

# HARROW HILL EXCAVATIONS, 1936

BY G. HOLLEYMAN

HARROW HILL lies within the western half of that segment of the South Downs which is bounded on the west by the river valley of the Arun and on the east by the valley of the Adur. Unconnected with the main ridge of hills sloping southward from the steep northern escarpment save by a low saddle, and separated from the southern spurs descending gently to the coastal plane, it is one of two<sup>1</sup> intermediate hills which stand singularly alone. Rising to a height of just over 500 ft. it is partially covered with low juniper trees and possesses one feature which is rare on the South Downs—it does not appear to have been occupied by any peoples later than the Late Bronze Age farmers who lived on New Barn Down. Since 1925 the hill has been three times the scene of archaeological excavations.

The first important excavation (apart from a few superficial and barren cuttings made by Mr. H. C. Collier about fifty years ago<sup>2</sup>) was made by the Worthing Archaeological Society in 1924–5 under the supervision of Dr. E. Cecil Curwen, when a large flint-mine was opened.<sup>3</sup> The second was made in 1933 on the site of a Late Bronze Age enclosure on a southern spur of the hill known as New Barn Down also by the same society and under the same supervision.<sup>4</sup> The third and present occasion was in 1936, when the Worthing Society continued investigations in order (1) to elicit the date and purpose of the small sub-rectangular earthwork which crowns the summit of the hill, and (2) to discover the hut sites of the Neolithic folk whose flint workings riddle the summit and northern slope with mine-shafts and galleries. The result of our work in the latter of these two fields was rather disappointing, but while trenching

<sup>1</sup> The other being Blackpatch Hill.

<sup>3</sup> *S.A.C.* LXVII. 103–48.

<sup>2</sup> *S.A.C.* LXIII. 31.

<sup>4</sup> *S.A.C.* LXXV. 136–70.

within the earthwork several flint-mine shafts were encountered and the full examination of three of them provided the working-party with fascinating but arduous employment.

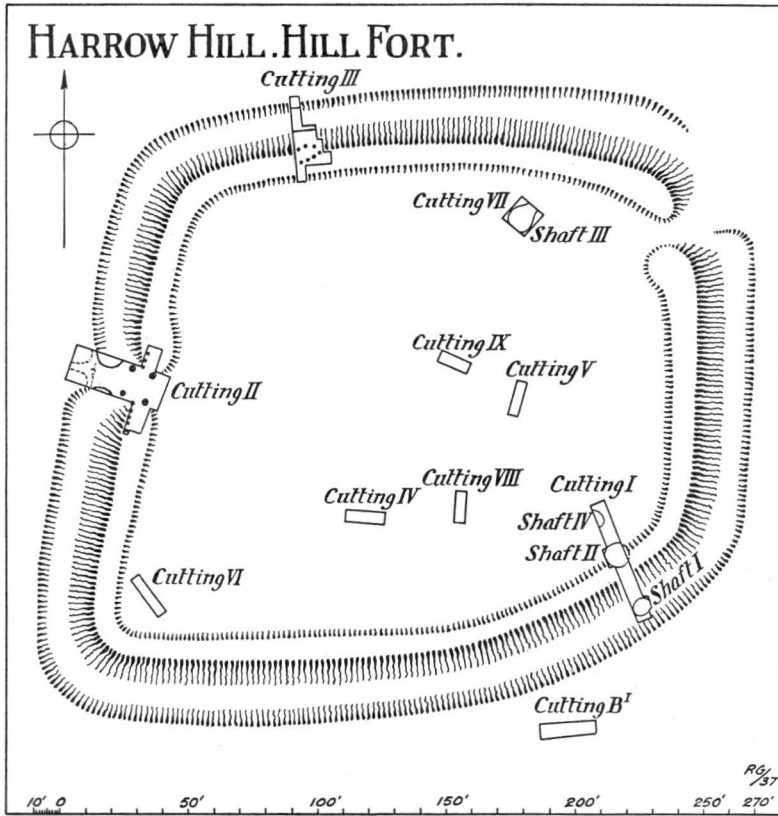
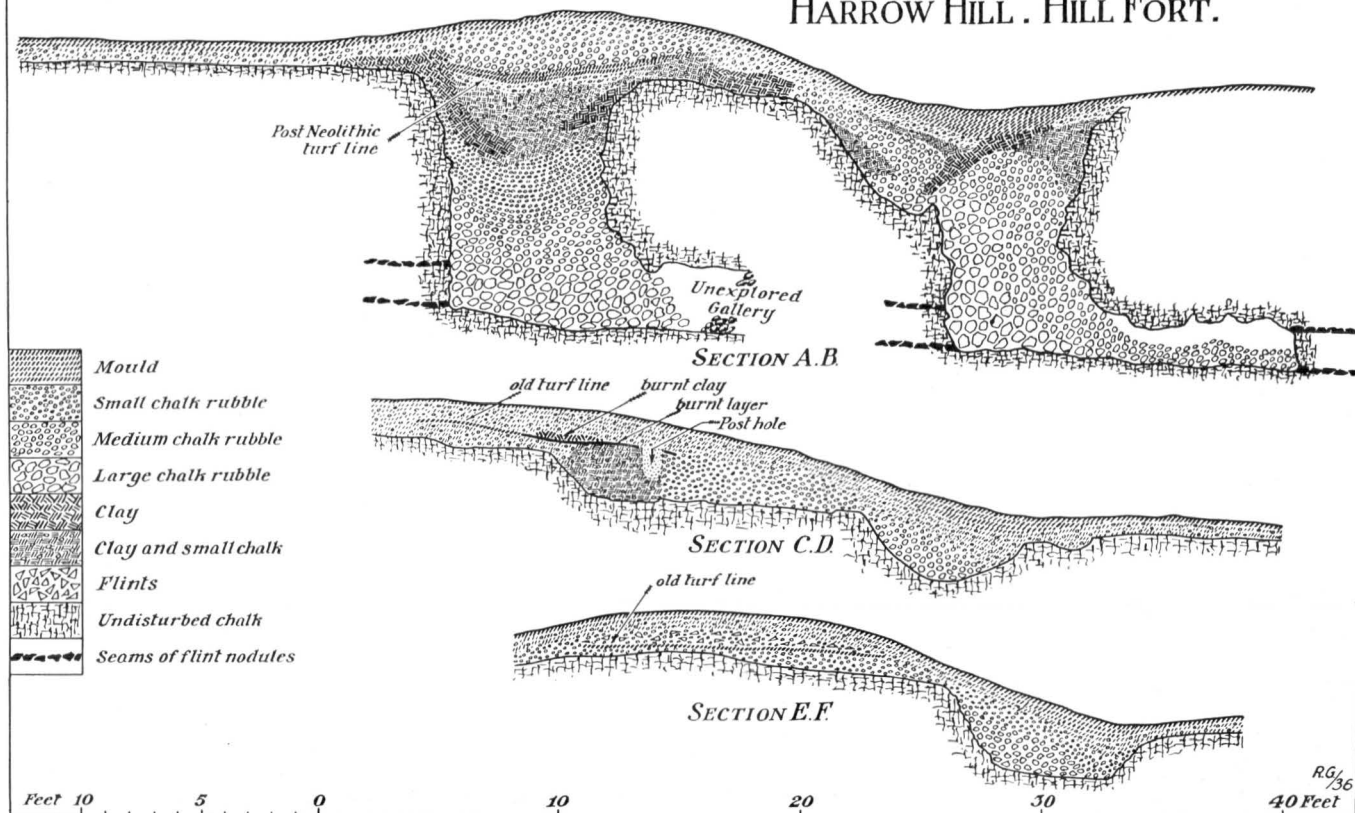


