Palaeolithic and Mesolithic

by Louise Austin

I. Introduction

The Palaeolithic and Mesolithic periods are covered in this chapter although divided into two parts which are considered separately: the Lower and Middle Palaeolithic (*c*. 500,000–40,000) and the Upper Palaeolithic and Mesolithic (*c*. 40,000–6,000).

II. Lower and Middle Palaeolithic (*c.* 500,000–40,000)

Introduction

The study of early humans has made great advances in the last ten years, having become a completely inter-disciplinary study, integrating the specialist skills of anthropology and geology with those already familiar in archaeology. The purpose, to discover how people lived, does not differ from that of later periods. However, the methodologies employed may be broader ranging due to the particular problems in recovering the maximum amount of data from the types of evidence which survive.

Within the East Anglian Region there is a great history of study and research into Palaeolithic archaeology alongside work on Pleistocene geology. East Anglia is unique in having extensive deposits of Lowestoft Till, regarded as the single most important stratigraphic marker in Pleistocene Britain, although it has been suggested that there may be two stages masquerading as the Anglian (Sumbler 1995). Most of the sites which have been excavated previously can be related to this and can therefore be given a relative date, making the understanding of the period in East Anglia pivotal to the understanding of the Lower Palaeolithic in the whole of Britain. In recent years there have been a number of major studies of Quaternary sites. These have resulted in great leaps and strides being made in understanding the material culture and lifestyle of the earliest occupants of the British Isles and the changing climate and environment with which they interacted.

Currently the only work which brings together information for sites across the whole of the region is John Wymer's *Palaeolithic sites of East Anglia* (Wymer 1985). This covers Lower and Middle Palaeolithic sites and find spots in the form of a Gazetteer and also includes consideration of the depositional history of specific areas and important sites.

This work will, however, be superseded by *The English Rivers Palaeolithic Survey*, currently being undertaken by Wessex Archaeology, which will bring together a gazetteer of all sites and find spots, information and assessments of geology, the history of discoveries and minerals data as well as mapping the extent of Quaternary sediments combined with the distribution of Palaeolithic discoveries. This will undoubtedly aid planning archaeologists to identify schemes which have a potential threat to Palaeolithic archaeological remains. The finished reports for the East Anglian areas of the survey are expected in 1996 and 1997.

Evidence

The majority of the evidence for Lower and Middle Palaeolithic occupation in East Anglia survives as redeposited flakes and tools recovered from river gravel deposits. Large quantities of artefacts were identified from gravel quarries during the 19th and early 20th century due to the increased demand for gravel in the construction industry and the hand sorting of this gravel. These collections of material and the sites from which they come are not only important for identifying the presence of early humans and the potential for sites which survive undisturbed, for example at channel edges, but also for the study of specific assemblages of artefacts from particular deposits within sequences of gravel terraces. Artefacts in certain contexts of river terrace deposits give a minimum date for the use of these artefacts.

The far smaller number of sites with *in situ* archaeological material which have been discovered and/or excavated in East Anglia in recent years have been fundamental to the understanding of the British Palaeolithic as well as that of Western Europe *e.g.* Clacton, Essex; Hoxne, High Lodge and Barnham, all Suffolk. Through the recent greater understanding of the geological sequence and depositional processes which have occurred within the region, a greater understanding of the climate, the environment with which early humans have interacted and the chronological sequence of archaeological events has been possible.

It is the location of East Anglia at the limits of the ice sheets, where the Lowestoft Till from the Anglian glaciation can be directly correlated to the formation of the Thames terrace sequence, that makes this area unique for building a British Pleistocene framework. The abundance of archaeological sites that can be related to these deposits makes the area critical for the understanding of the Lower Palaeolithic in Britain.

The retreat and advance of the ice sheets over the last half million years has greatly affected the topography and geography of East Anglia. The river drainage patterns have changed dramatically over this time. One of the major elements has been the change in the River Thames drainage pattern which, prior to the Anglian glaciation, followed a north-eastern course out to sea by way of the Suffolk Coast. The subsequent changes to its course have resulted in remnants of this channel surviving in areas of Suffolk and Essex. The River Thames gravel terraces have been identified as being of great importance as the longest record of Quaternary events in Britain with a relatively uninterrupted chronological sequence of deposits. The gravels of the Lower Thames have also been found to be extremely rich in Palaeolithic sites with large collections of material from many sites including Purfleet and Grays among others along the north bank of the river. Recent work in this area (Bridgland 1994), has reassessed the sequence and has reinterpreted the dating and significance of a number of the deposits.

