

EXCAVATION OF THE FORTIFIED MEDIEVAL HALL OF HUTTON COLSWAIN AT HUTTONS AMBO, NEAR MALTON, YORKSHIRE

By M. W. THOMPSON, with an appendix by J. T. SMITH

The parish of Huttons Ambo lies about three miles south-west of Malton on the south side of the main York-Scarborough road, and contains the two villages of High and Low Hutton. The site at which the excavations took place lies in the south-east corner of Low Hutton¹, the position being a ridge above the Derwent Valley with a good open view to the east over the river, but a more restricted outlook southwards because of changes in the river's course.

As a result of a proposal to level the site it was decided by the Chief Inspector of Ancient Monuments of the Ministry of Works to investigate the nature of the work before its destruction. Excavations were carried out between October, 1953, and February, 1954, under the supervision of the author.

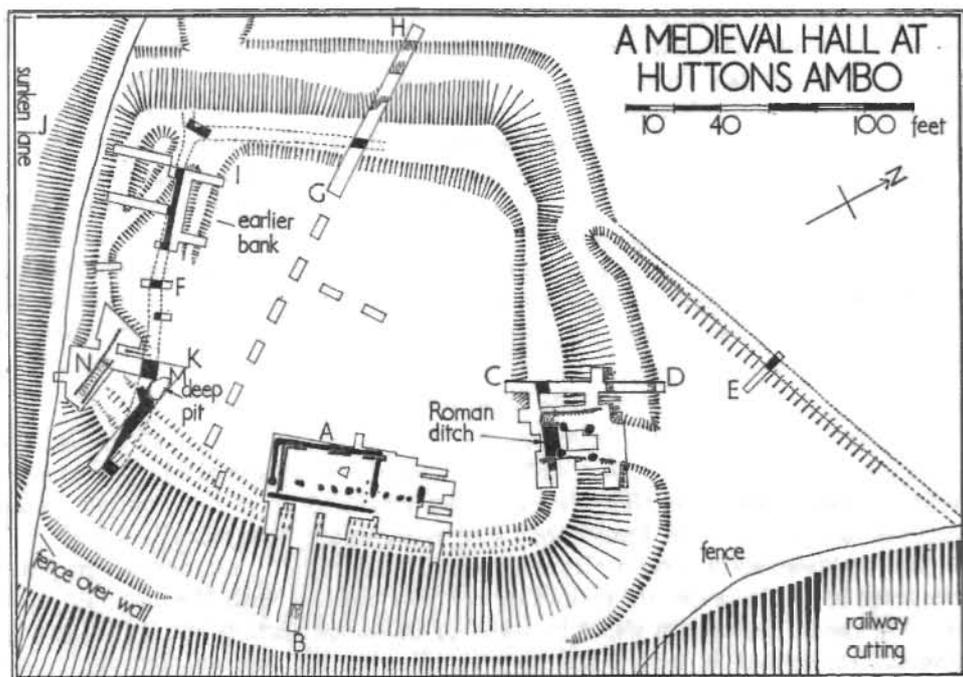


Fig. 1. Huttons Ambo, Yorkshire. Plan of the site

The enclosure consisted of two elements of which the later (henceforth referred to as Enclosure II) was the more prominent. Enclosure II was roughly oblong in outline, its main axis running parallel with the axis of the spur on which it lay. Its defences, where best preserved on the west and north, consisted of a broad bank and a ditch; but above the steep scarps on east and south the ditch was much less prominent and here, too, the bank had been considerably disturbed and reduced by

¹ Ordnance Survey Map, 6 ins.; 142, N.W.

sporadic digging which became more marked towards the south-west and continued south-westwards into the field beyond the earthwork. Its simple entrance was near the north-east angle. Enclosure II replaced an earlier enclosure (I) which had left only slight surface remains in two places: in the south-west angle of II, where its bank projected at rather more than a right angle from the inner side of the west bank of the later enclosure, fading out after about 50 ft.; and on the north, where the bank took a direct north-easterly course beyond the northern defences of II (in both bank and ditch of which it had created a slight feature) to end apparently on the scarp above the river, here modified by the railway cutting. Excavation subsequently linked and extended these features by the discovery of the ditch which had originally accompanied the bank (see below) and demonstrated that Enclosure I, with comparatively weak defences, had been roughly triangular in outline, with two of its sides based on the steep natural scarp.