PLATE I. THE EARLY IRON AGE HILL FORT SHOWING CUTTINGS.

### THE HILL FORT

The earthwork is one of several minor hill-forts which are distributed along the South Downs in Sussex, the other two being on Thundersbarrow Hill near Southwick and Highdown Hill near Worthing. These slightly antedate the larger fortified cities such as the Trundle, Cissbury, and the Caburn. It is roughly rectangular, 65 yds.

# HARROW HILL . HILL FORT.



RG/36

PLATE II. SECTION OF SHAFTS II AND I ALONG LINE AB (PLATE III) AND SECTIONS THROUGH GATE (CD, FIG. 1) AND RAMPART (EF, FIG. 2).

by 57 yds., with rounded corners and bulging sides, consisting of a single bank and ditch. The main entrance is on the western side, while a postern gate may have been constructed at the northern end of the eastern side. The bank and ditch have been much reduced with the passing of the centuries, and the average height from the bottom of the ditch to the top of the rampart is now 5 ft.

### *Cutting I.*

This cutting was made across the rampart and ditch (Sec. A-B, Plate II) at the south-east corner and was 48 ft. by 5 ft. The chief features were three mine-shafts situated beneath the ditch (Shaft I), beneath the rampart (Shaft II), and just inside the fort respectively (Shaft IV). The rampart was clearly defined above the old turf-line sealing Shaft II and consisted of chalk rubble and mould with a little Tertiary clay. No post-holes for palisade timbers were found in or below this section of the rampart. The ditch had been cut down through the solid chalk forming the western wall of Shaft I, resulting in a platform-like formation which gave the excavators easy access to this mine.

Nine flint axes were taken from various parts of this cutting and a quantity of animal bone and calcined flint was unearthed within the fort. A few coarse, brown, gritty sherds were found and three fragments of La Tène III pottery came from the top of the rapid silt in the ditch.

### *Cutting II.*

This cutting, 37 ft. by 14 ft., was cut through the main gateway (Sec. C-D, Plate II and Fig. 1). A causeway was shown between the two ends of the ditch and its continuation between the ends of the rampart was flanked by two pairs of large post-holes. Numbered 1, 2, 3, and 4 on the plan, they were 24 in., 19 in., 21 in., and 18 in. deep respectively, and Holes 1-2 and 3-4 were each joined by a palisade trench of uneven width and approximately 17 in. deep. An extension of the

cutting on either side of these main gateway holes showed a row of smaller post-holes (numbered 5-12)

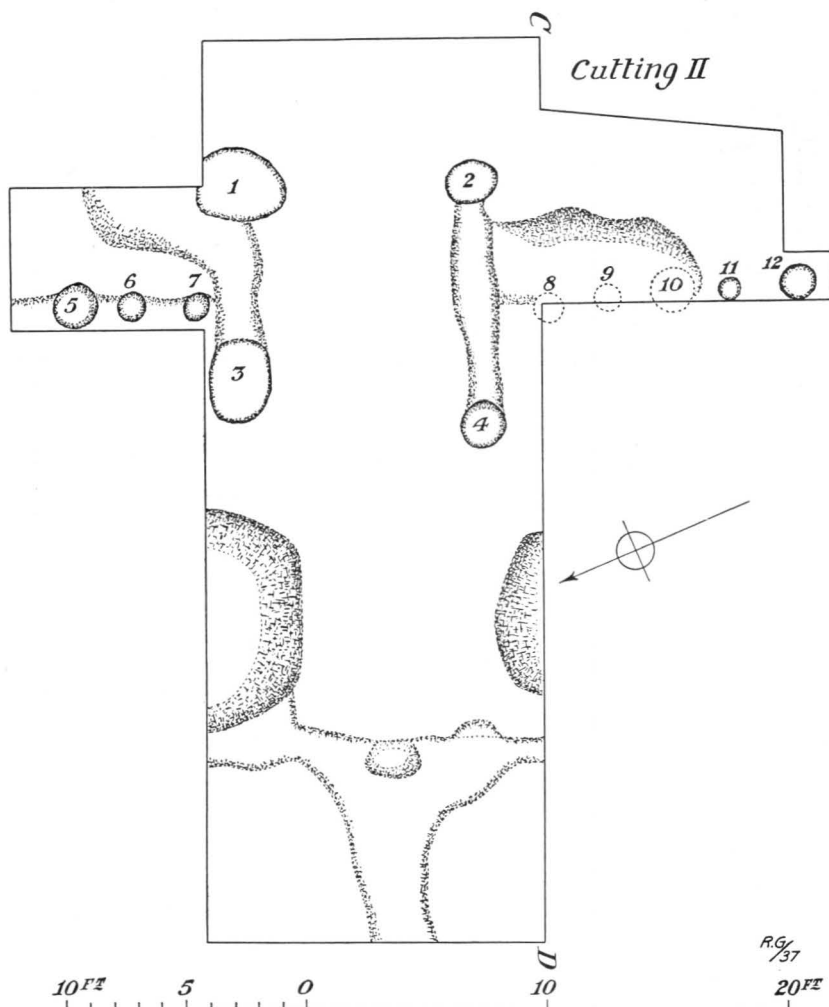


FIG. 1. PLAN OF POST-HOLES, ETC. IN THE WEST GATE OF THE CAMP.