There is also evidence of pre-Anglian rivers from the Midlands crossing the area which is now the Fens into

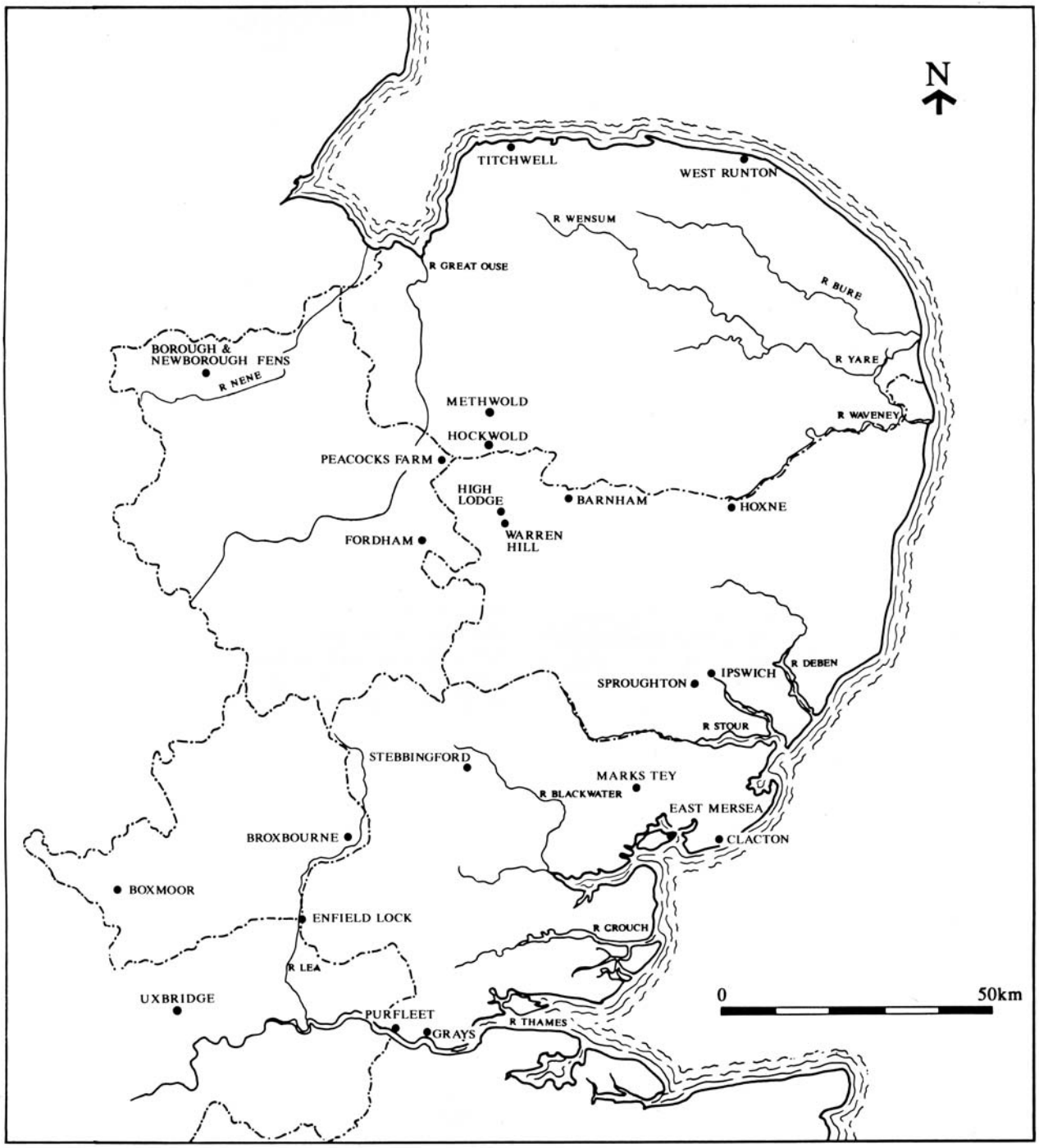

Figure 2 Location of places mentioned in text: Palaeolithic and Mesolithic

Plate I Mersea Island, Essex. Erosion of bluffs of Pleistocene sediments continues relentlessly.
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Norfolk and Suffolk. Some of the gravels identified as being part of this drainage system contain Palaeolithic artefacts. However the river systems which are now in this area (*e.g.* the Ouse and the Cam) were initiated after the Anglian glaciation.

The importance of the Quaternary deposits both with and without archaeological material must be stressed. It is through the combination of these studies, fitting archaeological sites into the broader understanding of the Quaternary, its environment and depositional history as well as the chronological sequence of events that a better understanding of how people lived is being achieved.

