

ARE FIRST IMPRESSIONS ONLY TOPSOIL-DEEP ? THE EVIDENCE FROM TATTERSHALL THORPE, LINCOLNSHIRE

by Frances Healy

This paper describes the provisional results of the study of lithic material collected during field-walking and subsequent excavation at Tattershall Thorpe in east Lincolnshire. The site (at TF/237 608) lies on the gravels of the river Bain just above its confluence with the Witham, which in turn flows into the Fens some 6km to the south. It was discovered in the course of field survey by Peter Chowne of the North Lincolnshire Archaeological Unit and consisted of an even scatter of struck flint over the surface of a 7.5ha field from which an initial surface collection of 897 pieces was made. Following a gradiometer survey which indicated the presence of underlying features, two adjacent areas were stripped and excavated, together with a few small outlying trenches, in two seasons at the beginning and end of 1981. Over both main areas the topsoil was underlain by a thin layer of wind-blown sand containing much prehistoric material in addition to Romano-British and medieval sherds. This layer was cut by medieval plough furrows which penetrated into the subsoil below, in which were features of both prehistoric and Romano-British date.

Most of the prehistoric features were of earlier neolithic date: fourth millennium bc radiocarbon determinations were obtained for a rectangular post-built structure, and for one of a nearby group of pits. The pits were rich in finds, yielding 1317g of pottery and 302 pieces of struck flint. On the other hand, pits containing later neolithic or early bronze age pottery and later bronze age pottery numbered only two and one respectively, and yielded a total of 200g of pottery and 6 pieces of struck flint.

On the face of it, one might expect most of the struck flint from the surface, the topsoil and the wind-blown sand to have been ploughed out of the underlying earlier neolithic features and to be comparable with the material excavated from them. This was not the case. Figures 1 to 3 compare four groups of struck flint:

- 1) from the surface of the whole 7.5ha,
- 2) from the surface and topsoil of the area stripped for excavation (approximately 6000 sq m or 8.4% of the whole),
- 3) from the underlying wind-blown sand over the completely excavated part of the stripped area (approximately 2400 sq m or 3.6% of the whole),
- 4) from the earlier neolithic pits.

The first three groups are necessarily of mixed, multi-period composition; the last one is securely stratified and likely to be contaminated only by the presence of residual material, of which there is no obvious indication. All four have, however, been recorded and depicted in the same way with the aim of establishing their similarities and differences. Fig. 1 shows the composition of the cores from the four groups, using a simplified classification. Even at this stage it is apparent that, while groups 2 and 3 match each other quite closely, they are not representative of the whole 7.5ha, since the proportions within them of multi-platform and keeled cores are reversed among the cores of group 1. Also, the cores from the pits include a higher proportion of single-platform examples than those of the mixed groups.

