

# IVINGHOE BEACON

## Excavations, 1963-5

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IVINGHOE Beacon<sup>1</sup> is a prominent hill which projects from the chalk range of the Chilterns some 8 miles due east of Aylesbury. The hill itself is some 760 ft. high; on the north-west it boldly dominates the plain 400 ft. below, but is separated from the main mass of the Chilterns by a shallow valley on the south-east (Pl. I). Though the exact course of the Icknield Way in the vicinity of Ivinghoe is not as clearly defined as elsewhere, most authorities take it about half a mile to the south-east;<sup>2</sup> certainly, the deep steep-sided valley of Coombe Bottom, which approaches very close to the north-east escarpment of the hill, makes a passage along this side very unlikely: even the modern road, B.489 from Ivinghoe to Dunstable, gets by only with difficulty. At any rate the presence of the Icknield Way so close to the hill-fort on the Beacon is probably an important factor in the history of the latter, linking it, as it does, both with East Anglia in one direction and with the Thames Valley and the Wessex chalklands in the other.

In 1962 the Buckinghamshire Archæological Society received a generous benefaction from their retiring President, Sir Alan Barlow, in order that an excavation of their choice might be undertaken. Through Mr. J. F. Head, the Council of the Society invited the present writers to implement the programme with work on a hill-fort of the Iron Age. After investigating possible sites the hill-fort on Ivinghoe Beacon was chosen, partly because its size lent it obvious importance, partly because surface finds suggested early occupation, and partly because, though unencumbered with trees (unlike most other hill-forts in the county), no work had previously been undertaken there. The Society and the writers owe a great debt of gratitude to the National Trust, the owner of the site, to Mr. M. J. Rogers, its Area Agent, and to its local Hon. Secretary, Mr. R. P. Cole, not only for permission to excavate but also for much help

<sup>1</sup> National Grid Reference SP (42) 960169.

<sup>2</sup> See map by J. F. Dyer, *Arch. Journ.*, CXVI (1959), 3; also The Viatores, *Roman Roads in the South-east Midlands* (1964), 399.

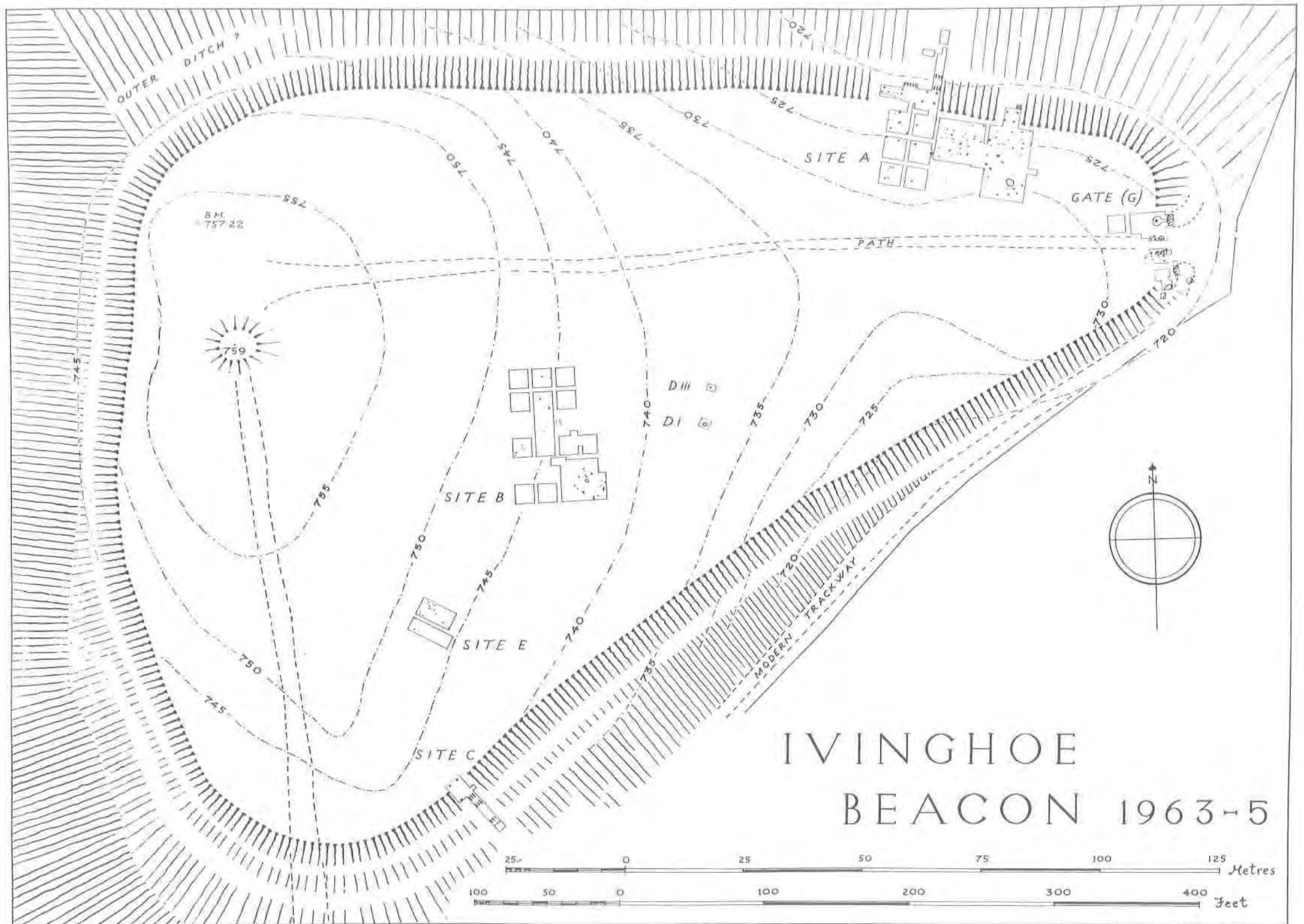


Fig. 1. Plan of site.

during the course of the work.<sup>3</sup> Excavations were carried out during three successive seasons: for two weeks in September 1963, for four weeks in August 1964 and for three weeks in September 1965.

### THE HILL-FORT

The summit of the hill, consisting of a ridge of hard chalk, is pear-shaped, narrowing towards the east. It bears a thick covering of rank grass and has been invaded to only a very slight degree by the thorn bushes which grow thickly down its northern slopes. This open hill-top is surrounded by the eroded traces of a fortification, for the most part univallate, and with a single entrance facing the ridge at its eastern end; it encloses 5.42 acres. A single large round-barrow occurs at the summit and a further two, much damaged, are to be found immediately outside the hill-fort's entrance.<sup>4</sup> This entrance appears superficially to be somewhat inturned: from it a rampart and ditch once ran round the hill-top to the west. Today no trace of the former rampart remains on the surface, the line of fortification being traceable solely by the level platform which marks the position of the filled-in ditch. On the west the natural slope of the hill is so precipitous as to render, it might seem, even one ditch superfluous: to either side of this length, both to north and south, the main ditch has been supplemented by a second for part of the circuit, yet the stretches where the outer ditch is present are not slopes of extra-easy approach. If an extra depth of defence was necessary at these points it was also necessary elsewhere, especially along the north side and at the east end; its absence, therefore, at these places certainly suggests that the work of fortification may never have been completed.

### THE EXCAVATIONS

For much of the year the hill-top is exposed to strong, cold winds and driving rain. Site A, where work started, was accordingly chosen as a likely spot for ancient occupation, since a fold in the ground offers shelter from the south-west, and the former rampart would have given some protection from northerly gales. Here a section was cut across the defences, and in successive seasons a progressively larger area was stripped behind the site of the rampart. To test another less sheltered area in the middle of the hill-fort a strip measuring 90 by 60 ft. (Site B) was examined on the shoulder of the ridge. The summit of the hill in the vicinity of the barrow was not approached, since this is a famous viewpoint at which large crowds assemble at weekends in the summer. A second

<sup>3</sup> The writers wish also to thank Mr. J. F. Head, M.B.E., F.S.A., Mr. Elliott Viney, F.S.A., Mr. J. R. Worboys, Mr. B. Pullen, Mrs. M. Tisdall, and Mr. Christopher Gowing for much practical help; and Miss M. G. Wilson, F.S.A., Mr. Mark Hassall, Mr. Tom Hassall and Mr. Martin Henig for their assistance as site-supervisors. The late Lt.-Col. M. A. Lloyd made a contour survey of the hill-top. Thanks are also due to Mr. Dennis Britton for his study of the bronze objects found. The Ivinghoe pottery has been drawn by Miss Wilson, that from Pitstone by Miss Gillian Jones; the pottery report is the work of Miss H. Waugh. The animal bones were identified by Mrs. Betty Westley, and Professor G. W. Dimbleby carried out a pollen-analysis. We are also much indebted to the late Mr. W. Leach and Mrs. Leach for allowing some of our helpers to camp at Town Farm. Mr. Pollington generously assisted with transport and machinery. Gratitude is also due to Mr. B. N. Eagles for drawing attention to the bronze axe [Fig. 12.] in the Cheltenham Museum.

<sup>4</sup> J. F. Dyer, *Arch. Journ.*, CXVI (1959), 16.

# SECTION OF NORTH DEFENCES

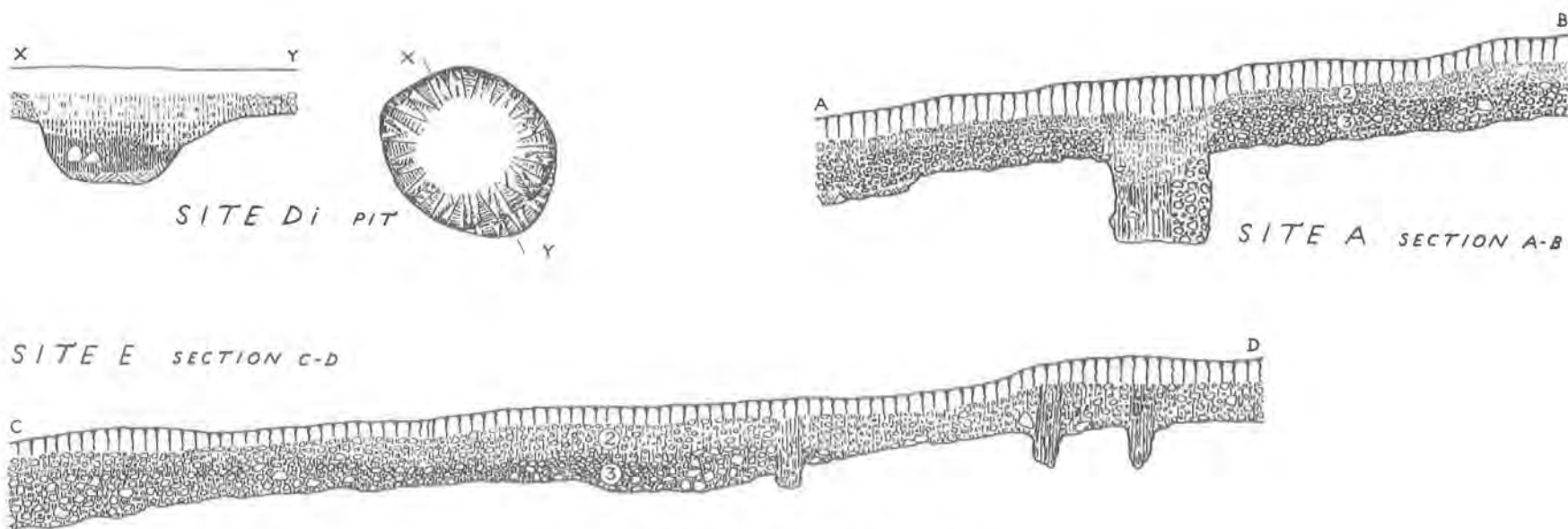
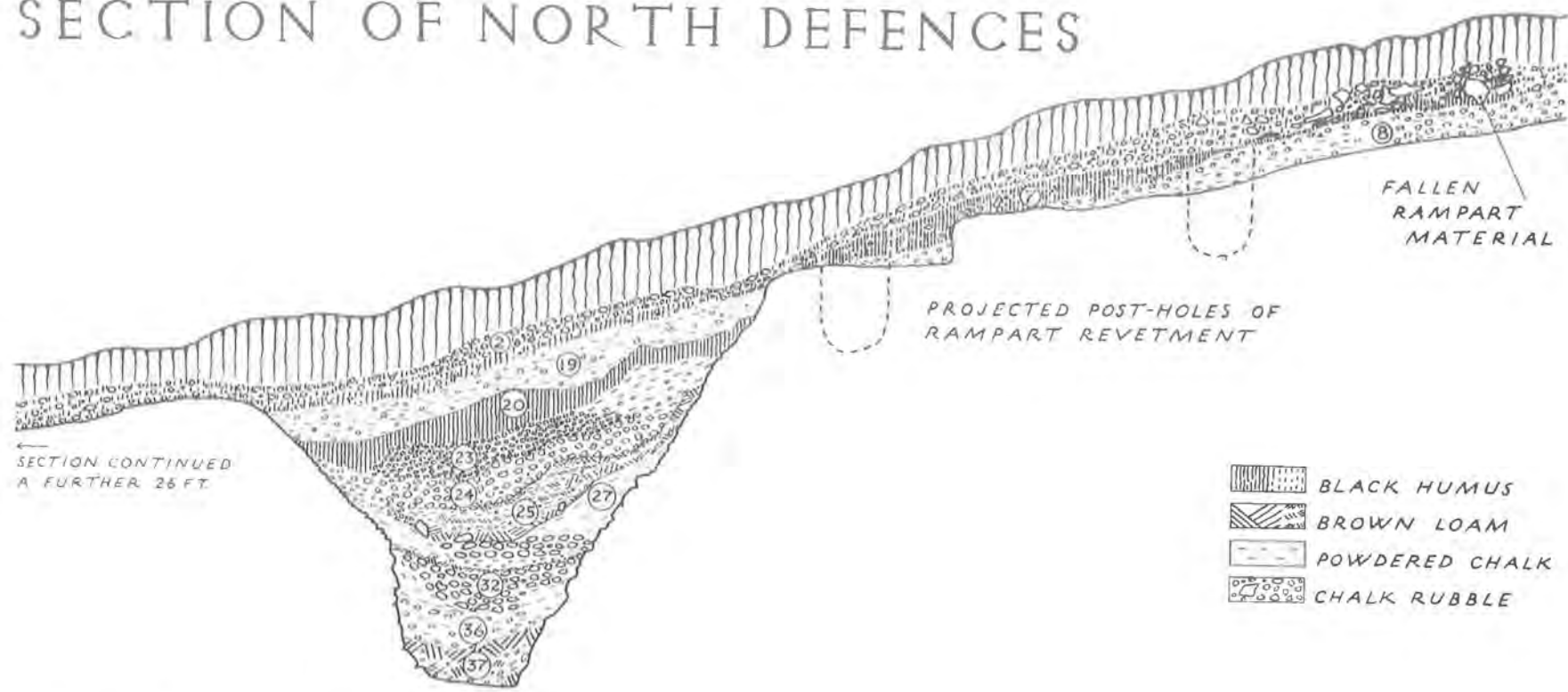


Fig. 2. Sections, Sites A, D and E.

section was cut across the defences in 1964 on the south side at a point where the outer ditch was present (Site C) and nearby two small trenches were dug to explore what appeared to be a slight terracing which might have held a hut (Site E). In the final year, 1965, the character of the entrance (Site G) was explored. During the first season's excavations no storage-pits were encountered, despite considerable traces of occupation, on Site A. Dr. Martin Aitken therefore kindly undertook a survey with the proton magnetometer over part of the interior to test whether pits could be found elsewhere; for recent work at Croft Ambrey and, indeed, results at Little Woodbury itself suggest the segregation of activities in different parts of an Iron Age enclosure. In the event, the whole area to the south of the modern pathway between the entrance and Site B was surveyed: a few anomalies were noted, but for the most part these turned out on excavation to be caused by pieces of war-time shrapnel: only one post-hole and one small pit (Site D) could be attributed to the period of hill-fort occupation, and this pit was too small to be thought intended for corn-storage.

On this remote hill-top no large regular supply of diggers could be assembled. In addition to regular help from a small nucleus of mainly local volunteers and sporadic visits for longer or shorter periods by others, we were able through the generosity of Sir Alan Barlow to employ three to four undergraduates as labourers on a permanent basis. Even with this help, however, it soon became apparent that unless we could use mechanical means to remove the extremely tough deep-rooted turf, progress would be unduly slow; in 1964 and 1965 therefore the turf on Sites A and B was scraped off by a blade-carrying tractor. The turf capped a layer of fine, dark, stone-free humus, normally 6-8 in. thick everywhere on the hill; it did not seem to have been previously disturbed since Iron Age times.

Below this humus, which had clearly been carried up by worm-action from the layers below, was a band of chalk rubble normally about 14-16 in. deep and usually separated by us into two distinct layers. This rubble contained decreasing quantities of humus at lower levels, and the size of chalk lumps was a little larger. Sherds of pottery occurred in the humus layer, but the greatest concentration lay on the surface of the chalk rubble and in its top 6 in. Below this artefacts occurred much less frequently except in post-holes, but they did here and there turn up right down to the surface of natural chalk. The surface of the chalk rock was very weathered and decayed; there were patches of soft powdery decayed chalk, and also pockets of clay. We concluded that the chalk rubble overlying the rock was largely the result of weathering and erosion. The Iron Age occupation-surface was properly at the base of the humus, for it was from this level that the post-holes could be traced, though they were much more easily distinguished in the surface of the rock once the rubble had been removed; it was clear, however, from the occurrence of sherds within the rubble, that it had been extensively churned up during the occupation, doubtless by the hooves of animals.

#### *The Defences, Site A (Figs. 2-3, Pl. II and III)*

A trench 5 ft. wide was cut across the line of the northern defences at Site

A, and was continued over 30 ft. outside the northern lip of the ditch. No trace of an outer ditch was encountered, and slight superficial suggestions of a counter-scarp bank were proved to be illusory. The ditch itself was  $10\frac{1}{2}$  ft. wide and  $8\frac{1}{2}$  ft. deep from the berm, its straight, inner slope measuring 10 ft. It had a narrow, flat bottom almost 2 ft. wide. Its outer slope angled outwards 3 ft. above the bottom, probably due to a collapse: if so, the ditch will originally have been 8 ft. wide. Below this point on the outer slope, and below a rather higher point on the inner, the chalk rock was quite unweathered; it was clear too that very little collapse had occurred on the inner slope. The ditch in fact gave the impression of having been filled-in not very long after its original digging: natural silting, mainly accounted for by the collapse of the outer side, explains the layers up to 27, above which the deposits up to 20 represent the collapsed rampart and the turf line which formed over it; above this, again, are layers formed by continuing denudation. Many of the layers of ditch-filling, especially those derived from the inner side, contained much powdered or rain-washed chalk; this might represent weathered wash from the rampart, but might also be due to the construction of much of the latter from weathered and decayed chalk, the presence of which on the hill has already been mentioned. There was very little pottery in the ditch-filling.

On the inner side of the ditch no trace of rampart-material survived, but the former presence of the rampart was indicated by post-holes marking its front and back revetments, the former only 1 ft. away from the ditch-edge. The post-holes were cut about 2 ft. deep into solid chalk; the posts which they contained were 6-8 in. in diameter where recognisable. The post-holes of the rear line were in general slightly smaller but no less deep than those in front. Below the site of the rampart the chalk beneath the normal rubble layer was very powdery and decayed.

The rampart had clearly been defined front and back by vertical or nearly vertical<sup>5</sup> wooden fences, no doubt of horizontal logs retained by spaced uprights. It had been sited just below a change in the slope of the hill, and this had doubtless hastened the process of erosion. The total absence of bank-material, however, enabled us to clear 41 ft. of the site of the rampart in a search for further post-holes, a thing not frequently, if ever, done previously to this extent. It may be that this neglect has given us an altogether too rosy view of the regularity of this type of construction; certainly at Ivinghoe the results were curious, for the plan (Fig. 3) makes clear that the rampart was most irregular. What we may call the standard construction (in this section and farther east on Site A) was a width of 6-7 ft. and a spacing of posts roughly 7 ft. apart along the rampart's length. But farther west the width narrows to 3 ft. and the interval increases to 16 ft. and 13 ft. It may be that this exceptional narrowness was caused by the need to avoid a pre-existing structure defined by a row of small stake-holes which is further discussed below; nevertheless, the variation is striking. On Site C the rampart had a width of as much as 12 ft. (p. 191) and the rear posts were  $6\frac{1}{2}$  ft. apart.

<sup>5</sup> The front row appeared to slope inwards very slightly. The virtual absence of berm here disposes of Avery's suggestion, *P.P.S.* xxxiii (1967), 249-50, that front timbers of this type of rampart were protected by a turf-pile.

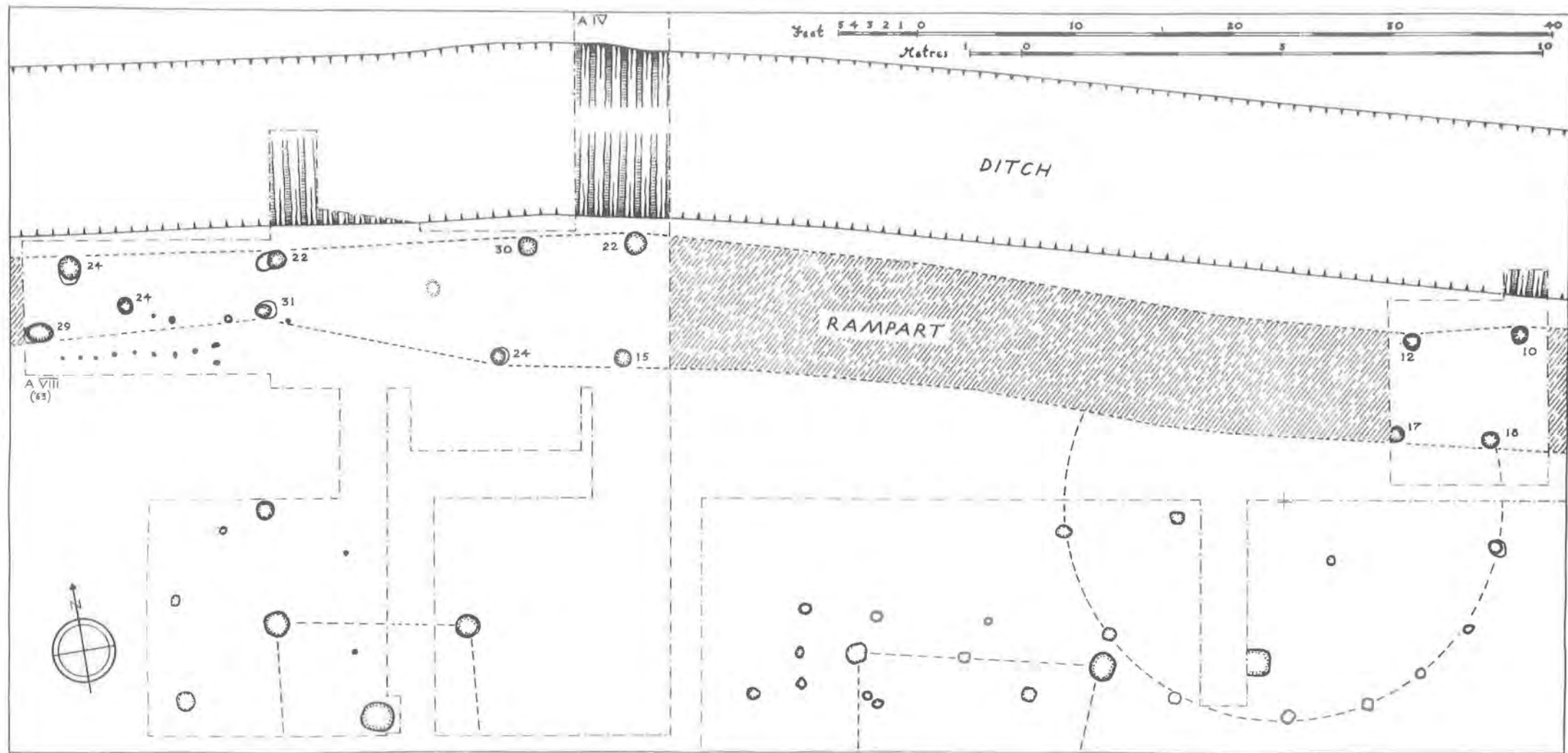


Fig. 3. Plan of Defences, Site A.

The ditch, as already described, was originally 8 ft. wide by  $8\frac{1}{2}$  ft. deep. The area of its section-face was about 35 sq. ft. The material derived from the ditch and piled between the slightly tapering wooden walls of a box-rampart 6 ft. wide at base would give a height of about 7 ft. if as tightly packed as natural chalk; but, as this is impossible to achieve, we must allow a normal rampart some 9 ft. in height. It is unlikely that the same height could be maintained where the base was reduced to 3 ft. It is clear that the rampart is a very amateur affair, either not completely finished, or else erected by people who were used to stone and had not learnt by hard experience the disintegrating properties of chalk.<sup>6</sup>

At the rear of the rampart some chalk rubble, from 9 to 14 in. thick, survived *in situ*, sealing an old surface on which lay a good deal of pottery and bone, including some human skull-fragments (Pl. III *b*). The reason for its survival was that it lay above the change of angle in the hill-slope on ground which is more level. The rubble was either the product of the collapse of the rampart, or else it had formed part of a small bank supporting the rear timber-revetment and perhaps providing access to the fighting platform. Its true interpretation is of some importance not only for the character of the rampart but because, if it can be shown to be an integral part of the defences, it follows from the presence of occupation-material below it that these defences are not primary. Unfortunately, nowhere was any old surface or occupation deposit found north of the line of the rear-revetment. These features only survived in a narrow belt south of the rear-revetment as far as the northern edge of the excavated squares (Aiii, Avii); within the squares themselves the ground rose above the protection of the rubble and no sign of old surface remained.

The only clue to the interpretation of the ramp of chalk rubble is provided by the row of small stake-holes at the western end of the excavated area (Pl. III *a*). These were sealed by a layer of flints and the chalk rubble. The most economical explanation of the various features is that the rampart narrowed here to avoid a structure; if so, structure and rampart are approximately contemporary, and it follows that the chalk ramp of rubble which seals the stake-holes and occupation layer is later; it is best interpreted as debris from the collapsed or demolished rampart. The occupation layer will then be contemporary with the defences, and indicates intensive use of this sheltered position:<sup>7</sup> there was no supporting ramp at the rear of the revetted rampart-wall.

#### *The Defences, Site C (Fig. 4, Pl. IV and Va)*

A second section of the defences was cut on the south side of the hill at a place where the outer ditch is present (Site C). Here, too, were comparable signs of inefficiency on the part of the builders or lack of completion. Site C, like Site A, revealed no trace of rampart material *in situ*, but there were post-holes indicating a width of 12 ft. for the rampart. Nevertheless, despite extended

<sup>6</sup> At Hollingbury, Sussex, the posts were 7 ft. apart in a rampart 7 ft. wide; but it is fair to recall that at Wandlebury, Cambridgeshire, the second rampart had a facing of timber held up by posts 14 ft. apart. See now *P.P.S.* xxxiv (1968), 153 for a long length of much more regular pairs of post-holes at the Grimthorpe Hill-fort, Yorkshire.

<sup>7</sup> The pottery from this layer is illustrated by itself in Fig. 16.



search, one of the expected post-holes of the front row was not discovered; if the rampart was ever completed in this sector there must have been an interval of more than  $14\frac{1}{2}$  ft. in the front revetment without a vertical. It can be assumed that unsupported horizontal timbers of this length would not long withstand the thrust of the rampart-fill.

The main ditch was even less weathered than on Site A. It was of the same depth,  $8\frac{1}{2}$  ft., and was 9 ft. 9 in. wide. Virtually the same volume of material came out of this ditch as on Site A, and it follows that if the rampart was 12 ft wide instead of 6 ft. it can only have been half as high, perhaps 5 ft. at the most. Possibly, however, the product of the outer ditch was intended to be added: the area of its section-face, however, is only  $5\frac{1}{2}$  sq. ft., and this, spread over a rampart 12 ft. wide, would only add a single foot to the height. But we cannot exclude the possibility that there was an intermediate bank between the two ditches.

The filling of the main ditch appeared to consist of natural silting up to the top of layer 6; layer 5 appeared to be tumbled rampart material, above which were traces of turf-line. At the bottom (layer 10) was a large number of sheep-bones. The outer ditch was a very minor obstacle, little more than a scarping of the slope; but it seems likely that it was unfinished. It lay almost 13 ft. out from the main ditch.

#### *The Entrance, Site G (Figs. 5 and 6; Plates VI and VII b)*

On excavation the entrance was found to be less inturned than superficially appeared. Though both ditch-ends did turn inwards, that to the south, ending in a mere inturned lobe, was much less marked than the one on the north side. A section showed the southern ditch to be about 9 ft. wide but only 3 ft. 6 in. deep and flat-bottomed (Fig. 6, section C-D). It was perhaps unfinished. The gate was somewhat obliquely placed in relation to the ditch-line; this was probably because it took advantage of a slight local eminence. The presence of the modern trackway prevented the complete stripping of the gateway, which was found farther east than had been expected. An entrance passage, slightly funnel-shaped, widening from 8 ft. to 10 ft. was defined by a row of post-holes on each side. Up to three individual posts packed with chalk rubble occupied somewhat larger post-pits, and there were traces on each side of one post having been replaced. We were unable to test for a central stop post, but the dimensions make it unlikely that there was a double gate; nor does it seem probable that the gate structure carried a bridge.

