

THE MOOR GREEN BARROW, WEST END, HAMPSHIRE: EXCAVATIONS, 1961

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With contribution by A. M. ApSimon

SUMMARY

EXCAVATION of a badly disturbed ditched round barrow of the Early Bronze Age showed a turf core covered by sandy clay dug from the ditch. The primary burial was probably a cremation in a Collared Urn placed in a pit beneath the barrow, but the urn had been removed in 1888. Palynological evidence points to the barrow having been built in an area of birchwood within woodland in which oak, lime, alder and hazel were dominant. There was no evidence of prehistoric farming.

INTRODUCTION

The barrow, 23 m in diameter, and 2.1 m high, was situated (Nat. Grid Ref. SU 4766 1465) in the grounds of the former South Stoneham Union Workhouse, now Moor Green Hospital, approximately mid-way between that building and the hamlet of Moor Green (Fig. 1).

It had for many years served as a rubbish dump. The site lies on the Bracklesham Beds. Adjacent to the site, these were seen as a skin of pebbles in leached sand, covering a light yellow sand. Just to the north-east was a marshy area – the head of a stream that flows eastwards and, with another stream, eventually joins the River Hamble. To the west another stream flows north-eastwards and then westwards to join the River Itchen. The barrow and its surviving fellows are on the watershed.

There were formerly two groups of round barrows near West End. One group, to which this barrow belonged, consisted of five barrows, three of which, including this one, are recorded on the Ordnance Survey 6" Map of Hampshire (Sheet 66, N.W.) and by L. V. Grinsell (1938, 19; 1940, 359). At the time of excavation the second barrow could be seen

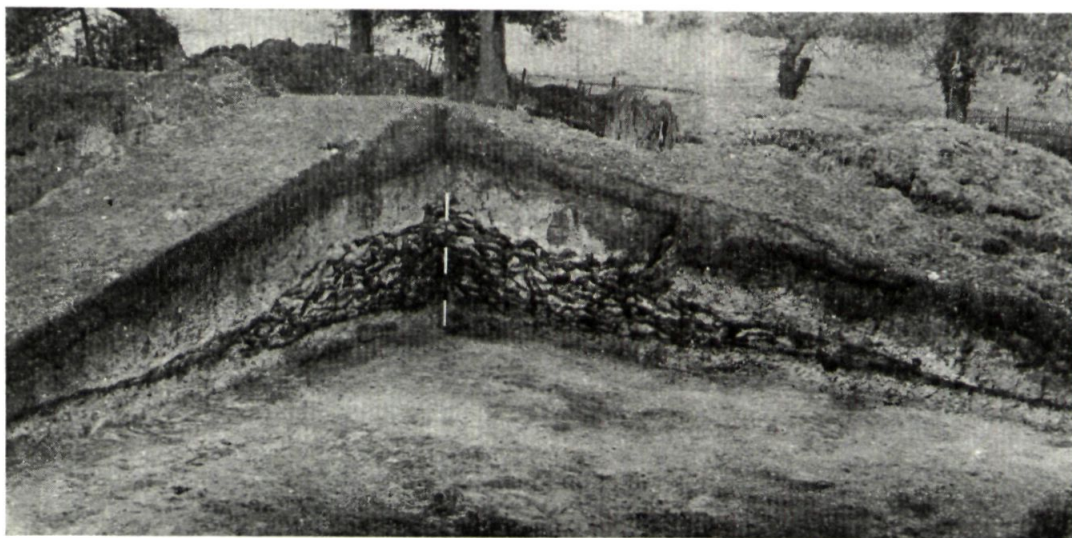


Plate 1. Moor Green Barrow, north east quadrant showing mound and the sandy envelope derived from the ditch. (Photo P. Ashbee).

