Lithics in the North of England: Production and Consumption on the Yorkshire Wolds

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Introduction

The paper presented here has been written with a number of goals in mind. Firstly, the importance of lithics in later Neolithic society is examined with particular reference to research undertaken on the Yorkshire Wolds (Durden 1994). This area is renowned for its concentration of finely-made lithic artefacts such as polished discoidal knives, oblique ripple-flaked arrowheads and polished flint axes (fig. 3). Such items often appear in specialised contexts such as burials, hoards, pits with Grooved Ware and in the vicinity of monuments, so it appears that these objects had some social or ritual importance. These objects occur in many parts of Britain, though they concentrate most heavily on the Yorkshire Wolds. They have long been a point for discussion, but to date little effort has been made to identify the processes which brought them into being. The case study to be presented here has attempted to identify the existence of specialist flint knappers and special workshops responsible for the production of these objects, and proposes that the specialised and restricted context of production was actually the source of much of the value or significance attached to the finished articles. The results of the study are summarised only briefly here, in line with the themes in this paper; more detailed results are available elsewhere (Durden, forthcoming).

Placing the study within the context of archaeology today, this research will perhaps go some way towards rectifying the bias towards the study of archaeological material in Wessex. It is unfortunate, though to a large extent understandable, that a high proportion of the most academically stimulating research texts base much of their work on the archaeology of Wessex (*eg* Bradley & Gardiner 1984; Thomas 1991). To some extent this may be due to a greater availability of localised funding and the geographical location of field units in the South of England to produce the raw data (Hunter *et al* 1993, 36), but it is no doubt also due to the quantity and quality of upstanding monuments. All too often, developments during the Neolithic of Wessex, and indeed other periods, are extrapolated to cover the less well-documented areas of the country. A very brief sketch of some aspects of the later Neolithic to be presented below will demonstrate that while Yorkshire and Wessex do bear comparison in many instances, there are certainly as many differences between the two areas.

The Yorkshire Wolds study was also undertaken to add more information to the relatively unexplored field of lithic production systems (*cf* Torrence 1986, chapters 6 and 7; Edmonds 1989; Bradley and Edmonds 1993), in particular in the context of Northern England. The study of Neolithic stone axe production in Cumbria (Edmonds 1989) has brought to light complex patterns of manufacture, exchange and consumption of these objects, not only in the north of England, but in the country as a whole. In this context the work undertaken on the Yorkshire Wolds serves to bring to light more information relating to the importance of production contexts of portable artefacts on the other side of the Pennines, and complements Edmonds' work by suggesting possible links between the two regions.

Wessex and Yorkshire: worlds apart?

Both Wessex and the Yorkshire Wolds stand out as having been areas of intense activity during the later Neolithic, and are listed as two of Bradley's 'core areas' (1984, 41). These core areas are notable by being areas of highly fertile land, and may display archaeological evidence for increasing social complexity in the form of Grooved Ware, 'complex' artefacts, henge and cursus monuments, individual burials with grave goods, and passage graves (*ibid*). Although many of these areas share monument types, burial practices and pottery traditions, it is also apparent that the societies in question developed to a large extent along quite different trajectories. There is also the question of chronological variations between certain activities and aspects of material culture in the different core areas.

Perhaps the most obvious manifestation of increasing social complexity on the Yorkshire Wolds is

