

## **Origin and Development of Upper Paleolithic Industries in the Korean Peninsula**

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### **Introduction**

Since the first finding of Paleolithic industry in early 1960s, more than 150 localities are being counted in the Korean peninsula. During the last 40 years of Paleolithic archaeology, a great deal of researches and studies have been done in the Paleolithic archaeology, however, there are several important questions remain unanswered accurately. The earliest age of the first dispersal of man in the peninsula, what type of hominid existed in early Paleolithic stage, evolutionary processes of Paleolithic culture in the peninsula, how the Upper Paleolithic man came to the peninsula etc. In this article, current problems concerning origin of the Upper Paleolithic culture, cultural change at the beginning stage and development of the stone industries will be reviewed from a perspective of hominid dispersal in the Northeast Asia.

### **Major Sites and Distribution in the Peninsula**

The first Upper Paleolithic site was the Sokchangni site found in early 1960s. Blade and microblade industries were found in a colluvial sedimentation above fluvial deposits of the Kum river. Up to now, in addition to two very important sites, the Suyanggae site in early 1980s, the Koryeri site in 1990s, many localities

of blade and microblade stone industries were identified all over in South Korea. In North Korea, several localities were reported including the Mandal cave site that yielded micro blade, but few sites because of lack of extensive field surveys.

### **Morphology and Technical Traits**

As in other part of the World during the Upper Paleolithic, appearance of blade is the most distinctive feature in the morphology of Upper Paleolithic stone industries. In addition, fine grained or siliceous raw materials were preferred for making blades. However, irregular and less refined tool making tradition of the early and middle Paleolithic persisted until late part of the Upper Paleolithic in the peninsula.

### **Chronology**

Relatively, Upper Paleolithic chronology is considered established well. It is so because <sup>14</sup>C dating method can be applied in the period of the cultural stage. In addition to <sup>14</sup>C dating method, some other absolute dating methods are applied for constructing chronology. So called soil wedges are often referred as an important evidence for making chronological boundary of Paleolithic cultural evolution, even though it is not verified

whether relevant or not. Another important method for dating is tephra chronology for upper Paleolithic sites. Especially AT blown from Japan provides valuable evidence for estimating ages of archaeological layers.

It is not clear yet whether the earliest date of the Upper Paleolithic industry go back to older than 40,000 BP. Some of age dates of the early blade stone industries are older than 30,000 BP, but few older than 40,000 BP. There is important technological development in the Upper Paleolithic around 20,000 BP. Blade cores and blades were getting smaller and eventually micro-cores appeared that time. This is currently supported by some  $^{14}\text{C}$  dates. It is still uncertain that how long microlithic persisted, but roughly sometime around turn of Holocene or early part of the Holocene.

Along with technological development during the Upper Pleistocene, it should be noted that older types of stone industries also appeared. Some of the quartz-vein or quartzite stone artifacts appeared with more evolved stone industries for example blade stone industries, while some occur independently. Therefore, it is one serious problem immediately pursued in near future whether both stone industries were appeared at the same time or representing mixture of stone artifacts of different cultural stages, less likely though.

It is somewhat embarrassing that tanged-points appeared from some stone industries classified Middle Paleolithic or some older than Upper Paleolithic and persisted quite upto late period of Upper Paleolithic, because it appeared earlier stage of Upper Paleolithic and disappeared when microlithic stone industries in Japan. It may need more extensive investigation of formation and post depositional processes of Paleolithic sites in the Korean peninsula.

### Origin of Upper Paleolithic Stone Industries

It is generally considered that Upper Paleolithic stone industries introduced by Anatomically Modern

Man, *Homo sapiens sapiens*. In Korea, we have several fossil remains of *Homo sapiens sapiens*. However, it is not clear that how the modern human dispersed into the peninsula. In Northeast Asia, earliest blade stone tool industries are found in inner Mongolia and some part of southeast Siberia. They are thought older than 30,000 BP. It is still prevailing view that blade stone industries in inner Mongolia could be the origin of Upper Paleolithic culture in northeastern part of Asia. No one ever look into the processes of cultural diffusion or hominid migration down to southern part of eastern part of Eurasian continent.

Micro-core technology is much more complex than blade one. To making small blades, it is necessary to use some devises to hold small cores firmly. It could be regarded as the first machine to make tool for living. It is much more complex that previous tool making technology. It is quite possible that more localized tradition could be formed and make some cultural tradition in tool making. Diverse microlithic technologies are observed in Northeast Asia. It is argued that microlithic technology may have moved from Korea to some adjacent part of Northeast Asia. However, we may need much more age dates to verify such a hypothesis in formation of microlithic culture in this area. During the Upper Paleolithic age, efficiency of tool makings may have been ultimate goal of living in harsh environment. In addition to human migration and diffusion of technologies, it should be considered independent innovation on the top of basic microlithic technology.

### Conclusion

Although many localities of Upper Paleolithic have been found in the Korean peninsula, problems and questions are increasing to be answered. Blade technology was quite likely introduced into the peninsula sometime between 40,000 BP and 30,000

BP possibly from inner Mongolia. The blade stone tool technology was developed to microlithic technology around 20,000 BP as indicated by some <sup>14</sup>C dates. It is interesting cultural phenomenon that blade industries appeared along with some old conventional tool kits of quartz or quartzite tools. Present patterns explained in this article should be reviewed in terms of patterns in a wider area including Japan, southern Siberia and China. New findings and new results from researches in these areas are expected to provide more concrete evidence for improved explanations of evolution of Upper Paleolithic Culture. It is much more extensive comparative analysis of stone industries should be done for understanding origin and local processes of development.

### References

- Bae, K.D. 2002. Radiocarbon dates from paleolithic sites in Korea, *Radiocarbon*, vol. 44, no. 2. pp. 473-476.
- Han, C.K. 2003. Chronological Problems of the Korean Paleolithic sites, *Journal of the Korean Paleolithic Society* vol.7.
- Jia. L. and W.W. Huang. 1985. The late Paleolithic of China, *Paleoanthropology and Paleolithic archaeology in the PRC*, ed. By Wu and Olsen. Academic Press.
- Yi, S.B. 2001. Middle and Upper Paleolithic Transition in Korea; A brief Review, *Journal of the Korean Paleolithic Society* vol.4. pp. 17-24.
- Matsufuji, K. 2003. Origin of the Upper Paleolithic in Northeast Asia (unpublished), Paper presented in international seminar for commemorating the Chongokni site.