

# AN ANOMALOUS EARTHWORK OF THE LATE BRONZE AGE, ON COCK HILL, SUSSEX

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The secondary, southern escarpment of the South Downs, between the River Arun and the Findon "Windgap," is interrupted by the convergence of three valleys, which enter the coastal plain together by Patching pond. The middle of these three valleys, Storrington Bottom, runs southwards from Chantry Hill; the air photograph (Plate I and Fig. 1) shows it between Harrow Hill on the west and Blackpatch Hill on the east (O.S. Map 6in., sheet L, S.E.).

It will be seen that the eastern face of Harrow Hill is smooth, but the western face of Blackpatch is divided into three slopes by two subsidiary coombes, which run in a south-westerly direction into Storrington Bottom.

The Doctors Curwen described an unusual earthwork<sup>1</sup> on the northernmost of these three slopes which runs up to Cock Hill, the saddle-shaped, northern continuation of Blackpatch. The earthwork lies just above the 300ft. contour, a few yards to the east of an ancient fieldway which marked the eastern limit of Northdown Farm. The air photograph (Plate I and Fig. 1) shows the site 1 in relation to the Celtic farms on New Barn Down 2 and Blackpatch 3 and to the flint mines on Harrow Hill 4 and Blackpatch 5.

The description of the Doctors Curwen, which was accompanied by a survey, was as follows:—

"A peculiar earthwork, 160ft. in diameter, is to be seen on the side of Cock Hill, seven hundred yards to the north-east (of the Celtic farm on New Barn Down) and three hundred from Northdown Farm. At first sight it has the appearance of a disc barrow, a type of barrow rare on the Sussex Downs, in which the soil from the ditch has been thrown up on the outer side, so that the fosse is on the inner rather than on the more usual outer side of the vallum. On closer examination, however, it is seen that the earthwork is not, and never has been, circular; for both fosse and vallum have been extended in the south-east direction, apparently to enclose a circular, pond-like depression with a flat floor. One or two pits are to be seen within the enclosed area, and there is an elongated pit some 45 by 20ft. cut into the very vallum itself; but the appearance of this latter suggests modernity.

<sup>1</sup> *Sussex Archaeological Collections*, LXIII, p. 35.

FIGURE 1

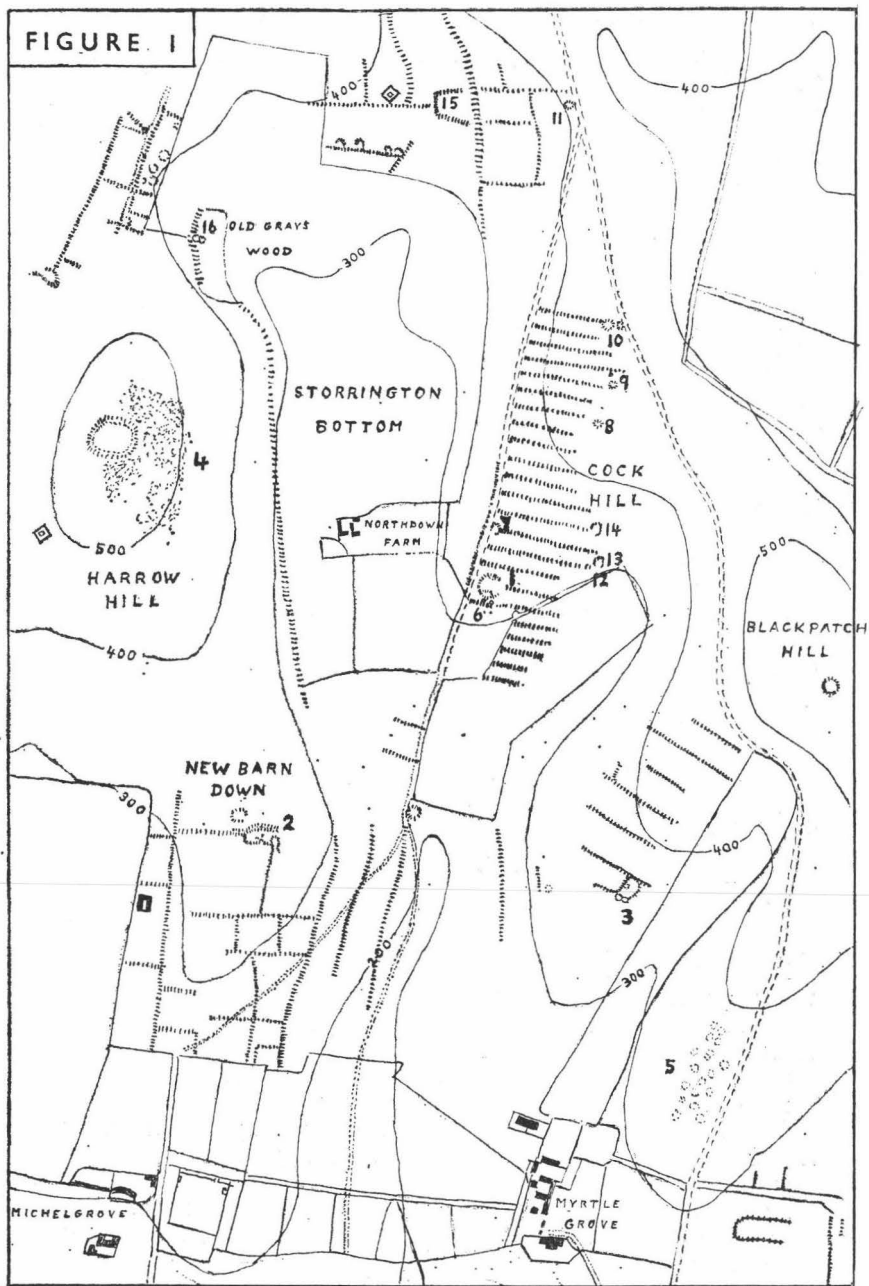


FIG. 1. THE ENVIRONS OF COCK HILL.

"An old man who has spent all his days on these Downs told us that he had heard that in days gone by this earthwork had been fenced in and used as a cattle enclosure. . . . This earthwork is of large enough size for a cattle enclosure and, if it was constructed for this purpose, one can readily understand the wisdom of putting the ditch on the inner side of the palisaded bank. The pits within the area correspond roughly to the pits seen in so many of the valley entrenchments on the Downs. On the other hand we know of no valley entrenchment, constructed for the enclosure of sheep or cattle, that is not rectangular or subrectangular; but we have seen, on Plumpton Plain, the vallum of one of the circular earthworks that comprise the early British village there, reinforced by hurdle and gorse to fit it for use as a sheepfold. It is quite possible that, in like manner, the earthwork under consideration may have been constructed as a disc barrow, and have been adapted for use as a cattle or sheep fold at a much later date: the eastern side of the vallum and fosse being disturbed to provide suitable entrance. The want of symmetry of the southern parts of the bank and ditch, however, make us hesitate to accept this view without reserve."

The earthwork was also mentioned by Mr. L. V. Grinsell, who said "Probably not a barrow."<sup>1</sup>

In 1952 the site was threatened with destruction by the bulldozers which had been used on the flint mines and the Celtic farm on Blackpatch. The farmers, Messrs. Jenkins, however, agreed to spare the earthwork, and permitted the writers to re-survey and excavate it (Fig. 2). This was done in stages over a period of five years. The rest of the slope was ploughed, but the opportunity was taken of surveying it, and examining, where possible between crops, any structures of archaeological significance which were detected on it.

## EXCAVATION

### (a) The Outer Bank.

1. Both sectors lying outside the causeway, between the ends of the ditch, were cleared.
2. A section, 3ft. wide, was cut right through the north-east sector opposite stake holes in the ditch.
3. Another, 10ft. wide, in the north-north-east sector where the bank had fallen into the ditch.
4. Another, 3ft. wide, in the north-north-west sector.
5. Another, 6ft. wide, in the south-west sector.
6. Three cuttings, each 4ft. square and 5ft. apart, were made into the top in the west sector to demonstrate post holes.

### (b) The Ditch.

Approximately half of this, including both ends, was cleared.

- (c) The Causeway between the ends of the ditch was cleared for a distance of 35ft. outside the line which joined them.

<sup>1</sup> *S.A.C.*, LXXV, p. 252, 50 S.E. 29.