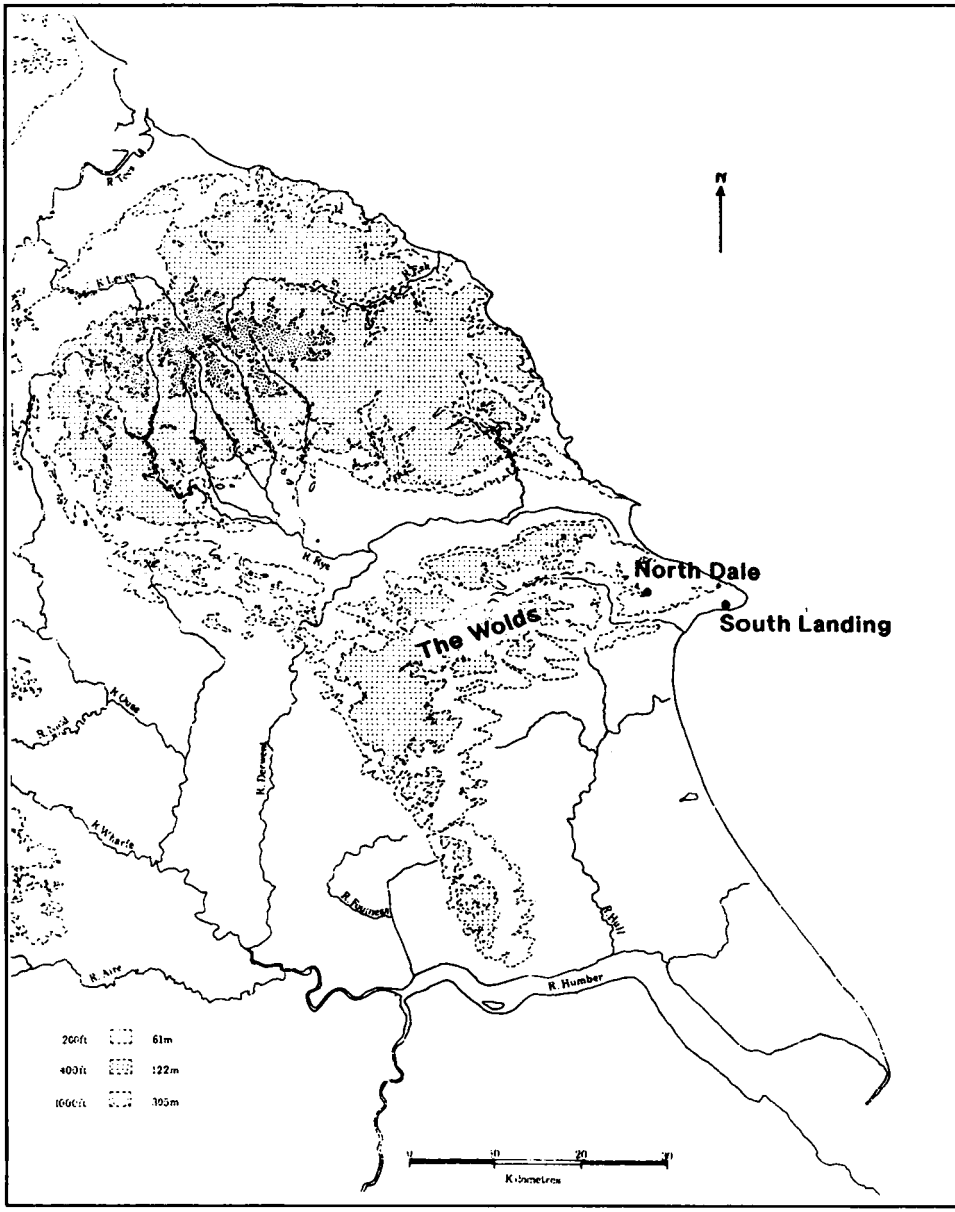
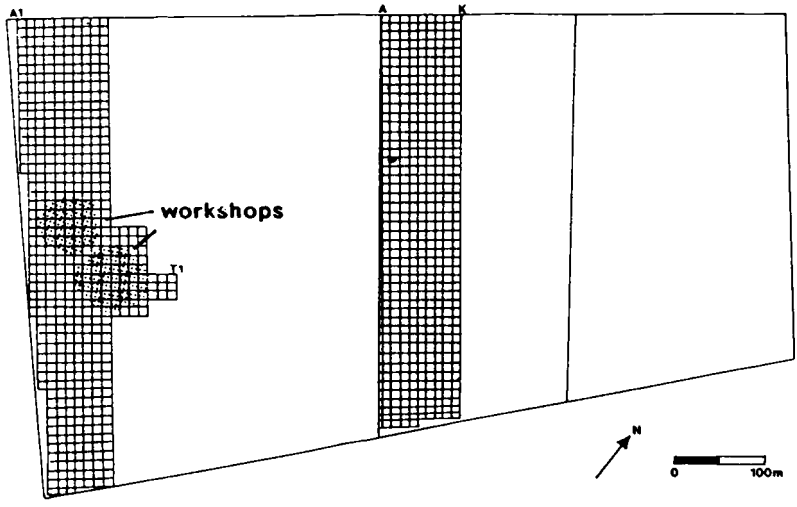


Fig. 1. Location map.



