

# **An Archaeological Resource Assessment of the Palaeolithic and Mesolithic in Nottinghamshire**

*Mike Bishop, Principal Archaeological Officer, Environment Department,  
Nottinghamshire County Council.*

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.

There are some 70 records which refer to Palaeolithic and Mesolithic material in the Nottinghamshire Sites and Monuments Record (figs 1 and 2). Little of this has come from formal excavation, the caves at Creswell Crags, and the Mesolithic site at Misterton being the principal examples. Acheulian and Mousterian hand axes and flakes are recorded in some quantity from the gravels of the 1<sup>st</sup> (Beeston) terrace of the Trent<sup>1</sup>. Most of these are attributed to secondary deposition, with those from the Stoney Street Pit in Beeston for example, being described as heavily rolled. On the other hand, the sheer quantity from some locations, as with the 16 axes and 30 flakes from the Tootle Brook Pit, does raise questions about this interpretation. Otherwise, most of our Upper Palaeolithic and Mesolithic material comes from fieldwalking or casual finds, and consists of stone tools and debitage. Organic artefacts are rare and of bone or antler, such as the Mesolithic harpoon head from Attenborough or the upper palaeolithic engraved horse head from Creswell Crags (actually from just within Derbyshire, needing mention as our only example of naturalistic art).

The distribution of the material clearly reflects the geographical variation in archaeological work and interest. For both the Palaeolithic (fig.1) and the Mesolithic (fig.2) this distribution is weighted towards the Trent Valley, although there is a general scatter across the County. Mesolithic material in particular has been found in a variety of locations from the higher ground of the Magnesian Limestone to the low-lying Idle Valley. Tempting though it is to interpret this in terms of particular environments that may have been preferred by hunter gatherers or of seasonal movements, such ideas must be treated with extreme caution. This distribution is clearly biased differing degrees of pressure for modern development (and therefore the differing intensities of archaeological activity), and the general lack of large scale field-walking. It is clear that we are still in the phase of basic discovery, when a Palaeolithic open site can be revealed against all expectation in field-walking for a proposed re-routing of the A46 at Farndon<sup>2</sup>, and when, in another phase of the same study, field walking along the A46 corridor, can substantially enhance our record of Mesolithic material, and extend its distribution into areas such as Wolds which have been traditionally regarded as marginal<sup>3</sup>.

With so few “sites” and, in the main, a low volume of artefacts, previous work has been limited largely to the reporting and description of occasional individual finds or groups of finds. Apart from this, Creswell Crags has been a particular focus, giving its name to the lithic culture of the Upper Palaeolithic, while the Mesolithic site at Misterton is only other significant excavation, with its geographical position inevitably invoking comparisons with Starr Carr<sup>4</sup>. More recently, focussing upon the archaeological resource management problems of the Palaeolithic in particular, Nottinghamshire County Council grant aided the Trent and Peak Archaeological Trust in 1994 to carry out a review of “open air” Late Upper Palaeolithic sites in Nottinghamshire and an assessment of possible locations for future investigation<sup>5</sup>.

With an absence of structural and organic remains discussion and interpretation has been and still is largely based on the technical details of the lithic cultures involved. Over the last 10 years however, the limitations of this have been pushed out somewhat through the holistic, landscape orientated approach that has been applied to alluvial archaeology in Nottinghamshire. Although both the premise and results of this approach have proven to be of considerable value to all periods, it is particularly appropriate to the early Holocene.

Palaeolithic and mesolithic hunter-gatherers were by definition, only one of many populants of the landscape which was otherwise dominated by natural flora and fauna. It must be remembered that human populations were tiny and that the chronological span of their activities was some 5,000 or more years. To reach any comprehension of their society and behaviour it is necessary to study not just their material culture but the nature of, and changes in, their environment. Further, given the paucity and serendipitous incidence of the cultural evidence, the only means of gauging their development and their effect on the environment is through the palaeoenvironmental studies that will enable us to describe that environment through time and identify anthropogenic alterations in it. Through a consistent approach to the recovery in developer funded work of geomorphological and palaeoenvironmental data we have begun to develop our understanding of the fluvial landscapes of the Trent and Idle Valleys in particular, and to extend the interpretation of the evidence into their hinterlands <sup>6</sup>.

