

A MESOLITHIC INDUSTRY FROM BOLTER END

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IN January, 1964, the Buckinghamshire County Museum acquired from Mr. J. Plowman of Bolter End a collection of mesolithic flints from Marline's Sandpit at Bolter End. The sandpit lies immediately to the north of the Marlow to Stokenchurch Road between Bolter End and Cadmore End (Fig. 1).

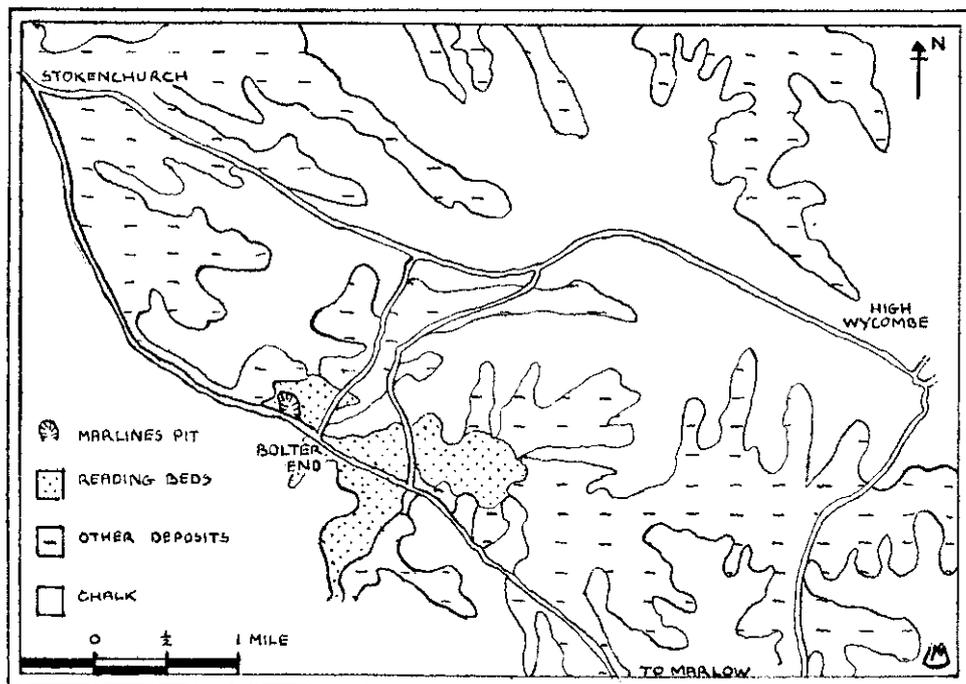


FIG. 1. Map showing position of Marline's Pit, Bolter End.

This area is on an outlier of the Reading Beds,¹ which here overlie the Upper Chalk and consist of sand that becomes loamy above, together with beds of gravel. The individual strata are irregular and cut into each other and there are clay bands which are mostly grey in colour. Some of the outliers of the Reading Beds in the Chiltern Region appear to be disturbed, possibly due

to the action of ice and snow, but at Lane End sections have shown that this is in some cases the original structure of the rock. At various places in the neighbourhood of Bolter End the chalk is overlain by various deposits, including clay with flints, brickearth and gravel and sand. The sand that is commercially excavated in this area is from the Reading Beds.

CIRCUMSTANCES OF FIND

The flints were collected by the donor over two years (1962-63) while sand from Marline's Pit was being excavated by a drag line. The flints were mainly recovered from the spoil heaps of excavated sand that had been tipped back within the area of the pit prior to being removed. No implements were actually found *in situ*, but it was observed that in the area from which the sand containing the flints came, there was a thick dark level some two feet below the surface. This was overlain by more sand, which graded into topsoil. Unfortunately, all the dark layer had been removed before the site could be visited and it was not possible to establish a more direct relation between the industry and the stratigraphy.