On the south side two post-holes were found in positions which suggested that they represented the front revetment of the rampart, and farther south again some chalk rubble overlying an old surface suggested rampart-material *in situ*. It was only some 6 in. thick. No further normal rampart post-holes were found either on this side of the gate or on the north side, though there faint traces of the rampart bank once again appeared in the north edge of our cutting overlying an old turf-line (p. 250). Behind this was a hearth surrounded by a scatter of pottery. Nearby lay three fragments of human skull which might be thought to be derived from a trophy or trophies suspended on the gate; but skull-fragments from Site A (p. 191) suggest that such pieces should

# IVINGHOE BEACON: SECTION OF SOUTH DEFENCES

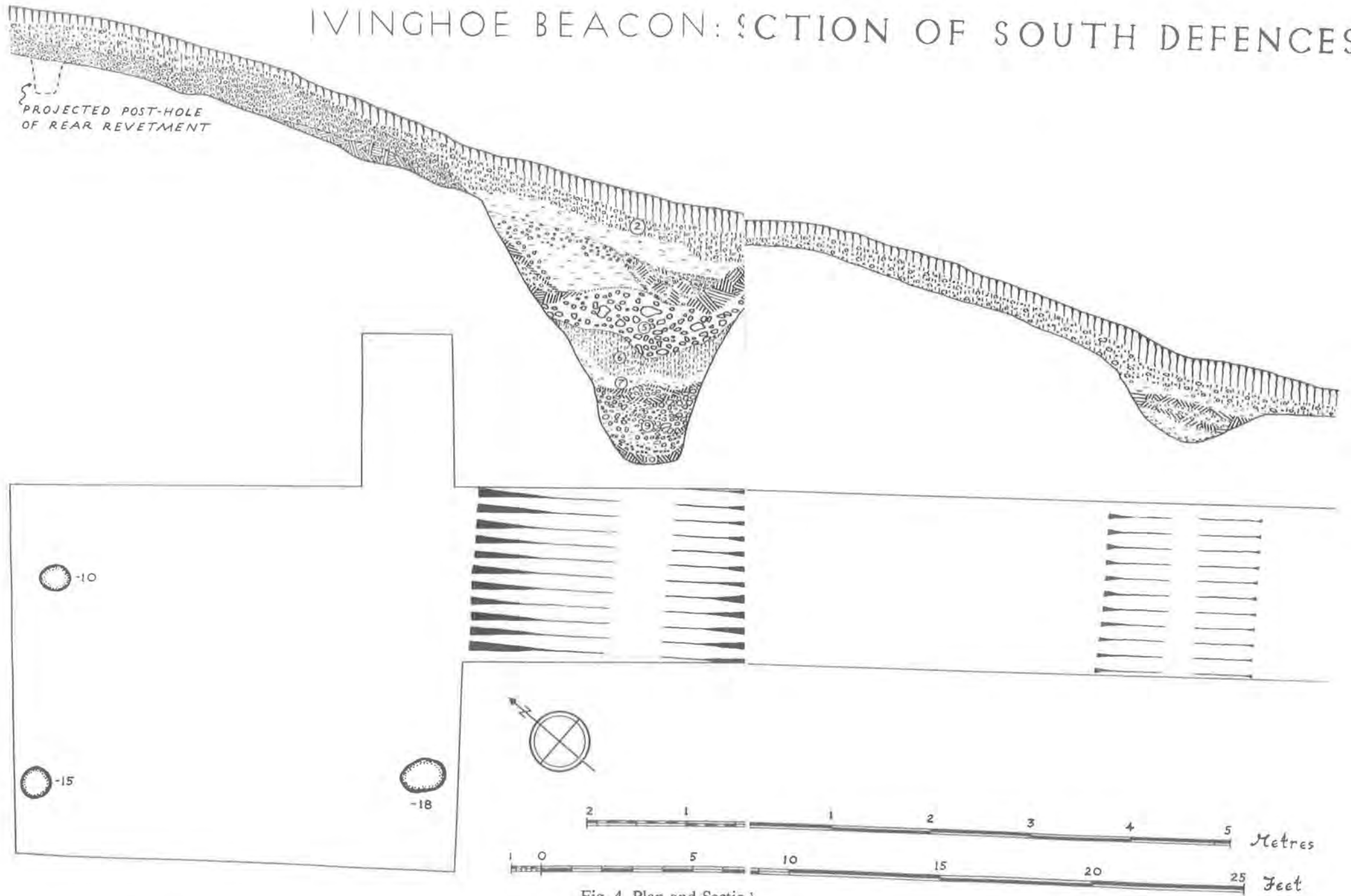


Fig. 4. Plan and Section.

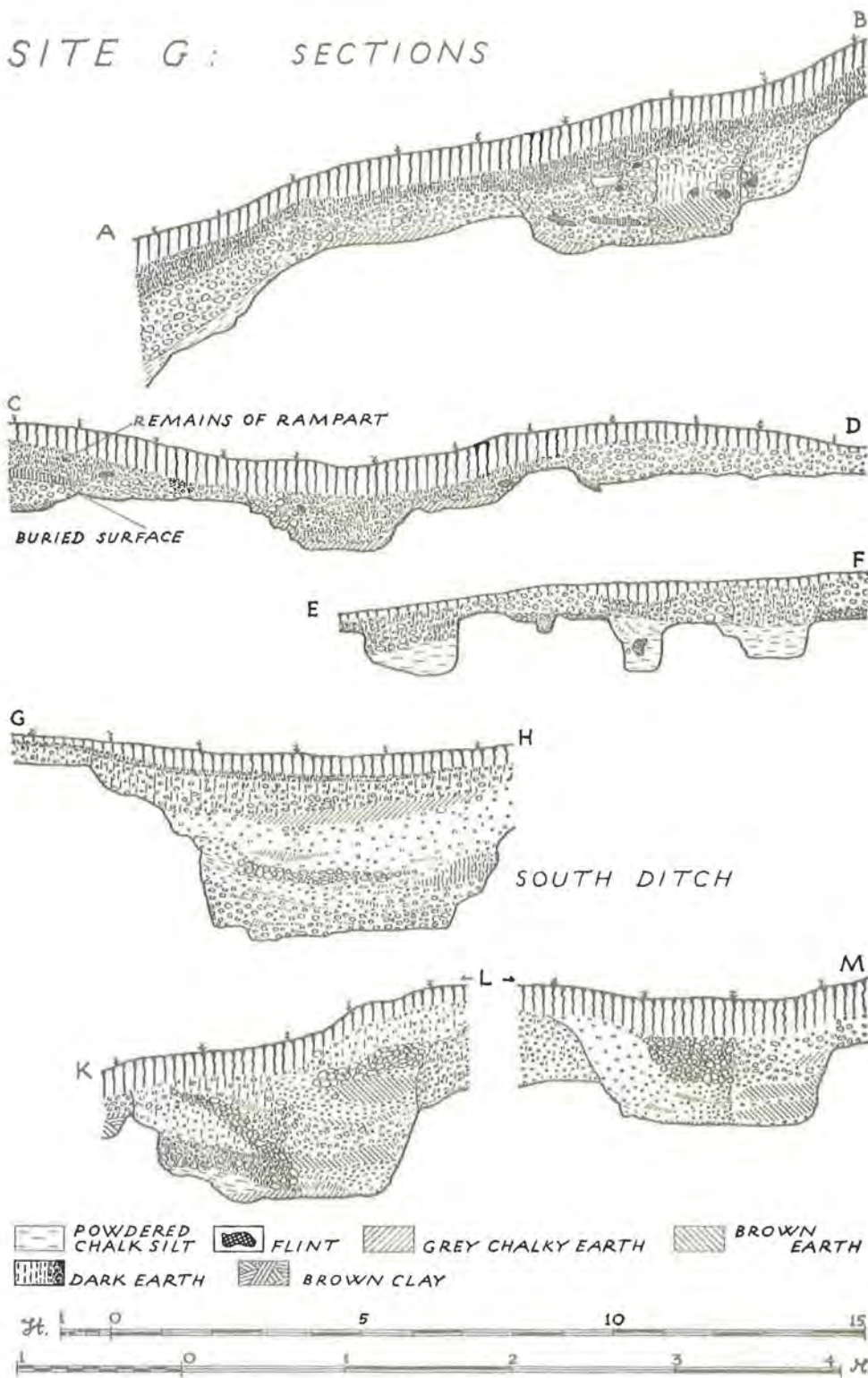


Fig. 6. Sections at Gateway. Note: the positions of A and B should be reversed.

be otherwise explained, perhaps by carelessness or cannibalism.

On the north of the gate was a large pit with a rectangular base which was connected to the ditch-end by a rather shallower rectangular trench (Pl. VI *a* and Fig. 6, section A-B). Within the pit itself was an area of softer fill, at the base of which was a quantity of dense brown earth: this appeared to be a post-socket some 1 ft. 8 in. square. Clearance of a considerable area around and behind this pit failed to reveal any corresponding holes, or any normal traces of rampart-revetment. It is possible that the rectangular trench is a marking-out ditch, though nothing comparable was found on the south side. If so, enlargement of the end as the butt of the ditch was begun and then abandoned, the hole being later used to house a post. A layer of chalk rubble had been first laid down to reduce the depth before the post was placed in position. On the south side parts of three large oval pits were found, two of which contained traces of large post-sockets marked by patches of brown earth or turfy material which must have fallen in after the decay of the post. The filling of the most northerly pit overlay that of its neighbour, having been dug less deeply and from a higher level (Fig. 6).

#### *The Interior: Site A (Fig. 7)*

The character of the stratification inside the hill-fort has already been described (p. 189 and see Fig. 2, Section A-B). After clearing away the humus a number of post-holes could be distinguished, cut through the chalk rubble. All penetrated through to the chalk rock, and on the plans their depths are recorded in inches from the surface of the solid chalk. In 1963 squares i-iii and iv-vii were excavated. In subsequent years successive areas to the east were stripped mechanically of their turf and then dug in squares or areas, after which the baulks were removed.

Despite the discovery of a very large number of post-holes, few patterns recognisable as building-plans emerged. This is a common experience on Iron Age sites. In Aii, Aiii, Avii and Aviii an almost square parallelogram of four post-holes larger than the rest with a fifth at the centre can be seen (Fig. 7, Structure I). The sides from centre to centre of the holes are approximately 12 ft. That this pattern is purposive and represents a building is suggested by the appearance of a closely similar pattern 23 ft. farther east in area Aix-xi (Structure II). Here the building is trapezoid, the longest side measuring 15 ft. 9 in. (centre to centre) and the others 12 ft. The longest side appears to have a smaller intermediate post near its middle, and the same may be true of the side opposite. This "square" type of plan recalls the structures identified as granaries at Little Woodbury.<sup>6</sup> The latter, however, were only one-quarter the size of these, having sides normally only about 6-7 ft. long; nor did they have a centrally placed post-hole. If the post held by this was used to support the large raised floor of a granary it can only have functioned in connection with diagonal supporting beams below the floor, which appears an awkward form of construction. At Glastonbury there was an approximately rectangular building about 11 ft. square, with three posts on each side and a central one.

<sup>6</sup> *P.P.S.*, VI (1940), 97ff. For a convenient list of granaries in Britain with dimensions see now G. J. Wainright, *P.P.S.* xxxiv (1968), 113, who however has omitted a 6-poster at Park Brow.

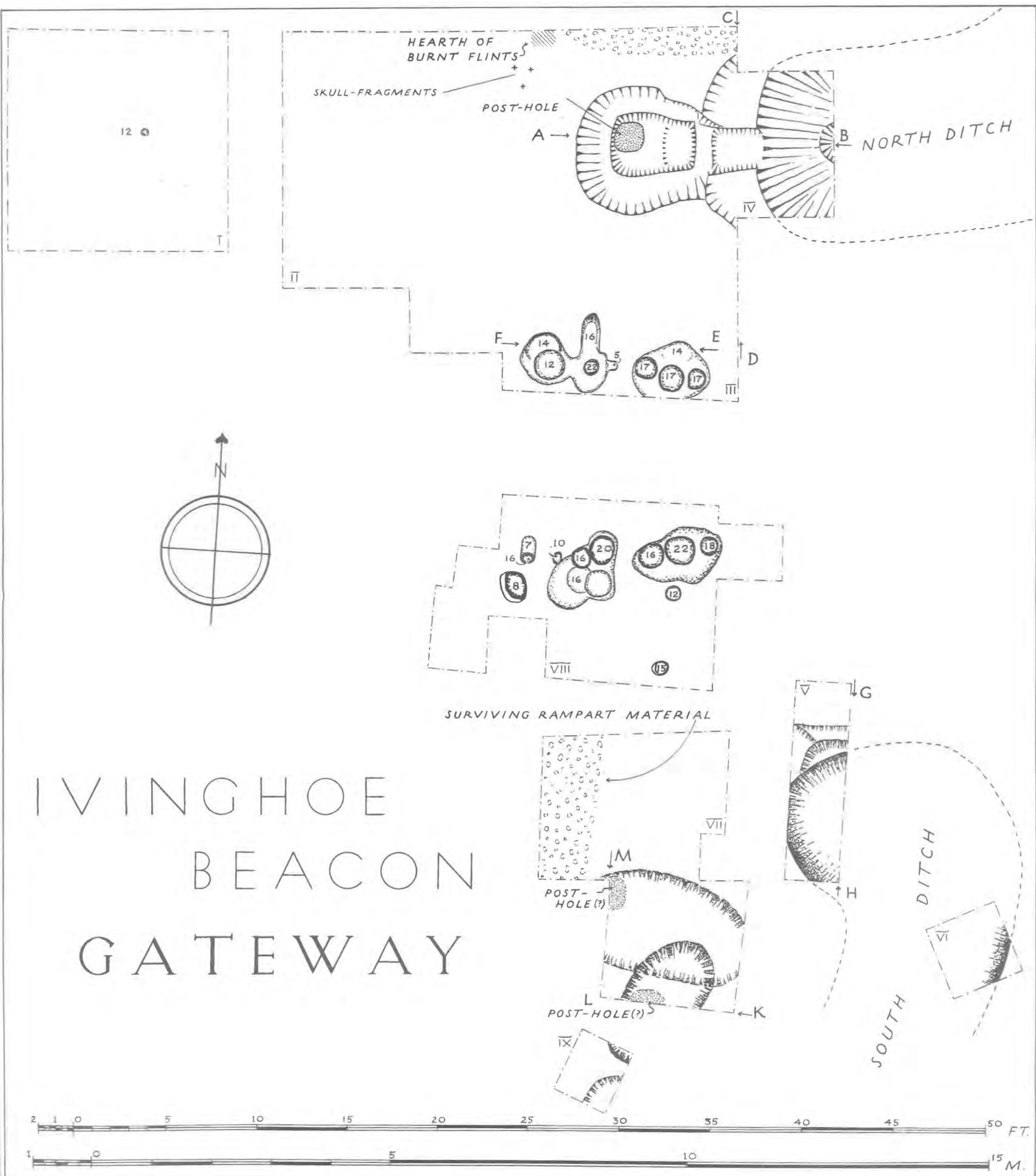


Fig. 5. Plan, Site G.

Piggott, who has drawn attention to this, has pointed out another beneath a Dutch barrow at Rhee excavated by van Giffen,<sup>9</sup> and Mr. S. C. Stanford has kindly shown me the plan of a third excavated by him at Croft Ambrey hill-fort. There the central post was smaller and less deeply set than the others. Parallels, then, do exist; but whether we should restore the buildings as granaries or alternatively as "square" huts with hipped roofs meeting at an apex supported by a central upright is not clear. It may even be, as Mr. Stanford has suggested to me, that the central post gave access to a loft.

Rectangular huts are very rare in the British Iron Age, but support for their presence here is provided both by the early date of the settlement (when new arrivals might be expected not yet to have "forgotten" continental architecture) and also by Mr. Stanford's recent discovery of them in some numbers at Croft Ambrey. There two rows of rectangular huts varying in size from c. 8 ft. by 6 ft. to 10 ft. by 12 ft. were discovered; with the one exception noted, however, they lacked the central post.

The case against them being granaries is to some extent strengthened by the results of pollen analysis (p. 250) which revealed no trace of grain pollen, though it must be noted that this evidence came from beneath the rampart at the gateway, and this relates to a slightly earlier period. The thin layer of rampart-material surviving above this buried soil did yield traces, only slight, of cereal, but the layer was not sealed. Nor are quern fragments other than very rare on the site. The absence of storage pits is part of the same general picture, which suggests pastoralism rather than corn-production as the main source of livelihood. This in turn is supported by the high proportion of cattle bones found on the site (p. 253). On the other hand, if the tradition of house-planning was still for the rectangular it is less easy to explain the remaining structures on this site. The first is a semi-circular setting of post-holes all of very similar size and uniform depth of 5-7 in. (Fig. 7, Structure III). They are arranged with great regularity round the circumference of a circle of diameter 27 ft. 6 in.: the dotted line on the plans is, in fact, drawn with a compass. There was no trace of any central post-hole or arrangement of posts. The circle, however, is not complete, since it abuts on to the back of the rampart. Indeed, it seems to make use of one of the posts of the rear revetment. At first glance it might be suggested that this is half an earlier circular hut which was destroyed by the erection of the defences. Yet there are no further post-holes beneath the rampart, and the circle, if continued, misses the corresponding post-hole of the front revetment (Fig. 3). Nor are either of these rampart post-holes of comparable size and depth: they are much deeper—c. 12-18 in.—and clearly belong to the rampart, not to the house. Furthermore, as already noted, the hill begins to slope more steeply at the point where the rampart runs. It is difficult to avoid the conclusion, therefore, that we have here a semi-circular building or half-hut attached to the rear face of the rampart. This would account for the absence of a central post, but is difficult otherwise to parallel. Semi-circular or roughly semi-circular structures are not entirely unknown: one was excavated at Stanton Harcourt, Oxon, by Audrey Grimes.<sup>10</sup> It is also worth

<sup>9</sup> *Arch. Journ.*, XCVI (1939), 220-21.

<sup>10</sup> *Oxoniensia*, XVI (1951), 10 ff.

recalling the literary and archaeological evidence quoted by J. R. C. Hamilton for wooden buildings attached to the inner faces of fort walls, though it is true that the structures described by him are galleries concentric with the fort and not semi-circular independent buildings as revealed here.<sup>11</sup>

Due south of the semi-circular hut is another rather defective setting of post-holes which have been connected up on the plan with dotted lines to make an approximately circular hut with a porch facing north-west (Fig. 7, Structure IV). The spacing of the post-holes on the circumference of this varies between 6 ft. and 12 ft. and at least one post-hole is missing in the N.E. sector: if it had been extra-shallow it might have been removed by the trapezoid feature described below. This is not a very convincing hut, but it does enclose an exceptional number of minor stake-holes. The outstanding size of the "porch" post-holes would be unusual. Alternatively, it is possible that the outer pair represent a drying rack; but the N.E. post-hole of the inner pair held two posts, apparently contemporary, and this pair is therefore less easily explained in this way.

Other features on Site A were few. The majority of post-holes can be linked in no system, though it is worth noting that in a band 8-14 ft. behind the rampart they occur more sparsely than elsewhere. Another noteworthy feature is the absence of evidence for recutting of post-holes. An exception occurs in the eastern edge of Aiii, where a large socket had held three successive posts: yet this post-hole stood in isolation and its purpose is unknown. One pit was found in the south-eastern part of the site: it had been dug in a patch of rotten chalk, and in consequence its exact shape and size were difficult to determine: it was not, however, more than 3 ft. deep. A post-hole had been cut into its filling. North-east of this, at the edge of the excavated area, occurred a small trapezoid feature, 7 ft. 6 in. long by 2 ft. wide. It had a smooth, level floor cut into the chalk; this level floor outcropped at the west end owing to the local slope of the hill: at the other end it was 1 ft. deep (Pl. VII *a*). Stake-holes occurred along its edge. In Av an irregular depression with an earthy fill above soft yellow chalk was probably a natural hollow caused by tree roots, though sherds and bone-fragments occurred in it; these had perhaps been trampled down.

#### *Site B (Fig. 8)*

On the crest of the ridge sloping eastwards from the summit of the hill an area was stripped in order to test for occupation away from the vicinity of the defences. The stratification here was similar to that on Site A (p. 189). Post-holes in this area were very much more sparse, and the main concentration was confined to the south-eastern quarter of the area. In the extreme S.E. corner a setting of post-holes was taken to represent a sub-rectangular hut. Most of the post-holes were regularly cut, 6-9 in. in diameter, and the same in depth below the surface of natural chalk: the original depth from the surface of the chalk rubble will have been *c.* 1 ft. 5 in. At the south angle, however,

<sup>11</sup> J. R. C. Hamilton, "Forts, Brochs and Wheel-houses" in *The Iron Age in Northern Britain* (ed. A. L. F. Rivet) (1967), 118 ff. with Fig. 2.





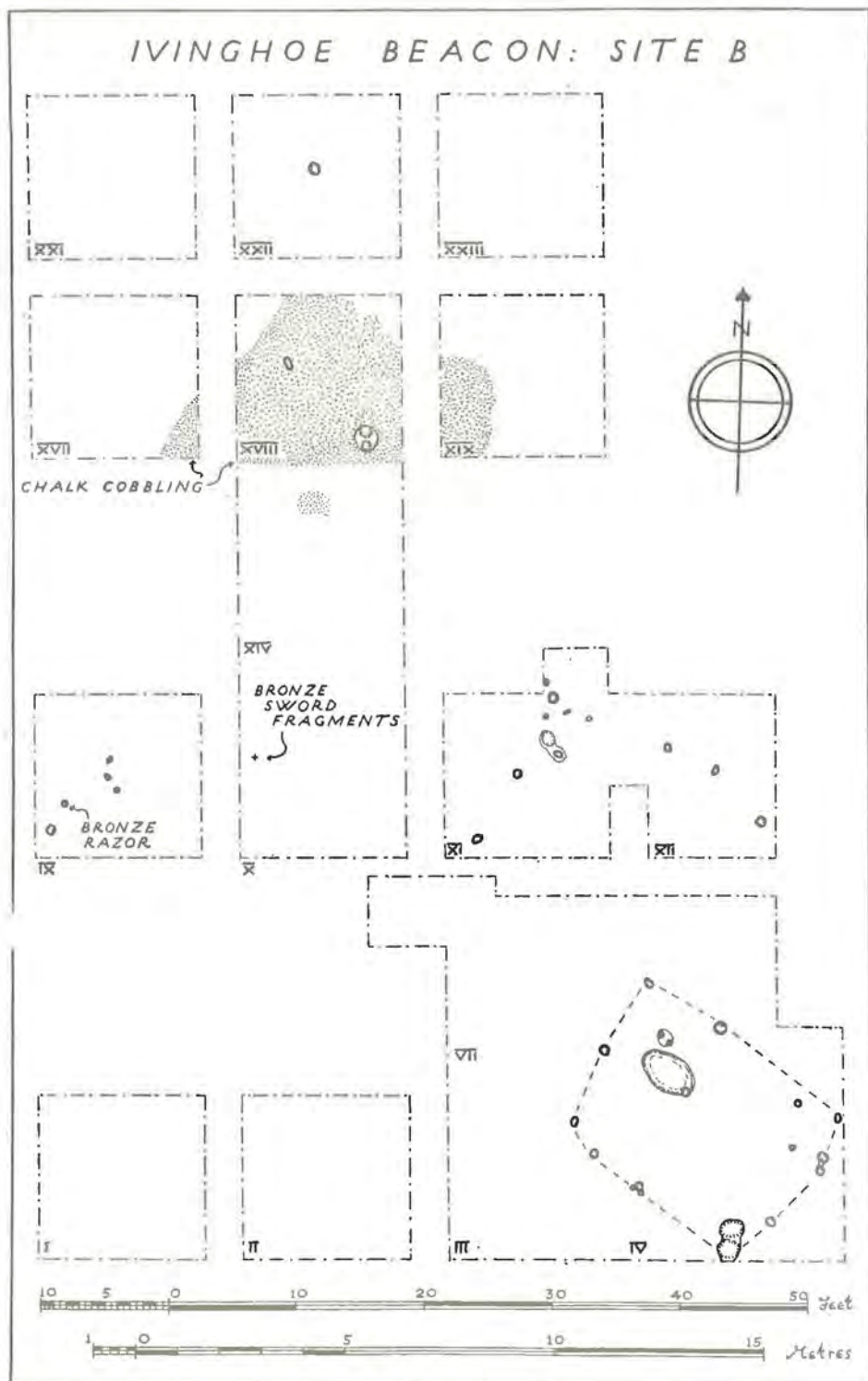


Fig. 8. Plan, Site B.

was a much larger post-hole which contained traces of the packing of three successive posts: individually, however, these posts were the same size as the rest.

Towards the north corner there was a shallow scoop with sloping sides cut 8-11 in. into solid chalk. The filling of this scoop sealed the base of a post-hole which, if taken with the three northern posts of the "hut" wall, might be taken to represent a rectangular "granary" of the type identified on Site A. It has a fifth post-hole containing two small posts at the centre of the diagonals. If this is a rectangular granary it is smaller than those on Site A, having sides of 6 ft. and 7 ft. 4 in.: it seems more probable, however, that we have an internal division within the larger hut. There was no sign of the other three post-holes having been recut, as would probably have been necessary if part of one structure was adapted as the corner of another, and the sealing of the fourth post-hole by the filling of the scoop can be explained in terms of the scoop having remained open until the destruction of the hut. It seems likely that the door was at the south end of the S.W. side: its presence there might account for the renewal of the adjacent posts. A hut of this shape is not easy to parallel among British Iron Age huts: but though it is not circular, its approximation to rectangularity cannot be said to prove close relationship with house-types on the Continent. It is too poorly laid out and constructed. Its closest analogy is Hut L1 at Maiden Castle.<sup>13</sup> North of this hut is a roughly semi-circular setting of posts. The diameter at its mouth is c. 22 ft.; there is no central post. It seems doubtful whether this area was roofed. In one of the post-holes was found some pieces of sub-fossil dog dung (p. 250).

Towards the north end of the site in squares xvii-xix an area of chalk cobbling was discovered. This cobbling lay not far below the humus, and itself sealed the normal layer of dark soil and chalk rubble; the covering rubble normally came away from this layer very easily, but its general unevenness and local lack of continuity suggested that it had been the basis rather than the surface of a hard stand (Pl. V b). Only two post-holes appeared in the area, neither being sealed by the cobbling; the latter does not seem to be connected with a structure, but, if indeed artificial as we suspected it to be, to have formed a floor for threshing or for the parking of carts.

Apart from these structures, the most interesting features revealed by the excavation of this somewhat barren area were a number of bronze objects or fragments, the most remarkable being two small sections of sword-blade from two different weapons, and a bifid razor which was resting upright in a post-hole (Fig. 10). The sword-fragments had presumably been broken up for re-smelting. It is clear, however, from the wide scatter of such pieces both here and on Site A that they belong to the general occupation and cannot be accounted for by the scattering of a hoard. The distribution is described on p. 204-210.

<sup>13</sup> R. E. M. Wheeler, *Maiden Castle* (1943), 124; but, as Mr. Stanford has pointed out to me, it is possible to interpret the post-holes in the area of Hut L1 as two successive, partly superimposed, rectangular huts with a third nearby.

*Site D* (Figs. 1 and 2)

The magnetometer survey (p. 189) revealed a small pit in the area east of Site B. It was oval in shape, flat-bottomed, and only 1 ft. 9 in. deep from the surface of the chalk rubble. Its lower surfaces were lined with sticky greenish clay on the surface of which, below the black pit-filling, lay a patch of fine yellow sand with a few pebbles in it. This had been brought to the site from elsewhere; none occurs naturally on the hill. Above this the pit had been filled with sooty black soil and charcoal, over which lay normal earthy chalk rubble. The dark filling produced two loom-weights. This pit is too small and shallow for corn-storage: the clay-lining suggests it was used to collect water.

*Site E* (Figs. 1, 2 and 9)

A slight terracing was visible on the surface here, but the two trenches excavated yielded no trace of a hut, despite the presence of a fair amount of sherds. It seems possible that the surface effect had been caused by the former activities of rabbits: the humus layer was less thick over the "hollow" than it was at either side. Most of the pottery came from layer 2 but some quite large

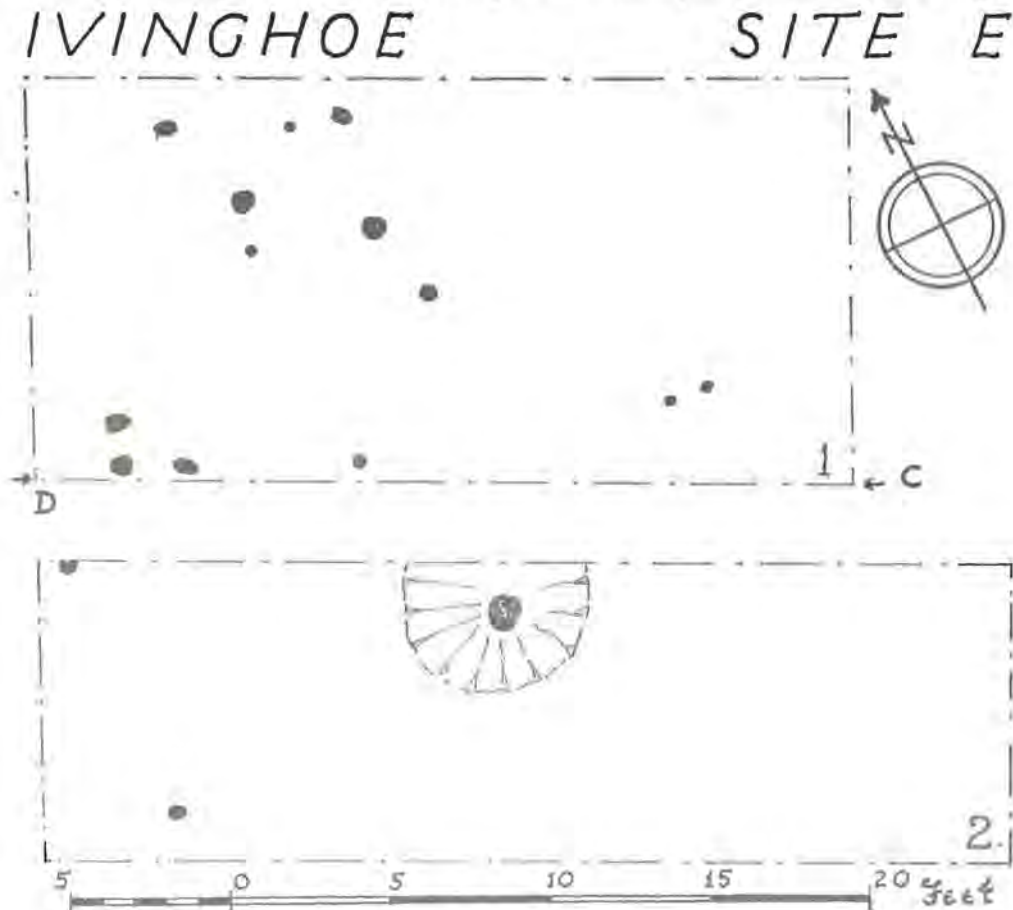


Fig. 9. Plan, Site E.

pieces lay near the base of 3. A number of small post-holes were found in Trench I, but only three in Trench II; one of these lay in the centre of a hollow full of dark soil containing bones and sherds and also a small bronze rivet-head (Fig. 10, 3): the hollow was cut into the rubble but did not penetrate the chalk rock. The post-holes did not seem to make a recognisable building pattern. The site yielded a large quantity of animal bones (p. 257).