running in the direction of and beneath the rampart. A section of Hole No. 8 was clearly distinguishable in section C-D as a fine grey pocket in the chalk rubble. Close to Post-holes 2 and 4 and running along as far

as Post-hole 10 was a shallow pit filled with clay and small chalk rubble. Section C-D shows this clearly beneath the old turf-line with the section of Post-hole 8 marked distinctly. It is obvious that this pit antedates the earthwork, but whether it was of natural or artificial origin could not be ascertained; no evidence of human occupation or dating material was found.

A peculiar feature of the gateway was the burnt condition of the original turf-line. A large quantity of charcoal and ash was distributed over the area of the main gateway and extended beneath the rampart on either side. It is assumed that the incineration took place shortly before the fort was constructed or it would not have been so apparent. No explanation as to the reason for this condition can at present be found.

### *Cutting III.*

Cut through the north side of the fort, this cutting showed a flat-bottomed ditch and a section of the rampart composed principally of large flint nodules (Sec. E-F, Plate II and Fig. 2). A series of shallow holes was observed in the solid chalk which are undoubtedly a continuation of the series found on either side of the gateway. They were all shallow, averaging 3 in. in depth. Their disposition, though irregular, suggests a mode of rampart construction comparable with that of Hollingbury

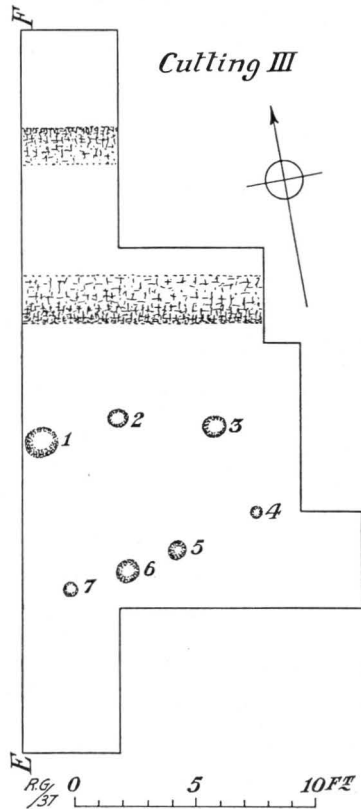


FIG. 2. PLAN OF CUTTING III IN NORTH SIDE OF RAMPART OF CAMP.

Fort.<sup>1</sup> One sandy sherd of Romano-British date was found at the top of the rapid silt of the ditch.

*Cuttings IV, V, VI, and VII.*

These exhibited no special features, the solid chalk being found about 6 in. below the turf. A quantity of animal bone and teeth, flakes, a few gritty sherds, and

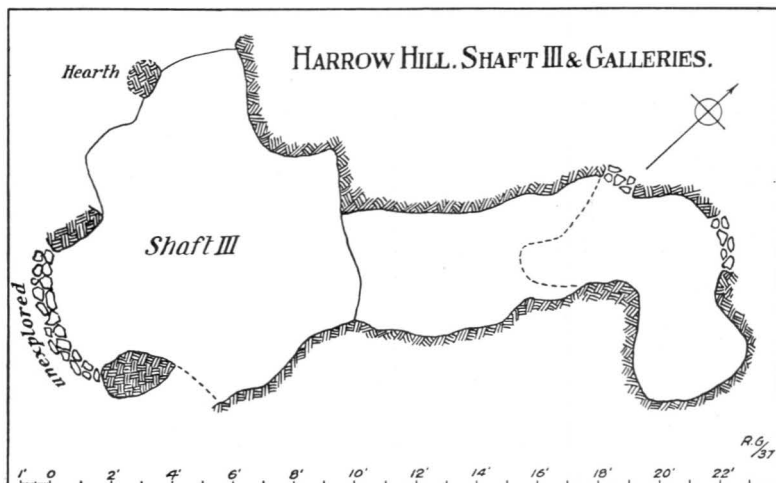


FIG. 3. PLAN OF SHAFT III AND GALLERY.

some calcined flints were the only finds. No evidence to suggest hut sites or any permanent occupation was discovered.

*Cutting VIII.*

This revealed Shaft III. While the turf and subsoil were being removed a few iron nails, a small sherd of Samian pottery, and two bronze coins of Domitian came to light. These were in no way connected with either the flint-mines or the earthwork, but were a later intrusion perhaps dropped by Romano-British visitors. In addition to the above numerous flint axes and some deer antlers were found close to the surface.

<sup>1</sup> *Antiq. Journ.*, XII, 1-16.

## THE FLINT-MINES

*Shaft I.*

This shaft was discovered while making Cutting I across the rampart and ditch of the Early Iron Age fort (Plate III and Sec. A-B, Plate II). It was situated immediately beneath the ditch and was indicated by a slight depression marked Pit 138 on the original survey.<sup>1</sup> It was roughly circular in shape with an average diameter of 5 ft. 6 in., and had a depth of 10 ft. below the modern turf-line. Half of the wall on the northern side had been cut away by the makers of the hill-fort and has resulted in a platform-like formation. The single gallery was 11 ft. long, curved slightly to the left, and varied in width from 3 ft. to 4 ft. 6 in. A seam of flint nodules had been removed from its floor, leaving a smooth bed of chalk. When first encountered the gallery was half choked with chalk rubble, and after this was removed complete exploration was possible. Except for a few antler pick-marks on the walls nothing was found. The main shaft yielded three axes, one partly polished, and some pieces of antler tools.