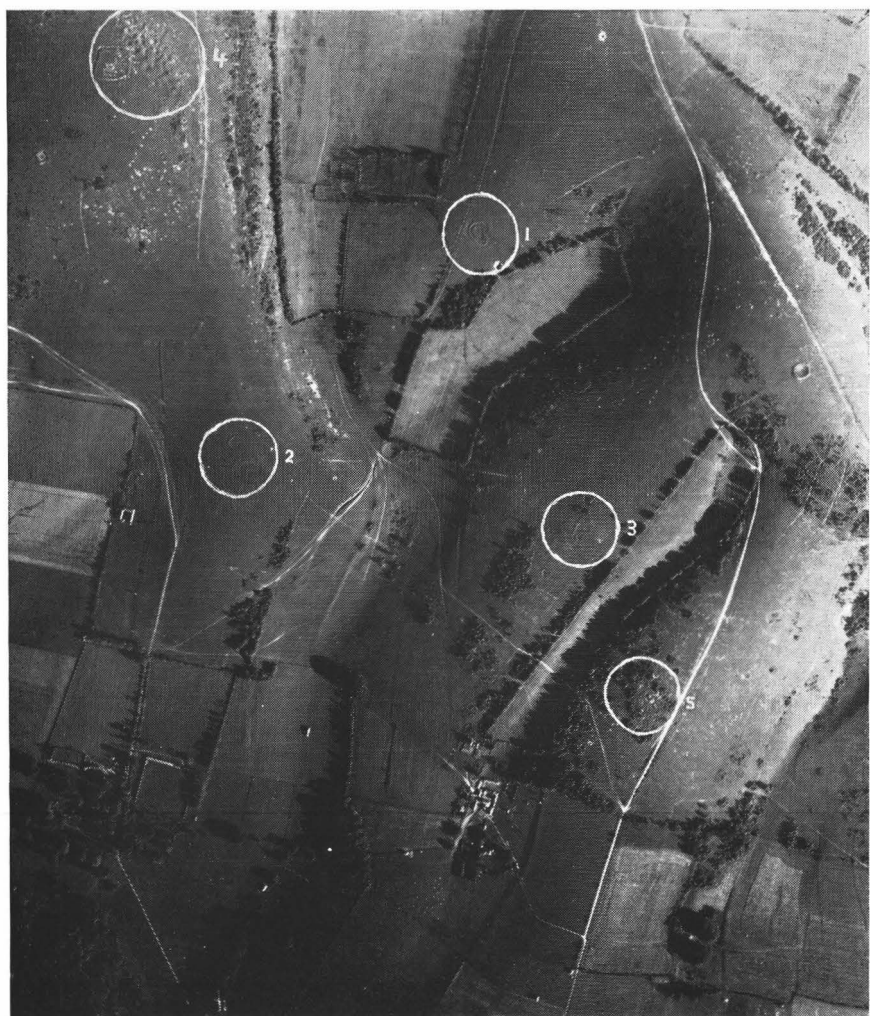


PLATE I. THE ENVIRONS OF COCK HILL.





PLATE II. SECTION THROUGH BANK. S.-W. SECTOR.



PLATE IIIA. POST HOLE IN BANK.



PLATE IIIB. SHALE TOGGLE.

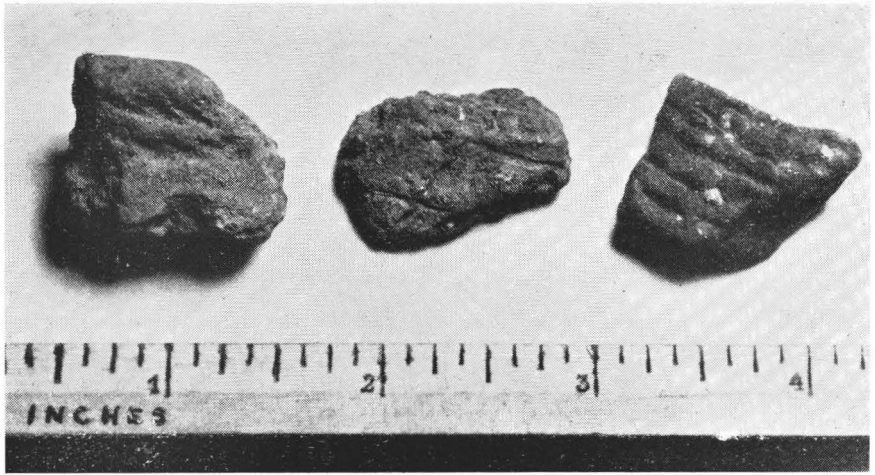


PLATE IVA. MIDDLE BRONZE AGE SHERDS FROM BENEATH BANK.

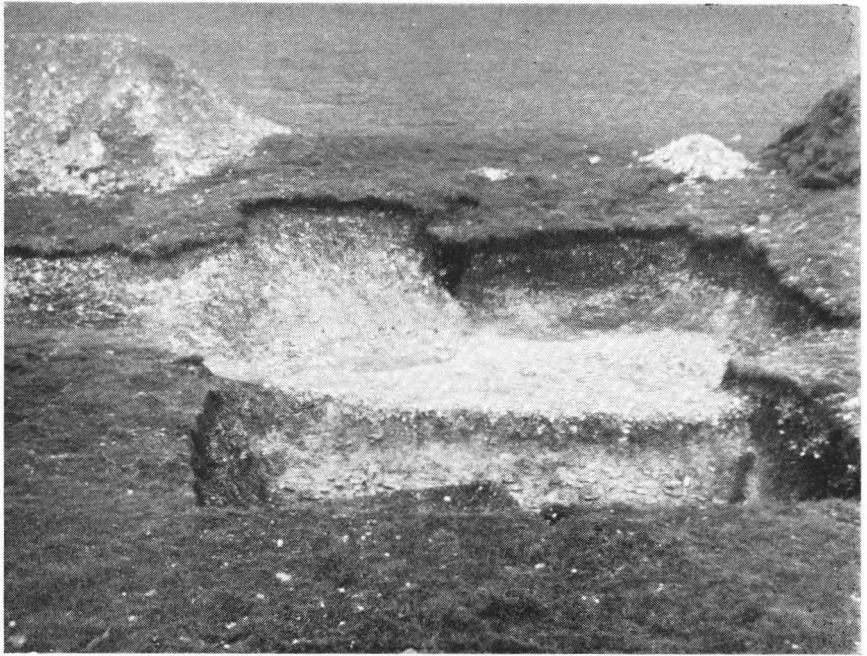


PLATE IVB. SECTION SHOWING OLD CUTTING AND COLLAPSE OF BANK,  
N.N.E. SECTOR.

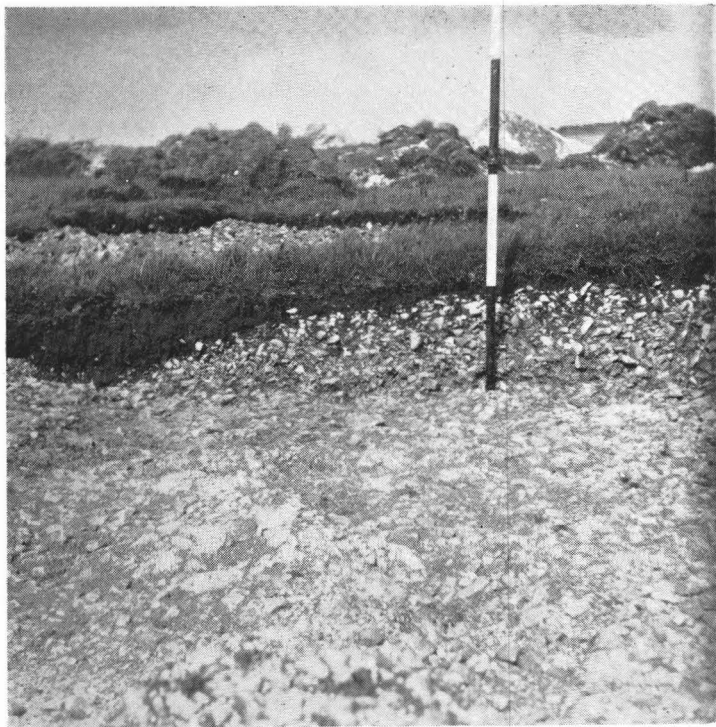


PLATE VA. SECTION THROUGH BANK ON CAUSEWAY.

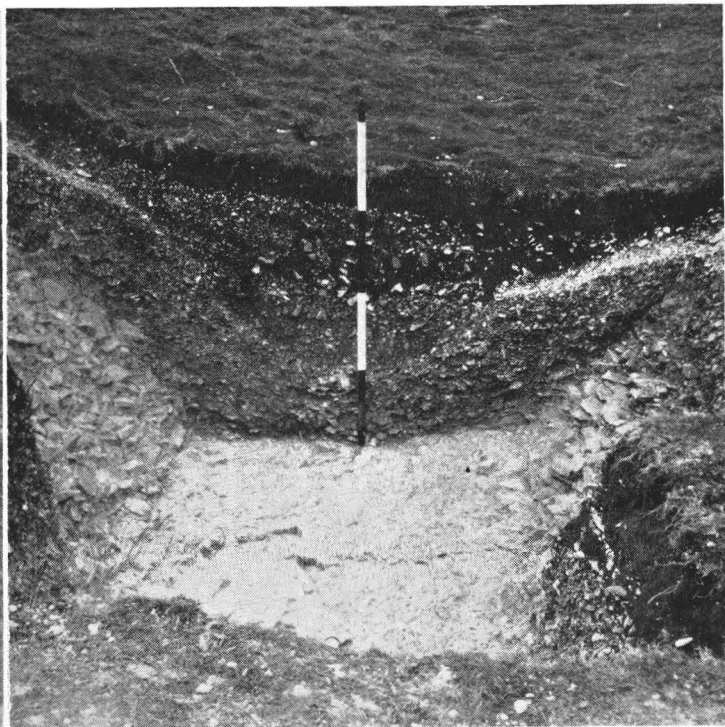


PLATE VB. SECTION THROUGH DITCH. SOUTH-WEST SECTOR.



PLATE VIA. SECTION THROUGH BANK AND DITCH, SOUTH-WEST SECTOR.