#### THE CULTURAL CONTEXT AND QUESTION OF DATING

It is evident from the form of rampart and ditch as well as from the finds of pottery and bronze that Ivinghoe Beacon is an early example of a hill-fort, a conclusion supported by a study of the loom-weights and spindle-whorls (pp. 214-216). An inspection of the pottery illustrated on Figs. 16-20 suggests that it belongs to an early phase of the Iron Age, southern First A. The metal objects found, however, all of bronze, propose an even earlier date, for without exception they all belong to, or can be at home in, the preceding Late Bronze Age. Mr. Dennis Britton has kindly made a study of them (p. 204), and he reports that they can be assigned to Late Bronze 2 (to use the terms of Professor Hawkes' classification of the Bronze Age) from 750 B.C.; his conclusions are reinforced by the bronze winged axe (Fig. 12) in the Cheltenham Museum which was acquired in 1929 and was found "on Ivinghoe Beacon". This one belongs to exactly the same period as the other bronzes, and is no doubt connected with the occupation of the hill-fort. How much later than the seventh century such objects would continue to be made is at present unknown for lack of evidence, but there are several hints that they could still be current in the sixth; and the evidence from Ivinghoe does in fact point to this conclusion. The possibility that they derive from a scattered hoard of Late Bronze Age date can be discounted because of the very varied find-spots both on Site B and on Site A as well as near the gateway. They occur virtually everywhere a trench is cut. Nor is it logical to suppose that the bronze objects belong to an earlier occupation (by people who left no pottery), and the pottery to a later occupation (by people who left no metal). But if pottery and bronzes both represent the culture of the builders of the hill-fort, is that hill-fort formally attributable to the Late Bronze Age or to the Iron Age? And what is the true date of the occupation? Linked to these questions is the problem of the extent of immigration from the Continent at the beginning of the British Iron Age.

There has recently been some controversy about the extent of the part played in British cultural change by immigrant people (to adopt a neutral term).<sup>13</sup> The insularity of Britain clearly makes it less easy here than on the Continent itself to account for widespread alterations of cultural patterns by means of diffusion and peaceful intercourse. At Ivinghoe, though we note the continuation of native metallurgical craft, we must notice also the following evidences of novelty: (a) the hill fort defences themselves, which are typical of Iron Age rather than Bronze Age societies in Britain, while the particular techniques employed belong to the first half of the Iron Age. The Beacon may be claimed

<sup>13</sup> Grahame Clark, "The Invasion Hypothesis in British Archaeology", *Antiquity*, xl (1966), 172 ff., and comments by C. F. C. Hawkes, *ibid.*, 297 f.

as one of the earliest hill-forts in Britain. (b) The pottery, especially the vessels with high rounded shoulders and everted or upright necks; those also with angular shoulders; and those decorated with finger-printing. All these are also typical of the Iron Age rather than the Bronze Age. They can be shown to stand at the head of a long development of such wares, and mark a break with what had gone before. Pottery of the Late Bronze Age is not, indeed, common, and it seems likely that the population in that period was somewhat scattered: this in itself marks a contrast with the wider diffusion of Iron Age settlements. As it happens, however, there is a useful group of such pottery (associated with a type of vase-headed pin) from Totternhoe near Dunstable, only  $3\frac{1}{2}$  miles N.N.E. of Ivinghoe Beacon.<sup>14</sup> The profile of the Totternhoe pots can be usefully contrasted with those of most of the Ivinghoe pottery, as can the absence of ornament: the closest Ivinghoe vessel is No. 12. (c) the Ivinghoe loom-weights are of Iron Age type, paralleled at various sites (p. 215) of early or even transitional date: cylindrical loom-weights typical of the Late Bronze Age have not been found. (d) The "square" structures on Site A, though exceptional in detail, find parallels in Iron Age, not Bronze Age, contexts (p. 194).

When these points are considered individually and in the context of the undoubtedly early date of the Ivinghoe occupation, it is difficult to avoid the conclusion that this occupation is the work of new people who have introduced new cultural traits though employing their predecessors' bronze-smiths. The geographical situation of Ivinghoe makes it unnecessary to suppose that its occupants were themselves newly arrived from the Continent, though it is possible. But the Icknield Way gives easy access from areas of primary settlement in East Anglia, the Thames Valley, and in Wessex. From one of these areas, and most likely either or both of the first two, new settlers reached the Chilterns. The previous occupants of the region may have been few, but there was probably now an intermingling of population as well as an increase in overall numbers. The pottery is clearly distinct from the earliest Wessex assemblages, e.g. that from Kimmeridge recently studied by Professor Cunliffe.<sup>15</sup> Rather, the pottery, and indeed also the loom-weights and spindle-whorls, seem to reveal contact with the east coast in East Anglia and perhaps the lower Thames Valley. The best parallels for some of the vessels are to be found at Mickle Moor Hill, West Harling. It seems most likely that the idea of fortification, too, reached Ivinghoe from the east or south-east.<sup>16</sup> The necessity for its application indicates a fear of neighbouring groups, while the evidence that occupation was brief suggests the uncertainties of the settler generation.

Dating from the early sixth century B.C. or the later seventh, there are traces in Britain of small immigrant bands newly arrived from the European mainland, bringing with them weapons and tools of Hallstatt C type.<sup>17</sup> Ivinghoe Beacon has not yet produced metal objects of Hallstatt C type; but though the bronze-types found had originated earlier there can be little doubt that

<sup>14</sup> C. F. C. Hawkes, *Antiq. Journ.*, XX (1940), 489.

<sup>15</sup> *P.P.S.* xxxiv (1968), 232, 234 ff.

<sup>16</sup> See M. Avery, *P.P.S.*, xxxiii (1967) 246, 251.

<sup>17</sup> M. E. Marien, *Trouvailles du Champ d'Urnes et des tombelles hallstattiennes de Court-Saint-Etienne*, Brussels, 1958. J. D. Cowan, *P.P.S.* xxxiii (1967), 382 ff.

the true date and context of the occupation is about 600 B.C. or very soon after, in the period of ferment and transition initiated by renewed movement from the Continent. The "Iron Age" features enumerated above should serve to lower the date suggested by the bronzes in isolation, since these features are themselves the result of changes brought about by Hallstatt movement into Britain. Doubtless it was because the nearest iron lay farther inland, and no new industry had yet been created, that the new settlers resorted to the products of existing bronze-smiths who manufactured objects in their traditional styles.

Additional support for placing the occupation within the sixth century is provided by the contrast between the Ivinghoe pottery and that recovered from four pits in the cement factory's quarry at Pitstone, only 1 mile S.W. of the Beacon. This pottery, very kindly placed at our disposal by Mr. D. A. Levy of Vicarage Farm, Ivinghoe, is here published for comparative purposes. It well illustrates the range of local Iron Age wares of a developed kind: in round figures it should date from the century 450-350 B.C. The range of forms and decoration is quite distinct from that of the Beacon (p. 234). It is clear that a gap has to be allowed between the two.

For the rest, there is little evidence for an economy based on corn-growing. Five quern-fragments only were found; there were no grain-storage pits, and the evidence from pollen analysis is also negative (p. 250). On the other hand there are a great many cattle bones (59%) and a fair showing of sheep (31%). This suggests that pastoralism was important. Pig accounts for 7%; Red Deer at 0.4% and horse (at 0.5%) are relatively unimportant. Another indication that the coralling of cattle was a significant activity lies in the size of the hill-fort itself. It is evident from a glance at the contours (Fig. 1) that a perfectly defensible enclosure could have been constructed along the 740 or 735 ft. levels with good command eastwards: instead, the earthwork was extended another 250 ft. towards the east along the narrower part of the hill. The present earthwork encloses 5.42 acres; if it had been curtailed along the 735 ft. contour it would have occupied 4.1 acres. The extension eastwards, in other words, adds a further 1.32 acres to the enclosure. That cattle were present in large numbers is also suggested by the evidence for the churning of the surface inside (p. 189).

It is significant that at the Pitstone site the proportions of cattle (37%) and sheep (50%) are almost reversed. This probably implies the development of the dryer parts of the Vale of Aylesbury, the capacity of whose "rich meadows" to "feed an incredible number of sheep" was noted by Camden. The Chilterns themselves were probably too heavily wooded for extensive sheep-rearing, but the woodland could have been valuable for the herds of the earlier settlers at the Beacon hill-fort.

There is evidence from the spindle-whorls for spinning and from the loom-weights for weaving. Trepanning was practised, still by a primitive technique; human remains were casually left about rather than decently buried. It seems clear also that bronze-working was carried out on the site. Not only is there a surprisingly large number of bronze objects, but there are also several small pieces of bronze "cake" (p. 207, Nos. 12-12c) coming from Sites A, B and G.

Moreover, the two small pieces of sword-blade (Fig. 10, Nos. 8 and 9), coming from two different weapons, suggest the reduction of material for the melting-pot, and it may be no coincidence that the pigmy vessel (Fig. 17, No. 45) came from a spot in B x closely adjacent to these fragments. Though it shows no evidence of use as a crucible, it must have been intended either for that purpose or as a toy.

Our conclusion is that the hill-fort was created early in the sixth century B.C. by a mainly pastoral people still using bronze implements but with an otherwise new and Iron Age material culture; and that after little more than a generation the settlement was abandoned, no doubt in favour of a less-exposed locality somewhere below. Thereafter, the rampart was rapidly weathered away by the elements and the ditch in time almost obliterated.

The finds from the excavation have been placed in the County Museum, at Aylesbury.

# THE BRONZES

D. BRITTON

*Figs. 10 and 11.*

1. "Razor". Edges of blade damaged, so that much of the original outline is lost; bifid, with terminal notch running into an oval hole. Tang retains traces of casting-seam on each side towards blade; towards tip, the sides have been flattened and the section is roughly rectangular. Length now 8.2 cm./3.2 in. Width now 5.5 cm./2.15 in. Site B ix, in post-hole.

This is a clear example, in spite of its damaged state, of C. M. Piggott's Class II (*Proc. Prehistoric Society*, 12, 1946, 126-8, 132-3, 138-40). Her schedule shows the wide distribution of such "razors" in the British Isles, and her map (on p. 127) illustrates the occurrence of other specimens with both notch and hole from southern Britain, and especially from the south-east. Examples from Late Bronze Age hoards, with both notch and hole, may be quoted from such finds as the Llangwyllog hoard, Anglesey (*Royal Commission on Ancient Monuments (Wales): Anglesey*, London, 1937, liii (fig. 16), lxvi), and the Adabrock hoard, from the Isle of Lewis (J. M. Coles, *Proc. Soc. Antiquaries of Scotland*, 93, 1959-60, 127, plate V). Both these have ribbing along the middle of the blade, a frequent feature absent from the present example. Others generally similar to this have been found in important cave-deposits, which have produced late Bronze Age material (and finds of other periods also), as at the Heathery Burn Cave, Co. Durham (W. Greenwell, *Archaeologia*, 54, 1894, 99), and Merlin's Cave, Symond's Yat, in Herefordshire (C. W. Phillips, *Univ. of Bristol, Proc. Spelaeological Soc.*, 4 : 1, 1931, 23, plate IVa).

"Razor" is the name used conventionally for implements of this kind: whether they were in fact employed for shaving or for other purposes is not really known.

2. *Stud*. Head domed, somewhat oval in plan; hollow behind, with base of shank of rounded section. Maximum diameter 1.0 cm./0.38 in. Site A xi. Cf. 4.

Such studs can be paralleled in the hoard from Isleham, Cambridgeshire (D. Britton, *Antiquity*, 34, 1960, 279-82; in Moyses's Hall Museum, Bury St. Edmunds). Mention should perhaps also be made of small "buttons", which are domed in front (like these studs) but which have behind not a shank but a bar across, forming a loop. A large number (about 120) were found in the excavation of the settlement site on Staple Howe in the East Riding of Yorkshire (T. C. M. Brewster, *The Excavation of Staple Howe*, Scarborough, 1963, 114).

3. *Rivet*. Head expanded, slightly convex, probably more or less circular originally, margins now damaged; shaft behind, rounded in section and flattened off obliquely at end. Maximum diameter now 1.6 cm./0.6 in. Site E ii.



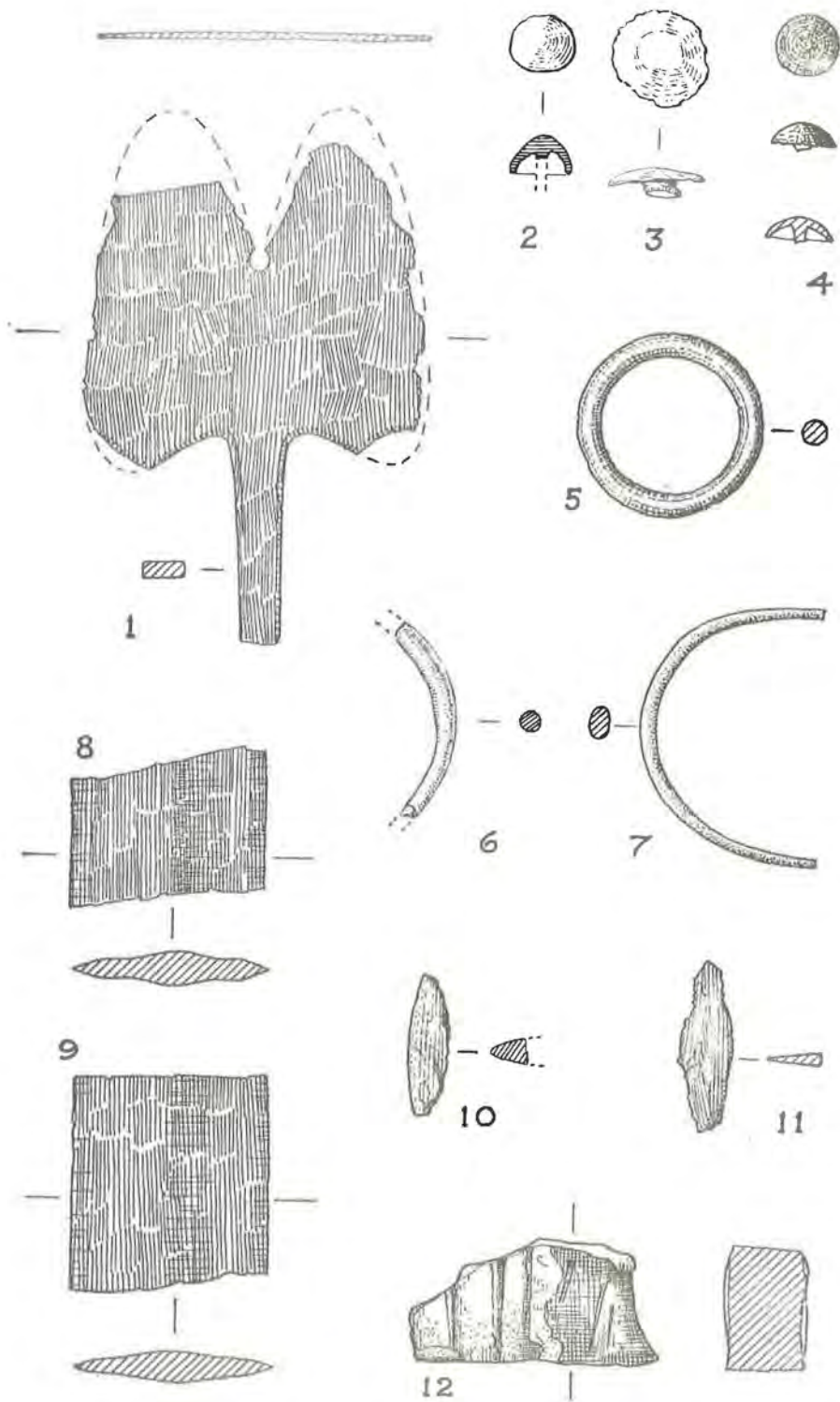


Fig. 10. Bronze objects. ( $\frac{1}{4}$ )

The form of rivet is that used on the bronze vessels of the Late Bronze Age, both in Britain and in Ireland (E. T. Leeds, *Archaeologia*, 80, 1930, 1-36; C. F. C. Hawkes and M. A. Smith, *Antiquaries Journal*, 37, 1957, 131-98). These vessels were constructed from several sheets of bronze, skilfully riveted together. Flat-headed rivets (like this one) were the sort used for the buckets and for the cauldrons of Leeds's Class A. The other cauldrons (Class B) were often made with the more elaborate conical-headed rivets.

4. *Stud*. Head convex, nearly circular in plan; hollow behind, with base of shank of rounded section. Diameter 1.0 cm./0.38 in. Site '64 A viii. Cf. No. 2.

5. *Ring*. Roughly circular in plan; hoop rounded in section, slightly variable in thickness. External diameter 3.0 cm./1.15 in. Site B, in humus.

Detached rings of this simple pattern and of various sizes are known from Late Bronze Age hoards both in Britain and in Ireland (generally: J. Evans, *The Ancient Bronze Implements, Weapons, and Ornaments, of Great Britain and Ireland*, London, 1881, 388-9; Ireland: G. Eogan, *Proc. Prehistoric Society*, 30, 1964, 307-9). The following are a few examples of hoards which include such rings from the south and east of England: the Thenford Hill Farm hoard, Marston St. Lawrence, Northants. (C. F. C. Hawkes and M. A. Smith, *Inventaria Archaeologica: Great Britain, 2nd Set*, London, 1955, GB. 12); the Reach Fen hoard, Cambridgeshire (M. A. Smith, *Inventaria Archaeologica: Great Britain, 3rd Set*, London, 1956, GB. 17); the Marden hoard, Kent (Rev. Beale Poste, *Journal Brit. Archaeol. Society*, 14, 1858, 258); and the Minnis Bay hoard, Birchington, Kent (F. H. Worsfold, *Proc. Prehistoric Society*, 9, 1943, plate XII, 35).

6. *Fragment*, perhaps from ring with hoop of rounded cross-section, slightly variable in thickness. Thicker end probably broken off, other chiselled away. Site A xvi.

7. *Fragment*, perhaps from hoop of slender armlet. Outer face convex in cross-section, inner face rather flatter; broken off at each end. Site A i.

8. *Fragment* from blade of *sword*, with slight midrib and distinctly bevelled edges. Width 3.1 cm./1.2 in. Site B x.

9. *Fragment* from blade of *sword*, with pointed oval section and lightly bevelled edges. Width 3.2 cm./1.25 in. Site B x.

No. 9 is probably from a sword of Ewart Park type, and the other fragment could also be from such a sword. This type is in fact rather variable in details of form and size. But under this general category may be placed a great number of the swords of the Late Bronze Age in the British Isles (J. D. Cowen, *Archaeologia Aeliana*, 4th series, 10, 1933, 185-98). Their distribution is extremely widespread, both in Britain and in Ireland, and they are known from many hoards as well as the abundant single finds. Recent accounts are available (with maps) for Scotland (J. M. Coles and R. G. Livens, *Proc. Soc. Antiquaries of Scotland*, 91, 1957-58, 182-6), for Wales (H. N. Savory, *Archaeologia Cambrensis*, 107, 1958, 39, 62), and (with a detailed catalogue) for Ireland (G. Eogan, *Catalogue of Irish Bronze Swords*, Dublin, 1965, 10-13: under his Class 4).

By way of illustration, a few instances may be cited of such swords from hoards found in the south and east of England. Examples with a more or less distinct midrib, as one of the fragments here, come from such finds as the

Meldreth hoard, Cambs., and the Thenford Hill Farm hoard, Marston St. Lawrence, Northants. (for both: C. F. C. Hawkes and M. A. Smith, *Inventaria Archaeologica: Great Britain, 2nd Set*, London, 1955, GB. 12 and GB. 13). For others, in which the blade has no distinct midrib, like the second fragment here, the Meldreth hoard may again be mentioned, and many other hoards, for example those from Stoke Ferry, Norfolk (C. F. C. Hawkes, *Inventaria Archaeologica: Great Britain, 1st Set*, London, 1955, GB. 8), and from Bexley Heath in Kent (T. D. Kendrick and C. F. C. Hawkes, *Archaeology in England and Wales: 1914-1931*, London, 1932, 134, plate XIV; D. Britton, *Inventaria Archaeologica: Great Britain, 8th Set*, London, 1960, GB. 53).

10. *Fragment*, thinning along one side to an edge which is convex in outline and has traces of grinding still visible: probably from the cutting-edge of some kind of axe. Site B xviii.

11. *Fragment*, thinning to an edge along one side: perhaps from the blade of a spearhead. Site A x.

12. Piece of *rough metal*, probably copper. Two fairly flat surfaces, larger apparently from upper and smaller from lower face of an ingot; traces of columnar structure visible on sides. Maximum thickness 2.0 cm./0.8 in. Site '63 A viii.

12a (unfigured). Piece of *rough metal*, probably copper. Two largest surfaces are relatively smooth and converge, so fragment is probably from edge of an ingot. Maximum thickness 1.0 cm./0.4 in. Site A xiii.

Rough metal is frequently a component in the Late Bronze Age hoards of the south and east of England (list of old finds in J. Evans, *The Ancient Bronze Implements, Weapons, and Ornaments, of Great Britain and Ireland*, London, 1881, 423-4). It takes the form sometimes of plano-convex ingots of roughly circular plan, as in the hoards from near Worthing, Sussex (M. A. Smith, *Inventaria Archaeologica: Great Britain, 6th Set*, London, 1958, GB. 37), and from Bexley Heath, in Kent (D. Britton, *Inventaria Archaeologica: Great Britain, 8th Set*, London, 1960, GB. 53). But more commonly the hoards have smaller pieces of rough metal, sometimes numerous, which appear to be the result of smashing up ingots of this kind. The present fragments are probably derived from such a source. When rough metal of this form has been analysed, it has usually been shown to be unalloyed copper, often of high purity (R. F. Tylecote, *Metallurgy in Archaeology*, London, 1962, 29-31).

12b (unfigured). Piece of rough metal, perhaps copper. Site G iii, occupation behind rampart, near hearth.

12c (unfigured). Piece of rough metal, perhaps copper. Site G iii on surface of hearth.

13. *Pin*. Shaft rounded in section; head formed from a strip of rectangular cross-section, tightly rolled, with two complete turns. Length 6.75 cm./2.65 in. Site '64 A viii.

Apart from the Irish "sunflower" pins and their analogues in Scotland, pins of any kind are not commonly found in Bronze Age hoards from the British Isles. The present type is not easy to parallel from such contexts. However, pins closely similar have come from deposits in caves, as at the Heathery Burn Cave, near Stanhope, in Co. Durham (D. Britton, *Invent. Archaeol.: Great Britain*,

9th Set, London, 1968, GB. 55), and at Merlin's Cave, Symond's Yat, Herefordshire (C. W. Phillips, *Univ. of Bristol, Proc. Spelaeological Soc.* 4 : 1, 1931, 22, plate IVb: no. 8). Both caves have produced, besides other material, metalwork of the Late Bronze Age.

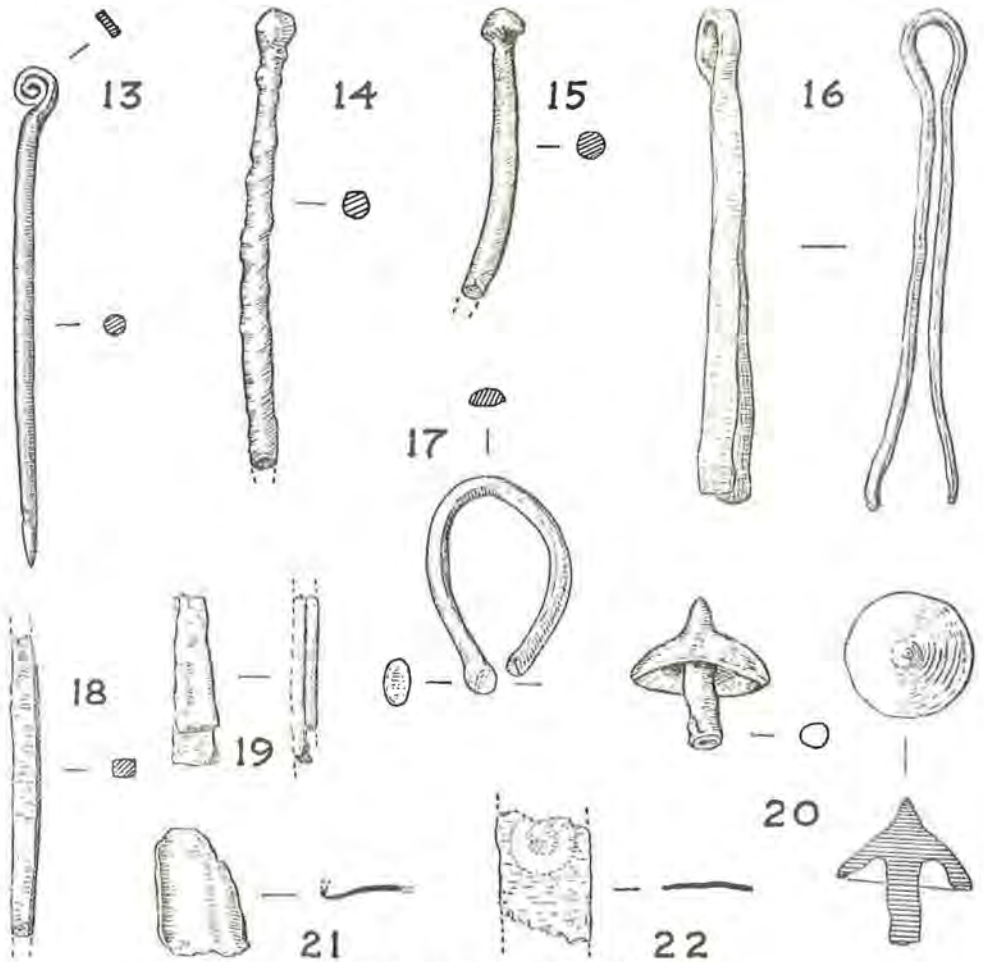


Fig. 11. Bronze objects. (‡)

14. Upper part of *pin*. Shaft rounded in section, slightly bent; head convex above, on expanded upper end of shaft. Surviving length 6.3 cm./2.45 in. Site A xii.

14a (unfigured). Lower part of *pin*. Shaft rounded in section; diminishing to point. Surviving length 4.9 cm./1.9 in. Site B iv-viii balk.

15. Upper part of *pin*. Shaft rounded in section, slightly bent; head convex, tending to conical, above. Surviving length 3.9 cm./1.5 in. Site '64 A viii.

16. *Tweezers*, made from single strip of metal bent to form an open loop at top. Arms widen gradually, and only slightly, towards their tips, which in side

view are splayed outwards and slightly recurved. Length 6.6 cm./2.6 in. Site B iii.

Tweezers are very rare in hoards from the British Isles. A fine pair occurred in that from Llangwyllog, Anglesey, which appear to resemble the complete pair from Ivinghoe Beacon in every respect (A. Way, *Archaeologia Cambrensis*, 3rd series, 12, 1866, 97-111: fig. opp. p. 97—no. II; J. Evans, *The Ancient Bronze Implements, Weapons, and Ornaments, of Great Britain and Ireland*, London, 1881, 191-2). Another pair, similar again, was found in Merlin's Cave, Symond's Yat, Herefordshire (C. W. Phillips, *Univ. of Bristol, Proc. Spelaeological Soc.*, 4 : 1, 1931, 22, plate IVb: 5). Other examples, which in their close similarity to each other and to the present specimen suggest a well-marked type, have been discovered in the excavation of settlement sites, as at Grafton, near Boroughbridge, in the West Riding of Yorkshire (D. M. Waterman, B. W. J. Kent and H. J. Strickland, *Yorks. Archaeological Journ.*, 38, 1952-55, 392-3), and at Staple Howe, in the East Riding (T. C. M. Brewster, *The Excavation of Staple Howe*, Scarborough, 1963, 112-3).

17. Fragment of *penannular armlet*. Outer face of hoop convex in cross-section, inner face flatter; surviving terminal expanded except on inner face of hoop; other end broken off.

This appears to be part of an armlet of the kind studied by Miss Benton in her account of the finds from the Sculptor's Cave in Morayshire (S. Benton, *Proc. Soc. Antiquaries of Scotland*, 65, 1930-31, 182-4). Such armlets, named the Covesea type after her site, have a wide distribution in Britain and Ireland, and are known from versions in gold as well as in bronze (V. B. Proudfoot, *The Downpatrick Gold Find: Archaeological Research Publications (N. Ireland)*, 3, H.M.S.O. Belfast, 1955, 16-20, 34-6; C. F. C. Hawkes, in *Culture and Environment, Essays in Honour of Sir Cyril Fox*, edited by I. Ll. Foster and L. Alcock, London, 1963, 213, 234-6).