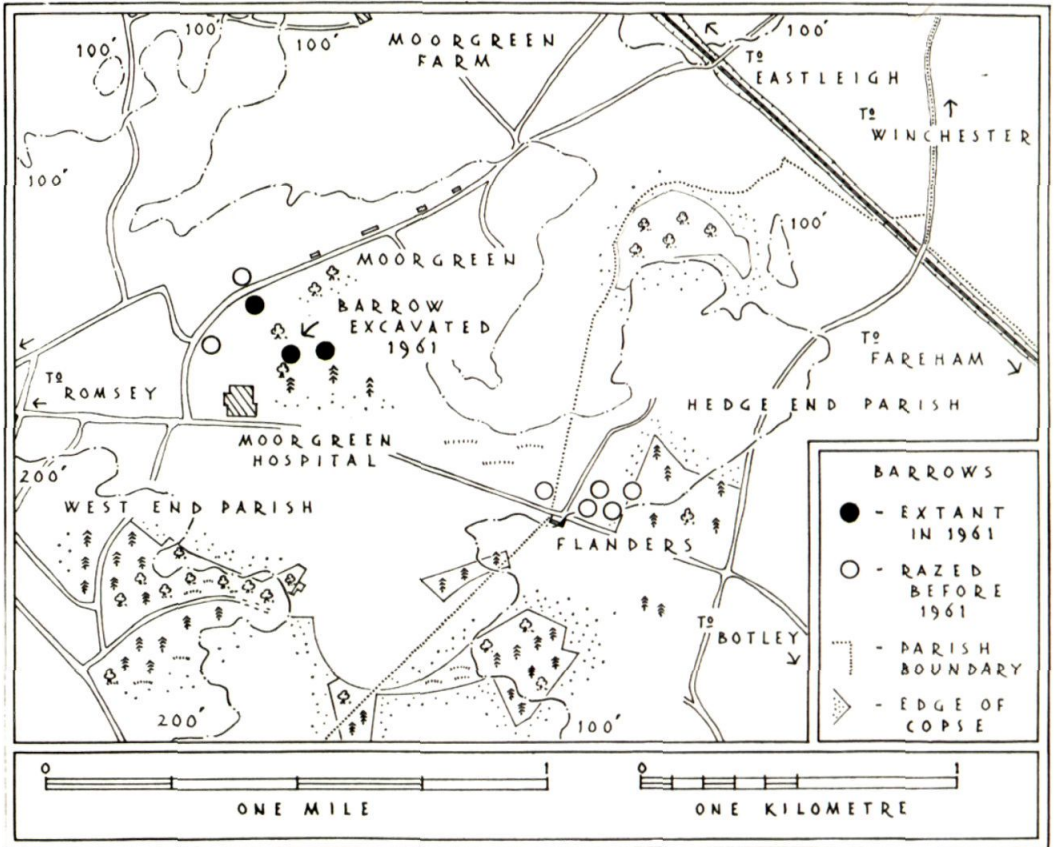


Fig 1. Location Map.

close to the Durley road (NGR SU 4775 1465), 200 m north-west of the Moor Green barrow, and the third (SU 4751 1482) was 60 m to the east. No trace remains of the other two, though they are shown on the 2 inch to 1 mile Ordnance Map of 1808 in locations corresponding to references SU 4754 1482 and SU 4744 1464. The same map shows a second group further to the east, on the north side of the road from Romsey to Botley, opposite a house called Flanders. This group centred at SU 485 141 may have consisted of four or five barrows, but nothing remains to indicate their sites (O.S. Field investigator, 1969). Three barrows appear to have lain on the boundary between West End (formerly South Stoneham) and Hedge End parishes.

Each of the remaining barrows was sited on a low gravelly spur that runs towards the stream, though this only became apparent from field observation, confirmed by close contouring of them and their immediate surroundings.

Up to the late 18th century the Moor Green barrows lay on acid soil heathland typical of the area occupied by Bracklesham Beds. There was some enclosure of the area by 1791 and general enclosure followed between 1802, by which date the South Stoneham Poor Law Institution had been built, and 1806, the date of the first Ordnance Map (BL. MS. OSD 82 (1), facsimile in *Southampton Maps from Elizabethan Times* (Welch 1964), Map 16). The modern pasture lands result from

improvement following this enclosure, and an exposure close to the barrows showed the recent meadow soil truncating the earlier heathland podsol. This barrow, like the third of the west group and all except one of the east group was, however, on an area of common which became enclosed woodland with conifers and scrub vegetation.

THE HISTORY OF THE BARROW
AND ITS INITIAL EXCAVATION

This "West End Common group" of barrows (Grinsell, 1938-40, 359), of which the Moor Green mound was the largest, appears to have been the subject of an investigation by T. W. Shore, once secretary of The Hartley Institute, precursor of the present-day University of Southampton. Besides his secretaryship of this institution, Shore (Sumner, 1931, 59) was the founder of the Hampshire Field Club and Archaeological Society and its secretary from 1885 to 1896. Over the years he contributed many papers on archaeological, antiquarian and geological matters to its 'Proceedings'.

In a paper on 'The Origin of Southampton Water', Shore (1904-6, 23), recalls, in a discussion of Bronze Age urns, how 'I took part in the removal of eleven of these urns in 1888, of which one is shown in the Hartley College Museum, which also contains another from Westend, and others from near Chandler's Ford'. A paper in *Hampshire Notes & Queries* (9, 12) by Shore, on 'The Ancient Parish of Hound', delivered initially at a meeting of the Hampshire Field Club held at Hound and Netley Abbey, is more specific. 'From a similar tumulus (to that at Netley Hill) near the border of the parish at West end an urn was taken containing the cremated remains of some chieftain of the Bronze Age, and that is now preserved in the Hartley Museum'. After Shore's death in 1905, the *Shore Memorial Volume, Hampshire Papers of the Natural History and Antiquities of the County* (1908-11) was published and in it (p. 356) the last passage is repeated.

It is not certain from which barrow the

West End urn, now in the Tower House Museum, came. When Shore or his coadjutor dug, the eastern barrow group in West End parish had probably already disappeared, with one possible exception, recorded by O. G. S. Crawford in 1941 as 22 m in diameter and 0.3 m high. Of the three barrows remaining in 1961, the Moor Green barrow had been intensively dug into, whereas the other two had not. Its centre showed a large depression and there were traces of trenches northward and south-westwards from the centre. Excavation showed that the centre of the barrow had been dug away down to the pre-barrow soil, including the clearing out of a possible grave pit. The balance of probability seems in favour of the urn from 'West End' having come from this barrow. Mr. A. M. ApSimon has kindly contributed a note on the urn.

THE EXCAVATION (Fig. 2)

Because of the earlier delving into the barrow, the 1961 excavation began with two axial trenches, from north to south, and from east to west, laid out so as to avoid large trees, the grubbing out of which would have damaged the barrow, and to give good sections.

After the excavation of these sections, quadrants of the mound were cleared as far as was possible without removing trees.

The barrow ditch was not completely excavated because of the high water-table, which made pumping necessary below a depth of about three feet. Instead sections were cut across the ditch at intervals.

On the eastern and northern flanks of the barrow, excavation was difficult because of the presence of a track made by cutting back the barrow and filling the ditch with hard core. The extra depth of the cutting through the ditch on the east side is due to the presence of this track.