The underlying rock is Lower Calcareous Grit¹. This is far from uniform in texture and for our purposes can be divided into three levels. Immediately below 1 foot or 18 ins. of soil lie 2-3 ft. of loose yellow stones in a matrix of orange-yellow powder, the whole showing no signs of stratification except at the base. Interference in this for post-holes, pits, ditches, etc., can be fairly easily detected by differences in colour. Below lies a layer of greyish blue sandstone, fossiliferous, with sharp horizontal and vertical fracture, and so suitable for building. This rock was used in all the walls on the site, and is still employed for field walls in the neighbourhood. The sides of the ditch on the north, west and south of the enclosure must have exposed this rock to a good depth. Along the east side this layer is only a few feet thick, and below is found a yellow scaly rock, soft enough to be dug into with the thumb nail. This rock was only met in the east and south-east of the enclosure. All these rocks are porous so that all ditches on the site must have been dry ones.

THE STRUCTURES

The excavation of a low bank running parallel to the E. side of the enclosure revealed the foundations of a stone wall which proved to be part of a large rectangular building. The clearing of this area revealed traces of an earlier timber building which was associated with Enclosure I and is therefore here described first.

The building, as defined by its wall trench, was roughly rectangular in outline, 45 ft. long by 25 ft. wide, its main axis roughly parallel with the rampart on this side. On the E. the trench was 2 ft. wide, of U-shaped section and 1 ft. 6 ins. deep below the rock (that is, 2 ft. 6 ins. to 3 ft. allowing for the soil covering); on the other three sides the trench was somewhat slighter and less regular. The continuity of the trench was broken by doorways at the S.E. and N.E. corners; the gaps were 3 ft. wide, and 5 ft. on the N., opening through the N. and S. walls. The trench was evidently the sleeper trench for a timber building, its regularity on the E. side suggesting that it may have held a single beam though the length is considerable, while on the W. a change in direction at about the middle suggests that two beams may have been used. An angular external projection on the W. side coincides with the change in direction and presumably carried a buttress to reinforce

¹ V. Wilson, 1936, *The Upper Jurassic Rocks of the Country between Malton and Castle*

Howard, Yorks., *Proc. Geol. Ass.*, XLVII, III, 254-64 (with full references).

the junction. An external bulge on the N. side near the doorway also may have held a buttress. The doorways themselves were treated differently. On the N., the ends of the trench which would have carried the door-jamb were featureless; on the S. there was a large round post-hole which was deeper than the wall-slots.

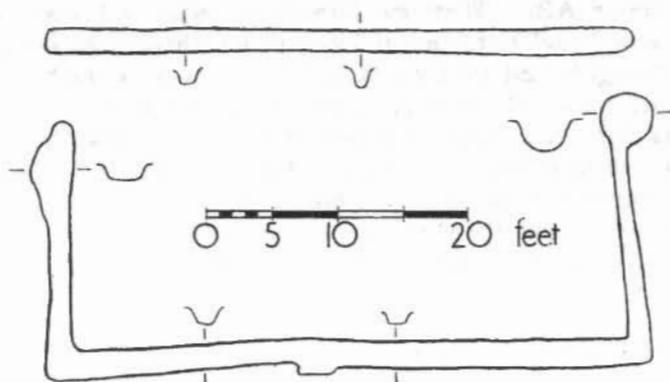


Fig. 2. Outline of hall, Phase I

The relative dates of the timber and stone buildings on the site are determined by the superimposition of the stone wall on the wall-slots, but there was no recognizable distinction between the floor levels.