Tattershall Thorpe: cores

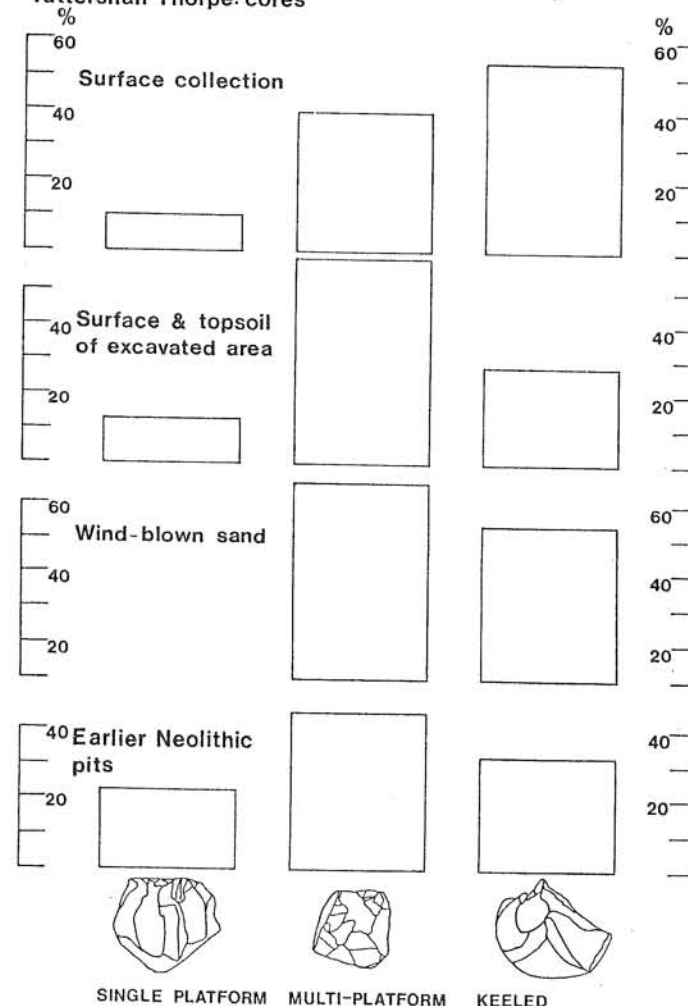


Fig.1. Composition of the classifiable cores in each of the four main flint groups from Tattershall Thorpe.

The same pattern can be seen in the breadth:length ratios of the un-retouched flakes (Fig. 2). Again, there is incomplete agreement between groups 2 and 3 on the one hand and group 1 on the other, and even less agreement between all three and the pits, the flakes from which are generally far more blade-like. When it comes to retouched forms (Fig. 3), all three mixed groups include a wider range of types than does the material from the pits, and are distinguished by quite high proportions of borers or points.

Tattershall Thorpe: breadth:length ratios of complete unretouched flakes

— surface collection - - - surface & topsoil of excavated area

- - - - - wind-blown sand [] Earlier Neolithic pits

b:l 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5

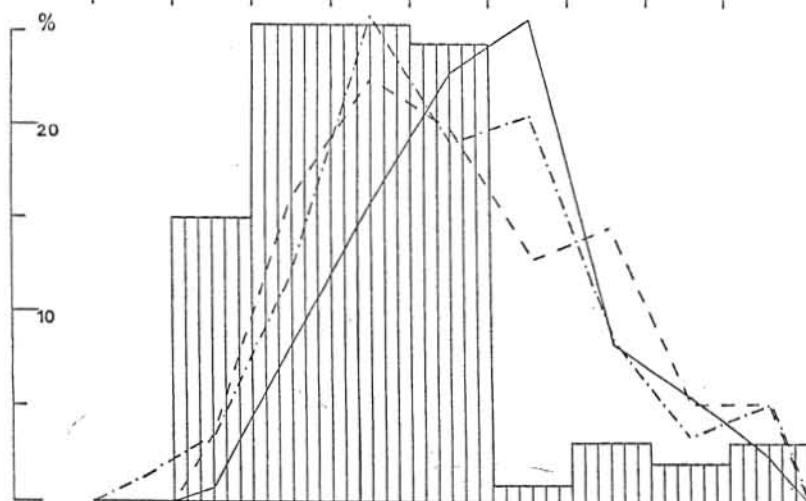


Fig.2. Flake proportions for each of the four main flint groups from Tattershall Thorpe.

It is clear 1) that there was spatial differentiation within the scatter, since the composition of the struck flint from the excavated areas of the topsoil and wind-blown sand does not match that of the initial surface collection, and 2) that all three mixed groups are dominated by a component or components unrelated to the material from the underlying earlier neolithic pits. In other words, the surface collection masked rather than predicted the content of the underlying subsoil features.

Up to a point it is possible to define the dominant component or components of the mixed groups in terms of what is known about post-glacial flint industries in the south and east of England. Such high proportions of broad flakes are unlikely to have been produced before the second half of the third millennium bc (Pitts 1978). Individual retouched forms like chisel and oblique arrowheads (Fig. 3) seem to have become current at a similar date and are, on the basis of their associations, likely to have been at least broadly contemporary with the small quantities of beaker and grooved ware from the site (Green 1980, 111-116). The overall composition of the mixed groups has at least one of the characteristics of later bronze age industries isolated by Saville (1980, 20-21; 1981, 68) and by Ford *et al* (forthcoming) in the form of relatively high proportions of borers or points, which occur in a number of later bronze age industries but are difficult to match in earlier ones.