THE BARROW: ITS STRUCTURE AND FEATURES

The features of the barrow are described below in their presumed chronological order.

The pre-barrow soil (Fig. 3; Plates 1, 2)

The pre-barrow soil showed two horizons. The upper, compressed *humus* horizon was

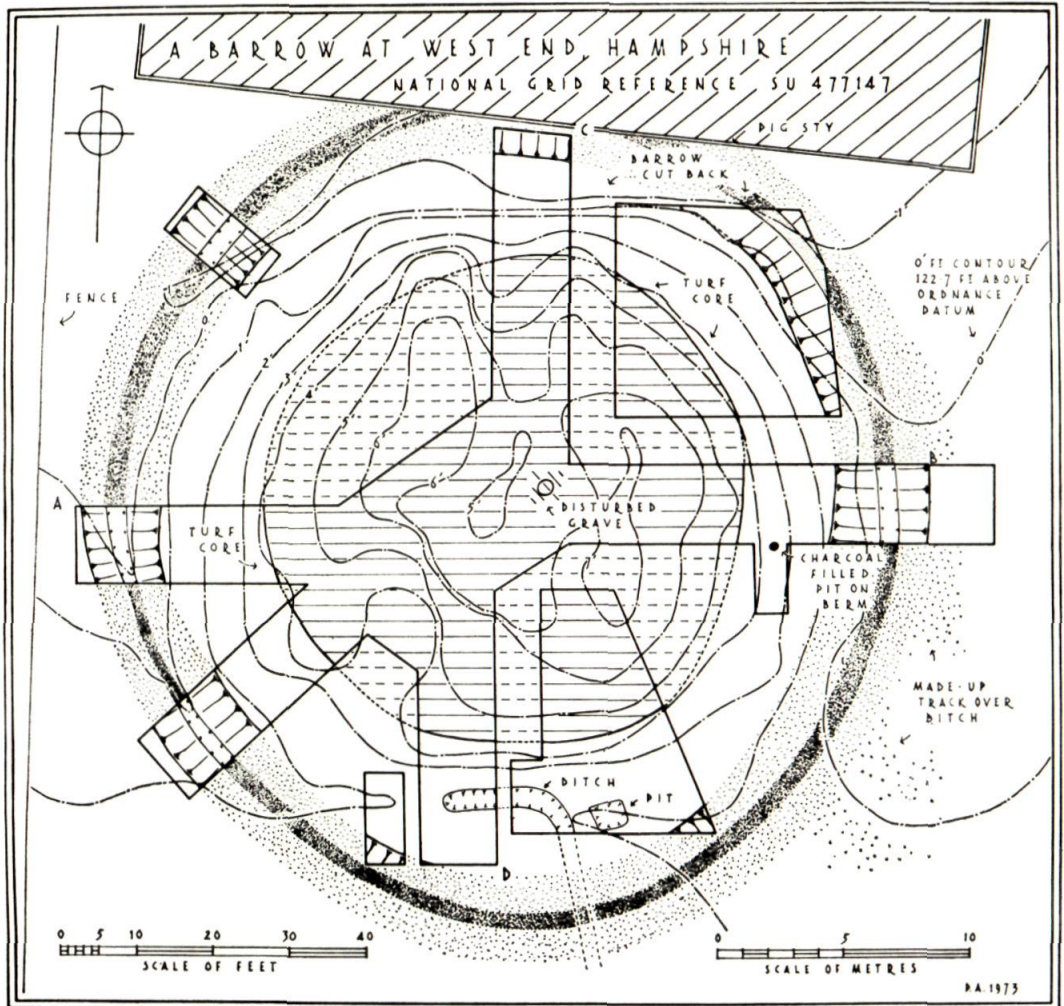


Fig 2. The barrow excavation.

about 8 cm thick and dark grey to black. It rested on the lower, *eluvial* horizon, 25–30 cm thick, an almost uniform layer of sand and flint pebbles, many of which bore batter marks, suggesting beach chatter. This horizon was leached to a light brown or ash grey colour, but this leaching was not as intense as that of the corresponding horizon in the modern soil profile adjacent to the barrow. Removal of this layer revealed a number of deep leached pockets in the gravel. They seemed to be sealed by the *eluvial* horizon.

At the periphery of the barrow, where the upper sandy clay layer rested or had rested, on the ancient soil, the limit of preservation of this soil was clearly defined except on the west side where ancient and modern soil profiles shaded one into another.

The central ?grave and the pre-barrow features (Figs. 2, 3).

In the old ground surface north-east of the centre of the barrow, there was a circular pit, 0.6 m in diameter and 0.46 m deep. The pit



Plate 2. Section C: stacked turves on ancient soil.

had sharp, fresh sides which met the bottom at an angle. It was filled with humic soil continuous with that filling the central disturbance. No other pit of any kind was encountered in the central area. It is possible that this circular pit was the grave from which Shore removed the urn, its fresh character resulting from his spade.

On the eastern flank of the barrow beneath the sandy layer and between the turf stack and the inner lip of the ditch, there was a pit, 25 cm in diameter and 8 cm deep, cut into the pre-barrow soil. It was filled with pieces of charcoal, mostly oak, up to 7–8 cm long. Beneath the south-east quarter of the barrow there was another hollow, at least 25 cm in diameter, with undefinable edges, also containing charcoal fragments to a depth of some 18 cm.