Insert Fig.1 Palaeolithic Sites in Nottinghamshire (Crown Copyright Reserved, Notts CC licence no.076791)

Through this work and the synthesis of earlier observations, together with analogy from the wider interpretations of environmental history, we have an outline model that provides a context for our palaeolithic and mesolithic sites and people in what was to become Nottinghamshire<sup>7</sup>. Open tundra landscapes at the end of the Ice Ages were replaced by forest that developed through a succession of species, under the influence of climatic change and soil development. The composition of this forest will have varied from region to region and locality to locality. By around 6,000 BC the dominant woodland will have been a mixture of *Quercus* (Oak), *Ulmus* (elm), *Pinus* (pine) and *Corylus* (hazel) with some birch. The former two and hazel will have been predominant on the claylands, while pine and hazel probably dominated on the Sherwood Sandstones. *Betula*, *corylus*, *salix* and *Alnus* characterised the floodplains of the major rivers. During the last third of the sixth millennium BC Alder increased in the floodplain environments, pushing out the *Pinus* which was unable to compete under conditions of rising groundwater to which it was less well adapted. Elsewhere *tilia* (lime) also increased, again out-competing the *pinus* on the heavier soils to become a principal component of the forest. Only on the drier, poorer soils of the Sandstones did *pinus* retain its dominance. These woods will have been populated by a range of western european forest fauna, from aurochs to wild cat and martens.

Until the sixth millennium BC the Trent was a braided river, consisting of many channels with an unstable course, flowing between terraces of gravel laid down during the last phase of the Ice Ages through which it had subsequently cut. Towards the latter end of the millennium sea levels began to rise, altering the flow of the river and causing sediment to be deposited on the valley floor. This was the beginning of the process by which the modern Alluvial Lowlands landscape was created, with the floodplain being filled with aggraded deposits of sands, gravels and alluvium as the river itself gradually changed into the essentially single channel, meandering Trent which we know today. This is a gross over simplification of a complex process in which a powerful, active and unpredictable river repeatedly flooded, deposited alluvium, cut and changed course, eroded its banks and landp-surfaces and built others anew. The valley of this early river was well wooded with oak, elm, and pine, willow and hazel. Around 5000 BC lime became a major component of the woods of the Alluvial Lowlands and surrounding regions. About the same time, as pollen from Bole Ings indicates, alder swamps developed in many locations in the Trent floodplain.

In north Nottinghamshire, the landscape of the Idle valley, which extends out into the Humberhead levels, has an origin in a southern extension to Lake Humber, created some 18,000 years ago during the last Ice Age when ice sheets blocked the Humber. As the ice sheets retreated after 11,100 years ago rivers and streams were left flowing in an unstable, braided manner across the now empty lake floor. Because the sea level was at much the same height and the coast well out in the North Sea, these rivers and streams deposited silts and banks over the area. Only in the final stages of the last Ice Age did the fall in drainage become sufficient for rivers to begin down-cutting and so become single channelled. This phase was completed by 7000 years ago and then reversed, with alluvium being deposited and peat being developed, as sea levels rose and drainage slowed or became impeded. This was essentially the beginning of the marsh and fen landscape with which historians are familiar in the Idle Lowlands, but which did not fully develop until the Late Roman period. The early hunter-gathering communities here lived in a landscape of rivers

and woodland that was at first characterised by oak, elm and hazel, which after 5000 BC became dominated by alder, oak, lime and hazel.

These environments offered a variety of rich resources for hunter-gatherer groups. But although they were efficient harvesters of the forest, and the effects of this may have been locally significant in the short term, their low numbers and wide range of movement suggests that their impact on the forest overall was probably quite minor.

All this presents particular problems in the management of the archaeological resource. The lack of field-walking, the lack of structural remains observable as earthworks or cropmarks, the low numbers of recorded sites and the variety of locations in which those that are recorded occur, renders the incidence of palaeolithic and mesolithic remains virtually unpredictable. The discovery of new sites is serendipitous, often now in the course of field survey and evaluation related to development. The poor survival of anything other than stone equipment, and then mainly in plough-soil or top-soil nullifies most argument for preservation in situ. We are left with the fact that when such remains are encountered our only justifiable response is preservation by record.

Our research imperatives therefore, must have two main objectives. The first is to improve our understanding of the frequency and types of sites and their contexts, so that we may properly plan and structure our approaches to their management. The second is to maximise data recovery and interpretation capacity by improving our strategies in the excavation and recording of sites producing palaeolithic and mesolithic material.

