

WIL ROEBROEKS, *From Find Scatters to Early Hominid Behaviour: A Study of Middle Palaeolithic Riverside Settlements at Maastricht — Belvédère (The Netherlands)*, *Analecta Praehistorica Leidensia*, 21, Publications of the Institute of Prehistory, University of Leiden, Leiden, 1988, 196 pp., 158 figs., 32 tables

The 21st issue of the well-known and valuable series of APL is dedicated to presentation of the results of archaeological excavations in the Middle Palaeolithic open-air sites at Maastricht — Belvédère, volume due to W. Roebroeks. These sites are located in southern part of the Netherlands (province of Limburg) on the left bank of river Maas. Before it became known as a Palaeolithic site, the Belvédère loess and gravel-pit had attracted from 19th century the attention of collectors for several generations because Pleistocene fossils had been found in its exposures. In order to explore the sites affected by the pit (still being exploited by a commercial quarrying firm) an archaeological project was developed by the Institute of Prehistory of the University of Leiden between 1980 and 1988. The interdisciplinary research of the pit which consists largely in a virtually uninterrupted series of archaeological rescue excavations is still being continued. The present volume deals with the results of the 1980—1985 excavations. He has nine chapters and four appendix (contributions of three others specialists). After a *Historical Introduction and Background* (pp. 1—7) it is presented *The Geology of Belvédère Pit and Its Wider Geographical Setting* (pp. 9—24); lithology and lithostratigraphy of Middle and Late Pleistocene deposits, containing seven units and more subdivisions. The faunal remains from the various deposits present a picture of their climate and environment time formation and of archaeological assemblages. The Unit IV—C contain several archaeological assemblages in a primary context and also a large amounts of palaeontological material (mammal and molluscan remains).

Chapters 3 to 7 (pp. 25—116) present the results of the archaeological research in Units IV — VI, carried out from

1980 to 1985, as well as a brief description of latter excavations. There are ten areas = sites A — K with a total excavated surface of 1,078 m². The sites B (lower level), C and G belong to Unit IV — C — I and the sites A, D, F, H, K, to Unit IV — C — III. Unit V yielded only a few archaeological remains (the site B, upper level) whereas the sites J and E belong to Unit VI. The richest flint assemblages were discovered in the sites C and J and include as artefacts types: scrapers, retouched or just used flakes, backed knives, perçoirs, points, handaxes (one of them of Micoquian type) as well as a large number of cores prepared in the "Levallois" technique.

Chapter 8 (pp. 116—131) deals with the evaluation of the palaeoenvironmental and dating evidence for the most important archaeological phenomena in the pit, the Unit IV — C sites. Based on recent sedimentological, palaeofaunal (vertebrate and molluscan) and palaeobotanical evidences, the author pointed out that the Unit IV—C assemblages appear to "a warm temperate intra-Saalian climatic phase between the Holsteinian and the advance of the Saalian ice sheet in the Central Netherlands". Using the absolute dating results (APL and ESR) this warm-temperate period can be placed roughly around 250 ka.

In the last chapter (pp. 133—150): *The Belvédère "Data": Implications for the Interpretation of Hominid Behaviour in the Middle Palaeolithic*, W. Roebroeks pointed out some important observations and conclusions. The evidence obtained in refitting flint from the Unit IV sites indicate that these "sites" represent only one stage of a complex system of production, transport and discard of artefacts. The production of flint artefacts intended to be used elsewhere results in differ-

rent assemblages than the ad hoc production of flakes for local use; discussed data from a large European context show that there it is indeed a relations between the transport of flints and certain "economical" forms of core reduction: frequently retouched objects are usually found at a greater distance from their raw material source than artefacts that show no sign of retouching. He also suggests that the spatial incongruity of the various stages of flint processing could provide a key to the "Mousterian problem". Taking into consideration the associated occurrence of artefacts and poorly bone material, there are also discussed the data related to elements introduced by hominids (a consequence of scavenging or hunting practices). Despite the results of the analysis of wear traces on the artefacts from site G (see A. L. van Gijn, Appendix I, pp. 151-157) the author sustain the opinion in which "the current available data do not yet permit us to choose between these two options". The Appendix II - IV (pp. 159-169) present: a note concerning the spatial analysis (P. van de Velde); the

identification of haematite as the colouring agent in red ochre from sand deposits of the Site C by means of X-ray diffraction analysis (C.E.S. Arps); a presentation of the Middle Palaeolithic surface sites in South Limburg (W. Roebroeks). Finally, the volume is completed by a very consistent part of references, as well as by summaries in English and Dutch. Last, but not least, we can remark exceptional quality of the rich set of illustration. The work of W. Roebroeks presents in a modern methodological manner the preliminary results of excavations in the pit at Belvédère; "new discoveries may lead to a different interpretation of the geological context of the archaeological finds than that presented in this volume". Despite this fact, the complete-presented and pertinent interpreted archaeological and interdisciplinary research data contribute to make from this book a very useful and valuable first monograph work dealing with the oldest well-dated material remains of Pleistocene human activities in the Netherlands.

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