FLATE VIB. NORTH-EAST END OF DITCH SHOWING STAKE HOLES.





PLATE VIIA. SECTION THROUGH DITCH. NORTH-EAST SECTOR, ABOVE STAKE HOLES.

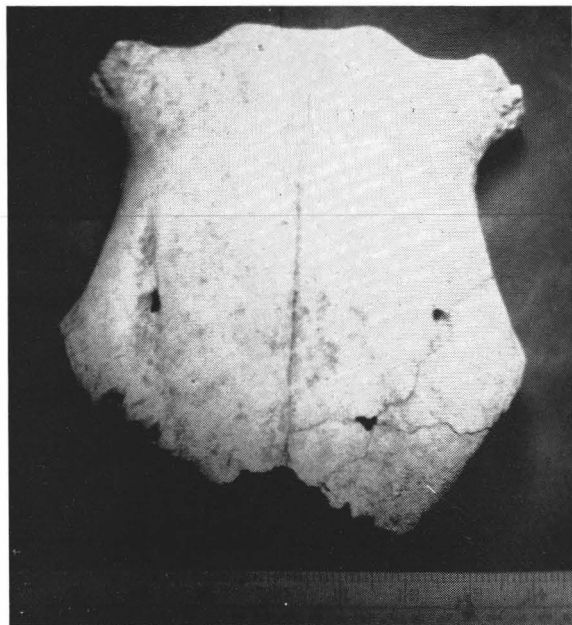


PLATE VIIB. SKULL OF *Bos Longifrons*.



PLATE VIII A. DITCH. LOOKING WEST FROM SOUTH CORNER.



PLATE VIII B. SOUTH-EAST END OF DITCH FROM SOUTH CORNER.



PLATE IX. THE ENCLOSURE FROM THE NORTH.





PLATE XA. HUT II.

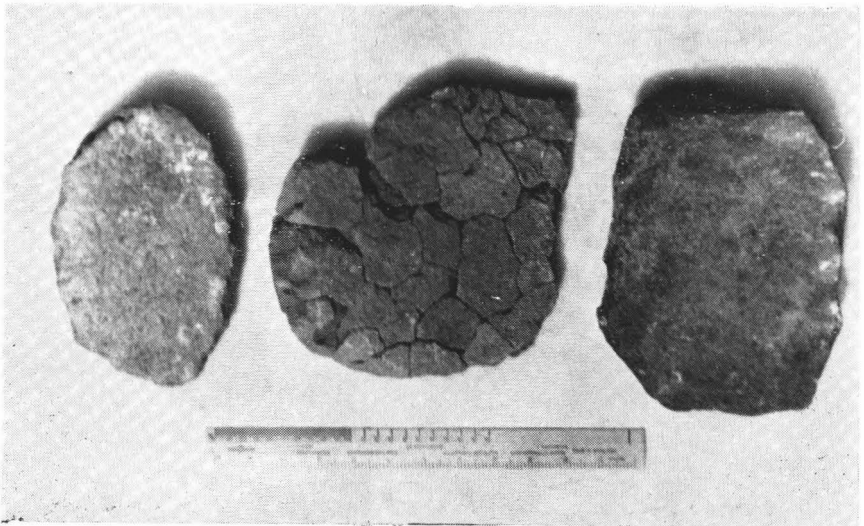


PLATE XB. QUERNS.

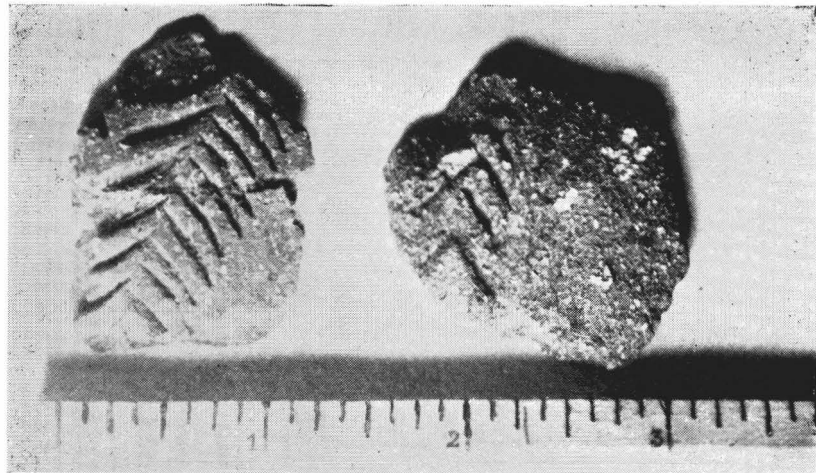


PLATE XIa. FROM LOOM PIT, HUT I.



PLATE XIb. LOOM WEIGHTS. HUT I.



PLATE XIc.  
LATE BRONZE AGE.

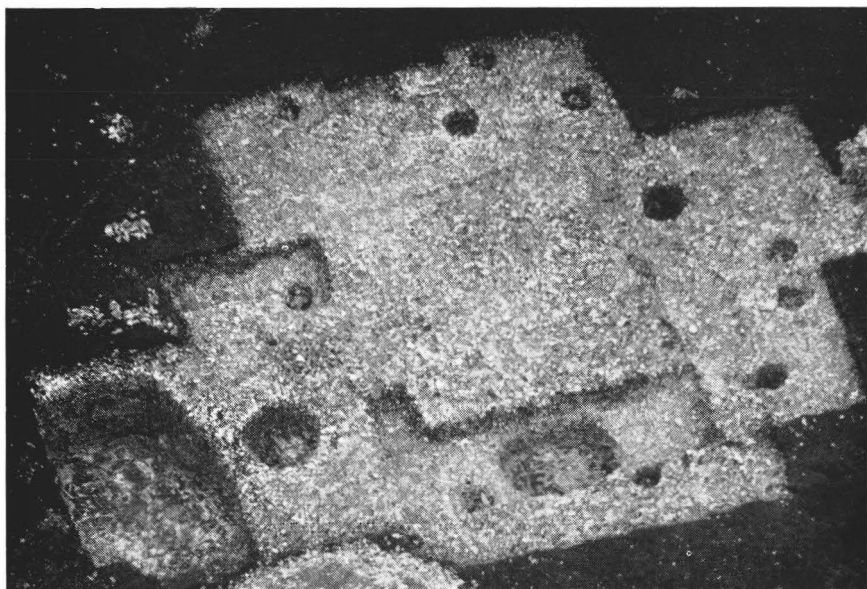


PLATE XIII. NORTH-EAST END OF DITCH AND HUT I. From North.



PLATE XIII. SAUCER QUERN.

(d) The Enclosure inside the ditch was completely excavated except for a few peripheral areas which were examined by cuttings.

The following structures on the slope, outside the earthwork were excavated (Fig. 1)—

(e) Two of three depressions to the south of the enclosure.

(f) A depression abutting on the fieldway, 300ft. to the north of the enclosure.

(g) A small, round barrow, midway between the enclosure and the top of the slope.

(h) A ploughed-out barrow on the top of the slope.

(i) An L-shaped pit, 65ft. to the north of (h).

(j) The ditch of a round barrow, 300ft. to the north of (i).

(k) A small site to the east of the enclosure.

#### THE BANK

This encircled the whole area, including the causeway between the ends of the ditch, except for an entrance break of 10ft. This entrance occurred 25ft. from the northern and 45ft. from the southern limit of the causeway.

Transections of the bank, peripheral to the main ditch, gave an average height of 18in. and width of 17ft. (Plate II). It was composed of a foot of chalk rubble and loam, covering 6in. of packed flints which lay on the old turf line. The inner face showed signs of revetment with flints. Sherds of L.B. pottery, pieces of bone, cockle shell, charcoal and pot-boilers occurred at all levels down to and on the old turf line.

Roughly circular post holes had been cut into the old surface, at intervals of about 7ft. (Plate IIIa), beneath the bank and just on the inner side of its midline. They were 6 to 8in. deep and about the same in diameter. They contained charred wood and L.B. pottery.

A toggle of Kimmeridge shale lay on the old turf line in the north-north-west sector (Plate IIIb). Several worn sherds of Middle Bronze Age date (Plate IVa) occurred in the chalk beneath the old turf line, together with small pieces of bone and charred wood, in the south-west sector.

The bank in the north-north-east sector, after its collapse into and over the ditch, had been replaced by a cutting into the hillside (Plate IVb). The chalk from this cutting had been banked up, outside it, to the north, and had, in its turn, fallen back into the cutting. Bones of ox lay on the floor of the cutting, but there was no trace of pottery or other datable material.

The sector of the bank which corresponded to the south part of the causeway splayed out to a width of 30ft. It tapered in height as it approached the entrance gap. This sector had a flat top, and was composed of chalk rubble, capped by loam and flints, and based on chalk sludge. It contained L.B. pottery, animal bone and pot-boilers. A line of large post holes was cut through the outer side

of the flat top, and extended southwards for 30ft. from the entrance gap (Fig. 2). Beyond this the bank was much disturbed by roots as far as the south end of the causeway. A line of stake holes in a gully was cut into the chalk sludge under the bank; it ran north and south beneath the disturbed area, parallel to the line of large holes, but 12ft. to the west, for a distance of 14ft. This flattened sector of the bank was bounded on the outer or east margin by a flint path, and on the inner or west one by a shallow ditch, 2½ft. wide and 1ft. deep: this was filled by soft black loam (Plate Va).

