

I.

BRAIDWOOD FORT, MIDLOTHIAN: THE EXPLORATION OF
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The Roman and later roads along the eastern side of the Pentlands cross the Eight Mile Burn, 3 miles north-east of Carlops, within a hundred yards of one another not far from Braidwood Farm. From this point a small

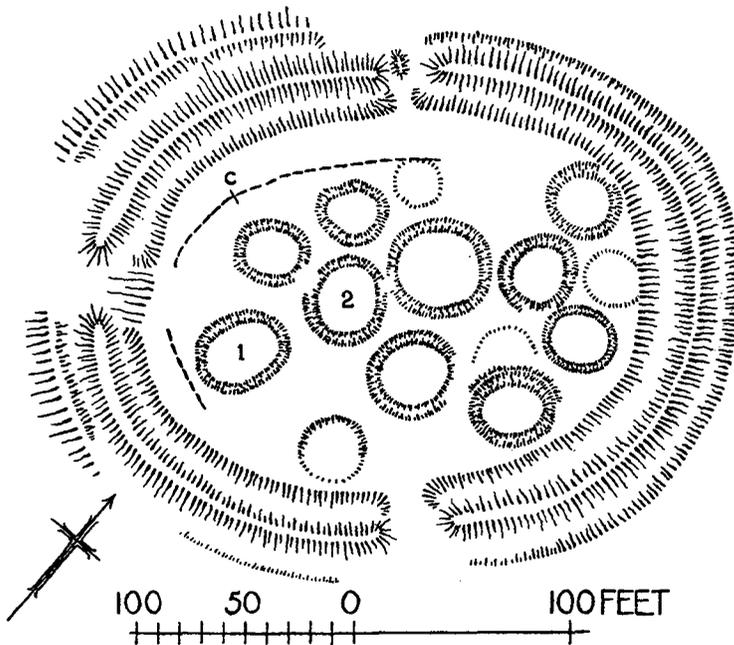


Fig. 1. Plan of Braidwood Fort with huts and palisade trench.
(Based on R.C.A.M. *Inventory*.)

isolated spur of South Black Hill, called Camp Hill, rises steeply for about 200 feet to 1100 feet O.D., with a wide view southward and eastward across land badly drained by the North Esk; Traprain Law can be seen in the far distance. The southern end of the hill's broad rounded top is crowned by a somewhat unusual fort, whose single very thick grassy rampart, as seen from the air, forms a remarkably regular flattened oval, 210 by 275 feet. The north-east end is about the centre of the hilltop, and the south-west lies considerably lower, but the resulting resemblance to the "hill slope" forts, which are circular, is deceptive, since the highest point of the hill is near the middle of

the fort. Outside the bank is a fosse, now varying considerably in depth, with two short lengths of low counterscarp bank; inside is a broad and clear quarry ditch. Of the three entrances shown in the Royal Commission's plan,¹ that on the north-west and, less certainly, that on the south-east may be considered to be secondary. There was no entrance to the north-east on the ridge.

The most interesting feature of the site is provided by the traces of circular huts in the interior, of which four are noted in the *Inventory*. These

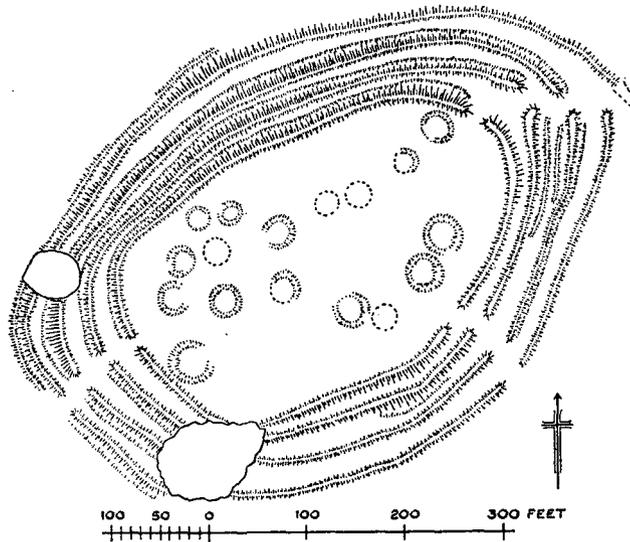


Fig. 2. Plan of Corsehope Rings with huts.
(Based on R.C.A.M. *Inventory*.)

are represented by broad shallow ditches, not by any remains of walls. Seven others are, with considerable probability, recognisable, partly because the grass shows rings of a lusher green (fig. 1); there is also one of the scooped hut-floors common in our hill-forts. Similar ditched hut-circles have also been recorded in a fort on the top of another spur 2 miles nearer Edinburgh.² Recently Mrs Piggott has drawn my attention to others in Corsehope Rings, Heriot,³ a multiple-ramparted fort of orthodox Early Iron Age type at an altitude of 1300 feet: seventeen are indicated on fig. 2—which is unlikely to be exhaustive, so that it may be fortuitous that they seem to lie in pairs. Irregularities in the scarp of some of the ditches suggest the way in. Such huts have also been noted in Roxburghshire during the Royal Commission's current field-survey.