More information is needed on all aspects of the environment. These include the understanding of formation processes of Pleistocene deposits as well as the changing interglacial faunas and floras across the region both as dating tools and environmental indicators.

The reliance on the typology of flint tools for identifying chronological markers has through recent work been shown to be problematic. Work at Barnham, Suffolk (Ashton *et al.* 1994), High Lodge, Suffolk (Ashton *et al.* 1992) and other early sites such as Boxgrove, West Sussex (Roberts 1986) suggests that 'Clactonian' flint assemblages can no longer be considered as technologically and chronologically earlier than 'Acheulian' assemblages. These assemblages may not indicate the presence of culturally separate groups. This work needs to be considered and compared with the results of further excavation of sites with both 'Clactonian' and 'Acheulian' material. Sites with flint collections previously identified as 'Clactonian' require re-analysis in order to re-assess what these industries represent.

The absolute and relative dating of archaeological sites is needed to increase the understanding of the sequence of climatic events which affect the region as well as the development of the hominid and human population within it. There is still great debate over the absolute and relative dates of many of the previously collected or excavated sites in the region. The recent work at High Lodge in Suffolk has shown that the presence of early humans in East Anglia occurs at *c*. 500,000 years BP. It is currently argued that there are no earlier securely dated sites for most of Western Europe. French claims for early sites are being seriously challenged although sites in Spain such as Atapuerca and Orce are less controversial.

The evidence for the Lower and Middle Palaeolithic periods which survives in East Anglia is of national and international importance in understanding Europe's earliest populations.

Further areas within the region which are recognised at this time (prior to the publication of results of *The English Rivers Survey*) as being of particular interest include the Chiltern Brickearths, the Breckland of Norfolk and Suffolk and particularly the pre-Anglian Bytham River deposits and post-Anglian fluvial and lacustrine deposits in this area, the palaeochannel deposits at Clacton and East Mersea, Essex, the Cam and Ouse gravel terraces and the lacustrine deposits in central Essex.

III. Environment and Economy

by Peter Murphy

The Cromerian channel deposits at West Runton, extensively studied by Quaternary palaeoecologists (West and Wilson 1966), and recently re-investigated in association with the near-complete elephant skeleton from the site, have not produced indisputable evidence for human activity. However, artefacts are now known from

late 'Cromerian Complex' sediments (*c*. 500,000 years) at Warren Hill and High Lodge, Mildenhall, relating to a pre-Anglian river system (the 'Bytham River') flowing eastwards across East Anglia from the Midlands (Ashton *et al.* 1992, 18–19). Clayey silts at High Lodge produced a pollen assemblage indicating pine/spruce woodland with juniper, herbs and heath plants, a cool temperate insect fauna and mammalian remains, including an extinct species of rhinoceros, elephant, bovid and deer.

The predominantly marine Nar Valley Beds (West and Whiteman 1985), lake deposits at Hoxne (West 1956), Clacton Channel deposits (Bridgland *et al.* 1992), and lake sediments at Marks Tey (which produced a complete interglacial pollen sequence: Turner 1970) are all attributed to the Hoxnian Stage, though it is possible that more than one interglacial stage is conflated within the Hoxnian (Bridgland 1994, 13). Palaeoecological data from Hoxne are presented by Singer *et al.* (1993). Bridgland *et al.* (1992) have re-investigated the Clacton deposits, providing additional palaeoecological information and confirming the Thames-Medway origin of the deposits; whilst the earlier studies of Singer *et al.* (1973) produced artefacts associated with bones of deer, bovids, horse, elephant and rhinoceros. Evidence for a human presence within the Ipswichian Stage, defined by the presence of *Hippopotamus* (=Oxygen Isotope Sub-stage 5e) is very slight (Wymer 1984). Molluscan and other evidence indicates that temperatures were relatively high in this interglacial, allowing thermophilous species to extend their range northwards (*e.g.* French 1982; Sparks and West 1970).

There are several palaeoecological studies of middle Devensian interstadial deposits from East Anglia (Bell 1970; Girling 1974; Bridgland *et al.* 1991). At Bramford Road, Ipswich Late Mousterian bifaces appear to have been derived from interstadial deposits (Wymer 1984, 38).

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IV. Upper Palaeolithic and Mesolithic (*c.* 40,000–6,000)

Introduction

This period covers the end of the last glaciation (Devensian Stage) and the immediate post-glacial period (Flandrian). At the beginning of this period Britain was a part of the European landmass and settlement in East Anglia was just an extension of the settlement of the North European Plain, while by the end of this period it had become more or less the island that we now know.

