An Archaeological Resource Assessment of the Palaeolithic in Lincolnshire

Steven Membery

Note: For copyright reasons the figures are currently omitted from the web version of this paper. It is hoped to include them in future versions.

Introduction
The last decade has seen an increase in the study of the evidence from this period as the discipline has integrated knowledge from geology, environmental science as well as anthropology and archaeology. The methodologies concerning collection, analysis and interpretation of material representing early human activity has expanded to incorporate a wider range of scientific approaches. Recent studies have lead to a far greater understanding of Quaternary sites in other parts of the country but Lincolnshire has received little attention when compared to such areas as East Anglia or Southern Britain. The English Rivers Palaeolithic Survey (Wessex Archaeology 1996) has recently discussed evidence for the Palaeolithic period in Lincolnshire but despite a series of studies such as Wymer and Straw (1977) the only other summary publication concerning this period is May’s Prehistoric Lincolnshire (1976). Other investigations have been carried out such as that by the British Geological Survey, and fieldwork by Professor Allan Straw but little published material is available. The data from this period has frequently been viewed, and discussed in terms of geological epoch rather than the more detailed oxygen isotope sequence. This dating system is one from which the Lincolnshire data could benefit although it is only recent studies that have utilised this method such as the Palaeolithic rivers study which is not exhaustive.

Find spots from which palaeoliths have been recovered are scarce within the county although a growing record now exists within the SMR and palaeoenvironmental investigations are discussed in the Wessex survey. Further studies of evidence, such as the Peterborough elephant, and Palaeoenvironmental evidence from the gravel terraces of southern Lincolnshire are forthcoming (Bennet & Trimble pers. comm.). However often faunal remains are not included within archaeological investigations (or recorded on the SMR) because of a lack of associated artefacts. This furthers an already existing gap between geological and archaeological studies which means recorded data is difficult to access.

Lower and Middle Palaeolithic (c.500,000-40,000)
The presence of widespread glacial tills indicates that the Anglian glaciation had covered most, if not all, of Lincolnshire. It is also possible that further ice sheets associated with the Wolstonian were also widespread throughout the region (West 1968) with most of the eastern areas (the Lincolnshire Marsh) being glaciated during the Devensian. The Devensian ice margin is believed to have formed a curving boundary running roughly north-south paralleling the chalk Wolds. This margin has resulted in the presence of surviving pre-Ipswichian tills which are thought by some (Bristow & Cox 1973) to equate with the Lowestoft Till of East Anglia. These glaciations have resulted in a complex history of topography within the county. River drainage patterns have been shown to have drastically altered throughout the period under discussion. Therefore surface geology may exhibit little relationship with existent rivers.

Palaeoliths have been recovered from a series of different geological context within the county. These deposits include river gravels, glaciofluvial deposits, blown sands and surface sites on both Cretaceous and Jurassic outcrops and on the Oxford Clay at Sleaford and Barlings. Palaeolithic recording in Lincolnshire is relatively recent as artefacts have only been recovered from the county since 1897. These early collections were doubted as genuine due to their northerly provenance. The SMR contains only 46 site entries for the Palaeolithic with all finds occurring on the uplands of the county with none known from the Fens. Examples of fine early implements are known, such as the Risby Warren Middle Palaeolithic bout couple hand axe but there are no indications of artefacts being recovered from true in situ contexts. The majority of artefacts are handaxes composed of both andesite and quartzite but a quantity of retouched flint flakes have also been recovered. Most finds are singular and when associated
with faunal remains useful for biostratigraphic comparison derive from secondary depositional layers (Wessex Archaeology 1996). However, it is possible to assess the time depth of human activity within the county by summarizing the evidence in terms of geological age. Palaeoliths recovered from gravels at Welton-le-Wolds have been interpreted as deriving from a pre-Devensian layer (Catt 1977, Bristow and Cox 1973) or possibly Wolstonian (Shotton 1981). Human presence within the Hoxnian interglacial is evidenced by Palaeoliths recovered from Kirmington (WESSWX). Over 70 artefacts have been recovered from this site which have been described by Burchell and Boylan (1966). A Wolstonian date has been designated to a handaxe recovered from the Fulbeck Sand and Gravels at Tattershall associated with Hippopotamus amphibius (Brandon and Sumbler 1988).

Debate does surround the dating of these sites especially the Tattershall handaxe as the Fulbeck sand and gravel are thought to be Ipswichian and the freshness of the artefact argues against a relatively local derivation. The present evidence (despite dating problems) shows that, once geological deposits are better understood, it will be possible to predict zones or areas within the county which have the potential to produce evidence of human utilisation for c. 250,000 years.