The Sculptor's Cave in Morayshire yielded quantities of Late Bronze Age material, as did another cave where armlets of this type have been found, the Heathery Burn Cave, near Stanhope, Co. Durham (W. Greenwell, *Archaeologia*, 54, 1894, 101; in British Museum: WG 1346, WG 1375). The dating suggested by these finds is confirmed from a number of Late Bronze Age hoards which include Covesea armlets, both in Scotland (J. M. Coles, *Proc. Soc. Antiquaries of Scotland*, 93, 1959-60, 39-41, 89-90), and also in England, as in the Minnis Bay hoard, Birchington, Kent (F. H. Worsfold, *Proc. Prehistoric Society*, 9, 1943, 35, plate XII: nos. 39, 41-2).

18. *Bar*, of lozenge cross-section; ends broken. Surviving length 3.9 cm./1.55 in. Site G i.

19. Two adhering fragments of metal, each tapering towards one end. They very probably come from the lower part of a pair of *tweezers*. On the corroded surfaces are what may be traces of fibres, perhaps from cloth or fur. Site E i. (For comment, see 16.)

20. *Stud*. Head conical, drawn out at apex into a short spike, hollow behind, with shank of rounded section flattened off obliquely at its end. Height 2.0 cm./0.8 in. Diameter 1.7 cm./0.7 in. Site B viii.

Studs closely similar occur in the hoard from Isleham, Cambridgeshire (D. Britton, *Antiquity*, 34, 1960, 279-82; in Moyse's Hall Museum, Bury St.

Edmunds).

21. *Fragment* of thin metal, with parts of what may be original edges along the straighter side and at the narrower end. Site G ii.

22. *Fragment* of thin metal, with most of apparently circular impression preserved towards end of one face. Site G iii, occupation behind rampart, near hearth.

23 (unfigured). *Rod*, approximately circular in section, but in fact worked along whole length into narrow facets; one end, which is slightly convex, may be original. Perhaps (unused) rivet or similar. Length 2.95 cm./1.15 in. Site A, hill-fort ditch, layer 19.

## GENERAL COMMENTS

### *Identifications*

Out of the 27 pieces described, it has been possible to suggest identifications for 18 (nos. 1-2, 4-5, 8-9, 12-17, 19-20). Some of these are more or less complete; the others, although fragmentary, appear sufficiently distinctive. For a further eight, an attempt has been made to give some idea of the possibilities (3, 6-7, 10-11, 21-23); in these instances, certainty seems hardly feasible. Only for one item (18), which may in fact be unfinished, has no suggestion been offered.

### *Dating evidence: the background*

For a number of the pieces which can be identified more or less certainly, parallels have been cited. Wherever possible these have been closed finds, namely hoards. Otherwise (and sometimes to give further illustrations) reference has been made to cave deposits and occupation sites. From this evidence there appears no reason to think that any of the pieces are earlier than the Late Bronze Age.

The pattern of development in the Late Bronze Age is rather complex, but its main outlines must be indicated if we wish to attempt a closer dating of this material.

In the south and east of Britain especially, an initial phase has been defined in terms of the Wilburton "complex" or "industry" (H. N. Savory, *Archaeologia Cambrensis*, 107, 1958, 28-34; J. J. Butler, *Palaeohistoria* 9 (*Bronze Age Connections across the North Sea*), 1963, see index: p. 286). This is a tradition of bronze-working that is known particularly from weapons—swords and their chapes, spearheads and spear butts, and it seems to have flourished mainly in the 9th and 8th centuries B.C.

Subsequently the picture becomes more complicated (see, for useful summary, G. Eogan, *Catalogue of Irish Bronze Swords*, Dublin, 1965, 19-22). The Wilburton tradition disappears, and is replaced by new styles of bronze-working that may be regarded as establishing a "mature Late Bronze Age" throughout the British Isles. The transition probably took place during the 8th century B.C., perhaps mainly in its second half. The new traditions probably continued throughout the 7th century, which may well have seen their greatest production. How much later than 600 B.C. they lasted is not easy to determine.

On to this general sequence there impinged a series of influences which had their origins in various parts of continental Europe (valuable discussion, with

many references, by C. F. C. Hawkes and M. A. Smith, *Antiquaries Journal*, 37, 1957, 131-98). For southern Britain, the following are of special importance: the appearance of sheet-bronze vessels (buckets and cauldrons), from the later 8th century B.C. onwards; the "carp's tongue sword complex", perhaps from the later 8th century, but probably in the main during the 7th; and types of Hallstatt C, presumably during the 7th century. With the last we find the earliest evidence here for a knowledge of iron-working.

*Dating evidence: detailed assessment*

It is best to begin with the pieces of which the identity seems fairly clear. None of these can be ascribed with certainty to the Wilburton complex. One of the sword fragments (8) may come from a sword of the Wilburton type, but not necessarily so. However, several items are paralleled in the hoard from Isleham, Cambridgeshire (D. Britton, *Antiquity*, 34, 1960, 279-82; in Moyses's Hall Museum, Bury St. Edmunds). This remarkable find includes the basic types of the Wilburton tradition, but much else besides. Among this additional material there is some which suggests that the whole assemblage was deposited no earlier than the later 8th century B.C. (e.g., parts of a Class A cauldron, and what seems to be a fragment of a carp's tongue sword). For the present purpose its particular interest is that in it are close parallels to the unusual spiked stud (20) and to the domed studs (2, 4), both types otherwise difficult to match precisely from associations in Britain or Ireland. It also has part of a pin which has at least some points of similarity with (15).

Quite a number of the other pieces that can be identified appear to be regular components of the "mature Late Bronze Age" tradition. Here may be placed one at any rate (9) of the fragments of sword blade, the bifid razor (1), the Covesea armlet (17), the plain ring (5), and the ingot metal (12). Here, too, the tweezers (16, 19) can be matched very closely, although much less frequently. For the pin with rolled head (13) no parallels could be cited from hoards. The type does, however, recur in two caves which have yielded, admittedly with other material, finds of the same "mature Late Bronze Age". The assemblage from the Heathery Burn Cave in particular has a number of analogies to the present group. In both are represented, besides the pin with rolled head, the following types: Ewart Park sword, bifid razor, Covesea armlet, plain ring, sheet bronze vessel, and ingot metal (cf. W. Greenwell, *Archaeologia*, 54, 1904, 87-114; D. Britton, *Invent. Archaeol.: Great Britain, 9th Set.*, London, 1968, GB. 55).

When we turn to the pieces of which the type is uncertain, of course much less can be said. The rivet with expanded head (3) may well come from a vessel of sheet bronze, such as are dated from the later 8th century B.C. onwards. The two fragments of thin metal (21, 22) may also be from a bronze vessel. The possible rivet (unused?) (23), and the scraps that may be from a spearhead (11) and an axe (10), could all be matched from the time of the Wilburton industry onwards. But the other fragments that are perhaps from an armlet (7) and a ring (6) seem unlikely to be earlier than the "mature Late Bronze Age". The fragment of unknown type (18) may possibly be compared with certain pieces in the Isleham hoard, but the analogy can hardly be pressed.

*Dating and composition: general remarks*

General comments of any kind would be rather hazardous. The following are offered tentatively:

- (1) For about twelve of the pieces, there are indications of date which point specifically to the period from the later 8th century B.C. onwards.
- (2) So far as the evidence goes (not always very far, it must be admitted), a similar dating seems possible for most at least of the remainder.
- (3) The lower limits of date are harder to determine. The connections with the "mature Late Bronze Age" could well imply in fact dates in the 7th century B.C. How much (if at all) later than 600 B.C. any of this material is seems at present uncertain.
- (4) The collection as a whole does not look a specifically Hallstatt C assemblage. The domed studs (nos. 2, 4) have analogies in such contexts, but

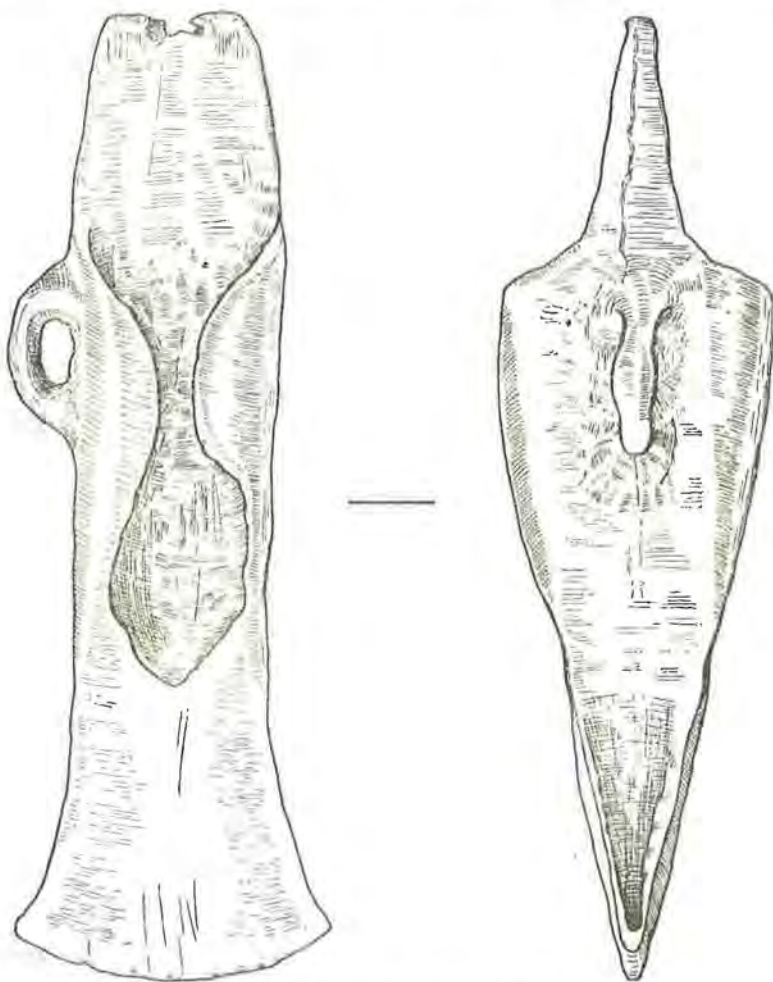


Fig. 12. Bronze Axe from Ivinghoe Beacon, 1929, in Cheltenham Museum ( $\frac{1}{2}$ )



not exclusively so. The fragments of swords and the razor are not the Hallstatt C versions.

- (5) The presence of ingot metal (12-12c) suggests directly the practice of bronze-working. So probably do the small pieces of sword blade (nos. 8, 9). They are not easily explained as purely the result of accidental breakage, and recall the prepared scrap that is well known from the "founders' hoards" of this period.

## APPENDIX

Fig. 12. *Winged axe*. Almost complete: wings medially placed, bent over across faces; loop at side. Blade expands with concave outline at each side to curved cutting-edge. Length 11.5 cm./4.5 in. Width across cutting-edge 3.8 cm./1.5 in.

*Museum*: Cheltenham Library and Museum, Accession no.: G 1929: 52. There is no information about the circumstances of the find. It was acquired in 1929 with the provenance "Ivinghoe Beacon".

This type of winged axe has frequently been found in the south and south-east of England (E. Evans, *Antiquity*, 4, 1930, map on p. 159). Here, as across the Channel in north-west France, the associated finds show a clear connection with the tradition of bronze-work marked by swords of the "carp's tongue" type (J. Briard, *Les Dépôts Bretons et L'Age du Bronze Atlantique*, Rennes, 1965, 199ff., maps on pp. 200, 231, 235). The date of such finds seems to be mainly the later 8th and the 7th century B.C. (cf. also H. Hencken, *Zephyrus VII: 2*, 1956, 125ff.)

Representative contexts for winged axes in the south-east of England can be illustrated by finds such as these: the Forty Acre Brickfield hoard, Worthing, Sussex; the Shoebury hoard, Essex; the Wickham Park hoard, Croydon, Surrey; the Beachy Head find, Sussex (for all these: M. A. Smith, *Inventaria Archaeologica: Great Britain, 6th Set*, London, 1958, GB. 37-40; Beachy Head: also E. Evans, *Antiquity*, 4, 1930, plate I, opp. p. 157; E. C. Curwen, *The Archaeology of Sussex*, 2nd edition, London, 1954, plate XVII); the Cumberlow Green hoard, Hertfordshire (E. Evans, *Antiquity*, 4, 1930, plate IV, between pp. 170 and 171); and the hoard from Addington, Surrey (D. Britton, *Inventaria Archaeologica: Great Britain, 8th Set*, London, 1960, GB. 54).

## OBJECTS OF CHALK AND STONE (Fig. 13).

- 1-3 Chalk weights or spindle-whorls. Nos. 1 and 2 are very roughly trimmed, but No. 3 is carefully shaped and ground smooth. No. 1, Ai; No. 2, A xvi; No. 3, Site E.
- 4 Fragment of whetstone of fine-grained stone. This is probably a stray of comparatively recent date. The method of manufacture seems to have been to saw a block lengthwise for about two-thirds of its thickness and then to snap the strips from their parent block; the process has left a slightly thicker strip on each face near the top edge. Site A viii at base of humus.
- 5 Small fragment of perforated jet; one surface and the rounded edge remain. Site A.

- 6 Imprint of metal cutting-tool on lump of chalk (pl. VIII). Site A. The surface is quite flat, and the blade appears to have been thin, perhaps something like the Belgic axe-blade from Maiden Castle (Fig. 92.8) or the bronze chisel from Scarborough, *Archaeologia*, lxxvii, 181, fig. 3.
- 7 Fragment of sandstone quern. This is probably the rubbing stone from a saddle-quern. Greensand; Site A. Four other small fragments came from Gi, A vii, A xiii, and the pit in A xv.

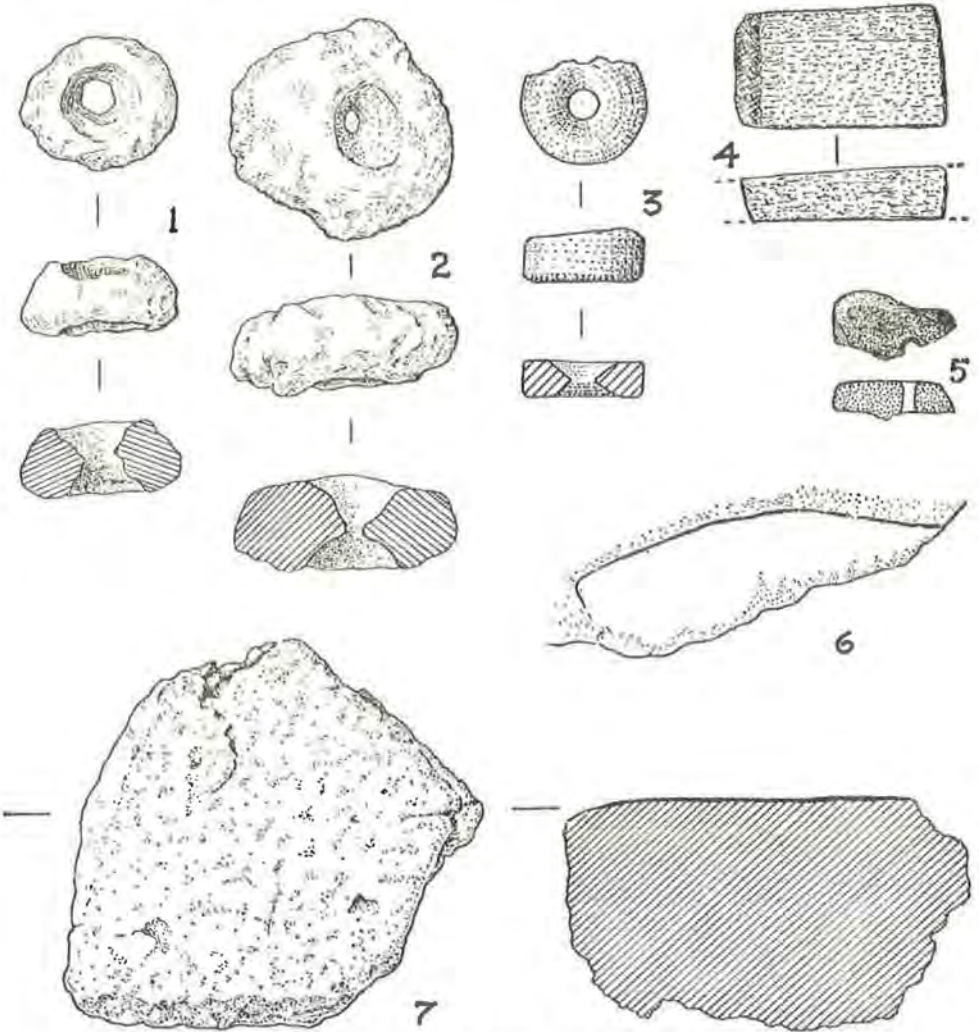


Fig. 13. Objects of Chalk and Stone. (†)

LOOM-WEIGHTS (Fig. 14)

The loom-weights were all of baked clay and of the pyramidal type with a single perforation made from one side by a slightly tapering stick or bone. No examples either of the Bronze Age cylindrical type or of the Iron Age triangular kind with perforations at each corner were found. As the illustrations show,

they vary considerably in size. This type of loom-weight is not as common as the triangular. At Maiden Castle both types occurred, the oblong or pyramidal type being confined to a group of seven associated with chalk weights in an Iron B context. At both All Cannings Cross and Little Woodbury the triangular was the only type of clay loom-weight present. At Staple Howe, however, all the loom-weights were of the Ivinghoe type, and this type occurs at Fengate (Peterborough) and perhaps at Micklemoor Hill (where the only fragment of loom-weight found was not triangular).<sup>1</sup> It seems possible that, like the biconical spindle-whorls, this pyramidal type of loom-weight is characteristic of early settlements in eastern Britain.

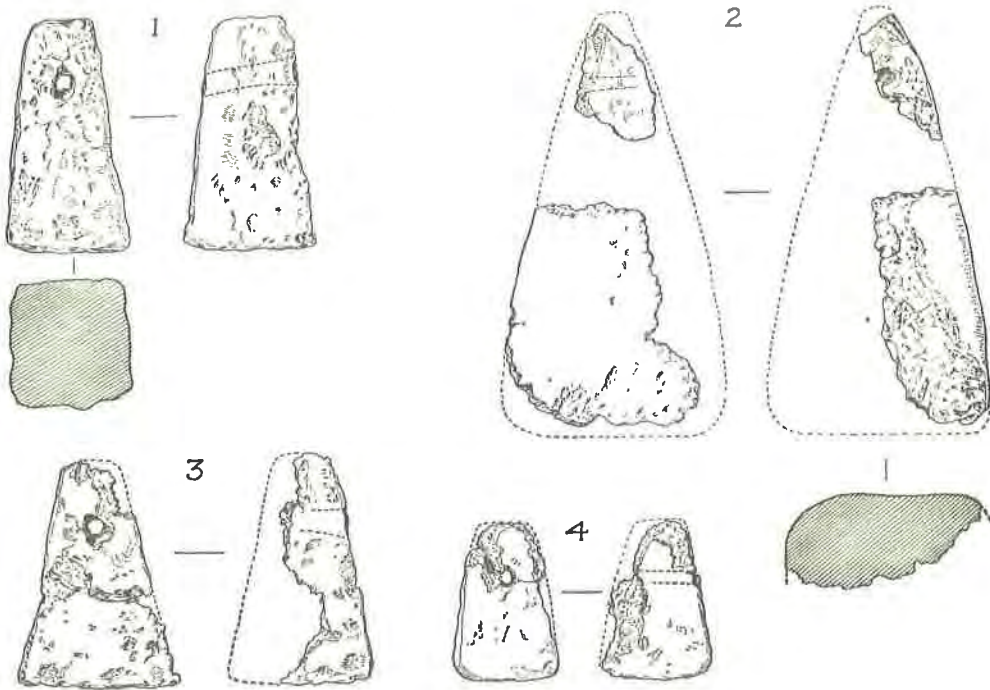


Fig. 14. Loom-weights of baked clay. ( $\frac{1}{2}$ )

- No. 1. Hard well-fired brown clay, burnt black on two adjacent sides; weight 19.75 ounces (560 g.). Pit, Site D i.
2. Sandy brown well-fired clay with a few large flint grits and a sizeable pebble included. Site B xxi.
3. Brown clay like 1, but so ill-fired that it has partly disintegrated: a few large flint grits and a sizeable stone-fragment included. Pit, Site D i.
4. Soft chalking grey core, buff surface; ill-fired and disintegrating. Site A xiii, in N.E. post-hole of "porch".

<sup>1</sup> Staple Howe *op. cit.* (on p.204), 128 and fig. 73; Fengate, *Arch. Journ.* c, 193; Micklemoor Hill, *PPS*, xix (1953), 33.

Two other fragments were found, one on Site A, the other on Site B.

### CLAY SPINDLE-WHORLS (Fig. 15)

Apart from three pierced chalk pieces (p. 213), eight baked clay spindle-whorls were found of the biconical or near-biconical form of Nos. 1-5; No. 6, plano-convex in shape, was the only one of its type. No. 1 bears a decoration of finger-nail impressions; this, No. 3, and one unfigured came from Site B, No. 1 from B viii near the hut. The remainder were scattered over Site A, No. 5 from the large triple post-hole in A ii.

Spindle-whorls are not closely datable objects. Nevertheless, the occurrence here of the biconical form in baked clay is not without its interest. At Maiden Castle the spindle-whorls were mainly of chalk; a biconical clay one came from a Belgic level. At All Cannings Cross, another Wessex type-site, the spindle-whorls were of baked clay, but apart from one biconical example they were flat, bun shaped or cylindrical. At Hunsbury hill-fort, Northants, a settlement of later date than Ivinghoe, there was only one clay example, flat in shape, among many of stone or bone.

The best parallels to those at Ivinghoe come from early sites near the east coast. At Micklemoor Hill, West Harling, 5 baked clay examples of shape similar to ours were found; those from Staple Howe and Scarborough, two sites of comparable date to ours in East Yorkshire, are closely similar, and each of these sites has produced an example decorated with finger-nail or finger-tip impressions. The sole spindle-whorl found at Wandlebury hill-fort near Cambridge was of baked clay and biconical.<sup>2</sup> The type is known also at Plumpton Plain, site B.<sup>3</sup>

### OBJECTS OF BONE (Fig. 15)

7 Amulet made from a small piece of human cranium (pl. VIII): central hole bored from both sides; surfaces highly polished, presumably by suspension cord. There can be no doubt that this amulet is the result of a trepanning operation. There seem to be five approximately straight short facets, four of which show clear evidence of the original V-shaped channel cut in the skull; the sixth and longest side, with traces of irregular fracture on its inner edge and a face parallel with the slope of the V on the opposite side, was probably the result of levering upwards to detach the roundel. Faint traces of a groove along part of this edge show that the expected fracture was controlled by first cutting a guide-line into the hard outer table. De Navarro drew attention to an iron trephining-saw of Middle La Tène date from Bavaria<sup>4</sup>; faint traces of scratches and the wide angle of the V suggest that the present roundel was excavated by more primitive methods. Site A vii.

8-9 Needles, no. 8 from site A viii, no. 9 from G i.

10 Point, from Ditch, site A, layer 19 (fig. 2).

<sup>2</sup> Hunsbury, *Arch. Journ.*, xciii (1936), 74; Wheeler in A. Rowntree, *History of Scarborough* (1931), 25; T. C. M. Brewster, *The Excavation of Staple Howe* (1963), 130-31; Wandlebury, B. R. Hartley, *Proc. Camb. Antiq. Soc.*, 1 (1957), 20, 24.

<sup>3</sup> *PPS* I (1935), 32.

<sup>4</sup> *PPS* XXI (1955), 241-2; on trepanning see also S. Piggott in *PPS* VI (1940), 112 ff.

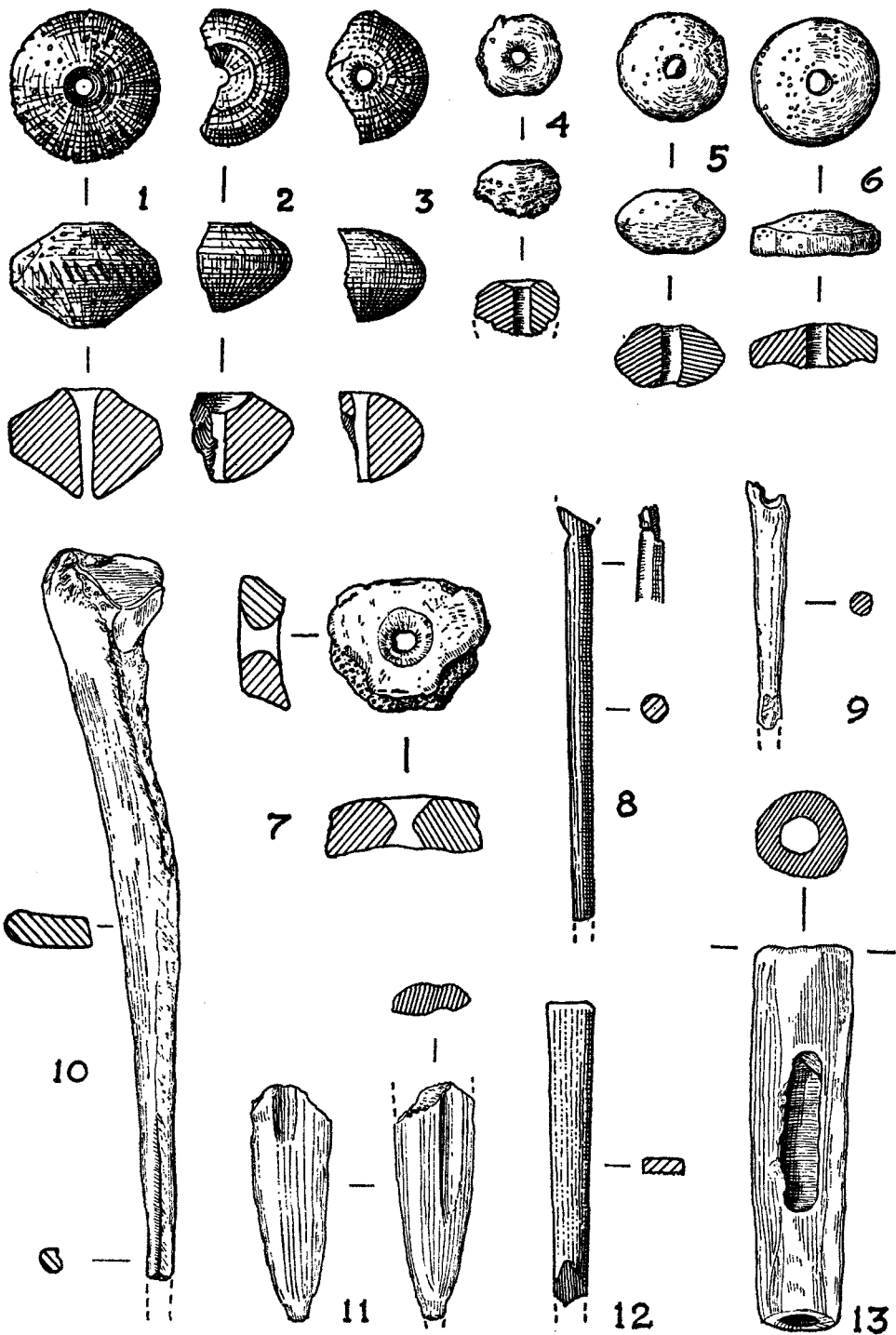


Fig. 15. Spindle-whorls of baked clay and objects of bone. (†)

- 11 Tip of gouge, site A xiv.
- 12 Thin strip of bone polished on three sides, the underside completely unworked and showing cellular core of split bone. This bears some resemblance to a piece of inlay, e.g. for a knife-handle: another possibility, that it is a tooth from a weaving-comb, is unlikely because the top end seems to be intentionally cut. Site A viii.
- 13 Toggle, slightly curved in the other plane. Site A xiii.

# THE POTTERY

HELEN WAUGH

## *Description*

Because of the generally unstratified character of the site it has been thought unnecessary to give detailed findspots for each sherd except when this is significant. The pottery illustrated on Fig. 16 was sealed by the chalk rubble behind the rampart on Site A. The significance of this is discussed on p. 191. The rest of the sherds, with individual exceptions, are assigned only to their sites.

The paste of nearly all the pottery is slightly micaceous. The presence of a normal proportion of mica has therefore not been mentioned in the description of each sherd; only a lower proportion or none has been noted.

Secondly, many of the wares have a very similar tempering of medium and small flint grits; these have been described simply as "gritted", the descriptions giving further details only of particularly high or low proportions or larger grits or other differences. There are no chalk- or shell-gritted wares; all the grits referred to are flint.

## *Figure 16. Group sealed by chalk rubble behind rampart*

1. Hard, very coarse ware, heavily tempered with large, medium and small grits; outer surface very irregular, roughly finger-moulded, dark brown/black; inner surface also rough, with some smoothing, partly abraded, dark grey/black, with similar core.
2. Hard, coarse ware, large, medium and small grits; outer surface very irregular, orange-buff; inner surface smoother, especially just below rim, brown/buff; core grey.
3. Hard ware, rather finer, but with some large grits; oblique, rather blurred incisions on shoulder; outer surface irregular but smooth, matt, dark grey/brown; inner surface also roughly smoothed, brownish-black; similar core.
4. Rather softer ware, gritted; outer surface irregular but smoothed, inner surface similar, both light brown; core grey.
5. Fairly soft ware, gritted; outer surface not very even, but smoothed and polished, black; inner surface matt, brown; core brown.
6. Fairly soft ware, gritted; outer surface irregular but smoothed, light brown; inner surface smoothed, darker greyish-brown; core brown.
7. Hard ware, gritted; outer surface roughly smoothed, matt, black; inner surface roughly smoothed, dark brown; core brown.
8. Moderately soft ware, fine, with few grits; outer surface very well smoothed, almost polished, dull brown; grooves and diagonal lines neatly done; inner surface also carefully smoothed, dull brown, with similar core.
9. Ware similar to no. 8 but with rather more small grits; outer surface smoothed and polished, buff/dull brown; inner surface smoothed, light buff/grey; core grey.

