Cultural Levels 1 and 2. The flowerpot shaped *tanji* was overwhelmingly numerous in Cultural Level 1, with a considerable number of small *taejöp* (large bowl) also evidenced. In Cultural Level 2, black polished vessels were the overwhelming type found. Some flowerpot shaped *tanji* were found, but the principal forms were a *tanji* (small pot) resembling a water jar, *chopsi* (dish), *taejöp* (large bowl), and *posigi* (small bowl). There was practically no design on the

black polished vessels, while many of the *tanji* had a furrowed design around the lip, and there were some which had raised designs around their mouths. There were also many polished, red-colored vessels which had been painted red and then highly burnished. There was a great difference in the form of the earthenware from cultural levels 1 and 2. Representative of the plain earthenware were *tanji*, *posigi*, *taejöpp*, and *chan* (cup).

Earthenware from Cultural Level 1:

Cultural Level 1 was very thick, and because there was some confusion in the strata, for purposes of discussion, the earthenware from the floor of the dwelling site and from the accumulated deposits inside the dwelling site will be lumped together.

Tanji and *posigi* were found both in the accumulated deposits and on the floor of the dwelling. The *tanji* were flat-bottomed vessels of a height of 20–28 cm, with the diameter of the base being 10–15 cm. The mouth was about twice the size of the base, giving the vessel a flowerpot shape. The walls of the vessels were thick at the base but gradually thinner towards the lip. The thickness at the base was about 1.8 times the thickness at the mouth. The vessels had reddish and blackish spots. A pliable clay was used, and fine sand was mixed into the clay. Slightly below the lip and extending almost to the base was a decoration of fine parallel lines about 2 cm in length, horizontally oriented. There were also vessels with a similar decoration, but with lines running obliquely. Different kinds of instruments were used to make the different designs, as some lines were drawn very sharply while others were broad. Other designs included a disorderly arrangement of short lines that reminds one of the larch-leaf design found on the comb-ceramic ware, except that the latter is an orderly arrangement.

Four or five *tanji* with comb-ceramic designs made by impressing a manytoothed implement into the clay were also found. The points of the “comb” implement used to decorate the vessels were not sharpened but were apparently flat, four-cornered tips. A twisting design had been impressed horizontally.

Very few *posigi* were found, and all of them were coarsely made. The form was similar to the *tanji* with these dimensions: height, about 7 cm; diameter of base, 4 cm; and thickness at the base, 1 cm.

Cultural items found outside the dwelling site of Cultural Level 1, especially those found far above the shoulder line of the dwelling, will probably enable several distinct cultural levels to be determined in later excavations. In the upper portion of Cultural Level 1, close to Cultural Level 2, an unusually wide, flower-pot shaped *taejöpp* (large bowl) was found. The height of the vessel was 12–15 cm, and the base was only one-third the diameter of the mouth. Some *taejöpp* found in this area were decorated, and some were reddish-black without decoration. The decorated vessels looked exactly like examples found at a neolithic site at Nongp'o-ri, Ch'öngjin, North Hamgyöng Province and at Site 1, Kullaskaya (phonetic) in the Soviet Maritime Provinces.

The *posigi* (small bowl) were of similar appearance to the *tanji* but, a difference in height was noticeable with the former all being 10 cm or so in height. The color of the earthenware was black. However, there were more reddish-black *posigi* and *taejöpp* than black ones. The earthenware carried a variety of designs. No particular connection was seen between the form of the vessel and the design it carried.

The designs were of six general types as follows:

1. Comb-ceramic larch-leaf design. This design is widespread and found in neolithic

sites in Korea and northeast into Siberia. Diagonal lines are drawn lengthwise over the entire body of the vessel giving an impression something like a larch-leaf (Fig. 2). Another type of comb-ceramic larch-leaf design is made with an implement like a toothed-comb, and the strokes are shorter than the usual larch-leaf design.