¹ *Inventory of Midlothian*, No. 206.

² *Ibid.*, No. 103. The nearby rings at Rullion Green (No. 104) contain the remains of banks, and a trial excavation has shown they are not comparable to those at Braidwood.

³ *Ibid.*, No. 108.

As ditched hut-circles had never been excavated, a trial excavation of one quadrant at Braidwood was made by the writer and Dr K. A. Steer at week-ends during late summer and autumn 1940. The whole circle was uncovered in the summer of 1947, when Dr Steer could not take part; the digging then was done by volunteers, mostly Edinburgh University students, and occupied a little over a fortnight. Half an adjacent hut was examined in June 1948 by much the same party. In addition to thanking the

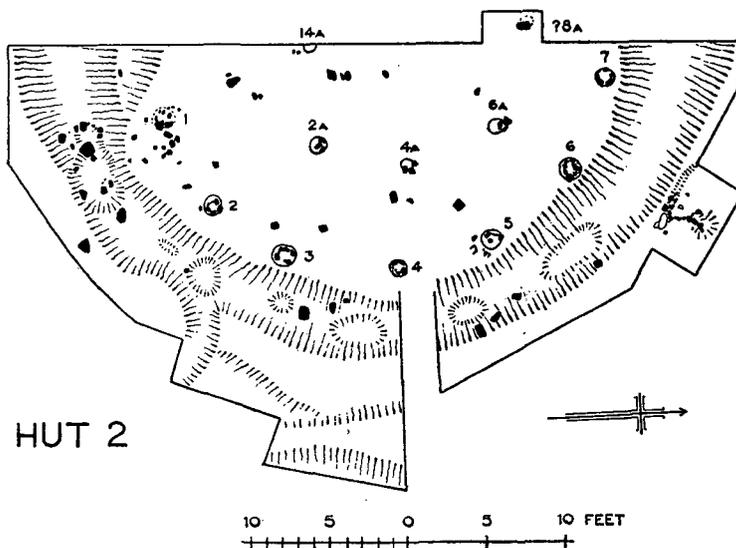


Fig. 3. Braidwood Fort: Hut 2, area excavated.

volunteers, our gratitude must be expressed to the late Mrs Warden of Braidwood and to Mr I. G. H. Warden for permission to excavate and to place the few finds in the Museum; to the Ministry of Works for authorisation to disturb a scheduled monument; to Professor Piggott and Mr A. Goodall for help in obtaining and storing equipment.

The first ring chosen was the southernmost, closest to the most probable entrance, for although on a slope and less exactly circular than the others, it preserved most clearly the surface characteristics. The second was next to it uphill, beyond which lay the central and largest hut, which we have left for some future excavator. Various complications that occurred in Hut 1 were not met with in Hut 2. The latter may therefore best be treated first, as showing the basic features of the type. After their description both will be discussed together. Despite the nearness of the road no Roman relics were found, yet the scanty finds indicated the first century A.D. as the date of the huts.

HUT 2 (fig. 3).

The eastern half only was examined. Round it the ditch ran uninterrupted, for the most part 5 feet wide, with a maximum of 8 feet, but very shallow, being cut to, at most, 10 inches through the brash¹ and less decayed underlying "whinstone." The upcast had been removed. Just within the lip of the ditch there was a series of post-holes 12 to 18 inches across at the mouth and up to 15 inches deep from the top of the brash, which may have been the floor-level. The packing-stones, which often projected above that compact level, indicated posts up to 8 inches thick. The centres of the holes lay 6 or 7 feet apart, and roughly on a circle 29 feet in diameter: seven were found, and there is room in the other half for seven more. Within the ring the surface of the hut had sloped down $2\frac{1}{2}$ feet from north to south. Four smaller holes were found. Three of these appeared to lie on a circle 17 feet across—which would allow space for eight of them—placed nearly concentrically within the main ring. The fourth, however, might imply an oval, since it lay farther in and uphill, or it might be supernumerary. The holes were 8 to 11 inches across at the top and 4 to 8 inches deep; in two cases the packers suggested timbers 6 inches thick. A cut to find a fifth hole uncovered a large stone on the circle at about the right interval, but the evidence for a hole was inconclusive. A few stones lay scattered below the surface humus, particularly round the southernmost large post-hole, which was poorly defined and consequently the post there had needed extra stone support. The stones in the ditch near this hole overlay several inches of earth, and presumably rolled down after the hut fell to pieces.