The charcoal from the pit and the hollow proved (after examination in the Ancient Monuments Laboratory of the Department of the Environment) to be of oak (*Quercus robur* L) from large timbers, whereas scattered fragmentary charcoal found on the old surface beneath the western side of the barrow, identified as oak and pine, was mainly from twigs.

The turf mound (Figs. 2; Pls. 1, 2, 4)

This still stood to a height of nearly 1.5 m on the eastern side despite settlement and compression by the overlying sand. The turves had been pared from two areas. The core of the mound was a stack of light sandy turves. Covering them were darker turves, seen as sooty black in colour with fawn-white leached soil above and beneath them. Evidently moist

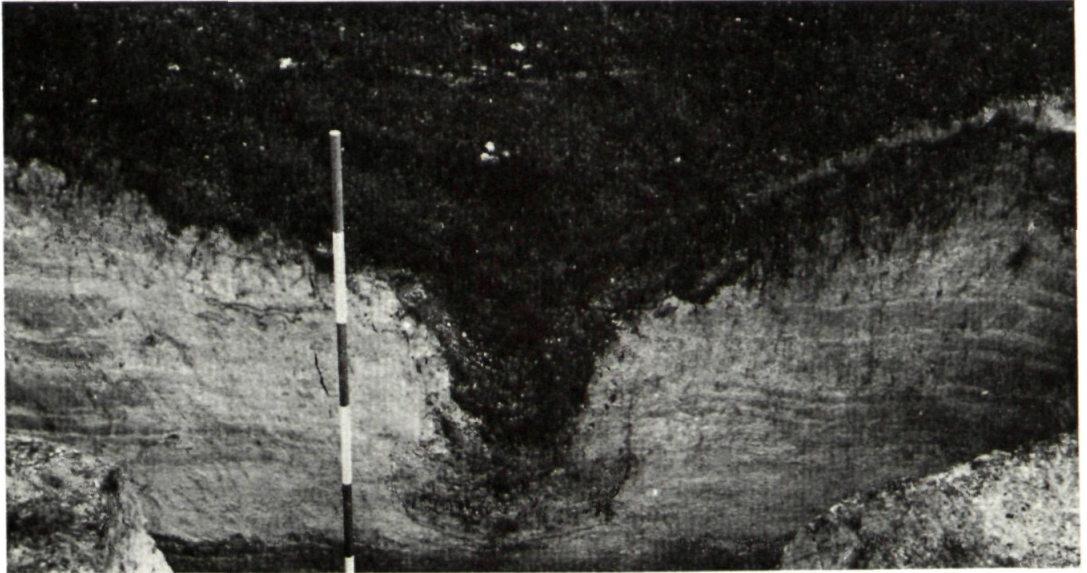


Plate 3. Ditch, Section B, showing collapse and flow of sides.

sods had been laid turf downwards, beginning directly on top of the pre-barrow soil. Individual turves were mostly 25–30 cm long, but here and there, turves up to 0.75 m long had been used, presumably to bind and stabilise the mound. Such turves could only have been removed by careful cutting and rolling.

Most of the turves were 9–10 cm thick and had clearly been cut and carried with leached subsoil adhering to them. In one or two places, loads of top-sod, minus the adherent soil, had been incorporated into the mound and this made for a few dark areas.

The turf mound was initially in the form of a flat-topped cone with gently ascending sides. The weight of the overlying sand layer had compressed and distorted the turves at the edge of the turf mound. There had been considerable disturbance by burrowing animals, causing rafts of adherent compressed turves to collapse downwards. It was noticeable that the burrowing animals had favoured the western and southern quadrants of the barrow and that their activities coincided with lighter turf inclusions.

The amount of turf required for the mound was much greater than could have been obtained from the site of the barrow ditch, though turves from there may well have been added to the stack when the ditch was dug.

The ditch and the clay and sand layer (Figs. 2, 3; Pls. 1, 3)

The ditch was nearly circular, except for a slight bulge on the north side, with a diameter of about 31 m. As dug it would have been a nearly straight sided trench, about 2 m deep, 60 cm wide at the bottom and perhaps 1 m wide at ground level. It appeared wider on the western side perhaps because the turf stack was lower there than elsewhere and more material was required to produce a uniform mound. Its plan suggested that it was laid out from the edge of the turf stack rather than from a central point.

The straight sides and round bottom of the lower part of the ditch were defined by a black mass of matted roots separating the darker ditch filling from the lighter, undisturbed sand and clay. The middle filling of the ditch consisted of clay derived from collapse

