# Dis-Eur-UK-Kent- Barnﬁeld Pit, Swanscombe-****Middle Paleolithic,**** Mousterian-60,000 - 40,000 BP

Book review

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Excavations at Barnﬁeld Pit, Swanscombe, 1968–72

British Museum Occasional Paper 94. Edited by B. Conway, J. McNabb and N. Ashton(1996). London: The British Museum. vii+266pp. £20.00 (soft). ISBN 0-86159-094-5.

The site of Barnﬁeld Pit, Swanscombe, Kent, remains central to our understanding of European Middle Pleistocene hominid evolution, and the British Lower Palaeolithic sequencein particular. Swanscombe has been a focus of archaeological and geological research since thelatter part of the 19th Century, when industrial extraction of sands and gravels led to thediscovery of ﬂint artefacts and fossil bones. Since the site was ﬁrst reported byF. C. J. Spurrell(1883),excavations have produced core, ﬂake, and bifacial lithic industries, footprint surfaces,and a vertebrate faunal accumulation which is historically considered to represent the ‘‘true’’Hoxnian interglacial fauna. Perhaps more importantly, the Swanscombe deposits produced ahominid skull, comprising both parietals and the occipital bone (Marston, 1936;Wymer, 1955 ) with the result that the site was the ﬁrst, if one excludes the aberration of Piltdown, among aselect band of sites in Britain to have yielded Middle Pleistocene human remains, the othersbeing Boxgrove, Sussex( Roberts

et al., 1994 ), and Pontnewydd, Clwydd( Green, 1984 ). The Swanscombe Hoxnian deposits have been placed within Oxygen Isotope Stage 11, with theskull fragments being derived from the Upper Middle Gravels of this sequence; this placesthe Swanscombe hominid somewhere between 380 and 400 kya.Taxonomically, the hominid from Swanscombe can most probably be subsumed withinthe informal taxon ‘‘archaicHomo sapiens ’’ (AHS) which is often linked to the speciﬁcnomen, Homo heidelbergensis (Schoetensack, 1908 ). At the time of its discovery, however, theskull was allied with a ‘‘Neanderthaloid Intermediate’’ group comprising skulls fromSteinheim, Ehringsdorf, Krapina, and Skhul(Weiner & Campbell, 1964 ), skulls which are now thought to represent a mixed assortment of taxa— H. heidelbergensis, H. neanderthalensis ,and early anatomically modern

H. sapiens . This serves to illustrate the changes in taxonomicallocation that have gone on since the 1960s, largely brought about through chronologicalrevision of the sites in question. However, in the closing years of this century it must besaid, in all honesty, that our picture of Middle Pleistocene hominid evolution is stillmuddled, confused, and very far from resolution.In general, the Middle Pleistocene record is inextricably linked with the evolution of Homo erectus

and its early African congener, Homo ergaster. These hominids moved out of Africa,reaching Europe(Gabunia & Vekua, 1995 )and Eastern Asia (Huang

et al., 1995;Wood &Turner, 1995 )at around 1·8–1·6 mya with the establishment of distinct regional populations. After this ﬁrst diaspora, the picture becomes less clear, but it is generally accepted thatbiologically diﬀerentiated peoples appeared during the Middle Pleistocene, distinguishedpredominantly by a larger endocranial volume, and more derived facial and basicranialcharacters—‘AHS’. The tempo and pattern of their appearance is debatable, with the0047–2484/97/040403+04 $25.00/0/hu970098 hypodigm comprising a remarkably heterogeneous collection of material from sites such asMauer (the type site of  H. heidelbergensis), Arago, Atapuerca, Swanscombe, Boxgrove, Petralona,Bilzingsleben and Steinheim in Europe, and Kabwe, Bodo, Elandsfontein, Cave of Hearths(Makapansgat) and Ndutu in Africa. In Asia, the material is often largely inseparable from H. erectus , but has been identiﬁed from sites such as Dali, Xujiayao and Maba in east Asia, andNarmada in India. The catch-all term AHS obscures a great deal of diversity and geographical diﬀerentiation, and it has become clear that AHS really represents little more than a‘‘wastebasket taxon’’ into which a variety of phylogenetically unrelated specimens have beendumped. This point is taken up byLieberman (1995 ), who notes: ‘‘. . . any taxon with a relatively large brain that is less than 500,000 years old is usually labelled H. sapiens  by convention. In other words, archaic H. sapiens  is a grade rather than a clade deﬁnition andis therefore incapable of ﬁtting into any cladogram because it may belong to several diﬀerent clades that do not share the same ancestor (i.e. it is paraphyletic). Resolution of this taxonomic problemremains necessary.’’ Resolution is currrently, and will be for some time, extremelydiﬃcult. Many of theproblems derive from the poorly dated (or at the very least, highly uncertain) provenance of hominid and archaeological sites during this period. In Europe in particular this has led topolemic argument centred around proponents of the ‘‘long’’vs. ‘‘short’’ chronology for the ﬁrstsettlement of the continent. The ‘‘long’’ chronology places the ﬁrst occupation of Europe atabout a million years ago, well before the Bruhnes–Matuyama (BM) boundary (ca. 780 kya),and the European Cromerian Glacial Complex, thus placing the earliest archaeologicalevidence from sites such as Le Vallonet in France(de Lumley