An unexplained arrangement of stones and holes was met on the outer lip of the ditch, where it lay close to the next ring-ditch to the north. A channel ran $3\frac{1}{2}$ feet along the lip, at most 5 inches wide and usually 4 inches deep. It faded out to the west, and to the east packing-stones in the channel suggested close-set poles 3 inches thick, ending in a hole 10 by 5 inches across and $7\frac{1}{2}$ inches deep. Three holes to the north were only 2 to 3 inches wide, two being 4 inches deep and one 10 inches—they may have held struts. A line of loose stones was strung out northward, some lying in a hollow.

HUT 1 (fig. 4).

The surface undulations were found to reflect a remarkable unevenness in the underlying rocky surface, mostly artificially caused. The area within the ring ditch was some 26 by 31 feet across, the long axis being down-hill with a fall of $3\frac{1}{4}$ feet.

The ditch, 8 to 10 feet across, was broad bottomed, with a tendency to convex sides. There was no upcast left, and the filling was dark silty

¹ The yellow earth and small stones forming the weathered surface of the rock, which is andesitic lava geologically. Sandstone, perhaps from the lower ground, was frequently used for packing, etc.

material. The ditch was rather roughly cut into the rock to a depth that varied irregularly from 5 to 15 inches, being deepest and its sides steepest at its lowest point, near the southern end of our long section.

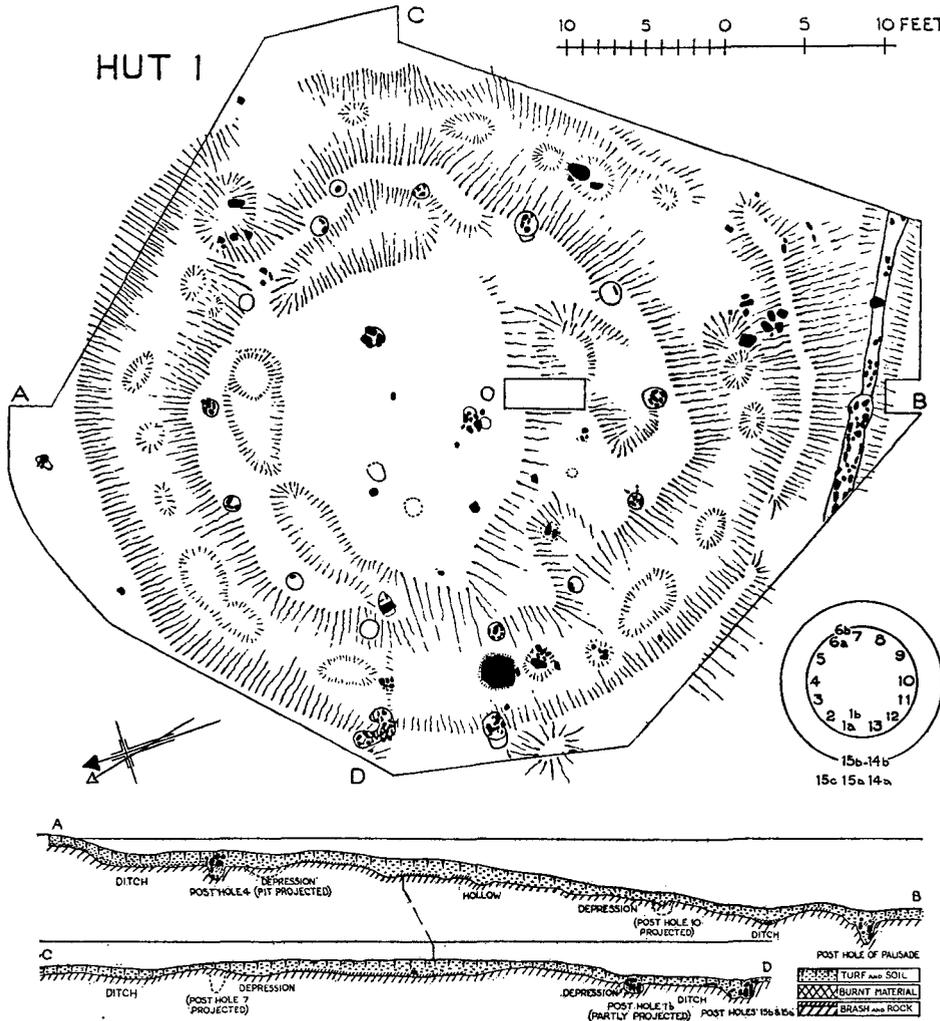


Fig. 4. Braidwood Fort: Plan and sections of Hut 1 and portion of Palisade Trench excavated. (Inset diagram shows the numbering of the post-holes.)

at intervals along the bottom suggest that the method of digging had been for a squad of men to sink a series of holes which were then joined up. Immediately on the bottom of four of the hollows we found an inch or two of fine black material with specks of charcoal, in one case with numerous fragments of the base of a pot (see p. 10).