The sector of the bank which corresponded to the north part of the causeway was ill defined, as it had collapsed downhill into and over the ditch, and across the side of a hut. It was composed of mould and chalk rubble, and contained many pot-boilers and some L.B. pottery.

#### THE DITCH

A total length of 170ft. of this was excavated, including a long section at each end, and others at intervals along its course (Fig. 2). It was shorter than the bank, whose inner side it followed for 280ft. It had been cut into the chalk to an average depth of three feet below surface level, and was roughly U-shaped in section. The average width was 7ft. at the surface and 2½ft. at the bottom.

No berm separated the bank from the outer wall of the ditch which had, therefore, partly collapsed over some of its length, causing local widening and splaying of the section.

A typical section of the filling showed pure chalk rubble, packed tightly into the convexities of the "U" and up the sides of the ditch, but rather loosely towards the centre. There it thinned out rapidly until, in some sections, it was almost absent. The V-shaped section outlined by this primary silt was occupied by the main filling (Plate Vb).

The primary silt was found to contain pot-boilers, together with tiny fragments of animal bone and charcoal, which were often associated with snail shells, and lay mostly against the outer wall of the ditch. In most sectors no pottery was found in this layer, except in its inner part, where there occurred a few sherds, broken from L.B. pots in the adjacent main silt.

The main silt consisted of flint nodules in a matrix of plough soil and chalk rubble. This was stained black by charcoal and decomposed organic material, of which it contained large quantities. The lower layers were paler than the upper ones, partly due to a higher proportion of chalk rubble, and partly to leaching and Rendzina formation. This silt contained pot-boilers, animal bone, charcoal, flint artifacts, nodules of Pyrites, Mollusca and considerable quantities of potsherds. The overwhelming preponderance of the pottery was of L.B. date, but a number of sherds of the early Iron Age occurred near to the top of the section, and a few Roman and Medieval ones in, or just beneath, the turf.

The walls of the ditch had been cut with a fairly sharp tool of moderate width (Plate VIa). The horizontal laminae of chalk had been cracked through one at a time: The vertical cracks or cuts often extending for a foot or more along the side. The floor was, on the whole, smooth and horizontal; any irregularity depending on the dip of the chalk laminae. It merged into the side walls by a series of shallow steps, each consisting of a protruding cut edge of chalk lamina. In some parts these steps, and any inequalities in the floor, were obliterated by chalk sludge which resulted from weathering. Marks of antler pick or wedge were only seen in the north-east sector. No footprints or similar impressions occurred in the chalk sludge where this covered the floor.

No definite turf line was noted between the main and the primary silts, although the line of demarcation between them was often quite sharp.

Local variations from the above picture can be best described by following the course of the ditch from its commencement in the north-east, round to its termination in the south-east sector.

The north-east end could not be detected from the surface because the main bank outside had collapsed into it. However, excavation showed it to be apsidal, with steeply cut walls (Plate VIb). The cross section was subrectangular, with a flat floor, 3½ ft. wide, and a uniform brownish filling. This was unstratified, and contained the following:—

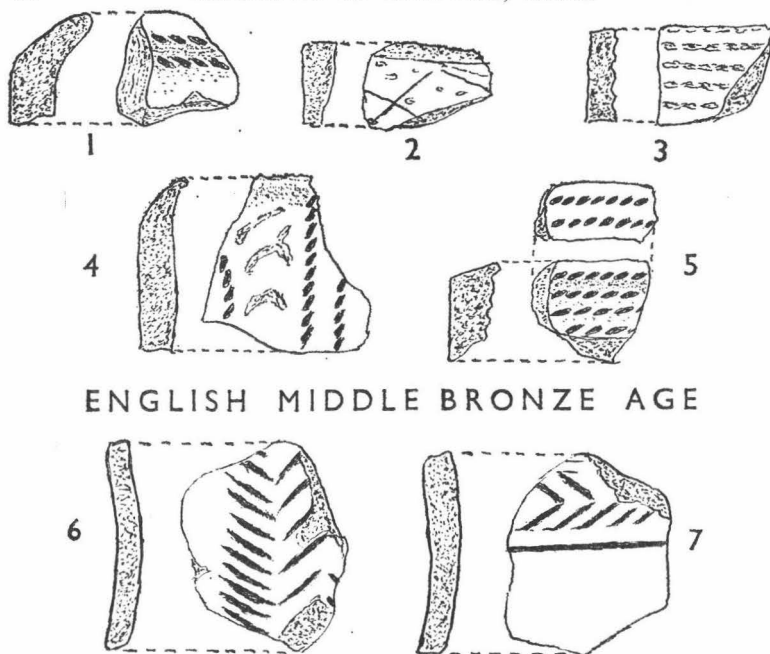
1. Many pot-boilers.
2. Quantities of small pieces of charcoal.
3. Numerous snail shells.
4. A few sherds of probable Middle Bronze Age pottery (worn).
5. Considerable amounts of L.B. pottery.
6. Part of a skull and horn of *Bos longifrons*.
7. Teeth and long bones of ox, sheep and horse.
8. A terminal human phalanx.
9. A few mussel shells.
10. A small piece of bronze strip.
11. Fragments of quern.
12. Part of the skull of a red deer, with the antler hacked off near to the base.

In addition, a post appears to have been driven through the filling, almost to the bottom.

A line of three stake holes crossed the floor at right-angles to the line of the ditch, four feet from the end (Plate VIb). Each hole was about an inch in diameter at the top and tapered to a point about six inches down. They appeared to be identical with holes made by Antler tines at Cissbury and Longdown flint mines. Opposite this line the filling changed abruptly to unstratified chalk rubble (Plate VIIa).

Ten feet further on to the westward the outer bank had been thrown down into, and over, the ditch, and replaced by a cutting





### ENGLISH MIDDLE BRONZE AGE

### FRENCH MIDDLE BRONZE AGE

FIG. 3. MIDDLE BRONZE AGE POTTERY.

into the hillside for a distance of 40ft. (Plate IVb). The filling here was unstratified chalk rubble: it was devoid of artifacts, except for a few tiny, worn sherds of Middle Bronze Age date, with a little charcoal, bone and pot-boilers on the ditch floor.

West of this sector the ditch was visible from the surface as a depression, and the sections showed the two distinct layers of filling.

In the north-west sector the width increased to 8ft. at the surface and 3½ft. at the bottom. The skeleton of a human foetus was found in association with L.B. pottery near the bottom of the main silt: a skull and other bones of *Bos longifrons* lay nearby (Plate VIIb).

In the west sector the width at the bottom reverted to 2½ft. The upper filling had been much disturbed by rabbits, and contained a sherd of medieval pottery just under the turf. The main silt almost reached the floor, and contained L.B. pottery together with bones of ox, sheep, dog and horse, and many snail shells. It was very noticeable, in all sections, that these shells invariably clustered round mammalian bones.

The south-west sector showed little difference, except that a sherd of Middle Bronze Age pottery was found in the primary silt,

against the bottom of the outer wall. Fig 3, No. 5 and Plate VI(a).

The south sector narrowed to  $1\frac{1}{2}$ ft. at the bottom, opposite the pond, but widened again rapidly before reaching the south corner (Plate VIIIa).

At the south corner the ditch turned through a right angle. The subsequent 20ft. length from the corner to the end was almost straight. The width increased again, suddenly at the corner, partly due to an old collapse of the outer wall. A subrectangular cross section, wide floor and steeply cut sides continued to the end, which was apsidal like the other (Plate VIIIb). The bank had collapsed into the ditch at the end, and the silt was unstratified. It contained much L.B. pottery, bones of ox and sheep, charcoal, pot-boilers, quern and much iron staining.

#### THE INTERIOR OF THE ENCLOSURE

This was completely uncovered, except for a few marginal parts which were examined by sections.

For the sake of clarity, it is proposed to describe the general picture which emerged before giving details of the parts. The description should be read with reference to the survey (Fig. 2) and the air photograph (Plate IX).

A flint path from the south ran up the outer side of the eastern sector of the bank to the main entrance.

The east bank was either revetted with flints, or crowned by a low flint wall, together with a fence which ran up to the south posts of the entrance gateway (Fig. 2, F.1). The gateway was apparently double, and about 8ft. wide. It showed no sledge or wheel ruts, only trodden chalk.

The fence continued northwards (Fig. 2, F.11) from the north gatepost, incorporating a tree (Fig. 2, P. VIII) just beyond the gate, and ending at another tree in the bank, just before the northern commencement of the ditch.

Just inside the entrance, on the north or right side, was a small curved fence or lean-to (Fig. 2, A.1), with a cremation (Fig. 2, C. III) at the base of one of the posts. On the south or left side of the entrance was the broad, level flint covered eastern sector of the bank on the causeway.

Just inside the north-east end of the ditch, behind, and possibly connected with the lean-to (A. 1) was a circular hut (Fig. 2, H. 1) and (Plate XIIa). From the south entrance of this hut a path ran southwards down the inner margin of the causeway. This path was bounded on the east by the bank on the causeway, and on the west by a fence (Fig. 2, F. III) for the northern 30ft. of its length, and by a pond (Fig. 2, P. 1) for the remainder.