North Dale (above), South Landing (below).

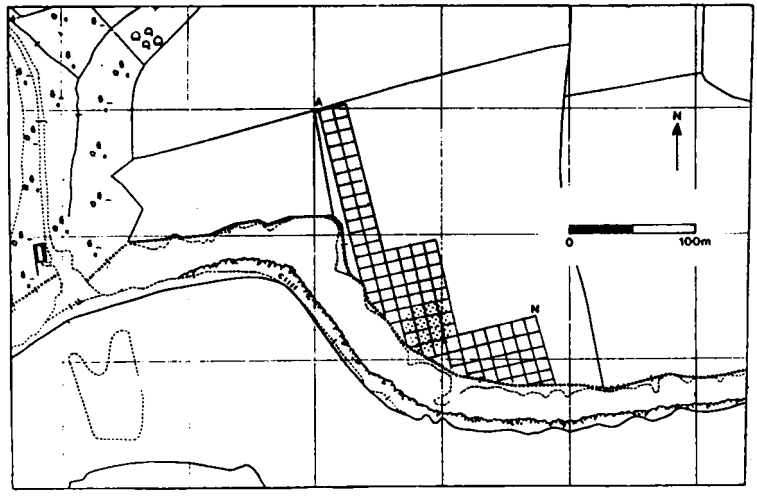


Fig. 2. Location of fieldwalked areas.

the presence of a range of extremely finely-made flint artefacts. Although finds occur over most of the area, by far the densest concentration is on the north-east part of the Wolds, and it is probably significant that this is in the same area as the Rudston cursus complex (Pierpoint 1978, 1980; Brown 1990). Although Wessex also has its share of quality flintwork (*cf* Gardiner 1988), which in the same way seems to relate to the position of monuments (Brown 1990; 1991: 130; Barrett *et al* 1991), such a dense concentration is absent (Thorpe and Richards 1984, 75) and the sheer quality of workmanship visible in many of the Yorkshire examples is rarely matched in Wessex.

The contexts of these finds also vary to an extent between the Yorkshire Wolds and Wessex, which reveals another distinction between the two areas. Although a large number of 'complex' artefacts are stray finds from the ploughsoil, an equally large number served as grave goods. These were most often placed with an individual, articulated skeleton, usually male, in a round barrow (*cf* Pierpoint 1978, 1980). In Wessex, such artefacts of flint, stone, bone and chalk are more likely to have been deposited in the context of ritual monuments such as cursuses and henges (Wainwright and Longworth 1971; Richards and Thomas 1984; Barrett *et al* 1991). They occur far less often as grave goods.

Although later Neolithic round barrows are known in Wessex, for example Handley 26 and 27 (Bradley *et al* 1984, 99; Barrett *et al* 1991), far greater numbers exist on the Yorkshire Wolds in a comparable sample of excavated sites (Bradley 1984; Thomas 1991). This highlights the difference in burial traditions between the two areas. Changes prior to the later Neolithic also indicate different social trajectories; construction of long barrows appears to have ceased on the Yorkshire Wolds well before the end of the earlier Neolithic, the latest carbon date being 2760 +/- 90 bc at Hanging Grimston (Pierpoint 1979). The earliest round barrows are built at this time, for example Callis Wold 275 (Coombs 1976). The construction of long barrows continued after this date in the South of England (*ibid*). Any alterations in monument type at this time in Wessex and other areas of the south were rather more subtle, as if to mask social changes which were taking place by retaining elements of the traditional monument styles. For instance, a number of barrows constructed in this period are oval (Drewett 1986; Barrett *et al* 1991, 51-3) rather than long, for example at Hambledon Hill (Mercer 1980), Wor Barrow (Pitt Rivers 1898), and Nutbane (Morgan 1959). Outside the Wessex area examples come from Alfriston (Drewett 1975), Aldwincle (Jackson 1976) and Abingdon (Bradley 1992). Very often these contain single, articulated male skeletons, or, where a number of skeletons have been found under these barrows, the majority are male (Bradley 1984, 32). The latest long barrows are also notable in that they generally contain fewer burials, and these are articulated (Thorpe 1984). As already stated, such burials were less likely to have been accompanied by grave goods than their counterparts in Yorkshire, though many are no doubt roughly contemporary to the burial at Whitegrounds with a Seamer axe and jet belt slider, dated to 2570 +/- 90 bc (Brewster 1984), or to Burial K at Duggleby Howe which was accompanied by a decorated Towthorpe bowl and flint flakes (Mortimer 1905; Kinnes 1979). The oval barrow at Abingdon in the Thames Valley contained two burials accompanied by a polished flint knife and a jet belt slider (Bradley 1992); such finds are interesting as they are more commonly found in individual burials in the north of England. A similar jet slider was also found at Handley 26. Linch Hill and Millbarrow also produced edge-polished knives in funerary associations, the former also with a jet slider (Pollard 1994). The jet almost certainly came from the coast of northeast Yorkshire, which lends support to the notion that social changes at the end of the earlier Neolithic were perhaps occurring earlier in the north and filtering southwards; changes were openly admitted and visible in the new round barrows on the Yorkshire Wolds, but were concealed to a greater extent in Wessex. This denial of emergent individual status continued into the later Neolithic, represented by the relative lack of furnished single burials and a greater investment in public monuments.

