EVIDENCE OF EARLY PLEISTOCENE HOMINID ACTIVITY FROM LAMPANG, NORTHERN THAILAND

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INTRODUCTION

As a result of continuing research in northern Thailand, artifacts have been recovered in a radiometrically and paleomagnetically dated context which indicates that hominids were present during the Early Pleistocene. Previous to these finds there was no firm evidence for Mainland Southeast Asian archaeological assemblages which firmly antedated 60,000 years BP (Bartstra 1984). This was true for both Hoabinhian assemblages (Colani 1930) and other putative local variants (see van Heekeren 1957, Movius 1943, de Terra 1943). Although these few artifacts offer little information, they display a certain consistency of patterning which may link them to other assemblages from northern Thailand.

Geological Setting and Dating

Three artifacts were collected from a heavily laterized fluviatile gravel which stratigraphically underlies the Lampang Basalt (Figs. 1 and 2). This locality is situated approximately 2 kilometers south of the village of Ban Mae Tha, and it adjoins a now-destroyed locality collected previously by Per Sørensen in 1974 (McDonald and McDonald 1978). Stratigraphic profiles from two wells to the south of Ban Mae Tha and from near Ban Don Mun indicate that the Lampang Basalt consistently overlies the gravels. A site at Ban Don Mun has also yielded artifacts.

The lowest parts of the Lampang Basalt are reversed in polarity (McDonald and McDonald 1978). K-Ar ages of 0.8 $\pm$ 0.3 my and 0.6 $\pm$ 0.2 my have also been obtained from widely separated sample sites shown in Figure 1 (Sasada *et al.*, in press). It seems, therefore, that the artifacts derive from Early Pleistocene sediments referable to the Matayama Chron. During the next field season more radiometric and paleomagnetic samples will be collected in order to enlarge on our dating samples. However, it already seems apparent that these artifacts constitute the earliest well-dated specimens from Mainland Southeast Asia.

THE ARTIFACTS (Figures 2-5)

The artifacts (L-1, L-2, L-3) from Mae Tha South do not exhibit obvious signs of utilization as tools, but L-3 may show signs of use-wear and/or retouching. L-1 and L-2 exhibit non-salient edges, probably resulting from chemical weathering in the laterized matrix. Thus, it is assumed that use-wear (if any) has been obliterated. We currently interpret L-1 and L-2 as cores.