As already observed, the timber building probably corresponds with the triangular enclosure labelled I above. Sections IJ, F and MN (see figs. 1 and 5) on the S. side demonstrated that the Enclosure I bank was accompanied by a ditch which extended the full width of Enclosure II passing under the later bank at both ends. This ditch was much bigger at the ends than in the middle cutting (F), where it appeared as a mere gutter. On the E. it continued under the later bank: its behaviour beyond is not known because of destruction by the later ditch. On the W. it forked, one branch continuing the westerly course in which it was not followed, while the other turned northwards under the later bank, where it was picked up again in section GH. It is assumed that it continued in this direction to link up with the N.E. bank already described. A section across this feature (E) showed it to be accompanied by a ditch of approximately the same dimensions.

To sum up, the first medieval occupation (hereinafter called Phase I) of the site is represented by a timber-built hall towards the E. side of a roughly triangular enclosure, the outline of which consisted of a small bank and ditch which could have had little defensive purpose. No traces of stakes were found in the bank and it is possible that it merely bore a hedge and was intended to contain stock.

In the second period (Phase II) the defences were completely remodelled and enlarged to produce Enclosure II as already described and as shown on the plan (fig. 1), the lower levels of the ditch probably serving as a quarry for a rebuilt hall and perhaps for a curtain wall around the enclosure behind the earth and rubble bank. On the N. side the triangular extension of Enclosure I was retained as an outer ward covering the new entry. On the E. side the slope was steepened by deep scarping to form a very formidable defence for the hall overlooking it.

THE HALL

The timber hall must have been entirely dismantled and removed and its sleeper slots filled in before the building of the stone hall could begin. The surviving stone foundations lie directly on the soil, well above bed-rock and with no foundation trench (fig. 5, section AB). They are formed of large undressed stones, 1-3 ft. long, 6-18 ins. broad and 6-12 ins. thick, laid lengthways as facing stones with a filling of very roughly laid rubble (Pl. XIII). Except in the S.W. corner rarely more than the bottommost course is preserved, where it can be seen that the bonding is extremely irregular. The northern gap in the W. wall is accidental; the N. jamb of the southern gap is finished square, and this with the single post-hole in the middle strongly suggests that there was an entry at this point. A series of nine (or ten) large post-holes parallel with the long axis of the stone building appears to belong to Phase II since they extend well beyond the end of the timber hall.