*Shaft II.*

This was 15 ft. from Shaft I and beneath the rampart of the hill-fort (Plate III and Sec. A-B, Plate II). It was roughly circular with an average diameter of 6 ft. 6 in., and its depth below the summit of the rampart was 13 ft. Four galleries radiated from its base and a fifth (Gallery IV and IV A) had pierced it from an unexplored shaft 7 ft. to the east. The filling comprised clay and fine chalk near the surface below the old turf-line, merging into small chalk rubble lower down, and finally, near the bottom, into large chalk blocks. The post-Neolithic turf-line which sealed the shaft before the Early Iron Age people reared the defences of their fort could be seen very distinctly 2 ft. 6 in. below the rampart. A small quantity of Tertiary clay which occurs naturally

<sup>1</sup> S.A.C. LXVII. 104.



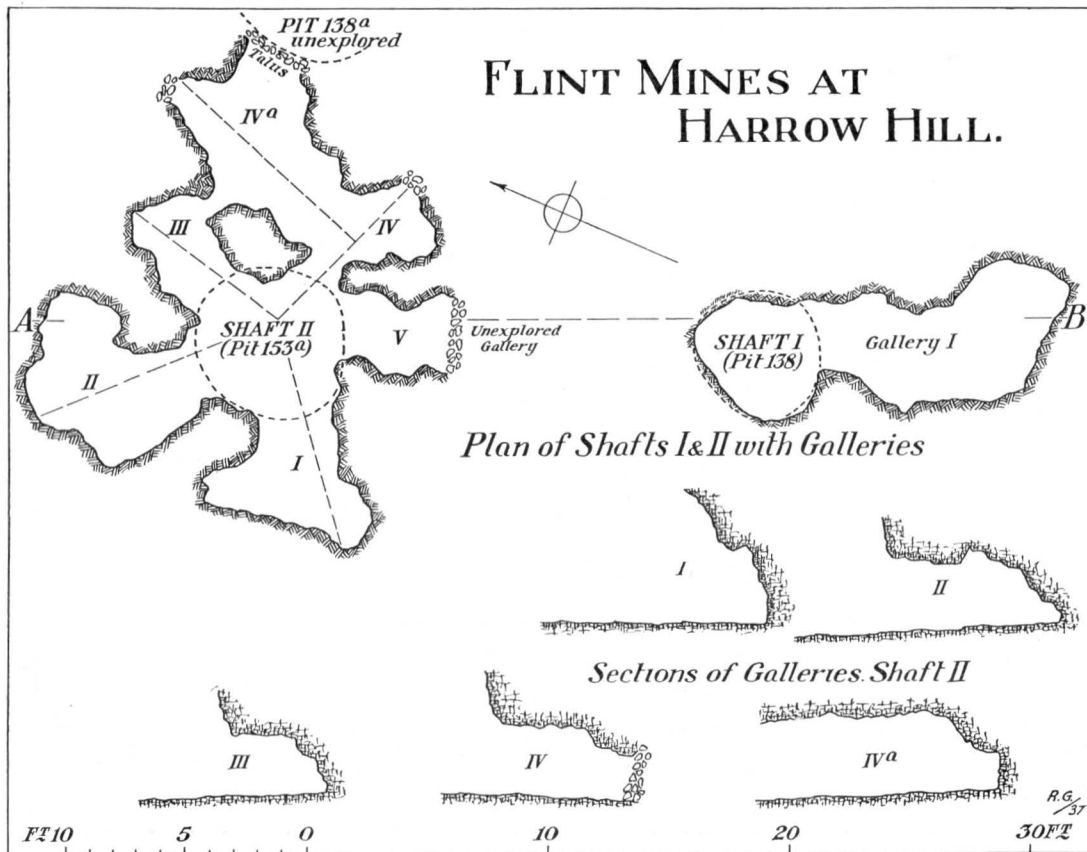


PLATE III. PLAN OF SHAFTS I AND II WITH GALLERIES.

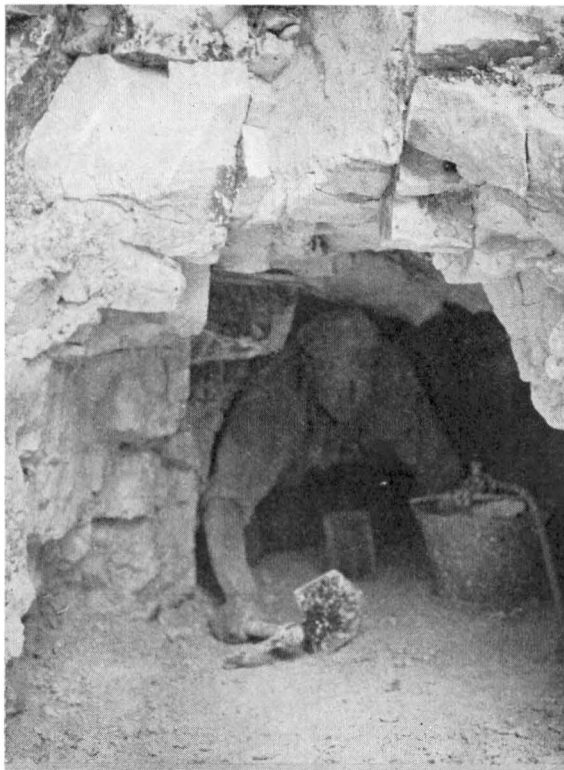
on many Southdown hill-tops had silted into the upper levels of the filling of both Shafts I and II.

The galleries were short and broad. Gallery I was scarcely more than a general widening of the western wall of the shaft. Gallery II had a narrow entrance but widened considerably inside. Gallery III was probably left short when it was found that Gallery IV from another mine was so near. Connexion with it was made through a small window on the right-hand side, and another window 4 ft. farther along Gallery IV A shows that another gallery must have approached to somewhere close to the head of Gallery III. It was impossible to investigate Gallery V for more than about 3 ft. as heavy falls of chalk from the roof made the work dangerous.

