

LITHICS AND EARLY NEOLITHIC ENCLOSURES

The Society's London meeting on 14 October 1989 heard accounts of recent and current work on assemblages from causewayed enclosures.

Middle Neolithic Lithic Technology at the Etton Causewayed Enclosure

by Bob Middleton

Introduction

This paper presents aspects of the lithic technology employed at the Middle Neolithic causewayed enclosure at Etton, Cambridgeshire, and its relationship to raw material acquisition and use. The evidence derives from both the examination of modes of flaking and metrical data.

The site lay on the terrace gravels of the lower Welland valley within a dense concentration of multi-period crop-marks (Pryor and French 1985, fig. 3). The excavation of approximately 45% of both the interior and the surrounding segmented ditch was undertaken by the Fenland Archaeological Trust between 1982 and 1987. A covering of post-Neolithic alluvium of variable thickness allowed for the recovery of an almost intact plan of the interior features and finds distribution within a preserved buried soil. Organic remains were preserved within the lower enclosure ditch deposits.

Excavation of the ditch revealed three major phases of recutting with a further phase of occupation evident in the tertiary fills. Of the approximately 7400 flints recovered during the excavation, roughly 30% derived from this late phase. Similar proportions were recovered from the buried soil and the interior features. Little was found in the first three phases of the enclosure ditch. This evidence suggests that flint working was carried out on a large scale only in the last major phase of activity, in the course of an occupation which left traces of post- and stake-holes and a single, small structure in the interior. The finds of this phase suggest that all had been re-deposited, probably from knapping sites in the interior.

Examination of present day quarries in the gravels on which the site lay revealed that workable 'Tertiary pebbles' (Gibbard 1986, 143) were readily available and identifiable by visual inspection of the quarry faces. The bulk of these pebbles are 20-60 mm long and free from frost damage. Where flaws are present they are confined to the outer edge of the nodule and did not affect the knapping strategy. Examination of the cortex remaining on the excavated flakes revealed that these pebbles were the sole source of raw material.

Inspection of the lithic material from all the Middle Neolithic phases has revealed them to be internally consistent in

terms of the stages of the knapping sequence present. All levels, with the exception of unworked raw material, from cores to implements were recovered from all contexts where lithic material was present. This, and the lack of Middle Neolithic material from excavations and fieldwalking in the surrounding landscape, suggests that all of the flint working was undertaken on site. The implement:by-product ratio, however, was relatively high compared to those of other, open Middle Neolithic sites, but is comparable to those of other enclosures, such as Staines (Healey and Robertson-Mackay 1987). This may reflect the use and discard of finished implements imported from the surrounding area by seasonal occupants of the site. There was no internal evidence to suggest which component of the implement assemblage this was, with the possible exception of polished axes, some of which were made on non-gravel flint.

The characteristics of the raw material, abundantly available but of relatively small size, affected the knapping strategies employed in several ways. Firstly, the lack of intact raw material on site, coupled with a similar lack of hammerstones, suggests that the flint pebbles were used as hammerstones prior to their reduction into cores. The thin cortex on these pieces, along with their convenient shape, made them ideally suited to the task. This may be further supported by the examination of the modes of initiation on the waste flakes. In the vast majority of cases (96%), these were incipient bending fractures, a feature normally associated with the use of soft hammers (Cotterell and Kamminga 1986). However, experimental work by the author has established that cortical pebbles can produce the same effect.

Other indicators of the quality of knapping, such as the dominance of feather terminations, suggested that the use of flint pebbles as both hammers and raw material did not affect the overall quality of the knapping strategy.

Waste Flake Shape

In terms of the shape of the complete waste flakes, as measured by the breadth:length ratio, the assemblage differs markedly from other contemporary material based on similar raw materials, such as the assemblage from Briar Hill, Northampton (Banford 1985). A number of factors concerning raw materials and social organisation have been used to explain the decline in the occurrence of blades from the Late Mesolithic to the end of controlled flint production in the Bronze Age (Bradley 1987; Pitts 1978). However, at Etton, although its precise age has yet to be established by radiocarbon dating, a number of factors suggest that the observed number of blades solely reflects the debris from the manufacture of implements. This is indicated by the metrical data for the most numerous implement categories from Middle Neolithic contexts (utilised flakes, retouched flakes, scrapers and serrated flakes). Of these, only serrated flakes show a marked use of blades as blanks. Waste blades may thus have been the by-product of the manufacture of this specific implement

type, rather than blanks for the manufacture of a wide variety of tool types. A decline in the importance of serrated flakes in the Late Neolithic coincides with a decline in the occurrence of blades. Taken together these circumstances suggest that blade production may have been, to a large degree, dictated by implement needs rather than by raw material availability and size.

