

Notes on the South East Research Framework public seminar on the Upper Palaeolithic and Mesolithic periods (13/10/07)

Chair: Matthew Pope

Speakers: Caroline Wells, Andrew Maxted, Lucy Farr, Mike Allen (*in absentia*) and Richard Carter

Notes: Jake Weekes

Introduction

Matthew Pope (MP)

MP began by noting issues to deal with nationally in terms of the relationship between Mesolithic studies and those looking at the rest of the Stone Age. He argued that national research frameworks demonstrated a general culture of driving a wedge between overall Stone Age archaeology and the study of the Mesolithic, the latter tending to be relegated to an almost secondary consideration in comparison with other subjects. Yet the Mesolithic is being analysed more and more in Neolithic studies, for example, in terms of questions of transition. MP hoped that the South East regional framework would make the Mesolithic relevant again on a regional and national scale.

Following a brief overview of the history of research into Mesolithic (noting particularly the post-war stasis in studies until the seminal work of Roger Jacobi in 1970s and 1980s), MP also quickly summarised Upper Palaeolithic studies in the region, pointing out that the South East has very low numbers of sites as compared with other areas. This might result from colonisation being impeded by the Channel River and other physical barriers at this time.

An overall theme for the following papers would be differing use of varied resources in particular areas of the South East, conditions created by varied geology.

The Mesolithic period in West Sussex

Caroline Wells (CW):

CW focussed on the Mesolithic period in West Sussex, considering previous overviews, and various methods of prospecting for new sites that might add to the existing picture.

Curwen's work in the early 1950s had suggested a preference on the part of Mesolithic hunter gatherers to occupy sandy soils, with apparently no sites on the Sussex coastal plain, but later work in the 1970s and 80s (by Roger Jacobi and Peter Drewett respectively) had shown that this was not the case, sites having been, by this time, located on the coastal plain (M. Pitts' survey had been significant in adding these) as well as heath land. There are also sites known in the Weald (at Rackham, for example), and Mark Gardiner noted in 1990 (Sussex Archaeological Collections 128) that the Wealden fringe was relatively well populated in the Mesolithic (the site at

Henfield, on a greensand spur, can be cited here. Recent synthesis by Holgate (2003), and fieldwork by Chris Butler (particularly in relation to the Weald, and sites associated with work on the A23 at Sayers Common, for example) should also be taken into account.

CW drew attention to the significance of the changes in geology at the Wealden fringe, and associated spring lines; were these favoured places for flint knapping sites? Soils maps might highlight further potential for sites in various areas. There are not many sites on the downs, this perhaps being an invisibility issue resulting from 'background noise' of flint artefacts from other periods; it could equally result from there being a lack of water in these areas. The Brighton By-pass sites provide notable exceptions, and the recently published Historical Atlas of Sussex shows sites north of Chichester. Brown earth sites at Peacehaven are also significant, and such soils may be important foci for future work. There is also much potential for Mesolithic artefacts in Clay-with-flints contexts.

Moving on to archaeological contexts, CW noted Drewett's example of indeterminate features beneath Bronze Age barrows at West Heath, dated to the Mesolithic by Carbon 14 methods. More recently Priestly-Bell (Sussex Archaeological Collections 144, 2006) has also listed a number of curving gullies and pits thought of as being Mesolithic features, and *in situ* densities of worked flint and burnt flint at Rock Common, Washington also testified to Mesolithic occupation of some sort, this time from a heath land context. CW argued that further broader landscape studies were needed, such as that carried out at Westhampnett in 1991 (Fitzpatrick *forthcoming*) which was an excellent example of what could be done through analysis of large scale flint assemblages recovered from features over a wide area of investigation in a developer led setting. Here an assemblage of approximately 4500 flints (including microliths and tranchet flakes) had been recovered from a small gully feature situated on a small knoll in Area 1 of the excavation. Charred hazelnuts provided Carbon 14 dates of $9120 \pm 90\text{BP}$ for this context. In Area 4 of the excavation (on the same knoll with a stream nearby), as many as 6000 flints had been recovered, this time dating to $8880 \pm 100\text{BP}$: again the date was derived from charred hazelnuts in association with the material.

CW went on to develop ideas in terms of prospecting for new evidence. Sites on river valley edges on the Sussex coastal plain (near Billingshurst for example) are ripe for further investigation, and more work should be carried out on waterlogged contexts (which may preserve fish traps etc.). Provenancing of flint would also lead to a better understanding of flint and stone resources and exchange networks. At Warnham, Ends Place, for example, collection of flint artefacts from a bluff adjacent to the river Arun was conducted by Lewis Gordon in the 1990s. The site is not far from a gravel terrace; chalk flint would have been a more distant alternative. A further under-researched area to note is the distribution of flint objects that have been found in the past on Horsham beds outcrops. Sylvia Standing's collections (now in Horsham Museum) from the Southwater-Nutley area are particularly noteworthy here. Clay-with-flints sites should also be given more attention.

