EXCAVATIONS AT LOW FARM, FULMER, BUCKS. 1: THE MESOLITHIC OCCUPATION

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Excavations at Fulmer in 1972 revealed two main periods of occupation, Mesolithic and Mediaeval. An account of the earlier occupation is given in this report.

Acknowledgements

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Introduction

In 1972 demand for gravel during construction of the M40 led to proposals for a pit at Low Farm, Fulmer (Fig. 1), in the Alderbourne Valley. Part of the area affected was considered to have been once the site of the mediaeval chapel and village of Fulmer which had later migrated to its present position further down the valley. Human skeletal remains had previously been discovered on the site and the Chalfont St. Peter and Gerrards Cross Local History Society with the support of Mr. E. C. Rouse, had in 1963 unearthed flint footings and mediaeval pottery in a small excavation to the west of the farm. In response to the extraction threat, Buckinghamshire County Museum undertook a further excavation on the site at a fairly late hour.

The excavation revealed a mediaeval aisled hall which will be described in a second report, but it soon became apparent that the site had also been occupied during the Mesolithic period. The presence of the mediaeval settlement had left few areas of Mesolithic occupation undisturbed and the bulk of the flints recovered came from mixed

subsoil deposits. In addition, the necessity to strip a relatively large area rapidly in the search for mediaeval structures meant that most of the flints were recorded only in a coarse locational mesh. It is some compensation that the uncovering of a fairly large area showed how extensively the site was utilised in the Mesolithic period.

Topography

Low Farm lies at c. 45 m. OD in the valley of the Alderbourne, a steep sided valley tributary of the Colne. The farm lies on a small penisula of gravel in the valley bottom surrounded on three sides by marshy ground known locally as 'The Bogs'. The habitat

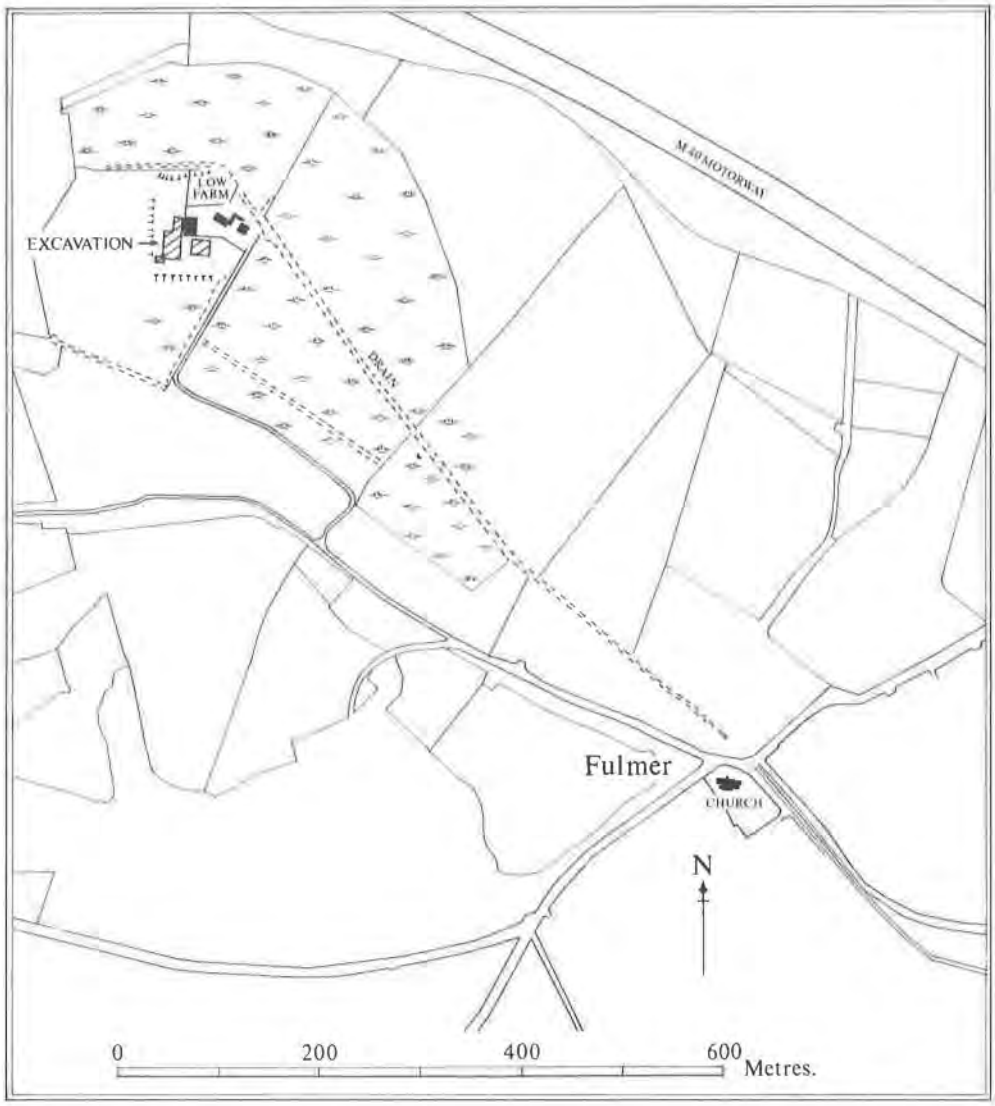

Fig. 1. Fulmer, location of 1972 excavation.

varies from terrestrial, through marsh and reed swamp, to totally aquatic. Most of the area is dominated by Reed Sweetgrass (*Glyceria maxima*) accompanied by Amphibious Bistort (*Polygonum amphibium*) with patches of sedge, but some fifty-two other species of plant are also present. The water (ph. 7.2 – 7.3) is very rich in invertebrate animals although only a small number of species are present. Wildfowl are fairly common in the vicinity and some nest there.[1]

The drainage of the locality has been much modified in historic times and the water level substantially lowered in recent years by water board activity to the extent that during the last war the mere was dry enough to be ploughed. In the Mesolithic period however, the site would have presented an ideal semi-island location with wildfowl and fish readily to hand as well as an abundant supply of good flint. Its good hunting potential can be seen in the place name whose root means 'bird-haunted mere' (Mawer and Stenton, 1925).

The Geological Survey (Geol. Surv., 1922) maps the gravel on which the site rests as a 'dry valley gravel' showing Low Farm lying at a boundary between that gravel and lower valley alluvium. The underlying solid geology changes from chalk to Reading Beds, probably accounting for the existence of the mere at this point. The Alderbourne itself rises a short distance west of the mere.