The flat topped, eastern sector of the bank on the causeway thus formed an enclosure between the fences (Fig. 2, F. 1) on the east and (Fig. 2, F. III) on the west, with a hedge and, probably, a further fence to the south. It contained two definite post holes,



and may have been partly roofed over at the north end, near to the main entrance.

On the western side of the fence (Fig. 2, F. III), between the hut (H. I) and the pond (P. I), the ground sloped down towards the centre of the enclosure, to which there was access by a gateway through the fence. A large, sub-rectangular pit (Fig. 2, P. II) had been cut into this slope, with its long axis running for 14ft. parallel to the fence. This pit was 8ft. wide, and had a level bottom which was 3½ft. below the surface against the fence on the east, and 1½ft. below it on the west side; it was almost contained in a semi-circle of post holes (Fig. 2, A. II).

Further west, at the foot of the slope and to the north of the pond, was the circular, central depression: 8ft. in diameter and 1ft. deep in the middle. It contained a mass of flints, among which were Ox bones, fragments of quern, and potsherds of Late Bronze Age date (Fig. 2, P. III).

The ground sloped upwards from the centre in a north-easterly direction to a second, circular hut (Fig. 2, H. II) and (Plate Xa). This was built on a levelled area, just inside the collapsed sector of the outer bank.

To the north-west of the central depression a levelled cutting had been made into the slope of the hill: this contained a third hut (Fig. 2, H. III).

To the west of the central depression, and between (H. III) and the pond (P. I) was a semi-circular, walled enclosure (Fig. 2, A. III) on level ground with a cremation (C. II) at the foot on one of its posts.

To the west of this area the ground rose slightly to a low bank along the inner side of the ditch. In this bank was a subtriangular pit (Fig. 2, P. IV).

#### HUT I. (PLATE XIIa)

This was roughly circular, with a diameter of about 20ft. Nine postholes were identified as belonging to it, together with two pits and one cremation (Fig. 2, P. V, P. VI, C. 1). In addition, it is possible that the post which was driven into the filling of the north-east sector of the ditch was associated with this hut, because the ditch at this point had been filled to the level of the hut floor by the collapse of the bank into it. The post holes had an average depth of one foot, and about the same diameter. Three of them contained potsherds of Late Bronze Age date: three contained Oak charcoal: one had its packing flints replaced by the fragments of a broken saddle quern (Plate Xb), which was reconstructed by the writers.

The larger pit (P. V.), an oval 4½ft. by 3ft. by 2½ feet deep, was filled with chalk rubble and a little mould. It contained two sherds of French Middle Bronze Age pottery (Plate XIa and Fig. 3, No. 6 and 7), ten loom weights made of chalk sludge (Plate XIb); two flints with holes through them which could have been used as loom weights, a carved metacarpal and a burnt tibia of a sheep, fragments

of charred oak timber, pieces of quern, and shells of cockle and mussel.

The smaller pit (P. VI) was circular, with a diameter of 3ft. and a depth of 16 inches. It had a flat floor, and contained only loam, chalk rubble and broken flints. It lay against the inner side of the ditch, opposite the line of stake holes.

The cremation (C. I) lay in a pit 20 inches in diameter and 15 inches deep. It consisted of parts of the remains of at least three individuals—a young adult, a child under 12 and an infant. This could be seen from fragments of temporal and other skull bones and epiphyseal areas. It contained quantities of oak charcoal and one sherd of Late Bronze Age date.

### HUT II. (PLATE Xa)

The framework of this consisted of a central post, with eight others arranged round it in a circle of 20ft. diameter. In addition, six more formed a south porch, and two to the east may have represented a lean-to or a verandah. A number of pieces of quern, a relatively smaller amount of Late Bronze Age pottery, broken bone, a whetstone and pot-boilers were lying on the floor and in the post holes.

### HUT III

This was in a lower and more sheltered position than the other two. It was represented by a central post hole with seven others arranged round it, and three more in suitable positions for a porch. It is doubtful whether three of the seven holes were for main posts of the building: one was oval in shape (Fig. 2, P. VII), 3ft. by 30in. by 12in. deep. It contained many pot-boilers, charcoal and a few Late Bronze Age potsherds: it was probably a cooking hole. The other two holes were only 7in. deep and 8in. in diameter; they were filled with pot-boilers, and were situated about 2ft. to the south of the central post hole: they possibly contained wooden members to buttress the central post, or uprights for a bench or bed.

The central and southern parts of this hut appeared to have been floored by flint cobbles. Potsherds of Late Bronze Age date occurred in eight of the holes, and were scattered on the floor. Pieces of quern were found in two of the holes, also on the floor with animal bones, teeth and pot-boilers.

### ASSEMBLAGE I

This group of post holes (Fig. 2, A.1) just inside and to the north of the main entrance, was possibly part of a porch or lean-to, connected with hut 1. It appeared also to have been connected to the adjacent fence (F.11) by another post. The line of holes formed a curve, in the concavity of which was a cremation (Fig. 2, C.III), which appeared to have been marked by a post. The surface here was strewn with pot-boilers and some potsherds. Both the

cremation and the post holes were firmly dated by included Late Bronze Age pottery (Fig. 5(a)) as being approximately contemporary.

The cremation (C.III) consisted of the remains of at least one adult and one child, which appeared to have been wrapped in a bag or cloth, and buried in a pear-shaped pit, with an incomplete, broken pot of Late Bronze Age date. Charred oak timber between packing flints indicated that a post had probably been driven in beside the cremation.

### ASSEMBLAGE II

This semi-circle of seven post holes (Fig. 2, A.II) roughly outlined the pit (P.II) which had been cut into the sloping bank. The pit contained a mass of soil, flints and chalk rubble. This filling was devoid of artifacts except for some potsherds on the surface and one, of early Iron Age date, a few inches down. Also present was the root system of a tree which had almost completely rotted away.

The northernmost post hole was cut into the filling of the pit at its edge, and therefore postdated it.

The fence (Fig. 2, F.III) which passed across the diameter of the semi-circle may have been associated with the assemblage, because the gate opened into it. The post holes of this fence contained no datable objects, though one hole had had its side broken down by the insertion of a modern iron post.

### ASSEMBLAGE III

This semi-circle of six post holes (Fig. 2, A.III) contained two pits filled with flints (P. IX) and (P. X) and a cremation (C.II). The central depression of the enclosure lay at its entrance. The post holes and the cremation were both dated by their content of Late Bronze Age pottery. The floor was partly covered by a layer of flints and a flint path led up to Hut III.

The cremation (Fig. 2, C.II) contained part of the remains of an adult and of an infant. A post appeared to have been driven down at the side.

### THE POND

This was a bowl-shaped depression, some thirty feet in diameter and three feet deep, which was cut into the southern part of the enclosure. The main ditch had been cut through its southern embankment.

A cutting, 8ft. by 4ft., was made in the centre. The filling consisted of flints and fine black soil on a base of dry chalk sludge, which was deeply fissured: it was about 15in. deep. Between and beneath the flints were potsherds of the Late Bronze, Early Iron and Roman periods, together with the skeleton of a human foetus.

## PIT IV

A subtriangular pit, lying adjacent to the inner side of the south-west sector of the ditch, where slight accumulation of loose soil and flints formed a small, inner bank: it contained mainly broken flints in various stages of patination, together with some light brown soil and roots. A small piece of antler lay about a foot down at the south end. It is doubtful whether this pit was of human construction, as it held no definite artifacts among the thousands of sharply fractured flints. The floor was level and smooth, but the walls were ill-defined.

## CHRONOLOGICAL SEQUENCE

The site was occupied in the early part of the Middle Bronze Age for a length of time sufficient to allow of the discarding of at least six different pots, together with small amounts of burnt bone, charcoal, flint chips and pot-boilers. No structural work can be definitely assigned to this period, though it is possible that the fragment of antler in Pit IV was placed there then.

After an interval of time sufficient for the broken edges of the potsherds to be worn smooth by the weather, and for the turf to grow over them, fresh people arrived, bringing with them a Late Bronze Age culture.

These people built a light, horseshoe-shaped, wooden fence with posts about 7ft. apart: they charred the bases of the posts to prevent rot, and piled white, patinated, surface flints against the fence as a low bank. Meanwhile they dropped on the turf and into the post holes sherds of Deverel-Rimbury pottery, cockle shell, sheep bone, charcoal, pot-boilers and a toggle of Kimmeridge shale. The toggle (Plate IIIb) is identical with two in Devizes Museum, which were found by Colt Hoare in a Wessex round barrow. This suggests that its owner had come recently from Wessex and not from the adjacent farms on New Barn Down or Blackpatch.

Hut III was built at this time, because the soil, which was removed when its site was levelled, was not found in the enclosure, and must therefore have been piled on the bank before the ditch was dug. The hut or enclosure represented by Assemblage III was also built then, because one of its post holes was cut into by the pond.

Dr. Curwen noted that the curve of the bank and ditch was flattened in the south sector, and the writers found that the ditch narrowed as it cut through the south rim of the pond (P. I), after which it widened suddenly, and turned sharply northwards towards its commencement (Plates VIIIa and b). If the original curve had been maintained, the ditch would have cut through the lower or south sector of the pond. It appears therefore that the pond was present before the completion of the bank and ditch, which were diverted to avoid cutting it. Furthermore, there was no evidence, from an examination of their structure and contents, that the con-

struction of the bank and ditch was interrupted for any appreciable time at any stage.