The metrical data do reveal, however, that the overall shape and size of the waste flakes (excluding the blades) continued unaltered into the Late Neolithic and Early Bronze Age. This suggests that raw material size and availability played a major part in determining the knapping strategies employed. This is further supported by the continuation into the later period of similar initiation and termination features, suggesting good-quality knapping using flint pebbles as hammerstones. A marked change in waste flake shape and the evolution of cruder knapping strategies only becomes apparent in the Welland Valley later in the Bronze Age at such sites as Maxey (Pryor and French 1985, 151-163, 274-279) and Etton Landscape Site 5 (Middleton in prep.).

The Social Life of Flint at Neolithic Hembury

by Andy Brown

Terms of Reference

Unlike my co-contributors I have no recently excavated material to report on: my data are culled from a reassessment of the excavations conducted by Dorothy Liddell between 1930 and 1935 (Liddell 1930; 1931; 1932; 1935). In the short space available here I shall concentrate on exploring just three aspects of Neolithic Hembury.

1. The extent to which the lithic raw materials used at Hembury may have tied the enclosure into a network of exchange ties with other communities forms from the causewayed enclosure as a whole is a high frequency of serrated flakes, most of which were found in the inner ditch.
2. The extent to which the lithic raw materials used at Hembury may have tied the enclosure into a network of exchange ties with other communities such as those in Cornwall and Wiltshire.
3. Whether there is any patterning in the distribution of lithic material which suggests that deposition was not casual but was controlled, in order perhaps to reflect or construct social difference among the users of the site.

Hembury is situated at the southern tip of a finger of Greensand which extends from the East Devon Plateau. The promontory dominates the surrounding low-lying valleys of the Rivers Otter and Tale. To the north the land is flatter, so that

only at the southernmost tip is a panorama available. Liddell's excavations showed that the tip of the promontory had been cut off by a line of eight ditch segments with causeways of varying widths. She also found that the southernmost tip contained a large number of Neolithic features which she called 'cooking pit'. Outside the area defined by the causewayed ditches was a second major Neolithic ditch and bank.

1. Exchange

Hembury has featured in the literature on a number of occasions in the context of a discussion of exchange. In particular it has been implied that the use of the causewayed enclosure was perhaps related to the exchange of Beer flint westwards into the flintless far south-west, with its corollary the exchange of gabbroic pottery and Cornish axes from that region towards Hembury and on into Wessex.

The fact that the flint at Hembury is Beer flint is, however, a myth. yes, it is black or dark grey and is speckled in the same way - it comes from the same geological beds. Nodules of flint of the same type may be found in any surface disturbance on the southern part of the East Devon Plateau 7km south of Hembury itself - half the distance from Beer Head - and occur over an area to which access would have been impossible to control. Hembury need not, therefore, be seen as part of an exchange network of freshly-quarried material, if such a network ever existed.

What of the stone and flint axes found at the site? Fifteen stone axes and thirty-three flakes and fragments of polished flint axes were found during the excavation. All were exotic to the site, but only one stone axe can be shown to have come from a Cornish source. The remainder are of 'sheared greenstone' of the so-called Group IVa, the source of which has not been identified. The distribution of Group IVa axes is restricted to Devon, Somerset and Dorset, and it remains a possibility that these axes came from a source closer to home than Cornwall. Of the flint axes, little can be said except that the material is different from the local grey flint and may come from a reported source of creamy-white flint near Sidmouth, just 12km south of Hembury. The lithic material, then, may not have linked the users of Hembury into far-flung exchange networks. The pottery evidence similarly suggests links as far afield as the Dartmoor fringes 40km away on the westward horizon, but, with the exception of the gabbroic pottery, no farther.

2. Warfare

In a manner similar to the Beer flint myth at Hembury, the violent destruction of the enclosure or enclosures has entered the literature and has attained an inertia which can be nullified only by a return to the original data. The occurrence and distribution of arrowheads has been considered entirely out of context. Liddell's excavations recovered 146 leaf-shaped

arrowhead fragments, less than a fifth of the number in the similarly-sized collection from Carn Brea in Cornwall (Saville 1981, table 1). These came from a wide variety of contexts, only thirty-two of which were securely Neolithic. These secure contexts do include the causewayed ditches, which produced a total of twelve, but most arrowheads were from pits at the southern tip. In these pits they were associated with cores, scrapers, redeposited microliths, polished flint axe fragments and laurel leaves, as well as fine and coarse pottery, large quantities of charred hazelnut shells and some wheat. Furthermore, when arrowheads did occur in the ditches, they are usually non-refitting fragments from the layers substantially above the burnt layer which has been interpreted as the remains of the defensive palisade.

