# I.—AN IRON AGE HOMESTEAD AT WEST BRANDON, DURHAM

## George Jobey

The comparative scarcity of field remains of early settlements in the county of Durham has been on occasions a matter for comment. It has been suggested that there might be good reason for accepting later tradition, embodied in the twelfth-century Life of St. Oswald, that the area was almost uninhabited owing to its difficult nature, and applying this formula to more remote periods.1 Admittedly most of the western third of the county lies at an altitude of over twelve hundred feet. By way of comparison, early settlements in Northumberland, though prolific at lower levels, are considerably reduced in number at elevations of over nine hundred feet. On the other hand, the lower ridges and plateau of central and east Durham, lying on either side of the river Wear in its central and lower reaches, form reasonably attractive terrain. The Wear valley itself provided at least a minor line of penetration in the Early Bronze Age,2 falling between the heavy clays and marshy estuary of the Tees to the south and the more inviting approach afforded by the Tyne valley to the north. In another context, it also seems most unlikely that the Romano-British farm near to the Wear at Old Durham is the sole representative of its type in the area.3 This part of the county is now one of fairly intensive land utilisation which imposes limitations upon normal field survey, but Dr. St. Joseph's discovery of the West Brandon homestead, showing as a crop mark from the

<sup>1</sup> Roman Britain and the English Settlements, p. 421.

<sup>&</sup>lt;sup>2</sup> A.A.<sup>4</sup>, VIII, pp. 149-165. <sup>3</sup> AA<sup>4</sup>, XXII, p. 1; XXIX, p. 203; XXXI, p. 165.

air, is once again a reminder of its possible potentials for early settlement.4

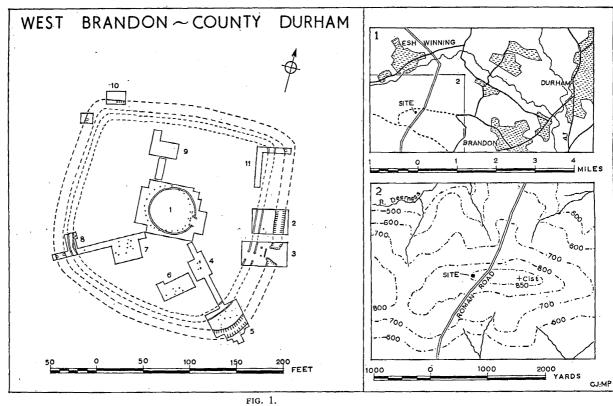
The field in which the homestead is situated has been ploughed consistently over a long period and no surface indications of the site remain. An opportunity for excavation arose during 1960 and 1961, when for a time the field was a lay-by. The work was carried out by students of the Department of Extra-Mural Studies, King's College, under the auspices of the Durham University Excavation Committee. Gratitude must be expressed to Mr. G. Wade, the farmer, for his co-operation and forcearance, and to the University of Cambridge for providing a print of the aerial photograph.

# Situation (Fig. 1: Grid. Ref. NZ/201399)

The photograph revealed the presence of a ditch enclosing a sub-rectangular shaped area of approximately one acre in extent, faint traces of internal palisade trenches, and the position of one centrally placed round house. The enclosure is situated at an altitude of eight hundred and fifty feet on the flat spine of a long sandstone ridge lying to the west of the central reaches of the river Wear, between the Deerness valley on the north and the Stockley Beck on the south. This ridge continues to rise gently to a crest at a height of eight hundred and ninety feet, some nine hundred yards to the east; a vantage point known in local verbal tradition as the Hill of the Seven Airs, to which curative properties have been attributed. Here a short cist burial with a Necked Beaker was discovered during quarrying operations in 1904.5 One hundred yards from the south-east corner of the homestead enclosure, the Roman Road, Dere Street, pursues its course between the forts at Binchester to the south and Lanchester to the north. Traces of the road are now almost obliterated

<sup>5</sup> A.A.<sup>3</sup>, XI, p. 130. The Beaker is now in the Department of Archæology, Durham Colleges. Hutchinson, *Durham* (1794) records a "remarkable tumulus" on the hill-top.

<sup>&</sup>lt;sup>4</sup> Cambridge University, No. DS/O. Other sites on line of Dere Street, see J.R.S. XLV, 90. Two miles to the north of W. Brandon, an irregularly shaped ditched enclosure with one hut-circle, shows on DS/003 (NZ/193431).



except for a scatter of larger stones in the ploughed fields adjoining that in which the homestead lies. Long-range prospects extend to the crest of the hills between the rivers Derwent and Tyne in the north and to the Cleveland hills of Yorkshire in the south, but, more immediately, some of the valley floors are hidden from view. Even so, in a context other than that which is of present concern, the position of Dere Street at such a vantage point for visual signalling is worthy of note.

## The Excavations

Three structural phases were encountered, two of which occurred in the enclosed homestead. A third, earlier phase will be described last, since the determination of its primary nature depends upon its relationship with the other two.

In all excavated areas it was found that ploughing had removed the occupation levels and also some of the underlying rock surface. This was apparent not only from the presence of a large amount of rock fragments in the top soil or caught up in the constructional trenches and post-holes, but also, more eloquently, from the number of broken plough points embedded in the thinly layered rock. Allowance for this must be made when considering any measurements of depth that are quoted, since these are given from the level of the present rock surface.

## THE ENCLOSURE

# 1. THE PALISADED PERIMETER (Figs. 1, 2 and 6)

This marked the earlier of the two phases in the enclosed homestead. In excavation it consisted of two palisade trenches, placed at a uniform distance of six feet apart, and enclosing a sub-rectangular shaped area three quarters of an acre in extent. Both trenches had vertical or slightly inclined sides and flat bottoms cut into the thinly bedded sandstone

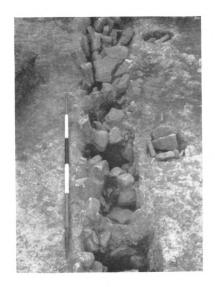
Arch. Ael., 4th ser., vol. xl.



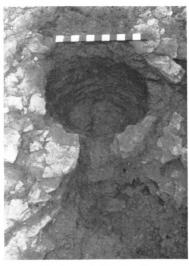
WEST BRANDON, HOUSES A AND B, AREA 1.



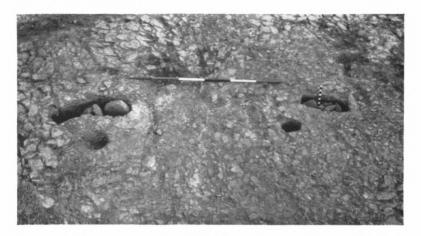
WEST BRANDON, ENTRANCE, AREA 3.