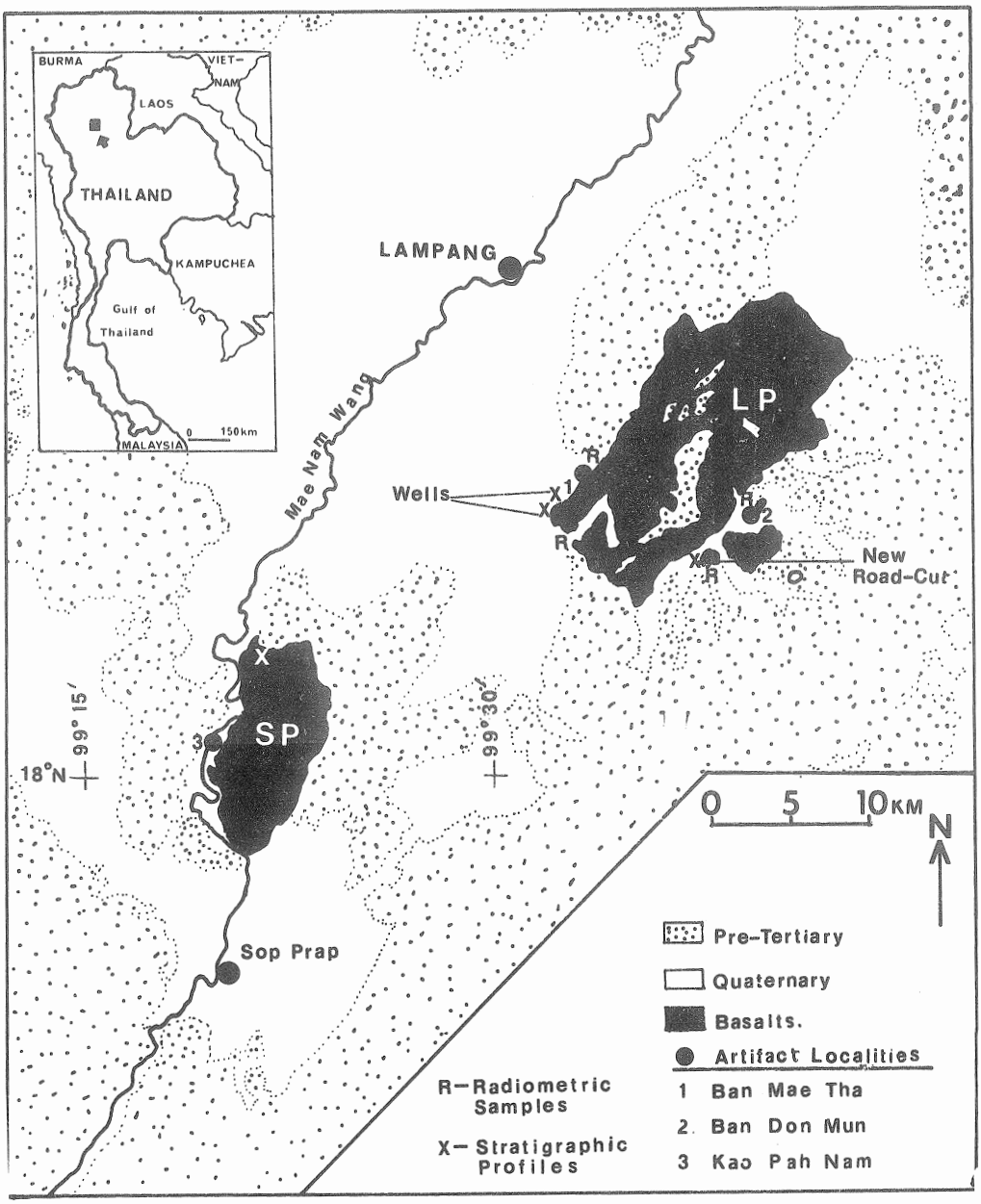

Figure 1. Map of central Lampang Province, northern Thailand, showing the relationship between archaeological localities, radiometric and paleomagnetic samples, and the Lampang Basalts.

The artifacts were discovered within a few centimeters of each other. They were not collected as the result of a wide ranging survey which might encourage the collection of naturally-flaked cobbles. No flakes were observed at the locality, despite the fact that rocks of appropriate size occur in the gravels.

L-1 is composed of a pinkish-brown arkosic indurated sandstone. It is approximately 11.4 cm in length, 7.2 cm wide and 4.4 x 6 cm in cross-section. At least four flake scars are observable at one end of the cobble. The large outer facets have striking angles of approximately 80^{o} and two "nicks" occur on the ventral surface of the artifact. "Back-nicking" or "corner-nicking" also occurs on other Lampang artifacts (see below). These scars are not part of any cutting surface and the resulting small flakes of cortex would probably have been of little utility. We currently interpret these scars as a form of material-testing which may represent a means of selecting appropriate materials from rocks which have been coated by fluviatile sediments.

L-2 is manufactured from the same material as L-1. It is approximately 8.2 cm long by 6.8 cm wide. At least four contiguous flake-scars showing angles of about 70^{o} occur. At one end a large flake has been removed from the butt end, but this may be natural.

L-3 is a split cobble of fine grained indurated conglomerate. It is roughly triangular in cross-section. The salient edge measures about 9.1 cm in length.

Kao Pah Nam

Another locality in Lampang Province has also yielded evidence of early hominid activity. Kao Pah Nam is a paleo-rock shelter, situated near the Mae Nam Wang (Wang River), which has yielded artifacts in association with fauna and a hearth (Pope et al. 1981). On the basis of a preliminary faunal study this locality may be contemporaneous with the Ban Mae Tha locality.

One of the artifacts from Kao Pah Nam, KPN 85-2 (Figure 6), is of special interest because its technique of manufacture is similar to that of the Mae Tha artifacts. This artifact has three large flake scars and shows back-nicking. Additionally, wear-polish is evident on the ventral side of the salient edges.

Of the 10 non-limestone rocks recovered from Kao Pah Nam all except one show evidence of modification. Three basalt cobbles derived from the older Sop Prap Basalt are fire-cracked and occur in association with burnt bone. The humerus and innominate of a hippopotamus also occur in association with the hearth.

DISCUSSION

The temporal relationship between Mae Tha South and Kao Pah Nam must remain problematical for now. We cannot correlate these

localities on the basis of similar artifact morphology, especially since we are dealing with only a few artifacts. However, it seems quite possible that we may have taken the first steps in documenting an Early Paleolithic tradition or facies. Many of the artifacts from Sørensen's site also exhibit distinctive back-nicking. Furthermore, no flakes, either utilized or debitage, have yet been recovered from Mae Tha South or Kao Pah Nam. This is in contrast to other so-called Hoabinhian localities in northern Thailand.