THE INDUSTRY

A. *Analysis*

Finished tools	
Angled points	3
Backed blades	2
Scrapers	2
Burins	1
Awls	1
	—
Total	9
	—
Core tools	1
Cores	
Single platform	4
Two platform	14
Fragmentary	3
Rough	5
Miscellaneous	2
	—
Total	28
	—
Utilised flakes and blades	18
Waste blades	191
Waste flakes	144
	—
Total	391
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B. Description

FINISHED TOOLS

As can be seen above, these are rare, comprising approximately 2.6% of the total assemblage. Four main tool types are represented. All finished tools are illustrated (Fig. 2).

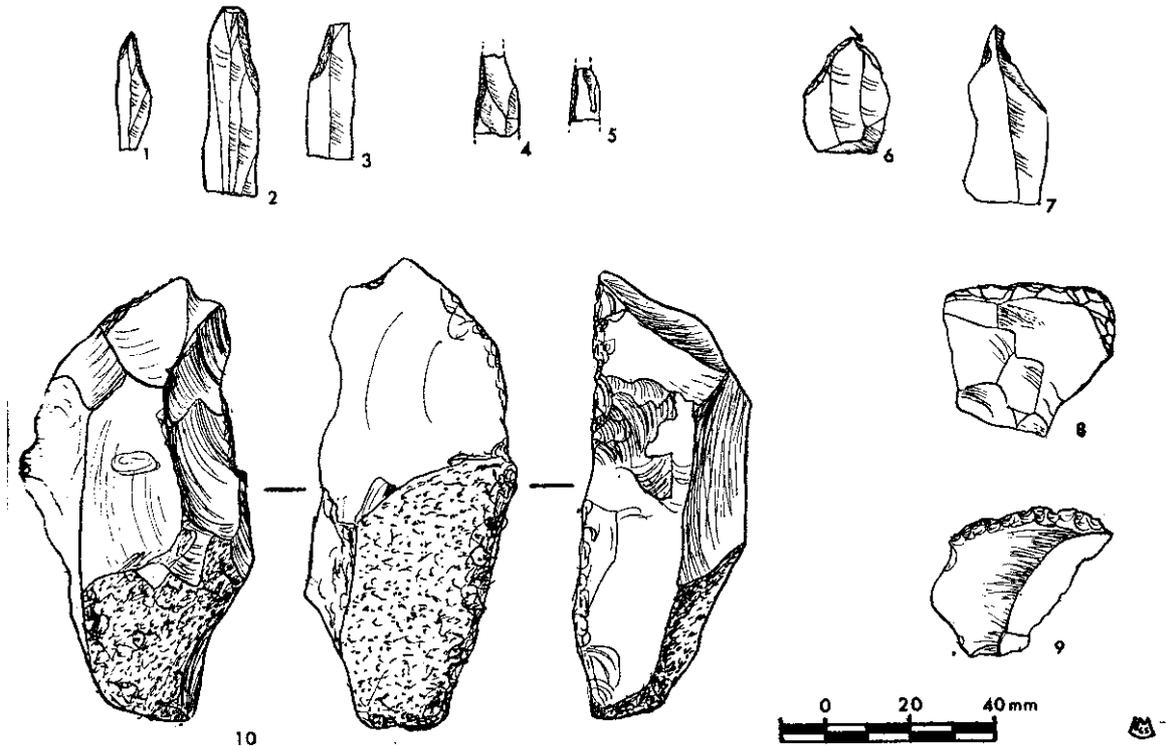


FIG. 2. Bolter End. Finished tools, nos. 1-10.

(i) Obliquely blunted points²; nos. 1-3. There are three examples of these. No. 3 Clark's type A.1.a. is broken. No. 2 Clark's type A.1.c. is broken. No. 1 Clark's type A.1.d. with a small amount of trimming on the opposite edge is well made and complete. All are made on blades whose bulbs have been removed.

(ii) Scrapers: Nos. 8-9. There are two scrapers, both made on flakes and both very irregular. No. 8, with a thick white patina, is an end scraper made on a short wide flake. No. 9 is also an end scraper made on an unpatinated flake of irregular shape and with a shattered bulb.