The scarp of the ditch often sloped back so gently as to form no clear

lip, and the resulting greater accumulation of humus at the centre than at the edge caused the slightly domed appearance of the interior area which tends before excavation to give these huts a misleading resemblance to ploughed-out barrows. Post-holes had been cut round the inner lip, forming a ring of thirteen with two supernumerary. The centres of those on the ring formed a fairly exact circle 27 to 28 feet in diameter. Their intervals varied between 6 and 7 feet, except one of 8 feet (marking what other evidence showed to be the doorway) and one of $5\frac{1}{2}$ feet next to it. The 7-foot intervals were on the south-east, where three holes were rather large (fig. 5, 10 shows earth filling) and contrasted with the remarkable smoothness and regularity of the others, though all were fashioned in a rock whose nature is, as we could see in the ditch, to break jaggedly along the lines of cleavage. The post-holes were mostly about a foot across at the top. The packing-stones that remained in position showed that the posts had been 6 to 9 inches thick and possibly roughly squared. The deepest hole was 15 inches through the rock.

Only at the doorway were post-holes found on the outer side of the ditch, thus indicating a porch projecting about 6 feet. There, two holes lay just beyond the outer lip of the ditch, the southern at least 13 and possibly 18 inches deep and some 16 inches across, the other a foot deep and a foot across. Subsequently these had been filled in, and two others (PH 15*b* and 14*b*, respectively 12 and 16 inches across and 8 and 10 inches deep) had been cut a foot nearer to the main ring, partly in the rock and partly in the filling (fig. 5, 14). The timber in PH 14*b* might have had a thickness of 7 to 8 inches. Presumably at the same time the north door-post (in PH 1*a*) was moved nearly 2 feet farther south and 15 inches farther in. This had the effect of decreasing the span of the door by a foot. The new post-hole (PH 1*b*) may have held twin posts, to judge by its shape (fig. 5). All that we found of the old one was a basin about two-thirds of the way down the ditch scarp. At its shallowest this basin was only 2 inches deep, but its distance from the surface, and its position and smoothness, show that it originally resembled PH 2. A post-hole (PH 15*c*) less than a foot north of the outer end of the porch may have belonged to either or both phases. A channel 3 inches deep choked with cobbles connected it with the nearest hole of the porch.

At the end of the hut's occupation, and probably earlier too, the porch was open towards the west. The quarried surface of the ditch where it crossed was worn level; a hollow ran up the scarp through the doorway, and the counterscarp was low and worn. A group of small flat pieces of sandstone (removed in 1940) lay in the bottom of the ditch on an inch or so of silt and soil: the north wall of the porch in its second phase would have crossed them. On the south side a massive block of sandstone lay in a steep-sided hole quite unlike the other hollows and apparently specially made for it (section, fig. 5, 13). The block projected above the hole but had

no signs of wear on top, and so cannot have been the threshold of a dog-legged porch (Pl. II, 1).

Within the ditch the natural surface was found to have been removed over a large part of the area. A discontinuous depression ran round three-

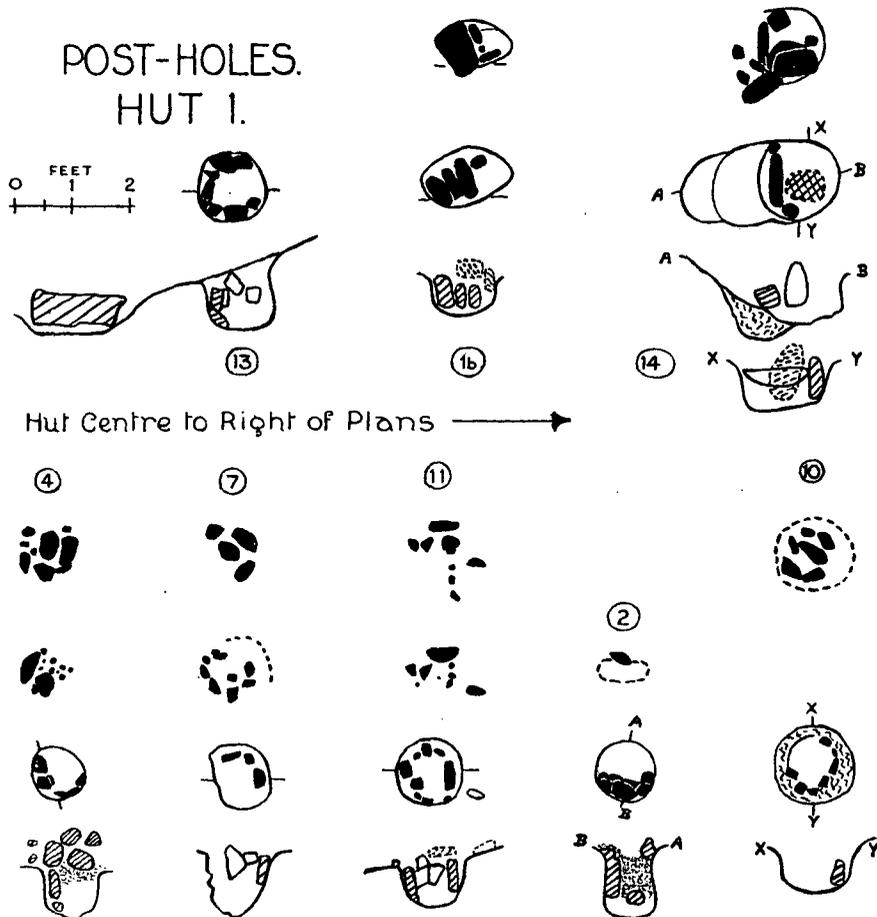


Fig. 5. Braidwood Fort: Sections through Hut 1 post-holes, and plans showing successive features revealed.