2. The upper half of the vessel is decorated with a mixture of lines and dots. The dots are arranged in triangles with every other triangle upside down. Between the triangles, five or more parallel lines are drawn (Fig. 3). On some of the larger vessels the design was carried onto the lower portion of the vessel, but the triangular arrangement was not closely followed (Fig. 4).
3. Practically the entire body of the vessel was decorated with parallelograms with lines slanting in contrasting directions. A somewhat similar design has vertical rows of Vs with the lines of Vs slightly overlapping (Fig. 5).
4. An impressed row of small scratches circled the upper third of the vessel, apparently impressed by a four-toothed "comb" implement. The lip of the vessel curved slightly outward, and a row of dots was stippled around the lip (Fig. 6).
5. The upper two-thirds of the vessel was decorated with parallel rows of short, incised marks made with a two-toothed "comb" implement. These pieces were generally black in color with the lip recessed. About 2 cm below the undecorated, recessed lip, a raised band decorated with a single line of dots girded the vessel (Fig. 7).
6. Spiral design. The form of the vessel was more sophisticated than the comb-ceramic ware. A wide body with the lip curved outward distinguished this small *tanji*. The spiral decoration was that of a linked series of inverted commas or a lazy-S series, enclosed in a band by lines above and below (Fig. 8). This is the first piece of such earthenware ever found in a Korean prehistoric site. It appears similar to vessels found in neolithic sites located along the Amur River. Several sherds with a similar decoration have also been collected in the area of Kōmun-gae Pong, Yusōng-gun.

Several sherds of earthenware with a lightning-flash design were also found. Small circles were also found incised on some of these sherds, apparently with the leg bone of a bird. The sherds appeared to be the same quality of earthenware as that with the spiral decoration.

An oak-leaf design was found on the bottom of some vessels (Fig. 9) while a sherd of the inside bottom of a vessel from Dwelling Site 3 carried a pattern of stamped impressions.

The upper sections of Cultural Level 1 contained chiefly vessels with designs 3, 4, and 5, types that were wholly absent from the floors of the dwellings and the accumulated deposits inside the dwellings at the lower section of Cultural Level 1.

Earthenware from Cultural Level 2:

The common pottery types in Cultural Level 2 were red painted pottery and black pottery without decoration.

The red painted vessels were, for the most part, small *taejōp* or *tanji*. A complete *taejōp* was found in Dwelling Site 2. The vessel was made with an extremely pliable clay and the thickness of the walls was 2-2.5 mm. Among the red painted vessels was a small round *tanji* with a long neck. The red painted vessels were all highly burnished and the bottoms of several pieces had been burned black.

The black burnished earthenware was the basic type found in Cultural Level 2. Among



Fig. 2
Larch-leaf design.

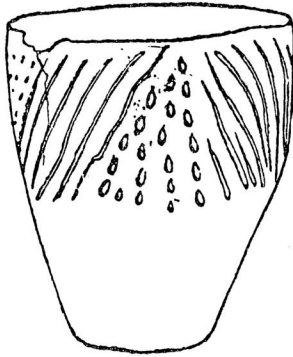


Fig. 3
Design on a *tanji*.

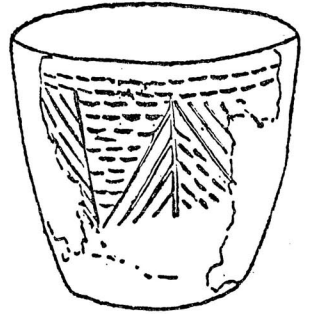


Fig. 4
Design on a *posigi*.

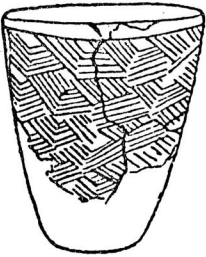


Fig. 5
Overlapping V-design.

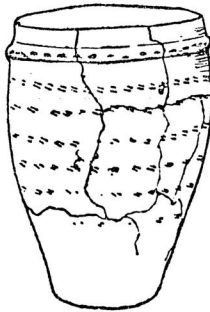


Fig. 6
Incised design on a *tanji*.

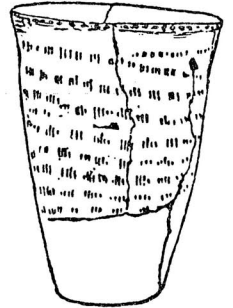


Fig. 7
Incised design on a *tanji*.



Fig. 8
Spiral design.

