

EXCAVATIONS AT HOWNAM RINGS, ROXBURGHSHIRE. 193

VIII.

THE EXCAVATIONS AT HOWNAM RINGS, ROXBURGHSHIRE,
1948. By C. M. PIGGOTT, F.S.A., F.S.A.Scot.

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INTRODUCTION.

The Circumstances of Excavation.

The excavations at Hownam Rings in Roxburghshire¹ were undertaken, in June and July of 1948, on behalf of the Society of Antiquaries of Scotland,

¹ First described and planned in the *Border Magazine*, September 1863, 183-4. "Account of an Ancient Fortlet near Hownam, Roxburghshire: with illustration," by David Milne Home.

by kind permission of H.G. the Duke of Roxburghe, and the tenant farmer, Mr J. Bryce.

The excavation lasted a month, and labour was provided by students who were enabled to attend and to receive some training through grants from the Scottish Universities allotted to the Scottish Field School of

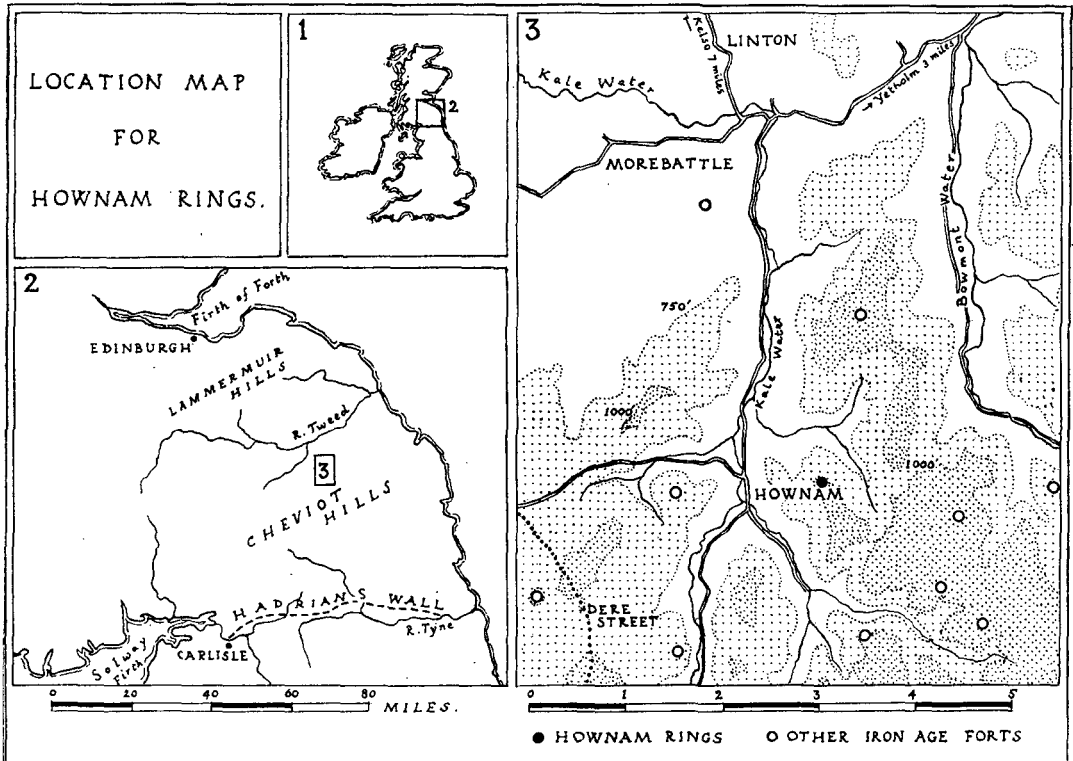


Fig. 1.

Archæology. To these students, to Mr Bryce, and to many other volunteers, notably Miss J. du Plat Taylor, Miss M. Gilmore and Mr H. G. Balfour Paul, the writer is greatly indebted, and not only the writer—for Scottish Archæology has significantly benefited through this voluntary effort undertaken at a time when camping life was extremely difficult, and when the weather was so bad that some 20 per cent. of the digging hours were lost.

The Selection of Hownam Rings.

It has been possible in some parts of Britain, more especially the south, to show that certain kinds of hill-fort defences can be equated with different periods and cultures. Thus single ramparts enclosing a hilltop are in the

south generally found to belong to the Iron Age "A" culture, while multiple ramparts are more typical of the "B" culture. A great deal of excavation remains to be done in all parts of the country before the very significant differences can be worked out, for there were many varied kinds of defences used by the invading or peacefully settling peoples within the Iron Age. And in no part of the British Isles is less known of these defences than in Southern Scotland, where scientific excavation on hill-forts has been almost non-existent. Carefully planned excavation followed up by extensive field-work by trained archæologists is needed before the numerous local variations among the hill-forts can be classified, and related by associated finds of pottery and metal-work to the cultures of pre- and post-Roman times. For whereas in the more Romanised regions of southern Britain there are comparatively few fortified sites of the Dark Ages, in the north and generally in the highland parts of Britain there are known to be many Dark Ages sites. Of these, too, almost nothing is known and their characteristics have yet to be worked out.

In "A Survey and Policy of Field Research in the Archæology of Great Britain" (*Council for British Archæology*, 1948) the following sentences occur (p. 105):—

"Several forts (Traprain Law, Castle Law, Kaimes Hill—all in the Lothians) have been shown by excavation to belong to several periods, each with a distinct system of fortification; and this can sometimes be worked out on the ground without excavation. But without careful fieldwork, description of an unexcavated fort as 'multivallate' or 'bivallate' is simply misleading. Again, the excavation of Kaimes Hill proved that hut-circles within the enclosure were later than the latest system of ramparts, so that references based on superficial surveys to the exposure of such structures within a fort have a very limited value."

Again, on the following page:—

"The very chronological framework for the native cultures north of Hadrian's Wall remains to be built. Hence the prime need is an index-series of type-fossils, based mainly upon stratified pottery. This can only be obtained by further excavation."

As far as field-work is concerned, it is fortunate that at the present time Roxburghshire is being studied intensively by the Royal Commission on Ancient Monuments, and as a result of this work it is possible to distinguish the following types of defended settlements¹:—

- (1) Hilltops enclosed by palisades, either single or double.
- (2) Forts defended by a simple sheer-faced wall.
- (3) Forts with multiple ramparts and ditches.

Apparently later than these are the small enclosures known as "home-

¹ See Steer in *The Archæological News Letter*, No. 8 (December 1948), pp. 10-11.

steads," and various other presumably post-Roman structures which do not concern us here. Examination on the ground of some of these forts, including Hownam Rings, revealed an apparent sequence in which multiple ramparts seemed to have been added to defences with a single wall. Hownam Rings was clearly a fort which had had a comparatively long life, during which time the defensive system had been altered and redesigned. It also included a small "homestead" partly built over the rampart. For these reasons it was chosen, and also for the fact that it was not far removed from the Roman road of Dere Street, running northwards to Newstead; for along this road would have been carried many Roman wares which may have been traded with the native people, and these Roman objects are invaluable for the evidence of date which they afford.

Of the two generally practised methods of excavation, total stripping of the site, or test excavations by carefully placed cuttings, the second method was that selected for Hownam.

In the course of the excavation it was hoped that some at least of the following questions might be answered:—

- (1) What was the sequence of hill-fort construction in the Border Country?
- (2) To what cultures and dates did the different defences belong?
- (3) Were the multiple ditched-and-ramparted forts made, as in the south, by Iron Age "B" settlers gradually moving northwards like their Iron Age "A" predecessors? Or, if not accompanied by settlement, was it only the fashion that spread as the new weapons of slings and possibly chariots made the old wall defences inadequate?
- (4) How were these cultures affected by the Roman conquest of Southern Scotland?

Answers were obtained to some of these questions, and will be discussed in the later part of this report.

The Site before Excavation.

Hownam Rings lies just within the 1000-foot contour on the northern slopes of the Cheviots, 5 miles south of Morebattle and half a mile east of the village of Hownam, where the Kale Water is joined by the Capehope and Heatherhope Burns (Grid Reference : 36/791194).

The appearance of the country to-day is that of rolling treeless hills with rounded profile, covered with poor grass suitable only for sheep grazing. Hill-forts and homesteads are thickly scattered, usually, as shown in fig. 1, between the 800- and 1100-foot contour lines. Round about Hownam Rings and the greater height of Hownam Law the land is fairly well drained

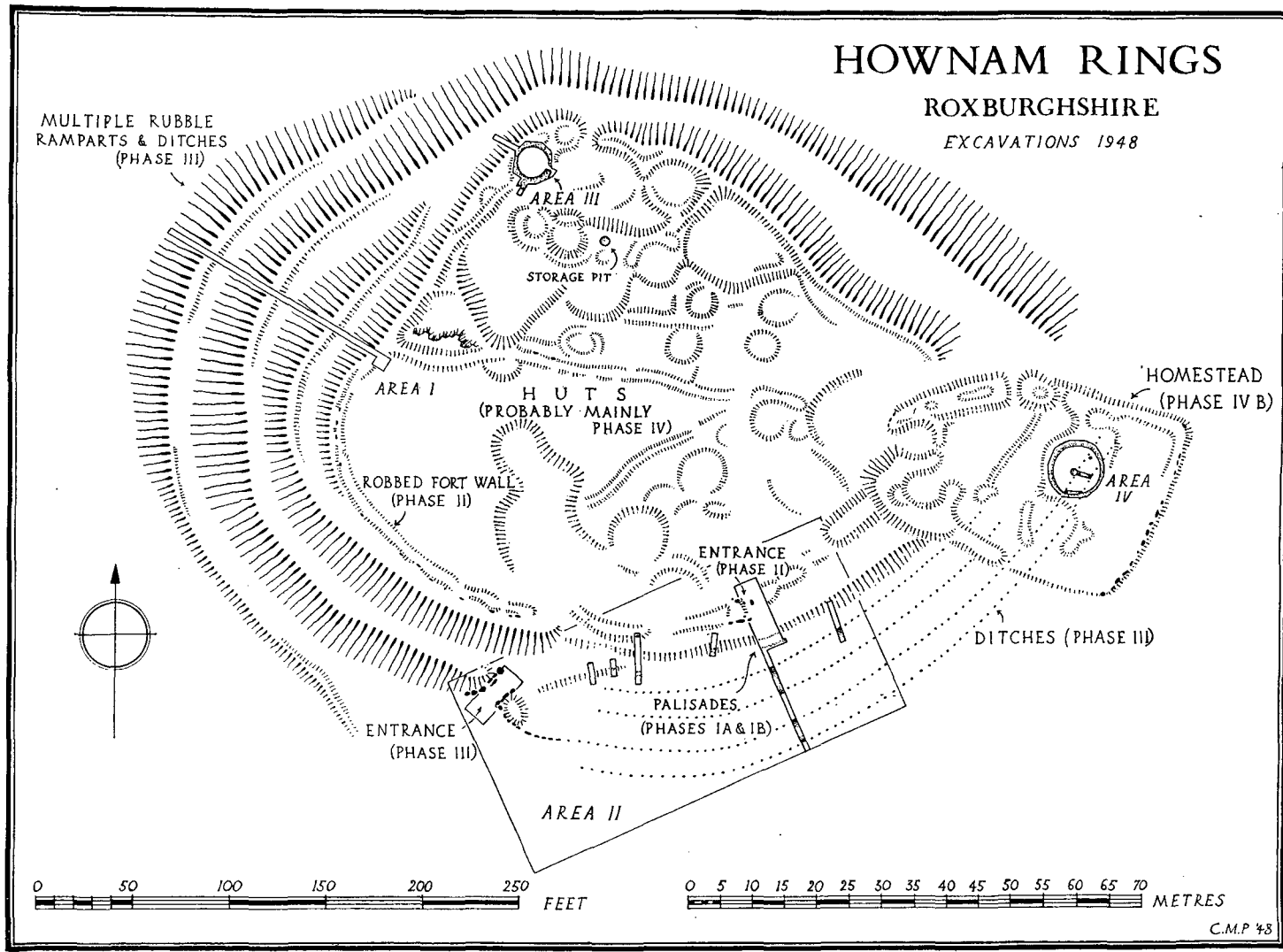


Fig. 2. Plan showing excavated areas.