When quarried, the gravel deposits proved to be less rich than had been anticipated since at a depth of between two to three metres lay a grey clay rich in vegetation, possibly of interglacial or interstadial origin, and probably the same deposit as that recorded in a nearby borehole (Inst. Geol., 1974, 73). The same borehole showed Upper Chalk to occur 3.4 m. below present ground level.

The Mesolithic Occupation

(a) Introduction

Much of the worked flint, as has already been mentioned, was recovered from subsoil levels which also contained Mediaeval pottery. Two areas only were found to contain uncontaminated Mesolithic material and are indicated on Fig. 2 (lower). A transverse arrowhead and a plano-convex knife suggest that a proportion of the flint waste may be Late Neolithic – Early Bronze Age in date, however it is argued further on that the shape of the debitage indicated that the amount is of little significance and the bulk of it may be fairly confidently associated with the Mesolithic tool types also found.

Fig. 2 (upper) shows the density of all struck flint per square metre from a total of 777 pieces recovered. The area 60/10 – 60/25 is clearly the densest zone although even here the highest per square metre figure is only 3.44. There is also a slight increase in the 10/00 – 20/10 area rising to .96 p.s.m. The overall low density is in part due to the exigencies of collection outlined earlier and partly to the necessity of averaging over a coarse matrix in order to include flints from disturbed contexts; however even allowing for disturbance, the extensive utilisation of the penisula can be readily seen.

The larger of the two stippled zones on Fig. 2 (lower) indicates an area where a soil largely undisturbed by either ploughing or Mediaeval occupation had survived and it is from this zone that the bulk of the flints illustrated are derived. The undisturbed soil (Features 605, 615, 616, 606 and 611 lower) was a very dark greyish brown in colour (10YR 3/2), a sandy silt loam slightly turfy in structure. Its upper few centimetres

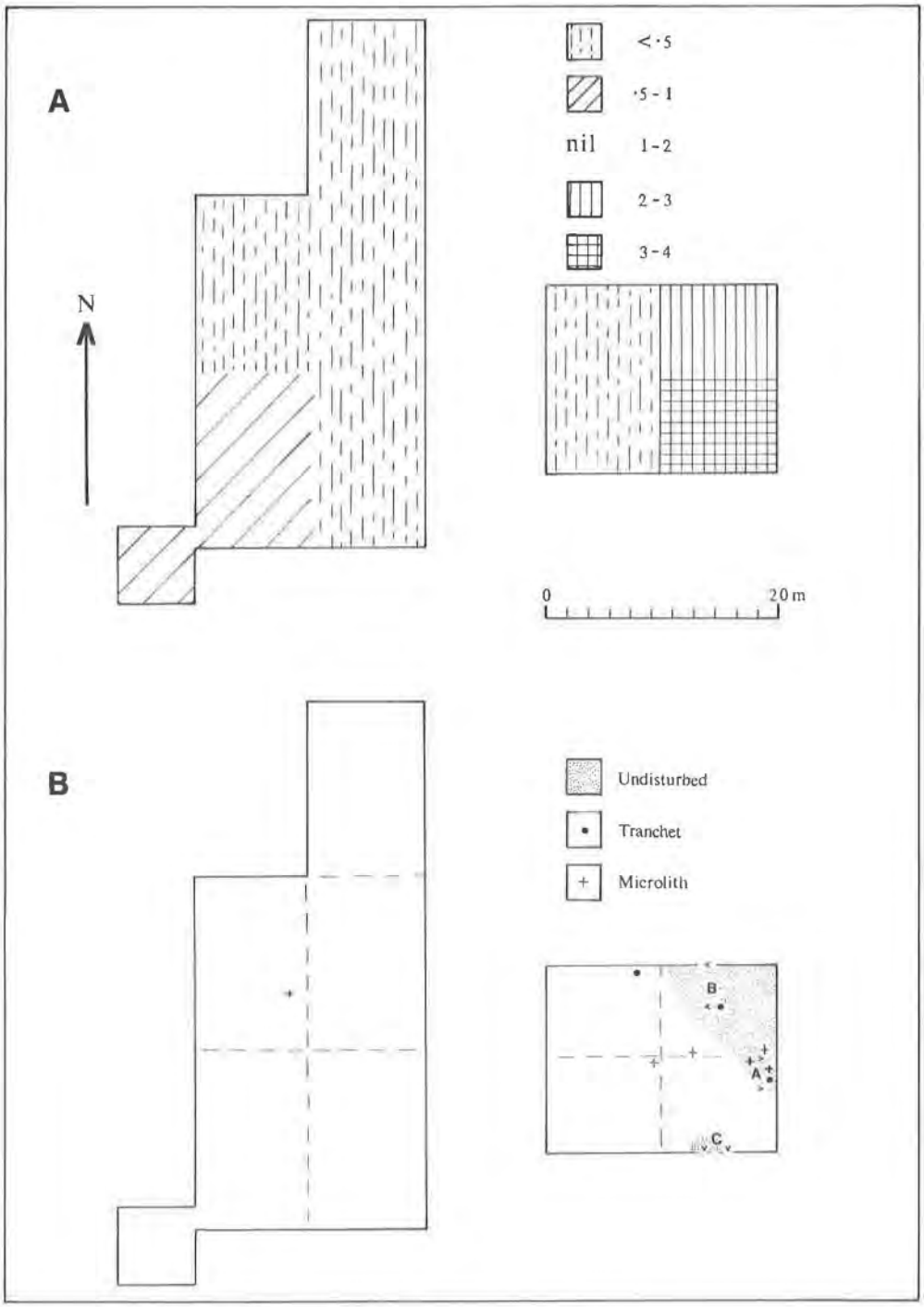

Fig. 2. upper: Density of all struck flint per square metre.
lower: Undisturbed Mesolithic areas with sections indicated.