We need therefore, to ensure that the possibility of palaeolithic and mesolithic remains is addressed in development related surveys and investigations. More urgently though, we need programmes of field-walking on all geologies and in a range of topographical situations – programmes that are over and beyond the necessarily narrow restrictions of development orientated work. One of the objectives of this guide is to research the locations of sites and actively seek patterns and criteria that will enhance both interpretation and our predictive abilities, and to test these in the field. The assessment of possible locations for Upper Palaeolithic sites in Nottinghamshire is one example of how this may be taken forward, having identified a number of areas suitable for fieldwalking in search of such sites based upon criteria identified from the example at Farndon. Ultimately, the results of such work have to feed back into the development of suitable prospection techniques that can be specified and applied to archaeological work in general.

We must continue to seek out and examine geomorphological data and palaeoenvironmental evidence, in order to identify and date land formation processes and local variations in flora and fauna. This will not only help to explain the occurrence of cultural material, and improve our predictive capabilities in respect of preservation, but will improve our general model building capacities. When we can postulate favoured areas of human activity on the basis of environmental context, and better still identify them from human impacts on the environment we will be in a much better position to model both the societies and the economies of these hunter-gatherers. Further, such postulations and identifications may well have a bearing on the archaeology of the agricultural societies that followed.

We must improve our understanding of what lithic field scatters, which constitute the majority of recorded remains of these periods, may actually represent. This is essential if we are to progress our understanding and management of these types of site. It is insufficient to categorise them as effectively destroyed and the lithic material as survivals in a disturbed context. However true this may be, it ignores logic and experience. This tells us that although any structures were likely to be ephemeral in the first place and not survive, other equally ephemeral evidence about the use of space and functional separations does survive, even if mutilated, in the distribution of artifacts and debitage. We need attention to the detailed distributions of cultural material then, and not just laterally but vertically also, for we need to understand the meanings behind the varying depths at which objects occur and the site formation processes that affect both the recognition and interpretation of sites. We must seek the scientific techniques that will enhance understanding of these processes and aid the recognition of contexts, such as fossil soils, that will maximise the meaning of the artefacts.

The traditional approaches of lithic studies should not be ignored either. Valuable, indeed essential, as these have been to our current understanding, they have generally focused upon large groups of material on an individual site by site basis, and upon diagnostic types. Many of the flint collections from Nottinghamshire are small and have few standard diagnostic types. Nevertheless, if treated as assemblages and as components of wider regional assemblage there may be mileage in the their shared and different characteristics. Continued study of assemblage of stone tools and the techniques of their manufacture, together with examination of the sources of flint and stone, should help to identify links, if not cultural groupings, amongst the material and shed light upon regional patterns of movement and the use of resources.

The character of the hunter-gatherer communities of the palaeolithic and mesolithic, render these periods particularly suitable for regional approaches. Despite the strictures given above in respect of the interpretation of the distribution of sites and finds, there has to be a *prima facie* expectation of relationships between different geographical areas within an overall pattern of exploitation. It is entirely reasonable therefore, to expect that both the Trent Valley and the Peak District will have been part of the range of particular groups, providing lowland and highland food and other resources according to climatic and ecological circumstances, time and season.

In sum, our current knowledge and understanding is limited. There is much then, to be done, especially in the identification and collection of basic data. All archaeologists need to hold in the their consciousness the fact that palaeolithic and mesolithic remains may occur anywhere. Curators need to consider this in setting briefs and consultants and contractors need to take it into account in the design of their work. Once the presence of such remains, or of suitable palaeoenvironmental contexts, is identified they should be treated as high priority research concerns and resourced accordingly. More urgently though, we need to integrate specialists and other archaeologists in developing the proactive approaches to research and the dissemination of results and ideas that will guide fieldwork and maximise its return to overall understanding.

## References

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<sup>3</sup> Trent and Peak Archaeological Trust, *Archaeology of the Fosse Way*, II, Report to English Heritage, 1992.

<sup>4</sup> Buckland, P.C. and Dolby, M.J., “Mesolithic and Later Material from Misterton Carr, Nottinghamshire – An Interim Report”, *Transactions of the Thorton Society of Nottinghamshire*, Vol 77, 1973, 5-32.

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<sup>6</sup> Knight, D. and Howard, A., *Archaeology and Alluvium in the Trent Valley*, an archaeological assessment of the floodplain and gravel terraces, Trent & Peak Archaeological Trust, 1994.

<sup>7</sup> Bishop, M.W., 1997, “Landscape History”, sections in *Nottinghamshire Landscape Guidelines*, Nottinghamshire County Council