[Based on a survey by the Royal Commission on Ancient Monuments.]

by the numerous burns which empty into the northward flowing Kale or Bowmont Waters and ultimately into the Tweed.

Geologically on the lower Old Red Sandstone the surface geology is very varied. The lower-lying parts are often sandy, and there is a considerable amount of alluvial soil formed by deposits washed down from the higher land. Thus on the south and east sides of the fort of Hownam Rings the subsoil is loamy or sandy, while on the north and west it is rock or indurated clay. In addition, the large number of erratics, some probably brought from far afield in the course of glaciation, include grey amethyst, rock crystal and quartz, etc.

It is impossible to say how much woodland would have been on these hills in late prehistoric times, but it is probable that there was considerably more than to-day, and it is certain that the large number of trees used in the two palisade stockades must have been cut down locally. One can reasonably imagine that a large number of prehistoric sites may have been hidden from view by the woods.

Before excavation began, ground observation showed the following features. Remains of a wall ran round part of the hill. Several rubble ramparts were obvious on the west, the most rocky part of the hill, and had either never been completed, or had been ploughed out on the east and south; circular hollows of numerous huts were thickly clustered inside the defended area, and several on the north had distinctly been built over or into the decayed ramparts. Lastly, on the east and partly outside the fort was a small "homestead" enclosure containing signs of several huts. This enclosure from its position might have been expected to have been the latest feature in the history of the site.¹

DESCRIPTION.

Summary of the Results Obtained.

The sequence discovered as a result of excavation was as follows:—

*Phase I.*² The south side of the hill was enclosed by a palisade of wooden posts which had, after a not very long life, been replaced by a similar palisade following nearly the same line. No entrance was found to this enclosure, which was only traced along the curve of its boundary on the south side. This earliest phase was not dated.

Phase II. A sheer-faced wall, some 10-12 feet wide at the base, had been built round the top of the hill. How long this had existed as a defence is

¹ On the south side of the hill and outside the apparent limit of the fort, a row of some 28 standing-stones, known locally as the "Shearers," may be all that remains of a field dyke, probably considerably later than the fort.

² The word "Phase" rather than "Period" is used here advisedly, since the whole occupation of this fort appears to have belonged to one archaeological period (the Iron Age, pre- and post-Roman) though to four phases within that period.

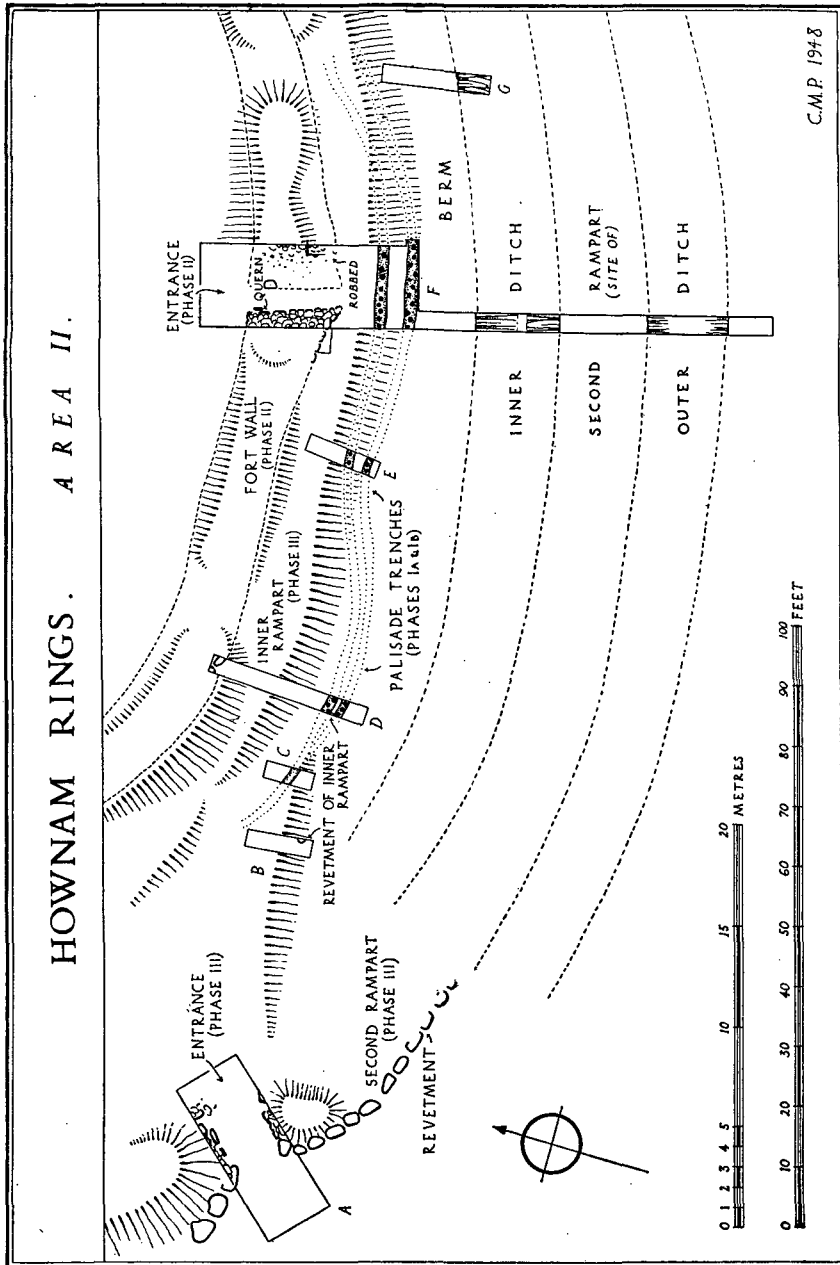


Fig. 3. Plan of Area II.

not at all clear, but it was evidently considered obsolete in the late first century A.D. For at that time (Phase III) the defences were modified, and a datable quern was included in the blocking of the original entrance.

Phase III. This started with the old wall being reduced in height, and some of the large facing-blocks were used as a kerb to the inner of several rubble ramparts; the reduced wall being incorporated in the innermost of these. As was the case in the south of England, this new idea of defence in depth was most probably a response to a new offensive weapon such as the sling or chariot.

Phase IV. The fourth phase began when the defensive life of the fort was at an end, probably by the mid-second century A.D., for there is evidence to suggest that the third phase was of short duration. The hilltop continued to be occupied, however, and the hut excavated on the north-west was apparently being lived in in the late third century A.D. The other hut on the east and belonging to the "homestead" could not be dated so accurately, though it, too, was built over the obsolete ramparts of Phase III.

There was no very noteworthy change in the pottery from all these phases, and we have no reason to suppose that during the centuries the hill was inhabited there was any profound cultural change such as might have been expected if large numbers of settlers or invaders had moved in from another region. And even by the end of the third century, and later, the influence of Rome on the material culture of the native people was hardly perceptible.

The Excavation Described.

Phase I. The Palisade Enclosure.

Evidence for the presence of this earliest stage at the site was found accidentally in Area II only (fig. 3). In cutting F, which was designed to strip what apparently was one of the entrances into the wall fort of Phase II, two bedding-trenches, originally holding timber uprights packed round with stones, were discovered and appeared to be contemporary. But as they were subsequently shown to converge (cuttings E and D) and finally join in cutting C, it was apparent that one line must have been a replacement of the other. It has been mentioned that these palisade trenches could not have been co-existent with the wall of Phase II since they ran across the entrance belonging to that phase. They must, then, be either earlier or later than Phase II. But we know from Area I (described below) that Phase III immediately succeeded Phase II. And in addition the innermost rubble rampart of Phase III overlies the palisade post-holes in cuttings D and E. The chronological position is therefore established.

In cutting G, unfinished at the close of excavations, it was at least possible to establish the absence of the palisade trenches in the length uncovered, and it is therefore likely that they began to turn in at this



Palisade post-holes of Phase I. (Cutting F.)



(a) Area II cutting D.

In the foreground are the palisades of Phase I; beyond these is the innermost rubble rampart of Phase III piled against the wall of Phase II, the facing stones of which are visible at the end of the cutting.
(See fig. 5.)



(b) The two palisades in Area II.



(a) Wall core of Phase II (Area I) with, on left, the facing blocks thrown down in Phase III.



(b) Phase III rubble ramparts with re-used facing blocks of Phase II, Area I. (See fig. 6.)



(a) Entrance in Wall Fort (Phase II). The two ranging rods mark the palisades.



[Photo: W. de L. Aitchison.]

(b) Rampart cutting on west (Area I) from inside the fort.

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[Photo: K. A. Steer.

(a) Hut I (Area III).



(b) Stone-lined hollow in Hut II (Area IV).