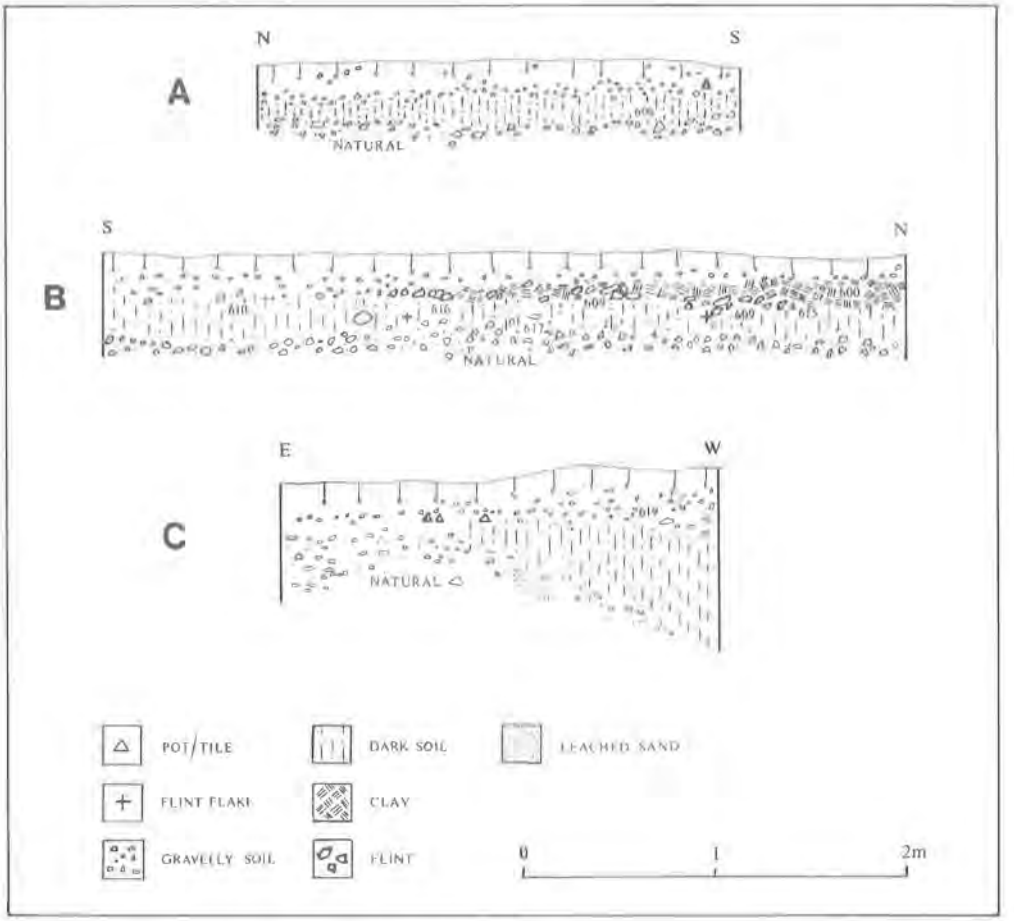

Fig. 3. Sections showing undisturbed Mesolithic levels.

occasionally contained sparse Mediaeval sherds which may have arrived there through the activity of cattle or pigs but the lower levels contained only struck flints. In one area, the soil had been particularly well protected by a deposit of clay (Fig. 3, B). Apart from this undisturbed soil, one other specific feature contained worked flints only, a hollow on the southern limit of the excavation (Fig. 2, lower and section Fig. 3, C). This hollow of which only a quadrant could be examined was a metre deep and contained a relatively stone-free soil similar to the soil already described. Its limits however were ill-defined: its base contained much root penetration and the number of struck flints did not markedly increase within it. It is probably best interpreted as a tree hollow rather than a Mesolithic feature.

The distribution of diagnostically Mesolithic flint types – microliths and tranchet axes, is shown on Fig. 2 (lower), and it can be seen that whilst they were not confined to the undisturbed area there was a concentration here. A particularly noticeable

feature of the undisturbed group was the reddish colour of the flint utilised, and in order to pursue this characteristic further, all of the waste was classified by an independent observer into either 'red' or 'grey'. The result of this exercise is depicted in Fig. 4 where it can be seen that in the relict soil area and its margins red flint forms more than 75% of the total, but elsewhere the proportion falls below the 50% level. Whilst it may then be presumed with some confidence that the bulk of the red flints are Mesolithic, two Mesolithic pieces – a tranchet axe and one of the microliths, are made in grey flint as are the Late Neolithic plano-convex knife and transverse arrowhead; so grey itself is not diagnostic of period.

(b) The Raw Material

The bulk of flint utilised came from large pebbles similar to those which occur in the underlying gravel. The natural colour of the flint ranged from reddish to grey, both having a grey cortex. The flint was of good quality, quite unlike the flint available from superficial clay-with-flints deposits common on the Chilterns, and which flint scatters indicate, was extensively used in the Neolithic – Bronze Age industries. The pebbles utilised at Fulmer would presumably have been selected either by searching in the adjacent stream bed or by superficial grubbing on the gravel platform. The flakes and tools themselves were, with a few exceptions, sharp and unpatinated.

(c) Tools and Flakes

Following introductory comments, each flint is listed as it appears on the figure, followed by further detail, its colour (r = red, g = grey), and its feature code.

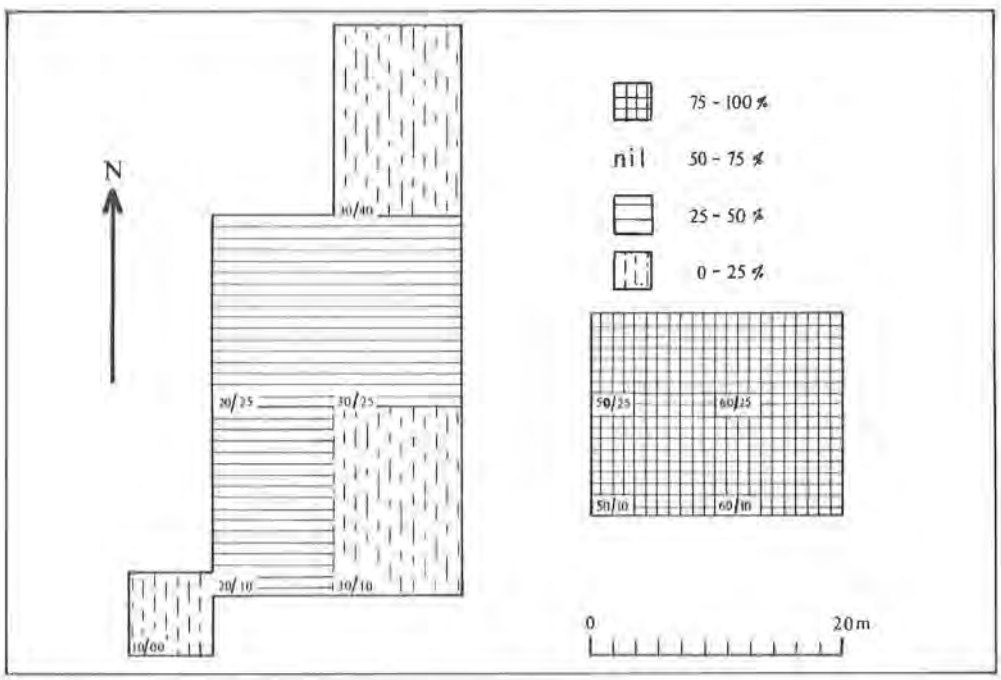

Fig. 4. Percentage of worked flint red in colour.