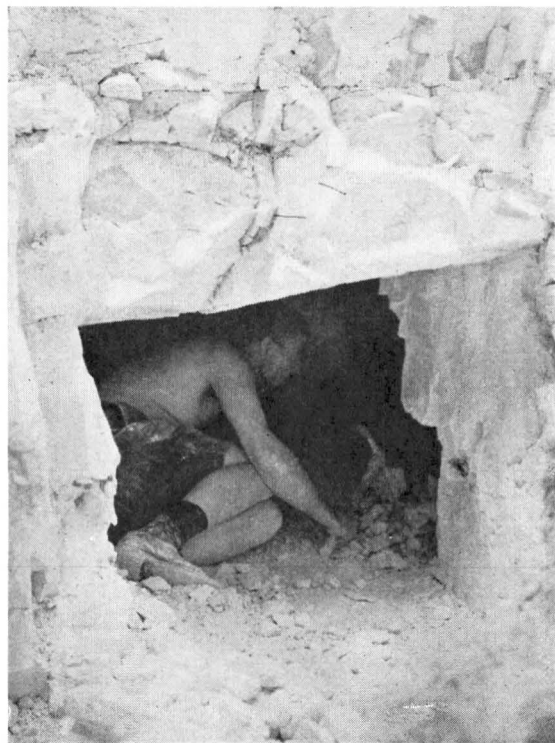
Four axes and two hand-choppers came from various levels in this shaft, also a few nests of flakes and some fragments of deer antler. The principal find was a quantity of bone belonging to a large type of ox, which came from the clay 5 ft. below the old turf-line. In his report which is incorporated in this paper Dr. Wilfrid Jackson shows that these belong to a Neolithic species and represent a beast larger than any other individual whose remains have been found on other Neolithic sites in this country.

### *Shaft III.*

Although shallower and less completely excavated than the other two shafts, this mine was perhaps the most remarkable of the three, for in it we found no less than thirty-three axes in various stages of manufacture. The diameter was roughly 8 ft. and the solid chalk floor was encountered at a depth of 8 ft. 6 in. Being shallow, the chalk walls of the shaft and galleries were in a state of disintegration, and only one gallery was cleared (Fig. 3). The entrance to this was on the north-east side and was 1 ft. from the floor. Its length was 12 ft. and at 9 ft. it turned sharply to the right and continued another 4 ft. At 6 ft. from the entrance the floor-level dropped 6 in. and continued to drop slightly to the end.



SHAFT I. ENTRANCE TO GALLERY.



SHAFT II SHOWING THE ENTRANCE TO GALLERY II.

PLATE IV.

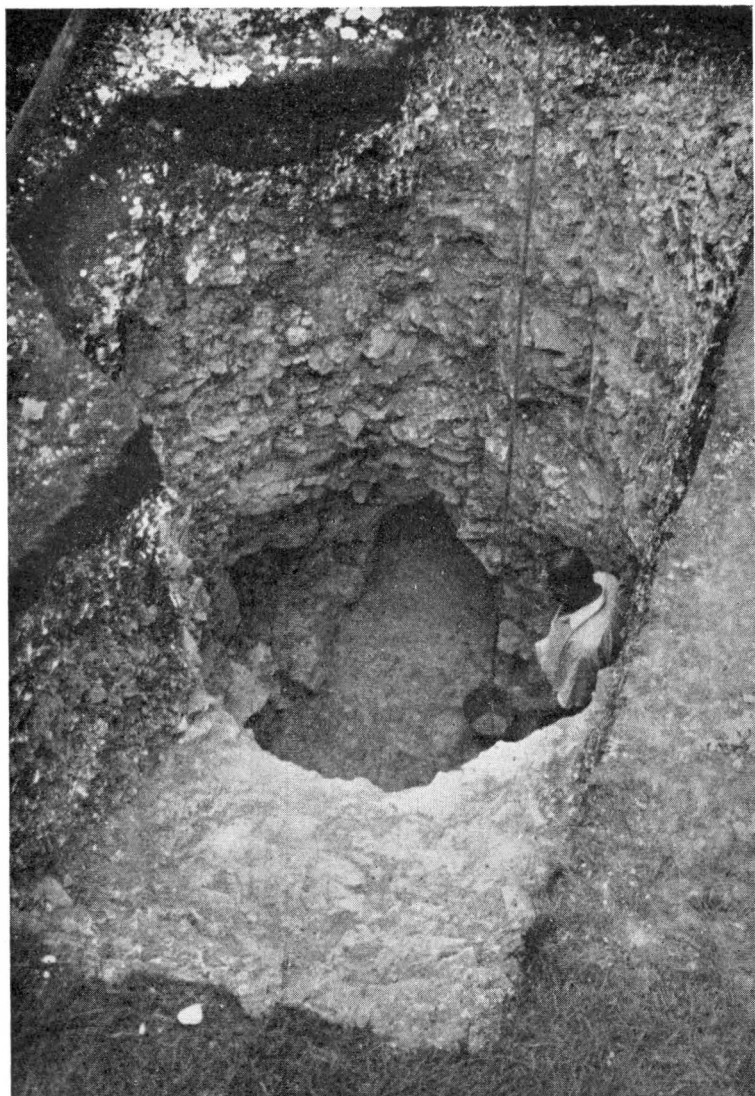


PLATE V. LOOKING INTO SHAFT I. NOTE LEDGE IN FOREGROUND MADE BY THE EARLY IRON AGE FORT BUILDERS.

Two small windows were found leading to other galleries. The vertical height from floor to roof was approximately 4 ft. and consequently was more easily traversed than those in Shafts I and II. On the north-west side two other gallery entrances were discovered divided by a pillar of solid chalk barely 18 in. in diameter. Just behind this remains of a hearth were evident, and close by the fragmentary pieces of an ox scapula-shovel—the only one recorded during the 1936 excavations. The solid chalk was in such a friable condition that pursuance of these galleries was impossible. Dr. Wilson, who was in charge of operations just here, reports that at least four galleries radiated from behind this pillar and there was another unexplored gallery on the south side.