The existence of a pond on the site, before the completion of the surrounding work, makes it reasonably certain that it was to be used for farming purposes. This is significant, because the position of the ditch inside the bank would, otherwise, have suggested an original Henge or Disc Barrow which was later used as a farm. No other proved habitation site of the Late Bronze Age which has been described in Sussex, or, as far as the writers are aware, in England, was surrounded by a ditch inside a bank.

The next stage, then, was the digging of the ditch, whose spoil was thrown outwards as a bank to reinforce and cover the low flint bank and the lower part of the fence. This bank sealed the Deverel-Rimbury pottery on the turf line and in the post holes, together with the older Middle Bronze Age debris beneath the turf.

It is probable that the original fence incorporated either one or two trees or bushes in its north-north-east sector, whose root systems may have been damaged when the ditch was dug just below them, so that they were blown down the slope of the hill, across the ditch. Anyhow, this sector of the bank collapsed across the ditch before there was any time for any Late Bronze Age pottery to collect in the silt, and before the building of Hut II. In its collapse it left two irregularly circular depressions, and carried with it a few worn sherds of Middle Bronze Age pottery which had been lying under the old turf.

The line of three stake holes, probably made with an antler tine, across the floor of the ditch near its north-eastern commencement (Plate VIb) divided a sector full of dark soil and artifacts from the sector into which the bank collapsed. This line ran from the bank straight towards the circular pit (Fig. 2, P.VI). Although the bank showed no sign of disturbance here, and contained nothing abnormal (Bank Section I), it is possible that it had been covered by a wooden catchment area, and that the stakes may have carried a wooden gully across the ditch to a water butt in the pit. Alternatively, the stakes may have been joined by hurdling to keep the first sector of the ditch clear of rubble after the collapse of the bank into the adjacent sector.

The bank on the entrance causeway with the line of stakes at its south end and the small ditch on the inner side, was probably contemporary with the rest of the bank. The fence (Fig. 2, F. 1 & F.II) must have completed the main enclosure.

The levelling of the ground for Hut I, of the main entrance, and of the adjacent bank on the causeway, appeared to have been a single operation.

The group of posts (Fig. 2, A.I) seems to have been associated with Hut I and to have linked up with the outer fence (F.II). Furthermore, the inner fence (F.III) was linked to Hut I. Therefore the level top of the bank between the outer fence (F.I) and the

inner fence (F.III) must have formed a sort of "foyer" to the main enclosure, with its inner entrance through the gap in the inner fence. The pit (P.II) and the group of posts (A.II) would completely block this inner entrance, unless there was a plank across the pit and a way through the line of posts. Unfortunately neither the pit nor the holes contained dateable material.

One of the post holes of Hut II was cut through the overspill of the collapsed, adjacent bank, so that this hut was probably built later than the others. Its holes, like the others, contained sherds of the Late Bronze Age.

The recovery of a pot of Plumpton Plain A type (Plate XIc) from just below the turf where the south-eastern end of the ditch had been filled by the collapse of the adjacent bank, showed that this must have occurred, and that the ditch must have become useless for its original purpose by the middle of the Late Bronze Age. Also, the presence of a post hole in the silt of the north-eastern end of the ditch suggested that the latter must have become filled up here, and no longer prevented passage between the main enclosure and the entrance round the north-east side of Hut I, while the latter was still in use.

#### THE HUMAN REMAINS

An unusual feature of this site was the quantity and variety of the human remains which were associated with it. Three multiple cremations with Late Bronze Age pottery, buried in a Henge or a Disc Barrow, would call for little comment, though even this has not so far been recorded from Sussex; but the writers have been unable to hear of any example of Late Bronze Age immigrants siting one of their Urnfields on a habitation area of the Middle Bronze Age, and then building a farm over it, or, alternatively, constructing an Urnfield in one of their own farm enclosures.

The apparent association of post holes with the cremations can be paralleled at the Latch Farm urn-field near Christchurch in Hampshire<sup>1</sup> but it only serves to accentuate the problem caused by the siting of the cremations inside the floor spaces of huts. It seems impossible to conceive of them as foundation deposits, such as the goat at Blackpatch<sup>2</sup>, the phallus at Itford<sup>3</sup>, or the old women at Skara Brae<sup>4</sup>, when it is recalled that they represent eight individuals, of whom five were children.

The level of the baby's skeleton in the silt of the ditch showed that it was dropped there rather early in the Late Bronze Age occupation. A similar one, together with that of a woman, was found in a circular ditch, with Late Bronze Age pottery, near

<sup>1</sup> *Proceedings of the Prehistoric Society*, 1938, IV, p. 175.

<sup>2</sup> *S.A.C.* 91, p. 75.

<sup>3</sup> Personal communication by G. P. Burstow, Esq.

<sup>4</sup> Stuart Piggott, *Neolithic Cultures of the British Isles*, p. 327.

Swaffham<sup>1</sup>. Furthermore, the writers are indebted to Miss Keef for the information that a number of babies' skeletons was found in the somewhat later ditch at Maiden Castle, where it was suggested that unweaned children were thought to have no souls, and therefore did not require cremation after death.

The foetal skeleton in the pond must have been placed there near the end of the occupation of the site, or at any rate near the drying up of the pond, since it would, of course, poison the water.

The matter is further complicated by the child's cremation, buried ceremonially, with Late Bronze Age potsherds, in a cyst and covered by its own round barrow. It was further up the slope (Barrow 1).

The only explanation which would seem to fit all these facts is that the skeleton in the ditch and the cremation under the barrow belonged respectively to a baby and a small child which had died during the occupation of the farm, while the other three cremations represented the young victims of an epidemic illness which terminated it. It may be conjectured whether the infant in the pond had been the cause, or just another victim of this local precursor of the Black Death.

It is virtually certain that the survivors did not carry on their stockfarming in the enclosure with the burials of their children at the entrance and in two of the buildings, especially if they were marked by posts in what would be most inconvenient positions.

## STRUCTURES ON COCK HILL OUTSIDE, BUT POSSIBLY ASSOCIATED WITH THE MAIN ENCLOSURE

### PIT XI. (FIG. 1, 6)

This was one of three saucer-shaped depressions, lying outside the enclosure to the south. It had a diameter of 15ft. and a depth of 3ft. Its centre lay 135ft. from that of the enclosure on a bearing of 185 degrees true. Its unstratified filling consisted of loam, flints and chalk rubble. It contained potsherds of the Late Bronze, Early Iron and medieval periods, together with animal bone, pot-boilers and worked flint flakes. Its floor was of puddled chalk. No post holes were present in it or round its rim.

### PIT XII. (FIG. 1, 6)

This resembled Pit XI, but was slightly smaller, having a depth in the centre of 2ft. and a diameter of 12ft. Its centre was 112ft. from the centre of the enclosure on a bearing of 169 degrees true. It contained a few medieval sherds in a filling of flints and earthy chalk rubble. The bottom was not much puddled.

### POND II. (Fig. 1, 7)

This was a "Puddle Pond" cut into the hillside, 300ft. north of the outer edge of the north sector of the main bank of the encl-

<sup>1</sup> *Proceedings of the Cambridge Archaeological Society*, XII, p. 314.



sure. It lay adjacent to the "Greenway" on its east side. It was located by observed changes in the electrical conductivity of the soil. The excavation was hurried because of the cropping cycle in the area.

The shape was found to be reniform, with a hilum to the east. A series of sections exposed nearly all the northern "lobe" and about one third of the southern one. They showed an overall length of 27ft. along the north-south axis, and a minimum width of 20ft. from east to west, decreasing to 14ft. in the centre.

The filling, which consisted of plough soil on the top of chalk rubble and flints, varied in depth from 4ft. at the north to a few inches at the south end. It contained charcoal, animal bone, pot-boilers and considerable quantities of the Late Bronze Age pottery, with a few Early Iron Age sherds near the surface.

The bottom of puddled chalk had an edge which was shewn by a clinometer to be horizontal, and which obviously represented a fluid level. The southern or downhill part had been very much trampled, as had the western part which abutted on to the "Greenway." No post or stake holes were found in the depression or round its rim.

There seems to be little doubt that this pond had been used for watering cattle in the Late Bronze Age, and that it had become largely filled with plough soil by the succeeding Iron Age.

#### BARROW I. (FIG. 1, 8)

A very low mound, some 34ft. in diameter, lay with its centre 410yds. on a true bearing of 30 degrees from the centre of the enclosure. A hurried examination while ploughing was in progress showed it to consist of large flints, piled to a height of about 8in. on the bare chalk. A central, oval cyst 30in. by 24in. was cut 9in. into the chalk. It contained the cremation of a child, aged 3 to 4 years, together with a few sherds of Late Bronze Age date. No trace of a ditch was found.

This is not marked on Mr. L. V. Grinsell's lists of barrows.

#### BARROW II. (FIG. 1, 9)

A considerable quantity of Iron Age and Roman pottery, with many large flints and pot-boilers, were turned up by the plough on the crest of the hill, about a hundred yards on a true bearing of 37 degrees from Barrow I. This was discovered by Mr. J. Clark who, with some assistance from the writers, cleared an area of 40ft. square down to the bare chalk.