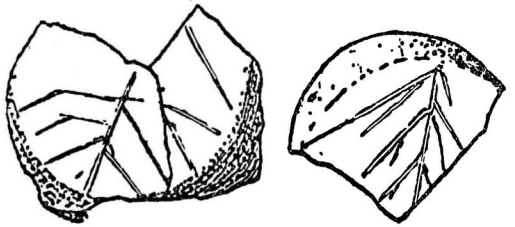


Fig. 9
Oak-leaf design.

the black burnished vessels were *tanji*, *posigi*, *taejöpp*, and *chopsi*. The form of many of the *tanji* was quite different from *tanji* found in Cultural Level 1.

The *tanji* were generally as follows: the first type was a flowerpot-shaped vessel with the lip turned slightly outward and with a raised band decorated with a single row of dots circling the lip. The second type was a small grayish *hangari* (large pot) shaped like a water jar. The third type was a long-necked *tanji* with a distinctive body which had been highly burnished, but not painted, and it was blackish in color.

In addition, *chopsi*, *taejöpp*, and *posigi* came from Cultural Level 2. Among them were black polished items and also some brown pieces. The bottom of the *chopsi* were distinctive, and there were some which had a low foot.

Some comb-ceramic ware also came from Cultural Level 2. However, no comb-ceramic pieces were found on the floor of the dwelling, but rather all came from outside the dwelling site, and so there is little doubt that the comb-ceramic pieces were associated more closely with the deposits of accumulation.

Several spindle whorls were found in the lower portion of the cultural level. The overwhelming majority were oval-shaped. There were 2 pieces found that were fashioned from pottery fragments. Decorations included: fingernail design, design made with a thin point, and a raised design, generally following the designs found on the pottery.

Decorations and items modelled from earth. Found in Cultural Level 2 were 6 pieces of images of female figures. The head portion of 1, 5 portions of the body, and 1 complete torso section were found (Fig. 10). The head portion was flat and the jaw portion was pointed. Three round holes were bored into the head, representing the eyes and mouth. A slender neck connected the body and the head. Two holes had also been bored in the neck, probably representing ears. The body resembled a statuary bust, and two breasts were indicated below the shoulder line, symbolizing a woman. One intact, half-finished figure appeared to be a "neck" between a head and body; however, neither breasts nor face were delineated. Only 1 other similar figurine is known, and it came from a site at Ch'ongjin, Nongp'o-ri; no other known finds similar to these have been discovered in Korea or the bordering regions of the Soviet Maritime Provinces. However, a similar item of bone was found in Cultural Level 2, and it will be described in detail later with other objects of bone.

Several rings and beads made of earth were also unearthed. Most were broken, and it was impossible to ascertain their original forms, although the cylinder beads made of earth had a length of 3-5 cm.

Stone items. The stone items were chiefly made of flint, obsidian, clay-slate stone, and a green-colored sedimentary rock. Other stone used included pumice. Many obsidian items came from the upper portion of Cultural Level 2, but none from the lower part of Cultural Level 1, and it is especially notable that not even one obsidian item was found in Dwelling Site 3. There, instead of obsidian items, items made of a hard green-colored stone, crystalline schist, and diorite were found. Representative of the stone items were arrowheads, axes, adzes, drills, hoes, spearheads, knives, etc.

Arrowheads (Fig. 11):

Obsidian and clay-slate stone were the materials used. These arrowheads had been made by chipping, and there were many which were then further worked by pressure flaking. Some of the clay-slate stone arrowheads had honed edges. The form of the arrowheads was generally the same in the upper and lower portions of the cultural strata. Representative

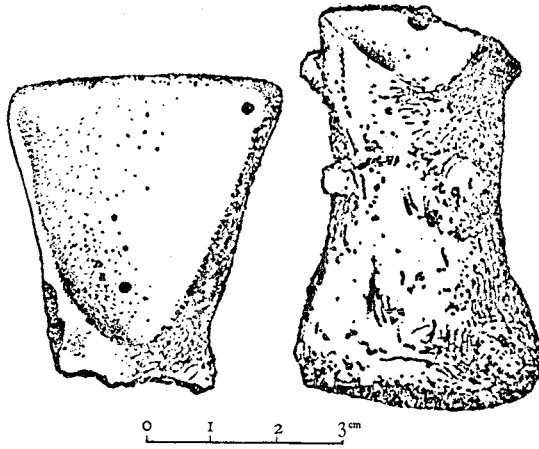


Fig. 10 Female figure of earth.