quarters of the circle, just inside the posts. In it the rock had been penetrated a few inches, at most six. One end of the depression in the north-west quadrant ran out into the hollow of the doorway. Although no very definite floor surface was distinguishable, it seemed that finally the bottom of the depression was covered with an inch or two of compressed soil. There was no silt.

The most level part of the interior, its northern half, was unquarried, though undulating and rather dished. It retained the light-coloured brashy

surface above which there was a browner, more smeary skin, occasionally showing specks of charcoal. Though this was very uneven, we took it to mark the old floor, though not necessarily what was immediately trodden, for there may have been rushes, mats, or even a timber flooring.

Three stones overlay a small hollow about 6 feet north-east of the hut's centre, nearer which, on the south, some smaller stones overlay a hole 1 foot across and 6 inches deep. These stones being on floor-level may indicate the site of roof supports in the hut's last phase; the southern hole seems to have been resited twice. Two possible sites for other posts of this inner ring were noted on the west side. Two stones near PH 12 filled a shallow hole whose purpose, if any, escaped us; it lay in what might be an isolated part of the "depression" though in a natural dip.

On the north side of the interior of the hut there was a pit in the depression. It was about 3 feet across at the top, flat-bottomed, and at most 11 inches deep. The filling of earth and loose stones contained some charcoal and a fragment of a quern.

One important matter remains to be considered and is illustrated in fig. 5, and Pl. II, 2. In a number of cases the nature of the filling of the main post-holes differed from that found in all the holes examined in Hut 2, in that what appeared to be a rammed filling—it consisted of small stones—underlay up to 5 inches of silt. The original packing-stones were found in position along with this filling. In two cases the space was filled by large stones instead of small. The upper part of these post-holes, seven or eight in all, formed in consequence shallow sockets, *e.g.* PH 2. In some cases these seemed to have been deliberately made deepest, or best supported by packing-stones or thrust-blocks, on the side farthest from the centre of the hut, particularly PH 1*b*. The sockets of PH 4, 7 and 11 were found covered by loose cobbles as if secondary packing-stones. (The plans in fig. 5 show the succession—cobbles, socket, post-hole.) Another possible indication of a change in the character and use of the post-holes is one which had, however, quite the opposite effect: the ditch encroached on half a dozen of them and lowered their outer edges. Thus PH 5 was only $5\frac{1}{2}$ inches deep on the outside, though 11 inches from the surface of the brash on the inside; it had no hard filling.¹

RECONSTRUCTION.

Twenty-five years ago the Royal Commission made the reasonable suggestion that the ring-ditches marked the site of tents. But excavation has now shown that a circle of stout upright posts had stood round the inner lip. The completely opposite possibility has therefore to be considered, namely, that the posts had stood in the inner face of a very thick stone wall—like that of the wheel-houses and brochs of the North²—in which case the

¹ A fuller description of this hut in typescript has been deposited with the Society.