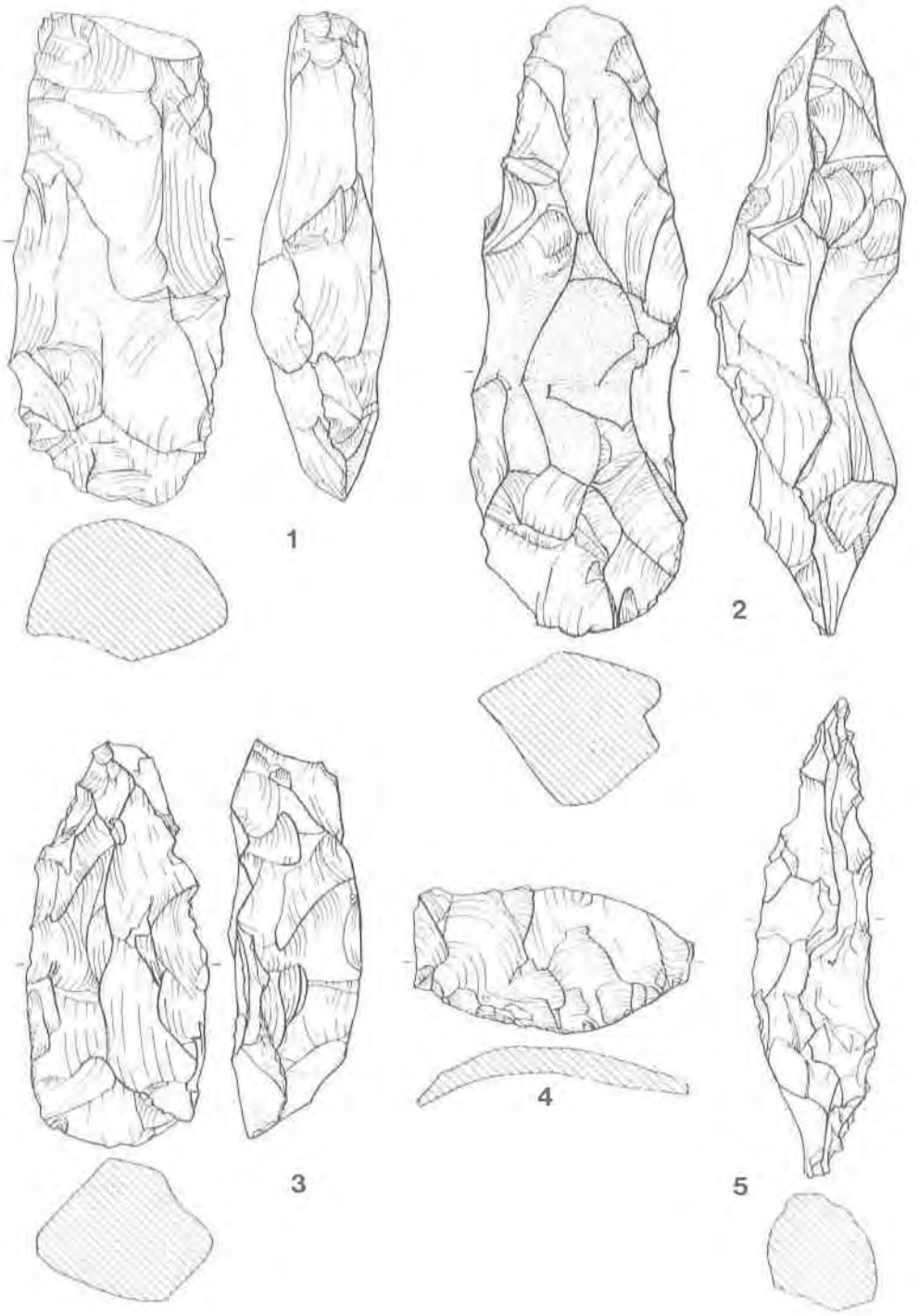

Fig. 5. Tranchet Axes (1–3), tranchet sharpening flake (4) and small core tool (5). (2/3).

(i) *Tranchet Axes* (Fig. 5)

The most distinctive Mesolithic element amongst the assemblage were three tranchet axes. A tranchet sharpening flake, too broad to fit any of the remaining axes, indicates the presence of a fourth.

1. Axe, g. (20/10, 227A).
2. Axe, r. (50/25, 505A).
3. Axe, r. (60/25, +).
4. Tranchet flake r. (60/10, 606C).

Also present was a small specialised 'pick':—

5. Core tool, r. (50/25, +B).

(ii) *Microliths* (Fig. 6, 1 – 5)

A number of small blades showed signs of utilisation. However only five narrow forms had certain vertical blunting retouch. Three of these were 'rods' and two 'crescents'.

1. Rod, g. (20/25, 233A).
2. Rod, r. (50/10, 611C).
3. Rod, r. (60/10, 606iiC).
4. Crescent, r. (60/10, 606iC).
5. Crescent, broken, r. (60/10, 606iE).

(iii) *Prepared Blades* (Fig. 6, 6 – 10)

Three truncated blades and two notched flakes were present.

6. r. (60/10, 605B).
7. g. (60/10, 608).
8. g. (20/10, 281D).
9. r. (60/10, 608).
10. g. (30/40, 305A).