10. Fairly soft ware, fairly fine, sporadic fair-sized grits; outer surface well smoothed, partly eradicating small irregular impressions below rim, buff/grey; inner surface irregular, smoothed, brown; core grey/brown.
11. Very hard ware, sandy, only a few sporadic grits; outer surface irregular and gritty, smoothed to some extent, patchy orange/brown/dark grey; inner surface smoothed more carefully, matt, gritty, brown/black; core black.

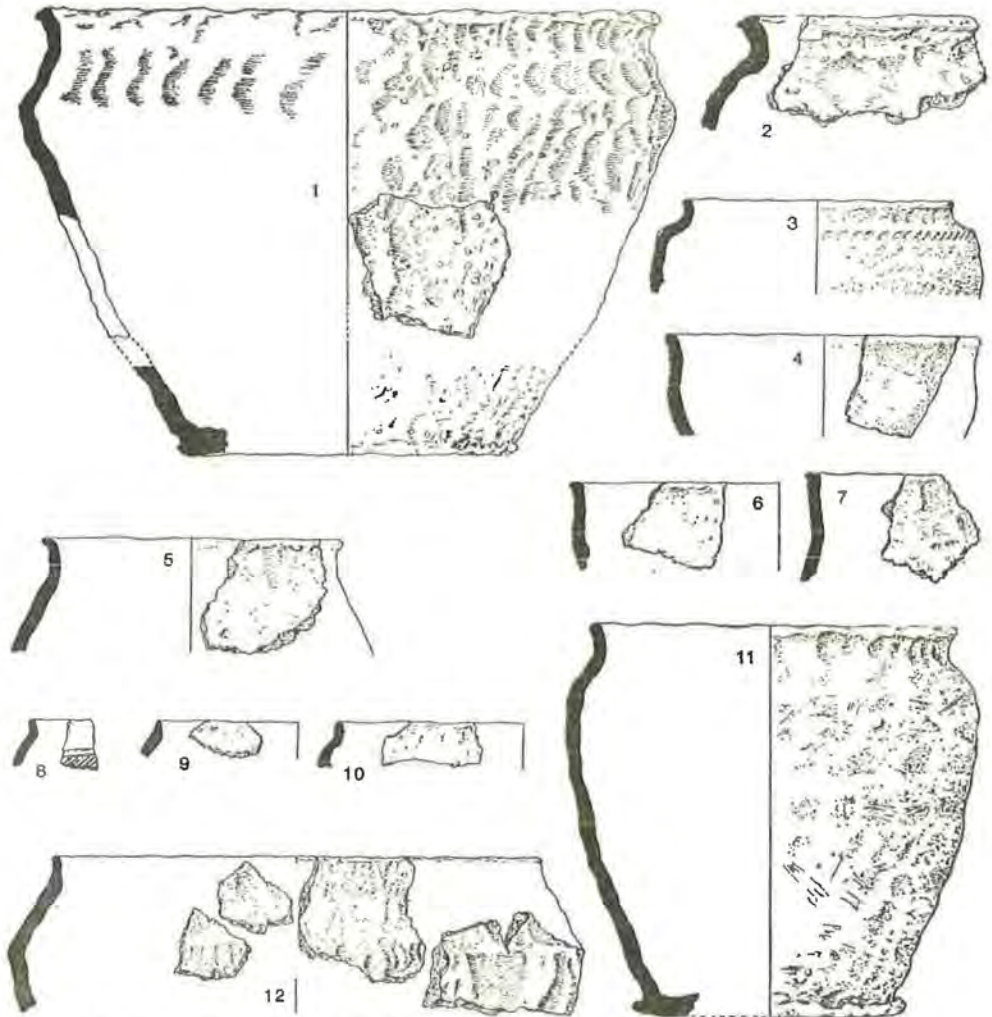


Fig. 16. Pottery from Ivinghoe Beacon: group sealed behind rampart. (4)

12. Hard coarse ware, large, medium and small grits; outer surface irregular, smoothed with fingers, dull brown; inner surface smoothed to some extent, dark brown/black; core black/grey.

*Figure 17. Fine wares*

13. Fairly hard ware, mainly small but some medium grits; surfaces well



- smoothed (now abraded in places), brownish-grey, with similar core Site A ix.
14. Similar, but with patchy buff/grey surface. Site A xiii.
  15. Similar to no. 13. Site A xiii.
  16. Similar, but rather heavier tempering of grits. Site A x.
  17. Similar; a higher proportion of medium grits; closely resembles no. 18. Site A xii.
  18. Hard ware, medium and a few small grits; outer surface smoothed, patchy light and darker brown; inner surface well smoothed below rim, more roughly finished, with vertical striations, below, dull greyish-brown; core grey. Site A xii in post-hole 10 in. deep.
  19. Similar to no. 13; higher proportion of medium grits, inner surface rougher, patchy orange-brown/grey. Site E i, above post-hole.
  20. Fairly hard ware, gritted; surfaces smoothed but matt, with gritty feel, greyish-brown, core orange-brown. Site A xiii.
  21. Similar ware, grits fairly small, surfaces moderately well smoothed; outer surface orange-brown, inner surface and core brown. Site A xi.
  22. Fairly hard ware, grits nearly all small; surfaces smoothed but matt; brown/grey, with similar core. Site B iv, above large post-hole.
  23. Similar to no. 19. Site A x.
  24. Hard, fine ware with smaller proportion of grits, which are mostly small; surfaces neatly smoothed, grey; core grey. Site D i, sooty filling in pit.
  25. Generally similar to no. 13, few grits, one large; surfaces smoothed, brown; core brown. Site A.
  26. As no. 25. Site A.
  27. Similar to no. 22, outer surface well smoothed, inner surface matt, with gritty feel; grey/brown. Site A xii.
  28. Moderately hard ware, gritted; surfaces smoothed, light orange-brown; core grey. Site B viii, north corner post-hole of hut.
  29. Similar ware, plentiful small and some medium grits; surfaces originally smoothed, now abraded in places; reddish-brown/grey; core grey. Site B xviii in double post-hole.
  30. Rather softer ware, gritted; outer surface smoothed, inner surface rather rougher, dull greyish-brown, with similar core. Site A xv, Pit.
  31. Hard ware, only very slightly micaceous, grits mainly small; outer surface smoothed, black, shallow scratches on shoulder, unevenly spaced; inner surface also smoothed but rather rougher, black/brown; core similar. Site A xii.
  32. Hard ware, large and medium grits; outer surface smoothed leaving vertical drag-marks, grey/brown, decoration of irregular lines incised before firing; inner surface roughly smoothed, black; core brownish-grey. Site A, in central post-hole of Structure II.
  33. Similar to no. 22; brown with grey core. Site A xiii.
  34. Hard ware, gritted; surfaces smoothed, matt, with gritty feel, dark greyish-brown; similar core. Site A x.
  35. Moderately soft ware, sparsely gritted; outer surface irregular but smoothed; inner surface rougher, dull greyish-brown; core grey. Site B xi.

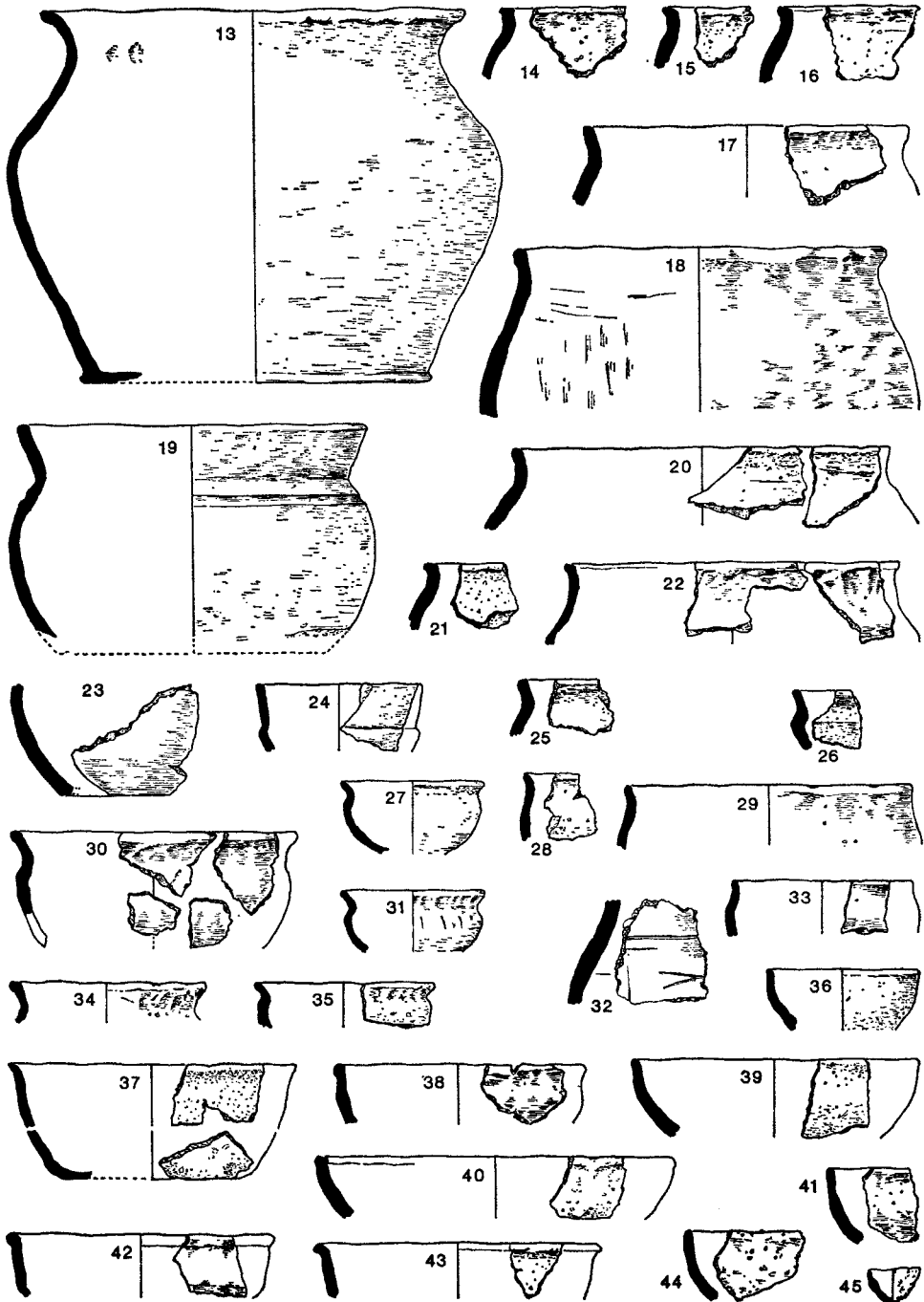


Fig. 17. Pottery from Ivinghoe Beacon. (1)

36. Hard ware, grits not plentiful; surfaces smoothed, matt, greyish brown/grey; similar core. Site E ii.
37. Moderately hard ware, heavy tempering of mainly small grits; surfaces even but rough with grits, especially the outer surface (perhaps abraded); dull orange, with similar core. Site B, with no. 29.
38. Hard ware, gritted, outer surface smoothed, almost polished, inner surface more roughly smoothed, reddish-brown; core brown. Site A.
39. Hard ware, grits mainly small; surface neatly smoothed, matt, greyish-brown, similar core. Site A xvi.
40. Moderately hard ware, gritted; outer surface smoothed, matt; inner surface also smoothed but rougher; greyish-brown with slightly darker core. Site A ix.
41. Similar to no. 28; surfaces smoother, both outer and inner almost polished and dark brownish-grey; core brown. Site A xii.
42. Hard ware, very little mica, gritted; outer surface well smoothed, slightly polished, inner surface also smoothed but rougher; grey/brown, core grey. Site A x.
43. Hard ware, gritted; surfaces smoothed, matt, greyish-brown; similar core Site A ix.
44. Similar to nos. 39 and 41; surfaces smoothed, almost polished; dark brownish-grey, almost black; similar core. Site A xiii.
45. Hard ware, a few sporadic grits; outer surface irregular, inner surface slightly smoother; orange/grey with dark grey core. Site B x.

For other fine wares see Figure 16, nos. 8, 9, 10; Figure 18, nos. 49, 54-58, 82; and Figure 19, nos. 85, 86, 93, 95.

*Figure 18. Handles; fine wares, decorated and plain; coarse wares decorated and plain.*

46. Handle, hard fairly coarse ware, gritted; surfaces smoothed, matt, with gritty feel; dull greyish-brown with similar core. Apparently no tang for attachment; made separately, set against side of vessel and the outer edge luted to it. Gate-way, G ii.
47. Hard fairly coarse ware, heavily tempered with medium and some small grits; outer surface probably largely abraded, now very gritty; inner surface smoothed to some extent, also gritty; dull greyish-brown, with similar core. Method of attachment similar to no. 46. Site B xxi.
48. Moderately soft ware, gritted; outer surface smoothed, matt, brown; inner surface also smoothed but rougher, orange-brown; core grey/brown. Handle a knob with small circular piercing. Site '64, A viii.
49. Hard fairly fine ware, mainly medium grits; outer surface smoothed, two circles deeply impressed, dull orange/grey; inner surface roughly smoothed, with grits left visible, grey; core grey. Site A x.
50. Moderately hard, fairly coarse ware, gritted; outer surface smoothed, dull orange-brown/grey; inner surface roughly smoothed, dark grey; core grey/black. Surviving part of perforation (top of drawing) abraded and irregular. Site A xiii.
51. Hard, fairly coarse ware, gritted; surfaces smoothed, matt, greyish-brown;

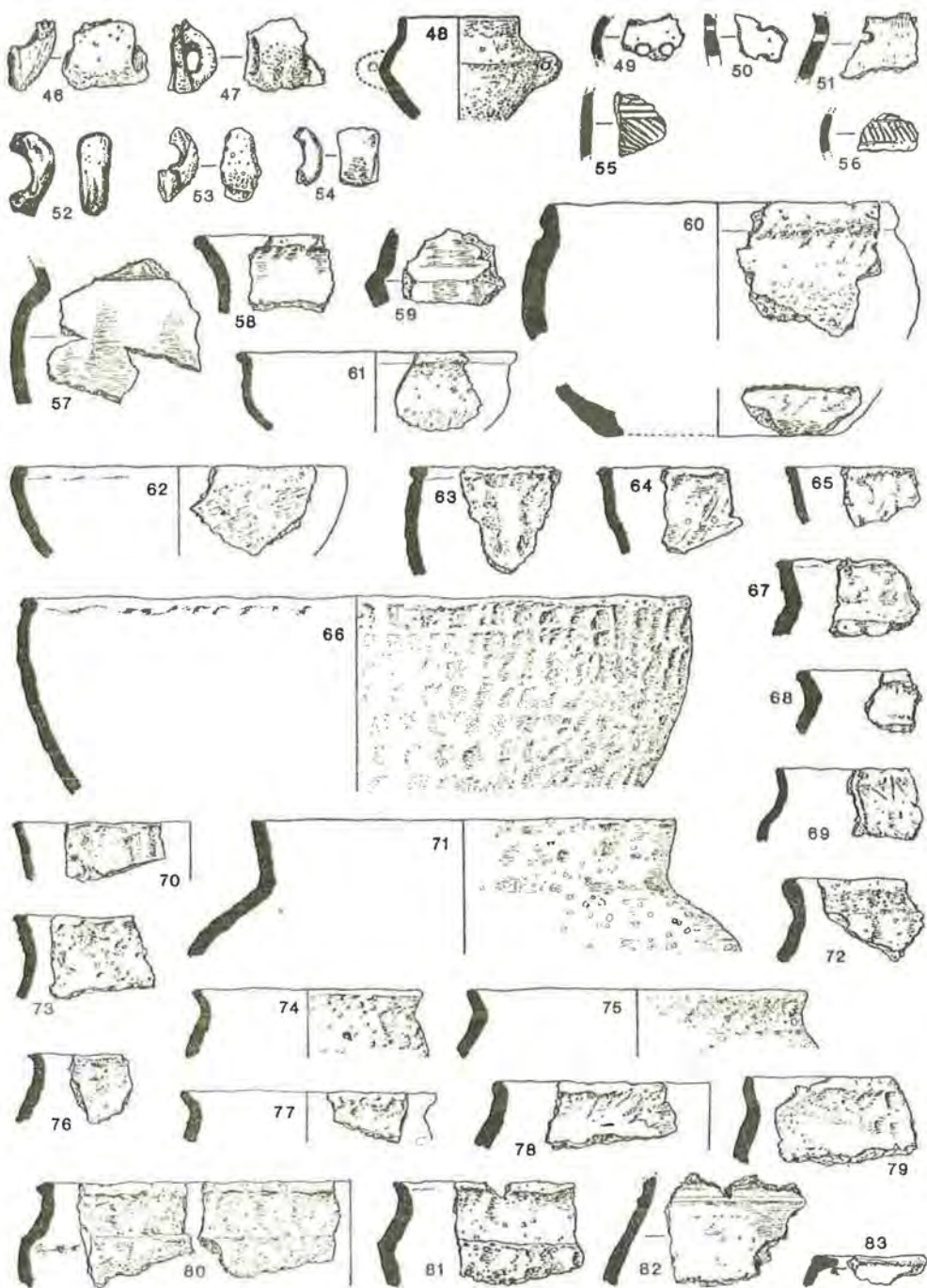


Fig. 18. Pottery from Ivinghoe Beacon. (1/4)

- core grey; neat perforation bored from outside and subsequently much worn. Site A xiii.
52. Hard fairly coarse ware, gritted. Site B.
  53. Hard ware, heavy tempering of fairly large grits; outer surface perhaps abraded, very rough; inner surface smoother; orange-brown, with similar core. The lower part is a tang formerly inserted through pot-wall. Site B xvii.
  54. Soft fairly fine ware, no mica, gritted; surfaces smoothed, light orange-buff; similar core. Site E ii.
  55. Hard, fine ware, sandy, without grits; outer surface smoothed, dark brown, grooves and lines firmly impressed before firing; inner surface smoothed but with gritty feel, brown, with brown core. Site A xii.
  56. Hard ware, fairly fine, gritted; outer surface abraded, oblique hatching impressed before firing, probably firmly originally, now a little blurred, dull orange; inner surface smoothed but grits visible, gritty feel, grey/orange; core similar. Site A i.
  57. Moderately hard, fairly fine ware, a very few sporadic medium grits; outer surface abraded but traces of original careful smoothing remain, dark brown; inner surface well smoothed but some tool-marks visible, dark brown; similar core. Site D, sooty fill of pit.
  58. Moderately hard ware, fairly fine, gritted; outer surface well smoothed, inner surface also smoothed but with gritty feel, both dull greyish-brown; similar core. Site A.
  59. Hard ware, gritted; outer surface neatly smoothed, almost polished, light brown; inner surface rougher, gritty, grey/brown; similar core. Site A xii.
  60. Soft friable ware, some large as well as medium and small grits; outer surface abraded, buff/dull brown, smoother surface surviving near base; inner surface smoothed immediately below rim, rougher below, grey/brown; core grey/buff. Site A xiv, trapezoid feature.
  61. Moderately hard ware, gritted; outer surface smoothed but grits visible (perhaps abraded), dull orange/grey; inner surface smoother, dull orange; core orange/grey. Site A x.
  62. Rather softer ware, very little mica, gritted; outer surface abraded, appears to have been smoothed neatly, light orange/grey; inner surface roughly smoothed, grey; core buff/grey. Site A xiv, with 60.
  63. Moderately hard ware, very little mica, slightly sandy, unevenly distributed medium and small grits; outer surface finger-moulded, cf. no. 66, brown/orange; inner surface a little smoother but with a gritty feel, brown/dark grey; core brown. Site A x, west side of semi-circular building.
  64. Hard ware, medium and some fair-sized grits; outer surface roughly smoothed, brush-marks visible, dull brown; inner surface smoothed to some extent, rough with the flint tempering, orange-brown; core brownish-grey. Gate-way, G ii.
  65. Moderately hard ware, gritted, with a few large grits; outer surface roughly smoothed, brush-marks visible, dull brown; inner surface roughly smoothed, brown/grey; core brown. Gate-way, G ii.

66. Hard ware, fairly large and some smaller grits; outer surface with shallow finger-moulded rustication, patchy orange-brown; inner surface roughly smoothed, gritty feel, brown; core dark/light brown; cf. no. 63. Site A, large sherd from chalk rubble behind rampart, A iv; small fitting sherd from A vii.
67. Hard ware, gritted, with some large grits; surfaces roughly smoothed, horizontal brush-marks visible, buff/dark grey; possibly finger impression on rim, but only small part of rim survives; core dark grey. Site D i.
68. Moderately hard ware, very little mica, large, medium and small grits; surfaces roughly smoothed, matt, gritty feel, dull orange-brown; core brown. Site A xii.
69. Hard ware, gritted; surfaces roughly smoothed, with irregular brush-marks faintly visible; the outer light brown/grey, the inner orange; core brown. Site C, site of rampart.
70. Hard ware, very little mica, gritted; surfaces smoothed to some extent, the outer abraded, brown; core grey/brown. Site A xiv.
71. Hard ware, plentiful fairly large grits; surfaces roughly smoothed, grey/patchy orange; core grey. Site A xv, Pit.
72. Hard ware, plentiful medium and some small grits; surfaces perhaps abraded, harsh and gritty; the outer dull orange, the inner surface and core dark grey. Site E i.
73. Hard ware, plentiful grits, mainly fairly large; surfaces rough, the inner smoothed to some extent immediately below the rim, the outer buff/grey, the inner dark grey; core buff/grey. Site A xiii.
74. Moderately hard ware, sporadic medium grits; surfaces roughly smoothed, dull greyish-brown; core dark grey. Site A vii; chalk rubble behind rampart.
75. Moderately hard ware, very little mica, small grits; surfaces smoothed, matt, the outer dull orange, the inner brown/grey; core grey. Site A xii.
76. Hard ware, gritted; outer surface roughly smoothed, gritty feel, dull orange-brown; inner surface rougher, grey-brown, core darker brownish-grey. Site A xiii.
77. Fairly soft ware, gritted; surfaces smoothed to some extent, the outer perhaps rather abraded; buff/brownish grey, with similar core. Site A xii.
78. Hard ware, gritted, with some large grits; surfaces roughly smoothed, rim abraded; buff/brown/grey; core brown. Site A xii.
79. Hard ware, plentiful grits, large, medium and small; outer surface quite well smoothed, reddish-brown; inner surface rougher, with gritty feel, greyish-brown; core grey/brown. Site B xxi.
80. Hard ware, heavily gritted; surfaces only slightly smoothed, very gritty feel, light brown/grey; core dull brown. Site A v, A vi.
81. Hard ware, very little mica, gritted; surfaces very roughly smoothed, dull buff/orange; core dull brown. Site A iii.
82. Hard, fairly fine ware, gritted; outer surface well smoothed, almost polished, neat cordon, dark grey-brown; inner surface smoothed, matt with gritty feel; brown with similar core. This sherd gives the impression of being wheel-turned; but the horizontal lines inside are parallel neither to

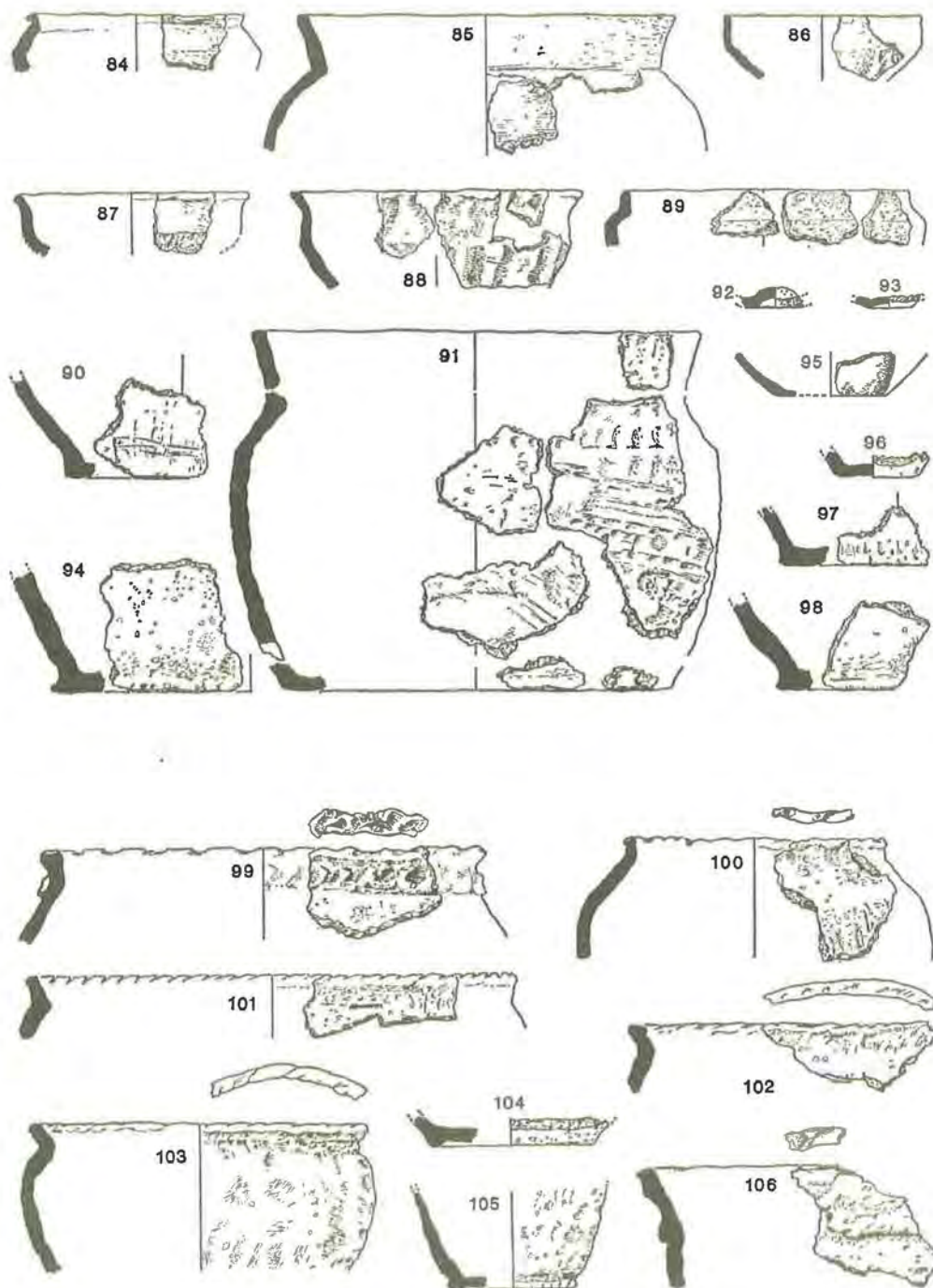


Fig. 19. Pottery from Ivinghoe Beacon. (1/4)

themselves nor to the plane, and are probably caused by the careful turning of the pot during polishing; see p. 233. Site A, surface of chalk rubble behind rampart.

83. Hard ware, sandy, no grits (but sherd very small); outer surface and top of rim smoothed, inner surface rougher; surfaces orange-brown, core brown. Site A xii.

*Figure 19. Plain fine and coarse wares; bases; decorated coarse wares.*

84. Hard ware, gritted; outer surface smoothed, matt, light brown; inner surface grey-brown, roughly smoothed; core brown. Site A vii, chalk rubble behind rampart.
85. Fairly hard, fairly fine ware, gritted; abraded, but surviving surfaces neatly smoothed, dull orange/grey; core dark grey. Site E i above post-hole.
86. Fairly hard ware, fine, grits sparse, mainly small but some medium; outer surface abraded, appears to have been carefully smoothed originally; inner surface well smoothed, buff/brown; core grey. Site A vii.
87. Fairly hard ware, gritted; surfaces smoothed, the outer partly worn away, brown/orange; core dark brown. Site A vii, chalk rubble behind rampart.
88. Fairly hard ware, gritted; surfaces irregular but smoothed to some extent, dark grey; similar core. Site '63 A viii.
89. Hard ware, very little mica, plentiful grits; surfaces well smoothed, the outer now rougher, greyish-brown; similar core. Site A vii.
90. Hard ware, gritted; outer surface smoothed, orange/grey; inner surface rougher, greyish-brown; core grey/brown. Site A xii in square post-hole within Structure iii with 102, 103 and 125.
91. Hard ware, large, medium and small grits; outer surface rough with striations and tool-marks, faint traces of finger-moulding above shoulder and here and there on the body, both surfaces buff/grey; core grey. Site A xv, Pit.
92. Hard ware, gritted; surfaces smoothed, the outer surface rather more gritty; greyish-brown with similar core. Site A iv.
93. Hard, fairly fine ware, grits small; outer surface smoothed, matt, dark grey; inner surface rather rougher, greyish-brown; similar core. Site A xii.
94. Hard ware, large, medium and small grits; outer surface rough, dull orange; inner surface smoothed to some extent, grey-brown, core grey/brown. Site B xxi.
95. Fairly hard ware, fine, grits small; outer surface well-smoothed, almost polished, brown; inner surface smoothed, matt, dark greyish-brown; similar core. Site A vii, chalk rubble behind rampart.
96. Rather softer ware, gritted; outer surface rough, dull orange/grey; inner surface brown, core grey/brown. Site A.
97. Hard ware, gritted; outer surface smoothed, brownish-grey; inner surface also smoothed, reddish-brown; core dark grey. Site A xiii.
98. Rather softer ware, gritted, outer surface smoothed, dull orange; inner surface black, core brown. Diameter 22 cm. In chalk rubble of rampart north of gate-way, G iii.
99. Hard ware, gritted, with some fairly large grits; oblique finger-tip impressions on rim and applied band at neck, surface roughly smoothed



below, with gritty feel, dull orange/buff; inner surface roughly smoothed but gritty, brown, with brown core. Site A iii.