PALISADE TRENCH, AREA 5.



FURNACE, AREA 7.



POST-HOLES, AREA 4.



DITCH AND HOUSE, AREA 5.

rock. The outer, when emptied, was up to twenty inches wide, varying in depth between twenty and thirty inches, whilst the inner, though equal in width, seldom exceeded twenty inches in depth. Where the packing of sandstone slabs was least disturbed timber uprights in the order of six to nine inches diameter were indicated, with less than nine-inch gaps between posts. The disarrangement of the upper packing could have been due to the drawing of the posts in antiquity or to movement after the posts had rotted in position, though on occasions it was clear that some stones had been dislodged by modern ploughing. There was no evidence for destruction by fire, the filling being composed of fairly clean, sandy soil.

The sandstone slabs used as packing stones could not have been obtained from the immediate area of the site; nevertheless, the form of the carboniferous sandstone alters appreciably within comparatively short distances, and less thinly bedded stone shows in the quarry on the crest of the ridge.

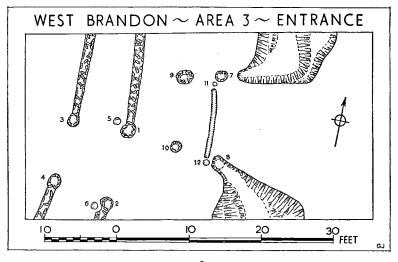


FIG. 2.

# The Entrance (Area 3: Fig. 2 and plate II)

The entrance through the palisade lay on the east side of the enclosure. Here the trenches terminated in four substantial post-holes, the outer pair being twenty-two inches and the inner eighteen inches in depth (Fig. 2 nos. 1, 2, 3, 4). The passageway was eight and a half feet wide at the outer palisade, reducing to seven feet at the inner. Two smaller holes, nos. 5 and 6, respectively five and seven inches in depth, implied some form of gate immediately within the line of the outer palisade.

# Replacement Trench (Area 8: Fig. 6)

One short stretch of replacement trench was found; this at the south-west angle of the enclosure, where for a distance of twelve feet the inner palisade trench bifurcated. The eastern branch, which was secondary, preserved the uniform distance between the two palisades observable elsewhere. No traces of burning were found to account for the replacement; nor did the evidence imply that the original line followed by the inner palisade had been dictated by the presence of an existing structure.

Close proximity of the original inner trench to the outer at this point could be taken to argue for two distinct phases in construction, where the first perimeter would be defined by a single palisade. However, the phenomenon of double palisades at approximately the same uniform spacing is well attested elsewhere. Although in this instance the trenches were not conjoined at the entrance, we have seen that both were coterminous, with provision for only one gate. It seems tolerably certain, therefore, that the two palisades were in contemporary use and probably designed for such from the start. The need for the short replacement could have arisen during the course of construction in order to eliminate a sharply angled corner.

### Reconstruction

On the assumption that we are dealing with two contemporary lines of palisading, the closest northern parallel in excavation is the double fence enclosing the Early Iron Age settlement at Hayhope Knowe, Roxburgh, where two lines of fairly closely set uprights, just over five feet apart, were directly connected at the entrance in "hairpin" ends. The example at Huckhoe, Northumberland, is not strictly comparable in that the inner of two trenches, again six feet apart, probably held posts at more widely separated intervals.

Based upon modern practice whereby an upright eight feet in length is sunk to a depth of two feet in order to provide a standard fence six feet high, it is clear that the trenches at Brandon, cut into rock, could have been used for posts of a stature in excess of this. Anything in the nature of a raised walk supported on the two palisades is quite out of keeping with the evidence and the nature of the homestead. No evidence was found for any filling between the palisades. Moreover, the fact that in some instances, double palisade trenches surrounding homesteads or settlements are observable as ground features,8 without excavation, suggests that any filling of a substantial nature is unlikely. In the case of Hayhope Knowe, Mrs. Piggott suggested a filling of brushwood or branches as a possibility and the presence of patches of burnt branches within the line of the outer trench at Huckhoe could be taken to support such a suggestion. It was proposed that the double fence at Hayhope Knowe would be pointless without some form of filling. This may be questioned. single fence, even of some height, would present little deterrence to a possible marauder, say wolf, unless provided with everted upper projections after the manner of some modern enclosures. It is conceivable that a second palisade at a distance of six feet could provide an obstacle of some magnitude in view of the lack of purchase obtainable at the top of the outer palisade. Nor need this suggestion deny a loose filling of brushwood or branches.

The large terminal posts at the entrance would allow some form of upper cross bracing if necessary, possibly in two directions. But in the circumstances, it is difficult to envisage the gate itself as other than one capable of being lifted in and out of position. A single gate pivoted on either one of the smaller holes (nos. 5 and 6) would not clear the line of the inner palisade. A two-winged gate when opened would have the merit of closing the gaps between the two palisades, for example to stock, but no evidence was found for a central stop or securing holes.

<sup>&</sup>lt;sup>6</sup> P.S.A.S., LXXXIII, p. 55.

<sup>&</sup>lt;sup>7</sup> A.A.<sup>4</sup>, XXXVII, p. 222.

<sup>&</sup>lt;sup>8</sup> R.C.A.M. Roxburgh, I and II, especially the homestead at Gray Coat II, p. 441.

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## 2. THE DITCH (Fig. 3)

At some stage the palisades were replaced by a rock-cut ditch and upcast mound. Though all traces of the latter had been obliterated by ploughing, the nature of the ditch filling suggested that it had lain to the inside. In excavation, the width of the ditch at the lips varied from ten to thirteen feet, decreasing to a flat bottom wide enough for working room at one to two feet. The average depth measured from the present rock surface was just over four feet.

From the beginning it seemed unlikely that the ditch was directly contemporary with the palisades. Although placed to the outside of the palisade trenches and following the general line of the earlier perimeter, it did not maintain a uniform distance from the outer palisade trench as might have been anticipated had they been used in conjunction. Distances between the two varied from four to seventeen feet in the areas examined. Unequivocal evidence for the secondary context of this perimeter was disclosed at the entrance.

# Entrance (Area 3: Fig. 2 and plate II)

Here the passageway between the ditch terminals and associated gateway was not aligned with that through the palisades: even so, they were placed too close together to serve as a staggered entrance. Moreover, in line with the entrance across the ditch, the top filling of the two palisade trenches changed abruptly from the normal light brown soil to a compact, dirty fill, as if trampled in during the later phase.