(iii) Burin: No. 6. The single burin is of the oblique angle type with the burin blow on the right-hand side. It is made on a flake and has a thick white patina.

(iv) Awl: No. 7. This consists of a flake which narrows naturally to form a point and has a small amount of secondary work on either side.

Nos. 4-5. There are also two fragments of backed blades. Both are made on small blades that have snapped, and both are trimmed on the right-hand side.

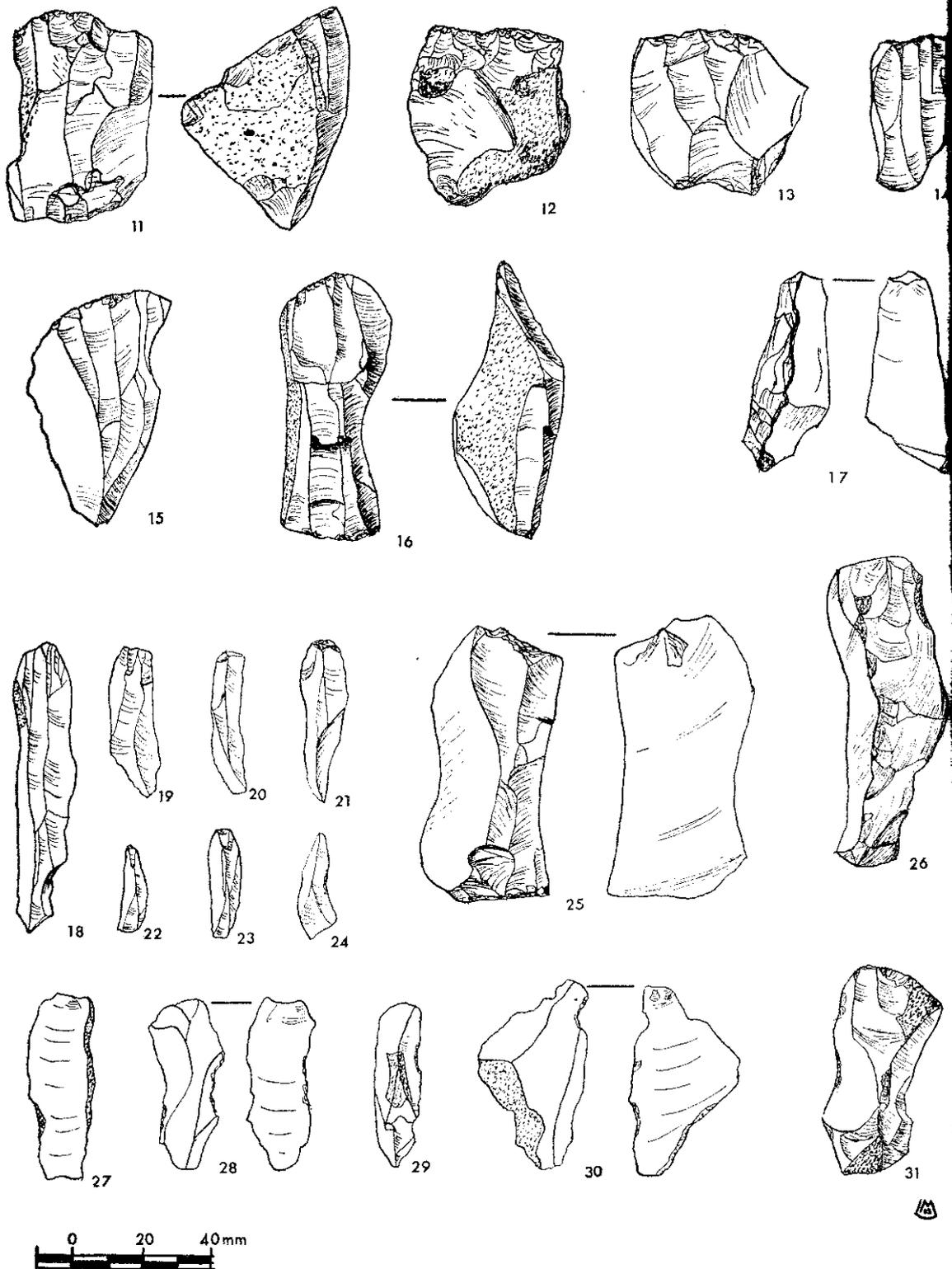


FIG. 3. Bolter End. Cores and flakes, nos. 11-31.