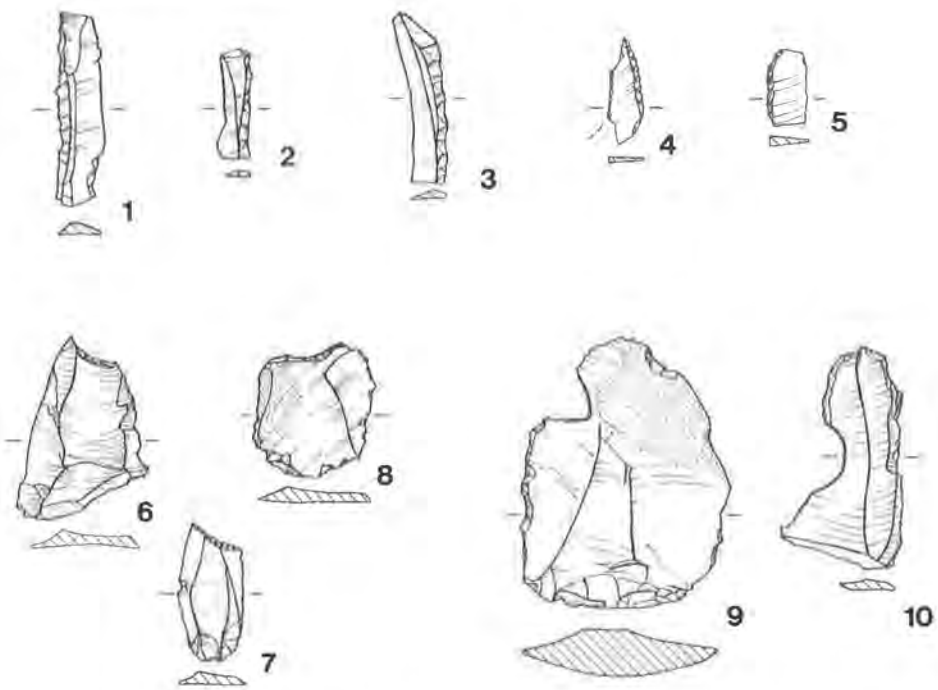

Fig. 6. Microliths (1–5), truncated blades (6–8) and notched flakes (9–10). (Microliths 1/1, others 2/3).

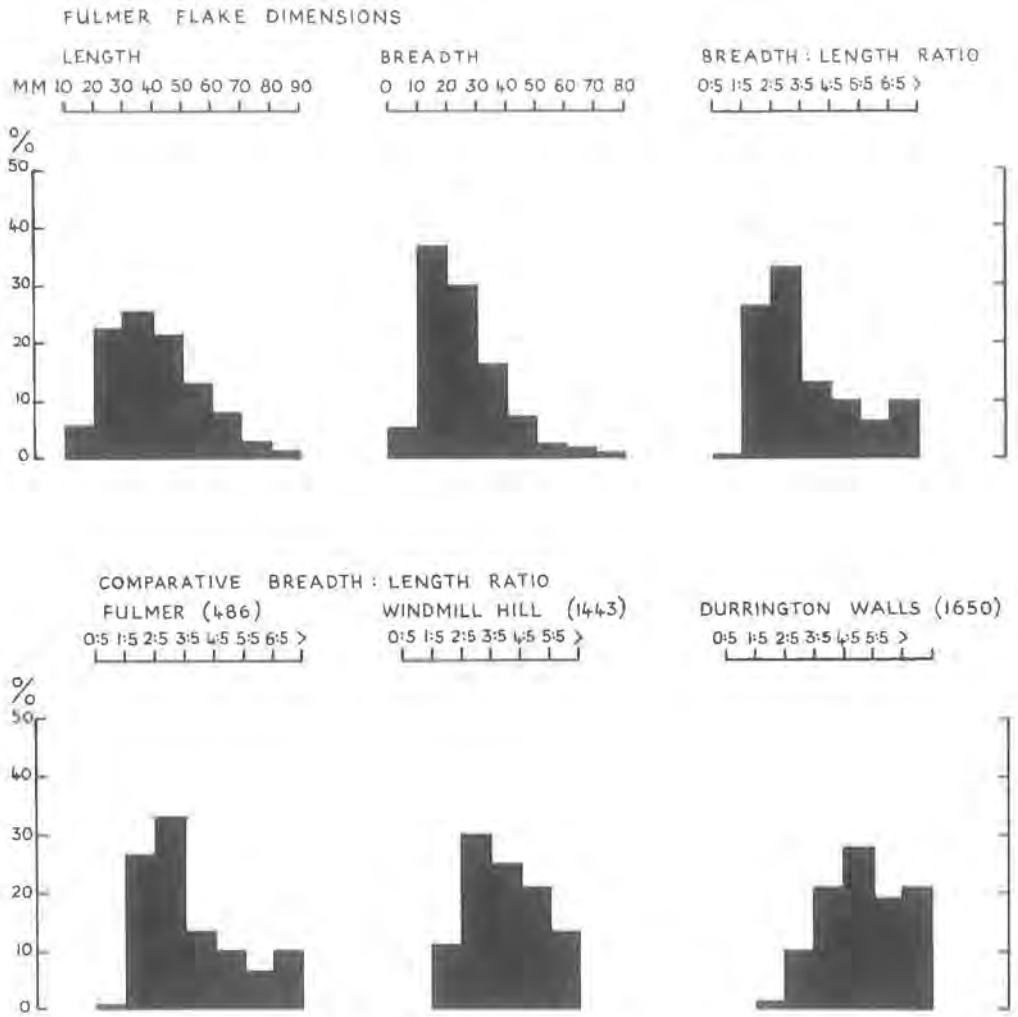

Fig. 7. Dimensions of flake size from Fulmer, and comparison between breath : width ratios for Fulmer with Windmill Hill and Durrington Walls.

(iv) *Blades and Flakes* (Fig. 7 and 8).

All of the complete flint waste (486 pieces) was measured for length and breadth; of this 44.4% retained some cortex. A selection of waste, a proportion of which has been retouched or utilised is illustrated on Fig. 8. As will be seen from the histogram (Fig. 7), the dominant impression is of a blade industry with 27% of the intact waste having blade-like proportions (breadth : length being 2 : 5 or less) and 60% of the total having a ratio of 3 : 5 or less. The dominant length lay in the range 2 – 5 cm. with breadth 1 – 3 cm.

It can reasonably be asked if any proportion of flint waste from the site may be associated with Late Neolithic activity, indicated by the presence of a transverse arrow-

head and plano-convex knife. It has been observed that in general terms there is a progression from predominantly narrow flake forms in the Mesolithic through to relatively squat forms in the Late Neolithic. Comparison of the flake material from the early levels of the Middle Neolithic site of Windmill Hill (Smith, 1965), with that from the Late Neolithic site of Durrington Walls (Wainwright, 1971), shows that whereas at the later site only 2% of the flakes present were blades, at Windmill Hill 15.9% fall into this category. At Fulmer 27% fell in this group. Conversely the squat flakes typical of the Late Neolithic industry at Durrington (with a breadth : length ratio in excess of 5 : 5) formed 40% of the total there compared with 13.5% at Windmill Hill.[2] At Fulmer the figure for squat flakes compares with the earlier site at 16.63%. The significance placed on this percentage depends very much on the construction of the histogram itself; for when the proportions are actually plotted out as far as a ratio of 9 : 5, it can be seen that the upturning apparent on the Fulmer histogram is largely artificial and that there is in fact a natural decline away from the preferred ratio of 1 : 5 to 3 : 5. It is suggested then, that there is probably very little flint waste of the later form present, and such as there is may be due to preparation of heavy tools such as tranchet axes on site (Barfield, 1976). This suggestion is supported by the fact that the cores from the site are all blade cores.