Such an overt focus on public ritual seems to be largely absent from the Yorkshire Wolds, with the exception of the Rudston cursus complex. The change during the later Neolithic from the creation of the small Wessex henges to the vast expansion of the ritual landscape, including large henge monuments such as Durrington Walls, does not occur on the Wolds. Few henges exist in this latter area, and those that do are small, with few associated finds, for example Maiden's Grave in the parish of Burton Fleming (McInnes 1964). Even the larger henges to the west of the Wolds such as Thornborough (Thomas 1955) and Nunwick (Dymond 1963) revealed little material evidence for ritual activity in small-scale excavation. In complete contrast to this, some of the Wessex sites such as Durrington Walls (Wainwright and Longworth 1971) have produced large quantities of evidence for extremely formalised and structured deposition of artefacts and ecofacts (Richards and Thomas 1984). The Sanctuary at Overton Hill has also provided evidence for formalised deposition and the 'architecture' of the site suggests a deliberate control of movement and access, probably in the context of ritual activity (Pollard 1992).

The occurrence of Grooved Ware in both Wessex and on the Yorkshire Wolds may indicate the presence of ritual activity, this ceramic tradition being largely associated with non-domestic, specialised contexts. Grooved Ware occurs on the Wolds, mostly in pit deposits, which is clearly comparable to similar contexts in Wessex (Manby 1974). Some 80% of Grooved Ware finds are within about five kilometres of the Rudston cursus complex (Bradley 1984, 57), again suggesting a ritual focus. However impressive the complex may have been, the amount of Grooved Ware found is still relatively small when compared with Wessex. It is a rare find at the Yorkshire henges, where flint and stone artefacts are at least as common (Thorpe and Richards 1984). This smaller-scale ritual activity may be a result of the importance of individual 'status' or identity and the use of single

burial in the area. Such rituals may even have been incorporated into this ideology, perhaps as a rite of passage, a way to attain a particular identity through association with certain objects. It is clear that Grooved Ware was adopted and incorporated into different societies who had different needs and therefore used it accordingly. The presence of Grooved Ware does not necessarily indicate the same type of social organisation.

When comparing the Yorkshire Wolds and Wessex, there is also the question of chronology to consider. Wessex may appear to be a focus for developments and activity, but it is likely that the stimuli for many of these developments were contacts with northern communities and ideas. I have already discussed the tradition of single furnished burial in round barrows. Such early evidence is generally lacking in Wessex. Bearing in mind the spread of Grooved Ware from the Orkneys southwards it is worth considering the adoption of this ceramic to have been a little earlier on the Yorkshire Wolds than in Wessex, though this may not necessarily be the case. However, it is still clear that 'complex' artefacts were being manufactured and consumed prior to the adoption of Grooved Ware in Yorkshire; this is supported by the diverse ceramic associations of these artefacts. In Wessex special artefacts may also be associated with Peterborough Ware as well as Grooved Ware, but there are more defined differences between the assemblages, which could perhaps hint at a later adoption of Grooved Ware, at about 2200 bc, and certainly a clearer separation of the ritual element. This also adds support to the idea of a straightforward chronological sequence in which Peterborough Ware clearly predates Grooved Ware, as seems to be the case in Ireland.