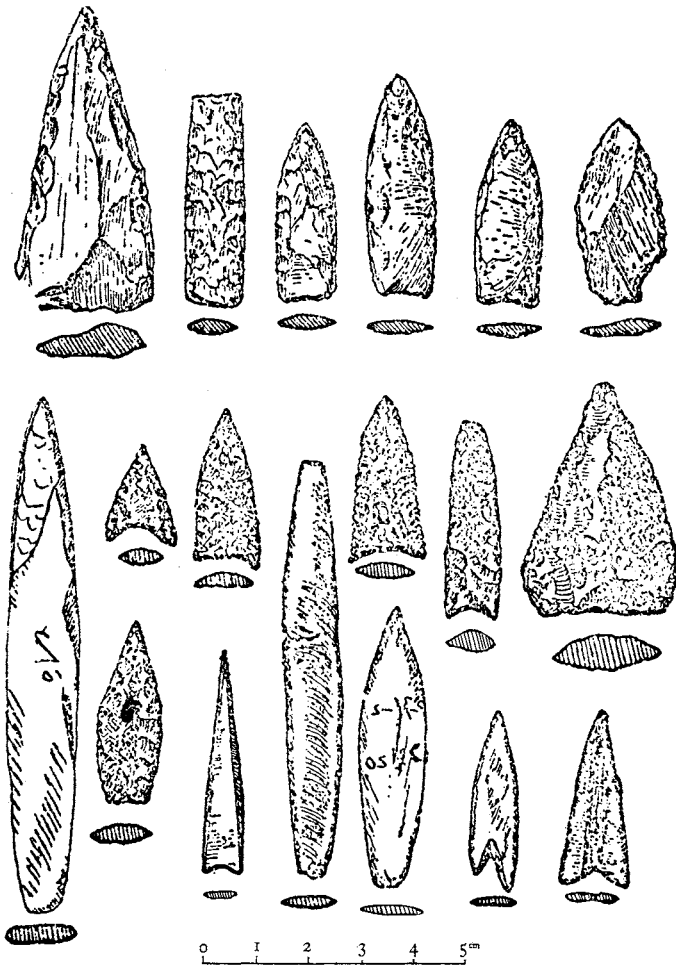


Fig. 11 *Top*, rough hewn arrowheads of flint; *center*, arrowheads of argillite. of obsidian; *bottom*, polished.

forms of the arrowheads were a leaf-shape and a long isosceles triangle. Among them were both notched and convex bases with the majority being notched.

Among the polished stone arrowheads were those which in cross section were hexagonal and those which were lens-shaped. Two of the clay-slate stone arrowheads were grooved on both sides; these pieces came from Cultural Level 2, and not one of them was angular in cross section.

The arrowheads were 1-5 cm in width and 3-4 cm in length. Some had a length exceeding 8 cm, but these were probably used as piercing implements. Some of the piercing tools made of clay-slate stone were round in cross section like a drill, and a handle area had been fashioned by flattening both sides of one end. Many piercing tools made of bone were also found.

Axes and adzes:

In comparison with other tools, there were very few axes and adzes found. Only 25 were found in this excavation, and the majority were fragments of blade or body. Only 10 complete items were found while about two-thirds of all the axes came from Cultural Level 1. A brief description of the types of axes found follows:

Axe Type 1 had a broad blade, but the body gradually narrowed towards the blunt end; some even ended in a point: 3 axes of this type were found in Site 1, Cultural Level 1. A chisel was found together with the axe. The chisel was made of a soft green stone that was flat on one end and round on the other. The blade of the chisel was convex in cross section; it had a length of 7.5 cm, width 3 cm, and a thickness of 1 cm. The cutting edge was honed in a single direction. The axe found with it was sharpened on both ends and came from the highest portion of Cultural Level 1. The size was similar to the other axes; length 9.5 cm, width 4.5 cm.

Axe Type 2 from Site 2, Cultural Level 1, was found on the floor of Dwelling 3, at the lowest portion. The cutting edge and the body were of the same size, but the body gradually narrowed towards the blunt end. However, it was not pointed like the first axe type. Both edges had been elaborately honed. A greenish rock-crystal was the material used. In cross section it had four angles, and in size it was a bit shorter, but generally similar, to the first type. The majority of these were made of a hard greenish rock or of sandstone and most were in fragments.