100. Hard ware, gritted; probably finger-tip cabling on rim, but little survives, outer surface smoothed, matt, with gritty feel, orange/brown; inner surface similarly smoothed, black/brown; core dark brown. Site A v.
101. Hard ware, gritted; diagonal incisions on rim deep and well-marked; outer surface rough, buff/brown; inner surface greyish-brown, to some extent smoothed; core greyish-brown. Site A iii.
102. Fairly soft ware, gritted; rim worn, but traces of shallow cabling, outer surface roughly smoothed, light orange/grey; inner surface worn, now dark grey, with dark grey core. Site A xii, in post-hole with 90, 102, 125.
103. Ware similar to no. 102; rim worn, cabling very slight; outer surface abraded but fairly smooth, orange-buff; inner surface roughly smoothed, partly worn away; core dark grey. Site A, with nos. 90, 102 and 125.
104. Well-moulded foot-ring; moderately hard ware, gritted; outer surface smoothed to some extent, but little survives, grey/dull orange; inner surface gritty, brown; core brown. Site B, baulk between xi and xii.
105. Carefully moulded base-angle; moderately hard ware, gritty; outer surface irregular but smoothed, buff/grey; inner surface more neatly smoothed, brown; core grey/brown. Site A ix.
106. Moderately hard ware, gritted; slight cabling on rim (little survives); applied band at neck, rough and apparently without decoration; outer surface roughly smoothed below the band, buff; inner surface smoother, with horizontal tool-marks visible, brown; core greyish-brown. Site A xv.

*Figure 20. Decorated coarse wares*

107. Hard ware, with large, medium and small grits; oblique incisions on rim; outer surface rough, with slight oblique striations; inner surface a little smoother, both greyish-brown; core dark grey. Site E ii.
108. Hard ware, with fairly large, medium and small grits; well-marked finger-nail decoration on outer edge of rim and on shoulder; outer surface rough, with oblique finger-moulding later partly smoothed out, dark grey; inner surface smoothed but matt, dark grey, with brown/black core. Site A; north-west corner post of Structure ii, with 124 and 127.
109. Hard, less coarse ware, gritted; small neat vertical nicks on outer edge of rim; outer surface smoothed, matt, with gritty feel, brown; inner surface smoothed, black; core black/brown. Site A v and vi.
110. Rather softer ware, very little mica, sparse fairly small grits; deeply impressed, oblique lines on the rim, irregularly spaced; outer surface roughly smoothed, dull orange-buff; inner surface roughly smoothed, gritty, brown; core grey. Site B xix, beneath chalk floor.
111. Hard ware, gritted; sherd too small to indicate treatment of surface: applied band has been smoothed onto the vessel and has finger-nail decoration; outer surface orange-brown; inner surface rough and gritty, brown; core grey. Site A x.
112. Moderately hard ware, very little mica, gritted; finger-tip impressions on shoulder; outer surface roughly smoothed, brown; inner surface irregular but smoothed to some extent, orange-brown; core grey. Site B x.



Fig. 20. Pottery from Ivinghoe Beacon. ( $\frac{1}{4}$ )

113. Hard, less coarse ware, gritted; small shallow finger-nail impressions on shoulder; outer surface smooth, matt, with gritty feel, brown; inner surface more roughly smoothed, darker brown; core grey. Site A x.
114. Hard ware, little mica, gritted; irregular oblique impressions on rim; outer surface roughly smoothed, orange-brown; inner surface roughly smoothed but with grits protruding, buff; core grey. Site '64 A viii.
115. Hard, very coarse ware, large, medium and small grits; deeply impressed stab-marks on upper curve of shoulder; outer surface rough, greyish-brown; inner surface similar, dark grey/brown; core grey. Site D, upper fill of pit.
116. Hard ware, very little mica, gritted; applied band, neatly luted, with sharp incised diagonal stab-marks; outer surface roughly smoothed, with gritty feel, orange-brown; inner surface smoother, dark brown; core black. Site E i.
117. Hard ware, large, medium and small grits; fairly deep slightly oblique stab-marks on shoulder; outer surface rough (probably abraded), grey/orange; inner surface roughly smoothed, brown; core greyish-brown. Site A ix.
118. Hard ware, heavy tempering of large, medium and small grits; small finger-tip impressions on body appear to be haphazard, also slightly curved incised lines (but the two sherds are quite small); surface rough, grey-brown; inner surface smoother, gritty, brown; core dark grey. Site A ix.
119. Hard, very coarse ware, plentiful large, medium and small grits; rim relatively smooth, cabling not very marked; outer surface abraded, rough, grey/light brown; inner surface smoothed, the grits virtually obscured, greyish-brown; core black/brown. Site E i.
120. Rather softer ware, sparse medium and small grits; the ends of stab-marks visible at break; surfaces worn and abraded, but smoothed, the outer grey/orange, the inner grey/buff; core grey. Site B xvii.
121. Hard ware, rather more mica, sandy, medium grits; well-marked cabling on rim; outer surface gritty, grey; inner surface smoother, orange-brown, core brown. Site A ix.
122. Hard ware, gritted; trace of slight unemphatic cabling on rim (but little survives); outer surface smoothed, matt, dark grey; inner surface smoothed but rougher, lighter grey; core grey. Site D i.
123. Hard ware, fairly large and medium grits; cabling on rim; outer surface irregular, grey/buff; inner surface smoothed to some extent, but grits protrude, greyish-brown, with similar core. Site B xi.
124. Hard, very coarse ware, heavily tempered with mainly fair-sized grits; deeply impressed cabling on rim; outer surface rough, grey; inner surface a little smoother but very gritty, dull orange; core grey/brown. Site A, with nos. 108 and 127.
125. Hard ware, gritted; oblique incisions on rim mainly shallow and indistinct, well-marked finger-tip impressions on shoulder, irregular but mostly set close together; outer surface roughly smoothed, with shallow brush-marks visible, orange-brown; inner surface smoothed roughly, brown/black; core brown/grey. Site A xii, with 90, 102, 103.

126. Hard ware, gritted; uneven impressions (not finger-nail or tip) on shoulder, orange-brown; inner surface roughly smoothed but very gritty, dark grey; similar core. Site A iii.
127. Hard, very coarse ware, with heavy tempering of large, medium and small grits; applied band below rim with shallow finger-tip impressions, but outer surface worn and abraded, very rough with grits, light brown; inner surface quite well smoothed, brown; core brown. Site A, with no. 108.
128. Hard ware, large, medium and small grits; incisions on rim deep, unevenly spaced; outer surface smoothed, orange-brown; inner surface also smoothed but with gritty feel, grey/buff; core greyish-brown. Site A.
129. Rather softer ware, relatively fine, grits not numerous, and small; small shallow impressions on top of rim; outer surface irregular but smoothed to some extent, brown/orange; inner surface smoothed, matt, brown/orange; core brown. Site A vii, in chalk rubble behind rampart.
130. Moderately hard, very coarse ware, large, medium and small grits; fairly deep oblique incisions made by bristles of smoothing-tool; outer surface orange-buff; inner surface smoothed, brown; core brown. Site A xii.
131. Moderately hard ware, gritted; fairly deep, haphazard finger-tip impressions on body; outer surface smoothed at neck and rim, orange-brown/grey; inner surface neatly smoothed but with gritty feel, orange-brown/grey; core grey. Site A xiii.
132. Hard ware, mainly medium and large grits; irregular incisions on inner edge of rim, which is abraded; outer surface rough and gritty, grey; inner surface rough, dull brown; core grey. Site A xiv.
133. Hard ware, large, medium and small grits; deep incisions, one transverse, two oblique, on rim; outer surface quite well smoothed, light orange; inner surface smoothed but gritty, orange/grey; core brown. Site A xii.
134. Hard ware, gritted; one finger-tip impression on applied band; outer surface gritty, probably abraded, orange/buff; inner surface smoothed to some extent but also gritty, greyish-brown; core similar. Site A iv.
135. Hard ware, gritted; narrow raised band with rough irregular (?finger-nail) impressions; outer surface smoothed to some extent (but very little survives), buff; inner surface also smoothed but gritty, brownish-grey; core dark grey. Site A xiii.
136. Hard ware, gritted; deep finger-tip impression, presumably on shoulder; outer surface rough, brownish-grey; inner surface smoothed but with gritty feel, black; core black/dark grey. Gate-way, G ii.
137. Ware similar to no. 135; similar raised band with finger-nail impression; outer surface slightly rougher; colour of surfaces and core similar. Site A xiii.
138. Hard ware, gritted; narrow applied band, resembling those on nos. 135 and 137, with deep finger-nail impressions; outer surface roughly smoothed, gritty, light brown; inner surface smoother, brown; core dark grey. Site A iii.
139. Hard ware with heavy tempering of fairly large, medium and small grits; comparatively broad applied band with firmly impressed finger-tip decora-

tion; outer surface rough, gritty, orange/brown; inner surface very gritty, greyish-brown; core buff/grey. Gate-way, G viii.

140. Hard ware, gritted; applied band well smoothed in to sides of pot, oblique irregular stab-marks along it; outer surface irregular but smoothed to some extent, dark grey; inner surface smoothed but gritty, greyish-brown; core grey/brown. Gate-way, G iii.

141. Hard ware, large, medium and small grits; narrow raised band, edges well smoothed in, with oblique stab-marks (?finger-nail); outer surface greyish-brown; inner surface smoothed, gritty, orange-brown; core greyish-brown. Gate-way, G ii.

142. Moderately hard ware, medium grits; cord impressions on top of rim, rather abraded and indistinct; small surviving part of outer surface roughly smoothed, orange-brown; inner surface orange; core orange/grey. Gate-way, G i.

#### *Discussion* (by S.S.F.)

The whole of this pottery, though for the most part formally unstratified, seems to form a homogeneous group with the possible exception of no. 82. This sherd, with its well-formed cordon and its near-horizontal lines inside, might well be taken at first glance as Belgic, and, since it lay at the base of the humus on the chalk rubble behind the rampart, there is nothing in the stratification to make this unlikely. In fact, however, I do not believe it is wheel-made. The cordoned form can be paralleled in an earlier context at All Cannings Cross in a haematite-coated jar (pl. 30, 3).

The remaining pottery presents characteristics which place it in an early phase of the Iron A culture, the precise dating of which has already been discussed (p. 201). It consists of fine wares and coarse wares; both classes are illustrated by plain and decorated vessels. Among the decorated coarse wares (Figs. 19, 20) the frequent occurrence of finger-printing both on shoulder and on rim is noteworthy, as also is the number of vessels with raised ribs on the neck or shoulder. There are two vessels (nos. 118, 131) with random finger-printing over the body, and several with finger-moulded overall rustication of the surface. All these are early traits, and with the exception of the last can be paralleled at Micklemoor Hill, West Harling,<sup>1</sup> or Calke Wood, Wattisfield.<sup>2</sup> The overall treatment of the surface seems best explained as a native feature inherited from Bronze Age pottery whether here or on the Continent: it appears for instance on the Class B pottery from Plumpton Plain,<sup>3</sup> Sussex, and on a sherd from Minnis Bay.<sup>4</sup>

Shouldered-jar forms are common, and occur both in rounded and angular profile; in most cases there is a tendency for the neck to be straight and upright; the vessels themselves are usually wide rather than tall. This seems to be characteristic rather of East Anglian and Lower Thames Valley than of Wessex pottery.<sup>5</sup> The external basal angle is often emphasised by a flattening with the fingers which leaves a protruding frill; in two vessels (104, 105) careful moulding of this angle has resulted in a footring.

In fine ware there are two omphalos bases (92, 93) belonging to small bowls

<sup>1</sup> PPS XIX (1953), 1-40.

<sup>2</sup> *Proc. Suffolk Inst. of Arch.* XXVIII (1958), 1-28.

<sup>3</sup> PPS I (1935), 48-9.

<sup>4</sup> PPS IX (1943), 38, Fig. 8, 7.

<sup>5</sup> K. M. Kenyon, *London Inst. of Arch. Eighth Annual Report* (1952), 44.

copying metallic prototypes such as the Welby bronze cup,<sup>6</sup> but there are no traces of furrowed shoulders. The upper parts of such cups are likely to have resembled no. 24, a type of carinated bowl (with narrow shoulder and upright lip) which is at home in the Upper Thames region.<sup>7</sup> No. 23 had a base of perhaps similar type: unfortunately, too little survives to be sure; it belongs to a vessel like no. 19.

There is very little decorated fine ware. Nos. 8, 55 and 56 have oblique and horizontal lines incised before firing; no. 49 bears rings impressed perhaps with a bone-end. This motif, too, belongs to the Oxford and Wessex regions.<sup>8</sup> No. 142 with cord-ornament is a stray from the earlier part of the Bronze Age.

It is noteworthy that in all this large group of fine ware there is no trace of haematite-coating which is characteristic of the earliest pottery of Wessex. As will be seen shortly, there is an example of this decoration in the rather later Iron A pottery from Pitstone (p. 242, no. 68). Its absence at Ivinghoe Beacon is all the more striking, and supports an origin for the Ivinghoe settlers in the east or south-east parts of Britain.

By the time that the neighbouring settlement at Pitstone had developed, not only had the practice of haematite-coating become known (no. 68) doubtless by contact ultimately with Wessex, but there are also sherds in polished dark grey wares (with incised decoration inside and out) which are obviously akin to the glossy black-slipped wares of Chinnor, some 14 miles south-west. At Chinnor the vessels owed their surface and colour to the application of a slip rich in iron<sup>9</sup>; the Pitstone vessels do not appear to be slipped, the effect being achieved by careful manufacture and polishing only. Also among the fine wares are sherds from carinated bowls (nos. 16, 45, 55) of the broad-shouldered type sometimes bearing furrows, but furrows of the narrow kind typical of Wessex derivatives in the Oxford region which are usually considered to be Second A. No. 34 seems to be a neck-cordon recalling the Wessex Second A cordoned bowls or that from Fengate.<sup>10</sup>

The coarse vessels are for the most part plain: finger-printed shoulders are rare (nos. 22, 26, 29, 80) and so are rims treated in this way (nos. 4, 15, 27, 64, 85). The jars lack the high emphatic shoulders of the Ivinghoe vessels; they are either wide-mouthed with weak shoulders and flaring lips or else of biconical type (nos. 2, 4, 18, 21, 77). Often the lips are so much flattened that they expand (nos. 2, 18-20, 30, 37, 77); the bases, on the other hand, lack the splayed flattening of the edge which was noted at Ivinghoe. The fabric of the coarse ware is hard and sandy with a smoothed unbroken surface for the most part unpierced by grits, and totally unlike the porridgy surface of the Ivinghoe coarse ware. Many of these characteristics can be paralleled in the later Iron A sites of the Oxford region, such as Mount Farm, Dorchester or Frilford.<sup>11</sup>

<sup>6</sup> *Arch. Journ.*, CV (1948), 35, pl. vi.

<sup>7</sup> cf. examples from Allen's Pit, Dorchester (*Oxoniensia*, vii (1942), 45); Long Wittenham (*ibid.*, ii (1937), 5); Mount Farm, Dorchester (*ibid.*; 33); and Chinnor, *Antiq. Journ.*, XXXI (1951), 142.

<sup>8</sup> e.g. Mount Farm, Dorchester, *op. cit.* note 7 above, 31; Allen's Pit, Dorchester *op. cit.*, 46; *All Cannings Cross*, pl. 32, 6 etc.; Chinnor *op. cit.*, 143; Blewburton Hill, *Berks. Arch. Journ.*, xlvi (1942), 97.

<sup>9</sup> See the report on some Chinnor sherds by Dr. A. B. Searle, *Antiq. Journ.*, XXXI (1951), 147-8.

<sup>10</sup> *Arch. Journ.*, c, 207, fig. 6, Q 2.

<sup>11</sup> *Oxoniensia*, ii and iv.

# POTTERY FROM PITSTONE HILL

HELEN WAUGH

The site lies on the lower slope of the Chilterns facing north-west in the area between the rivers Bulbourne and Gade, only a little below the 500 foot contour line and less than two miles south-west of Ivinghoe Beacon, at approximately SP 946146. When first found by the Manshead Society of Dunstable it was near the existing edge of the chalk quarry of the Tunnel Portland Cement Co. Ltd; the Society's excavation there in 1962 revealed a number of typical Iron Age storage pits, cut into the chalk, and a few other small isolated features such as hearths. Subsequently, the pottery published here was excavated from four further pits by Mr. D. A. Levy. Various earthworks lie higher up the hill, to the east of the site, some being visible from it.<sup>1</sup>



Fig. 21. Pottery from Pitstone Hill, Pit 13. ( $\frac{1}{4}$ )

## PIT 13 (Fig. 21)

1. Hard ware, medium and small flint grits; outer surface orange-brown, rough, scoring irregular and lightly incised, inner surface greyish-brown, core black.
2. Hard ware, small flint grits; surfaces greyish-brown, roughly smoothed, core brown.
3. Hard ware, large and small flint grits; surfaces roughly smoothed, the outer light brown, the inner brownish-grey; core black.
4. Hard ware, medium to small flint grits; surfaces fairly rough, faint vertical striations on the outside from smoothing of surface; brownish-black, core black.

<sup>1</sup> *Rec. Bucks.*, XVII, 1961. James F. Dyer and Anthony J. Hales, "Pitstone Hill—A Study in Field Archaeology", 49 ff.; see in particular Fig. 2.

Plt 17 (Fig. 22)

5. Ware moderately hard, flint grits mainly small; outer surface irregularly smoothed and polished, black; inner surface roughly finger-moulded, grey; core grey/brown.
6. Two sherds, fine ware, slightly micaceous, fairly hard; surfaces smoothed and polished, black, decoration incised after firing; core black.
7. Fairly hard ware, moderately fine, very slightly micaceous; surfaces smoothed, the outer slightly polished, orange-brown, the inner grey; core grey.
8. Ware moderately hard and fine, slightly micaceous, a few small flint grits; surfaces smoothed, the outer polished, black; core black.
9. Ware rather softer, fine, very slightly micaceous; surfaces smoothed and matt through wear; grey, with grey core.
10. Ware fairly soft, fine, very slightly micaceous; surfaces smoothed, now worn matt except for very slight traces of polishing, grey; core orange-brown.
11. Fairly hard ware, medium flint grits; outer surface only slightly smoothed, inner surface left rough; black, with black core.
12. Fairly soft, fine ware, slightly micaceous; surfaces smoothed, the outer worn (grooves very faint), orange-brown, the inner surface brown; core grey.
13. Ware hard, fine but with some medium flint grits; surfaces smoothed, matt, grooves deep, incised before firing; black.
14. Fairly hard, fine ware, slightly micaceous; surfaces smoothed, matt, the outer grey, the inner dull brown; core grey.
15. Hard sandy ware; a few small flint grits; oblique brush-marks on outer surface top of rim and inner surface smoothed; surfaces dark grey; core orange.
16. Fairly hard ware, fine, very slightly micaceous; surfaces neatly smoothed, grey; core grey.
17. Hard ware, with some flint grits; surfaces rough, the outer with brush-marks; outer surface and core dark grey, inner surface lighter grey/orange.
18. Hard ware, with some flint grits; surfaces rough, the outer with brush-marks; outer surface and core dark grey, inner surface lighter grey/orange.
19. Fairly soft ware, slightly micaceous, with a few sporadic grits, some of chalk; outer surface roughly smoothed and slightly polished in patches, inner surface very roughly smoothed; grey with grey core.
20. Ware and colour very similar to no. 19.
21. Hard ware with some large flint grits; outer surface roughly smoothed, inner surface rough; both buff/grey; core grey.
22. Softer ware, small flint grits; surfaces smoothed, matt; outer surface buff, inner buff/grey; core grey.
23. Hard ware, fairly fine, with a few grits; surfaces smoothed, matt, grey/buff; core grey.
24. Fairly hard ware, fine, slightly micaceous; surfaces smoothed and polished; the outer orange-brown, the inner grey; core grey.



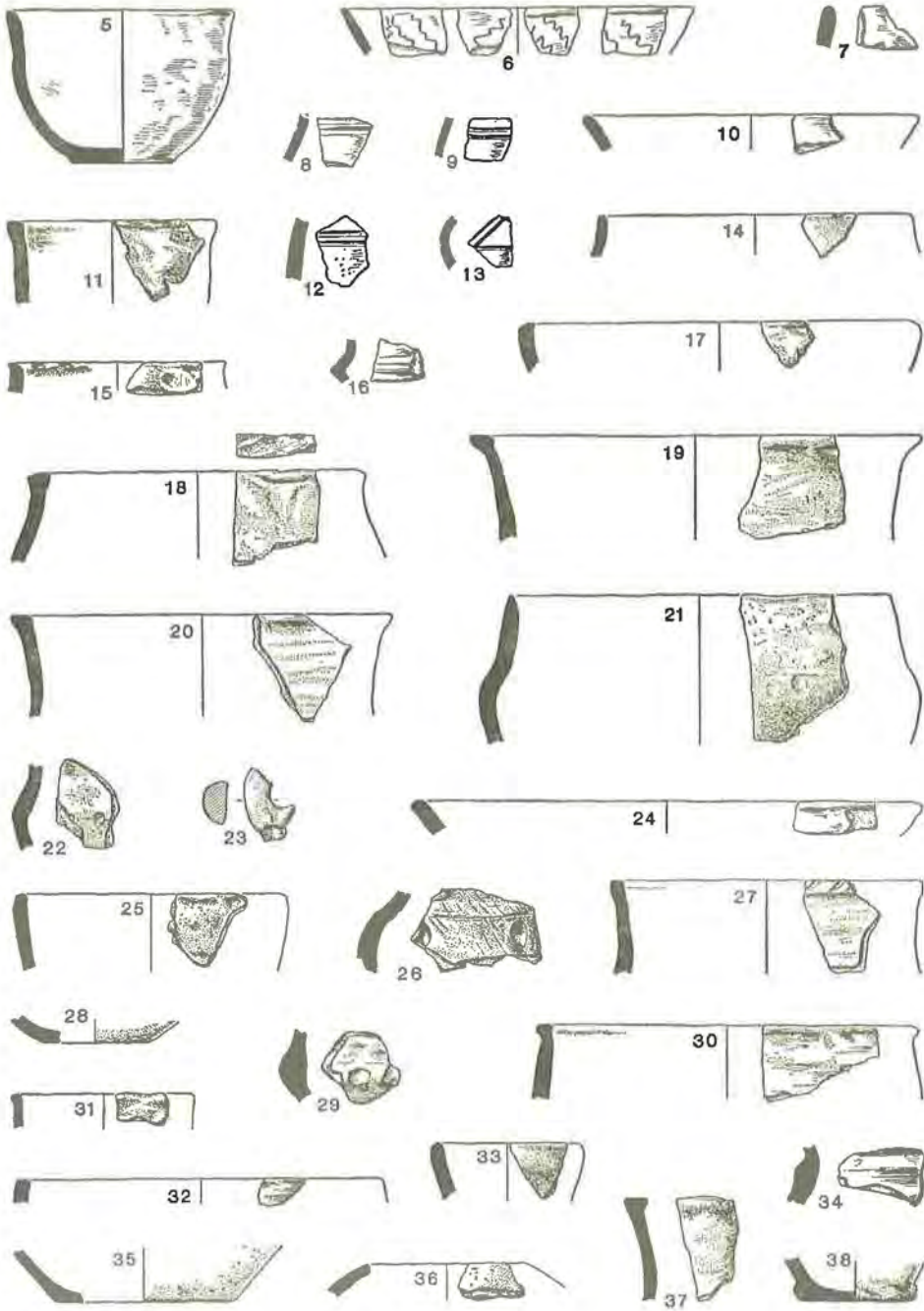


Fig. 22. Pottery from Pitstone Hill, Pit 17. (4)

25. Hard ware, more heavily flint-gritted than others from Pit 17, with large to medium grits; surfaces smoothed, the outer brown, the inner grey; core grey.
26. Hard ware, sandy; deep finger-tip impressions causing internal bulge, oblique brush-marks on outer surface, which is orange-brown; inner surface roughly smoothed, grey; core orange-brown.
27. Hard ware with light tempering of flint grits; surfaces smoothed, matt; the outer buff, the inner grey; core grey.
28. Fairly hard ware, flint-gritted; outer surface smoothed, inner surface rougher; outer greyish-brown, inner dark grey; core black.
29. Hard, sandy ware; shallow finger-nail (?) cuts on shoulder, surfaces smoothed to some extent, matt; outer surface orange/grey; inner surface light brown; core grey.
30. Hard fine ware, with a few medium flint grits; surfaces smoothed, matt; outer surface orange, with random burnish-lines, inner brownish-grey; core grey.
31. Ware fairly hard, very slightly micaceous; surfaces roughly smoothed, matt; grey.
32. Hard ware, a few small flint grits; surfaces roughly smoothed; dark grey.
33. Hard ware, with some flint grits; surfaces smoothed but retaining rough feel; brown/grey.
34. Hard ware, with fine flint grits and occasional larger grits; outer surface smoothed and polished, buff; inner surface rough, grey; core grey.
35. Hard ware, medium flints, very slightly micaceous; outer surface smoothed, inner surface also smoothed, but more irregular; grey/orange, with grey-brown core.
36. Fairly soft ware, fairly fine, very slightly micaceous; outer surface smoothed, matt; inner surface smoothed but irregular; grey/orange, with grey-brown core.
37. Ware and colour very similar to no. 19.
38. Hard ware, with occasional flint grits; surfaces roughly smoothed, the outer grey, the inner buff-grey; core greyish-brown.

PIT 23 (Fig. 23)

39. Fairly hard ware, fine, faintly micaceous, with occasional small flint grits; outer surface polished, the decoration incised after firing and in places chalk-filled (uncertain whether deliberately); inner surface smoothed but matt; surfaces and core dark grey.
40. Softer, very fine ware, faintly micaceous; both surfaces polished, decoration on both incised after firing; zigzag on inside chalk-filled; surfaces dark grey, core brown.
41. Fairly hard, fine ware, slightly micaceous; outer surface and rim polished, lines incised after firing and chalk-filled; inner surface only roughly smoothed; outer surface light grey, rim, inner surface and core darker grey.
42. Fairly hard, fine ware, slightly micaceous; outer surface smoothed, perhaps originally polished, buff-grey; inner surface carefully smoothed, grey; core grey.

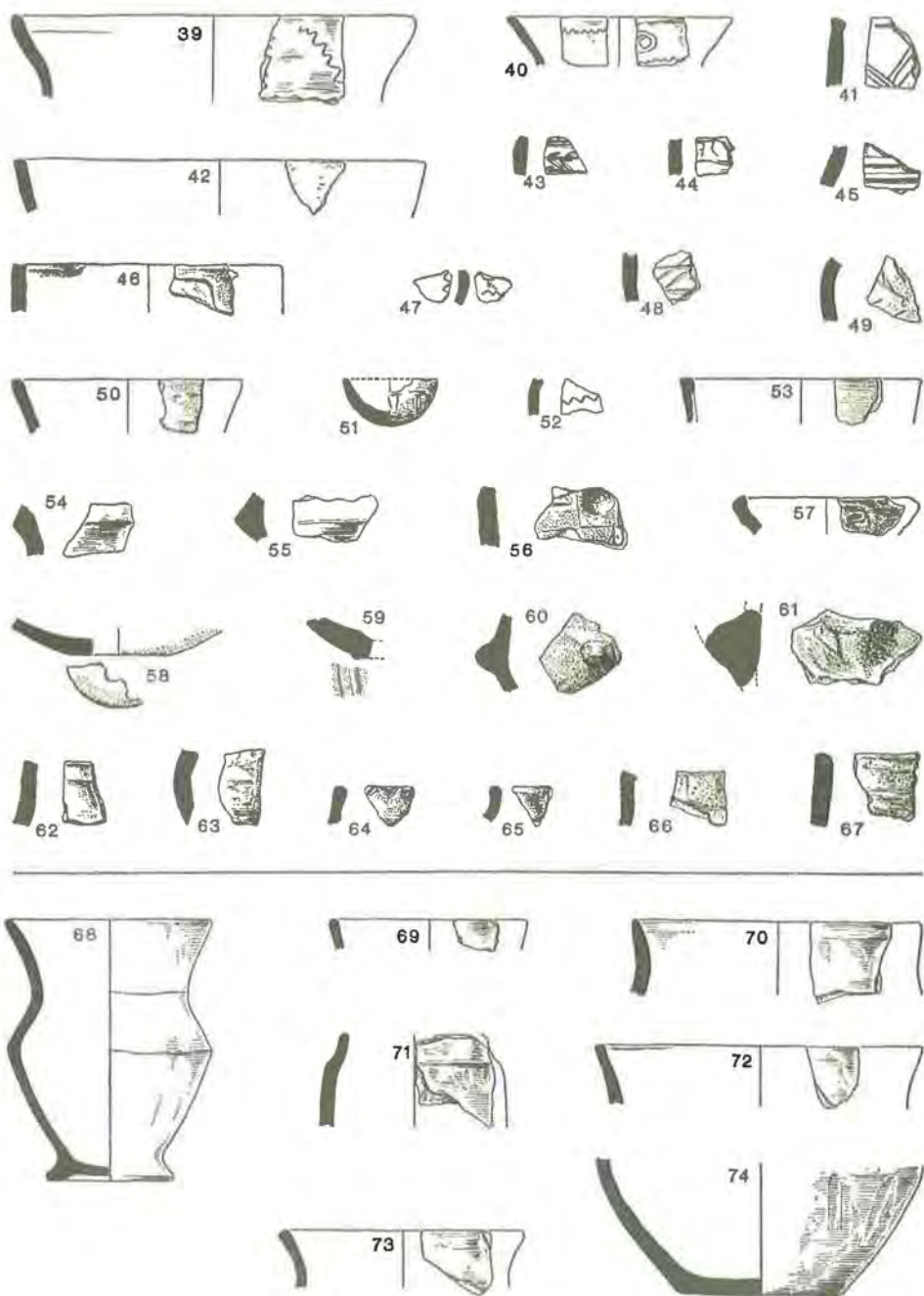


Fig. 23. Pottery from Pitstone Hill, Pits 23 (nos. 39-67) and 24 (nos. 68-74). (¼)

43. Fairly soft ware, fine, slightly micaceous; surfaces smoothed, decoration incised before firing; surfaces greyish-brown, core grey.
44. Fairly soft ware, fine, very slightly micaceous; surfaces smoothed, matt, decoration incised after firing; outer surface buff, inner surface and core grey.
45. Hard ware, fairly fine; outer surface polished, except in furrows, light brown; inner surface smoothed, brown; core grey.
46. Fairly hard ware, with sporadic large to medium flint grits; surfaces roughly smoothed, black/brown; core grey/brown.
47. Fairly soft ware, fine, very slightly micaceous; surfaces smoothed, the outer polished, decoration incised after firing, chalk-filled; black surfaces and core.
48. Fairly hard ware, fairly fine; outer surface smoothed, matt, the decoration incised before firing, buff; inner surface rougher, grey; black core.
49. Hard ware, large to medium flint grits, slightly micaceous; surfaces roughly smoothed, matt; outer surface buff, inner surface dark brown; core black.
50. Fairly hard, fairly fine ware, very slightly micaceous; surfaces smoothed; outer light grey, inner dark grey; core grey.
51. Fairly hard ware, moderately fine, with sporadic grits; surfaces only roughly smoothed, lines scratched before firing; outer surface dark grey, inner surface grey/brown; core grey/brown.
52. Fairly soft, fine ware, slightly micaceous; outer surface smoothed, decoration incised after firing, chalk-filled, buff-grey; inner surface smoothed, black; core black.
53. Soft, fine ware, slightly micaceous; outer surface smoothed and polished, greyish-buff (inner surface broken away); core grey.
54. Fairly soft ware, fine, slightly micaceous; outer surface polished, greyish-buff; inner surface smoothed, matt, grey; core grey.
55. Fairly hard ware, fine, very slightly micaceous; outer surface polished, buff; inner surface smoothed and with neat groove in inner angle of carination, grey; core grey.
56. Hard ware, heavily flint-gritted; surfaces matt, roughly smoothed; grey with grey/brown core.
57. Hard ware, medium to small flint grits; surfaces rough, the outer reddish, the inner brown; core black/brown.
58. Hard, fine ware, slightly micaceous; surfaces neatly smoothed, the outer grey/buff, inner probably black but with chalky deposit, which also adheres to the perforations in the base; core grey.
59. Hard ware, slightly sandy; outer surface abraded, probably originally polished, inner surface matt and with sandy feel; outer surface and core grey; inner surface dull brown.
60. Fairly soft, fine ware, slightly micaceous; surfaces well smoothed, matt; outer surface buff/grey, inner surface and core grey.
61. Fairly soft, fine ware, slightly micaceous; surfaces smoothed, matt; light grey.
62. Hard coarse sandy ware; outer surface smoothed, matt, grey/buff; inner surface more roughly smoothed, dark grey; core dark grey.