The point to emphasise here is that many of the ideas and objects structuring social relations in Wessex and other parts of the South of England may have originated in the north, and were carried via the long distance exchange networks which had been developing throughout the Neolithic, and which gained renewed importance at this time. It seems that southern communities were open to receiving new ideas in this way, and that the ideology of personal prestige or identity and its material symbolism developing in Yorkshire doubtless played a part in the decline of the importance of public ritual in the Beaker period and Early Bronze Age in Wessex (Thorpe and Richards 1984).

Specialist lithic production on the Yorkshire Wolds

Returning to the Yorkshire Wolds, it appears that the production process for specialised artefacts was quite complex. Previous work in the area (Sheppard 1910; 1921; Moore 1964; Manby 1974) has revealed lithic scatters on Flamborough Head, directly on the source of high-quality flint. This flint is derived from the glacial boulder clay deposits along the coast of Eastern Yorkshire, and was preferred to the lower quality chalk flint of the Wolds throughout the prehistoric period (Henson 1982). These coastal scatters contained considerable amounts of rough debitage and expedient tools, but few specialised artefacts.

Fieldwalking by local amateurs and collectors revealed that these tended to concentrate just inland on the north-eastern part of the Wolds. A site particularly rich in these finds is located at North Dale (NGR: TA 160713) in the parish of Grindale, having yielded items such as ripple-flaked oblique, chisel and polished arrowheads, polished discoidal knives and Group VI and Group I axes.This site was of considerable interest as within the general scatter of lithic material were two dense clusters of debitage. This debitage seemed to be of a different nature to that found on the coastal sites, containing far more inner flakes and tortoise cores (fig. 4). These cores are particular to the later Neolithic and represent a considerable investment of time, effort and skill; they are painstakingly shaped all over in order to remove just one flake of predetermined dimensions. The resulting flake is thin and broad and is ideal as a blank for the manufacture of items such as chisel and oblique arrowheads. It is also likely that some of the tortoise cores themselves could have been worked down to create discoidal knives (Durden 1994, 304).

In the light of this evidence it was hypothesised that production was organised into two basic phases. Suitable flint nodules were selected, tested and then subjected to mass-reduction and roughing-out at the sites on the source; roughouts and unfinished tortoise cores were then taken inland to be made into specialised artefacts in 'workshops' within major settlements, possibly by specialist flint knappers.To demonstrate whether this process really occurred and whether specialists did exist, it was necessary to carry out detailed and systematic field collection at both a coastal site, South Landing (NGR: TA 23396924) and at North Dale (fig. 2). In this way it was possible to compare not only differing proportions of artefact types, but also their spatial distribution within the sites. In addition to this, specific technological attributes were noted, such as the presence or absence of hinge and step fractures on cores and removals; the presence or absence of platform preparation on flake butts, and the type of flake termination. Information such as this is useful for providing an indication of the level of skill or care exercised by the flint knapper, and could therefore indicate the likelihood of specialist production.

Results

After an in-depth study of lithic material from the two sites, some very clear patterns emerged. Within the site of North Dale, the two clusters of debitage were confirmed by the spatial analysis. These contained the highest percentage of knapping debris on the site (including flakes, blades, tortoise cores, core rejuvenations, spalls and irregular waste), but a considerably lower percentage of retouched artefacts, which were more common on the