Core tool: No. 10. This is an object made on a nodule of plano-convex shape. A flake has been struck from the flat underside and this has been used as a platform for striking flakes over the curved part of the nodule. There is some cortex on both sides and there is differential patination on one side, suggesting the reworking of a nodule that had previously had some flakes removed from it. It suggests the first stages in the manufacture of an axe, though it is possible that it is an irregular core.

UTILISED FLAKES AND BLADES

There is a small group of 17 specimens, including both good blades and irregular flakes, that have been utilised on one or both edges (see Fig. 3, Nos. 24, 27-30).

FLAKES AND CORES

A distinction has been made between flakes and blades. Blades are defined as flakes that have a length at least twice as great as their width and are struck from the core by the use of an intermediary tool or punch. They are characterised by a very small or non-existent striking platform, a soft and diffuse bulb and more or less parallel sides. They also typically have a certain amount of battering on the outside surface at the top and one or more ridges down the outside surface parallel to the sides.

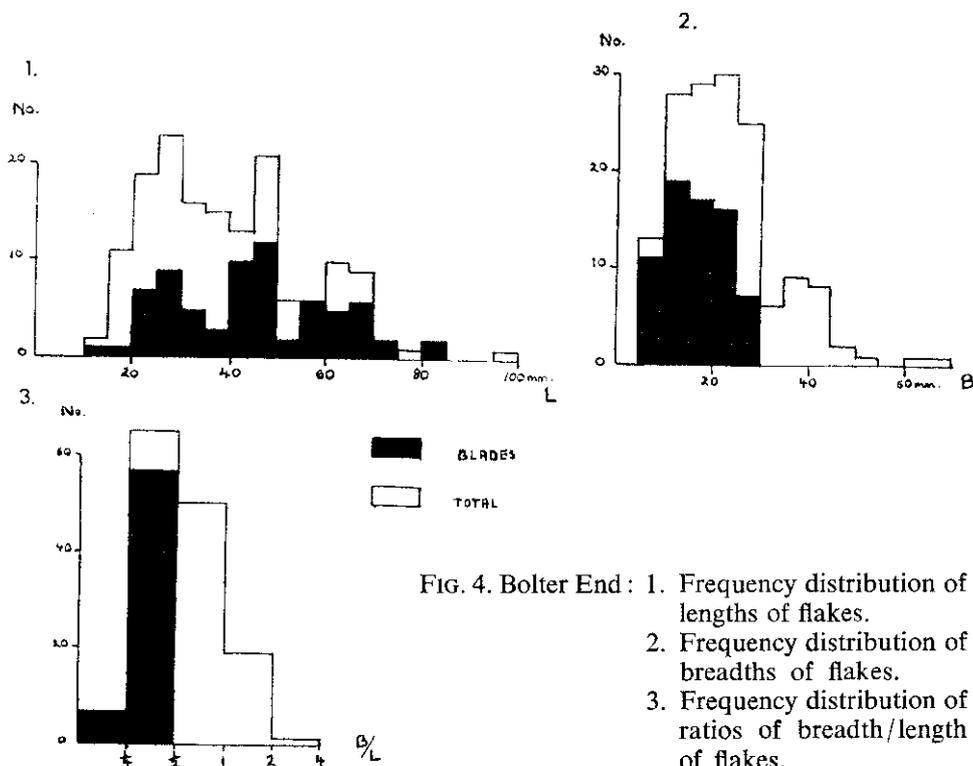


FIG. 4. Bolter End: 1. Frequency distribution of lengths of flakes.
2. Frequency distribution of breadths of flakes.
3. Frequency distribution of ratios of breadth/length of flakes.

