

leurs particularismes techniques et graphiques. H. Delporte offre des données très intéressantes sur les types d'associations des espèces animales sur des pièces d'art mobilier, tandis que G. Sauvet analyse en détail la typologie, la fonction et l'utilisation des signes et des symboles sur des objets paléolithiques. A. Beltrán discute sur l'art mobilier du Magdalénien final et Azilien et le supposé hiatus entre l'art paléolithique, mésolithique et l'art pariétal du Levant espagnol. J.-M. Apellaniz offre un modèle d'analyse de l'école iconographique des graveurs de chevaux hypertrophiés de la Madeleine. Autres études regardent l'évolution et la transformation du décor du début de l'Aurignacien au Magdalénien final (A. Marshack), l'établissement des géographiques sociales à l'aide de l'art des objets (M. V. Conkey), la fonction et la signification des statuettes du Paléolithique supérieur européen (J. Hahn), les relations transculturelles et transrégionales dans l'art mobilier (M. Otte), la signification de l'art non naturaliste (M. Chollot-Varagnac). Le prochain thème (p. 205–241) a été réservé à la technologie des artistes paléolithiques; dans cinq études sont abordés les domaines de la sculpture (M. G. Garcia) gravure (L. Mons) modelage et peinture (J. Hahn) colorants (C. San Juan) pictographie (V. Villaverde Bonilla) dans l'art

mobilier. Les problèmes méthodologiques constituent le contenu de la dernière part (p. 245–277) avec références aux relevés d'art sur matériaux lithiques (Chr. Servelle) enregistrement et inventaire (G. Pinçon) présentation du Centre d'Information et Documentation Henri Breuil — la banque des données sur l'objets d'art mobilier (D. Kandel) conservation (J. Cleyet — Merle et alii) datation et authentification des objets d'art par la spectrométrie gamma non destructive (Y. Yokoyama). Les discussions qui s'insèrent à la fin de chaque communication sont très utiles et elles contribuent au meilleur entendement des problèmes entamés.

Cet ouvrage, par la richesse d'information qu'il contient, la profonde analyse des sujets très bien structurés et abordés d'une façon tout à fait moderne, dans la lumière des dernières acquisitions scientifiques du domaine, par l'illustration abondante et d'une excellente qualité et par l'utilisation d'une bibliographie quasi-exhaustive constitue sans nul doute un instrument de référence pour toutes les études ultérieures concernant l'art des objets au Paléolithique.

Corneliu Beldiman

Přezletice: A Lower Paleolithic Site in Central Bohemia (Excavations 1969 — 1985). By Jan Fridrich with a contribution by Karel Sklenář. Museum Nationale Pragae, Fontes Archaeologici Pragenses, 18, Prague, 1989, 110 p.

The Lower Paleolithic Czechoslovakian site of Přezletice is very important to an understanding of the earliest Paleolithic habitation of Europe. The Přezletice site report summarizes the history and subsequent excavations which took place between 1969 and 1985. This open-air site has been dated to the beginning of the Cromerian interglacial c. 700,000 B. P. and is believed to represent a repeatedly occupied site.

After a brief introductory chapter covering the history of the site, Fridrich moves into a discussion of the results of the investigations. Within this chapter are discussions of the geomorphology, geology, petrography, lithology, paleopedology, and paleomagnetic data, as well as palynology, ostracods, and other faunal remains. Of particular interest is the wide diversity of fauna at the site, constituting forty species of animals, including aves, insectivores, fishes, and mammals. The mammalian fauna consists primarily of mammoth, bovid, horse, and rhino with smaller percentages of carnivores (e.g., bear, wolf, fox), deer, and smaller mammals (e.g., rabbit). Unfortunately, no complete skeleton of any of these animals has been recovered. Fridrich points out that there does not appear to be any particular selection for certain mammalian species or for certain anatomical parts. He believes there is evidence of cut marks supposedly caused by Lower Paleolithic hominids. It is unfortunate that he does not provide any drawings or photographs of these bones. Evidence of carnivore gnawing is also purported by hyenas but once again no drawings or photographs are supplied. Considering the vast amount of literature and recent advances made concerning taphonomy and site formation processes, it would be useful to have seen a discussion of the hominid-induced cutmarks and other bone modifications. Claims for hominid bone modification (e.g., cutmarks, patterned fracturing) for Lower Paleolithic sites in Africa have been challenged and subsequently tested and should also be applicable to the European Lower Paleolithic. Suggesting cultural attributes such as divisions of labor and home bases seems premature given the lack of knowledge regarding the processes of accumulation of the faunal remains at the site.