If the artifacts under discussion are in fact referable to the Hoabinhian then we would have to extend this "tradition" into the Early Pleistocene. We are currently unwilling to do this, since the morphology and frequency of artifact categories seem distinct from the Hoabinhian, at least as it is known in Thailand (see Thosart 1982, Pookajorn 1980). So far we have encountered no "horsehoof cores" or multi-flaked "choppers". We should also keep in mind that the apparent absence of any flakes associated with the cores may be an accurate representation of the assemblages, or it may be a result of depositional agents. The low frequency of artifacts and the complete absence of flakes may in fact characterize a local industry or facies.

For the present all these speculations must remain working hypotheses which need to be tested through the recovery of adequate samples. However, the paucity of material in no way lessens the importance of documenting the presence of hominids in Mainland Southeast Asia. If dates on the order of one million years for hominids in China and Java are accurate (see Pope 1984), then we should expect dates of equal antiquity for Mainland Southeast Asia.

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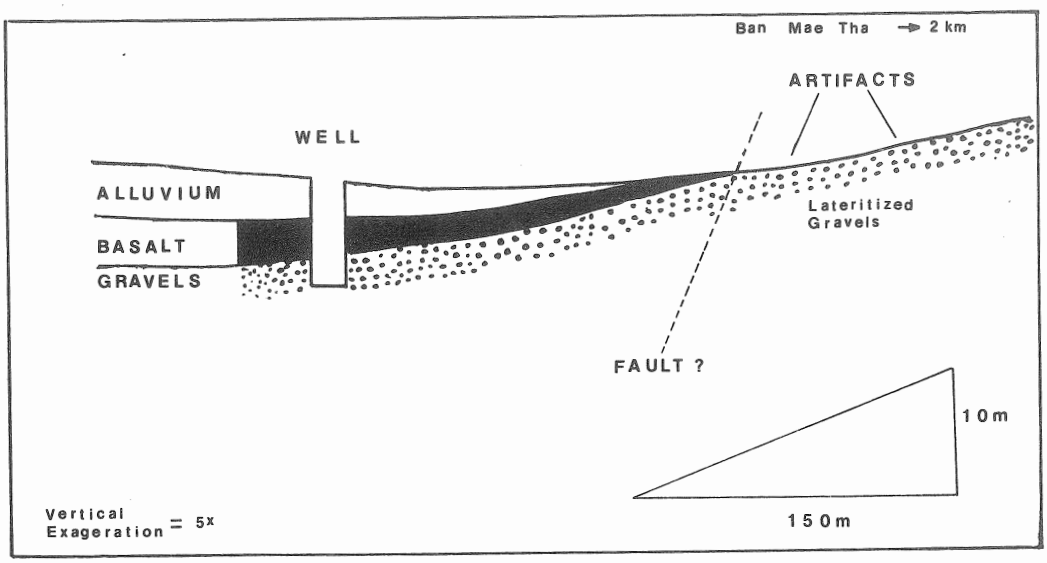

Figure 2. A schematic cross-section showing the stratigraphic relationships between the fluviatile gravels and the overlying Lampang Basalts.