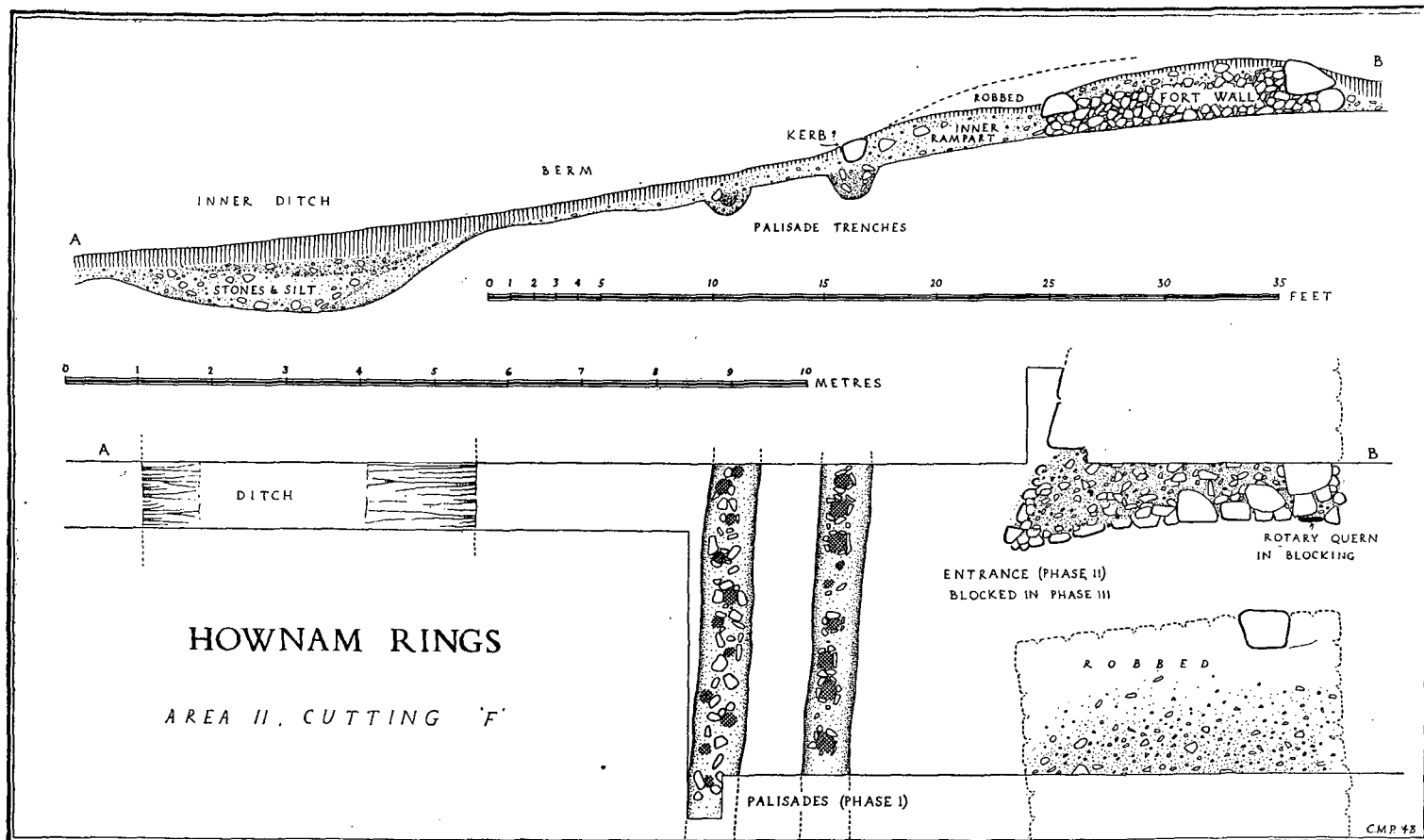


Fig. 4. Plan and section of Cutting F, Area II.

point unless they had been cut away by the Phase III ditch—on the whole less probable.

How far northwards the enclosure extended is not known; the width of both the palisade trenches averaged a little over 2 feet. Stones had been packed round the uprights, which had been about 6 inches in diameter (Pls. XXXVII, XXXVIII); and in the case of the outer line, at least, these uprights had been staggered, probably to allow wattle, hurdling or brushwood to be interwoven. The depths below the old ground surface of these uprights varied from 16 inches to 2 feet, but it was not always possible to be certain when the bottom had been reached, as the old surface of the rock had weathered considerably on this side of the hill (figs. 4 and 5).¹

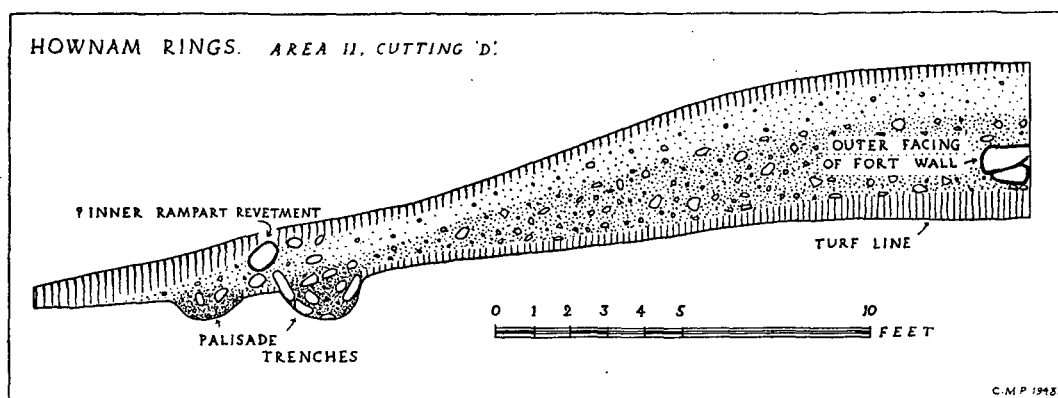


Fig. 5. Section of Cutting D, Area II.

Phase II. The Wall Fort.

This was discovered in three cuttings, in Areas I, II (the entrance) and III (figs. 6, 4, and 8), and in addition was visible for the greater part of the circuit of the hilltop.

It was found to consist of large stones faced on either side by larger blocks, and there was no evidence of coursing inside, though the facing may have been more carefully constructed. This wall showed no signs of having had wooden tie-beams in the Gallic wall manner, though the possibility of this must not altogether be dismissed in view of the short length of walling removed.²

Area I (fig. 6 and Pl. XXXIX).—In this cutting the wall was found to be 10 feet in width, the large facing-blocks on the outer side having

¹ For similar palisade trenches see *P.S.A.S.*, vol. xxxiv. (1900), pp. 117-20, for forts at Orchill, and Kempy, Gask.

² Forts with apparently similar walls are known from Wales, and in several instances a rampart-walk on the inner side can still be seen. (*Tre'r Ceiri*, *Arch. Camb.* (1926), p. 257, and fig. 20; *Caer-y-Twr*, Holyhead, *ibid.* (1934), p. 158; *Caer Drewyn*, *ibid.* (1922), p. 117.)

been thrown down and incorporated in the inner sloping rubble rampart of the succeeding phase. One fragment of pottery was found in the make-up of the wall.

Area II (fig. 4 and Pl. XL, a). *The Entrance*.—This, unfortunately, had been very much robbed on the east side, but a single very heavy

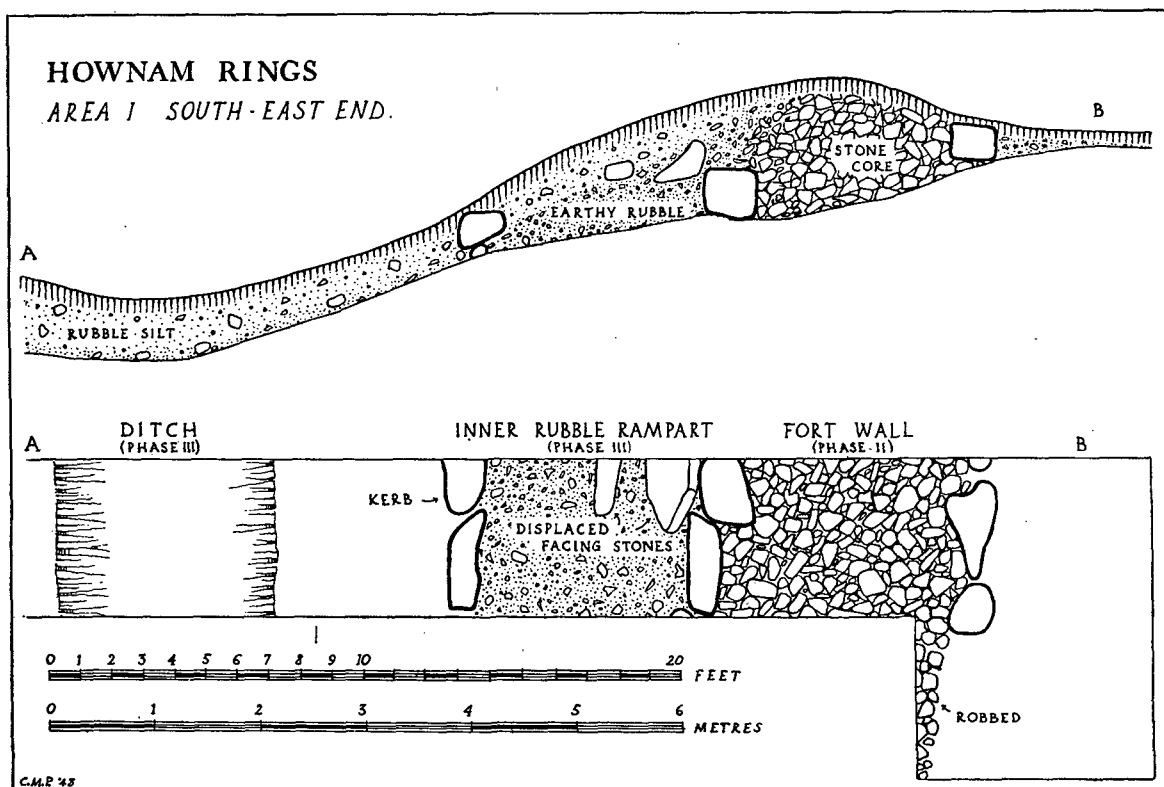


Fig. 6. Plan + section of inner rampart in Area I.

stone, 2 feet by 18 inches in size, and probably too cumbersome for the robbers to remove, had remained, indicating, if we are right in supposing it was still in position, a width of only 4 feet for the entrance, which showed no signs of gate-posts. This entrance may have been a single gap in the wall, closed when necessary with some movable object like a hurdle or brushwood.

Area III (fig. 8).—This cutting was designed to show the chronological relationship between the wall and the hut. As in Area I, the inner and outer kerbstones of the wall were discovered, as well as the lower stones of its make-up, overlaid by the rubble rampart of Phase III, which in turn had been cut into by the hut of Phase IV. Beneath the

wall in this cutting were found several pieces of pottery, a long iron object like a pin, as well as animal bones, slag and charcoal (see pp. 212-13 below).

Just at what time or against whom this wall was built it was not possible to find out, but that it came to an end, was dismantled and the hilltop defences remodelled in the late first century A.D. will be shown in the discussion of Phase III (p. 206). A quern of that date was found among the material used by the Phase III people for blocking the entrance of this wall fort.

Phase III. The Rubble Ramparts.