At the end of the Devensian the sea-level was about 30m below present with most of the land becoming forested with the ameliorating climate. In the mid 9th millennium BP, with the breaching of the land bridge, East Anglia became cut off from the rest of north-west Europe. Sea levels rose rapidly and peat formation commenced in low lying areas. A date of 8,600BP has been found for buried peat in Cambridgeshire (Hall 1987).

Material has been recovered from across the region dating to this period, however there have been very few large scale excavations, particularly in recent years.

Upper Palaeolithic

Relatively few Upper Palaeolithic sites have been identified in East Anglia. The region lacks the cave sites which have proved to be so important for the preservation of sites in other areas *e.g.* Kent's Cavern, Torbay, Devon; Creswell Crags, Derbyshire; Gough's Cave, Cheddar Gorge, Somerset; *etc*. The Earlier Upper Palaeolithic is very poorly represented across the whole region although there is somewhat more known from the Later Upper Palaeolithic.

The majority of material identified from East Anglia consists of stray artefacts with only a few known stratified sites. The main stone tool 'industry' of the British Upper Palaeolithic is identified as 'Creswellian' which has affinities with material from Northern Germany and the Low Countries which in turn are regarded as aspects of the Magdalenian, the latest of the major technocomplexes (Smith 1992). Long blade sites are also known but none have been securely dated, although a date of *c.*10,000BP is suggested by the typology and continental parallels. There is the potential for good survival of Late Glacial archaeology in alluvium in river valleys and under Fen deposits.

The recent discovery and excavation of a late glacial/early Mesolithic site of national significance at Uxbridge in the Colne valleys (Lewis forthcoming) has particularly highlighted the potential for the survival of well preserved occupation sites. Although this site technically lies outside East Anglia similar situations occur in the alluvium and peat of valleys and fens across the region. This discovery emphasises the need to consider the potential for the preservation and survival of such sites in alluviated and other areas where buried landscapes may survive.

Recent work at Titchwell, Norfolk (Wymer pers. com.) has discovered evidence of a long blade industry similar to that identified at Uxbridge. This adds to mounting, but currently unpublished, evidence of similar long blade sites below the water table of Norfolk and Suffolk Rivers and the Fens. Other examples of long blade industries in East Anglia come from Hockwold-cum-Wilton and Methwold, Norfolk (Healy 1996, 53).

There are no recent published accounts which deal specifically with the Upper Palaeolithic of East Anglia. For accounts of recently excavated sites from the period the following should be considered: Hengistbury Head, Dorset (Barton 1992) and Uxbridge, Middlesex (Lewis forthcoming).

In general this period is still poorly understood in East Anglia. The rarity of well preserved sites increases the importance of those few which may survive. It is of vital importance that the potential presence of such sites is considered in all appraisal, assessment and evaluation which is undertaken within the region.

Mesolithic

East Anglia is quite rich in Mesolithic sites, and has a far more widespread distribution of known remains than for the Upper Palaeolithic. However, although there have been numerous surface finds there have been very few excavations of sites with material in primary context, particularly where there has also been associated dating and environmental evidence.

The light soils and open landscape of the Brecklands, river channels and roddons within the Fens appear to be areas particularly rich in Mesolithic activity. Other areas which are currently identified within the region as being of particular interest or importance to the Mesolithic includes estuarine and coastal intertidal zones as well as the ground surfaces sealed beneath peat and alluvium formation.

The Lea valley has also been identified as being of particular importance for the survival of Mesolithic remains and appears to have been a favoured area for settlement (Jacobi forthcoming). Remains of occupation have been found within the organic peat deposits which began accumulating in the area during the Mesolithic period. Such sites have the potential for the survival of organic and environmental evidence. An example of the potential of the Lea valley is the nationally important site at Rikoff's Pit at Broxbourne.

A positive policy is needed for the study and investigation of the Mesolithic and Upper Palaeolithic periods across the region. At present many of the fenland and river valley deposits which have the potential for the excellent preservation of such late glacial and early post-glacial sites are under threat from mineral extraction and other large scale development. In addition, where organic remains survive associated with these sites there is also the threat of dewatering through drainage resulting in the destruction of irreplaceable artefactual, economic and environmental information.

All areas where remnants of late glacial and early post-glacial landsurfaces are preserved have the potential for well preserved Upper Palaeolithic and Mesolithic sites. Areas where subsequent peat formation or deposition of alluvium *etc*. has resulted in the sealing and burial of parts of the landscape.

Areas which have been identified as currently of particular importance or interest for the Mesolithic within East Anglia are the Lea and Colne river valleys and their tributaries, the Crouch estuary palaeochannel, estuarine and coastal intertidal zones particularly in the Wash area and Essex, Breckland, the Fens and areas of alluvium within river valleys.