The later passageway, sixteen feet wide at the outer edges of the ditch, was reduced to ten feet between a setting of four substantial post-holes placed similarly to those marking the terminals of the palisades (nos. 7, 8, 9, 10). Once again the outer pair of post-holes were more substantial than the inner, at depths in the region of twenty-two and fourteen inches respectively. The position of the gate was marked by a well-

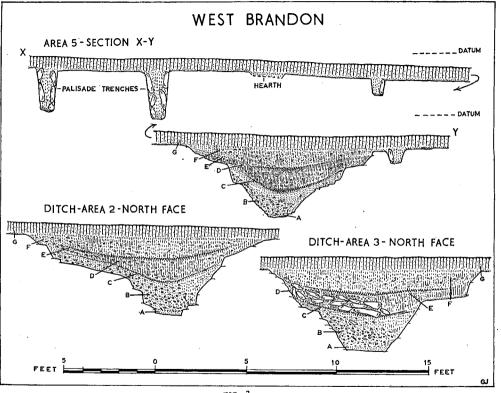


FIG. 3.

cut trench, ten inches wide and five inches deep, and two holes of smaller diameter, no. 11 only two inches deep and no. 12 some ten inches deep. Further post-holes implied by the incurving projections at the ditch terminals are discussed below.

With the possibility of other entrances in mind, two trial holes were placed over gaps showing in the line of the ditch as it appeared on the aerial photograph at the north-west corner of the enclosure (Fig. 1, area 10). An explanation was soon found to lie in the presence of shallow bands of rubble infilling confined to the top of the ditch which was otherwise continuous. This rubble sealed a fragment of green glazed pottery and was consequently of comparatively recent origin.

No small finds related to the occupation of the homestead were made in the many yards of ditch that were emptied.

## Reconstruction (Fig. 3)

After some allowance is made for weathering it is unlikely that the ditch exceeded ten feet in width at the lips. Profiles were somewhat irregular and at first acquaintance the ledge observed in area 2 could have implied the intention to excavate a much wider ditch; but this was not substantiated elsewhere. No more than three inches of sandy silt (A) covered the bottom of the ditches in any section. The succeeding two feet or so of filling (B) consisted of much the same sandy base containing an amount of small rock chippings running in from the inside face, as if slip back from the upcast mound. This was overlaid by a thin, dark turf-line (C) presumed to have formed after the abandonment of the site. In four out of six sections there followed a thick layer of darker soil containing many small fragments of rock (D), whether due to ploughing or deliberate filling is not known. A second turf level (E) lay above this, in area 2 containing a few sherds of thirteenth-century cooking-pot.9

On either side of the entrance, but at no other point, sandstone slabs were present in D for an horizontal distance of three to four feet in from the ditch terminals. A filling similar to D, with rock fragments spread more evenly throughout, succeeded the upper turf level in all sections except in area 10, where rubble was present as already noted.

Little difficulty would have been experienced in digging the ditch <sup>9</sup> Identified by Mr. B. Edwards, King's College, Newcastle.

through the thinly bedded sandstone which fractured quite easily. By the same token, the upcast would have provided no more than a scarped mound unless revetted. It is almost certain that the palisades had not been re-used for this purpose. No evidence for a stone or turf kerb was found in the ditch sections except at the entrance where the stone slabs in D could have been the remnants of a stone revetment on both sides of the passage-way, cleared into the ditch after the abandonment of the site.

The basic structure of the gateway in the form in which it survived was the same as that of the palisade period. A system of cross bracing is implied by the setting for four uprights, with the emphasis again on the two outer posts. As far as could be ascertained the bridge of rock between post-hole no. 8 and the peculiar ditch projection had broken away during the course of filling D. i.e. after the abandonment of the site, but the base of the hole remained to mark its position. The transverse trench contained no packing stones; therefore it is not regarded as provision for a raised threshold or gate stop, but is taken as a drop trench for the gate, perhaps similar in function to the "groove" at the east entrance through the palisade at Hayhope Knowe.<sup>10</sup> Should a single rather than twowinged gate be envisaged opening inwards, then this could have operated only with the deeper hole no. 12 as a pivot if the rear posts were to be cleared. Whether single or two-winged gate is assumed, movement would be achieved only by lifting if holes and drop trench were used in conjunction.

An explanation for the curious incurving terminals of the ditch can be sought in possible alterations to the gateway. On the north side the presence of an extremely substantial post-hole was implied by the well cut semi-circular face at the end of the incurving projection. Nothing was visible in section, in which case the narrow bridge of rock separating hole and ditch must have collapsed and been removed whilst the ditch was open. A symmetrical plan and the length of the projection on the south side of the ditch demands a similar post-hole, but no traces of this remained. Disintegration of such order need not be unexpected in this type of rock.

## THE INTERIOR

#### 1. THE ROUND HOUSES

A single large house (B) showed on the aerial photograph, but excavation disclosed that there had been at least two

<sup>10</sup> Op. cit., p. 55, fig. 6.

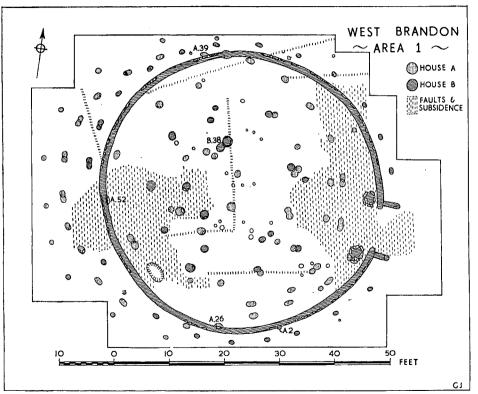


FIG. 4.

houses of very similar form, overlapping in such a manner as to denote complete reconstruction (plate I). An area plan is given in Fig. 4 and suggested plans for the two houses, based upon the fillings of the post-holes, are shown in Fig. 5.

### House A

The ground plan of the earlier house, consisting of four concentric rings of post-holes, had an overall diameter between the eaves in the region of fifty-eight feet. In the outer ring post-holes 1-14 were uniformly shallow, being at the most nine inches in diameter and five inches deep, with straight sides and flat bottoms. Packing stones in some of these holes further reduced the possible diameter of the posts to some four inches. Intervals between the holes were somewhat irregular; nor were they aligned on the radii of the main wall supports. For these reasons it was assumed that they were designed to support uprights for overhanging eaves, projecting at least three feet beyond the perimeter of the main wall of the house. Unfortunately the run of this series of post-holes lying beyond hole no. 14 was lost amongst the fissured rock and general disturbance resulting from underground mine-workings.