An oval, shallow pit was found to have been cut into the chalk. It measured 5ft. by 3ft. by 15in. deep. It was surrounded by a roughly circular area of disturbed chalk, some 30ft. in diameter, which was covered by large flints and potsherds. No trace of any ditch and no post holes were present. The pit contained a few sherds of Late Bronze or Early Iron Age pottery, some unidentifiable



scraps of broken bone, a few pot-boilers and many snails. About half-a-hundredweight of worn Iron Age and Roman potsherds were picked up from a very circumscribed area around it, together with two "Nauheim" type fibulae and a Roman As.

The pottery included a number of "la Tene II" sherds which have not been reported from these Downs before, except from Findon Park.<sup>1</sup> The fibulae were of the common "poor man's" type, and appear to date from the first century A.D.<sup>2</sup>

#### PIT XIII. (FIG. 1, 9)

An L-shaped, steep sided pit had been cut into the chalk, 65ft. above Barrow II, on a true bearing of 340 degrees. Each limb was 5ft. long and 3½ft. wide. It contained large flints, a few sherds of Late Bronze or Early Iron Age pottery, and a few pot-boilers.

#### BARROWS III AND IV. (FIG. 1, 10)

Two Bowl Barrows lay 320ft. north of the L-shaped Pit XIII. The larger, western one is marked on the 6in. O.S. map, and recorded by Grinsell.<sup>3</sup> It had been opened in the past. A section through the ditch brought to light many Roman sherds, from some of which it was possible to reconstruct a dark grey pot which dated from the first century A.D.

The smaller barrow lay a few yards to the east, close to the adjacent "Greenway." It is recorded by Grinsell.<sup>4</sup> It was not excavated owing to lack of time, and is now ploughed out.

#### BARROW V. (FIG. 1, 11)

Another Bowl Barrow, about 30ft. in diameter, lay 900ft. to the north of the above two, by the side of the "Greenway." It is also recorded by Grinsell.<sup>5</sup> It had been opened, and was not excavated. It is still visible.

#### HEARTH. (FIG. 1, 12)

A number of pot-boilers, with a small piece of bone and a small sherd of "Beaker" were found 860ft. from the centre of the main enclosure on a true bearing of 80 degrees.

#### QUERN

A complete Saucer Quern with its upper stone in position was ploughed up (Plate XIIb) at a point said to be 367 yards on a true bearing of 23 degrees from the centre of the main enclosure. An area of about 10ft. square was cleared down to the bare chalk, but nothing else was found. If the reported position was accurate, this

<sup>1</sup> *Antiquaries Journal*, VIII, p. 449 ff.

<sup>2</sup> R. E. M. and T. V. Wheeler, *Verulamium*, p. 204.

<sup>3</sup> *S.A.C.*, LXXV, p. 252, 50 S.E. 28.

<sup>4</sup> *S.A.C.*, LXXXI, p. 214, 50 S.E. 35

<sup>5</sup> *S.A.C.*, LXXXI, p. 214, 50 S.E. 34.

must be an example of a quern being used in the open at the side of a field, as quoted by Curwen.<sup>1</sup> The lower stone was of grey sandstone and the upper of purple Sarsen. It is now in the County Museum at Lewes.

#### PITS XIV AND XV. (FIG. 1, 13 AND 14)

Two depressions on the slope to the north-east of the enclosure were found to be empty cuttings into the chalk. They were probably lime or marling pits, since the chalk here belongs to the "Marsupites" layer of the upper chalk, which is relatively soft.

#### LYNCHETS

A lynchet appeared to run eastward across the slope from the entrance to the enclosure, but no real Celtic field system was visible like that on New Barn Down.<sup>2</sup> An examination of the slope from the top of Blackpatch, which lies above and to the east of it, showed, after the first post-war ploughing, a series of parallel white lines running at an angle to the furrows. These were photographed in a low winter sunshine, and could then be seen on the slope itself, and plotted. They were negative lynchets which ran across the lower half of the slope, 100 to 130ft. apart at an angle of 95 degrees true (Fig. 1).

An examination of the upper and west side of the slope from the top of Harrow Hill suggested that the lynchets continued the whole way up. This was proved in the dry, early summer of 1957, when they appeared as "crop" markings which could be photographed. By taking the bearings from a fixed point on Harrow Hill of the points where these lynchets cut the "Greenway" which ran past the enclosure, it was possible to plot them on the map (Fig. 1).

It then became apparent that the whole slope below Barrows III and IV was covered by strip lynchets, 600 to 700ft. long and 100 to 130ft. apart. This suggested a mediaeval Open Field, rather than a system of small, square, Celtic fields.

This finding fits in with the presence of mediaeval pottery in the top of the silt of the ditch of the enclosure and in the pits below it. It would explain the obliteration of Barrows I and II and of the Pond II, together with all traces of a Celtic field system, while the main enclosure which was used as a cattle "kraal," and the marling pits which lay to the east, were spared.

It may be noted that a mediaeval farm building lay in Storrington Bottom, 800 yards on a true bearing of 355 degrees from the enclosure (Fig 1, 15) and a mediaeval hut in Old Gray's Wood nearby (Fig. 1, 16).

It is probable that the cutting into the north-east sector of the main enclosure's bank was late, the spoil being banked up outside,

<sup>1</sup> *Antiquity*, XII, 1938, p. 151.

<sup>2</sup> *S.A.C.*, LXXV, p. 136, ff.

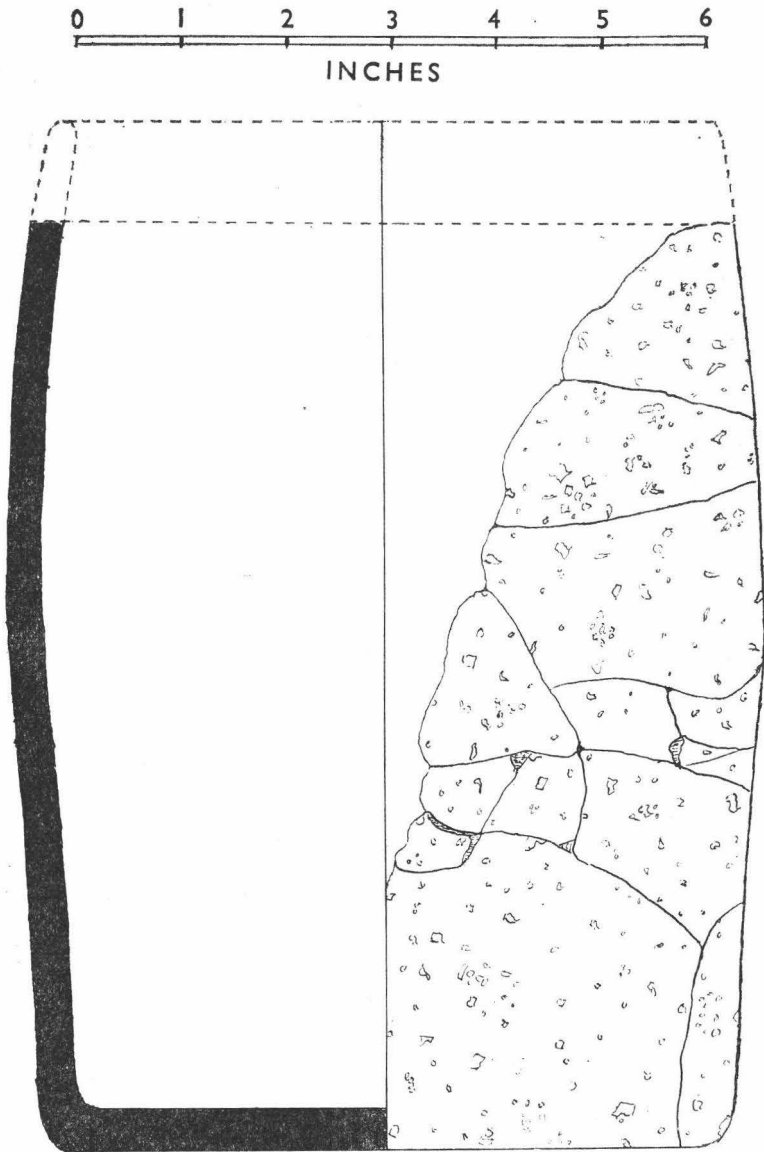


FIG. 4. LATE BRONZE AGE VESSEL.

presumably to keep in livestock at that point. Later this outer bank collapsed back into the cutting. Also, remains of iron fence posts were found in the entrance to the enclosure, which confirmed the old countryman's story, as related by the Doctors Curwen.

## THE POTTERY

### 1. MIDDLE BRONZE AGE

The small sherds from beneath the original turf line under the bank and from the primary silt of the ditch were worn smooth at their fractured edges. They were so impregnated with chalk that treatment with weak acetic acid was required to restore their true appearance (Plate IVa and Fig. 3). They were of smooth, well washed, buff paste with fine flint grit. Numbers 2, 3, 4 and 5 are very similar to food vessels numbers 201, 303 (a), 29 and 411 respectively in Vol. 1 of Abercromby's *Bronze Age Pottery*. Number 5 is also not unlike a vessel, found by Mr. J. Pull on Blackpatch, which is in Worthing Museum. Number 1 appears to have come from a rather thick walled pot shaped like a "C" Beaker.