Axe Type 3 was found in Cultural Level 1, Site 2, Cultural Level 2 at the point of contact with Cultural Level 1. The form was similar to Axe Type 2, but the edge was slanted to one side, and in cross section it was lens-shaped. Judging from the appearance of the accumulation in which they were found, I assume that they belong to Cultural Level 1. Similar axes have been found in comparatively similar neolithic sites in northeastern Korea, in the Soviet Maritime Provinces, and in other bordering areas. This third type of axe was cylindrical. It was larger than the other two types, and in cross section it was round or lens-shaped. Like Type 1, the body gradually narrowed, proceeding away from the blade.

Some 10 axes were found in Cultural Level 2. In Cultural Level 1, many axes resembling Types 1 and 2 were found. However, there was a difference in size; the axes of Cultural Level 2 were much larger than those of Cultural Level 1.

A lone example of an axe 26 cm long came from the upper part of Cultural Level 2. It was round in cross section, and no other examples were found that were longer than this one. Among the axes found in Cultural Level 2 were many large axes of a thickness of

2-3 cm and width of 7-8 cm. Although all were broken, they were generally over 15 cm long.

Several fragments of adzes, chisels, and scrapers made from hard, greenish rock-crystal or clay-slate stone were also found. They were flat and very small in size.

Stone hoes found in the North Hamgyōng Province area are rough-hewn, and the majority have shoulders, although some examples without shoulders have been found. No hoes were found in Cultural Level 1, but a few came from Cultural Level 2. Cultural Level 2 also produced stone spearheads, stone daggers, stone knives, a stone cutting board, and many flints.

Bone items. In the great quantity of bone items obtained from the excavations, no special differences were evident between types found in Cultural Levels 1 and 2 and, therefore, no distinction by cultural level has been made in the descriptions which follow. Long limb bones, vertebrae, teeth, and horns were the materials used. Drills were especially common. Also found were long slender arrowheads, harpoons, short bone daggers, bone arrowheads, needles, carved items, spoons, ornaments, decorations, and a number of unidentified bone items. The drills were made of vertebrae and appeared to have been easy to handle. Among the drills were some with blunt ends or with ends that had been intentionally squared off, and these were the ones which were decorated.

Some 10 short daggers of bone were found, 2 of which were complete. The general length was 25 cm or more, and the width was 2.5 cm. Long limb bones split in two were used and the edges and end portions were elaborately honed. There was also a spearhead shaped like a willow-leaf which was a bit smaller than the short daggers. This spearhead was also made with a long leg bone split in two; it was worked on one end, and in cross section it was square.

Some 15 harpoons were found, 10 of which were complete. All were barbed—the larger ones generally had barbs on both sides; the smaller ones, on one side only. The tip was blunt and swollen. However, in those with thin bodies, there was only one barb, and the head portion was pointed like a drill.

The bone arrowheads were shaped like a viper's head at the tip. In cross section, the tip was an isosceles triangle and worked to a very sharp point. Generally, these arrowheads were manufactured from animal teeth, especially the front teeth of the mountain pig; the horns and limb bones of deer were also used.

Many longer narrow arrowheads were found that may be divided into two groups on the basis of form.

The first is a type commonly found in sites of the Neolithic or Bronze periods. It is long, slender, and round or rhomboid in cross section; the head is flattened on two sides to fit the wooden shaft precisely. The length is usually 10 cm or more with an overall width of 0.5 cm.

The second type is a big-bodied type of a general length of 15 cm. It has a tip which bulges at the midpoint dividing the tip and the body. The length of the tip is about 4 cm overall, with a width of 1.5 cm or more, while the width of the body is about 1 cm overall. The end of the body is sharp like a drill. Accordingly, the end portion in cross section is close to a rhomboid, and beyond the bulge is a flat body that has four corners in cross section.

Some 20 horn hoes were unearthed from Cultural Level 1. Chiefly, deer horn was used. They were of a length of 15-25 cm and a width of 4-5 cm. Some were round in cross section while others were four cornered. The tip section of one was shaped like a viper's head, and it appeared to have been used as a spearhead.

A large number of other bone items were found including: spoons, knives, tools for decorating, etc.

Decorations and ornaments. A special distinction of the Söp'o-hang site was the great number of decorated items and ornaments collected. In addition to the female figures and the bone decorations and ornaments mentioned already, there were a large number of ornaments made of animal teeth, shells, and jade. A brief introduction to some representative items follows.