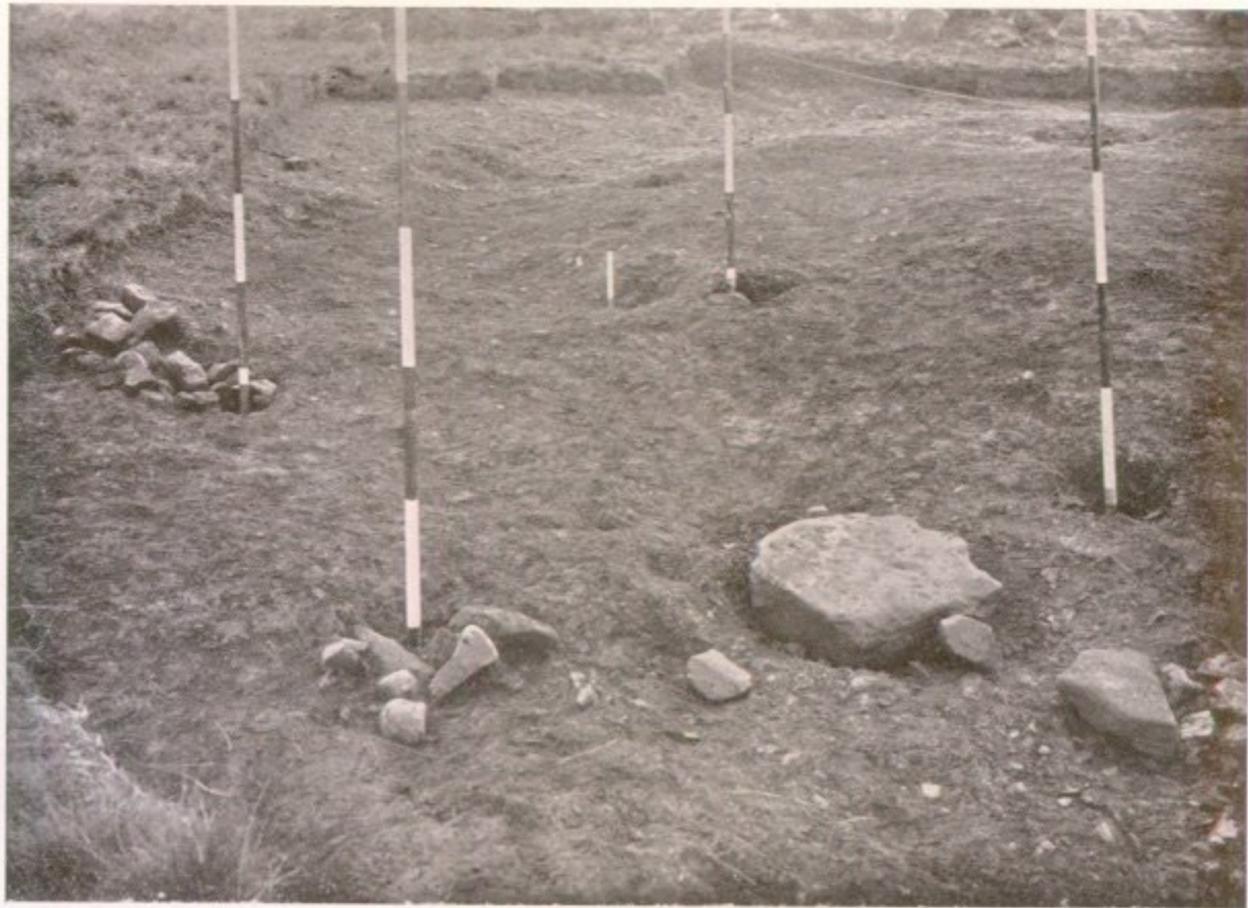
² *Proc. Prehist. Soc.*, vol. xiv. (1948), p. 46.



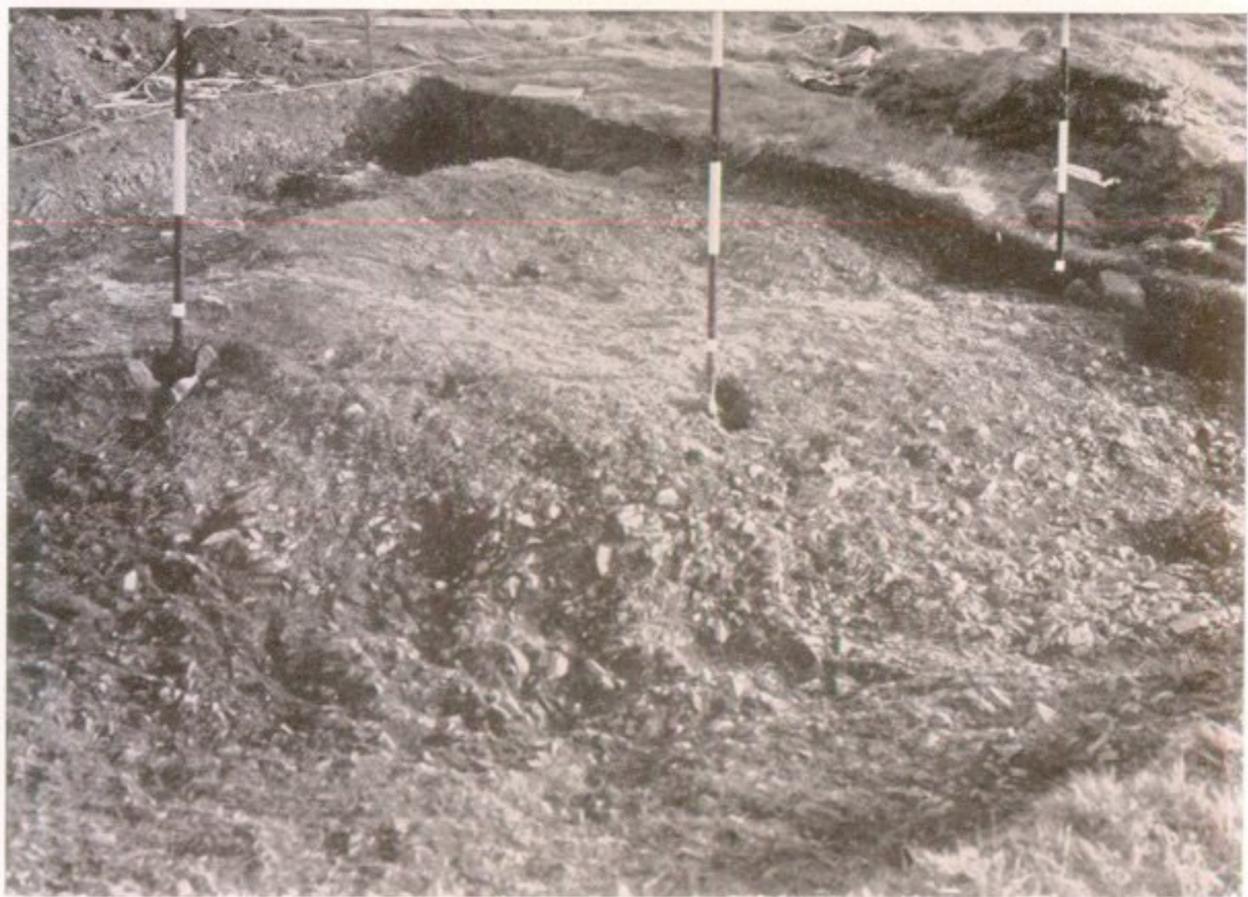
1. Hut 2: north-east quadrant with only earth removed. Packing-stones project from post-holes 6a, 6 and 7.