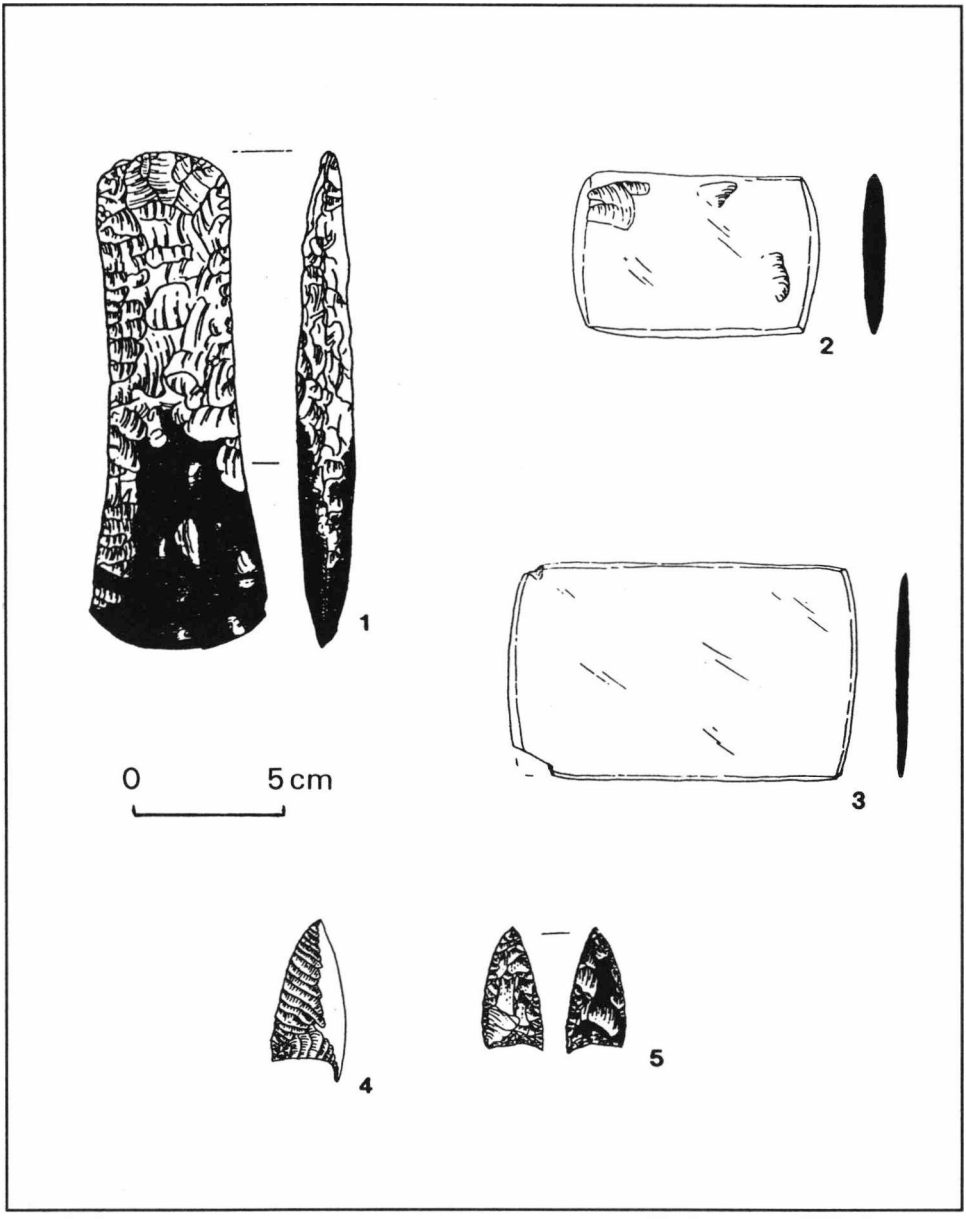


Fig. 3. Specialised flintwork: 1 Seamer axe; 2, 3 polished discoidal knives; 4, 5 oblique arrowheads.