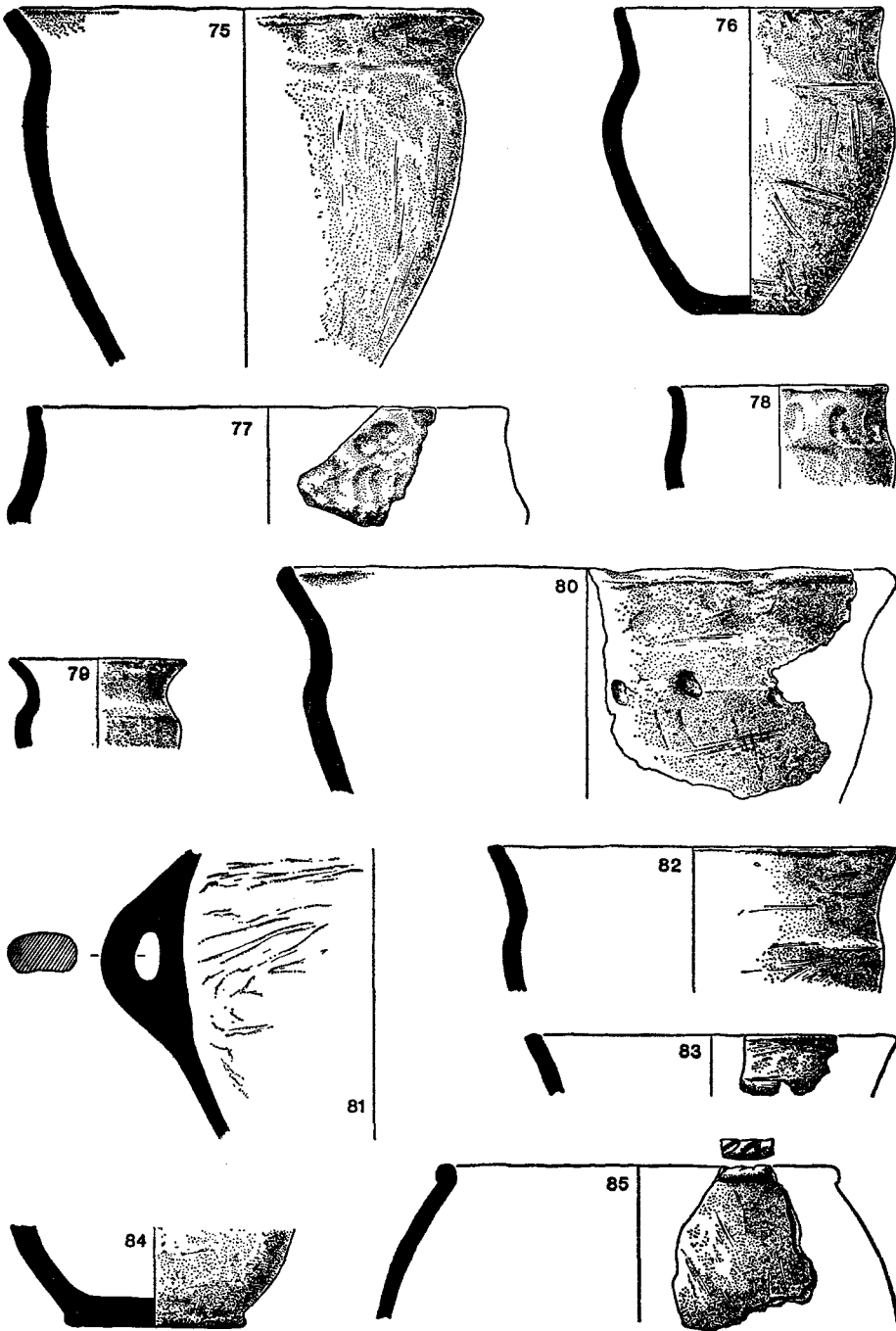


Fig. 24. Pottery from Pitstone Hill, Pit 24. (†)

63. Soft, fine ware, slightly micaceous; outer surface roughly polished, dark grey; inner surface smoothed, matt; buff, core buff.
64. Hard ware, medium to small flint grits; surfaces smoothed, matt, grey; core black.
65. Fairly hard ware, probably gritted (sherd very small); surfaces roughly smoothed, brownish-grey; core black.
66. Hard ware, heavily charged with medium to small flint grits; surfaces very roughly smoothed, dark grey and dark grey core.
67. Hard ware, large to small flint grits; outer surface roughly smoothed, brushed, greyish-buff; inner surface and core grey.

Plr 24 (Figs. 23 and 24)

68. Pedestalled jar in fine ware with haematite slip differentially fired, cherry-red on shoulder but brown on neck and below carination.
69. Fairly hard ware, fine, very slightly micaceous; surfaces smoothed and polished, dark grey; core grey-brown.
70. Fairly hard ware, fine, slightly micaceous; surfaces polished, inner surface rougher; grey, with grey core.
71. Softer ware, fine, slightly micaceous; surfaces polished, darker grey; core grey.
72. Soft ware, fine, slightly micaceous; surfaces neatly smoothed and polished, greyish-buff; core grey.
73. Soft ware, fine, slightly micaceous; surfaces smoothed, probably originally polished, grey; core grey but orange-buff immediately below surface.
74. Fairly hard ware, fine, slightly micaceous; outer surface polished, blackish; inner surface smoothed, matt, grey/buff; core grey.
75. Ware moderately hard, core friable, heavily charged with large to small flint grits; outer surface rough, with slight brush-marks, inner surface roughly smoothed; surfaces grey/buff; core brown.
76. Ware similar to no. 75; surface reddish-brown/grey; core brown.
77. Hard ware, rather sandy, with a few sporadic medium and small flint grits; surfaces roughish, light orange/grey; core grey/orange.
78. Fairly hard ware, with sporadic medium flint grits; outer surface roughly smoothed, matt, inner surface rough; outer surface and core burnt black, with soot adhering; inner surface blackish with browner patches.
79. Hard ware, heavily charged with medium to small flint grits; surfaces roughly smoothed and brushed, grey/brown; core brown.
80. Hard ware, heavily charged with large to small flint grits; surfaces rough, brown with black patches; core black.
81. Ware fairly soft, fine, slightly micaceous; outer surface well smoothed, not polished, inner surface roughly smoothed, light grey; core grey.
82. Fairly soft ware, slightly micaceous, a few flint grits, some large, some small; surfaces roughly smoothed, brownish-grey; core dark brown.
83. Soft, friable ware, heavily charged with medium to small flint grits; outer surface roughly smoothed, grey (inner surface abraded); core orange-brown.

84. Hard ware, heavily charged with large to small flint grits; outer surface smoothed, buff; inner rougher, grey; core black.
85. Hard ware, small flint grits; surfaces rough, with brush-marks, greyish-brown; core black. See p. 247.

A. *Fine wares*. These comprise the following, and are distinguished by a fairly hard, fine, slightly micaceous paste, with a carefully smoothed surface, sometimes polished, sometimes matt:

Pit 17: nos. 6, 7, 8, 9, 10, 12, 14, 16, 24, 36.

Pit 23: nos. 39, 40, 41, 42, 43, 44, 45, 50, 52, 53, 54, 55, 58, 63.

Pit 24: nos. 68, 70, 71, 72, 73, 74.

The only complete vessel from the site is no. 68 from pit 24. It stands apart from the rest in having a differentially fired haematite slip, which indeed sets it apart from the normal range of pottery of the period in the Chilterns. The form is also unusual, but may be regarded, perhaps, as a taller and more elongated version of the bowls found at Chinnor (e.g. Fig. 8, no. 52), in some ways closer to the parallel from La Sablonnière illustrated in the Chinnor report in Fig. 9 (left-hand vessel).<sup>2</sup> The foot-ring, though less high and angular, remains a marked feature; the rest of the pot differs only in being taller and narrower, with correspondingly less acute angles at shoulder and neck. In general proportions it is not unlike Hunsbury D 14,<sup>3</sup> which has hatched triangles on the shoulder but no haematite slip. So little of the other fine wares survives that the forms can only be guessed at, but in general the rims suggest bowls with a wider mouth. The presence of no. 68, exceptional as it is in this context, is no doubt explained by the proximity of the site to the Icknield Way.

Nos. 6, 10, 39, 40 and 50 seem likely to have come from bowls of the Chinnor type (e.g. Fig. 8, nos. 48–51); no. 71, however, suggests a different form. The only other bases in fine ware are without a foot-ring (no. 74 and no. 58, which is a colander; cf. the note on these vessels in the Chinnor report, p. 145:<sup>4</sup> a white deposit also adheres to the Pitstone sherd and its perforations). Bowls with furrows or grooves just above the carination were also present (no. 16 and presumably also no. 45, broken off above the angle); these are not common in the region, but cf. Chinnor, Fig. 8, no. 48 (and a scrap from the site near the parish Church, Saunderton, found by Mr. J. F. Head).<sup>5</sup>

Nos. 6, 39, 40, 41, 47 and 52 have decoration incised after firing (no. 44 also has scratches incised after firing, but the sherd is very small, the marks finer and apparently more haphazard; it is doubtful if it is in the same category). Decoration done in this manner can of course be paralleled at a number of sites on or near the lower slopes of the Chiltern escarpment: in the west Adwell

<sup>2</sup> *Antiq. Journ.*, XXXI, 1951. K. M. Richardson and Alison Young, "An Iron Age A Site on the Chilterns", 132 ff.

<sup>3</sup> *Arch. Journ.*, XCIII, 1936. Clare I. Fell, "The Hunsbury Hill-fort, Northants: a new survey of the material", 57 ff., Fig. 7.

<sup>4</sup> See note 2.

<sup>5</sup> J. F. Head, *Early Man in South Buckinghamshire*, 1955, p. 114, not illustrated.

Cop,<sup>6</sup> Chinnor,<sup>7</sup> Bledlow,<sup>8</sup> Ellesborough,<sup>9</sup> in the east Holwell,<sup>10</sup> Wilbury Hill<sup>11</sup> and Jack's Hill, Wymondley.<sup>12</sup> In spite of obvious points of general resemblance, the Chinnor parallels probably require qualification, in that the exact technique (incision after firing but before the application of a slip and second firing) is not found elsewhere, and one of the most striking motifs (arcaded decoration) appears to be unique. At the other sites the decoration was incised after firing on a polished but not slipped surface. The zigzags and wavy lines on most of the Pitstone sherds resemble motifs found at Bledlow and Ellesborough: the rather carelessly done lines on nos. 6 and 39 recalling the Ellesborough bowl published in the Bledlow report.<sup>13</sup> Two other features may be noted: the clumsy attempt at a spiral on no. 40, and the practice of decorating both the inside and the outside of the rim (nos. 6, 40 and 47), for which no parallel has been found.

On several sherds the decoration has a chalky white filling. Without analysis it is impossible to say whether it is an inlay deliberately applied, as at Chinnor, or is merely fine chalk which has lodged in the incised lines—chalk clings tenaciously to the roughness in the breaks, and is indistinguishable from the filling in the decoration.

Decoration applied before firing on the fine wares consists of simple horizontal grooves and furrows (nos. 8, 9, 12, 16, 45), apart from no. 43, unfortunately a very small sherd, with a design consisting of leaf-like impressions arranged in herring-bone fashion between horizontal grooves. Something of the same sort, but not a close parallel, appears on two pots from All Cannings Cross.<sup>14</sup> A somewhat similar motif is also found on a saucepan pot from Newhaven, Sussex.<sup>15</sup> A saucepan form would not be completely anomalous in the Chilterns, though they are not common; but an example was found at Cholesbury<sup>16</sup> and there are others not far away, though to the north of the escarpment, at Aylesbury and Bletchley (unpublished). The ware, however, so resembles the other fine and clearly Iron A wares from Pitstone that it does not in itself suggest a saucepan pot; a darker surface would in any case have been expected. Without more of the pot, we can only note the presence of this uncommon design.

<sup>6</sup> *Oxoniensia*, VII, 1942. J. S. P. Bradford, "An Early Iron Age Site at Allen's Pit, Dorchester", 36 ff.: for Adwell Cop, Fig. 13 and p. 59.

<sup>7</sup> See note 2.

<sup>8</sup> *Rec. Bucks.*, XIV, 1944. J. F. Head and C. M. Piggott, "An Iron Age Site at Bledlow, Bucks.", 189 ff.

<sup>9</sup> *Ibid.*, IX, 1909. A. H. Cocks, "Pre-historic Pit-Dwellings at Ellesborough", 349 ff., and the Bledlow report cited above, Fig. V, p. 208.

<sup>10</sup> *Antiq. Journ.*, XIV, 1934. E. S. Applebaum, "An Early Iron Age Site at Holwell, Hertfordshire", 383 ff.

<sup>11</sup> *Arch. Journ.*, CVI, 1949. E. S. Applebaum, "Excavations at Wilbury Hill, an Iron Age Hill-Fort near Letchworth, Hertfordshire, 1933", 12 ff.

<sup>12</sup> *Proc. Prehist. Soc. East Anglia*, VI, 1928-31. C. F. Tebbutt, "Early Iron Age Settlement on Jack's Hill, Great Wymondley, Herts.", 371 ff.

<sup>13</sup> See note 9.

<sup>14</sup> M. E. Cunnington, *The Early Iron Age Inhabited Site at All Cannings Cross Farm, Wiltshire*, 1923, Pl. 48, no. 1 on right-hand side, and Pl. 35, 11.

<sup>15</sup> *Sussex Arch. Coll.*, LXXX, 1939. C. F. C. Hawkes, "The Pottery from Castle Hill, Newhaven", 269 ff. See Fig. 4, no. 4.

<sup>16</sup> *Journ. Brit. Arch. Ass.*, XXXIX, 1934. D. Kimball, "Cholesbury Camp", 187 ff.; Fig. 7, no. 2.



In general, the decorated wares raise the question of a possible spread of "Wessex influence" along the Icknield Belt. The haematite-coated pot calls attention to what is in any case a likely result of traffic along a major ancient route, bearing "influence" to sites lying on or near the route; but Pitstone hardly helps us to assess the much more important question of the amount and significance of such influence. The polished sherds with decoration incised after firing could well be a local variant of a common tradition, which need not have reached the area from Wessex, and is to be distinguished by the general preference shown for a black or grey surface rather than a reddish one. So many typically Wessex motifs are absent, moreover, that in any case the degree of "influence", if it accounts for any of the incised decoration, can only have been relatively slight (in comparison with sites in Sussex, for example).

**B. *Medium fine wares.*** These include a variety of wares: those resembling the fine wares, with a similar, slightly micaceous paste, but used for larger and more roughly finished vessels (e.g. nos. 19, 20, 37 and 81) with an uneven surface either left matt or polished only very patchily. No. 13 is indeed on the borderline of the fine wares, but the paste contains rather more grits; no. 48, also with decoration of grooved and hatched lines (done before firing on both sherds), is likewise only a little thicker and heavier than the wares here classed as fine. The highly polished grey and buff surface of no. 34 would be appropriate to a fine ware, but in fact disguises a thick, gritty ware. Others (e.g. nos. 5, 22 and 27) contain a fair amount of flint grit but are nevertheless to be distinguished from the heavily flint-gritted coarse wares which make up Class D below.

Those thus grouped are:

Pit 17: nos. 5, 13, 19, 20, 21, 22, 23, 27, 30, 31, 32, 33, 34, 35, 37, 38.

Pit 23: nos. 46, 48, 51, 60, 61, 62, 65.

Pit 24: nos. 78, 81, 82, 85.

No. 5, one of the few complete profiles, calls for comment both on the ware and, so far as can be judged from the generally rather small sherds from the site, on the form. The paste contains a considerable tempering of flint grit, including some large grits, which would put it in the category of coarse wares were it not that the black outer surface, though irregular, has been quite highly though unevenly polished, and the base neatly and carefully smoothed, effectively concealing the gritty nature of the paste. The form is weak and simple, but not easy to parallel very closely; it is difficult to say whether it represents the ultimate stage of devolution of carinated bowls of the type exemplified at Chinnor<sup>17</sup> and assumed for Pitstone vessels such as nos. 6, 39 and 40, or—as seems more likely—a bowl in a different tradition. Wisley, Fig. 1, 9, also in black burnished ware, has some resemblance,<sup>18</sup> and so possibly has Jack's Hill, Pl. XXXVI, *d* (an incomplete profile). In either case it may be one of the latest vessels on the site, suggesting a Second B element and continuation late in Iron II. Another possible sign of La Tène influence should probably be seen in the spiral motif on no. 40, which suggests the experiment of a potter unaccustomed to curvilinear patterns, but trying to achieve one.

<sup>17</sup> *Op. cit.*, Figs. 7 and 8.

<sup>18</sup> *Proc. Prehist. Soc.*, XI, 1945. A. W. G. Lowther, "Iron Age Pottery from Wisley, Surrey", 32 ff.

Nos. 19, 20 and 37, all with flat-topped rims, spreading irregularly on both sides, are in a very similar ware; they might indeed all have come from the same uneven pot.

The form of no. 21, with upward-tapering rim and outward curving shoulder, recalls Mount Farm, Dorchester, Fig. 6, A VII 24;<sup>19</sup> this should be an early form, perhaps one of the earliest on the site.

No. 51 is an example of the diminutive pots sometimes found on Iron Age sites: cf. for example Hunsbury,<sup>20</sup> Fig. 8, SP 8, for the size, and Fengate, Fig. 10, Misc. 7, for the form; also Fig. 6, Q 1.<sup>21</sup>

No. 78 appears to be a weaker version of Chinnor, Fig. 5, no. 3; Wandlebury, Fig. 7, 23 is larger but not dissimilar.<sup>22</sup>

The three examples of handled jars are in the "medium fine" category, in a ware closely resembling the fine wares, but much heavier vessels, with a matt, quite unpolished surface. Mrs. Gallant lists examples of handled jars in the same general area as her site at Thorney, Iver, Bucks.<sup>23</sup> It is clear that they were widespread; the examples in Aylesbury Museum to which she refers include several from the Ouse valley gravels as well as one from West Wycombe hillfort and Aylesbury itself (unpublished). They were probably equally common further east: cf. handles found at Barley, Herts.,<sup>24</sup> Wandlebury<sup>25</sup> and Linton, Cambs.<sup>26</sup>

No. 60 is of interest in having a raised boss. These are a widespread but not very common feature, which is likely to be early. The ware of the Pitstone sherd does not suggest anything intrusive or exotic: it is similar to nos. 19, 20, 37 and the handled jars. The nearest parallel (geographically) is probably one from Jack's Hill, Wymondley, Herts.: "one small lug or boss (unpierced)", not illustrated.<sup>27</sup> The more angular knobs on Chinnor no. 20 (Fig. 5) are possibly in the same tradition. Frilford no. 52 has a rather larger unpierced lug, possibly not strictly comparable.<sup>28</sup> Similar bosses have been found at All Cannings Cross: Pl. 42, the upper vessel, with "ornamental bosses"; Pl. 34, 14, with a row of bosses a little below the rim; and Pl. 29, no. 2, in a fine polished black ware, with a row of small bosses below two cordons beneath the neck;<sup>29</sup> at the Caburn: a pot "covered with low bosses", apparently haphazard;<sup>30</sup> at Boscombe Down

<sup>19</sup> *Oxoniensia*, II, 1937. J. N. L. Myres, "A Prehistoric and Roman Site on Mount Farm, Dorchester", 12 ff.

<sup>20</sup> See note 3.

<sup>21</sup> *Arch. Journ.*, C, 1943. C. F. C. Hawkes, "The Early Iron Age Settlement at Fengate, Peterborough", 188ff.

<sup>22</sup> *Proc. Camb. Ant. Soc.*, L, for 1956. B. R. Hartley, "The Wandlebury Iron Age Hill-fort, Excavations of 1955-6", 1 ff.

<sup>23</sup> *Rec. Bucks.*, XVII, 1964. R. F. Denington and Louie Gallant, "The Iron Age Pottery from Thorney Farm, Iver", 240 ff.

<sup>24</sup> *Proc. Camb. Ant. Soc.*, LIV, for 1960. M. D. Cra'ster, "The Aldwick Iron Age Settlement, Barley, Hertfordshire", 22 ff.

<sup>25</sup> See note 22.

<sup>26</sup> *Proc. Camb. Ant. Soc.*, XLVI, for 1952. C. I. Fell, "An Early Iron Age Settlement at Linton, Cambridgeshire", 31 ff.; see Fig. 5, no. 32.

<sup>27</sup> See note 12.

<sup>28</sup> *Oxoniensia*, IV, 1939. J. S. P. Bradford and R. G. Goodchild, "Excavations at Frilford, Berks., 1937-8", 1 ff.

<sup>29</sup> See note 14.

<sup>30</sup> *Sussex Arch. Coll.*, LXVIII, 1927. E. Curwen and E. C. Curwen, "Excavations in the Caburn, near Lewes," 1ff; 34 and Pl. xiv, no. 114.

West: a vessel with a boss "still definitely in the A tradition" (and Miss Richardson's comment that there are numerous unpublished examples);<sup>31</sup> at Fengate: Fig. 10, Misc. 6, a row of bosses;<sup>32</sup> and St. Catharine's Hill, Winchester, Fig. 10, A 3.<sup>33</sup>

In this group a final brief comment should be made on no. 85. This is a sherd of a globular jar with the rim pressed outwards, with deep irregular notches on the top, and undercut below; it is in a typically A ware and its resemblance, when drawn, to a bead-rim jar is fortuitous.

C. *Sandy wares*. Several sherds have a proportion of gritty sand in the paste, and where this is pronounced the sherds have been distinguished in a separate category (there are, however, some borderline cases in the group of medium fine wares).

Pit 17: nos. 15, 26, 29.

Pit 23: no. 59.

Pit 24: no. 77.

Nos. 15 and 26 are very similar in ware and in treatment of the surface; they might almost belong to the same pot, with neat, pronounced impressions on both rim and shoulder: the most emphatic finger-nail and finger-tip decoration among the Pitstone pottery, though no. 29, also sandy and from the same pit, has well-marked but more shallow impressions, probably done with a finger-nail but possibly with some form of tool. There is noticeably little decoration of this sort among the coarser wares.

No. 77, from Pit 24, is a very rough-surfaced, crudely modelled jar, in a form which is well known and widespread; cf. Mount Farm, Dorchester, Oxon., Fig. 6, LCD BVI 1, and  $\mu$  7;<sup>34</sup> Sandown Park, Esher, Surrey, Fig. 19, no. 52;<sup>35</sup> and Wandlebury, Cambs., Fig. 7, no. 25, and Fig. 8, nos. 41 and 42,<sup>36</sup> to take examples from different areas.

No. 59 is a base with a small low foot-ring and groove above, in a sandy-ish paste but differing from those above in having a smoothed and probably originally burnished exterior surface.

D. *Coarse wares*. These are characterized by the high proportion of flint grit in the paste and the rough treatment of the surfaces, which are crudely and patchily smoothed, but in some cases not successfully concealing all the grits. Some sherds have brush marks and striations (but not deep scoring). They comprise:

Pit 13: nos. 1, 2, 3, 4.

Pit 23: nos. 49, 56, 57, 64, 66, 67.

Pit 17: nos. 11, 18, 25, 28.

Pit 24: nos. 75, 76, 79, 80, 83, 84.

The variety of jar forms is striking, especially when all types of ware are con-

<sup>31</sup> *Wilts. Arch. Mag.*, 54, 1951-52. K. M. Richardson, "The Excavation of Iron Age Villages on Boscombe Down West", 123 ff.; see Fig. 11, no. 63.

<sup>32</sup> See note 21.

<sup>33</sup> C. F. C. Hawkes, J. L. N. Myres and C. G. Stevens, *Saint Catharine's Hill, Winchester*, 1930.

<sup>34</sup> See note 19.

<sup>35</sup> *Antiq. Journ.*, XXVII, 1947. J. P. T. Burchell and S. S. Frere, "The Occupation of Sandown Park, Esher, during the Stone Age, the Early Iron Age, and the Anglo-Saxon Period", 24 ff.

<sup>36</sup> See note 22.

sidered together. At the one extreme there are two, probably three, jars from Pit 13 with the neck sloping inwards from the shoulder, the rim projecting inwards, decorated on the inner slope; at the other extreme out-turned rims project beyond a very weak shoulder, from Pit 24 (nos. 75 and 80, less markedly no. 82, and possibly also no. 83). Between these extremes there are a number of jars with the more usual fairly upright rim: Pit 17, nos. 11, 27, 30 and 32, the first three thickened and all with more or less flat tops; Pit 23, nos. 62, 64, 66, and 67; and from Pit 24, no. 77, mentioned above, and no. 78. For the two extremes of inward- and outward-sloping rims the Icknield Way sites do not provide very exact parallels. No. 80, and possibly also no. 75, look a little like very devolved descendants of the Long Wittenham jar with flaring rim (Fig. 2, 1).<sup>37</sup> Mount Farm, Dorchester, produced somewhat similar inward-sloping rims (Fig. 6,  $\theta$  5 and Fig. 8 i 11);<sup>38</sup> cf. also Wisley, Fig. 3, 1, 48.<sup>39</sup>

Bledlow provides a version of the more ordinary pot, no. 76 (Fig. II, no. 27),<sup>40</sup> and other parallels for the upright, flattened rim, sometimes bulging inwards or outwards or both, on the same figure; cf. also Long Wittenham, Fig. 2, 4.<sup>41</sup>

Two decorated sherds require mention: no. 49, from Pit 23, unfortunately very small but with a crudely done pattern in some ways reminiscent of All Cannings Cross, Pl. 34, 7 and 8; it is surprising to find this on such a coarsely surfaced pot. No. 56 from the same pit has shallow tooled grooves and circular depressions perhaps best described as small dimples, which recall Allen's Pit, Dorchester, Fig. 11, no. 5,<sup>42</sup> and have a slight resemblance to Bledlow, Fig. IV, nos. 50 and 51.

No. 1 from Pit 13, with striations below a horizontal line a little below the rim, is not a very common form, but is not unlike Allen's Pit, Dorchester, Fig. 10, no. 17, and Abington Pigotts, Fig. 2, H;<sup>43</sup> and is perhaps a rather wider version of Wisley, Fig. 1, 3.<sup>44</sup>

No. 79 has a parallel with sharper outlines from Chinnor (Fig. 5, no. 10); it is unfortunate that more of the pot does not survive, as it might be a devolved version of the small jars with flaring rim and omphalos base found on the Upper Thames sites.

In conclusion, Pitstone was occupied at a time when the fine-ware traditions of the Bledlow-Ellesborough-Holwell-Jack's Hill group of sites were still current, indeed predominant, though the Pitstone community modified them slightly. At the same time the coarse wares show considerable variety, but suggest, both in form and in the small amount of finger-tip decoration, a later date than that of, for example, Chinnor. Parallels can be found both on Thames

<sup>37</sup> *Oxoniensia*, II, 1937. H. N. Savory, "An Early Iron Age Site at Long Wittenham, Berks.," 11f

<sup>38</sup> See note 19.

<sup>39</sup> See note 18.

<sup>40</sup> See note 8.

<sup>41</sup> See note 37.

<sup>42</sup> *Oxoniensia*, VII, 1942. J. S. P. Bradford, "An Early Iron Age Site at Allen's Pit, Dorchester", 36 ff.