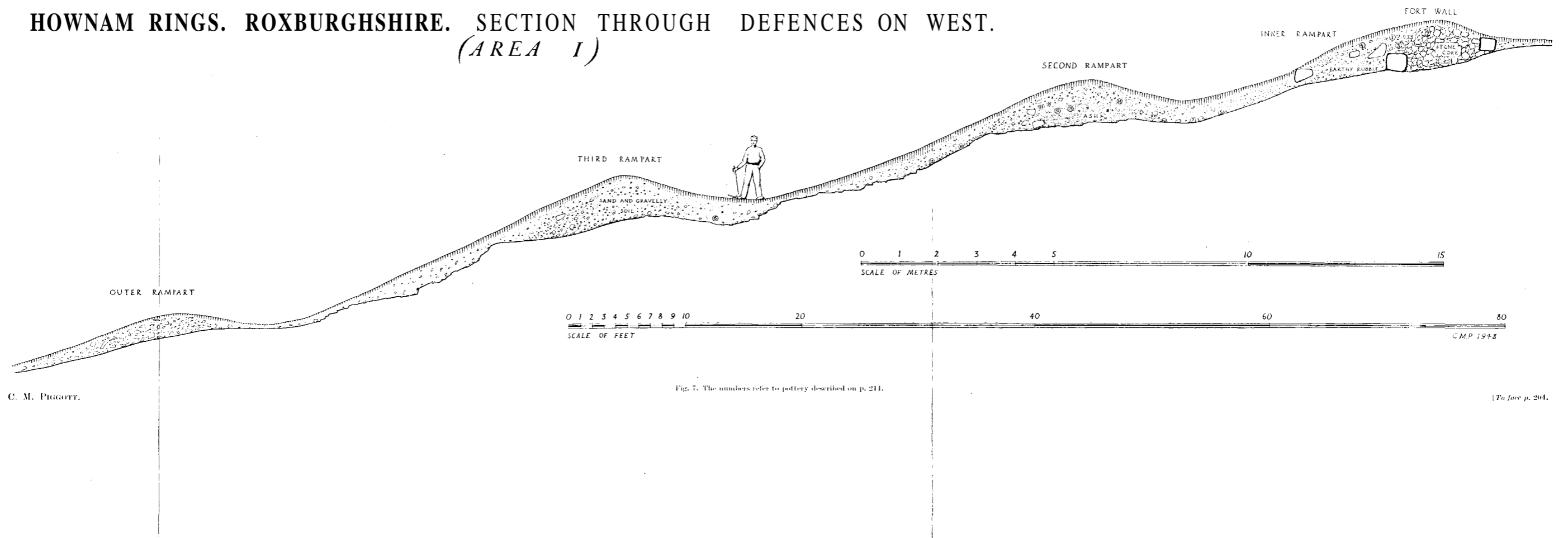
The Inner Rampart was sectioned at a number of points, while the three additional outer ramparts were also cut through in Area I (Pl. XL, b).

As has already been pointed out, the innermost rampart of this period was partly composed of the dismantled wall of Phase II but, like the outer ramparts, its composition varied according to the surface geology of the hilltop. Thus on the west and north-west of the hill, where the soil was rocky, there was more stone than earth in its make-up, while in place of the ditches which had been relatively easy to dig in the soft soils of the east and south sides, only a slight scarping had been achieved (fig. 7). With the more steeply sloping hillside the scarping produced the same effect as that given by the ditches on the other sides of the fort, and it would be unwise to infer that this was either hurried or inefficient work. But the sudden appearance of the different technique of defence construction, reflected both in the digging of ditches and in the clever scarping of the slope to give the maximum effect with the minimum work, suggests the possibility that this work may have been directed by refugees from the south of Britain, where earthworks of this type are abundant.

It is clear from the little apparent change in the pottery of Phases II and III that these rubble ramparts were built by no strangers to the district. The people who dug and scarped the hill to obtain defences in depth may have been immediately descended from those who, we have seen from Phase II, depended more upon stone walls than earthworks for the defence of their possessions. But it seems probable that their labours were *directed* by one or more people who were familiar with the defensive systems of the south. This inner rampart was the only one to have been provided with a kerb, and it was evidently by far the most formidable of them.

The Inner Ditch and Berm.—On the south side of the fort the ditch, from which the earth was obtained for building the inner rampart, was found to be some 16 feet outside it, and the presence of a berm here but not on the steeper slope suggests that there was some advantage in having the berm flat, though its tactical significance is not understood. The ditch was wide

HOWNAM RINGS. ROXBURGHSHIRE. SECTION THROUGH DEFENCES ON WEST. (AREA I)



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Fig. 7. The numbers refer to pottery described on p. 214.

[To face p. 204.]

and shallow and its filling was informative, though it must be remembered that only one cutting was made across it, and it would therefore be unwise to argue too categorically from it. In the section exposed (fig. 4) it was clear that a few large stones, probably from the rampart, had fallen into the ditch soon after it had been dug, and before silt had formed in it. This suggests that the ramparts had scarcely been constructed before they were allowed to fall into decay, and perhaps even more can safely be inferred from the upper part of the ditch filling; for this appeared to be deliberate levelling overlaid by ploughsoil, and the possibility that the builders of the ramparts may have been instructed to level them must be borne in mind. Such a course of events may indeed have been possible politically. For the most convincing hypothesis seems to be that these defences were built at the time of the Agricola Campaign, and it is historically known that relatively peaceful conditions followed the successful advance of the Romans. The entrance through this rampart was not excavated.

The Second Rampart and Ditch.—This rampart was sectioned in Area I, while the corresponding ditch was examined under Hut II in Area IV. The rampart as exposed in Area I was found to consist almost entirely of scraped-up material, and it was evidently considered impracticable to quarry into the native rock to any extent. This dumped material was largely gravelly and stony soil, but there was also a large deposit of ash containing animal bones, and this may well have been debris from a midden or hut-floor belonging to an earlier or contemporary phase of occupation.

The ditch corresponding to this rampart on the east underlay Hut II (fig. 9), and again the filling suggested the deliberate shovelling in of soil rather than natural silting. The hut overlying it may be as early as the second century, but dating evidence for this is unsatisfactory, and one cannot be certain that the ditch of Phase III was filled in so early. Certainly the lack of any appreciable amount of *silt* in either ditch sections exposed suggests that the ramparts were dismantled and possibly ploughed over within a few years of their construction.

The filling of this ditch contained a fragment of sandy red close-grained pottery and fragments of carbonised wood.

The Entrance through the Second Rampart.—This was clearly visible before excavation, for the kerbing-stones of the rampart were showing through the grass. The entrance was stripped (fig. 3), and found to be perfectly simple and 11 feet wide. No post-holes gave evidence of any timber-work. No sign of wear showed in the entrance, though the rotted rock would undoubtedly have quickly formed hollow ruts or a slightly concave surface had wheeled or foot traffic frequently passed through. This lack of wear again supports the view that this phase of the hill defence was a short one.

The Outer Ramparts.—The two outer ramparts which showed at their

greatest height on the west side of the fort, were sectioned in Area I and were found to consist entirely of scraped-up soil varying from stones to sand and gravel according to the nature of the surface geology. As is shown in the section (fig. 7) the ramparts decrease in size from within outwards, and the outermost rampart was found to be hardly 2 feet high.

The Blocking of the Fort Entrance.—The entrance through the fort wall of Phase II was found on examination to have been much robbed and apparently blocked (fig. 4). The blocking was evidently the earlier event, and was presumably done by the rampart builders of Phase III, whose remodelling of the defences has already been referred to, and whose work included the construction of a new entrance farther to the west. With very little soil above the rotted rock it would, but for a fortunate discovery, have been impossible to disentangle the likely sequence of events which took place at the wall fort entrance. But the lower stone of a rotary quern (fig. 11) of late first-century date was found placed in an upright position against the west face of the wall entrance. This important discovery provides a date for the blocking of the entrance and, by inference, for the replacement of the old defensive wall with the new multiple ramparts.

Within and around this area later robbing had destroyed the east face of the entrance, and soil had also been removed from the rubble rampart immediately outside. In the disturbed soil immediately outside the fort wall was discovered, only a few inches below the turf, an iron knife of post-Roman type (fig. 14).

Phase IV A and IV B. Two Huts and a Storage Pit.

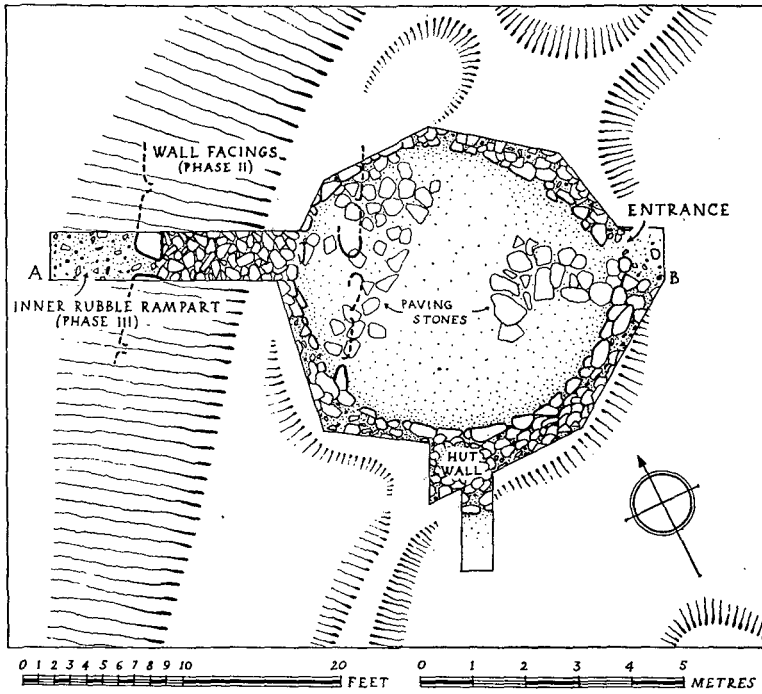
Within Phase IV, all those features of the site known to be subsequent to Phase III are for convenience included, though it is impossible in the present state of knowledge to say whether these two huts and the storage pit are more than broadly contemporary. For whereas Hut I could be fairly accurately dated, the evidence from the homestead, Hut II, was far less conclusive. And the storage pit, too, could only be dated to some time within the Roman period.

Phase IV A, Hut I, Area III. (Pl. XLI, a.)

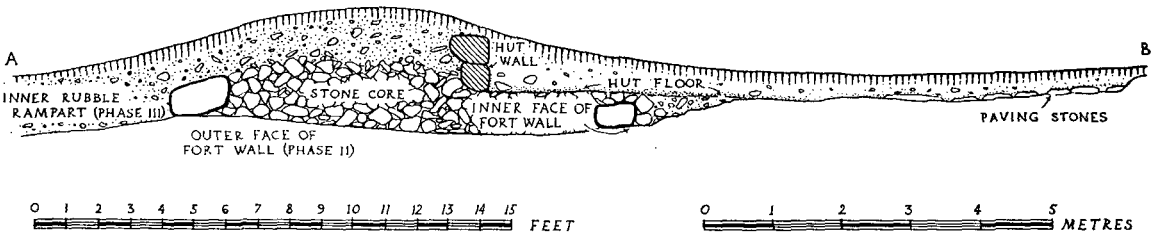
Before excavation it was clear that this hut, which showed as a slight circular hollow, had been partly cut into the ramparts of Phase III, and as a result of excavation a very satisfactory section was obtained, which showed the relation between the hut and two of the previous phases of the fort (fig. 8).