### THE FLINT IMPLEMENTS

All the flint implements (between 50 and 60 specimens) may be broadly classed as axes, except the knapping-tool (Fig. 10) from the surface near Shaft II and the hand-chopper from Gallery IV, Shaft II. They take most of the forms recognized in previous operations on Cissbury, Harrow Hill, Blackpatch, and Church Hill. Many specimens are in an elementary stage of manufacture and their exact types cannot be ascertained, but in general they belong to the long, thin, and narrow 'celt' with straight or converging sides, which sometimes takes on an elongated oval form. The example shown in Fig. 4 was found in Shaft III in two pieces, the broader cutting end just beneath the turf and the butt end 8 ft. down. Although the two portions fit perfectly, there is a marked difference in patination, the former being completely white and the latter a fresh bluish-grey in parts. Fig. 5 came from the topmost level of Shaft III and Fig. 6 from 2 ft. below the surface of Shaft I. It was from this layer that the partially polished axe (Fig. 9) came, and it seems most probable from section A-B that it had silted into this position after the Early Iron Age ditch was cut. Fig. 7 came from just above Shaft IV and belongs to the Cissbury type of axe, which is thin and narrow with almost parallel sides and a rounded section. Fig. 10, from the edge of Shaft II may have been a knapping-tool, but in form only could easily be classed as palaeolithic. Several specimens may be termed pseudo-palaeolithic in form, notably the heavy hand-chopper referred to above.<sup>1</sup>

<sup>1</sup> For a résumé of the forms usually found in Sussex flint-mines the reader is referred to Dr. E. C. Curwen's *Archaeology of Sussex*, pp. 130-8.



Fig. IV.



Fig. V.



Fig. VI.



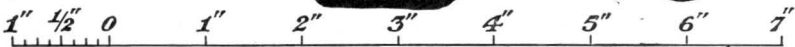
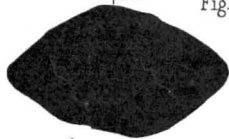
Fig. VII.



Fig. VIII.



Fig. IX.



Robert C. Wood

FIGS. 4-9. FLINT AXES.

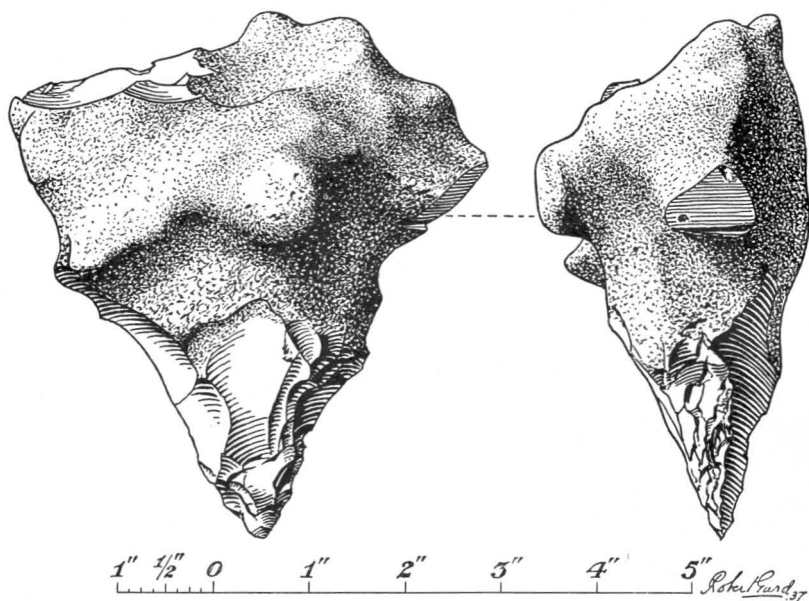
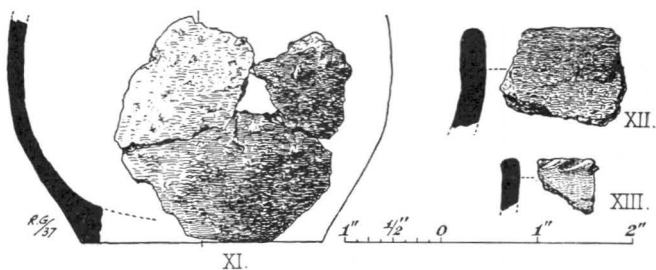


FIG. 10. PROBABLE KNAPPING TOOL.



FIGS. 11-13. IRON AGE A POTTERY SHARDS.

## THE POTTERY

Pottery was notable for its absence, for during the whole three weeks' work not more than half a pound weight of sherds was found. These were, with two exceptions, all buff-coloured wares, hard baked, studded with flint grit, and characteristic of the Early Iron Age A wares found in Sussex. This was confirmed by the finding of the three sherds illustrated. Fig. 11 represents a small bag-shaped domestic vessel of Early Iron Age A pattern and was found 6 in. deep in Post-hole No. 1 of the gateway. This is the most valuable material we have for dating the hill-fort. Figs. 12 and 13 exhibit rims and ornamentation characteristic of vessels of this period.

## THE ANTLER TOOLS

Fragments of antler picks and tools came from all three shafts, but only one perfect specimen was recorded. This is shown in Fig. 14, and represents a mallet or hammer most probably used for hammering antler picks into fissures for levering out blocks of chalk. Several tines in worn and broken condition came from the galleries, and two of them show marks of having been hacked from the parent

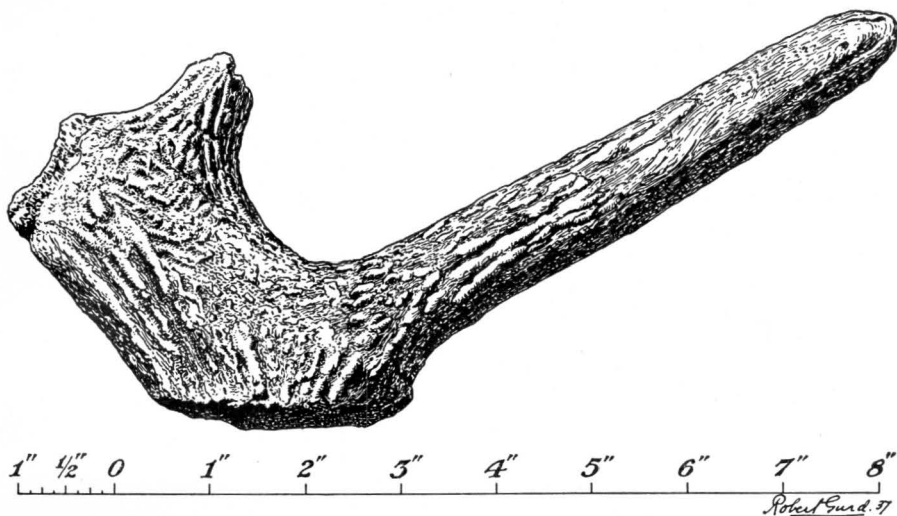


FIG. 14. MALLET OF RED DEER ANTLER.

antler. The largest pick came from Shaft III, 1 ft. below the turf: the tines are all broken away and its length is 19 in. The only scapula-shovel came from Shaft III and was too fragmentary to be measured.