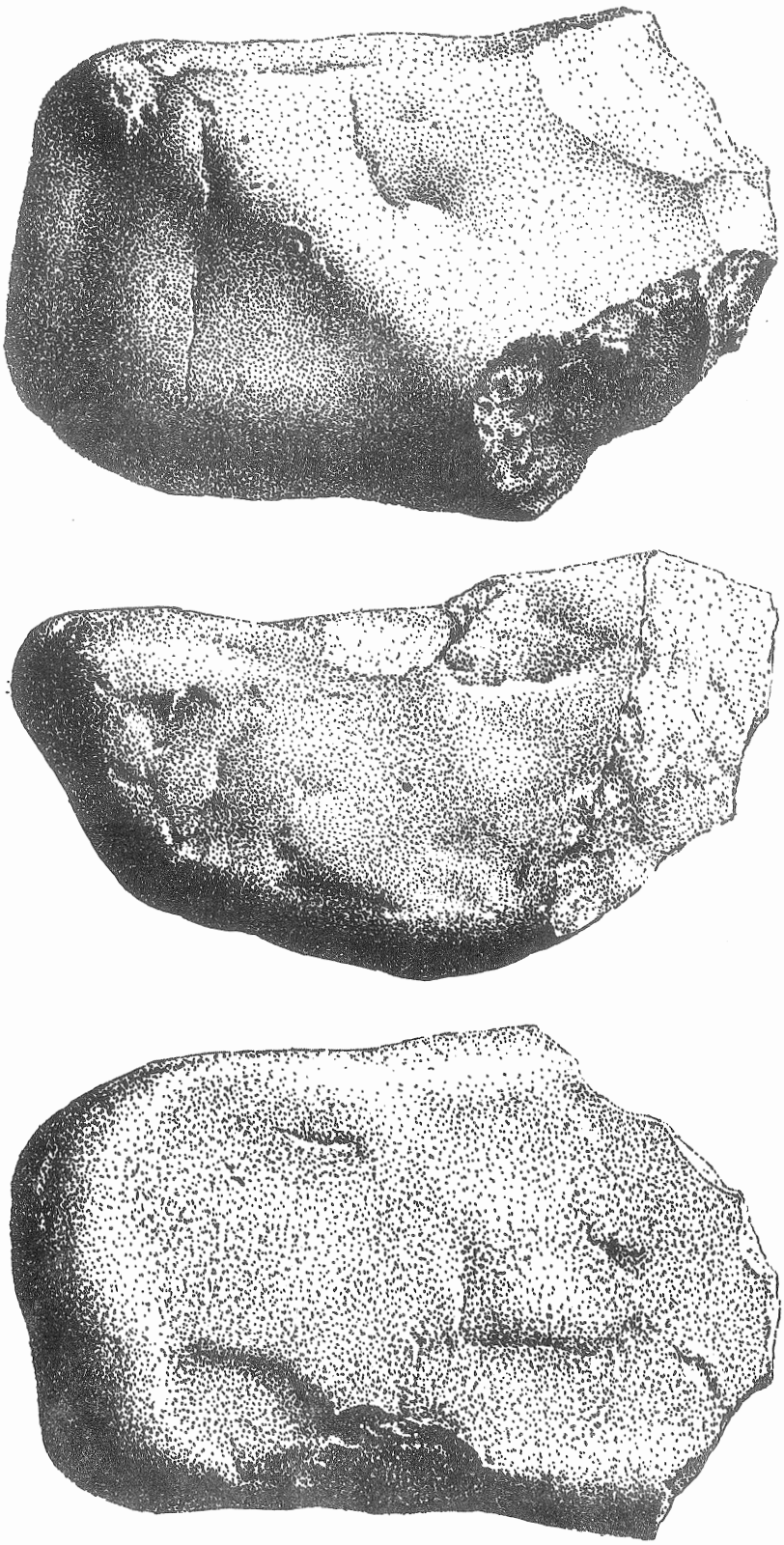

Figure 3. Mae Tha South, Artefact L-1 (90% of natural size).