1. Blade, r. (60/10, 606iA).
2. Blade, r. (60/10, 606A).
3. Flake, r. (60/10, 606iiA).
4. Flake, r. (60/10, 606D).
5. Flake, r. (50/10, 611E).
6. Blade, r. (50/10, 611B).
7. Blade, r. (60/10, 611F).
8. Flake, r. (60/25, 611C).
9. Blade, r. (50/10, 611A).
10. Blade, r. (60/10, 606B).
11. Flake, g. (20/25, 434).
12. Flake, g. (20/10, 281B).
13. Blade, r. (10/00, 102B).
14. Flake, r. (50/10, +B).
15. Flake, g. (20/10, 292A).
16. Flake, r. (50/10, +D).
17. Flake, g. (20/25, 233C).
18. Blade, g. (20/10, 244A).
19. Blade, r. (60/10, +A).
20. Flake, r. (50/10, +C).
21. Flake, r. (30/40, 301B).
22. Blade, g. (20/25, 233).
23. Blade, g. (30/40, 305B).

(v) *Cores* (Fig. 9).

A selection of cores is illustrated on Fig. 9 confirming that the production of small blades was the main intention of the industry. Some 21 cores were recovered from the site, concentrated in the areas of maximum flake and blade density as noted earlier. The cores illustrated are classified according to Clark (Clark, 1960).

1. B (1), r. (50/10, 611D).
2. B (1), r. (20/10, 244C).
3. B (2), g. (10/00, 100).
4. C, r. (60/10, 604).
5. B (3), g. (30/40, 301A).
6. C, r. (60/10, +C).
7. A (2), r. (60/10, 611A).
8. A (2), g. (10/00, 102A).
9. A (2), r. (60/10, 611C).

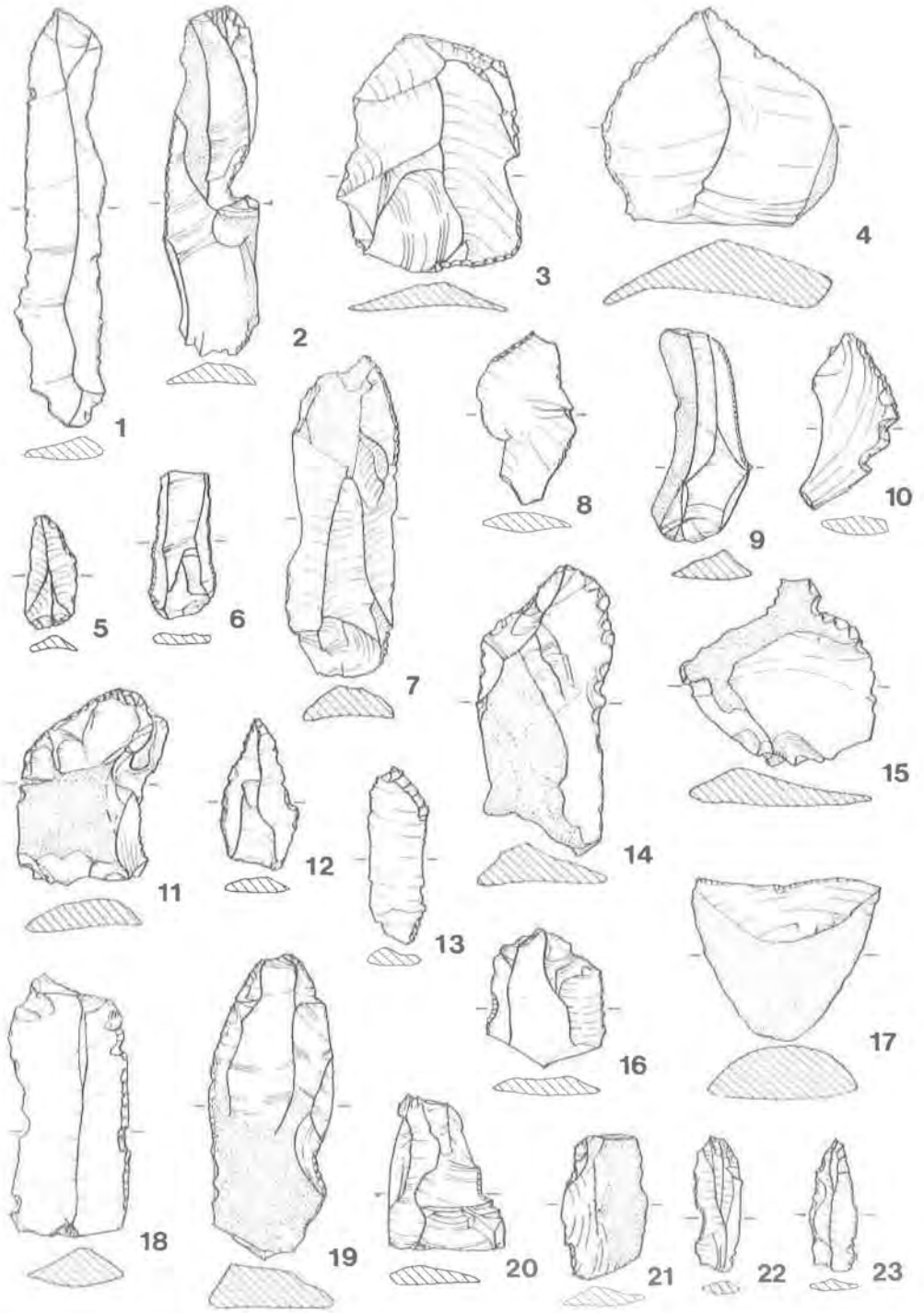

Fig. 8. Utilised flakes. (2/3).