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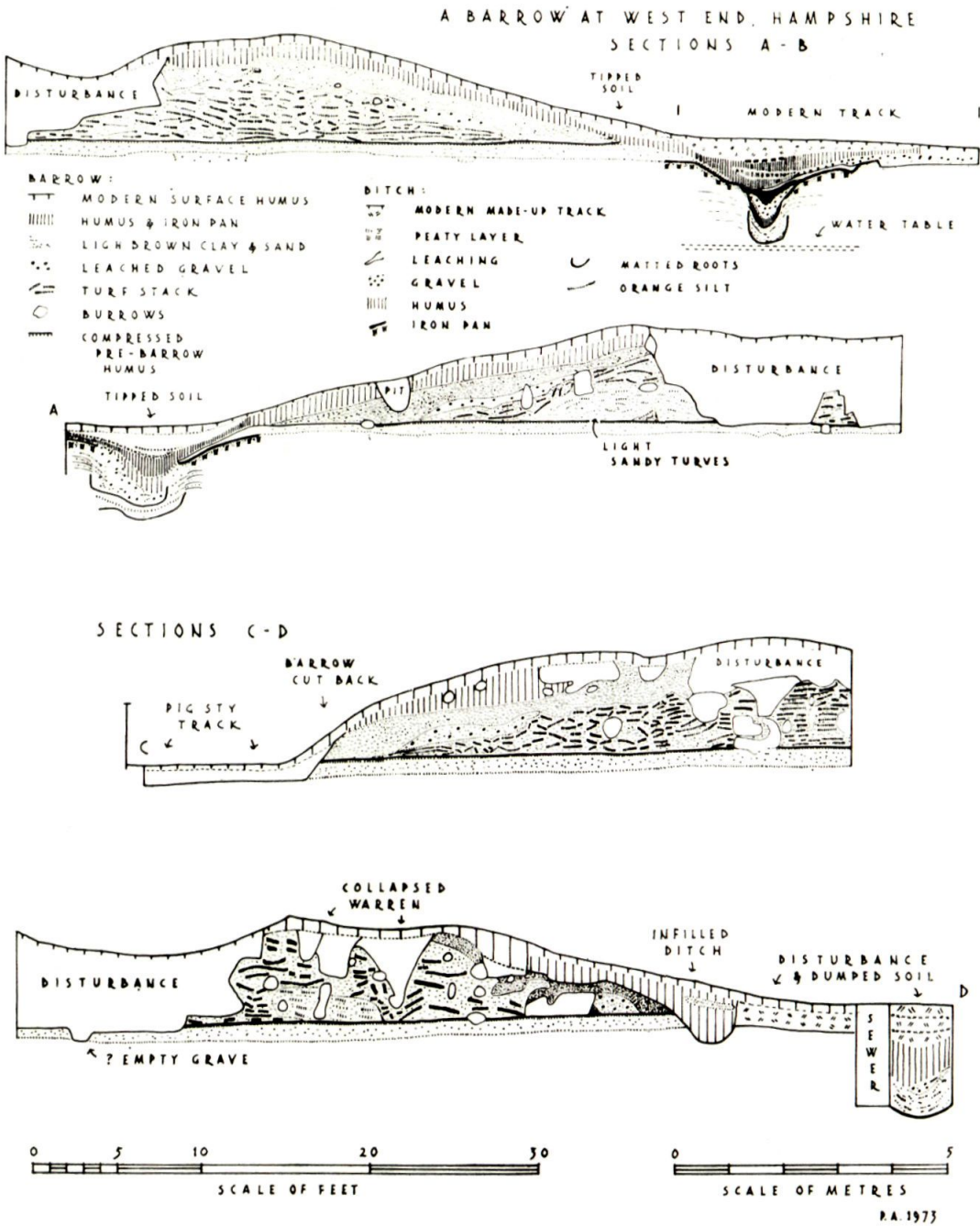


Fig 3. Radial sections of the barrow.

of its sides. Traces of gleying and pockets of leaching were apparent. The upper layers of the ditch appeared to be derived from the outer sandy clay layer of the barrow, together with some recent infilling.

The material dug from the ditch had supplied the fairly uniform mantle of brown clay and sand, about a metre thick, which covered the turf mound. Lumps of clay derived from the very bottom of the ditch were visible in the northern and eastern quarters of the barrow. If the points at which the pre-barrow soil disappeared, marked the original outer limit of the clay and sand layer, then the barrow must originally have been about 23 m in diameter, with a berm about 3 m wide between its edge and the lip of the ditch. Subsequently the spread of the

layer of clay and sand obliterated the berm. There was no trace of any form of revetment to the turf stack or to the clay and sand mantle.

Over the clay and sand layer was a deep layer of surface humus, with horizons of humic and iron pan deposition at its base. A network of roughly horizontal veins of iron infiltration, developed especially on the northern and western sides to actual iron pan, was present in the whole thickness of the barrow and also occurred in the leached horizon of the pre-barrow soil, where they ranged from 5–12 mm in thickness and were from 1–3 cm apart. These veins are considered to result from a combination of percolating soil water and impeded drainage. (Pl. 4)