From two and a half to three feet within the eaves' supports lay the post-holes of the main wall (nos. 18-43), with allowance for some possible modifications on the south-east arc. These holes were slightly oval in shape, having average diameters of sixteen by twelve inches and a depth of twelve inches from the present rock surface. The position of packing stones, when found in situ, indicated stout posts of the order of six to eight inches in diameter, though not necessarily rectangular in section as might have been anticipated from the cut of the holes. Double post-holes nos. 33-35 on the west, or weather side of the house, indicated replacement at some stage. It could be that the eaves were designed as an afterthought. An east-facing entrance was taken to have lain between the double holes nos. 16 and 17. The depth of these and of nos. 18 and 19 increased to some sixteen inches,

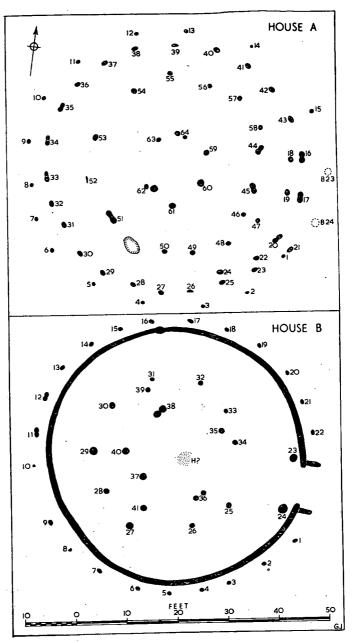


FIG. 5.

bringing them into the range of the holes for interior roof supports and no doubt intended for a doorway and passage with some head-room. The presence of a projecting porch in this instance must remain problematical. If the perimeter of the house wall is conceived as terminating in post-holes 18 and 19, then holes nos. 16 and 17 could represent such provision, but only at the cost of flattening the arc of the circle at this point.

Post-holes related to the main wall of this house were clearly recognisable, since they were generally uniform in shape, occurred at regular intervals and, where lying within the perimeter of house B, had a distinctive filling. This consisted of dark earth containing some small flecks of burnt wood, the whole being capped in many instances by a thin laver of occupation earth incorporating minute fragments of bone,11 probably the remains of the floor debris of house B which had been removed elsewhere by later ploughing. Such characteristic filling was taken as a guide in establishing the context of the maze of substantial post-holes in the central area. On this basis a further two concentric rings of holes could be seen to have held supports for the roof of house A. Those in the first ring, nos.  $44-\overline{58}$ , were from thirteen to sixteen inches deep, and in the innermost ring, nos. 59-64, from eighteen to twenty-four inches deep. Double posts in holes 44 and 45 could have carried the additional spars for the raised roof over the passageway.

Some reconstruction was indicated by the duplication of the post-holes for the main wall in the south-eastern sector (area of nos. 21-25), and the obliteration of earlier holes by the large post-holes at the entrance to house B (nos. B23 and 24) was possible. However, the true nature and extent of such reconstruction must remain an open question.

A shallow pit in the south-west quadrant belonged to house A by nature of its filling. When emptied it was found to contain part of a saddle quern and a few fragments of burnt daub amongst the earth packing.

<sup>11</sup> Unfortunately too small for identification.

House B

This again had an overall diameter of about fifty-eight feet. Overhanging eaves represented by post-holes nos. 1-22 in this instance linked up with extensions for a shallow porch over the doorway. The main wall was now carried in a rock cut trench, twelve inches wide at top and bottom and of the same depth for most of the perimeter. A short distance on either side of the doorway the depth increased to two All packing stones, including three broken saddle querns, had been placed against the outside face of the trench, except where it had cut through earlier post-holes of house A and gaps required filling. The bottom of the trench showed certain irregularities, but these amounted to no more than an inch or so in depth, presented no regular pattern, and were such as might be anticipated in working this type of rock. A solid timber wall was implied, possibly of split timbers some six inches in thickness. At the doorway, now on a slightly different alignment, the trench terminals continued for at least one timber width beyond the line of the porch extensions. The latter consisted of two trenches, uniformly ten inches deep, no doubt intended to hold timber uprights after the fashion of the porch found on the Early Iron Age homestead at West Plean, Stirling.<sup>12</sup> Two substantial post-holes, nos. 23 and 24, taken in conjunction with the increased depth of the wall trench at the doorway, again indicated special provision for head-room.

Internal roof supports would have been held in a roughly concentric ring of post-holes, nos. 25-34, and a square formed by four exceptionally substantial holes, twenty-four to twenty-eight inches in depth, spanning the central area of the house. Two internal holes, both eighteen inches in depth (nos. 40 and 41), did not align themselves with either series of supports, but their filling was the same as that of other holes belonging to house B. This consisted of a light brown soil, at times slightly fibrous.

No upstanding hearths had survived, though analogy <sup>12</sup> P.S.A.S., LXXXIX, p. 230.

implies a central hearth with this type of house. Consequently, an area of burnt rock at the centre of house B was taken to mark the location in this instance. A number of small shallow holes, some almost ploughed away, were not sufficiently well preserved for their filling to give a reliable basis for allocation, nor did they form any pattern when taken collectively.

The chronological sequence of the two houses was firmly established by the manner in which the trench for the wall of house B cut through the post-holes of house A and the nature of the packing at these points (Fig. 4).

In total the evidence pointed to some reconstruction of house A, followed by clearance of the site and total rebuilding in the form of house B. Continued occupation of the earlier house during the course of rebuilding, as suggested for example in the case of similar houses at Scotstarvit Covert, Fifeshire, 13 was here out of the question. Although fire risk was no doubt considerable, the necessity for rebuilding in this instance must have been due to temporary desertion or the need for extensive repairs. No burnt posts were found and burnt material when recovered in recognisable form consisted of no more than small twigs of hazel and birch and some fragments of hazel nut shells. The post-holes of house A appeared to have been packed up with clearance material from the house floor. The slightly fibrous nature of the filling of the trench and post-holes of house B suggested a final desertion with posts left to rot in position. A few small fragments of coarse pottery recovered from the area were neither distinctive enough nor in sufficient quantity to give any clue as to the length of occupation of either house (see p. 25 below).

### Reconstruction

Both house plans are of a type familiar in the Early Iron Age and there seems little need to add to the various published recon-

<sup>&</sup>lt;sup>13</sup> P.S.A.S., LXXXII, p. 247.

structions.<sup>14</sup> Levels over the site chosen for the houses varied no more than two or three inches and consequently do not enter into the calculations. If a maximum height of four feet is assumed for the walls of both houses and in the region of eight and twelve feet above rock level for the two series of internal supports, then a constant roof pitch of twenty-five degrees is achieved. On this basis the supports for the eaves would be two and a half to three feet in height above rock surface, perhaps affording storage space, e.g. for fuel. Single timbers of approximately fourteen feet in length, required for the innermost supports, might seem to be excessive; on the other hand the probable diameters of these posts had been as much as twelve inches and the post-holes were such as to give ample rigidity and stability if some form of upper cross bracing were employed.