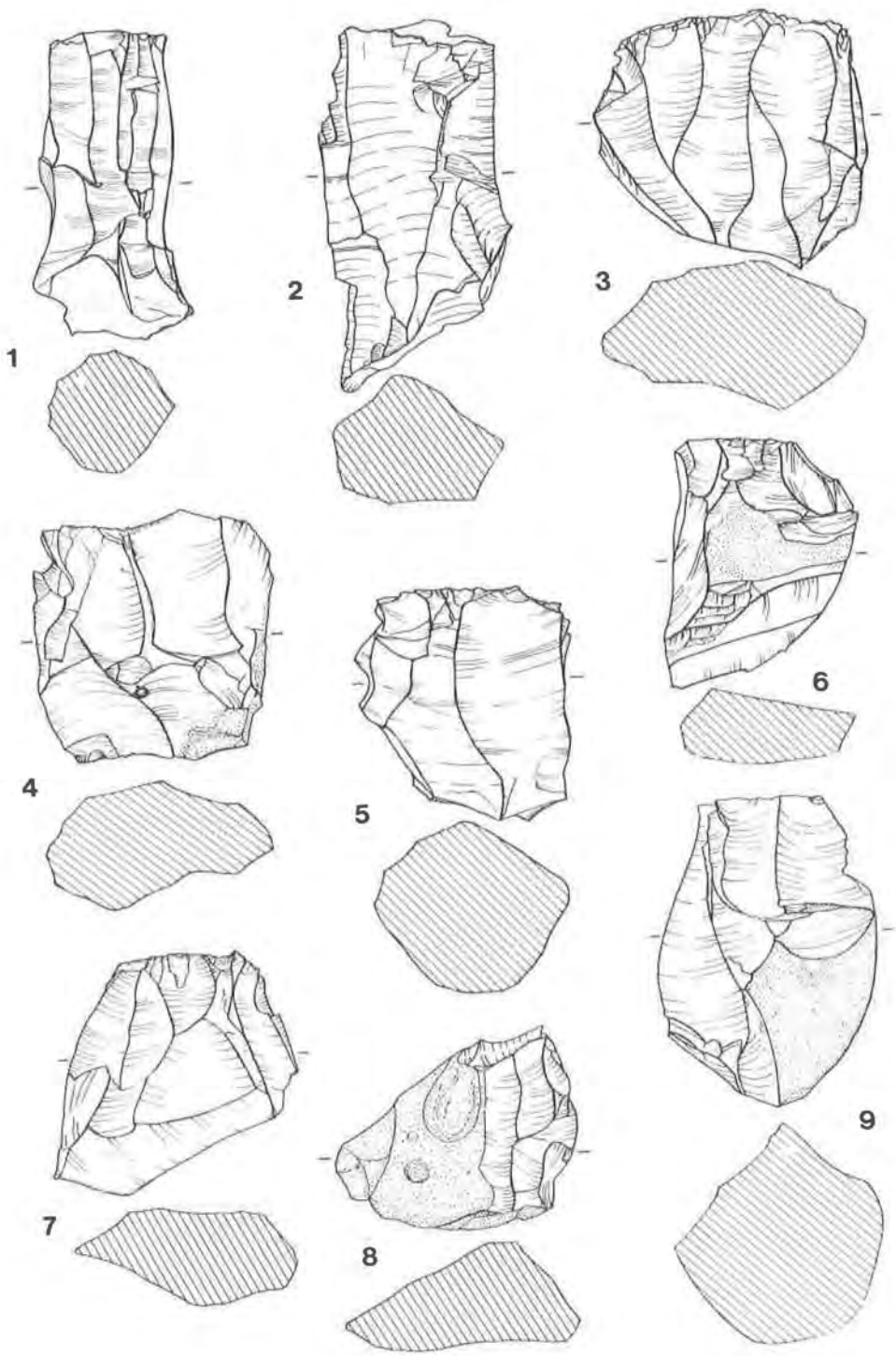

Fig. 9. Cores. (2/3).

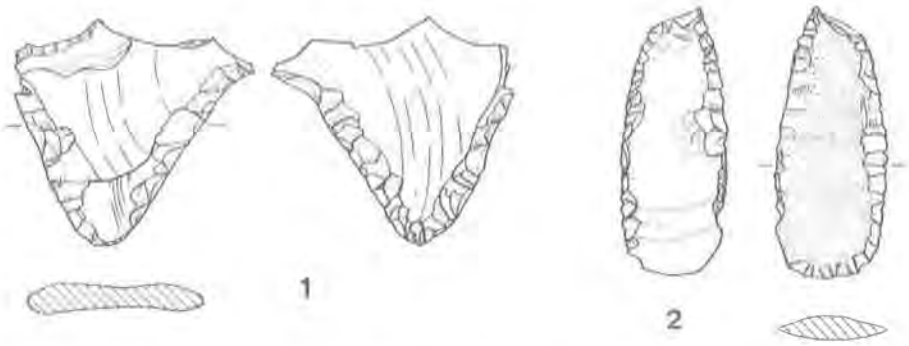

Fig. 10. Transverse arrowhead and plano-convex knife. (2/3).

(vi) *Late Neolithic* (Fig. 10)

Arrowhead and knife.

1. Transverse arrowhead, g. An asymmetrical form, of Clark's type D (Clark, 1932). (60/25, 611B).
2. Knife, g. Of plano-convex form (Clark, 1934 and Simpson, 1968) but bi-facially flaked and retaining cortex on its dorsal surface. (20/10, 292B).

Discussion

The Mesolithic material from both sides of the Middle Thames has been extensively studied by A. D. Lacaille (Lacaille, 1961, 1963, 1966), the most notable site in the area being at Sandstone, Iver, three miles downstream from Fulmer at the junction of the Alderbourne and the Colne. The Colne Valley, like the Thames, was over-deepened during the last glaciation and then re-filled with flood plain gravels and sands which have since been extensively dug. At Sandstone these gravels were sealed by a compressed clayey peat and within this and on the surface of the gravel itself, Mesolithic flints were found in association with remains of birch, hazel, pine and a red deer tine, the whole subsequently having been submerged beneath a mud laid down in fresh water. Unfortunately little pollen was preserved in the peat, but sufficient survived to suggest a late Boreal rather than a final Boreal phase, the subsequent flooding perhaps being attributable to the late Boreal/early Atlantic transition. Lacaille noted similarities between the flint assemblage at Iver [3] and that from Broxbourne, Herts., which was found in comparable circumstances and in particular, the presence of obliquely blunted points and absence of geometric microliths. Mellars (1974, 83), accepting this attribution, places Sandstone in his earlier Mesolithic settlement group.

Whereas at Sandstone there was both stratigraphic and typological evidence to suggest a date for the site, only typology can be used at Fulmer. The presence of tranchet axes is unfortunately not diagnostic since they occur in both earlier and later Mesolithic industries in southern England (Mellars, 1974, 91). Rod microliths and crescents, however, appear to be confined to the later industry (Jacobi, 1973 and

Mellars, 1974) and it is to this phase, roughly from 6500 B.C., that the site is most likely to belong.