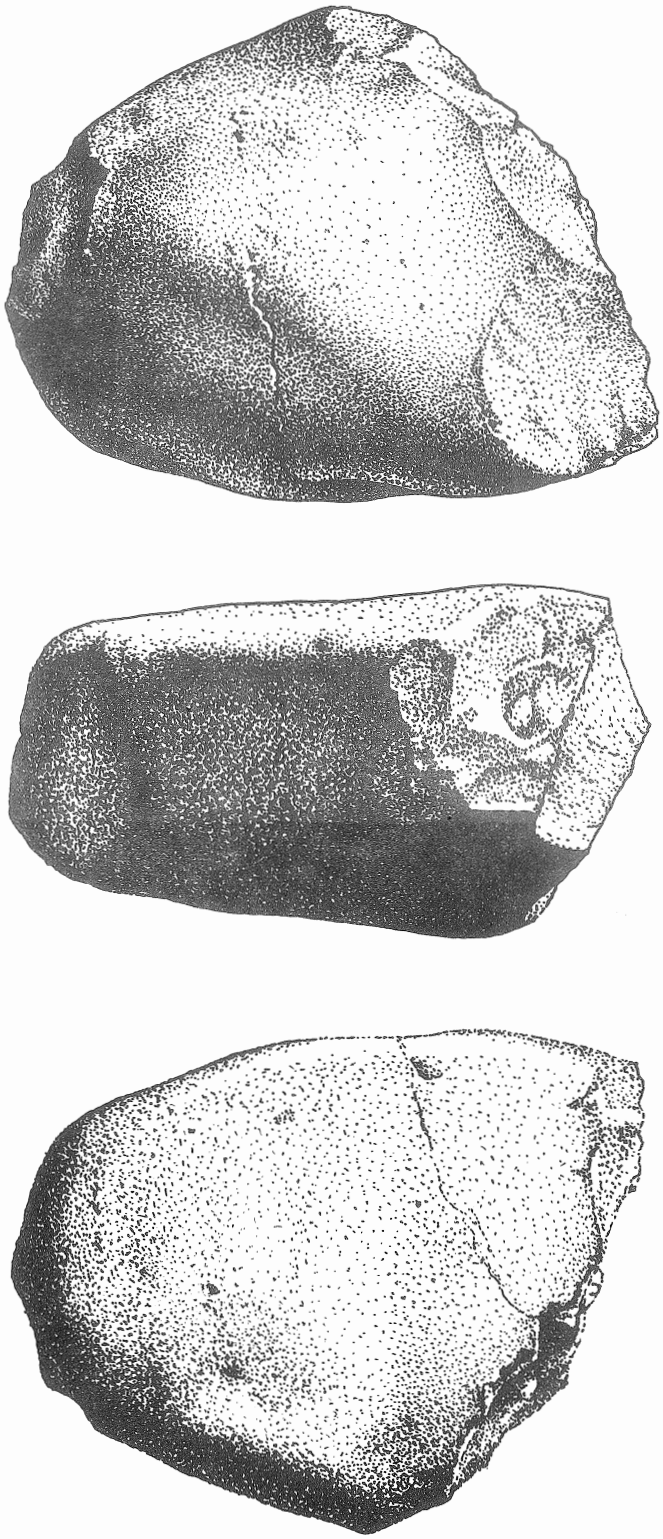

Figure 4. Mae Tha South, Artefact L-2 (90% of natural size).

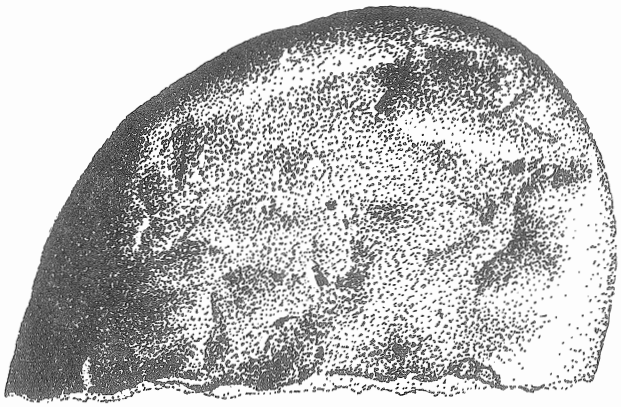

Figure 5. Mae Tha South, Artefact L-3 (90% of natural size).

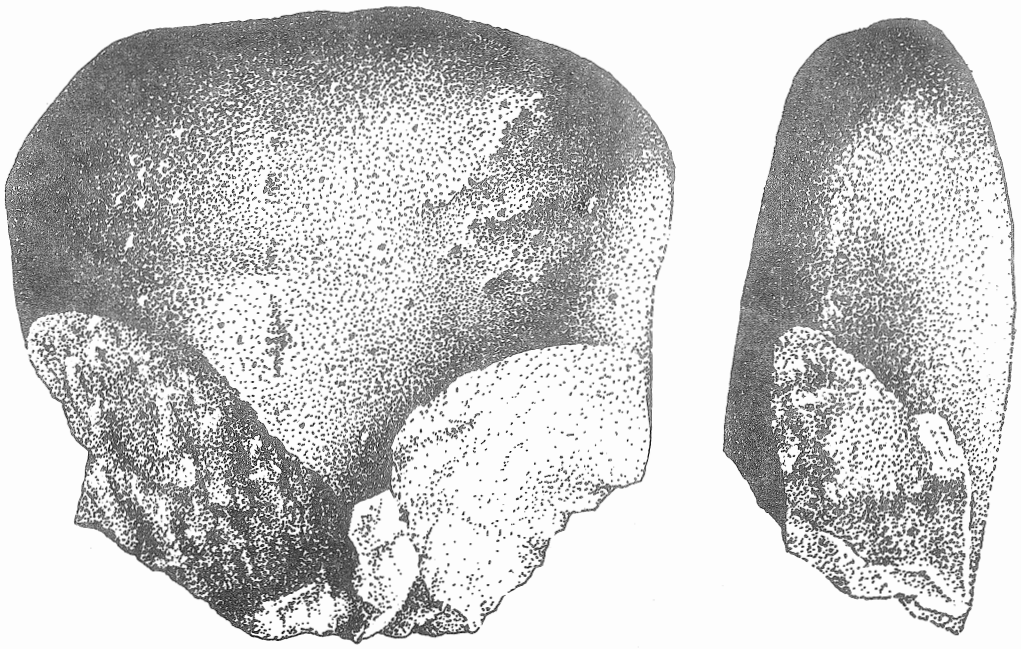

Figure 6. Kao Pah Nam, Artefact KPN 85-2 (90% of natural size).