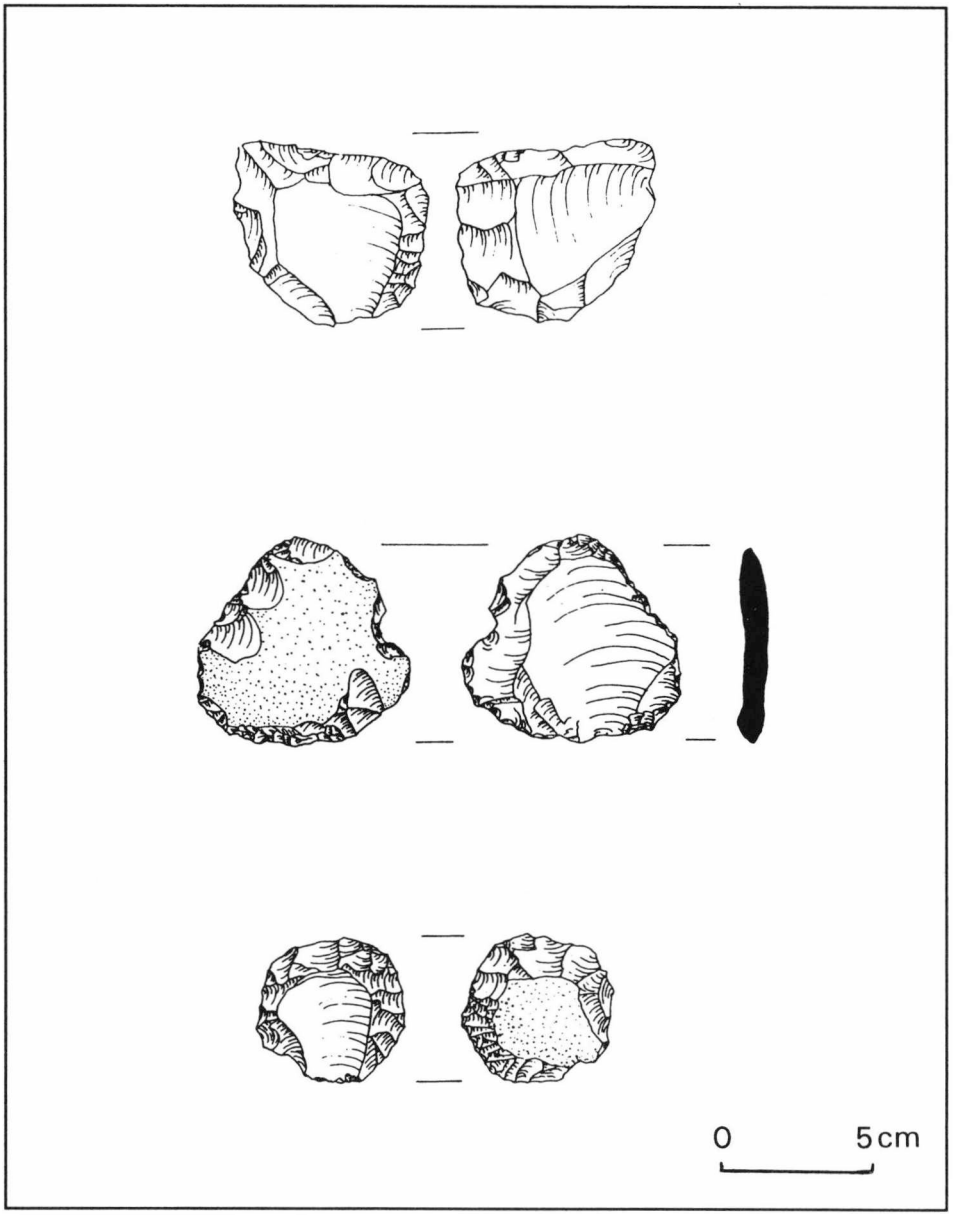


Fig. 4. Tortoise cores.

rest of the site.

The technological attributes also varied inside and outside the clusters. Tortoise cores were the most common core type within the clusters, and all core types had fewer hinge fractures. Where errors did occur, they were more likely to be corrected by rejuvenation. Flakes were also more likely to possess platform preparation and feather terminations than those outside the workshop clusters. All of these results clearly demonstrate defined workshop areas where greater skill and care on the part of the knapper was being exercised.

Knapping debris outside the workshops was not clustered in any way and was more like that found at South Landing. In both the latter areas tortoise cores were not the most common core type, as others were more strongly represented. There was also a higher incidence of hinge fractures and a lower rate of feather terminations on flakes. There was also less evidence of platform preparation and fewer inner flakes than in the workshops. The occurrence of more cortical flakes at South Landing and more inner flakes bearing no cortex in the workshops is consistent with the practice of roughing-out at the coast, and completing the later stages of artefact production inland. The lower level of skill apparent at South Landing also supports this as mass-reduction and basic roughing-out do not require such a great amount of skill.