The nature of the walls of house A is unknown. A few scraps of burnt daub from the "pit" is hardly sufficient evidence to confirm wattle and daub. In the circumstances no traces of earth or turf bank would be expected to survive. Nevertheless the solid wooden wall of house B would seem to be capable of giving enough support and protection within itself. Internal screens between the main supports are conceivable, but circumstances were against finding any small stabilising holes similar to those in the later stone-walled houses at Huckhoe<sup>15</sup> and Manside Cross, <sup>16</sup> Northumberland.

Although the diameter of the West Brandon houses, at fifty feet between the walls, is less than that of the Scotstarvit houses, two rings of internal supports were still necessary, whereas the West Plean house with a diameter of thirty-eight feet required only one such series.

Opportunity for excavation within the remainder of the enclosure was limited. Consequently attention was directed to specific features showing on the aerial photograph. Without exception these were found to be due to irregular natural faulting or mining subsidence. However, in the course of investigation other points came to light which are no doubt worthy of more attention than could be given to them. As the site will not be available for excavation for a

<sup>&</sup>lt;sup>14</sup> e.g. P.S.A.S., LXXXII, p. 254 (Scotstarvit); LXXXIII, p. 60 (Hayhope Knowe); LXXXIX, p. 231 (West Plean). Note however that W. Brandon also possesses supports for eaves.

<sup>15</sup> A.A.4, XXXVII, p. 243.

<sup>16</sup> Unpublished.

number of years, it is as well that they should be recorded at this stage.

# 2. THE BOWL FURNACES (Areas 7 and 8: Figs. 6 and 7)

Two rock-cut bowl furnaces for iron smelting were of similar size and shape, being slightly over twelve inches in diameter and eight inches in depth from present rock surface. A slight groove to accommodate the tuyere was found on the edge of the bowl in area 7 (Fig. 7 and plate II). Blooms and any residual ore from the last smeltings had been removed from both furnaces. The remaining contents in each instance consisted of a saucer-shaped layer of charcoal and slag droplets, cradling large runnels of slag. This was capped by irregularly shaped fragments of clay furnace lining up to two inches in thickness, most of them showing vitrification on the inside surfaces. The charcoal, containing some three-quarter-inch cubes, was composed entirely of oak.<sup>17</sup>

Although clay was used to line the bowl of a similar furnace at Round Pond, Kestor, 18 such would not have been necessary for the rock-cut bowls at Brandon. Nor did the lining appear to have come from the tuyeres alone, since little curve showed on the inner vitrified surfaces. In all probability there had been clay domes designed to achieve higher furnace temperatures which had been broken and fallen into the bowls when the blooms were removed. An opening in the top of each dome would have been necessary to allow gases to escape and to feed additional charcoal into the furnace.

It is tolerably certain that the furnaces were in operation at some stage during the occupation of the homestead. Two large fragments of clay lining from the furnace in area 8 were retrieved from the replacement palisade trench at a depth of

<sup>17</sup> Appendix I.

<sup>&</sup>lt;sup>18</sup> Trans. Devon. Ass., 86, p. 43. For summary of early furnaces see A. R. Schubert, History of British Iron and Steel Industry. I am indebted to Dr. R. Tylecote, Dept. of Metallurgy, King's College, Newcastle, for discussion.

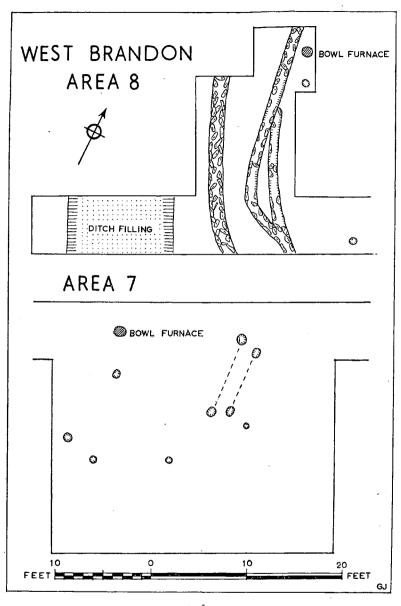
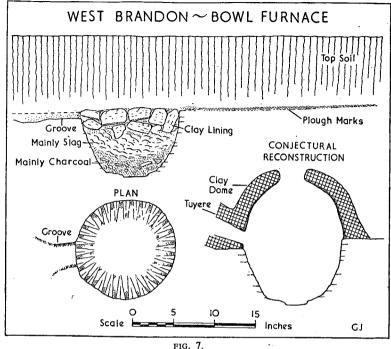


FIG. 6.



twelve inches, lying in such a position beneath the packing stones as to point to deposition whilst the trench was open (possibly at the commencement of phase II?). In the circumstances one is reminded of the slag from the palisade trench of the palisaded enclosure at Ingram Hill, Northumberland. 19

There would have been no difficulty in obtaining ore locally. As much as seven hundred feet of coal measures outcrop in the slopes of the Deerness valley and slightly less in the Stockley Beck valley. The records of these measures show the presence of ironstone bands and nodules at various horizons.20

 <sup>19</sup> A.A.4, XX, p. 110.
20 Strata of Northumberland and Durham, Borings and Sinkings (N. of England Inst. Min. Eng.), p. 206.

# 3. POST-HOLES (Areas 4, 6, 7, 8: Figs. 1 and 6)

A number of post-holes were found in the areas to the south of the central houses but, for the most part, they formed no recognisable structural plan in the limited areas that could be cleared. There was a tendency for some holes of similar diameter and depth to appear in pairs, e.g. in area 4 and in area 7 where two such pairs were isolated with tolerable certainty (plate III). The latter were seven feet apart and, having a depth of fifteen inches, were capable of supporting rigid uprights. Drying racks for crops or tethering rails are conceivable but this is no more than conjecture without further exploration. Marks on the aerial photograph resembling pits were shown to be due to faulting and subsidence.

# 4. Area 9: Fig. 1

To the north of the central houses, natural faults once again were responsible for irregularly spaced marks on the photograph. On the other hand, a total absence of post-holes in this area of broken rock surface might indicate, however tenuously, the presence of a stockyard in a position similar to that on the homestead at West Plean.

# 5. THE ROUND HOUSE (Area 5: Fig. 8)

A long cutting across the south-east sector of the enclosure disclosed post-holes between the outer palisade trench and the ditch. Limited clearance revealed the plan of a round hut, twenty-one feet in diameter. An arc of six fairly regularly spaced post-holes (nos. 1-6), varying in depth from ten to twelve inches, was centred generally on a slightly deeper post-hole, no. 7. The position of packing stones allowed wooden uprights of the order of seven inches in diameter. An off-

centre hearth, lying between the centre post and the outer supports, had been destroyed by ploughing, but its position was marked by a large patch of soft, almost powdery rock, burnt to a bright red colour for a depth of some inches. No occupation level remained.