Moreover, Neolithic sites ought to be seen as a prospective focus for Mesolithic presence in the landscape, and we should also be looking for the other aspects of life, such as ritual, belief and cultural difference, rather than continuing to focus merely on

activities associated with hunting, for example. Finally, in attempting to reconstruct the Mesolithic landscape in Sussex (and by implication the region as a whole), it is important to see past more recent conceptual barriers, such as modern roads etc., and to attempt to re-think the landscape from a Mesolithic point of view.

The Mesolithic in East Sussex

Andrew Maxted (AM)

AM's ongoing doctoral research at the University of Sussex is investigating the Mesolithic of East Sussex via a Geographical Information System (GIS) in order to analyse the data for settlement patterns and exploitation of the palaeo-environment of the area.

In his paper AM first outlined previous work by Mellars and Reinhardt: a geological perspective on Mesolithic land-use in southern England. The conclusions they drew from analyses of the distribution of lithic finds over the South East of England were a) that there are high concentrations of microliths (based on find-spots, not quantity of finds) in areas with coarse textured sandy soils and b) that distribution of flint axes/adzes was heavily concentrated in the eastern half of southern England and along major river valleys. Otherwise adzes and maceheads are more evenly spread than microliths in terms of geology – perhaps because they are a more general, all purpose tool.

Mellars and Reinhardt had developed certain generalizations about the types of exploitation supported by particular zones of the region based on underlying geology. These can be summarized:

Sandy Soils were favourable in terms of hunting and settlement conditions, as they were drier, permeable and freely draining, provided heat insulation, were lacking in nutrients and therefore less likely to encourage re-growth, had a sparse understorey, and were easier to manage by burning etc (such management can increase animal protein productivity by 500–900%).

Clay Soils were less favourable in terms of hunting and settlement, but more favourable for vegetation foraging, being wetter (particularly finely textured clay and silt, e.g. Wealden Clay), having a dense understorey, and being productive in terms of vegetation mass, but less easy to manage.

Chalk Soils were again to be considered less favourable in terms of hunting and settlement, but more favourable for vegetation foraging and for sourcing flint raw material.

From an archaeological (and in particular typological) perspective the starting point is still Jacobi's seminal work (1978). This analysed the lithic assemblage from a sample of 16 Sussex sites, along with a further 33 sites from Kent, Surrey and eastern Hampshire, and classified the material (broadly) into the following system:

Early ‘Maglemosian’ broad blade sites (*ca.* 9,000BP) dominated by simple obliquely blunted points, less elaborate shapes and only ‘broad triangles’ being near geometric in shape. Eleven Wealden and Lower Greensand sites were associated with this industry

[**Middle**], separate sub-group, including obliquely blunted, basally retouched “Horsham” points, found in concentration in the Weald

Late ‘Sauveterrian’ narrow blade sites (*ca.* 8,000bp) dominated by narrow scalene micro-triangles and rod like backed bladelets. 80 Weald find-spots and nine from the Sussex coastal plain can be associated to this later technology.

In building a GIS for analysis of East Sussex material in particular, AM has noted a number of problems with the Historic Environment Records (HER) data available, including:

- Different approaches being taken by different authorities, especially in terms of definition, e.g. what is a “Monument”, what constitutes a “Flint Working Site” or a potential “Settlement”?
- There is often no distinction made when recording palaeolithic/prehistoric finds: in East Sussex records for example, the lithic finds from the Hastings pipeline project were all designated “Prehistoric”, with no attempt to distinguish different periods
- The record reflects local antiquarian and archaeological activity: Sussex and Surrey particularly well represented in terms of Mesolithic finds because of the work of Tebbutt and Rankine. Kent records were much more specific regarding Palaeolithic finds and their potential dating
- It was unclear whether or not the important Wymer Gazetteer sites had all been included in the datasets
- HERs did not appear to incorporate all data from the Portable Antiquities Scheme
- There were also questions as to how up-to-date the records were, and the databases can only be as good as the data received and entered in them.

AM proceeded to discuss potential Mesolithic settlement sites based on initial results of his HER survey via a series of thematic maps. In particular, it should be pointed out that there is a noticeable focus of sites in areas where different geological zones could be exploited. AM re-introduced Mellars and Reinhardt’s suggestion from a geological perspective that “catchment analysis” might be deployed to useful effect in this area. It may be possible to demonstrate evidence for the exploitation of the different geological zones for specific fauna; settlements were perhaps positioned to be within easy reach of the different environments.