## THE COINS

Mr. Harold Mattingly of the British Museum has identified the two Roman coins as bronzes of Domitian A.D. 86.

REPORT ON CHARCOALS, ETC., FROM HARROW HILL,  
WORTHING

BY J. G. MABY, B.SC., A.R.C.S., F.R.A.S.

FROM NEOLITHIC LEVELS:

*Shaft III, Galleries and Main Shaft.*

*Ulmus sp.* (Elm). Mature wood, probably all fragments from one original piece of medium sized branch wood . . . . . 12  
(More fragments of same not examined in detail.)



<i>Crataegus oxyacantha</i> (Hawthorn). Early-formed wood. Many fragments, possibly all from one original piece . . . . .	11
<i>Corylus avellana</i> (Hazel). Early-formed wood. Many fragments, probably from one original piece . . . . .	6

## FROM EARLY IRON AGE LEVELS:

*Cutting C-D.*

<i>Corylus avellana</i> ? (Hazel). Part of small twig and fragments of mature wood, all much collapsed and in poor condition . . . . .	6
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*Section C-D, Post-hole 1.*

<i>Quercus sp.</i> (Common Oak). Mature wood. Many flakes, probably all from one original piece . . . . .	12
(More of same not examined in detail. Probably from large timber.)	

*Section C-D.*

<i>Corylus avellana</i> (Hazel). From a knotty piece . . . . .	7
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*Section C-D, Post-hole 4.*

A quantity of fine chalk and charcoal dust, plus the following identifiable pieces of wood charcoal:

<i>Pyrus sp.</i> (Apple, Pear, Rowan, Beam, Service, &c.). Early-formed wood . . . . .	1
<i>Quercus sp.</i> (Common Oak). Mature wood . . . . .	17
<i>Ulmus sp.</i> (Elm). Early-formed wood . . . . .	8

## REPORT ON THE NON-MARINE MOLLUSCA

BY A. S. KENNARD, A.L.S., F.G.S.

Samples of soil and examples of shells from a number of loci were submitted to me for examination. These can be grouped under two headings:

1. Those contemporary with the flint-mines.
  2. Those associated with the Early Iron Age earthwork.
- (1) From the flint-mines 10 species were determined, viz.:

<i>Pomatias elegans</i> (Müll.) . . . . .	57	examples
<i>Pupilla muscorum</i> (Linn.) . . . . .	1	example
<i>Helicella cellaria</i> (Müll.) . . . . .	2	examples
<i>Retinella nitidula</i> (Drap.) . . . . .	2	"
<i>Trochulus striolatus</i> (Pfr.) . . . . .	5	"
<i>Vortex lapicida</i> (Linn.) . . . . .	2	"
<i>Arianta arbustorum</i> (Linn.) . . . . .	21	"
<i>Cepaea nemoralis</i> (Linn.) . . . . .	15	"
<i>Cepaea hortensis</i> (Müll.) . . . . .	14	"
<i>Marpessa laminata</i> (Mont.) . . . . .	2	"

Though a smaller list this faunule is identical with that found in the flint-mines at Blackpatch. The conditions indicated are a very damp woodland or scrub growth, and certainly much damper than to-day. The occurrence of the giant race of *Arianta arbustorum* is of great importance, for this race is now apparently extinct in Sussex and the species itself is absent from the chalk downs, being only found in low-lying, damp situations.

Probably contemporary with the flint-mine shells are a series obtained from a small shallow hole just outside the fort (B, Cutting II). From this site 12 species were obtained, viz.:

<i>Pomatias elegans</i> (Müll.)	. . .	255 examples
<i>Vitrea crystallina</i> (Müll.)	. . .	1 example
<i>Ceciliooides acicula</i> (Müll.)	. . .	1 „
<i>Retinella nitidula</i> (Drap.)	. . .	1 „
<i>Arion</i> sp.	. . .	10 examples
<i>Trochulus hispidus</i> (Linn.)	. . .	4 „
<i>Cepaea nemoralis</i> (Linn.)	. . .	20 „
<i>Cepaea hortensis</i> (Müll.)	. . .	4 „
<i>Arianta arbustorum</i> (Linn.)	. . .	1 example
<i>Pupilla muscorum</i> (Linn.)	. . .	1 „
<i>Goniodiscus rotundatus</i> (Müll.)	. . .	1 „
<i>Clausilia rugosa</i> (Drap.)	. . .	1 „

One can say definitely from this faunule that the conditions were much damper than to-day.

The great abundance of *Pomatias elegans* is always a feature in the Early Bronze Age deposits.

(2) *The Early Iron Age earthwork.* It is obvious that when excavations are made at a previously occupied site and the material used for the construction of banks, relics of the preceding occupation will be mixed with contemporary objects, and when the objects are snail-shells with a long range in time confusion is sure to arise. That a mingling had taken place at Harrow Hill was clear by the varying conditions of the shells and their contained matrix, and this was present in every sample. Moreover, an artificial bank in a chalk country is a great temptation to a rabbit, and judging from the condition, some of the shells are quite modern.

After a careful scrutiny of the specimens I think that the true contemporary faunule consists of 13 species, viz.:

<i>Pomatias elegans</i> (Müll.)
<i>Pupilla muscorum</i> (Linn.)
<i>Cochlicopa lubrica</i> (Müll.)
<i>Vallonia excentrica</i> (Sterki)
<i>Vallonia costata</i> (Müll.)
<i>Goniodiscus rotundatus</i> (Müll.)
<i>Arion</i> sp.
<i>Helicella cellaria</i> (Müll.)
<i>Retinella nitidula</i> (Drap.)

*Trochulus hispidus* (Linn.)

*Ceciloides acicula* (Müll.)

*Xerophila itala* (Linn.)

*Cepaea nemoralis* (Linn.)

Some of the examples of *Pomatias elegans* and the majority of *Cepaea nemoralis* were obviously derivatives, but the remainder were probably contemporary. Four examples of *Arianta arbustorum* (Linn.) and 8 specimens of *Cepaea hortensis* (Müll.) were also present and were obviously derivatives from the Early Bronze Age deposits.