The Entrance was ill-defined and much robbed, and was on the east. It was not possible to ascertain its exact width, since the shallow amount of

HOWNAM RINGS, AREA III. HUT OF PHASE IV A.



PLAN AT LEVEL OF HUT FLOOR



C.M.P. 43

Fig. 8. Plan and section of Hut I, Area III, showing its relation to the Fort Wall and Rubble Rampart of Phases II and III.

soil overlying the rock at this part of the hill made it impossible to be sure in every case which stones were earthfast and which had tumbled.

The Walls.—Round the circuit of the hut, which was over 20 feet in diameter, the lower stones of the wall were mostly in position, though a few gaps and irregularities in the side near the entrance point to later robbing, and the removal of many of the paving-stones was probably undertaken at the same time. At no point were the walls standing to a height of more than 3 feet, and the average was slightly under 2 feet. They were composed of heaped-up stones irregularly laid, and mixed with earth and smaller stones. A small cutting was made on the south-west of the hut to find the width of the walling at a point where little disturbance was evident, and it was found to be 5 feet. Time, unfortunately, did not allow further work on this hut: the purpose of its excavation was to discover its date and therefore a *terminus ad quem* for the ramparts of Phase III, rather than to obtain the fuller details of a hut construction. Had this been our purpose, considerable time would have had to be spent in an examination of a length of hut-walling, to discover how the roof was carried and whether there were post-holes set into the thickness of the wall.

The Floor was found to be covered with fallen wall stones and earth, and in places was almost immediately below the modern turf. Paving-stones remained in patches, and others may have been robbed. On the left of the entrance the ground was rock, which was bedded almost vertically and appeared to be quite unworn or chipped. It is therefore improbable that paving-stones had ever been placed upon it. It was interesting to note that no finds of pottery came from this area, and it is suggested that here the inhabitants of the hut laid straw or heather for sleeping on. There was no hearth, and a very slight hole in the rock in the centre of the floor may have held a central post. But this hole had sides which were quite unchipped and it is more probably a natural feature, though it must be remembered that the central upright of the hut, if it had been present, could well have stood on a paving-stone. If this was the method of roofing, the rafters could have sprung from the flat top of the walls, into which the wet would drain as in many Hebridean houses of to-day.

The Finds.—A large quantity of native pottery was found on the floor, and some fragments of Roman ware which have been estimated to belong to approximately the period A.D. 250-300. Other finds included a stone weight, a partly bored spindle whorl, many rubbers and whetstones, etc. These finds are described in greater detail below (pp. 215-17). In addition, just below the turf in the middle of the hut was found a penny of George III and a broken piece of clay pipe, lost perhaps by some shepherd resting in the shelter provided by the hollow of the hut-circle.

The Storage Pit (Area III) (not illustrated).—A number of depressions considerably smaller than those of the huts, and often only about 3 or 4 feet

across, could be seen here and there within the ramparts of Hownam Rings. It was accordingly decided that one of these depressions could be excavated to determine whether or not they represented storage pits of the kind known from the hill-forts and from Iron Age farms of the south, and most fully recorded-by Dr Bersu at Little Woodbury, near Salisbury.¹ The result of the excavation was only partially satisfactory. The depression chosen was close to Hut I, and showed up clearly when the surface soil was first removed. But as the excavation continued, it was apparent that the sides of the pit were impossible to recover exactly, since the pit itself had been cut down into made soil, for which there was no obvious explanation. At a depth of only 3 feet the paved floor of the pit was reached, quite carefully laid with paving-stones similar to those used in Hut I. The walls of the pit were then undercut to see whether these paving-stones continued, since it was not impossible that we had merely come down on to an earlier hut floor. But the paving did not continue, and appeared to have been laid specifically for the pit floor. It is clear, therefore, that this pit was intended for storage purposes, and may, like some of the southern examples already referred to, have been lined originally with wicker-work or leather. The pottery was inconclusively dated on its own merits: it was native in type, and it included one base and one rim. These should be dated by the Roman blue glass bead found with them, though that cannot be dated more closely than to the Roman period generally. The filling of the pit was quite homogeneous, a mixture of earth and large and small stones.

Results, though not as conclusive as had been hoped, show that this was probably a storage pit belonging to one of the huts of Phase IV, and may well belong to sometime between approximately A.D. 200-400.

Phase IV B, Hut II, Area IV (fig. 9).

This hut, as can be seen from the main plan of the fort (fig. 2), belonged to the homestead enclosure which had been built after the rubble ramparts had been levelled or ploughed over, at the eastern end of the hill. The hut itself was built over the filled ditch of the second rampart of Phase III, and its section was informative. Somewhat oval in plan, this hut was a little larger than Hut I, and measured 25 feet across inside its longer axis (E.-W.).

The Walls showed up as slight banks entirely grass-grown, and rising to a height of only a very little above the hut floor, though owing to the slope of the land it was in places almost a foot above the ground surface outside. These walls were shown on excavation to have been made of sandy and stony soil—in fact the natural subsoil on this side of the hill. Originally these walls had been faced with blocks of stone, but these had almost all been robbed away, except a row of three contiguous stones on

¹ *Proceedings of the Prehistoric Society*, vol. vi. (1940), p. 30 ff.

the north-east, another on the north, and one on the north-west. Indeed this whole hut had been so seriously robbed that it was difficult to recon-

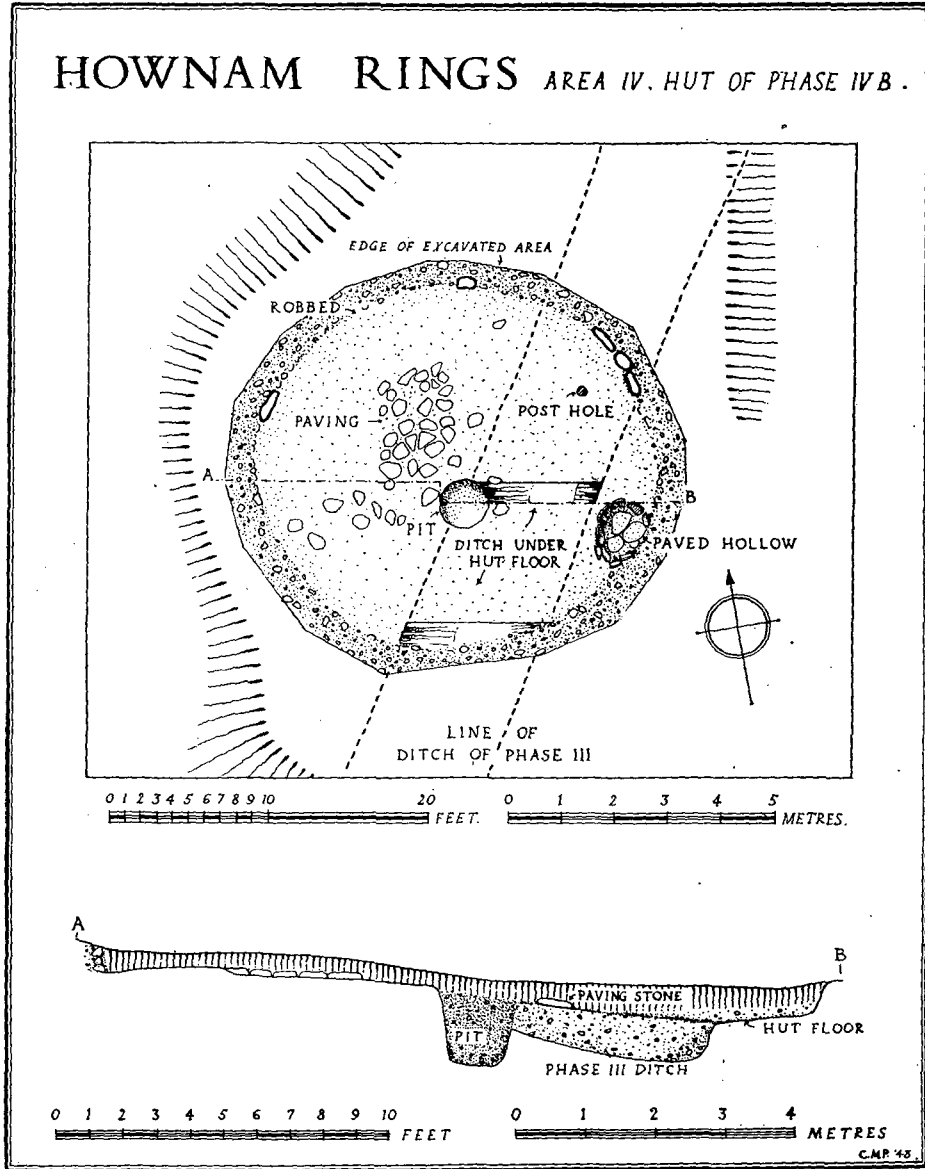


Fig. 9. Plan and section of Hut II, Area IV.

struct its original appearance, nor was it possible to discover any suggestion of its entrance.

The Floor was found to be immediately below the turf on the west and a little over a foot below it on the east. It was sporadically paved, though isolated paving-stones remaining here and there suggest that others may have been removed at the same time as the facing-blocks. Where the floor was not paved it was difficult to distinguish, though its position could be approximately ascertained from the scatter of pottery upon it, and in addition it presented a more compacted surface to the trowel, as might be expected from a well-trodden floor.

Pit and Post-hole.—A large central pit, rather large for a post-hole, was found near the centre of the hut, and partly cut through the filling of the Phase III ditch (fig. 9). This pit, which was 2 feet 6 inches across and a little over 2 feet deep, was filled with fine dark soil and contained a fragment of rim. A post-hole, 7 inches in diameter and over 1 foot deep, was found on the north-east side of the hut floor, sunk into the filling of the underlying ditch. It had compacted sides and contained very fine loose dark soil, with no traces of carbonised wood.

The Paved Hollow.—Inside the hut wall on the south-east was found a carefully made stone-lined hollow with its walls formed of up-ended paving-stones. This hollow (Pl. XLI, *b*) was filled with loose earth and stones rather darker in colour than the better drained soil overlying the hut floor. This hollow was less than a foot deep, and it contained two fragments of pottery and a long polished stone—probably a whetstone.

The Roof.—As in the case of the first hut to be excavated, there was again no evidence of the method used for roofing the hut. Possibly the central pit may have been intended to carry the main upright to which rafters could be attached. It was unfortunate that the bad weather conditions made further work impossible, and the proper stripping of a length of walling to look for possible post-holes was never completed. A length of three feet was examined on the north-east, but no post-holes were revealed, and they may well, if present at all, have been more widely spaced. In the make-up of the wall at this point was found a Roman bronze nail-cleaner of unspecified date.