Conclusion
As shown by the recovery of in situ animal remains such as the Peterborough elephant (dated 120,000 BP T. Lane pers. comm.) there is the possibility of buried landscapes. This alongside of the recovery of albeit äredesposited Palaeoliths shows the possibility of the existence of reasonably complete stratigraphic sequences from as early as pre-Devensian contexts. The problematic dating of speculative Anglian deposits in the region makes any associated interpretation of human activity difficult concerning these early phases. Conversely the evidence indicates that the possibility exists that important deposits are present which have the potential to aid a greater understanding of the Lower Palaeolithic within a frontier environment. Quarrying is a primary source of evidence for this period but at present archaeological monitoring of quarry sites is normally limited to excavation of surface deposits and features associated with later occupation. There are examples of quarry investigations in other counties such as Northampton but methodological problems occur due to the longevity of projects and economic justification. In order for future investigations to be managed predictive modelling needs to take place based on available data. An integration of different classes and sources of evidence needs to occur including bore-hole data, British Geological Survey data, SMR data and university projects.

Upper Palaeolithic (c.40,000-9,000)

Evidence
Due to the lack of protected environments, fissures or caves which occur in neighbouring counties such as Creswell Crags (Nottinghamshire) the evidence for this period is poorly represented, although a few well stratified artefacts have been recovered. Quantities of small bladed artefacts representative of the Creswellian industry have been found around the Scunthorpe area as well as a penknife point recovered from Risby Warren. However, these are considered to illustrate the only real evidence for activity within the region at this time.

Conclusion
The Upper Palaeolithic period representation within the county at first appears to be of low potential.

Main Reading

Alabaster, C. 1976  ‘The Pleistocene context of faunal remains and artefacts discovered at Welton-Le-Wold, Lincolnshire’ Proc Yorks Geol Soc 41 (1, no.8) pp.75-93


Burchall, J. 1931  ‘Palaeolithic implements from Kirmington, Lincolnshire and their relation to the 100 foot raised beach of Late Pleistocene times’, *Antiq J* **11** pp. 262-72


Hayes, P. and Lane, T. 1992  *The Fenland Project No. 5: Lincolnshire Survey, The South-West Fens*


Roe, D. 1981 *The Lower and Middle Palaeolithic Periods in Britain*, RKP, London


West, R. 1968  *Pleistocene Geology and Biology*, London Longmans

The geological aspects of these archaeological finds I have dealt with fully in a paper read subsequently to the Prehistoric Society of East Anglia. Both papers, however, were complementary to one read by J. Reid Moir on archaeological discoveries of a similar nature made by him in north-west Norfolk in the Brown Boulder clay. With the objects of obtaining confirmation of Lamplugh's geological opinion and of bridging the gap between north-west Norfolk and Yorkshire, I decided to investigate the glacial sequence in north-east Lincolnshire, choosing Kirmington as a centre. Type. Research Article. Posnansky, Merrick 1963. The Lower and Middle Palaeolithic Industries of the English East Midlands. Proceedings of the Prehistoric Society, Vol. 29, Issue., p. 357. CrossRef. In Palaeolithic terms, the majority of British archaeology is ‘surface archaeology’, that is the remains are generally found either in or immediately below the topsoil. They are thus susceptible to prospection by such means as aerial photography, geophysics and surface survey, and can be investigated by means of comparatively shallow excavation. PPG 16 has ensured that most archaeologically-sensitive development has had some form of assessment, watching brief or excavation. However, in the case of sand and gravel quarries, where the potential for Palaeolithic archaeology is often high, it is frequently overlooked. The Archaeology of Britain is a comprehensive and up-to-date introduction to all the archaeological periods covering Britain from earliest prehistory to the industrial revolution. It provides a one-step textbook for the entire archaeology of Britain and reflects the most recent developments in archaeology both as a field subject and as an academic discipline. Chapters are organized in chronological order and are followed by two-level bibliographies: the first provides core-reading material, the second, a more detailed guide to the subject area. His main areas of research are in Palaeolithic and Mesolithic archaeology. He is currently writing up research on the human uses of caves in the Wye Valley, Herefordshire, and is codirector with Professor Christopher Stringer of the Gibraltar Caves Project. View Palaeolithic Archaeology Research Papers on Academia.edu for free. Barozh 12 is a Middle Paleolithic (MP) open-air site located near the Mt Arteni volcanic complex at the margins of the Ararat Depression, an intermontane basin that contains the Araxes River. Sedimentology, micromorphology, geochronology, biomarker evidence, together with an assessment of artifact taphonomy permits the modelling of site formation processes and paleoenvironment at a level of detail not previously achieved in this area.