Bone decorated pieces (Fig. 12) may be divided into three types. First are the figures of women mentioned earlier. These were made with the head separated from the body; the body gradually comes to a point towards the foot. The head was square, and in the center of the lower part of the head was a single hole; in the upper portion were two holes. These are believed to represent the eyes and mouth. Seven holes had been drilled about half-way down the body in a sort of circle; inside the circle was a single hole. The piece appears to designate a female

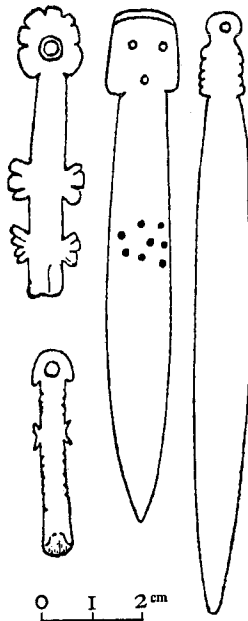


Fig. 12 Carved pieces of bone.

figure. It is interesting to note that the face has been decorated with three holes, the same as the face of the earthen female figure.

Another sculptured piece resembled a decorative letter opener. The tip was sharp and the head portion was carved. Here the head was small and the neck shortened, and below that the breasts were indicated. The head had a hole bored through it, and lines had been carved on the breasts on both sides, giving them a wrinkled appearance. The length was 11.5 cm, and the piece was no more than 1.5 cm wide. This also appeared to be symbolizing a female figure. The basis for this assumption is that there was a large symbolic spot below the waistline of the figure.

Two other pieces were found, but only the upper portion remained of each. Like the

second type mentioned above, a short neck divided the head and body, and below that were two pairs of "wings." The round head had been notched, and a hole had been bored through it. The "wings" were also notched in two or three places. Many of these decorated items came from Cultural Level No. 1. A few came from the lowest portion of Cultural Level 2, yet it would appear that they probably all belong to Cultural Level 1. A number of other decorated pieces whose use was unclear were also unearched. Among them was a piece of deer horn decorated with delicate lines with a hole bored through one end.

Representative ornamental items included a variety of pendant ornaments made of the teeth of dogs, pigs, and other animals, and 8 small rings made of nephrite and marble, and 3 bracelets made of shell. The rings of nephrite and marble would seem to be clothing ornaments, if one compares them with other examples found in tombs.

Other items. Animal bones constituted 35 percent of all the animal and fish bones and shell found. Identified thus far are: dog, pig, deer, bear, whale, and a variety of fowl. A variety of bones and the skulls of pigs, bones of dogs, and deer horn came from both cultural levels. Four whale bones came from Cultural Level 2. Among the bones were the following that appeared to be whale bones: a rib bone exceeding 1.3 m in length and a spinal bone 25 cm in diameter. Many very thick—compared to their length—femur bones were found, and they appear to be the bones of an animal with short legs and a fairly large body. Gills and backbones of fish were plentiful, but no investigation has as yet been made. There were also many shells, including those of oysters (*Ostrea circumpecta* Pilshry), *pap-chogae* (*Pecten, patias-pecren, yesoenis* Jay), *paekhap-chogae* (*Maetra Sachalinensis* Schriener), and a number of snail shells that resemble the trumpet shell.

CONCLUSION

This article is a very rudimentary introduction to items excavated at the prehistoric shell mound at Söp'ohang. The site has proven that people lived there for a long period, that is, from the Neolithic Age through the Bronze Age and into the early part of the Iron Age. A variety of dwelling sites were found, and numerous artifacts were excavated from the 3 m thick cultural stratum. By comparing the related quantities of the various items found, we can gain an estimate of the lives of the people who lived there.

From Cultural Level 1 came horn hoes, which were the only agricultural implements found in this level; there were also many bones of dogs, birds, deer, bear, fish, and especially notable are the many long slender arrowheads and harpoons. The people of Cultural Level 1 lived a hunting and fishing life and possessed only a primitive knowledge of agriculture.

From Cultural Level 2 came many horn hoes, stone items including stone cutting boards, long slender arrowheads, etc. We can see by the arrowheads that fishing and hunting still played a comparatively important role in the economy, yet agriculture was becoming a little more important, although it was still very primitive.