One unusual aspect of the Fulmer assemblage is the absence of scraper and burin forms which are normally relatively common. Whilst the sparsity of microliths may be accounted for by the exigencies of collection, this cannot be so of these two categories and might suggest that use of the site was of a recurrent, if temporary, nature with emphasis on utilisation of the easily accessible good quality flint, to produce blades for use elsewhere. That some 44.4% of the measurable flakes retained some cortex may be significant in this connection, although it must be remembered that the raw material was pebbles and the proportion of cores to flakes and blades (1 : 23) is not particularly high. The widespread scatter of flakes over the peninsula can be paralleled at classic sites such as Thatcham (Wymer, 1962) where flakes were recorded over a distance of some 150 metres, in places the density rising to 764 per square yard with occasional caches of blades. Exploitation of such food resources as the mere offered would certainly have been an additional attraction of the area. Where the tranchet axes fit into this pattern is hard to say. They were obviously an important tool type in the Boreal/Atlantic woodland environment but their precise use in this context seems less clear since the cutting edge of the average tranchet axe is commonly quite narrow and their effectiveness for felling consequently very limited.[4] Nevertheless the overall impact of Mesolithic man on his environment is becoming increasingly apparent (Jones, 1976).

There is little doubt that more Mesolithic material remains at Low Farm in the area not extracted for gravel, and the presence of a waterlogged environment immediately adjacent, offers reasonable potential for further research, should it prove possible to locate an area undisturbed by mediaeval occupation.

The number of known Mesolithic sites in South Bucks has increased quite rapidly in recent years and the present situation is shown on Fig. 11 from which Thames finds and those not well authenticated are omitted. Several of these sites, like Fulmer, occur in traditional river valley situations – for instance those near the Misbourne (Barfield, 1976) and the Chess,[5] but recent discoveries of tranchet axes from higher ground at Cholesbury and Coleshill, tend to amplify the evidence from previously known upland sites like Kimble Farm (Peake, 1917) and Bolter End (Millard, 1965) and to suggest that the Chiltern plateau may also have been quite heavily exploited. It would seem unnecessary to invoke seasonal movement in order to account for the relatively short distances involved.

1. I am most grateful to Miss J. Royston and Mr. R. Maycock for gathering this information.
2. There appears to be a discrepancy between the figures published in the Durrington Walls report and the published histogram (see note in *PPS* forthcoming). Figures derived from the histogram are quoted here.
3. Now in the British Museum. BM 1960, 4 – 6, 730 – 815.
4. Measurement of a random selection of illustrated examples shows the cutting edge to be commonly 4 cms. or less. That trees were felled during the Mesolithic is clear from Star Carr, J.G.D. Clark, *Excavation at Star Carr* (1971), 2, 177.
5. Stratfords Yard, Chesham. Unpublished.

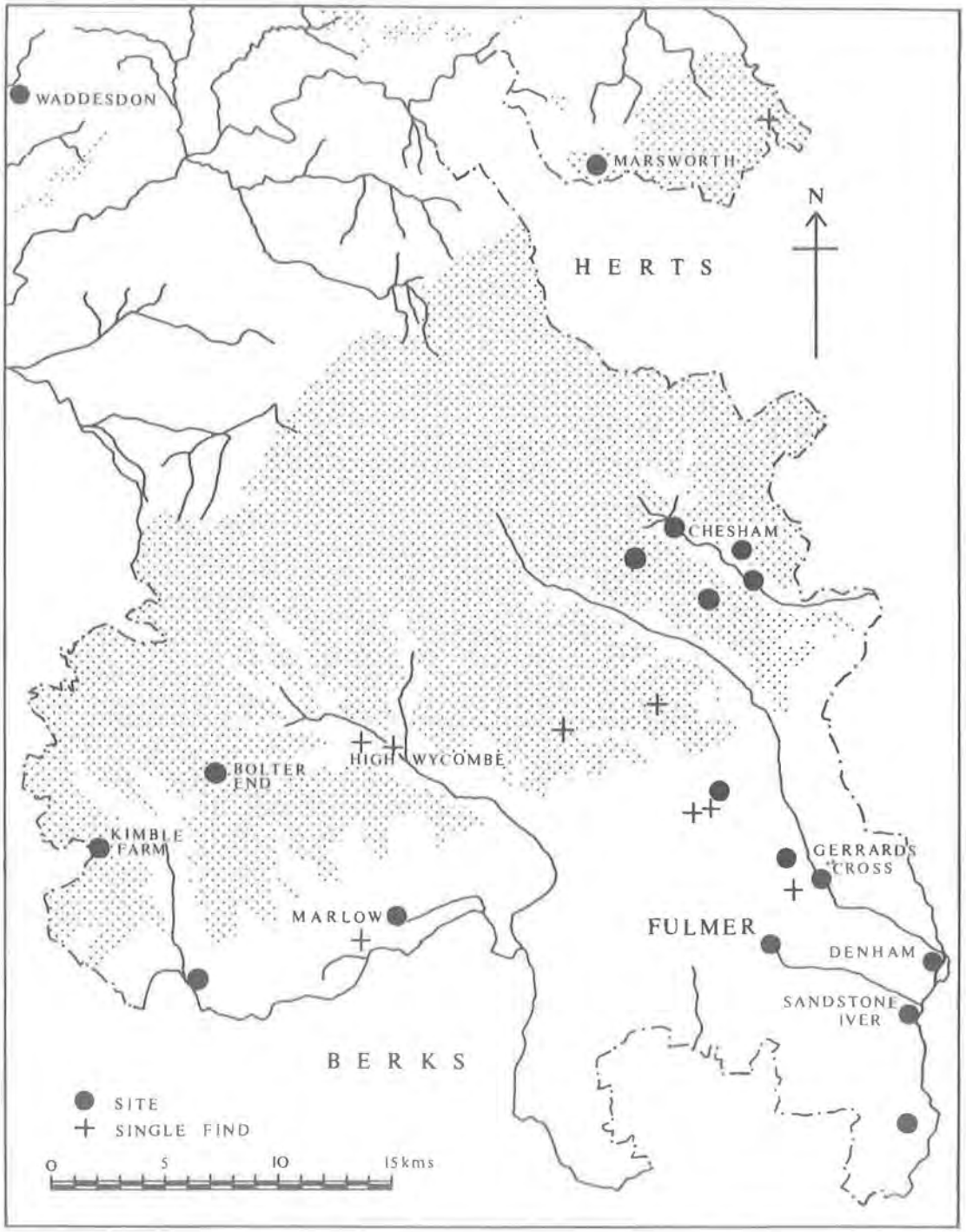

Fig. 11. Central and South Bucks, drainage and relief over 400' with Mesolithic sites and finds.

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