At least three more post-holes were required to complete the plan of the house, based upon the intervals between the surviving holes. Clearly these had been removed by the cutting of the ditch. Two holes (nos. 11 and 12) on the outer edge of the ditch at a distance of seven and a half feet from the assumed arc of the house wall were somewhat far removed to form part of a porch, unless a pear-shaped hut is envisaged.<sup>21</sup> On the other hand, the absence of post-holes in the extension of the cutting to the south-east showed that they were unlikely to have been connected with the framework of an adjacent house. The context of holes nos. 8, 9 and 10 was also uncertain. The two former were of a stature sufficient to connect them with the house as stays or replacements, but the latter was less than four inches deep and contained no packing stones.

The position of this small house, cut by the ditch and almost impinging on the line of the outer palisade trench, demanded a context earlier than both phases on the enclosed homestead. Whether or not it constituted only one of a number of such dwellings, contained within an earlier perimeter, is an open question. At the time, further excavation could not be undertaken. Certainly no trace of an additional, earlier palisade was found in the long six feet wide cutting to the north-west, where some traces of an enclosure could be anticipated had they consisted of a trench or closely set postholes.

Possible implications of the difference in structure between this small house and the large houses in the enclosed homestead are discussed below. Two wall-fragments of coarse, hand-made pottery recovered from the fill of post-holes nos.

<sup>&</sup>lt;sup>21</sup> See e.g. The Late Bronze Age settlement at Itford Down, Sussex. *P.P.S.*, XXIII, pp. 167ff.

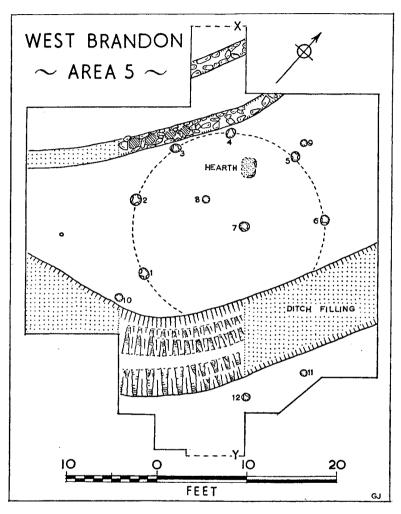


FIG. 8.

11 and 12 were in themselves not distinctive enough to be of much assistance.

### THE FINDS

## A. Pottery

The yield of pottery related to the site was disappointingly small. Only fifteen small fragments of coarse, undecorated hand-built pottery were found. None are larger than three-quarters of an inch and only one plain rounded rim is present. The remainder are all wall-sherds not large enough to show any form. For what it is worth, their fabric generally resembles that of the pottery from the earlier phases of such Early Iron Age sites as Hayhope Knowe and Hownam Rings in the Tyne-Forth Province more than the finger impressed pottery of say the Iron Age First A site at Grafton, Yorkshire.<sup>22</sup>

- Numerous fragments of a comparatively thin walled pot, not conjoined, including one half-inch sherd of plain rounded rim, in. thick; grey core with pink to brown surfaces, small grits. From filling of small unrelated hole near to B2, area 1.
- Small wall sherd, <sup>3</sup>/<sub>4</sub> in. thick with red surfaces and dark grey core containing large grits. Found at bottom of post-hole B29, area 1.
- 3. Four slivers showing oblique breakage planes; grey core containing some grits and pink exterior. Found at bottom of wall trench, house B, area 1.
- 4. Two wall fragments ½ in. thick; pink throughout and containing small grits. Found amongst fillings of post-hole no. 12, area 5.
- 5. Wall sherd of fairly hard pottery ½ in. thick; grey core with brown outer surface and many small grits. Found in filling of post-hole no. 11, area 5.

# B. Objects of Stone

A number of saddle querns used as packing stones in the wall-trench of house B no doubt came from either the occupation of house A or, less probably, from that of the small house in area 5. It must be emphasised that these stones

<sup>22</sup> Y.A.J., 151, p. 383, and Problems of the Iron Age in Southern Britain, p. 8.

were well worn and broken, so that their re-use cannot be treated as evidence for the arrival of rotary querns on the site.

## Saddle Querns

- (Fig. 9 no. 4) Small, broken quern of coarse grained sandstone; grinding surface slightly pecked; length 11 ins., width 7 ins., height at upper end 4½ ins. Used as packing stone in wall-trench of house B. area 1.
- 2. Broken quern of sandstone; outer surfaces roughly shaped; original length probably c. 13 ins., width 8 ins., height at upper end 6 ins. Used as packing stone in wall-trench of house B.
- Upper end of larger quern of sandstone; original length uncertain, width 10½ ins. Used as packing stone in wall-trench of house B.
- 4. Part of saddle quern; length 12 ins., full width uncertain, standing c. 7 ins. high at upper end. Recovered from fill of small pit in house A.

### Rubbing Stones

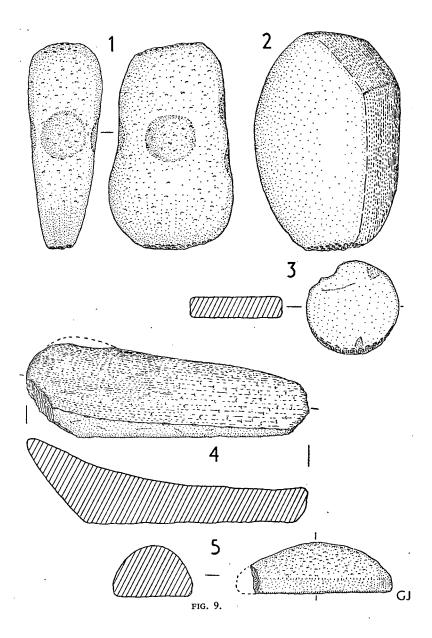
- 1. (Fig. 9 no. 5) Small upper rubbing stone of conglomerate; length  $6\frac{1}{2}$  ins., height  $3\frac{1}{2}$  ins. Found on house floor, area 1, unstratified.
- Bun-shaped rubber of sandstone; diameter 6 ins., height 3½ ins.; grinding surface slightly convex. Used as packing stone in post-hole, area 4.
- 3. Sandstone rubber with broken end; original length c. 8 ins., width 6 ins., height  $3\frac{1}{2}$  ins.; flat grinding surface. Used as packing stone in wall-trench of house B.