Of the total flake wastage at Bolter End—353 specimens, including utilised

flakes—blades form a considerable part, approximately 72% of the total. The accompanying diagram, Fig. 4, demonstrates both the relative percentages of blades and flakes and their range of size. The blades tend to be somewhat irregular in outline.

The flakes can be divided into various categories :

1. Core rejuvenation flakes. These are produced when a new striking platform is required on a core. Fig. 3, nos. 17, 26.

2. Core fragments. There are also five thickish flakes which represent substantial fragments of small blade cores. Presumably they result from the final working out of a core.

3. The remaining flakes fall into two main classes depending on size. There are small fine flakes, some of which are the result of core preparation and trimming, and others that differ from blades only in length. There are also several large coarse flakes resulting from core trimming. There were no micro-burins.

Nearly all the cores are blade cores of the usual Upper Palæolithic type. Among these the most common type are prismatic two-platform cores. Typically, two platforms are prepared at opposite ends of a nodule by means of angled blows, which leave the nodule pyramidal in form. Blades are then struck from either end along the long axis of the nodule. Single-platform cores are similar, but only one platform is prepared. Of the 14 double-platform cores, 10 are between 50 and 70 mm. in length, two are larger and two are smaller. The two single-platform cores fall within the same range of size, which agrees well with the range of blade size noted above. There are, in addition, five fragmentary blade cores.

Of the other cores, two are of rather indeterminate form (listed above as miscellaneous) and have been used to produce flakes. There are also four irregular nodules of flint which there has been some attempt to utilise as cores and from which some blades have been removed, but which were never worked properly into cores, owing either to the poor quality of the flint or their irregular shape.

DISCUSSION

The patination of the flints, with the exception of a few with a thick white patina and a few unpatinated examples, is uniformly a rather patchy greyish white. The flint used appears to have been greyish or black in colour and, judging from the rough cores, it occurred in the form of medium sized, rather irregular nodules.

The most striking points about this assemblage are (a) the scarcity of finished tools, (b) the relative abundance of cores, (c) the homogeneous character of the flaking. In view of this, and the small relative size of the collection, it seems likely that this site represents a working floor that was used only for a short time, perhaps on only one occasion. The dark line observed in the section presumably represents the ground surface at that time and it seems that the site was being occupied while the sand was exposed and being redeposited by wind action.

The absence of particularly diagnostic tool forms makes it difficult to place

this industry exactly. Of those represented, obliquely blunted points, scrapers and angle burins occur at both Horsham and Maglemosian sites. Awls are rare in the Horsham culture and also at the nearest Maglemosian site, Thatcham.³ The general character of the flint working seems to resemble that of Horsham industries,⁴ e.g. Oakhanger, while the standard of blade production is perceptibly lower than that commonly found at Maglemosian sites where single platform cores are also more common.⁵ The site, on sand, is moreover a typical Horsham site.

ACKNOWLEDGMENTS

Thanks are due to Mr. J. Plowman, who collected the flints and gave them to the Museum; also to Mr. J. Wymer of Reading Museum and M. A. D. Lacaille for kindly looking at the flints and for their most helpful suggestions.

¹ R. L. Sherlock, *British Regional Geology, London and Thames Valley*, H.M.S.O., 2nd ed., 1954.

² J. G. D. Clark, "Classification of a Microlithic Culture", *Arch. J.*, XC, 1933, Part 1, p. 56.

³ J. J. Wymer, "Excavations at the Maglemosian sites at Thatcham", *P.P.S. New Series*, Vol. XXVIII, 1962, p. 329.

⁴ v. W. F. Rankine, "Further Investigations at a Mesolithic Site at Oakhanger", *P.P.S. New Series*, Vol. XXVI, 1960, p. 246.

⁵ For example, at Thatcham. 155 two platform cores, 104 single platform cores, 6 multi-platform cores, 18 fragmentary cores. J. J. Wymer *op. cit.*