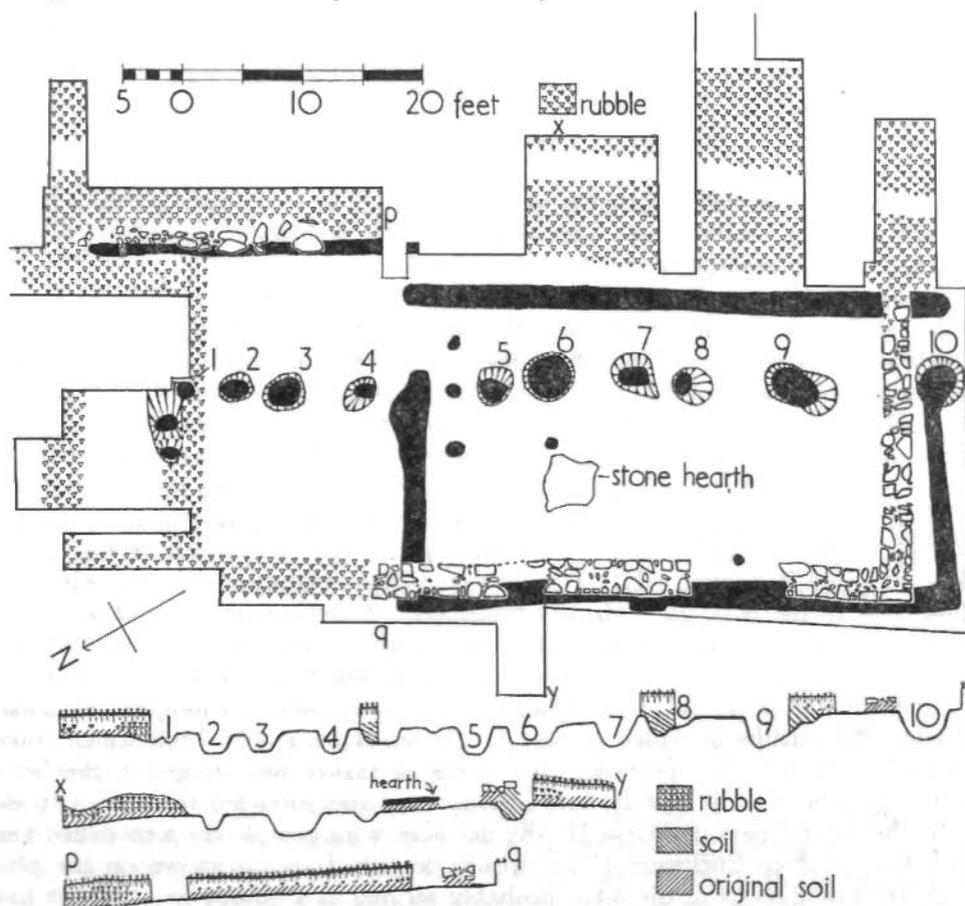


Fig. 3. Hall area, with superimposed buildings

While the surviving foundations show that the building was rectangular its exact dimensions are extremely difficult to judge. Assuming that the holes held

a row of central posts the width of the building would be twice the distance between these and the W. wall, i.e., 35 ft. This would place the wall between the two low banks which at present form the perimeter on the E. side—an unlikely position: one of these banks must surely be the remains of the wall. The more probable is the inner one, which towards the N. still retains a few large stones probably to be regarded as originally part of the wall. On this interpretation the building would have had an external width of approximately 30 ft. (25 ft. internally), with its row of post-holes somewhat out of centre.

At a position corresponding with the N.W. corner of the timber hall is a projection on the outer face of the W. wall of the later building as though there was a joint at this point, suggesting that originally the stone hall had much the same length as the timber hall but was subsequently extended. How far this extension went it is difficult to say, for once the foundation courses have been removed the exact position of walls can no longer be determined. It seems likely, however, that of the two concentrations of rubble shown on the plan the more southerly probably marks the limit of this enlargement. This overlies the double-bottomed rubbish pit and the small post-hole no. 1. The latter, although in the central line of posts, is very small and may either mark an entry or, although this is unlikely, be an earlier feature. This would give a length of 60 ft. or so for the hall. The northern line of rubble might be an extension of the hall without central posts or is possibly connected with a building further to the N. of the hall.

Beneath the E. rubble bank runs a shallow gutter which is perhaps connected with the timber hall. The double-bottomed rubbish pit at the N. end is an oval hollow about 7 by 3 ft. with two deeper holes in its W. half. It was packed with pieces of pottery which made up into three large almost complete cooking vessels (figs. 7 and 8), pieces of lead, a large piece of Whitby jet, and dark earth. The earth around and above it was very dark and a good deal of grey pottery overlay it. It may originally have been a structural feature but may perhaps have been filled up with rubbish to allow the N. wall of the hall to be built over it.

The post-holes nos. 1-10 are spaced at irregular intervals. As already noted, no. 1 is markedly smaller than the others and may not have served the same purpose, while no. 10, although connected with the timber hall, may have been enlarged and re-used, for an overhang from the roof or something of the kind. No. 6, although broader than the others, is fairly shallow. Allowing for a foot or so of soil above the grit these holes must have been 3-4 ft. 6 ins. deep, and were evidently intended to hold substantial posts. Sections yielded little information of value, the ground being too stony to retain the silhouette of the original posts. Nos. 2, 6 and 9 contained sherds of medieval pottery in their filling, which was also darker with more ash and charcoal than in the others. Looked at as a whole the posts fall into two distinct groups, nos. 2-5, and nos. 6-9 with 10. Nos. 2-5 are smaller than 6-9, and, moreover, 6-9 are on a slightly different alignment. This variation may be due to the enlargement of the hall already suggested, nos. 6-9 belonging to the original building and 2-5 to the extension. Nos. 8-9 have a ledge on the side and have almost certainly been used more than once.