### **Pounders**

- (Fig. 9 no. 1) Small well dressed pounder or hand hammerstone of sandstone, with small worked hollows for finger grips; length 4½ ins., percussion marks on both ends. Found loose on house floor, area 1.
- 2. (Fig. 9 no. 2) Sandstone cobble used as pounder, but also showing two broad facets, apparently caused by rubbing rather than sharpening. Found lodged in rock surface, area 5. Cf. pebbles from Glenachan Rig (P.S.A.S., XCII, p. 22).

### Stone Disc

(Figure 9 no. 3) Circular sandstone disc; diam. 2 ins., thickness  $\frac{3}{8}$  in. Lodged in the top of post-hole no. 60, house A. Such discs occur in various contexts on a number of sites, see e.g. locally  $A.A.^4$ , XXXVII, p. 276.



Cup Marked Stone

A flat stone with cup-shaped hollow, diameter 3 ins., depth  $\frac{1}{2}$  in., on upper surface. Found in top of inner palisade trench, area 2. Cf. West Plean, *P.S.A.S.*, LXXXIX, p. 247.

## Summary and Conclusion

Three structural phases were present on the site. The full extent of the first occupation, represented by the framework for a small round wooden house with central roof support and off-centre hearth, was not determined. This was succeeded by a type of enclosed homestead familiar in Early Iron Age contexts, consisting of a large round house of timber with concentric rings of uprights for roof supports, lying within an area enclosed by a double palisade. Occupation of the house lasted long enough to warrant the renewal of some timbers and at least a section of the main wall. The double palisade was replaced eventually by a ditch and upcast mound, probably after a short period of desertion, which in the absence of any indication of extensive destruction by fire seems to be the most likely explanation for the changes in alignment at the entrance and elsewhere. No doubt this too presented the occasion for the complete rebuilding of the central house, now with a solid timber wall but again on a slightly different axis. Although other undetermined structures existed in the southern part of the enclosure they were probably auxiliary in nature rather than additional dwellings; certainly no other large house with a main wall of closely set timbers was constructed on the site.

The large houses were no doubt designed for an individual family. In this instance, where at present the situation is very exposed and the growing season short, stock rather than extensive arable farming may have been the mainstay. In addition some iron smelting was undertaken at least for local requirements.

Allowing for repairs and reconstruction, the life-span of the enclosed homestead can be seen with reason as being in the region of at least a hundred years. Although fenced enclosures are known in the Late Bronze Age, the homestead

enclosure and large house types at West Brandon, economy apart, are best seen elsewhere, for example on Early Iron Age sites at Little Woodbury<sup>23</sup> in the south of England and West Plean II and Scotstarvit in Scotland.24 The house types whether occurring in homesteads or larger settlements<sup>25</sup> have a long history in the period. Little Woodbury is given an initial date at period 2a, 350-300 B.C., with an occupation lasting down to the first century B.C.<sup>26</sup> A later tenure mainly into the first century A.D. was advanced for Scotstarvit and West Plean, but this perhaps could be seen as earlier if necessary.27 An absence of distinctive material from West Brandon prevents any close dating within the pre-Roman Iron Age. Whether the change from palisaded perimeter to ditch and mound can be equated in any way with the similar phenomenon observed on larger settlements and hill-forts in the nearby Tyne-Forth Province<sup>28</sup> is not determined, though the possibility remains. The limited amount of pottery from West Brandon is not instructive. Finger-tipped decoration, an early feature on Iron A pottery on many sites,29 cannot be detected. On the other hand, as far as the stone implements are concerned, the Iron B type of rotary guern even with flattened grinding surface, already arrived on the site at West Plean, was not found at West Brandon where only saddle querns were represented. If conjecture is allowed on such negative evidence, perhaps an occupation of the enclosed homestead may be envisaged tentatively somewhere in the second or third centuries B.C.

<sup>&</sup>lt;sup>23</sup> P.P.S., VI (1940), pp. 30ff.

<sup>24</sup> Op. cit.

<sup>25</sup> e.g. Hayhope Knowe, Roxburgh, op. cit.

<sup>&</sup>lt;sup>26</sup> Problems of the Iron Age in Southern Britain, p. 12.

<sup>&</sup>lt;sup>27</sup> At West Plean e.g. an earlier date would be governed by the extent to which it might be possible to update the arrival of the rotary quern into those parts. Note the rotary quern in the blocking of the phase II (univallate) entrance at the beginning of phase III (multivallate) on Hownam Rings, Roxburgh, P.S.A.S., LXXXII, p. 216, and at Bonchester I (univallate), P.S.A.S., LXXXIV, p. 130. The first century B.C. should be possible.

<sup>&</sup>lt;sup>28</sup> Now suggested Tyne-Forth Second A, end of period 2 to beginning of period 3 (150-100 B.c.) e.g. for possible beginning of Hownam II. Piggott (unpublished) at C.B.A. Conference on Iron Age in North Britain, October 1961.

<sup>&</sup>lt;sup>29</sup> See e.g. summary in Arch. Camb., 1960, p. 127.

The small round house of the earliest phase is of interest. Structurally different from the later houses, it is seen again in a similar context at West Plean, preceding the construction of a large round house with concentric supports. comparison was made with the class of house found in Late Bronze Age settlements in Sussex and a tentative proposal advanced for a "peaceful transformation" of a Late Bronze Age site by Early Iron Age traditions.<sup>30</sup> This form of timber house with central support is not well established by excavation in the north, but has been found recently within a fenced enclosure, again tentatively ascribed to the Late Bronze Age, at Glenachan Rig, Peeblesshire.<sup>31</sup> In the report on this site the evidence is summarised and comparative plans presented. Even so, the tradition of such dwellings could have lasted for a considerable length of time, particularly in those areas where the basic culture might have belonged primarily to descendants of native Bronze Age stock.<sup>32</sup> On the present evidence the West Brandon example does no more than reinforce the general situation found at West Plean and hint at the possible sequence that might be encountered on other perhaps more informative sites.

### APPENDIX I

REPORT ON SAMPLES OF BURNT WOOD AND CHARCOAL

Helena H. Clark, Department of Agricultural Botany, King's College

Charcoal from smelting hearths

This consisted entirely of pieces of oak (Ouercus sp.) for which the "ring porous" structure and large multiseriate medullary rays provided reliable diagnostic criteria. In the largest frag-

<sup>&</sup>lt;sup>30</sup> *Op. cit.*, p. 249. <sup>31</sup> *P.S.A.S.*, XCII, p. 23.

<sup>32</sup> Antiquity, XXXII, p. 189.

ments as many as twenty annual rings could be counted but a noticeable feature of much of the material was an almost complete lack of summer and autumn wood. The rate of growth over a period of years must therefore have been very slow.