The Finds.—A large quantity of native pottery was found on the floor of the hut, and no Roman pottery, though one base showed Roman influence. On the north-eastern sector of the hut floor, just on the lip of that part of it which overlay the filled ditch and would certainly have been once covered by the rampart of Phase III, were some fragments of a yellow and white inlaid glass armlet of a type well known in the early centuries A.D., and almost invariably distributed between the Hadrianic and Antonine Walls.¹ Although found on the hut floor, these armlet fragments cannot be used conclusively for dating the hut, since they may have been either in the

¹ See Kilbride Jones in *P.S.A.S.*, vol. lxxii. (1938), pp. 366–95. The only closely similar armlet to our example came from Traprain Law.

topmost filling of the ditch, or derived from the rampart which had been removed when the hut was built. A few pieces of slag and charcoal (see pp. 224-5) were found on the floor.

The Date of Occupation.—If the armlet belongs to the hut floor, the second century A.D. is the likeliest date of occupation. But if the armlet is derived from an earlier phase, it cannot be more closely datable than to within, or more probably shortly after, the latter part of the Roman period. Evidence is insufficient, and the relative dates of this hut and of Hut I remain undecided.

THE FINDS RELATED TO THE PHASES.

I. *Palisade Period.*

(a) *Pottery* (fig. 10).—Owing to the shallowness of the soil and the fact that the palisade trenches were overlaid by the inner rampart of Phase III, it was impossible to be certain of the correct chronological horizon of the pottery found near the palisade trenches.

(1) This piece can definitely be equated with Phase I, since it was fortunately found in the packing of one of the post-holes in Cutting D. It is a plain rounded rim, poorly made and fine grained. Roughly finished inside and out (see fig. 10, I, 1).

(2) From between the two rows of post-holes and therefore almost certainly of Phase I. This is a large coarse base, evidently belonging to a very large storage jar (fig. 10, I, 2).

(b-g) *Metal, Glass, Animal Bones, Slag, Charcoal, Stone Implements.*—No finds.

II. *The Wall Fort.*

(a) *Pottery.*—One rim and one base were the only pieces definitely belonging to this phase. Both were hard and well made.

(1) Base, well made, hard and grey with slight outer bulge (fig. 10, II, 1).

(2) Unusual squared rim. Hard, close grained. Red exterior. Marks on the top of the rim show that the pot must have had a lid when in use (fig. 10, II, 2).

Both these fragments came from the turf-line under the fort wall in the cutting behind Hut I in Area III. Note that rampart cutting (Area I), No. 2, was also discovered in the fort wall, but not at sufficient depth for it to be undoubtedly of this phase. It may have worked down from the overlying rampart of Phase III.

(b) *Metal*.—Pointed iron object from under fort wall in cutting behind Hut I (fig. 12).

(c) *Glass*.—No finds.

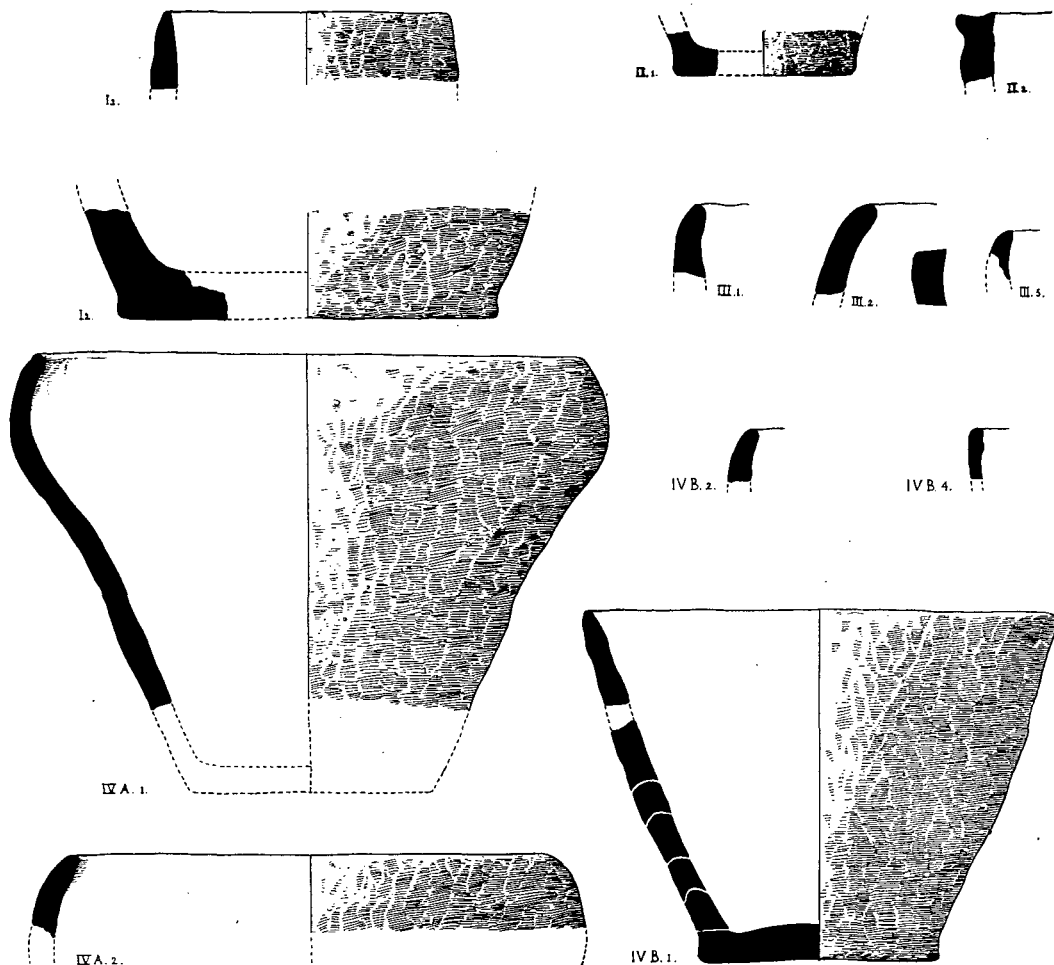


Fig. 10. Pottery from Hownam Rings. ($\frac{1}{4}$.)

(d) *Animal Bones*.—Representing ox, pony (size not known) and pig. All from same horizon as the iron object described above. (See Appendix I, p. 223.)

(e) *Slag*.—From same horizon. One piece identified as typical iron slag. (Appendix IV, p. 225.)

(f) *Charcoal*.—From same horizon. Fragments identified as *Birch*. (Appendix II, p. 224.)

(g) *Stone Rubbers, etc.*—None found.

III. *The Multiple Rubble Ramparts.*

(a) *Pottery* (fig. 10).—The pottery was almost all in the make-up of the ramparts and could possibly have been derived from earlier periods. But in nearly all cases this is improbable, since the sherds were found well outside the area enclosed either in Phase I or Phase II.

- (1) From Cutting B, Area II. Rim. Roughly made with fair amount of backing. Surface smoothed. Diameter uncertain (fig. 10, III, 1).
- (2) Rampart Cutting, Area I, No. 14. Rounded rim, slightly inturned. Light red, rather fine clay with smoothed surfaces (fig. 10, III, 2).
- (3) From Cutting C, Area II. Inturned rim. Fine, smooth and hard reddish brown. Associated with coarser fragments (fig. 10, III, 3).

Also belonging to this phase were a quantity of featureless fragments. They are nearly all fine grained, grey, red or black in colour. Several sherds are of fine black ware, somewhat like the Iron Age "B" ware of many South English sites. One of these came from the filling of the inner ditch in Cutting F, Area II, but this could not be definitely associated with Period III rather than Period IV as its depth was only 18 inches.

Fragments from the Rampart Cutting (R.C.), Area I.—These exclude the rim No. 14 described as No. III, 2. The position of the other fragments can be seen in section in fig. 7.

R.C. 1 and 2. Fine grained, grey and red.

R.C. 3. Coarser.

R.C. 4 and 6. Fine grey ware.

R.C. 5. Fine red.

R.C. 7. Fine black, like the fragment from the ditch in Cutting F, Area II.

R.C. 8 and 9. Very fine black, like South English Iron Age "B" ware.

R.C. 10 and 11, 12 and 13. Thick, light red. Well made.

Very few of these fragments were as coarse either as the pottery associated with Phase I or Phase IV, but it is closely similar to that from Phase II.

(b) *Metal*.—None. (George III penny as a stray find.)

(c) *Glass*.—None.

(d) *Animal Bones*.—Mostly from rampart cutting, Area I, in the ashy material largely comprising the second rampart. The animals

represented include sheep or goat, ox, possibly red deer, and a pony of 12–13 hands. (Appendix I, p. 223.)

- (e) *Slag*.—Fragments from Cutting B, Area II. (Appendix IV, p. 225.)
- (f) *Charcoal*.—Fragments identified as *Hazel* and *Birch* from Cuttings D and E in Area II and rampart cutting, Area I.
- (g) *Stone Implements, etc.*—From Cutting B, Area II, came a stray Neolithic axe, for the details of which see Appendix III, p. 224, and fig. 11, No. 5.
- (h) *Quern* (fig. 11).—In the blocking of the entrance to the Fort, Phase II, on the south side of the hill, was found the lower stone of a rotary quern. This had been carefully placed in an upright position near the inner side of the entrance on the west. This quernstone belongs to a type with gently sloping grinding surface—not uncommon but not frequently described from dated sites. Similar examples were found to belong to the first half of the first century A.D. at Maiden Castle, and it is likely that a slightly later date, say in the second half of the first century A.D., should be ascribed to it in the north.

Period IV A and B. Huts I and II, and Storage Pit.

- (a) *Pottery* (fig. 10).—This includes pottery from the two huts and the storage pit.

Hut I was dated to the latter third century A.D. by the Roman pottery associated with the native fragments found on the hut floor.

Hut II is more difficult to place chronologically. One imitation Roman pottery base was found, no other Roman ware. The pottery certainly might, from its similarity to that from Hut I, be approximately contemporary with it, but one other pot (fig. 10, bottom right) was made of ware which was quite unlike anything else from any phase of the site. The possibility cannot be quite ruled out that this hut, placed as it was in its somewhat angular enclosure, may belong to a post-Roman occupation of the hill. It is impossible in the present state of our knowledge to tell, but the presence of a knife of Dark Ages type found in the robbed entrance of Phase II in Cutting F, Area II, shows that people were living in the neighbourhood at this time. For the discussion of this knife see p. 219 below.

IV A. Hut I, Area III.

Native Pottery.—Several pounds weight of roughly made thick pottery came from this hut floor. On the whole, it is more gritty and coarse than that from Hut II, though much is the same. There are fragments of several pots with inturned rims and flat bases.