What does this suggest? Warfare in which the defenders push down their defences and set fire to them some time before the attackers rush up and hurl cores, scrapers and waste flakes at them, as well as arrows or perhaps showers of lethal hazelnut shells? I do not think so, and I do not see a significant role for flint in physical warfare at Hembury.

What may be more likely is flint as a 'weapon of exclusion' (Bradley 1984, 38-57) - flint, including the arrowheads, being used to symbolize differences in society in the course of creating and sustaining a social order. It is this aspect of the lithics at Hembury which I now want to examine.

3. Deposition

In the few cases where Liddell bottomed the causewayed ditches she found very few artefacts at all in the initial fills. It was the middle fills which contained disproportionate quantities of laurel leaves, arrowheads and stone axe fragments. These may have been at the bottoms of shallower recuts of the ditches - evidence for recutting in the causewayed ditches is lacking, but it was probably taking place in the big ditch at the north-east corner of the site. It was also in these middle layers that Portland chert occurred in some quantity, outnumbering the local Greensand chert, and that very little burnt flint was deposited.

This was in marked contrast to the pits at the southern tip. Here not a single stone axe was deposited and yet polished flint axe fragments were over-represented. Cores were vastly under-represented in these contexts and Portland chert absent. Over a third of the material in these pits was burnt, and the matrix was entirely of ashy material, charred nuts, and wheat. A number of microliths also turned up in these contexts, and are interpreted as supporting the suggestion that this material was scraped up from around fires elsewhere on the site and deposited in pits at this southern tip.

Why is the southern tip characterized by this sort of deposition? A functional argument is possible: that this was an

out-of-the-way area, exposed and uninhabitable, so what better use than as a rubbish dump? But why are the pits so tightly-clustered? Why is there almost no Portland chert? Why bury waste so often in pits and why are there no stone axes amongst all this burnt flint? I suppose I am bound to favour a social interpretation given the title of this paper: that the southern tip was a place of some symbolic importance to the users of Hembury, perhaps as a result of its command of, or visibility from, the surrounding area. I do not think it was coincidence that the southern tip was chosen; nor do I feel that the patterning is a result of chronological difference or even random variation.

To put this in its wider context of organisation of lithic deposition is another paper in itself, but I hope that in the course of this contribution I have opened some doors on the social life of flint at Hembury as well as closing some others.

Maiden Castle

by Mark Edmonds and Peter Bellamy

Recent excavations at Maiden Castle have recovered 21437 pieces of flint, including small quantities of 'Portland' chert (Edmonds and Bellamy forthcoming). The chert seems to have been collected and worked locally, rather than imported in the form of finished implements. Most of the material from Middle Neolithic contexts reflects the exploitation of the chalk flint sources of the hilltop. The inner ditch of the causewayed enclosure contained an assemblage in which narrow flakes predominated and which included a significant industrial element, with a marked emphasis on the testing, preparation and working-down of large cores. Axe production is attested by thinning, mass reduction and retouch flakes. Similar material is present in the small assemblage from the outer ditch, but is accompanied by a higher proportion of primary working debris.

The combination of flake- and blade-manufacture and axe-production is not apparent elsewhere in the region. Given that chalk flint occurs throughout the area, the distinction cannot be attributed simply to problems of raw material acquisition.

The most distinctive of the other retouched forms from the causewayed enclosure as a whole is a high frequency of serrated flakes, most of which were found in the inner ditch.

In contrast to the industrial character of the material from the enclosure ditches, that from a small pit to the south-west of the enclosure comprised debris associated with the working of cores from which the outer, cortical flakes had already been removed and with the production and utilisation of flakes. The group seems to represent the deposition of material associated with a particular episode of activity.

The north-east end of the enclosure presented a very different picture. A discrete concentration of surface material collected to the north-east of Maiden Castle included incomplete or burnt flint axes, some ground and some flaked, two of which had been reworked as cores, without by-products diagnostic of axe-manufacture. This recalls the contents of pits excavated by Wheeler outside the north-east end of the enclosure, among which were seven flint axes, two of them broken, three unfinished, one burnt and another re-worked as a core.

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