Tattershall Thorpe: retouched forms

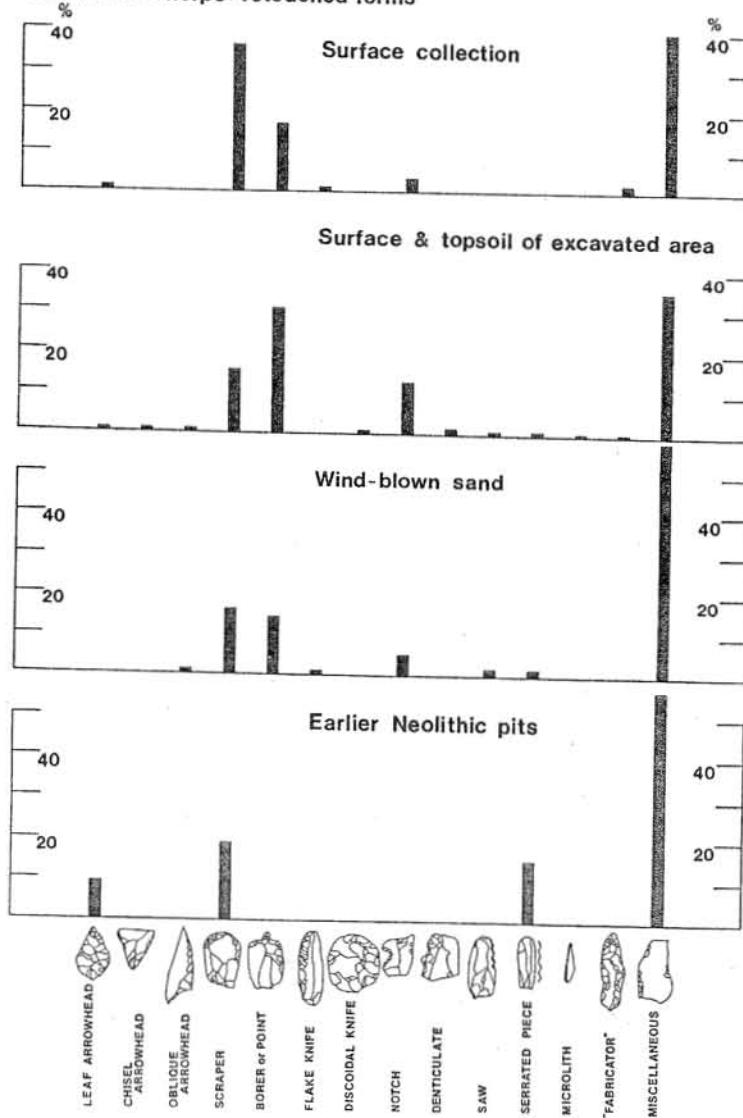


Fig.3. Composition of the retouched pieces in each of the four main flint groups from Tattershall Thorpe.

It seems reasonable to assume that the 2004 pieces of struck flint in the mixed groups are of predominantly later neolithic and/or bronze age date, in contrast to the 308 pieces from securely dated subsoil features, 98% (302) of which are of earlier neolithic date. Later pottery is indeed more frequent outside of subsoil features than inside, accounting for 4% of identifiable prehistoric sherds from features and 40% of those from other contexts. The 40% consists of only 23 small, abraded fragments, but these may represent an originally larger quantity, since the ploughsoil, aeolian sand and, in the case of one of the outlying trenches, alluvial deposits in which they were found would have been less conducive to pottery preservation than would undisturbed pits.