Burnt wood from filling of "pit", house A

This sample consisted of numerous small fragments of oak, hazel (Corylus avellana) and birch (Betula alba agg.). Hazel was represented by segments of twig, approximately 1.5 cms. in diameter, which could be recognised by the conspicuous radial lines of wood vessels and the strongly marked aggregate rays. The pieces of birch were of a similar size but could be distinguished from the hazel by the more diffuse structure of the wood and the complete absence of the aggregate rays.

Burnt wood from top of post-hole no. 48, house A

This was essentially the same as Sample 2. The same three species were present but there was more oak and less birch. Here again, the birch and hazel were sections from twigs  $1\frac{1}{2}$ -2 cms. in diameter.

### APPENDIX II

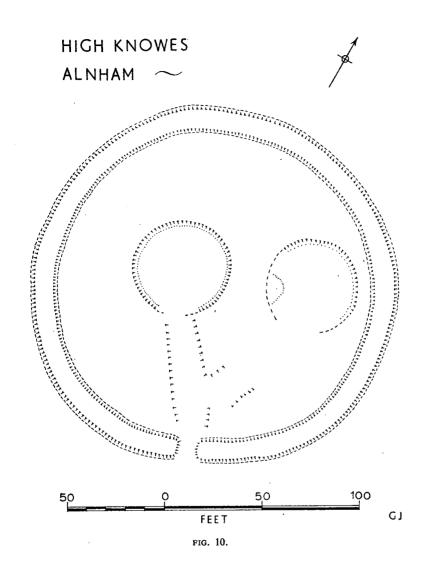
## PALISADED WORKS NORTHUMBERLAND AND DURHAM

(For map see Article III, fig. 1)

The current survey of earthworks in Northumberland and Durham is not completed, but a short list of known or possible palisaded works enclosing homesteads or settlements is given below. No doubt many such sites, where they are not overlaid by later structures, remain to be found by field survey alone. Particularly may this be so in the uncultivated areas of the Cheviot Hills adjoining Roxburgh (cf. R.C.A.M. Roxburgh I and II).

- 1. West Brandon, Durham.
- 2. Corbridge, Northumberland (NY:984649). A palisade trench enclosing a small circular area c. 60 feet in diameter, containing

- one asymmetrically placed hut c. 22 feet in diameter represented by post-holes. The site is cut by the later Flavian sleeper trenches of the Roman fort.  $A.A.^4$ , XXXIII, p. 218.
- 3. Newbrough, Northumberland (NY:877677). Part of subrectangular enclosure surrounded by what appear to be two fairly widely separated palisade trenches. Air-photograph (King's College GO22478/11).
- 4. Seghill, Northumberland (NZ:282748). Probable single palisade trench enclosing a rectangular shaped area of approximately one acre in extent, with large post-holes at either side of the entrance. No internal structures showing on air-photograph (King's College GO22478/47).
- 5. Burradon, Northumberland (NZ:270729). Possible single palisaded enclosure rectangular in shape, enclosing one round house. Showing as crop mark on air-photograph (King's College GO23203).
- 6. Huckhoe, Northumberland (NZ:073828). In the initial phase a palisaded settlement with double palisade trench enclosing an oval shaped area 300 feet by 240 feet and a contemporary outer single palisade trench at c. 50 feet distance. This may be similar to the site observed on Morton Mains Hill, Dumfries (Trans. D. & G.A. Soc. XXXIII, p. 63). The palisaded site was superseded by stone walls on the same plan. This feature of comparatively widely separated walls or ramparts is now known at other sites in the county and seems to differ from close set multivallate defence. A.A.<sup>4</sup>, XXXVII, p. 217.
- 7. Witchy Neuk, Northumberland (NY:982994). A stretch of palisade trench across the entrance through the ditch and rampart, taken by the excavators to be a drop trench for a gate, was later advanced as an earlier palisade trench, which seems more likely (P.S.A.S., LXXXIII, p. 63), though final proof by excavation is lacking. A.A.<sup>4</sup>, XVI, p. 129.
- 8. Ingram Hill, Northumberland (NZ:012158). Circular site 150 feet in diameter enclosed by single palisade trench, though there is also the clear possibility of a second palisade. A round hut with wall trench may belong to this phase or to later earthwork enclosure. A.A.4, XX, p. 110, and XXXIV, p. 150.
- 9. West Sinkside, Northumberland (NT:882264). Approximately half of a small circular enclosure c. 130 feet in diameter enclosed by a single palisade, the trench for which is still visible as a groove 18 ins. wide and 12 ins. deep with traces of a small upcast mound a few inches high lying to the outside. One possible hut site is marked by a shallow scoop. The remainder of the site has been ploughed out. Surveyed G.J. 1960.



- 10. Ell's Knowe, Northumberland (NT:872278). Possible palisade surrounding the hill-top; seen as a narrow platform, rather than a groove, for a stretch of c. 150 feet. Several shallow scoops for hut floors. Surveyed G.J. 1960.
- 11. Yeavering Bell, Northumberland (NJ:929293). On the summit of the Bell (1182 ft.), within and at the east end of the large thirteen-acre enclosure, exist clear traces of what appears to be a palisade trench enclosing a roughly circular area some 160 feet in diameter. In Tate's early excavations this was described as a ditch 5 feet wide with upcast to the outside, 5 feet deep and 2 feet wide at the bottom where charred wood was found (Berwick Nat. Club 1856-62, p. 436). Even so, the groove showing in the turf bears a striking resemblance to the normal palisade trench, except where slightly scooped floors for later huts have impinged upon it.

Dr. Hope-Taylor kindly informs me that when excavating at Yeavering cuttings were made over the feature. Some sections met with old excavations, but one was indicative of a normal palisaded work (forthcoming). Tate's measurement could refer to the vertical interval between top of bank and bottom of "ditch".

12. High Knowes, Northumberland (NT: 971125). A recent survey in March '62 shows that this site, hitherto classified as "camp" (O.S.) or "fort" (N.C.H. XIV) is in fact a homestead enclosed within a double palisade, the trenches for which showed to advantage in the slight cover of late snow (fig. 10). The enclosure, one of the highest recorded in the county, lies on the south facing slopes of the hill at an elevation of c. 1200 feet. Its overall diameter is c. 180 feet, the palisade trenches being 10-11 feet apart and probably forming continuous hairpin bends at the entrance. Upcast from these trenches has gone to the area between the two where it still forms a slight mound. In the interior one large house c. 48 feet in diameter is marked by a shallow groove c.  $2\frac{1}{2}$  feet wide surrounding a partly hollowed floor. Slighter traces of a possible second house c. 42 feet in diameter are also present. A hollowed approach leads from the entrance towards the first house.

Slight scoops on the hill-slope about 150 feet to the south of the enclosure could be the result of natural erosion or quarrying, but are nevertheless worthy of note.