et al., 1988 )and Kärlich A inGermany ( Wurges, 1986 ) within the Lower Pleistocene. This view of a pre-Cromerianoccupation has been taken up recently by researchers working on the Iberian site of Atapuerca(TD-6) who attest to have well-dated hominid remains and artefactual assemblages derivedfrom cave deposits that predate the BM Boundary( Carbonell

et al., 1995;Pare´s &Pe´rez-Gonza´lez, 1995 ). In opposition, the ‘‘short’’ chronologists, led byWil Roebroeks and Thijs van Kolfschoten (1994 ), suggest that there is no evidence for archaeological or hominidfossil bearing sites in Europe before 500 kya. The dichotomy is still unresolved, and it is intothis arena of debate that the new Swanscombe volume is ﬂung.The Conway, Ashton, and McNabb edited multidisciplinary volume presents the results andinterpretation of the Barnﬁeld Pit excavations of the late John d’Arcy Waechter of the Instituteof Archaeology, University College London. In 1968, Waechter initiated a series of excava-tions which ran annually until 1972. These researches concentrated on the Lower Gravel andLower Loam, deposits which had received little attention during previous excavations despitethe Lower Gravel having produced evidence of a core and ﬂake industry. Due to Waechter’sdeath in 1977, a full monograph account of his excavations was never published. The present volume was initiated in 1992, and has combined previously written reports, unpublishedhistorical background notes, and new reports on the archaeology, fauna and footprint surfaces.The authors and reports comprise: Bernard Conway on the history of quarrying in the pit, anhistorical perspective on geological research, and the stratigraphy and chronology of the pit; John McNabb on the historical and theoretical background of the archaeological excavations;Steven Parry on the avifaunal remains; Brian Irving on the icthyofauna; Danielle Schreve and Andrew Currant on the mammalian fauna; Peter Davies and Alan Walker on the occurrenceof footprint surfaces; Eric Robinson on the ostracod fauna; Richard Hubbard on thepalynological sequence; and ﬁnally Nick Ashton and John McNabb on the ﬂint industries and404

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their archaeological signiﬁcance. This list includes several researchers (Conway, Currant,Davies, Robinson, and Hubbard) who were involved in the original excavations, and the endresult is a coherent, near-complete excavation report, which manages to oﬀ er far more as a volume than empirical presentation of excavation results.The editors could simply have been content to produce a detailed archive of the excavationsand discussion of the material recovered during Waechter’s researches. However, Conway,McNabb and Ashton have elevated this book above the status of the excavation report by virtue of their attempt to set the excavations at Swanscombe within an historical andparadigmatic framework of late 19th and early 20th Century ﬁeld research, with itsprogressively Darwinian concepts of hominid bio-cultural evolution. Most notable in thisrespect is McNabb’s chapter ‘‘Through the looking glass’’, which presents an historically andtheoretically rigorous assessment of archaeological work undertaken at Swanscombe. Heoutlines the signiﬁcance of the early work of Smith & Dewey (1914 )at Barnﬁeld Pit. These excavators used the artefactual assemblages found within the Barnﬁeld stratigraphic successionto establish the validity of the concept of using zone fossils for the ﬁrst time at a British site.They believed that zone-fossils (time-speciﬁc artefact types) could be used to developchrono-evolutionary sequences for British lithic techno-complexes. This put Swanscombeat the forefront of palaeolithic research at the time, with its validation of the notion thatBritish lithic sequences could be used to relatively date stratigraphic sequences at geo-graphically separated sites. This was perceived to place British Palaeolithic research on a levelpeg with the well-developed, unilinear cultural sequences established on the Continent, and setSwanscombe apart as a test-bed for models of cultural development in British sequences;models that have been subsequently rejected under modern theoretical and operationalframeworks. McNabb charts the changing course of Swanscombe’s role in the developmentof these models and their theoretical context, ending with the notion that ‘‘. . . the mostenduring legacy of Barnﬁeld Pit will prove to be as a reﬂecting mirror for a disciplines growing pains’’.Overall, Conway, McNabb and Ashton, and their contributors have produced a highlyinformative account of over a century’s exploration at a British Lower Palaeolithic site. The volume will provide an excellent source of reference for scholars of this period in the detailof its technical chapters, particularly those concerned with the geological and chronologicalsetting of the site. My only, and very slight, criticism concerns the rather pessimisticcomments on the reconstruction of site palaeoecology in the chapter by Schreve on themammalian fauna. Whilst she is content to view extant species such as fallow deer, beaver,and water vole as ecologically, environmentally and behaviourally stable through time whendeveloping inferences of habitat preference and palaeoenvironment, extinct Pleistocenemegafauna are considered unsuitable for developing such models. Species such as thestraight tusked elephant

Palaeoloxodon antiquus, the rhinocerids Stephanorhinus hemitoechus  and Stephanorhinus kirchbergensis , the auroch Bos primigenius, and the giant deer Megaloceros giganteus

are relegated to providing very general levels of habitat information—the presence of absence of grass or trees, rather than such taxa being used to develop working models of community ecology and habitat preference for Pleistocene fauna with no living counterpart.Recent work by researchers such asHaynes (1991 ),Köhler ( 1993andPlummer & Bishop (1994 )indicates that such pessimism may be unfounded. This minor criticism aside, theSwanscombe volume remains an excellent presentation of research at a British earlyhominid site, and one that can be highly recommended both as a source of reference andhistorical synthesis.405

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