Splendid artistic techniques are displayed in the carved items. There have been as yet no sites in neighboring nations that have yielded such a rich variety of artistic items.

The Söp'ohang site resembles neolithic and bronze period sites distributed over northeastern Korea, the Soviet Maritime Provinces, and northeastern China. Namely, the basic items of Cultural Level 1, that is, earthenware, stone items, and bone items, show many

similarities to items found in neolithic sites at Nongp'o-ri, Ch'ongjin; at Kōmun-gae Pong in Yusōng-gun and at Site I at Kullaskkaya (phonetic) in the Soviet Union.

However, in the lower part of Cultural Level 1, the characteristics of the artifacts are slightly different. They could be earlier than the Ch'ongjin, Nongp'o-ri, and Kullaskkaya I sites, although there were a few resemblances in some of the items. The lower level of Cultural Level 1 resembled the Hansi I site in the Soviet Maritime Provinces which is earlier than the Nongp'o-ri or Kullaskkaya I sites; and it resembled the even earlier Charech'iye (phonetic) I site in the Maritime Provinces.

The artifacts from Cultural Level 2 showed a general similarity to the bronze-period site at Cho Island near Najin and the lower stratum of the prehistoric site at Pōmū kusōk at Musan. Moreover, neither bronze nor iron were found in Cultural Level 2. Accordingly, it appears that Cultural Level 2 falls a little earlier than the Bronze period.

Based on a comparison with sites in the Soviet Maritime Provinces, it is believed that the lower level of Cultural Level 1 began in late 4000 B.C.-early 3000 B.C. Cultural Level 2 is believed to fall in the middle portion of 2000 B.C. The many distinct cultural levels of the site seem to indicate that wandering tribes occupied the site temporarily and then moved away over a period of some 1500 years, with short interim periods when the site was unoccupied. The upper level of the site would, consequently, date ca. 1500 B.C.

Comment

There are two points that should be brought out with regard to the interpretation placed on the neolithic site described above. First, the dating hinges largely on the North Korean archaeologists' distinction of a separate Korean Bronze Age which drew, not from China, but from the north and which is set at 1500-500 B.C. Thus, any site determined to have been free of associations with a metal culture must, as a consequence, have a terminal date of 1500 B.C. or earlier.

The second consideration is that the site must fall within a stage of history already delineated. An interpretation is put forth on page 59 of the article: "Judging by the female figures among the decorated items, we can see that as yet, worship of the female held sway and that this was a matriarchal society."

There is of course absolutely nothing that requires one to accept the interpretations advanced. A more positive basis for dating would be provided by the results of carbon dating or other similar dating processes. It is interesting to note that occasionally such dates have been promised for various sites, but that none has ever been released.

Nevertheless, there is no question of the importance of the shell mound at Sōp'ohang. The palaeolithic site alone is a major find. And, should further investigation of the site show distinct cultural levels within the two major levels described here, then an excellent pottery chronology covering the period would be possible for this region. It is hoped that a full report of the excavation and the findings will be forthcoming soon.*

* These reports, the first of which appeared in *AP IX*, are the by-products of research on Korean cultural history undertaken with a summer grant from the Committee on International Development, Indiana University, with funds made available by The Ford Foundation.

GLOSSARY OF ANGLICIZED KOREAN WORDS USED IN TEXT

*McCune-Reischauer**Romanization**Korean Character*

chan	찬
Ch'angdong-ni	창동리
Changgi-myön	장기면
Changam-ni	장암리
Cho Island	조도
Ch'öngjin	청진
chopsi	첩시
hangari	항아리
Kömun-gae Pong	검은개 봉
Kongju-gun	공주군
Kul-p'ö	굴포
Kul-p'ö-ri	굴포리
Kum River	금강
Manp'ö	만포
Musan	무산
Najin	나진
Nongp'ö-ri	농포리
North Hamgyöng	함경북도
paekhap-chogae	백합조개
pap-chogae	밭조개
Pömmü kusök	범의구석
posigi	보시기
P'yöngyang	평양
Söbönp'ö	서번포
Söp'ohang	서포항
Sösura	서수라
South Ch'ungch'öng	충청남도
taejöp	대첩
tanji	단지
Tongkwan-chin	동관진
Tuman River	두만강
Unggi	웅기
Unggi-gun	웅기군
Yusöng-gun	유성군

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