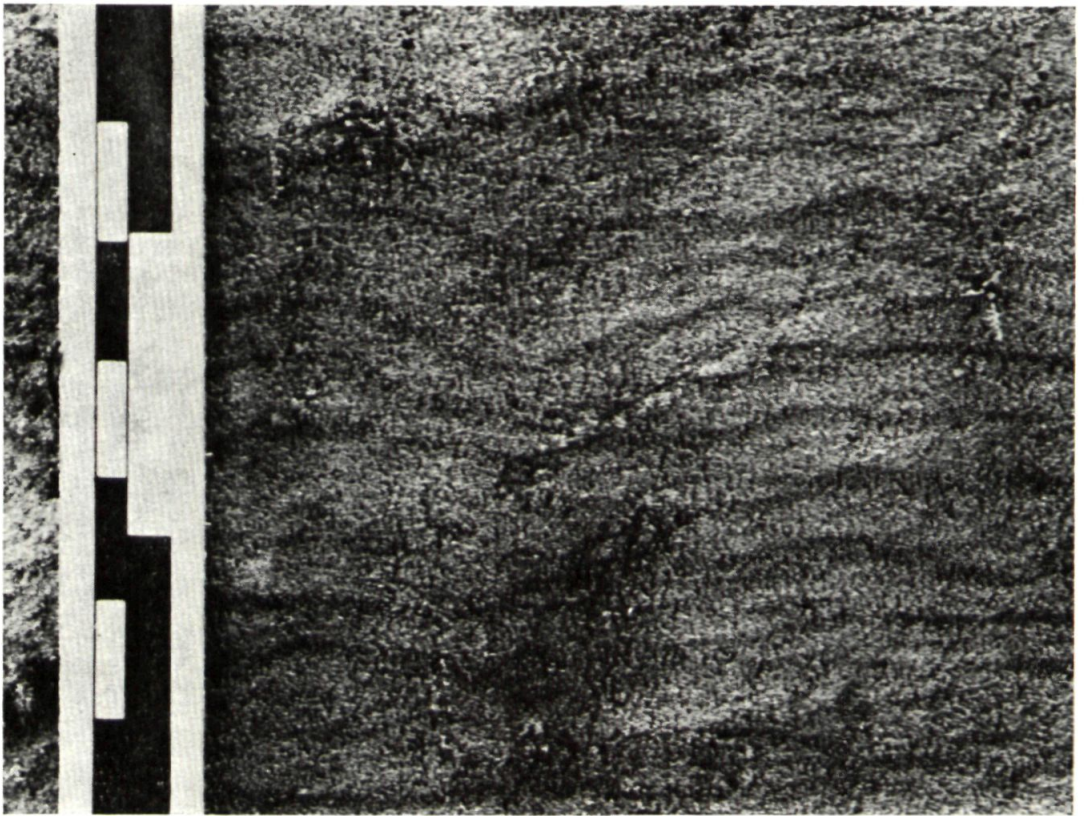


Plate 4. Close view of character of turf mound showing veined turves.

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Subsequent associated features (Figs. 2, 3)

On the southern and northern sides of the barrow, the mound had been cut back and soil dumped. This may have resulted from nineteenth century enclosure and improvement, together with tree planting. A ditch had been dug through the accumulation (Fig. 3, Section D), the bottom of which penetrated

the ancient soil on the berm. A roughly rectangular pit was associated with it. Both ditch and pit were filled with recent humus, which contained nothing suggestive of date.

A brick sewer intruded upon the southern side of the ditch. Adjacent to it was an open, recently dug pit, in which a partial section across the ditch was exposed (Fig 3, Section D).

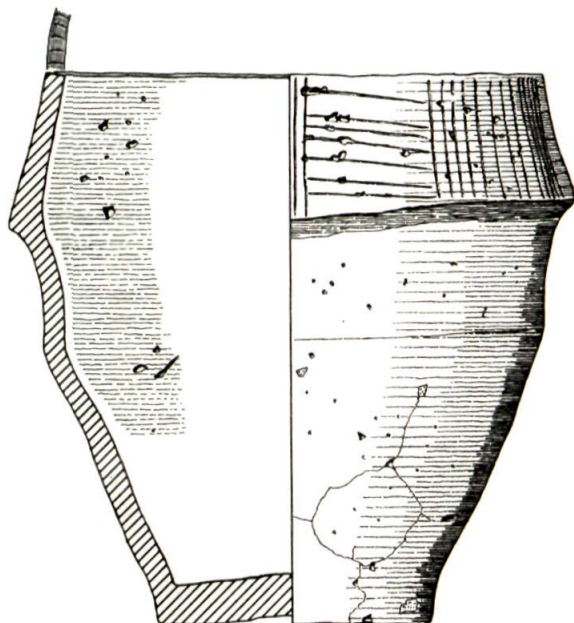


Fig 4. Collared Urn. West End Barrow (Scale $\frac{1}{4}$).

THE COLLARED URN (Fig. 4)

By A. M. APSIMON

Tripartite collared urn: Height 22 cm, rim diameter 18.5–19.8 cm, collar diameter 22.5 cm, base 10.5–11 cm. Exterior slightly yellowish brown, fairly smooth, pitted, with cracks, fabric contains crushed pot up to 5 mm, no visible stone, rather lumpy, darker

brown inside, lower interior smoothed, fingernail marks inside. Lower body perhaps made in 2 or 3 rings. Base is weathered outside. Collar concave externally and decorated outside with hurdle pattern of sharp incised lines less than 1 mm wide, probably 7 panels of 6–9 horizontal lines, 6 panels of 5–12 vertical lines, rather irregularly arranged in varying

widths. Flat topped unexpanded rim with transverse lines. Collar is incomplete. (Tower House Museum, Southampton; accession number A. 136-65: calcined human bone preserved with the urn has not been examined.)

This is a secondary series collared urn, having only 1 primary series motif, formal motif 3, simple unexpanded rim bevel. It has no decorative primary motif. The hurdle pattern is Longworth's (1961) motif C₁, not known in incised technique on collars of primary series urns. The general character of this urn is consistent with attribution to an advanced stage of the collared urn tradition. A radiocarbon date of around 1400 RCY BC might be expected for such an urn, corresponding to the end of the Early Bronze Age.

POLLEN ANALYSES

By G. W. DIMBLEBY

A series of pollen samples was taken from the base of the turf core, through the old land surface and into the underlying soil profile. Four spot samples (samples 15-18) were also taken from other points in the mound:

- 15) Isolated turves in the soil covering
- 16) the turf core
- 17 From a turf near the top of the turf core
- 18 From a turf near the base of the turf core.

The samples were treated by the normal process (Dimbleby, 1961) and all proved very rich in pollen. Turf No. 16 gave one of the highest frequencies ever obtained from such material, over 7½ million grains/gm soil.