The 18 examples of *Helix aspersa* (Müll.) were clearly later intrusions. They were all large shells and no fragments of the species were found, and the probability is that they had crawled into rabbit-holes to hibernate and had never emerged. It is quite possible that some of the species I have considered as contemporary may be derivatives, but in the smaller forms the evidence as to this is not so plain as in the larger species. As it stands, the faunule indicates a mixed scrub and grassland with similar meteorological conditions to those of to-day.

## REPORT ON ANIMAL REMAINS FROM HARROW HILL

BY J. WILFRID JACKSON, D.SC., F.G.S.

(*Manchester Museum*)

The animal remains submitted by Mr. G. A. Holleyman fall into two groups. One group is from within the earthwork of the camp crowning the summit of Harrow Hill; this is of Early Iron Age date. The other group comes from a depth of 5 ft. in clay below the old turf-line under the Early Iron Age rampart; it was associated with Neolithic flint-mine shafts. The latter group of bones is small but extremely interesting. It is clearly distinct in age and type from the first group. Some further remarks are given below in the description of the finds.

### (A) *Remains from within the Camp.*

*Sheep.* Two loose teeth and part of a shin-bone belong to this animal.

*Small Ox.* Of this animal there are the imperfect remains of the mandibles of some 13 or 14 individuals; also loose lower and upper teeth, and 2 fragments of limb-bones. These all agree with Early Iron Age remains from Glastonbury Lake Village and elsewhere. Some are rather weathered.

### (B) *Remains from Shaft II, 5 ft. in clay, below the Old Turf-line, under Rampart.*

*Ox.* From this excavation there is a small group consisting of very imperfect bones of a large type of ox. The collection includes the following: The proximal end of a large right femur with a diameter

of 137 mm. (over all); a fragment of a tibia; the distal ends of a right and left humerus; a right radius in two pieces; a left metacarpal in three pieces; and the forepart of a left mandible containing a large fourth premolar.

The femur fragment is noteworthy for its size.

The distal ends of the humeri have a diameter of 90 mm., and are a little more robust than a large example with the same diameter from the Whitehawk Neolithic Camp. Other large examples from Neolithic sites are Maiden Castle, Dorset (diam. 87 mm.), and Ratfyn near Amesbury (diam. 80 mm.); also two from the later site at Woodhenge (diam. 83 and 80 mm.). These four bones were the largest of several from the sites mentioned, and are larger than specimens from sites of the Early Iron Age.

The right radius from Harrow Hill has a full length of about 345 mm., the proximal end a diameter of 101 mm., and the distal end a diameter of 87 mm. (over all). The nearest in size to this which I have seen is one from Stonehenge (Ditch, South, second crater): this has a maximum length of 337 mm., the proximal end is 93 mm., and the distal end 80 mm. (over all). One from the Neolithic level at Maiden Castle has the following dimensions: length, 321 mm.; proximal end, 91 mm.; distal end, 85 mm.

The left metacarpal is a robust bone with a full length of about 247 mm.: the proximal end is about 65 mm., the distal end is 72 mm., and the mid-shaft diameter is 39 mm. The largest of the Woodhenge series is imperfect, but has a mid-shaft diameter of 38.5 mm. and a distal diameter of 70 mm. All the bones from Whitehawk Camp are smaller.

The limb-bones from Harrow Hill do not appear to be large enough for the wild Urus (*Bos primigenius* Boj.). They are very clearly larger than those of the small Celtic short-horned ox from sites of the Early Iron Age, viz. Glastonbury Lake Village, All Cannings Cross, &c. As seen by the comparisons above, they agree closely with bones from sites of much earlier date. It is unfortunate that no horn-cores are present.

## CONCLUSIONS

### *The Hill-Fort*

Our work upon the earthwork was in some ways disappointing, but we were able to ascertain the following facts:

1. The defences of the earthwork were erected during our Early Iron Age A, sometime between 500 and 250 B.C. This was ascertained (*a*) by analogy, i.e. it conforms in type and construction to other hill-forts in Sussex, namely, Cissbury, Hollingbury, and Thunders-

barrow, although our example is very small, and (b) by the finding of sherds of this period in one of the main gateway post-holes and strewn within the enceinte.

2. The fort was not used for permanent occupation, there being no trace of hut floors or dwelling-pits and no quantity of pottery or refuse suggestive of an occupied site. This brings it into line with<sup>1</sup> Hollingbury, Thundersbarrow, and perhaps Seaford Head, which must have been fortified places of refuge rather than towns enclosed within defensive earthworks like the Caburn and the Trundle.

3. The third fact is puzzling. Although there was a paucity of occupation material, animal bone was abundant and, with few exceptions, represented only the heads of what Dr. Wilfrid Jackson has identified as a species of Early Iron Age ox. Hardly a limb-bone was found, yet the skulls, represented principally by mandibles and teeth, must number between fifty and one hundred from our small cuttings alone. This would mean, at a very conservative estimate, that the whole earthwork must contain remains of well over a thousand heads. Dr. Jackson knows of no analogous example, and at present we can do no more than record the strange fact. One is tempted to theorize about sacrificial offerings by mass slaughterings to propitiate mysterious Celtic deities, but this is beyond the scope of this paper.<sup>2</sup>

### *The Mines*

The mines, interesting as they were, have revealed nothing new or original. We have only confirmed what we already knew and must conclude that they belong to the Neolithic period with perhaps an overlap into the Bronze Age. Where the miners' settlements were still remains a mystery, although one isolated Neolithic

<sup>1</sup> Some authorities believe that the larger examples such as Hollingbury, Seaford Head, and the Devil's Dyke were built for permanent occupation, but for some reason were never used for this purpose.

<sup>2</sup> It is interesting to note that the word Harrow is probably derived from the Anglo-Saxon 'hearg' meaning *heathen temple*. Dr. E. Cecil Curwen discussed this question in *S.A.C.* LXIII, pp. 27-31, long before the above evidence came to light. See also *P.N.Sx.* I (E.P.-N. Soc. vi), 165.

pit-dwelling was discovered on New Barn Down, the southern spur of the hill, during the 1933 excavations. In the course of our work we opened several likely depressions outside of the area of the fort but with negative results.

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