V. Environment and Economy

by Peter Murphy

The Devensian glacial maximum was around 25,000–18,000BP (Evans 1975, 42), when ice advanced to the North Norfolk coast and the Fen Basin (Bridgland *et al.* 1991). The aeolian Cover Loam of north-east Norfolk and the Cover-Sands of the Breckland were deposited at about this time (Corbett 1973; Tatler and Corbett 1977, 10–11). At Sproughton, Suffolk, Late Upper Palaeolithic artefacts came from a buried soil overlying channel sediments defined palynologically as Zone III–Younger Dryas (Wymer and Rose 1976). Chambers and Mighall (1991) have presented palynological and other palaeoecological data from late glacial sediments at Enfield Lock for an environment dominated by sedges with dwarf birch and arctic willow. Penecontemporaneous sediments at Uxbridge, associated with a long-blade industry, have produced horse and reindeer bone with pollen and soil micromorphological data; significantly vegetational changes inferred from pollen were related to dense bands of charcoal (Lewis *et al.* 1992). At Titchwell, Norfolk, sediments unfortunately appear to post-date a long-blade industry (Wymer 1989).

Devensian periglacial features including pingos (Sparks *et al*. 1972), stripes, polygons, ice-wedge casts (Evans 1972) and amorphous involutions are widespread. The presence of radiocarbon-dated pine charcoal and associated Mesolithic artefacts in the latter (Healy 1988, 104; Murphy 1992) shows that many survived as depressions into the post-glacial, though differentiation from post-glacial tree-throw holes is not always easy.

Palynological information on the developing post-glacial woodland has been provided by Waller (1994), in the fens, and Devoy (1979), Scaife (1988) and Evans (1995) in Essex: as elsewhere in lowland Britain, birch/pine woodland was ultimately replaced by 'climax' lime/oak/elm/hazel woods. More recent work (mostly as yet unpublished) has focused on sedimentary sequences directly associated with Mesolithic and later sites. Lewis *et al.* (1992) present data from Uxbridge indicating Mesolithic activity in an open swampy habitat, with regional pine woodland prevalent in the early to mid Boreal and a succession towards deciduous woodland in the late Boreal. At Boxmoor, Berkhamstead pollen and macrofossils from late Devensian to Flandrian fills of pingos have recently been assessed: basal fills formed in standing water including pollen of birch, with pine, willow and arctic/alpine steppe herbs, and dwarf birch catkin scales, were overlain by sediments formed under birch and then mixed deciduous woodland, with representation of an alder rise (*c.* 8000-7500BP) and the elm decline of *c*. 5000BP (Murphy, Wiltshire, in prep.). A palaeochannel of the River Snail at Fordham had basal fills producing pollen assemblages dominated by herbs, aquatics, birch, pine and hazel-type (Zone IV), overlain by sediments of Zones V and VI in which hazel-type and pine dominated, followed by a local alder rise and development of mixed deciduous woodland in the catchment (Wiltshire, in prep). The fills of a palaeochannel incised into till at Stebbingford produced molluscs, plant macrofossils and pollen indicating infilling probably from Zone IV onwards, with abundant micro-charcoal throughout (Wiltshire and Murphy 1996).

Bennett *et al.* (1990) discuss the significance of high micro-charcoal frequencies in sediments pre-dating 5000BP, concluding that they relate primarily to domestic fires rather than woodland clearance. However, Lewis *et al.* (1992) suggest that dense charcoal deposits in the sediments at Uxbridge may relate to more widespread burning of woodland. Evidence for fires during the Boreal is reviewed by Macdonald *et al*. (1991).

Smith *et al*. (1989) have argued for a pronounced Mesolithic impact on woodland, about 8250BP, at Peacock's Farm, and soil micromorphological data from sites at Borough and Newborough Fens are thought to indicate late Mesolithic disruption of woodland cover (French and Pryor 1993).

Few sites in East Anglia have produced Mesolithic faunal remains, though a bone assemblage dominated by red deer is reported from Uxbridge (Lewis *et al.* 1992). There is virtually no information on the Mesolithic plant economy.

The Mesolithic coastline is discussed by Waller (1994) and Wilkinson and Murphy (1995). There was a rapid rise in relative sea-level in the Mesolithic: between 8500 and 7000BP, MHW rose from -25.5m OD to -8.9m OD (Devoy 1979), resulting in submergence of extensive lowland areas. A significant positive sea-level tendency at around 6500BP is widely distinguishable (Wash I, Yarmouth I, Thames II: Brew *et al.* 1992).

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