Results and Discussion

The results of this analysis can be considered at two levels. First, the various turves and turf-line can be compared, which will give some indication of the ecological setting of the barrow at the time it was constructed. Secondly, the sequence through the soil profile will show the vegetational changes which had led up to the conditions at the time of the barrow construction.

Table 1 shows the percentages (based on total pollen plus fern spores) for six turf samples. These are samples 15 to 18 the old land surface (0-1 ins) and the inverted turf (1-0 ins) which overlies it. The NAP/AP percentages show that in all cases tree cover is dominant; birch (*Betula*) is the most abundant species, with hazel (*Corylus*), oak (*Quercus*) and alder (*Alnus*) also well represented. Of the non-tree species, heather (*Calluna*) is the most abundant, with grasses (*Gramineae*) of subsidiary importance. Bracken is present in important quantities, especially in sample 18; it is to be seen as a species of open woodland, and would probably form the forest ground cover under the birch. Heather is a prodigious pollen producer and the values found here are what we would

TABLE 1

Percentages of Total Pollen and Fern Spores

Sample	<i>Alnus</i>	<i>Betula</i>	<i>Fraxinus</i>	<i>Quercus</i>	<i>Tilia</i>	<i>Ulmus</i>	<i>Corylus</i>	<i>Calluna</i>	<i>Gramineae</i>	<i>Plantago</i>	<i>Pteridium</i>	$\frac{NAP}{AP}$	%
O.L.S. (0-1")	5.0	38.0	0.3	7.9	0.4	0.3	16.4	15.2	3.4	—	10.0	39	
15	6.7	16.5	0.4	11.8	1.3	0.2	22.9	14.6	7.6	0.2	13.7	68	
16	8.5	20.7	0.3	11.7	1.2	—	19.2	12.2	5.5	0.1	17.9	45	
17	8.7	8.3	0.8	11.0	1.3	—	25.6	14.6	11.3	0.5	14.6	95	
18	5.8	14.9	—	8.0	2.0	0.2	11.8	13.8	3.6	0.2	39.3	56	
1-0"	6.4	27.6	0.5	10.9	1.1	0.3	16.3	10.2	5.4	0.3	18.7	36	

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expect in open woodland rather than open country; it may well have been a component of the ground flora in association with bracken.

The low values for grasses, the absence of cereal pollen and the low values for such farming indicators as plantain (*Plantago*), *Ranunculaceae* (buttercup family) and sorrel (*Rumex*) leave no doubt that there was no agricultural activity on this site at this time.

Whilst these general features hold good for all these turves, there are, nevertheless, some differences and these may tell us something about the uniformity of the area, assuming that the turves in the mound have come from nearby, as seems probable. As is shown in Table 1, the most important difference is in the dominance of birch and, to a lesser extent, hazel. Sample 17 is from the most open site, as the higher grass and NAP/AP percentages indicate. However, they could all come from the same area, assuming that there is a birch

grove (perhaps a regeneration group) in a matrix of less disturbed forest. It should be noted that birch dominance of this sort is frequently the result of fire, and charcoal was recovered from the site. It all proved to be of oak, which would accord with the burning of the original mixed oak forest.

In order to see what the nature of the background forest was, the percentages of the woody species have been calculated on the basis of tree pollen, but excluding birch which is to be seen as a species of the fire-succession and not (or to a much lesser extent) of the unburnt forest. These data are given in Table 2, and their consistency demonstrates the uniformity of this background forest. Oak, alder and hazel show comparable percentages in all samples but, as is to be expected, the representation of the less abundant species, ash (*Fraxinus*), lime (*Tilia*) and elm (*Ulmus*) varies rather more.

Turning to the soil profile sequence, Fig. 5

TABLE 2

Percentages of Tree Pollen excluding *Betula* and *Corylus* (= ap)

Sample	ap	<i>Alnus</i>	<i>Betula</i>	<i>Fraxinus</i>	<i>Quercus</i>	<i>Tilia</i>	<i>Ulmus</i>	<i>Corylus</i>
O.L.S. (0-1")	126	35.7	272.2	2.3	56.3	3.2	2.3	117.5
15	111	32.4	80.2	1.8	57.2	6.3	0.9	111.7
16	198	38.9	95.5	1.5	54.0	5.6	—	88.4
17	131	39.7	38.2	3.8	50.4	6.1	—	117.6
18	73	35.6	91.8	—	49.3	12.3	1.4	72.6
1-0"	210	33.3	144.3	2.4	57.1	5.7	1.4	85.2
MEAN	—	35.9	—	2.0	54.1	6.5	1.0	98.8
1-6"	540	38.1	—	2.2	49.8	9.8	—	119.8
6-11"	253	37.2	—	1.2	34.0	27.7	—	164.0

shows curves for the most significant species. The old land surface is clearly covered by an inverted turf (1-0 in), whose spectrum is very similar to that of the raw humus layer (0-1 in) on which it lies. The deeper profile, however, reveals a sequence of changes of ecological and perhaps archaeological significance. The high percentages of birch, heather and bracken are seen to fall away with depth, suggesting that they are relatively recent colonisers, presumably as a result of the burning already referred to. It is instructive to examine the proportional changes in the tree pollen percentages (again leaving birch out of the reckoning). There seems to be a break in some of the curves at about 6 ins depth, so in Table 2 are also included the spectra from the aggregated samples 1-6 ins and 6-11 ins. The obvious difference is in the relative abundance of oak and lime. The

latter is relatively nearly three times as abundant in the lower part of the profile. There are grounds for believing that this is not the result simply of differential preservation (it does not apply to other resistant species such as bracken or heather), and one is entitled to believe that here we are seeing an indication of the undisturbed Sub-boreal (VIIb) forest. Elm, interestingly, is absent; it only occurs in the surface organic layers, and may not persist in the mineral soil. The reduction in the proportion of *Tilia* may be an example of the anthropogenic influence observed by Iversen (1958), as one of the first effects of man's impact on the natural forest. Alternatively, but less likely, it might be seen as a result of increasing soil acidification, which itself may be the result of human activity (Dimbleby 1962).