2. Hut 1: view looking south. In foreground post-holes 4, 3 and 2 fully excavated.



1. Hut 1, entrance: poles in post-holes 15b, 14b, 1b and 13, peg in 1a.



2. Hut 1: sockets in post-holes 3, 2 and 1b.

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ditch would be the work of "stone-robbers" who had removed it. But this is disproved by the way the stones in the upper part of, and immediately around, the post-holes remained untouched, though there were relatively few stones elsewhere; further, there is the lack of upcast which stone-robbers would not have tidily removed. Alternatively the wall might have been of turf or earth, bedded in the ditch, the porch we have talked of being the doorway through its thickness. This, however, would probably have required an outer sustaining ring of posts, of which there was no trace. Moreover, owing to the shallowness of the soil an earthen bank would really have consisted in part of quarried material, yet there was neither stony nor turf-like filling in the ditch, only silt.

Before Hut 2 was examined it seemed possible, and indeed likely, that the ditch of Hut 1 represented a final phase, in which (conceivably after a stout wall had been removed) the uprights were uprooted and replaced by sloping ones, forming a tent-like structure whose eaves the ditch would have been designed to drain. Despite the view of so experienced an excavator as Dr I. A. Richmond, for whose comments I am most grateful, it is hard to dismiss as accidental the "sockets" found in the upper half of so many Hut 1 post-holes, and they could have been used for such a structure. However, neither they, nor the concentric depression which might have given a fraction more room for sleeping or storage under low eaves, recurred in Hut 2. We must therefore treat the ditch and upright posts as contemporary.

The original hut walls, then, must have been quite thin, perhaps basically wickerwork—that is to say wattle-and-daub. Fragments of hazel-wood in one of the post-holes are suggestive. The ditch coming deliberately right up to the post-holes—it had been enlarged when one door-post was moved back—would help to drain the base of such a wall, which for permanence would otherwise need stone footings. (Some stones served this purpose where the porch walls crossed the ditch.) We may contrast these arrangements with those disclosed by two excavations at two other sites of similar date. The large house at Scotstarvit, Fife, described recently by Dr Bersu,¹ had the course of its walls marked by two narrow trenches with post-holes at intervals in the inner one. These walls had been as thin as those at Braidwood, but were well drained without a ditch owing to the sandy subsoil. The narrow circular bedding trenches at Hayhope Knowe (p. 45 *infra*) held, one might suggest, lighter and more temporary huts. The nature of the roof was no doubt similar, however (see fig. 11 on p. 60).

We have little means of judging the height of our walls. A certain degree of lowness is suggested by the exposed character of the site, and anything above 6 feet seems unlikely. Dr Bersu has argued² for a 5-foot wall at the later Iron Age hut he explored at Greencraig, Fife, which had a low stone-faced rubble wall $4\frac{1}{2}$ feet thick with posts in and on it.

¹ *Proc. Soc. Ant. Scot.*, vol. lxxxii. pp. 241 ff.

² *Ibid.*, pp. 271-3.

The Braidwood internal roof supports, which in Hut 2 may have formed a definite ring but which in Hut 1 appear to have been more irregularly placed, were slighter than the outer posts. They were probably more in the nature of struts than part of a proper framework such as there had no doubt been at Scotstarvit. At any rate, they must indicate quite a different type of structure from that of the large circular house found at Little Woodbury, Wiltshire, where the largest post-holes were four in a square in the centre.¹ In both our huts the inner posts on the lower side of the hut were farther from the outer ones than on the upper, but the evidence is incomplete and cannot be stressed.