- (1) Large pot with inturned rim, wavy sides and roughly smoothed surfaces. Restored in fig. 10, IV A, 1. This pot is especially interesting, since it is clearly similar to an unpublished pot discovered by Mr A. H. A. Hogg at Ingram Hill in Northumberland.

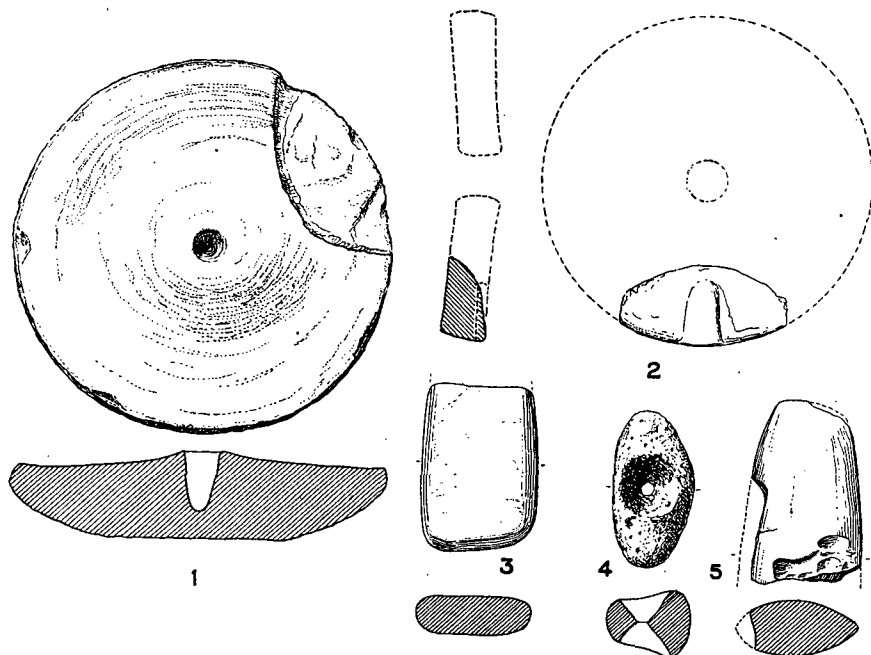


Fig. 11. 1. Quern from blocking of Wall Fort entrance in Area II ($\frac{1}{4}$); 2. Quern from Hut I ($\frac{1}{4}$); 3. Stone polisher from Hut II ($\frac{1}{4}$); 4. Stone weight from Hut I ($\frac{1}{4}$); 5. Stone axe from Cutting B, Area II ($\frac{1}{4}$).

- (2) Similar. Rim only. Light brown, smoothed more carefully on the outside. There are several rims of this kind, as well as flat bases, much abraded and fragmentary, and some of these may belong to the pot, No. 1, as above (fig. 10, IV A, 2).

Roman Pottery.—The remarks on this pottery were kindly made by Mr John Gillam, to whom I am most grateful. Mr Eric Birley also examined the Roman ware and independently came to the same conclusions as Mr Gillam. None of the pottery is illustrated owing to its very fragmentary nature. Mr Gillam's report runs as follows:

- “(3) Rim fragment of Samian ware, beaded, but from the angle it seems to represent Dragendorf Form 31 rather than 18 or 37. Hard, glassy orange glaze. Probably E. or C. Gaulish.
 (4) Small piece of black fumed ware cooking-pot; wall fragment with

cross hatching. The piece is hard finished, but the marks of a thumb or finger drawn across presumably horizontally must serve instead of wheel marks to distinguish the way up of the piece. The cross hatching is then found to be obtuse angled. The treatment of the unburnished part of the side is difficult to describe, but it reminds me more of the Constantian than of the Antonine cooking-pots.

- (5) Minute portion of rim, burnished inside and out, of a black fumed ware cooking-pot. It has a widely outspayed rim. (Cf. *Birdoswald*, 19 C.)

There were eight other featureless pieces of Roman pottery.

Only two vessels are useful for dating: (a) The black fumed cooking-pot represented by nine or ten fragments. On fabric this is *either* Had./Ant. or Constantian. It is not pre-Hadrian. I regard it as Constantian for reasons given. (b) The Samian scrap. (Late second century?).”

As it seems improbable that this hut was occupied for more than fifty years or so, and as it is probable that all the pottery should belong together, the most likely date for its occupation would be approximately A.D. 250–300. The cooking-pot, No. 4 above, certainly cannot be considered as a later stray since there are many fragments of it. Almost equally unlikely would it be that the Samian sherd is a stray since it is very little abraded. But Samian sherds of this kind could have lasted till the mid-third century. It is for this reason that the approximate dates A.D. 250–300 are suggested for the occupation of Hut I—and the occupation may have extended a little into the fourth century.

(b–e) *Metal, Glass, Animal Bones, Slag.*—No finds.

(f) *Charcoal.*—From floor of Hut I. All *Hazel* (see p. 224).

(g) *Stone Implements.*—There were a number of stone rubbers and whetstones from this hut, and in addition, a weight made of stone and with hour-glass boring was found (No. 4), and what appears to be an unfinished spindle-whorl. This is carefully made, flat and circular, but the boring has never been completed (fig. 12). The “weight,” if such it can be called, could hardly have been heavy enough to be effective for any outdoor purpose, such as weighing down a net over a thatched roof, and it is more probable that it was a loom weight. A fragment of rotary quern (fig. 11, No. 2) was found on the floor of the hut. This is a type found in the brochs, and examples are known from Lamaness, Sanday. These should not be far removed in date from this Hownam example, known to belong to the late third or early fourth century A.D.

The Storage Pit, Area III.

The only finds from this pit were the blue glass bead (fig. 13) and six or seven fragments of pottery, well made, hard and grey. Amongst these were one large base and a wide rounded rim, not illustrated.

Period IV B. Hut II, Area IV.

(a) *Pottery*.—Unlike the homogeneous collection of potsherds from Hut I, we find that the sherds from Hut II are much more mixed, and on archæological grounds they cannot be regarded as a closed group. For not only was the floor of this hut built over the filled-up ditch of Phase III, but the rampart of that phase must also have been levelled before its construction. Thus all the finds from this area must belong either to Phase III or Phase IV, and it is quite impossible with so little topsoil to fix the correct date of any individual find. It has been mentioned before that the native pottery from this floor was mostly very similar to that from Hut I, though perhaps on the whole rather finer. If this pottery is not derived from Phase III, it would seem probable that the life of the hut overlapped, at least in part, with that of Hut I.

(1) One pot (fig. 10, IV B, 1) was significantly different from the rest. Not only was it much finer made, and sandier, with no gritty backing, but its walls were built up in the coil method as shown. This pot, like the George III penny and clay pipe from the floor of Hut I, might represent later squatters on the site, but it may represent the only undervived pottery—broken in fact during the occupation of the site. May it be post-Roman? Only similar discoveries or more excavation will prove whether this small, somewhat angular steading, whose position so ignores the ramparts of the fort, really may belong to the fifth to sixth centuries A.D.

(2) Incurved rim (fig. 10, IV B, 2), probably the diameter was about 6 inches. This may represent, with other fragments, pots of the same profile as the restored pot (No. IV A, 1) from Hut I. There were four fragments of this pot and the angle is not quite definite. Two base fragments may belong to this pot.

These, like many other fragments from Hut II, are more like the ware from the ramparts of Phase III, and may well be derived from that period.

(3) Small base about 2 inches across. Roughly made of light

brown ware with black surface—still remaining in patches on the inside. This is clearly a native copy of a Roman jar.

- (4) From pit in hut floor. Dark, close-grained rim with slight internal ledge.

From Paved Hollow in Hut Floor.—One fragment grey ware, and one very hard-fired sandy, orange ware with pounded stone backing. Several fragments closely resembling these sherds were found in and under the Phase III rampart in Cutting C, Area II.

Roman Pottery.—None. Native imitation, see No. 3 above.

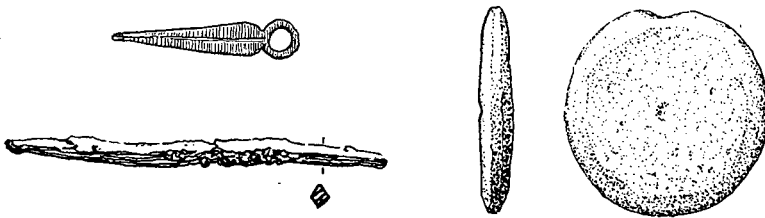


Fig. 12. Above, Roman bronze nail-cleaner from Hut II; below, iron object from under Fort Wall in Area III; unfinished whorl from Hut I. (All $\frac{1}{2}$.)

- (b) *Metal.*—Roman nail-cleaner of bronze (fig. 12). Uncertain date (*cf.* that from Rotherley (Pitt-Rivers, *Excav. Cranborne Chase*, vol. ii, p. 128) and comment by Wheeler, *Lydney Report*, p. 84). This was found built into the wall of the hut and is therefore earlier than it.
- (e) *Glass.*—Fragments of amber-coloured, translucent armlet with white wavy inlay (fig. 13). Found over the ditch filling the position of this find is archæologically ambiguous. It belongs to a well-known type belonging to the early centuries of the Roman era, and it is further discussed on p. 211.
- (d) *Animal Bones.*—None discovered.
- (e) *Slag* (Appendix IV).
- (f) *Charcoal*, representing birch and hazel.—From floor of hut (p. 224).
- (g) *Stone Implements, etc.*—Several stones showing signs of wear or use as polishers. One of these (fig. 11, No. 3) was found in the paved hollow in the hut floor.

Iron Knife from Robbing of Gateway of Phase II.—The iron knife (fig. 14) from the disturbed soil outside the wall fort entrance in cutting F is of a distinctive type with a shoulder at the junction of the tang with the blade. Knives of this type do not seem characteristic of the North British Early Iron Age, but they do however appear consistently in post-Roman contexts in Scotland, notably at Dunadd (*Proc. Soc. Ant. Scot.*, vol. lxiv (1929–30), p. 118) and

Buston Crannog (Munro, *Anc. Scot. Lake-Dwellings* (1882), pp. 222-23); in Northern England at for instance Grassington, W. R. Yorks (*Yorks. Arch. Journ.*, vol. xxxiii (1937), p. 170); and in Ireland in a whole series of sites ranging in date from Garranes (late fifth-early sixth century A.D.) to Cahercommaun (early ninth century A.D.) and Carraig Aille (eighth-late ninth century A.D.) (*Proc. R. I. Acad.*, vol. xlvii (1942); *ibid.*, lii (1949)). In the south of England at least a version of the type survives into the later Middle Ages (*London Mus. Medieval Catalogue* (1940), Pl. xi. The date of the Hownam knife is likely to lie between the sixth and ninth centuries A.D.

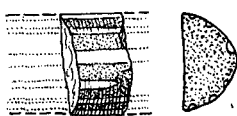


Fig. 13. Fragment of glass armlet from Hut II, and blue glass bead from storage pit, Area III. (†.)