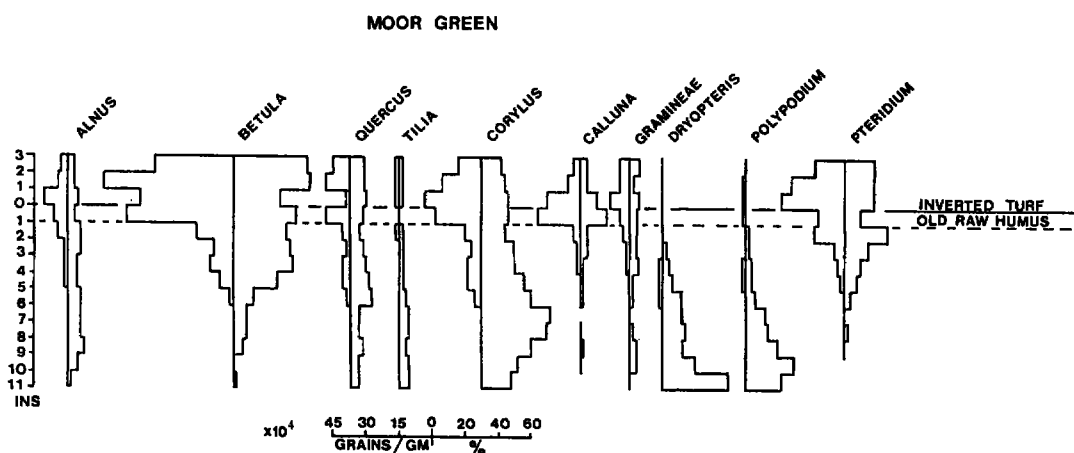


Fig 5. Pollen curves from soil profile sequence.

Ecological Summary

The earliest pollen record, from the base of the soil profile, shows a closed mixed oak forest with a high proportion of lime (*Tilia*). The paucity of grass and weed pollen indicates no disturbance of the forest at this stage of the pollen record.

Towards the surface the spectrum changes. Not only is lime reduced but light-demanding

species such as birch and bracken increase in abundance, but it is not till the very surface that light-demanding ground flora (heather and grasses) show any appreciable representation. Even at this stage the environment is wooded with birchwood, probably having arisen as the result of a forest fire. The barrow was constructed in this birchwood, apparently with a minimum of ground clearance.

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The six turf surfaces which were analysed from the make-up of the barrow showed different proportions of birch and bracken, against a constant background matrix of mixed oak forest. The conclusion is drawn that the area of disturbance (fire) was limited, and that turves were cut from points nearer (e.g. sample 17) or further (e.g. old land surface) from the boundary of the unburnt forest.

The date of this barrow cannot be determined with accuracy from such data. It is clearly Sub-boreal and the quite high *Tilia* values suggest that it is not late in that period. On the other hand, as has been pointed out, the disappearance of *Tilia* seems to be associated with human activity. It could, therefore, persist longer in an area in which farming was not being practised and indeed Iversen has shown that in Denmark it persists up till the present day in such situations. Certainly there is no evidence that this site has been farmed in prehistoric times, though ironically the barrow was situated in a modern farmyard, perhaps suggesting that the soil was not hopelessly infertile.

DISCUSSION

The initial phase of Silbury Hill provides a late neolithic example of a turf stack, retained in that case by a ring of stakes (Atkinson 1969, 216), as the core of a large mound. Early Bronze Age barrows using turf construction in conjunction with post or stake rings or stone kerbs, are widespread (Ashbee 1960). The Moor Green barrow is one of a poorly known series of large, single phase barrows with turf cores, in which the outer layer may be of soil dug from a ditch. The Dudsbury barrow in Dorset (Ashbee 1960, Pl.

VIA) was a comparable example. Collared urns have been found in a number of such barrows, but Barrow 3 of those excavated at Hurn, near Christchurch (Piggot 1943), which was similar in structure, covered a cremation burial in a Middle Bronze Age Barrel Urn placed upright in a small pit.

The construction of such turf mounds implies that these Bronze Age people were accustomed to breaking up permanent pasture and heathland with spades as part of their farming practice. The existence of so many barrows in the area might appear to be at variance with the relatively slight degree of agricultural activity indicated by Professor Dimbleby's report. It may be, however, that the barrow records but one of a whole patchwork of small scale, short lived clearances, by which the Sub-boreal forest was eventually degraded to heath and scrub woodland. The absence of pine pollen from the site, suggests that the pine charcoal identified in the pre-barrow soil represented either wood brought to the site, or human activity much older than the barrow.

Acknowledgements

During the course of the excavation, Professor R. J. C. Atkinson visited the site, as did Professor G. W. Dimbleby for the purpose of obtaining soil pollen samples. The present writer is grateful to both for their stimulating observations regarding the wealth of natural soil phenomena encountered during the process of excavation, as he is to Mr. C. W. Phillips, one time Archaeology Officer of the Ordnance Survey, and to the Archaeology Division of the Ordnance Survey, for details regarding the destroyed barrows.

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