The bulk of the site report centers on the archaeological finds, more specifically, the lithic artifacts. Here, Fridrich sub-divides the chapter by archaeological level. Four archaeological levels have been identified at Přezletice, A1 to A4. Horizon A1, ≈ 18 cm in thickness, represents a redeposited level consisting of 77 lithic artifacts made on locally available lydite and quartz. The artifacts consist of a high ratio of proto-bifaces, bifaces, and scrapers. Horizon A2, ≈ 13 cm in thickness, is also not in primary context and has been subjected

to cryoturbation. Here, 46 artifacts of lydite, quartz, and quartzite were found consisting of choppers, knife-like tools, and picks.

Horizon A3, which is ≈ 25 cm in thickness, is the main cultural level and has yielded the most information concerning the site. This horizon was excavated once in 1969 and again in 1973. In this horizon, nearly 108 sq. m were excavated with most of the artifactual remains found within a 15×10 m oval-shaped area. Also found within this oval area are the remains of a purported structure. This structure has a foundation ridge of clay and stone in an oval outline with a maximum thickness of 60 cm and a minimum thickness of 30 cm. Its outside dimensions are 4×3 m and inside, it measures $3 \times 2 - 1.5$ m. The only artifactual remains to be found within this oval structure were a few bone fragments. A small hearth, measuring 30 cm in diameter, was located less than one meter from what is believed to be the entrance of the structure. Most of the lithic industry was focused around the hearth; also, bone fragments, especially, of mammoth, were recovered in and around the hearth. These remains have been interpreted as the result of hunted game. Another activity area W-SW of the structure was also found; this one contained lithics and bones of bovid and horse. NE of the structure, 5–6 m, a third activity area was discovered. Horizon A4 is separated from A3 by a 50 cm sterile layer of marl. Any concentrations of artifacts in this fell outside of the current excavation and would need to be pursued later in the future.

The lithic artifacts from Přezletice are typically Lower Paleolithic in appearance, and Fridrich has assigned them, based on tool typology, to the earlier part of the Acheulian (similar to Olduvai-Bed II). The raw material is almost exclusively locally obtained lydite gravel with much smaller percentages of quartz and quartzite. The most numerous tools at Přezletice were burins, awls, retouched flakes, and knife-like tools, followed by scrapers and bifaces. The bifaces consist of proto-bifaces, cleavers, picks, and true bifaces, of which there are only eight (1.7% of total assemblage). It is somewhat difficult to understand the definition of the tool category, knife-like tools. The knife-like tools depicted in Plate XVII (pp. 93), typologically, seem to resemble various forms of scrapers rather than any form of knife.

Karl Sklenář provides a short chapter discussing the nature of the structure found in Horizon A3. He relates the Přezletice structure to similar structures found in open-air sites (e.g., Bilzingsleben, Terra Amata, Olduvai) as well as to those found in rock shelters and caves (e.g., Bečov, Grotte

du Lazaret, Mas des Caves), in an attempt to gain a better understanding through comparison. Sklenář concludes that it is in fact a dwelling, more specifically, a strong surface hut probably used seasonally. The dwelling makes use of the rock face of the cliff as a structural component as well as many surrounding boulders. While being free standing, it was certainly protected on several sides. Structurally, it is very similar to the dwellings purportedly found at Terra Amata and Fermanville. Sklenář points out that similar types of dwellings are found only in more northern latitudes, suggesting that the harsher climate facilitated the use of indoor sleeping accommodations. He also comments that the structure at Přeletice is the furthest east of the known sites with such a dwelling suggesting that Central Europe may have been the earliest settled by *Homo erectus*.

All in all, the site report for Přeletice is a welcomed addition to the literature of the little known Lower Paleolithic of Europe. The book contains detailed descriptions of both the stratigraphy and the lithic artifacts. The accompanying photographs and drawings only enhance the overall quality of the book. One of my few criticisms of the book is the rather poor English translation, especially in the first sections. While it is greatly appreciated that such a worthwhile site report was made available to the English-speaking world, it may have been advantageous to have had the book edited for such grammatical and lexical errors.

Steven B. Mertens

Vértesszőlős : Site, Man and Culture, edited by M. Kretzoi and V. T. Dobosi, Budapest, Akadémiai Kiadó, 1990, 555 p., 111 plates, 138 fig., 32 tables, 8 supplement figures off text.

Vértesszőlős, the single most important Lower Paleolithic Hungarian site, is situated on the fifth terrace of the Átalér river valley, 15 km south of the Danube and 50 km west of Budapest, Komárom county, at the western limits of the Gerecse mountains. It was discovered in 1962 during a geomorphological investigation of a travertine quarry near the village by M. Pécs. The excavations at the settlement, which took place between 1963 and 1968, were carried out under the direction of László Vértes. During this period, he published some results of the research. After his sudden death in 1968, the well-known paleontologist, M. Kretzoi, coordinated the activity of a large team of specialists in order to produce a comprehensive monograph of the site.