There is also a variety of potential flint working sites to consider, with various activities represented, from hunting camps to longer term occupation. In particular

Holgate (2003) has stressed the importance of new fieldwork to recover samples from flint assemblages on the Downs to assess the range of activities practiced at these sites. Microlith dominated assemblages where there are few other forms may point to hunting camps, while more varied assemblages that include more forms, such as scrapers and particularly tranchet axes and tranchet flakes may point to more permanent seasonal settlement.

AM called for further palaeo-environmental work to be carried out. Again, Holgate (2003) has directed attention to the fact that rock shelters in particular provide *in situ* sites where environmental, faunal and botanical remains are likely to be preserved. Examples include Hermitage Rocks, where a large *in situ* assemblage allowing some refitting was recovered in the mid- 1970s, with hearths providing dating material, and more recently Eridge (2000) where “activity horizons” have apparently been located (although there are questions over vertical stratigraphy at this site).

Further palaeo-environmental studies of alluvial, colluvial and peat deposits (including fine grained palynological studies) need to be carried out, like the work of Scaife and Burrin (1983), which focused on the alluvial floodplain of the Ouse and Cuckmere. In this study the depth of sedimentation and pollen analysis pointed towards deforestation within the Upper Ouse Valley and raised awareness of the impact of humans on the environment during the Mesolithic.

Certain off-shore sites and sites on the Sussex coastal plane should also be prioritised. The Winchelsea sunken forest needs more detailed examination, as do Pevensey Levels, where there is evidence of Mesolithic activity at the fringes; the levels themselves were covered by a layer of peat during the Bronze Age, providing yet more potential for well preserved Mesolithic sites.

Mesolithic environmental archaeological work in Surrey

Lucy Farr (LF)

LF's paper on Mesolithic environmental archaeological research in Surrey stressed the need for articulation of environmental and archaeological evidence of the Mesolithic period in the region. In recently completed doctoral research, LF has collated and analysed all environmental archaeological data from published sources and grey literature relating to the Mesolithic of Surrey as a study area, and initially noted the paucity of environmental data as compared with the number of archaeological sites. Moreover, palaeo-environmental sites are generally not located in the same place as the archaeological activity: there is a real need therefore to construct 'coincident archives'.

LF has analysed the spatial and temporal relationships between archaeological and palaeo-environmental sites, using ArcGIS, looking to delineate sites for which the two data types exist in a 'coincident relationship' (both types of data being derived from the same archaeological event), a proximal relationship (data sources located near to each other: not necessarily relating to the same time period within the Mesolithic, being either *synchronous* or *asynchronous*) or a distal relationship (located far away

from each other, but within the same 'region': again, not necessarily relating to the same time period within the Mesolithic). The overall finding for Surrey is that:

- There is a lack of palaeo-environmental and archaeological archives with the type of *proximal-synchronous* relationships that are well-suited to enhancing our understanding of the Mesolithic human environment.
- There are in fact no *coincident* palaeo-environmental and archaeological archives

Certain case studies give an idea of the potential of collecting these sorts of data from associated contexts. For example, high resolution pollen analyses conducted on deposits at Elstead Bog (a pingo basin containing an early Holocene peat sequence with pollen and microcharcoal inclusions) produced a complex vegetation history tied to five radiocarbon dates, indicating possible clearance of woodland and/or woodland management that may be correlated elsewhere in the country. Further work will be required in order to pursue such evidence. This can be compared with work at Nutfield Marsh, where pollen data indicated early Holocene dates for alder (*Alnus*) and lime (*Tilia*).

At North Park Farm, considerable amounts of Mesolithic material representing an occupation site have been recovered within a widespread sandy deposit. There was not a well defined stratigraphic sequence for the site in order to contextualise the material, but some evidence of *in situ* flint knapping was present, and also a number of interesting hearth features. All the hearths appeared to be very close in date, but there also appeared to be lots of deposition of sediments in a short time between successive hearth episodes, perhaps relating to erosion resulting from woodland clearance again.

LF has taken existing regional pollen zones and compared these with new data, and has mapped these results for Surrey, creating a thematic map of vegetation zones dating to 8250–6850 cal. BC, using ArcGIS. Furthermore, her work has begun to explore the generation of predictive models of likely Mesolithic site location in Surrey, based on findings in relation to:

- Elevation (significant associations exist between site location and topography values 35–125m OD)
- Geology (positive associations were shown between site location and sand-based substrates, particularly the Lower Greensand; negative associations existed between site location and clay units, particularly the London Clay were found)
- Distance to water (a positive linear relationship was shown between site location and distance to water), and
- Degree of slope (positive relationships were shown to exist between site location and flat/very gently sloping topographic locations).