<sup>43</sup> *Proc. Prehist. Soc. E. Anglia*, IV, 1922-24. C. Fox, "A settlement of the Early Iron Age at Abington Pigotts, Cambs.," 211 ff.

<sup>44</sup> See note 18.

Valley sites in Oxfordshire and Berkshire, and eastwards in Hertfordshire and Cambridgeshire. The majority of the material has a consistently Southern Second A aspect, but the few anomalies (no. 5 from Pit 17 and no. 40 from Pit 23) suggest that Southern Second B may have supervened, though probably not for long, as many typical forms (e.g. globular bowls and saucepan pots) are absent. A mixed bag, with several interesting features in a small total of sherds, no doubt demonstrating the varied traffic which passed along the Icknield Way, of which the intrusive haematite-decorated jar is the most striking example. The period is perhaps best assigned to the general date-bracket of Iron II: approximately mid-fourth to mid-second century B.C.<sup>45</sup>

<sup>45</sup> *Problems of the Iron Age in Southern Britain*, ed. S. S. Frere, University of London Institute of Archaeology Occasional Paper No. 11. C. F. C. Hawkes, "The ABC of the British Iron Age", 1 ff., Fig. 4, p. 12.

# APPENDIX I

## INTERIM REPORT ON ENVIRONMENTAL INVESTIGATIONS

PROFESSOR G. W. DIMBLEBY

### *Buried Soil Beneath Rampart (Site G)*

There was a well-defined buried stone-free horizon, averaging about 2 in. thick, clearly an old earthworm-sorted topsoil (mull). It was dark grey to brown in colour, clayey, and with a well-developed crumb structure. Living roots, earthworms and other soil fauna were present in this layer, which in Trenches G vii and G iii lay not deeper than 18 in. Charcoal flecks were present in this layer in G iii; some of the larger ones were collected and identified. One piece was of blackthorn (*Prunus spinosa*) and all the rest was hawthorn (*Crataegus*) or apple (*Malus*)—the wood of these two is anatomically indistinguishable.

Samples of the buried mull and the material lying immediately above and below it were collected for pollen analysis (Table I). There is not a great difference between the three as regards the species represented, but the quantities were rather greater in the mull, confirming that it was a soil surface.

Tree pollen was poorly represented, oak and pine being most abundant, with traces of alder, birch, beech and ash. Hazel was also present in small quantities. The predominant pollen types were grasses, *Liguliflorae* (dandelion type), ribwort plantain and bracken spores. The latter are commonly found in chalk soils, though bracken does not grow in such places today, and their occurrence has not yet been satisfactorily explained. No cereal pollen was found in the buried soil, and the assemblage of herbs suggests pasture rather than arable farming. There was some indication of arable in the pollen of the overburden covering the buried soil. However, it will be difficult to give a certain picture of the contemporary vegetation as there is the possibility of contamination from the modern soil (though I regard the possibility as fairly remote).

### *Coprolites*

Specimens of sub-fossil animal dung from the site were examined. Zoological opinion was that these specimens were from the dog, and the presence of fragmented bone in them confirms this. Mr. C. R. Lethbridge (Imperial College of Science and Technology) is examining these coprolites for evidence of internal parasites. So far he has recognised eggs of a nematode of the genus *Trichuris* or *Capillaria*, but the poor preservation is making more detailed identification difficult.

Nevertheless, these coprolites still pose some difficult questions. For one thing it was found that they were quite rich in pollen, and this is difficult to explain for a carnivore. The pollen spectrum was quite different from that of the soil described above; there was a good deal of alder pollen and only a small quantity of *Liguliflorae* and bracken spores. Grass pollen was abundant, but the predominant type was of the *Rosaceae* (much of it was very similar to the pollen of the *dog* rose!). We shall continue to wrestle with this diverting problem.

TABLE I PERCENTAGES OF POLLEN AND SPORES

	<i>Rampart Rubble just above Turf Line</i>	<i>Turf Line Mull</i>	<i>Chalk Rubble just beneath Turf Line</i>	<i>Coprolite</i>
Alnus	0.5	0.9	0.5	9.1
Betula	—	0.5	—	—
Fagus	—	0.5	0.5	—
Fraxinus	—	0.5	—	—
Pinus	4.9	2.8	4.1	2.7
Quercus	2.5	1.9	2.8	2.7
Tilia	—	—	—	+
Corylus	2.5	2.3	4.6	0.8
Ilex	—	—	—	0.4
Ligustrum	1.0	0.9	0.9	—
Thelycrania	—	—	—	0.4
Gramineae	17.6	15.3	14.2	11.8
Cerealia	1.5	—	—	0.4
Caryophyllaceae	1.0	—	—	1.9
Chenopodiaceae	0.5	—	—	0.4
Compositae				
Cirsium	—	0.9	0.9	—
Liguliflorae	15.7	13.4	9.6	2.3
Tubuliflorae	—	0.5	—	1.1
Cyperaceae	6.4	1.4	1.4	1.9
Papilionaceae	—	—	—	0.4
Trifolium	—	—	—	2.3
Plantago lanceolata	6.9	6.9	11.0	1.5
P. major	1.0	0.5	0.5	4.2
Polygonum persicaria	—	0.9	0.5	—
Ranunculaceae	0.5	—	1.8	4.5
Rosaceae	—	—	—	16.7
Rosa canina type	—	—	—	16.7
Rubus fruticosus type	—	—	—	4.5
Rumex	—	1.4	—	—
Umbelliferae	—	—	—	1.5
Varia	5.9	6.5	4.6	3.8
Dryopteris type	3.9	5.1	5.0	5.7
Lycopodium type	—	—	0.5	—
Polypodium	1.0	1.4	—	—
Pteridium	27.0	35.6	36.7	2.7
TOTAL COUNT	204	216	218	264
Grains/gm. soil	5,957	7,884	3,979	—

NOTE: + in the above table signifies recorded in the preliminary scan but not in count.

# APPENDIX II

## BONES FROM IVINGHOE BEACON

### BETTY WESTLEY

The osteological material excavated from the Beacon shows a fauna as follows:

PRIMATES	<i>Homo sapiens</i>	Man	13 fragments, $\frac{1}{2}\%$ of total
CARNIVORA	<i>Vulpes vulpes</i>	Fox	3 fragments
	<i>Canis familiaris</i>	Dog	4 fragments
	<i>Felis sp.</i>	Cat	1 fragment
PERISSODACTYLA	<i>Equus caballus</i>	Horse	12 fragments, $\frac{1}{2}\%$ of total
ARTIODACTYLA	<i>Sus sp.</i>	Pig	140 fragments, 7% of total
	<i>Cervus elaphus</i>	Red Deer	9 fragments
	<i>Capreolus capreolus</i>	Roe Deer	2 fragments
	<i>Ovis/Capra sp.</i>	Sheep/goat	658 fragments, 31% of total
	<i>Bos sp.</i>	Cattle	1,243 fragments, 59% of total
LAGOMORPHA	<i>Lepus europaeus</i>	Hare	1 fragment
RODENTIA	<i>Microtus (?)</i>	Vole	1 fragment
AMPHIBIA		Frog/toad	18 fragments
AVES		Bird sp.	2 fragments
TOTAL			2,107 fragments

Most of the material is in a good state of preservation, but much broken up and represents the remains of meals. All complete long bones of sheep and cattle have been measured and recorded below, but there are only nineteen of these. The bones are lodged in the Aylesbury museum, but material such as rib fragments and featureless splinters has been discarded.

*Man.* It is common to find human fragments among the bones from pre-historic sites and the 13 fragments ( $\frac{1}{2}\%$  of the total) are an average number. They are all adult.

*Dog and Cat.* Only four fragments of the domestic dog are present, and more might have been expected. Two are teeth and two are fragmentary long bones, yielding no information except that they belong to animals of average size.

One fragmentary mandible of a cat is present and appears to be domestic. It is small and adult.

*Horse.* There is one complete long bone, a metacarpal measuring 212 mm. overall, which indicates a small type of animal. The rest of the dozen horse fragments are mostly teeth and yield no information. The proportion of horse



remains ( $\frac{1}{2}\%$  of the total fragments) is about the same as in all other prehistoric and Roman faunas examined by this writer, with one exception. The horse, it seems, was not common either as transport or as a food animal.

*Pig.* Most of the pig remains are typically domestic and rather small, the animals being slaughtered before complete maturity. There is one very large tush, possibly of a wild boar. Domestic pigs may have been left to fend for themselves in the woods and may, according to Zeuner, well have crossed with the wild boar, *Sus scrofa*. ("A History of Domesticated Animals.")

*Small ruminants.* It seems safe to assume that most of these are sheep, as several horncores appear among the skull fragments, typical of the small prehistoric horned breed and resembling the present-day Soay sheep, a small-boned, slender animal. Sheep and goat are not distinguishable in the rest of the material available, and there is no indication of more than one type of animal. If goat is present, it is likely to be sparsely represented.

Many of the bones are gnawed; all body parts are represented and carcasses apparently butchered much as at present. About a quarter of the bones show evidence of immaturity, such as unfused epiphyses and deciduous or unworn molars. Slaughter apparently took place about the second year. There are no "baby" bones, i.e. of weanlings in their first season, and so no evidence of Autumn killing: but this might be because such delicate bones do not survive well.

The sheep bones (31%) are greatly exceeded by the cattle bones (59%), which seems perhaps unusual on a hilltop site.

Four complete long bones measure as follows:

Radius—141 mm. and 149 mm.

Metatarsus—125 mm.

Tibia —190 mm.

*Cattle.* These bones greatly outnumber all others (59%). But for occasional possible exceptions, they are all typical of the "Celtic ox", *Bos longifrons*, and there are several crania showing fragmentary horncores. The few bones that seem exceptionally large are not complete enough for measurement except for a third phalanx that measures 78 mm. overall. This does not seem to correspond with the other bones that indicate small, sturdy limbs. It may belong to a bull or to a different breed of cattle.

Complete measured long bones are as follows:

<i>Metacarpals</i>	<i>Metatarsals</i>	<i>Radius</i>
<i>mm.</i>	<i>mm.</i>	<i>mm.</i>
171	186	312
176	187	
180	196	
181	207	
183		
184		
187		

## BONE FRAGMENTS FROM IVINGHOE BEACON

A I (1)	Sheep/goat	1 fragment
	Cattle	3 (2 teeth, 1 phalanx)
A I (2)	Sheep/goat	4 fragments
	Cattle	3 fragments
A I (4)	Sheep/goat	2 (1 young) fragments
	Cattle	3 fragments
A II PH 15	Sheep/goat	3 fragments
	Cattle	2 fragments
	Bird	1 beak fragment (small, wild)
	Frog/toad	6 long bones
A III (2)	Sheep/goat	13 fragments (2 young), 1 complete tibia, 190 mm.
	Cattle	26 fragments (3 young)
	Pig	3 mandible and scapula fragments
	Dog	1 femur fragment, proximal. Small
	Man	1 femur shaft fragment. Adult
A IV (1)	Cattle	13 fragments (1 young), 1 complete m/tarsal, 186 mm.
	Sheep/goat	2 fragments (1 young)
A IV (2)	Cattle	10 fragments (1 young), 1 complete m/carpal, 184 mm.
	Pig	1 ulna frag. Large. Wild boar?
A IV (5)	Sheep/goat	2 fragments (1 young)
	Cattle	1 fragment
A IV (16)	Sheep/goat	1 fragment
	Cattle	5 fragments
A IV (21)	Dog	1 radius frag. Small
	Sheep/goat	2 fragments, young
A IV 22 and 23	Cattle	4 fragments
	Sheep/goat	3 fragments
A IV (29, 30)	Cattle	2 fragments
	Sheep/goat	5 fragments. Very small type
A IV (36)	Cattle	1 fragment
	Sheep/goat	1 complete radius, 141 mm. overall 1 phalanx
A V (2)	Sheep	1 horncore
	Sheep/goat	7 fragments
	Cattle	18 fragments (2 young)
A VI (1)	Pig	1 tooth
	Sheep/goat	3 fragments
	Cattle	6 fragments
A VI (2)	Horse	1 incisor
	Cattle	11 fragments
A VI PH 14	Pig	1 fragment
	Cattle	3 fragments
A VII (1)	Fox	1 femur

A VII (2)	Sheep/goat	9 fragments (1 young)
	Cattle	27 fragments (6 young) 1 horncore, small, stubby 1 complete metatarsal, 187 mm.
A VII (4)	Pig	2 fragments
	Horse	2 teeth
	Man	1 radius fragment
	Sheep	1 horncore
	Sheep/goat	17 fragments (4 young), 1 complete radius, 149 mm.
A VII (5 and 5a)	Cattle	9 fragments
	Pig	4 fragments
	Horse	1 tooth
	Cat	1 skull fragment, mandible. Domestic
	Sheep	2 horncores
A VII PH 25	Sheep/goat	11 fragments (1 young)
	Cattle	28 fragments (2 young) 1 complete radius, 312 mm. 1 complete metacarpal, 187 mm.
A VIII (2)	Pig	8 fragments
	Cattle	2 fragments
A VIII (2)	Sheep/goat	18 fragments (3 young)
	Cattle	27 fragments (3 young) Complete metacarpals, 181 and 171 mm. 1 third phalanx, 78 mm. overall, large
A VIII (3)	Pig	1 fragment
	Sheep/goat	17 fragments (1 young)
	Cattle	50 fragments (2 young)
A VIII 16 PH	Pig	3 teeth
	Red Deer	1 antler fragment
	Man	2 phalanges
	Vole	4 teeth
	Pig	12 fragments of a new-born piglet
A VIII (17) PH	Fowl	1 bone of domestic fowl
	Frog/toad	12 long bone fragments
A VIII (18)	Cat	1 jaw. Domestic, probably
	Cattle	1 complete tibia, 312 mm. overall length
A IX (2)	Fox	1 jaw
	Sheep/goat	30 fragments (1 young)
A X (2)	Cattle	24 fragments, mostly teeth
	Pig	11 fragments
	Sheep/goat	84 fragments (10 young)
A X PH	Cattle	147 fragments (13 young), 1 complete metacarpal, 176 mm.
	Pig	15 fragments
	Red Deer	3 antler fragments
A X PH	Sheep/goat	3 teeth
	Pig	1 mandible

A XI PH	Cattle	4 fragments
	Pig	3 fragments
A XII (1)	Sheep/goat	4 fragments (1 young)
	Cattle	22 fragments (2 young)
	Pig	1 fragment
A XII (3)	Sheep/goat	83 fragments (10 young)
	Cattle	143 fragments (9 young) 1 metatarsal 196 mm.
	Pig	17 fragments
	Horse	3, 1 complete metacarpal, 212 mm.
	Red Deer	4 antler fragments
A XII (4)	Fox	1 skull fragment
A XIV (3)	Sheep/goat	16 fragments (1 young)
	Cattle	30 teeth, m/tarsal frags., tarsals
	Pig	5 teeth
A XIV (4)	Sheep/goat	3 fragments
	Cattle	4 fragments
	Pig	1 fragment
A XIV (5)	Sheep/goat	9 fragments (1 young)
	Cattle	16 fragments (2 young)
	Pig	4 fragments
	Horse	1 tooth
	Man	1 fragment of occipital
A XV (3)	Sheep/goat	11 fragments (5 young)
	Cattle	17 fragments (2 young)
	Pig	1 tooth
A XV (4) Pit	Sheep/goat	14 fragments (5 young)
	Cattle	27 fragments (1 young)
	Pig	4 fragments
A XVI (2)	Sheep/goat	20 fragments (3 young)
	Cattle	67 fragments (5 young) 1 metatarsal, complete, 207 mm.
	Pig	4 fragments
	Dog	1 canine tooth, average
A XVII (3)	Sheep/goat	14 fragments
	Cattle	12 fragments (1 young)
	Pig	2 fragments
	Man	1 molar, worn
B IV (2)	Sheep/goat	7 fragments
	Cattle	20 fragments
	Pig	2 fragments
	Hare	1 mandible
B IV (4)	Sheep/goat	9 fragments
	Cattle	12 fragments (1 young)
	Pig	2 fragments
B VIII (2)	Sheep/goat	10 fragments
	Cattle	28 fragments
B X (2)	Sheep/goat	5 fragments

	Cattle	3 fragments
	Pig	1 fragment
	Roe Deer	1 antler
B XI (4) PH	Cattle	12 fragments (3 young), 1 complete m/carpal, 183 mm.
B XII (2)	Sheep/goat	8 fragments
	Cattle	12, mostly teeth
	Pig	2 fragments
B XXI (2)	Sheep/goat	3 fragments (2 young)
	Cattle	5 fragments
	Pig	3 fragments
	Horse	1 tooth
C I (2)	Sheep/goat	9 fragments (2 young)
	Cattle	20 fragments (2 young), 1 complete m/carpal, 180 mm.
C I (10)	Sheep/goat	25 fragments (6 young)
	Cattle	4 fragments
D I (2)	Sheep/goat	4 fragments
	Cattle	2 fragments
	Pig	1 fragment
D I (4)	Sheep/goat	40 fragments (21 young)
	Cattle	30 fragments (2 young). Many burnt
E I (2) and (3)	Sheep/goat	22 fragments (5 young)
	Cattle	43 fragments (2 young)
	Pig	2 teeth
E II (2)	Sheep/goat	40 fragments (6 young). 1 metatarsal, 125 mm.
	Cattle	98 fragments (2 young)
	Pig	12 fragments
	Horse	1 tooth
	Dog	1 tooth, canine
G II (2)	Sheep/goat	1 fragment
	Cattle	14, mostly teeth
	Pig	2 fragments
G II (4)	Sheep/goat	11 fragments (2 young)
	Cattle	22 fragments
	Pig	1 fragment
	Roe Deer	1 mandible (4 teeth)
G II (5)	Sheep/goat	7 fragments (3 young)
	Cattle	17 fragments
G III (2)	Sheep/goat	7 fragments (1 young)
	Cattle	25 fragments
	Horse	1, fragment of m/carpal
G III (5)	Sheep/goat	6 fragments (2 young)
	Cattle	8 fragments
	Pig	2 fragments
G III (6)	Sheep/goat	17 fragments (2 young)

	Cattle	53 fragments (3 young)
	Pig	3 fragments, 1 large tush—wild boar?
	Vole	1 jaw
	Man	7 skull frags., parietal, occipital, very thick
G III (9)	Sheep/goat	2 fragments
	Cattle	17 fragments (2 young)
G III (11)	Sheep/goat	2 fragments
	Cattle	6 fragments (1 horncore, typical <i>Bos longifrons</i> )
	Pig	1 fragment
G III (13)	Sheep/goat	1 fragment
	Cattle	12 fragments (1 horncore)
G III (20)	Sheep/goat	4 fragments
	Cattle	4 (teeth)
C VI (4)	Cattle	4 fragments
	Horse	1 tooth
G VII (5)	Cattle	1 fragment
	Red Deer	1 antler tine
G VIII (4) (PH)	Pig	1 mandible frag. with 2 teeth
	Cattle	3 fragments
	Sheep/goat	1 fragment, innominate

#### BONES EXCAVATED FROM PITSTONE HILL

Bones from a number of pits were examined, distributed as shown in the accompanying list. They reveal a fauna as follows:

PRIMATES	<i>Homo sapiens</i>	Man	2	fragments		
CARNIVORA	<i>Canis familiaris</i>	Dog	43	do.	5%	of total
PERISSODACTYLA	<i>Equus caballus</i>	Horse	12	do.	1%	do.
ARTIODACTYLA	<i>Sus</i> sp.	Pig	49	do.	6%	do.
	<i>Ovis/Capra</i> sp.	{Sheep Goat}	421	do.	50%	do.
	<i>Bos</i> sp.	Cattle	319	do.	37%	do.
RODENTIA	<i>Microtus</i> (?)	Vole	3	do.		
TOTAL			849 fragments			

The two fragments of human bone are the tibia and femur of a new-born infant. The dog fragments consist of parts of the skulls of two puppies. The sheep bones resemble those from the neighbouring Ivinghoe Beacon and so do the cattle, but here at Pitstone the sheep exceed the cattle (37% and 50%). There is one complete radius of *Bos* which measures 260 mm. overall, as compared to a radius from Ivinghoe of 315 mm. A complete tibia from Pitstone measures 303 mm. Other bones complete measure:

*Sheep*: Metacarpal, 118 mm. and 108 mm.

*Horse*: Metacarpal, 190 mm.

The general picture from Ivinghoe and Pitstone is of an almost entirely domestic nature, possibly of a quite extensive community of cattle and sheep breeders, since there is very little evidence of wild fauna.

#### BONE FRAGMENTS FROM PITSTONE HILL

PIT 1	Sheep/goat	2 fragments of a mature animal 12 fragments of a lamb, a few weeks
	Cattle	23 fragments. One animal, including the cranium. Young, small size
	Pig	7 fragments of a piglet, a few weeks
	Dog	30 fragments, including skull fragments of a puppy
	Vole	1 jaw
PIT 4	Sheep/goat	3 One metacarpal, complete, 118 mm.
	Cattle	1 fragment
	Dog	6 skull fragments of a puppy
	Vole	1 jaw
PIT 5	Sheep/goat	80 fragments. Mostly splinters of long bones, ribs
	Cattle	56 fragments, including cranium of a small ox, typical of <i>Bos longifrons</i>
	Pig	3 fragments
	Horse	4 fragments, including mandible with 4 teeth, a small, old animal
PIT 6	Sheep/goat	106 fragments. Several young mandibles, with deciduous teeth and 3 skull fragments with horncores, typical of small Iron-age animals
	Cattle	34 fragments, including a complete tibia, 303 mm., sacrum, calcaneum, phalanges
	Pig	7 fragments, including five teeth
	Dog	6 fragments, medium-sized animal
	Vole	1 complete skeleton
PIT 10	Layer A	Sheep/goat 7 fragments
		Cattle 36 fragments, including a horncore
Layer D	Sheep/goat	15 fragments
	Cattle	19 fragments. A complete radius, 260 mm.
	Pig	2 fragments
Layer E	Cattle	15 fragments, including a large fragment of cranium
	Horse	1 first phalanx
PIT 16	Sheep/goat	20 fragments

Prr 17	Cattle	1 fragment
	Sheep/goat	94 fragments. 1 metacarpal, 108 mm.
	Cattle	115 fragments. All parts
	Pig	21 fragments
	Dog	1 canine
	Horse	6 fragments, including one complete metacarpal, 190 mm.
	Man	2 fragments. Tibia and femur of a young infant
Prr 23	Sheep/goat	1 astragalus
	Cattle	1 tarsal
	Horse	1 incisor
Prr 24	Sheep/goat	81 fragments, including 1 complete tibia, 172 mm.
	Cattle	18 fragments
	Pig	9 teeth





PLATE I (a), Ivinghoe Beacon from north.

*Edward Johnston*



PLATE I (b), Beacon from south.

*Edward Johnston*



PLATE II (a). Defences. Site A.  
The rods at the rear mark the site of post-holes

*Edward Johnston*



PLATE II (b). Defences. Site A.

*Edward Johnston*

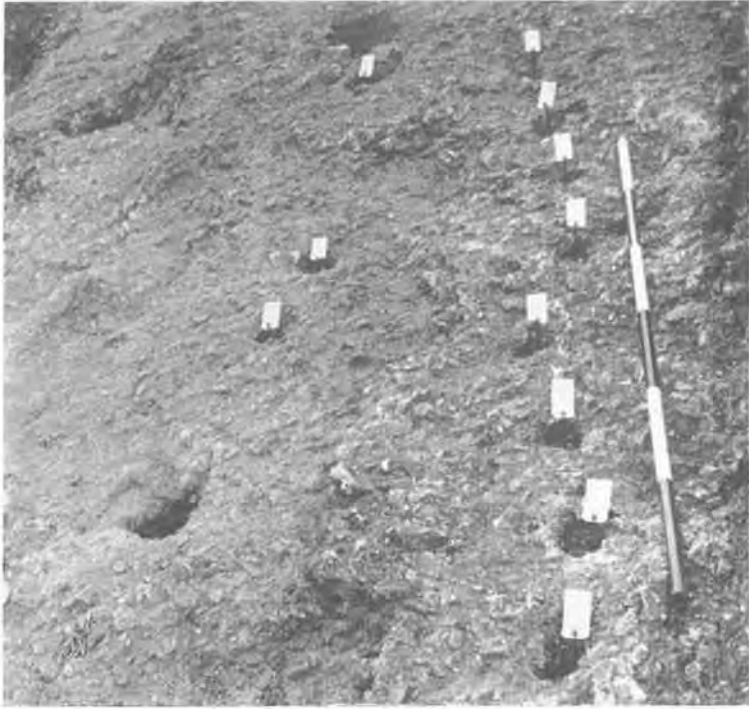


PLATE III (a). Stake structure behind rampart. Site A. *Edward Johnston*

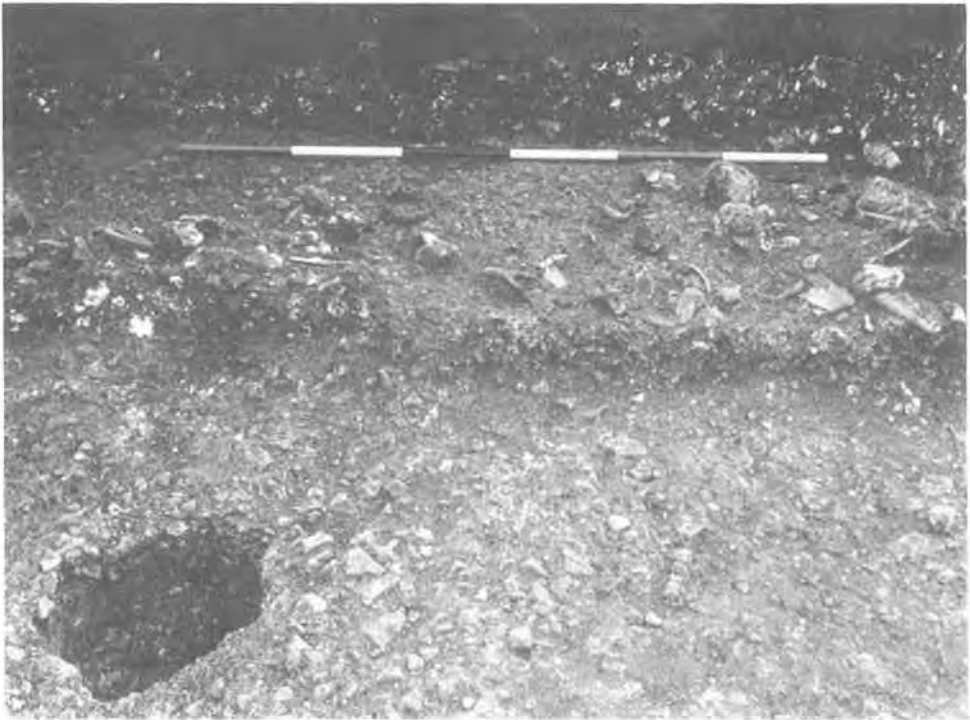


PLATE III (b). Chalk rubble (in section) and occupation layer  
behind rampart. Site A.

*Edward Johnston*



PLATE IV (a). Inner ditch. Site C.

*M. A. Cotton*



PLATE IV (b). Looking over inner and outer ditches. Site C.

*M. A. Cotton*



PLATE V (a). Outer ditch. Site C.

*M. A. Cotton*

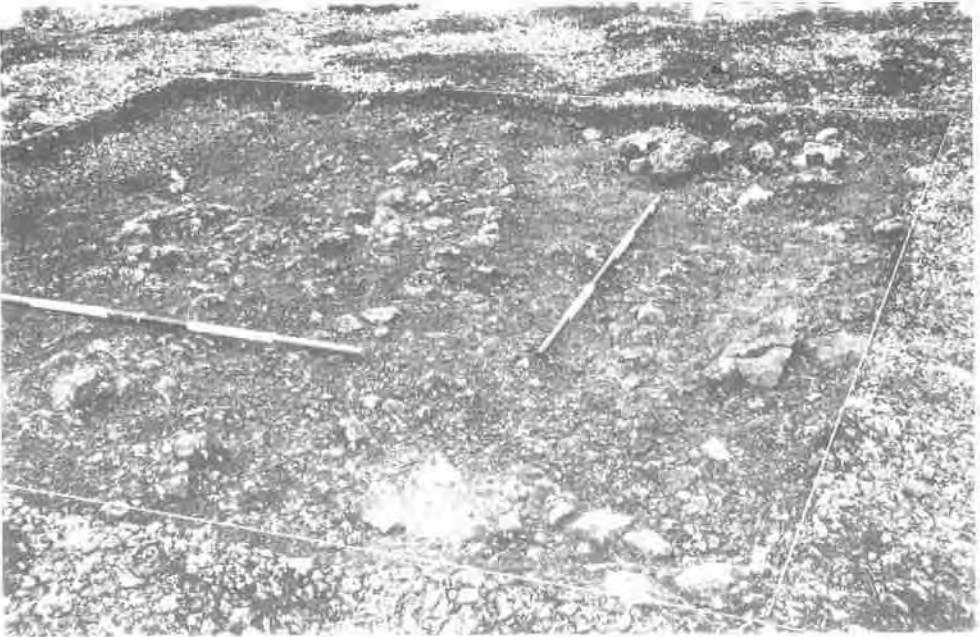


PLATE V (b). Chalk cobbling. Site B.

*M. A. Cotton*



PLATE VI (a). Large post pit north of gate. Site G.

*M. A. Cotton*



PLATE VI (b). South ditch-end. Site G.

*M. A. Cotton*



PLATE VII (a). Trapezoid feature, Site A. (p.196)

*M. A. Cotton*



PLATE VII (b).  
Post-pits on south side of gate, Site G, looking east

*M. A. Cotton*



PLATE VIII (a). Trepanned roundel. (p. 216)  
Outside ( $\frac{1}{4}$ )



PLATE VIII (b). Inner side of roundel  
*R. L. Wilkins*



PLATE VIII (c). Chalk lump with tool marks (Fig. 12, 6)( $\frac{1}{4}$ ).

*R. L. Wilkins*