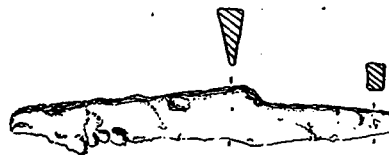


Fig. 14. Iron knife from disturbed area near fort entrance in Area II. (†.)

DISCUSSION.

The Hownam excavations have begun to throw a little light on the problem of the Iron Age of the Borders. But it is only the barest beginning, and, as in the case of almost all excavations which take place in new districts, the problems it sets, though perhaps not so fundamental, are more than it answers. Thus we know that at Hownam the initial phase was marked by the building of quite a small stockade enclosure—a protection surely only valuable against cattle robbers or wild animals. The palisade trenches into which the uprights of the stockade were bedded are detectable on other Roxburghshire forts, for instance at Hayhope Knowe at the head of the Bowmont valley,¹ and we can suppose on many other forts as well, though as there are very few, if any, superficial signs, they may not always be visible on the ground or by air photography, and not infrequently may have been obliterated by subsequent defences or occupation. At Hownam we can guess that this stage was approximately during the second or first century B.C. But who were the people responsible for the construction of these stockaded enclosures? Were they related to the people who apparently at the same time were also using timber on a big scale for the building of the Gallic forts? If so, in what way were these people connected with the Iron Age "A" people of England? Certainly the

¹ Excavated in June-July 1949.

pottery from the first phase at Hownam, as in all subsequent phases, suggests no influence other than the local derivatives of the Late Bronze Age. But of their types of houses, their social system, their mode of life, as yet we know nothing; nor can we suppose that their wooden stockades were intended for defence in warfare. But this need not imply that the people were necessarily peace-loving stock-farmers, for it is not impossible that their war-time defences were built more solidly, maybe even of stone, in places of greater natural strength. We can guess that the large amount of wood needed for the uprights of the stockade was locally obtained, but of the charcoal specimens identified from Hownam all were birch or hazel, and neither of these trees would flourish in thick forests, and this suggests fairly open vegetation.

Many Iron Age forts in England and Wales have had a palisade enclosure as their earliest phase, and this is frequently found to belong to the "A" culture. On the Welsh borders at Ffridd Faldwyn (Montgomery),¹ Old Oswestry (Salop), and again at Eddisbury (Cheshire)² this was found to be the case. So that the south Scottish examples are not without precedent; but how far, if at all, it will be found that they were inspired from the south, or whether they may have had an independent origin, remains to be seen as a result of future excavations.

Of the wall forts (Phase II at Hownam) we know a very little more, for they are at least more often visible on the ground. But without excavation it is naturally impossible to know whether or not they belong to the class of Gallic wall forts connected with the Abernethy culture, in which timber framework was used (and which when ignited becomes "vitrified"), or to another class with sheer-faced walls built without timber lacing, as at Hownam. The Gallic and vitrified forts of the Abernethy culture have in the past been supposed to belong to the Iron Age "B" culture complex, but it has recently been suggested that they are more probably connected with the earth and timber-framed forts of the Iron Age "A" in south England—a type of fort which gradually spread northwards to Scotland via the Welsh marches.³ But a number of south Scottish and highland zone forts with stone walls cannot be ascribed to that culture, and in many cases, in Wales and Scotland in particular, it was most probably the local descendants of the Late Bronze Age people who built these strongholds.⁴ At all events, the fact that this type of fort generally precedes the construction of multiple ramparts (or multiple *walls*) has been observed on other Roxburghshire forts⁵ and borne out by the results from Hownam. Other examples

¹ *Arch. Camb.*, vol. xcvi. (1942), pp. 1-57.

² For both these sites, see Varley and Jackson, *Prehistoric Cheshire* (Chester, 1940).

³ Piggott, *British Prehistory* (Home University Library), p. 177.

⁴ An interesting Welsh example of a fort whose history appears to have been partly similar to Hownam Rings, is at Dinorwig, Llanddeiniolen, Caernarvonshire (*Arch. Camb.* (1947), pp. 231-48). Multiple ramparts had here been added to an earlier stone wall fort.

⁵ Details of these will be published in the near future by the Royal Commission on Ancient Monuments.

in Roxburghshire include Shaw Craigs, The Castles, Swindon, and Woden Law. These walls generally enclose quite a small area and seldom loop down below the crest of the hill. As a rule they are about 8 to 10 feet thick, faced with large stones and the core filled with rubble. One, possibly analogous example only, Hownam Law, encloses a very large area, and must be regarded as a tribal oppidum of some importance.

This phase at Hownam ended only shortly before the arrival of the Romans, so, on analogy, it may be supposed that the other forts mentioned as sharing similar characteristics are approximately the same date. Unfortunately, this second phase at Hownam produced only a little pottery and hardly any other objects, so that the cultural affinities of the people building these walled forts cannot be established. One point, however, is worthy of notice. Such pottery as was found from both Phase I and Phase II (and, to anticipate, Phase III as well) was so noticeably similar in character that it is almost certain that throughout the period of occupation the underlying peasant culture remained unchanged, and no new-comers arrived with different pottery or objects denoting an intrusive material culture. Instead, little development took place, and even the shapes of the pots hardly altered during two hundred years or more. Bearing this fact in mind, it is hardly believable that a sudden complete change in building technique took place, and that stonework suddenly replaced the use of timber. Such a theory would be less acceptable than that the two building techniques were to a certain extent contemporary, and that stonework was used for defence while timber stockades were used for undefended village compounds.

The last phase, represented by the building of multiple ramparts in place of the wall which was dismantled, began in the second half of the first century A.D. A large number of Roxburghshire forts show a similar addition of earthworks, and in the three forts already mentioned, Shaw Craigs, Woden Law and The Castles, Swindon, these ramparts replaced a single wall just as at Hownam, and the presence at Woden Law of what are almost certainly Agricolan siege-works bears out the Hownam evidence for a date in the late first century for these multiple ramparts.

But the excavations at Hownam show that once again the cultural heritage of this peasant community remained unchanged, and we can argue with some conviction that the innovations in methods of warfare, reflected in the building of defences in depth, did not result from a movement of large numbers of new peoples into the district. Rather than this it seems likely that only the leadership changed, and the new techniques of fighting which we know were in common use farther south were brought to the north at this time. We know that the south of England was greatly disturbed in the mid-first century by intertribal warfare following the Roman invasion. Aristocratic leaders and their families were driven from their own lands and

fled to found new kingdoms with their kinsmen elsewhere. So is it not probable that these multiple ditches mark the arrival of such political refugees from the south? Being established in their new lands, however precariously held against others who had moved to the same district, their tenure of these lands was but short, perhaps not twenty years, before they were involved in the new Roman advance under Agricola. If this hypothesis is correct, we can imagine that the multiple ramparts were dug with some urgency and preferably added to sites already fortified. It follows, then, that some of the single-walled forts which, as we have mentioned, were re-designed in this way must have been in use during or shortly before the mid-first century A.D., and the palisade enclosures, if they are earlier and not contemporary, need not be before the first century B.C. The 1949 excavations at Hayhope Knowe have thrown light on this palisade phase.

What happened to these forts after the arrival of the Romans? It is more than probable that those people living in fortified sites (if these were indeed permanently inhabited) were ordered to deface their ramparts, though they were evidently not forbidden to live on the site. This they did, and evidently lived peacefully until the withdrawal of the Romans. Then, once again, times of trouble are marked by the building of new forts in the Dark Ages, when hill-forts like Ruberslaw, The Dunion, and many others appear to have been constructed.

APPENDIX I.

The Animal Bones. By Miss PLATT, Royal Scottish Museum, Edinburgh.

*Animal Bones from under the Stone Wall Fort in Cutting behind
Hut I, Area II.*

These are all remains of domestic animals such as one would associate with human habitation. No wild species are represented, if one excludes the rather doubtful evidence of a single tooth resembling the molar of a red deer.

Ox.—This seems to be the most numerous. There are fragments of humerus and tibia, and milk molars shed from a young beast, present.

Pony.—From the sparse remains it is impossible to estimate the size of the pony represented. Part of a left scapula can be recognised, and there is also a narrow lower molar tooth about 3 inches from the left side also.

Pig.—Milk molars alone represent this animal.

Animal Bones from under Second Rubble Rampart, Area I.

Sheep or Goat.—Horn cores suggest the latter; and animals of different size as adults are present. Also very slender vertebral fragments

suggest that some animals had probably been slaughtered as lambs. Bones from fore and hind limbs—humerus, radius and ulna, femur, tibia and fibula, and a skull fragment occur.

Ox.—All the larger fragments of bone belong to this animal. They are of a small and slender stock. Vertebral, rib and limb bone fragments are the most common.

? *Red Deer.*—One molar tooth is present here. As it is the only evidence of this wild species, it may be of fortuitous occurrence.

From Inner Rubble Rampart. Cuttings B and G, Area II.

Pony.—Two fragments form almost a complete radius, proving the size to be of a small, slender Celtic pony, probably between 12 and 13 h.h. There is also a proximal fragment of a cannon bone (metatarsal).

Ox.—This animal is represented by teeth, molars and pre-molars of adult animals, and shed milk molars.

Sheep.—One fragment of a rib alone occurs.

APPENDIX II.

Remains of Carbonised Wood. By M. Y. ORR,
Royal Botanic Garden, Edinburgh.

Phase II.—From under fort wall in cutting behind Hut I in Area III.
Birch.

Phase III.—Under second rubble rampart in Area I. *Hazel and Birch.*
From rubble rampart in Cutting D, Area II. *Hazel and Birch.*

From ditch under Hut II, Area IV. *Birch.*
Under rubble rampart in Cutting E, Area II. *Birch.*

Phase IV A.—From floor of Hut I, Area III. *Hazel.*

Phase IV B.—From floor of Hut II, Area IV. *Birch.*
From pit in Hut II, Area IV. *Hazel.*

APPENDIX III.

Petrological Report on the Stone Axe. By F. S. WALLIS, D.Sc., Ph.D.,
Bristol Museum.

(The number assigned to the axe is that of the serial index compiled by the Sub-Committee of the South-Western Group of Museums and Art Galleries on the Petrological Examination of Stone Axes.)

No. 423. *Macro.*—Fine-grained, pinkish, siliceous rock.

Micro.—Usual characteristics of Group VI (Stake Pass).

APPENDIX IV.

The Slags. By A. F. HALLIMOND, Geological Survey and Museum.

Phase II.—Under fort wall in cutting behind Hut I, Area III.

“This appears to be a typical iron slag.”

Phase III.—Under rubble rampart in Cutting B, Area II.

“A frothed glass such as might result from accidental causes or might be glassy waste, but it is not an iron slag.”

Phase IV B.—Floor of Hut II, Area IV.

“Seems to include both glass and iron, but iron-bearing minerals can of course appear in glassy waste.”