This has been compared with a predictive model for the location of surviving ecofactual evidence in Surrey (in relation to waterlogged deposits), in order to produce an overall model predicting the likely locations where both archaeological and ecofactual evidence might be found together (*coincident*). The significant

research potential for targeting such coincident ecofactual and archaeological data in future is self-evident.

The potential for recovering environmental sequences from the Weald/ South East region

Richard Carter (RC), initially deputising for Mike Allen (MA)

RC first presented an analytical scheme (submitted by Mike Allen in absentia) for investigating the potential of finding various types of environmental evidence in the different types of soils to be found in the region. There is also a need to focus on stratified deposits beneath Neolithic features. A particular area for future study would be the Sand Weald. These areas have the potential for stratified colluvial sand and buried soil deposits, as well as buried soils sealed beneath Neolithic/ Bronze Age barrows (for example at West Heath and Selmeston). Relatively little palaeo-environmental work has been carried out in recent years in this area, particularly in development led work; this needs to be redressed so that an important body of evidence is not overlooked. Rock outcrops and shelters also provide the potential of sealed buried stratified sequences, as well as soils in rock shelters and under scree/edge deposits, such as at High Rocks and, potentially, Philpots Camp. Overall, the impact of environments upon Mesolithic settlement and subsistence in the early Postglacial were considerable and their significance should not be underestimated in any evaluation of evidence.

RC himself focussed on the need to create a more dynamic understanding of palaeo-environments, and to apply this to analytical frameworks such as predictive models and site catchment analyses. Work needs to be done to reconstruct localised environments, but also to look at how they relate to each other in terms of various activities in the Mesolithic. Clearance of woodland for example can be picked up at a local level using evidence from charcoal, flint, and molluscs, but it is important to tie this into more complex strategies and movement within the landscape, and also to look beyond basic economic factors. It may be impossible to recognise individual territories, for example, and it might also be possible to reconstruct other cultural aspects.

In terms of such dynamism, rivers as principle channels of movement between lowland and upland areas also need to be factored into catchment analyses (as do their tributaries). Rivers would have been the best way to travel in what would have been a difficult environment to move through. The tributaries of the river Ouse, for example, may present routes into and out of the Weald. It may be possible to delineate a radiating pattern of mobility out from base camps, taking in the various rock shelters of the High Weald as hunting camps. Site seasonality, and very task-specific use of certain places (e.g. flint procurement and preparation, and perhaps only an overnight occupation of the site in some cases) should also be considered. Base camps might equally be seasonal, with, for example, a coastal Spring/Summer camp and an Autumn/Winter camp in-land.

Questions also remain however as to whether such evidence points to a single 'culture' making use of different resources through mobility, or separate 'cultures', focussed on the coast, and in-land respectively.

Discussion:

Museum collections (such as the Wymer collections) are not being analysed as part of this project, but such analyses should be flagged up as a priority for future work. There is also a need to re-examine the 'Neolithic' collections, which may contain misidentified objects. Articulation of work with PhD studies is another important source of research impetus. More excavation is needed, with larger areas scrutinised, so as to put finds in context. It is possible, for example, that a small-scale excavation might focus on flint scatters, while at the same time missing ephemeral evidence for surrounding houses beyond the limited area excavated. The question of attempting to reconstruct aspects of Mesolithic life and culture beyond hunting and gathering strategies was again raised, but not developed further in this discussion. It was also noted that there is a divide between early and late Mesolithic to consider, and that this should not be forgotten in terms of research priorities. It is possible that further developments in lithic studies might give more resolution to chronology. MP argued that targeting the complete absence of a faunal assemblage would be a very important way forward. This would require focus on only a few sites where good preservation of such evidence was to be anticipated. There are some potential sites, but unfortunately the region does not have bog sites such as those in Scandinavia. The main problem in this regard in the South East is that so many of its soils are acidic; perhaps it would be best therefore to target the edges of river valleys, especially where soils interdigitate with alluvial deposits. MP pointed out that, where low flood plains have been targeted in Hampshire, Mesolithic material was ubiquitous. It is indeed important to look at all the available data types together, and also to look for pingos, which may preserve important archaeological and ecofactual evidence in association. The off-shore sites and coastal plain sites are also important, and Pevensy Levels offers particularly good potential for research. Small islands within this area (and similar areas such as the North Kent marshes and Romney Marsh) would be a good place to start. Tufa deposits were also thought to be of particular interest for further work. However, there are still more basic things to do with evidence already recovered, like building proper inventories of flint artefacts, particularly in relation to the region's European context.

MP concluded that those engaged in the subject need to forget about presumptions about preferred habitats and begin to actively test gaps in the data. Work should be specifically targeting palaeo-environments through developer led archaeology, backed up by research led analysis. There is real potential here for future work, and a need to look at the holes in the palaeo-environmental data in tandem with artefactual evidence.