This situation, in which earlier neolithic activity is represented mainly by subsoil features and later phases mainly in superficial deposits, is a recurrent one. An obvious example is Broome Heath, Norfolk (Wainwright 1972), where numerous pits were dug in the mid-third millennium bc, but where late third and second millennium activity was represented by an earthwork, material preserved underneath it, a flint scatter with beaker pottery, and stray Peterborough ware and bronze age sherds. Similarly, on the multi-period site of Spong Hill, also in Norfolk, which was excavated primarily as a pagan Saxon cemetery, five clusters of earlier neolithic pits, all rich in artefacts, contrasted with a few isolated features containing later neolithic or early bronze age pottery. Yet, where there were concentrations of struck flint in superficial and post-prehistoric contexts, these are of generally late aspect, like the mixed groups from Tattershall Thorpe.

In each case, it is possible to suggest explanations. One of the simplest is that later features may have remained unexcavated in adjacent areas. If so, it is curious that later features are so often excluded and earlier ones so often included when areas are chosen for excavation. It is pertinent to consider observations made by Crowther (1983) with reference to the occurrence of Romano-British pottery in ploughsoil and in subsequently excavated subsoil features in the Welland valley. He suggests that a lack of correlation between the contents of the ploughsoil and the contents or even the presence of underlying subsoil features may result from 1) the deposition of material in the course of off-site activities which would not have involved the cutting of subsoil features, and 2) the derivation of ploughsoil material from a vanished land surface or surfaces as well as from subsoil features.

This second possibility touches on an awkward characteristic of later neolithic and bronze age settlement in lowland Britain, already exemplified by Broome Heath and Spong Hill. While pits and other subsoil features are almost ubiquitous on late fourth and early third millennium bc settlement sites, they become less frequent from the late third millennium onwards. Some second and early first millennium bc sites do, it is true, include pits, enclosures and substantial structures; but a large number consist entirely or almost entirely of rubbish deposits, surviving when protected by earthworks, by alluvial or colluvial deposits, or by deposition in pre-existing hollows. Without such protection, the deposits constituting the pre-barrow occupation of Arretton Down, the occupation of Plantation Farm, the post-mining occupation of Grime's Graves, and many others like them would have been reduced to flint scatters.

I would suggest that not only may the contents of a scatter be un-

representative of the contents of underlying subsoil features, but that the evidence of subsoil features will often be biased in favour of the earlier neolithic and against the later neolithic and the bronze age, evidence for which may often survive mainly or exclusively in the ploughsoil and on the surface. To machine-off unsampled ploughsoil before excavation, by no means a practice of the past, is to distort an already distorted record. Further understanding of the nature of individual later neolithic and bronze age settlements will come from exceptional, well-preserved sites, especially water-logged ones. Any understanding of the frequency and extent of contemporary activity across the landscape must, on the other hand, draw on the evidence of desiccated sites. Flint scatters may prove as fundamental to the study of the later neolithic and the bronze age as they are to that of the mesolithic.

Acknowledgement

I am grateful to the North Lincolnshire Archaeological Unit, and especially to Peter Chowne, for the opportunity to work on the Tattershall Thorpe material and for permission to publish this paper, which is an amended version of a paper given at a seminar on lithic scatters and settlement patterns held in Oxford on 5 November 1983.

REFERENCES

- Crowther, D. 1983. Old land surfaces and modern ploughsoil: implications of recent work at Maxey, Cambs. *Scottish Archaeol Rev* 2, 31-44.
- Ford, S., Hawkes, J. and Bradley, R. Forthcoming. Flint-working in the metal age. Paper given at the 4th International Flint Symposium, Brighton April 1983.
- Green, H.S. 1980. *The flint arrowheads of the British Isles*. Oxford. (=BAR Brit Ser 75).
- Pitts, M.W. 1978. On the shape of waste flakes as an index of technological change in lithic industries. *J Archaeol Sci* 5, 17-37.
- Saville, A. 1980. Five flint assemblages from excavated sites in Wiltshire. *Wiltshire Archaeol Mag* 72/73, 1-27.
- Saville, A. 1981. *Grimes Graves, Norfolk: excavations 1971-72. Vol.2. The flint assemblage*. London. (=Department of the Environment Archaeological Reports 11).
- Wainwright, G.J. 1972. The excavation of a neolithic settlement on Broome Heath, Ditchingham, Norfolk. *Proc Prehist Soc* 38, 1-97.

December 1983