This massive volume, published in 1990 by the Hungarian Academic Press, is dedicated to the memory of László Vértes who devoted the last years of his life to the excavation of Vértesszőlős. It contains thirty contributions written by twenty-three authors (including L. Vértes) and is arranged in six parts which provide an exhaustive analysis concerning the various data and materials.

Preceded by a preface, introduction, and a presentation of previous research by M. Kretzoi (pp. 9–19), the first part of the volume (five studies, pp. 21–75) describes the natural environment of the site, the geological background, and sedimentological and petrographical analyses of the travertine and cultural layers. M. Pécs study describes the 4–5 terraces built by the Átalér river which are covered with travertine deposits from the thermal springs of the basal flood level. One of the most consistent sections, *The Palaeoenvironment* (ten studies, pp. 77–252), presents the results of the analyses of plant imprints and pollen and charcoal remains. They provide a wide range of floral development and paleoclimatic background also related to the archaeological layers. A very detailed analysis of Pleistocene ostracods and mollusc was also included. This section also includes a large discussion of the vertebrate faunal analysis, especially the faunal from the archaeological layers (M. Kretzoi). The kitchen-middens of *Homo erectus* were discovered in sites I and II, whereas the bone accumulations in site II are considered to be completely natural. In the third level of site III, a calcareous area of approximately 40 sq. m was discovered containing 125 animal footprints belonging to five species.

The next section, *Human teeth and bone remains* (pp. 253–262), discusses the unique discoveries which have made Vértesszőlős famous. The fossil remains of two human individuals, the partial dentition of a 6–7 year old child and an occipital bone of an adult, were recovered from the lowermost cultural layer of site I, and dated to the Mindel I–II interstadial. The adult occipital has been the subject of much discussion and debate. While it is generally agreed that the bone is thick, fairly angular with a continuous occipital torus, and its dimensions suggest a relatively large cranial capacity for a Middle Pleistocene hominid, morphological and metrical details of the specimen and its classification are still disputed (see

J. Cook et al. *Yearbook of Physical Anthropology*, 25, 1982, pp. 29–30). The paleoanthropologist A. Thoma wrote: "In terms of anatomy and metrical proportions, Vértesszőlős man is modern. This new feature combination justifies the establishment of a new subspecies which can be placed on the boundary between *Homo erectus* and *Homo sapiens* within the framework of traditional classification — insofar as the fragmentary remains allow taxonomical conclusions. In accordance with this position, it is given the taxonomic name *Homo erectus* or *Homo sapiens paleohungaricus*, type Vsz II, its closest relatives are the Bilzingsleben and Petralona fossil men."

The fourth section of the volume deals with *The occupation site* (pp. 263–521). V. T. Dobosi presents the results of the excavations at the site during the six-year excavation (1963–1968) under the direction of L. Vértes. Petrographical analysis of the lithic raw materials (K. Varga-Máthé) concludes that they were derived from the alluvial deposits of the Átalér river and the river cobbles of its Pleistocene terraces. They consist of sedimentary rocks (radiolarites including jasper, opal flint and chert, lydites, spongillites, marl, and limestone) and metamorphic rocks (quartz and quartzite). L. Vértes study (new translation of the text published in *Quaternaria*, 7, 1965, pp. 185–196) analyses the typology of the lithic assemblage. He establishes the typological criteria and a five-place digital code, that concentrates on all of the information concerning raw materials and typology of the implements. In addition, *The registration of tools and the coding system*, was presented by L. Vértes and V. T. Dobosi in the previous study. Next, V. T. Dobosi gives a detailed description of the archaeological materials. From a total of 8,890 stone artifacts discovered in the complex site at Vértesszőlős, 5,819 specimens could be classed within group D–E of the type code system as standardized tool types. Also, there were 3,071 non-standardizable tools (group B), as well as 105 bone objects, which apart from having been split, had additional marks of human modifications on them. Of these, 93 were assignable to type and were worked in the same manner with both flint and quartzite tools. The author established 48 types of standardized stone implements, represented by small (30–35 mm in length) choppers and chopping tools on flint and quartzite pebbles and flakes. On the basis of the comparison of cumulative curves of individual tools and using statistical test types, V. T. Dobosi suggested the following chronological sequence: "The oldest layer is the first culture-bearing layer of site III. It is followed by the active complex of culture-bearing layers from site I. The fourth and fifth layers from site III, which were considered together with those from site I, seem to be most recent of all". A relatively small artifact assemblage was discovered in sites II, IV, and V and could not be taken into consideration in this part of the analysis. The material from the whole complex of sites seems to represent a uniform culture named by L. Vértes, the "Buda industry". In detail, V. T. Dobosi also presents the areal and vertical distribution of the archaeological material, as well as fire-