Interpretation

The results do point fairly conclusively to the existence of specialist artefact production at North Dalę, and that this was a two-stage process linked with sites on the coast. As already suggested, it may be the complexity of of the process and also its association with specialists which may have been the source of the social significance of these artefacts, at least as much as their striking appearance. The location of sites actually on the flint source may have served to lay claim to the flint in the immediate area, or at least restrict access to it (*cf* Edmonds 1989; Michaels 1989). The highly discrete nature of the workshops within the inland settlement also suggests that the production of these artefacts may have been imbued with a certain significance and was kept deliberately separate from more domestic activities on the site. The presence of finished quality items on other parts of the site, along with non-local stone axes, is interesting however, and may indicate that that the settlement was one of high status, or possibly that many specialised lithics returned to the place of their manufacture for ritual deposition at the end of their 'use-lives'.

The existence of such a complex production system involving specialists is indicative of a society which was becoming increasingly complex at this time. Finds of the finished artefacts in graves may point to the development of an elite class (*cf* Pierpoint 1978; 1980), the artefacts acting as prestige goods. This may be the case, but it is also possible that society was becoming complex horizontally as well as vertically, and that the objects were used as social markers for non-hierarchical groups or for rituals involving such groups.

It is likely that non-local stone axes had similar roles to play as they are often found in the same contexts as specialised lithics. The complex production system and restricted access to the raw material for group VI axes at Great Langdale is comparable to that of the specialised lithics on the Yorkshire Wolds, and similarly may have been the source of much of the social significance of the finished products (Edmonds 1989).

Directions for further research

The possible similarity in the roles of fine Yorkshire flintwork and Cumbrian axes in the later Neolithic may well be no coincidence, and it would be fruitful to examine further the relationship between the two regions. Group VI axes are actually more common in Eastern Yorkshire than locally-made flint axes (Manby 1979), so what was being exchanged for such a vast quantity of imports? Apart from the possibility of the exchange of organic items or marriage partners, there are a few examples of Yorkshire flintwork in graves in Cumbria, and also a handful of stray finds of Seamer type flint axes. However, the finds of flintwork are by no means on the scale of finds of group VI material in Eastern Yorkshire.

The hypothesis suggested here is that it was the raw material which was exchanged for stone axes and not the finished flintwork, Cumbria having no flint source of its own. Extensive work in Cumbria by the Cherry family (eg 1983, 1984, 1985, 1987) has already identified and dated settlements in the region through the location of lithic scatters. This work could be expanded upon in several ways. Firstly, the lithic material already collected could be analysed with particular reference to artefact types present and the technological attributes of these and the debitage. This could then be compared to similarly-examined assemblages in Yorkshire, to see whether materials, artefacts or ideas concerning methods of working flint were coming across from the Yorkshire Wolds, for example the use of the tortoise core technology. Where possible, systematic and detailed fieldwalking of lithic scatters would be more germane to these questions, and would supplement the data from the Cherrys' material, as it would allow detailed spatial analysis of sites to discern in what contexts the putative Yorkshire flint was being worked or consumed, or whether the production of more specialised artefacts took place here and whether production was spatially restricted as in Yorkshire. A programme of scientific analysis to identify the geological source of flint found in Cumbria would also elucidate matters, and hopefully add considerable weight to the theory of cross-Pennine exchange. Spatial analysis would also be useful here if more than one flint source was utilised in Cumbria (flint from County Antrim in Northern Ireland is another possible source). It may be the case that flint from different sources was used in different contexts or made into different types of artefacts.

The common thread running through all these enquiries is the focus on the context of production. The

contexts of lithic artefact production alter quite dramatically through the course of the Neolithic, from activity at flint mines liminal to the main settlement areas in the earlier part of the period, to production actually within a domestic context in the later Neolithic (*cf* Edmonds 1987; Ford 1987; Gardiner 1984; 1988; 1990). It is also apparent that lithics were becoming increasingly important in social spheres, yet to date a link between these two changing variables has not been acknowledged. It is hoped that the research carried out on the Yorkshire Wolds and that suggested for Cumbria will go some way towards rectifying the situation, and at the same time demonstrate that the archaeology of northern England, while in some ways different to that of Wessex, can address the wider academic issues in archaeological study today.

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