It is of interest that Early or Middle Bronze Age sherds were found on the Late Bronze Age sites at Thorny Down,<sup>1</sup> Pokesdown<sup>2</sup> and Itford (seen by the writers).

### 2. LATE BRONZE AGE

Two sherds from the Loom Pit in Hut I (Plate XIa and Fig. 3) numbers 6 and 7, were from a globular vessel identical with one from the Late Bronze Age village on Park Brow.<sup>3</sup>

Great quantities of sherds from plain, bucket shaped Deverel-Rimbury pots were scattered all over the site, and in the main silt of the ditch. The rims were all absolutely plain and the bases flat. The paste was exceedingly rough, and very badly fired: it contained much coarse flint grit. Some pots appeared to have been built up in rings, with walls of very varying thickness. Decoration was either absent, or consisted of applied bands with, or without, applied fingertip impressions (Plate XIc).

Other vessels were barrel shaped (Fig. 4), while still others were fitted with applied lugs (Fig. 5). The last mentioned variety are common in the district, examples having been found by the writers on Harrow Hill and Park Brow.<sup>4</sup>

No clear impressions of grain occurred on any of the bases.

### 3. EARLY IRON AGE

Two sherds with "bead" rims, and one or two with fingertip impressions on the body of the vessel, were found under the turf, in the enclosure, and near the top of the silt of the ditch.

<sup>1</sup> *Proceedings of the Prehistoric Society*, 1941, VII, p. 128.

<sup>2</sup> *Antiquaries Journal*, 1927, VII, p. 465.

<sup>3</sup> *Archaeologia*, 1927, LXXVI, p. 16, Fig. 2.

<sup>4</sup> Now in the County Museum, Lewes.

Sherds from "saucepan" shaped pots with impressed, curvilinear decoration, and "tarmac" slip occurred on the site of "Barrow II."

#### 4. ROMAN

Only one or two sherds came from the enclosure, but a lot of Iron Age A. B. C. and Roman grey and buff ware was present at Barrow II and in the ditch of Barrow III.

#### 5. MEDIEVAL

Sherds with flat rims, picrust decoration and green glaze lay on the top of the silt of the ditch, and in the Pits XI and XII to the south.

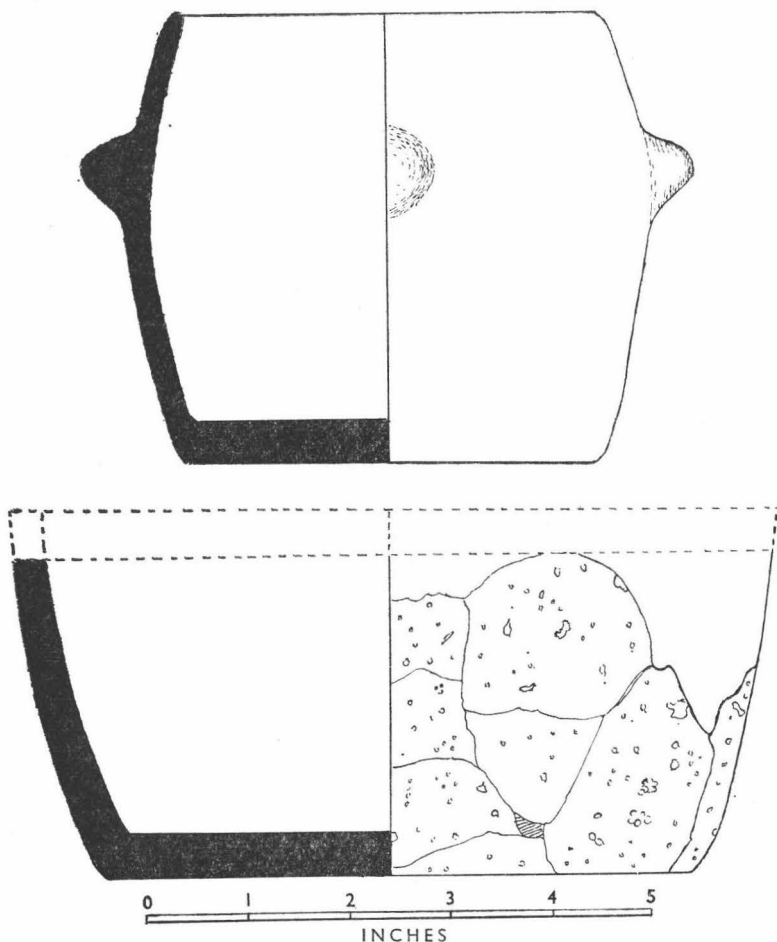


FIG. 5. (a) and (b). LATE BRONZE AGE VESSELS.



FIG. 6. FLINT SCRAPERS.

## OTHER SKELETAL MATERIAL

*Ox*

Mostly *Bos longifrons* and young animals. Represented by fragments of 5 skulls: 4 left and 3 right mandibles: 3 right and 2 left tibiae, and from 1 to five of each of the other bones. Teeth, often present in groups where the jaw had rotted away, represented a greater number of animals, as in the neighbouring enclosure on Harrow Hill.<sup>1</sup>

*Sheep*

Represented by mandibles of 5, and the teeth of more individuals. Other bones were pelvis, vertebrae, astragali, humeri and metapodials. All were broken or cut, and many were burnt. One metapodial had been carved, and another, from the loom pit, may have been used as a shuttle.

*Horse*

Represented by one right tibia and several teeth. The individual was very small.

<sup>1</sup> S.A.C., LXXVIII, p. 248.

*Deer*

Represented by a left frontlet of *Cervus elaphus* with the antler cut off, and by a broken tine.

*Dog*

Represented by a left humerus.

A bone point was found in the main silt in the south-east sector of the ditch. Other cut pieces of long bone were probably used as gravers or skewers.

## FLINT

The commonest flint tools were scrapers, a point noted by Dr. Stone at Thorny Down.<sup>1</sup> These occurred in the ditch, in the enclosure and on the adjacent hillside: they were mostly rather roughly made and steep nosed.

Some examples, collected on the site by Mr. J. P. H. Clark, are shown (Fig. 6).

A few saws or sickles, some knives, borers, strike-a-lights and hammer stones constituted the only other artifacts in this medium.

## WEAVING

Ten loom weights lay on the bottom of Pit V in Hut I: They formed a straight line along the long axis of the oval (Plate XIb). They were made of a mixture of clay and chalk sludge, with a stiffening of coarse flint grit, which had been very poorly baked. They had originally been rough spheres, with a diameter of about 4in. and a circumference of 13½in. but, in each case, a perforation through the centre had shortened one diameter by  $\frac{1}{4}$ – $\frac{1}{2}$  inch, and produced an oblate spheroid. The perforations were approximately circular in section, with an average diameter of  $\frac{1}{2}$  inch at the centre and 1 inch at each end: The section had sometimes been dragged into an oval at one end, possibly by the pull of the warp.

The weights were very friable and difficult to extract, even with the assistance of polyvinyl acetate. The surface had often lost its smoothness, and tended to crumble. In this, as in every other respect, they resembled a group of twenty weights from a pit in Swanwick, Hants.<sup>2</sup>

One weight had been badly damaged in antiquity, and three more had lost an appreciable amount of their surface. After drying, the remaining six weighed respectively, 38, 30, 30, 25, 25, and 25 ounces. They therefore seemed to fall into groups, as did those from Swanwick.

Two small, perforated flints which were also in the pit had probably been used as toggles to prevent the threads from slipping through the holes in the weights. A perforated metapodial of a sheep which lay nearby, may, very likely have acted as a shuttle or bobbin;

<sup>1</sup> *Proceedings of the Prehistoric Society*, 1941, VII, p. 128.

<sup>2</sup> *Antiquaries Journal*, 1928, VIII, p. 331, ff.

while fragments of charred oak timber may have come from the loom.

#### OTHER DEBRIS

Quern fragments (Plate Xb) of Sarsen or Lower Greensand were found in large numbers in the enclosure, especially in the ditch and the post holes.

Two whetstones came from the central depression and from Hut II respectively. Both appeared to be of the same stone, which was stated by the Geological Museum to come from Wealden deposits near Horsham. On the suggestion of Dr. E. C. Curwen, the iron content of one stone was determined, both at the surface and near to the centre, but no significant difference was obtained.

Shells of mussel and cockle came from the surface and the post holes under the bank, from the ditch and from the loom pit.

A number of fossil echinoderms and a shell of *Terebratulina striata* were found in the ditch.

#### SUMMARY

A farm of the Late Bronze Age on Cock Hill in Sussex was surveyed and excavated.

It lay between the flint mines on Harrow Hill and those on Blackpatch: it was adjacent to, and contemporary with, the similar farms on New Barn Down and on Blackpatch.

It contained three circular, wooden huts, two semi-circular wooden structures and a pond. One hut had been used for weaving.

Both stock farming and agriculture were practised.

Evidence of habitation, probably temporary, in the early part of the Middle Bronze Age, was discovered.

Further evidence suggested that an associated field system may have been largely destroyed by medieval ploughing.

The farm differed from all others of the same period, which have so far been excavated and described in this country, in two respects:

(1) It was surrounded by a penannular ditch inside a bank, like a Henge.

(2) Three multiple cremations, which also dated from the Late Bronze Age, were buried under two of the huts, and close to the entrance respectively.

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