Unlike the huts at Hayhope Knowe, our Hut 1 had no hearth, and the centre of Hut 2 was reached without finding one. Perhaps these particular huts were just stores—serving the purpose of the pits so common in southern England but impossible in our rocky country.

The isolated post joined by a foot of fencing to the north corner of the Hut 1 porch may not have served any structural purpose.

FINDS AND DATING.

The base sherds of a pot from the hollow in the ditch north-east of PH 4, Hut 1, resemble cinerary urns in fabric in that they lack the sandy temper characteristic of much Iron Age pottery. This fabric was, however, the most common in the earlier levels of Traprain Law. It may be used to date the hut ditch. The material containing the sherds had not been burned *in situ*, but was fresh rubbish deposited when the ditch was new. A similar date is indicated by a piece of glass bracelet found 18 inches to the north, in the soil immediately covering the counterscarp. This was coloured yellow, red and white, and belongs to a type found in the first century A.D. level at Traprain.²

The other finds from Hut 1, all unstratified except a mere fragment of quernstone in the pit, are consistent with the same Early Iron Age date for the occupation: two sherds; three "marbles," diameters just over and under .9 inch, such as were found at Castlelaw Fort, a few miles to the north³; and lastly, two quartzite cobbles, one intact measuring 4.2 by 3.1 inches, worn at one end in two facets, while the wear on the other end runs up the sides for about an inch but not up the faces, as if denoting a to-and-fro grinding motion—such artifacts are widespread and were common at, for example, Forse Wag, Caithness.⁴

Hut 2 was even less productive. In PH 6a and 7 there were tiny pieces

¹ *Proc. Prehist. Soc.*, vol. vi. (1940), p. 86.

² *Proc. Soc. Ant. Scot.*, vol. lxxii (1937-38), p. 372; a further discussion of this and other bracelets is deferred to a later volume.

³ *Ibid.*, vol. lxxii. (1932-33), p. 385.

⁴ *Ibid.*, vol. lxxxii. (1947-48), pp. 283-4.

of burnt clay, perhaps burnt daub rather than pottery. In PH 7 there were also small pieces of burnt bone, and a pebble ($3.2 \times 2.7 \times 1.2$ inches) with an hour-glass perforation at least .6 inch across, found in two separate pieces.¹

I am indebted to Mr M. Y. Orr, of the Royal Botanic Garden, Edinburgh, for identifying as hazel (*Corylus Avellana*) some very small fragments of charcoal from the filling of PH 4, Hut 1, and a handful of pieces up to $1\frac{1}{2}$ inches across from the pit. He is inclined to think that the larger pieces were burnt, though the smaller may be naturally carbonised. Charcoal from Hut 2 consisted of hazel and rowan (*Pyrus aucuparia*).

Palisade Trench (fig. 1).

A hollow visible on the surface south of Hut 1, coming to within a yard of the ditch, marked the line of a trench. Where the line of our main section crossed it, there was a post-hole 14 inches in diameter cut more than 15 inches into the rock, the original ground surface being probably four or more inches above that. The portion of the trench that ran north-west from there was a foot or so wide and at least 11 inches deep. Besides packing-stones (one a reused anvil-stone) set deep along the sides, and which at one point narrowed it to not more than 5 inches, there were many stones lying in and above the trench choking it. To the south-east of the post-hole the trench was narrower and shallower, having a minimum depth of 4 inches and a width of 7 to 9 inches; there were fewer stones, and the only large one lay across the trench on an inch of soil.

The deep hole suggests widely spaced posts supporting a palisade set in the trench.² Soil might have been packed round the base in the more shallow portion. Surface indications of the trench run towards the fort's entrance, and continue on the other side where we confirmed it with a cut (C on fig. 1), in which it was a foot across and the same deep, with packing-stones as before and almost vertical sides. From the plan it seems as if the palisade and not the bank had defined the area occupied by the huts. We did not attempt to establish the relationship between huts, quarry-ditch and bank, as we were concerned with the nature of the huts, not the history of the site. It is interesting, however, that subsequent work in Roxburghshire by Dr Steer and Mrs Piggott has shown that palisades were not uncommon, and that the one at the Early Iron Age fort of Hownam Rings represented the first phase of the fortifications.³

¹ In *Prehistoric Annals* (vol. i. pp. 464-5) Sir Daniel Wilson reported and illustrated a remarkable collar or armlet of twisted gold rods which seems to have been found in the fort at the end of the eighteenth century. Professor Piggott considers that it could be ascribed to the Early Iron Age.

² Such a trench, at one point retaining the stumps of the palisade and at another, where they had rotted completely, choked with stones, was found by Dr Bersu at the rath of Lissue, Co. Antrim (verbal information, see also *U.J.A.*, 1947).

³ *Proc. Soc. Ant. Scot.*, vol. lxxxii. (1947-48), p. 200.