Between post-holes nos. 4 and 5 are three small shallow holes set in a row at right angles to the main line. They perhaps supported a screen or division in

the enlarged building between the hall proper, about 35 ft. long, and a shorter part at the N. end which may have been the chamber or solar, if the building was only of one storey.

The stone hearth is not quite central longitudinally, being slightly nearer the S. than the N. end. Laterally it is very much nearer the W. than the E. wall, this position being no doubt dictated by the central posts. As with the walls, the stone is laid on the soil. It is of the same character as that used for the walls, of an irregular shape with projecting corners, the central area being 3 ft. across. It appeared to be formed of one large thin stone, smooth and blackened on the surface. It was very much cracked and around the corners little pieces which had broken off had been stuck on again. A small hole near the hearth probably held a pole for the spit.

THE GATEWAY

The entrance to Enclosure II, in the N.E. corner (fig. 4) is set aslant to the N. side, possibly to conceal the hall from direct line of view. The ditch here is interrupted by a causeway of solid rock 15-16 ft. wide. The entrance arrangements

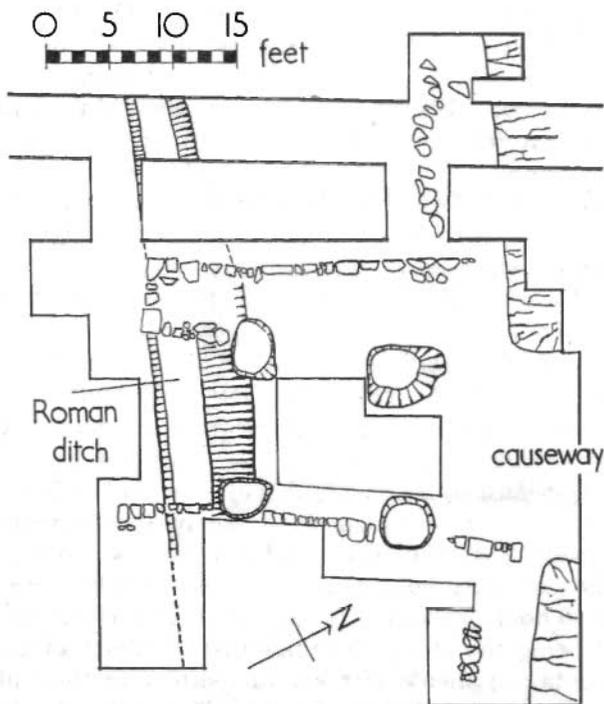


Fig. 4. Entry to Enclosure II

consisted of a double gateway with large holes for the posts (see below). The passage slopes down quite sharply from the inside outwards, with no trace of paving.

The sides of the passage which splayed slightly outwards had been given varying treatment. On the E. the end of the rampart had been revetted with coarse, irregular walling, set against the rubble without an inner face, with gaps left into

which the gate-posts had been set. On the W. there had evidently been a wall faced on both sides, the inner end of which was squared off. This end of the wall was 6 ft. wide and was well preserved to a height of 3 ft., the W. face (i.e., towards the bank) continuing outwards for a distance of 25 ft. from the inner end, almost to the edge of the ditch where it had been destroyed; the E. face (entrance-side) only ran up to the inner post-hole, which was inset in its line. Beyond this post-hole it had been destroyed, so that the character and dimensions of the wall at its outer end remain uncertain. Presumably both faces finished on the ditch, probably in another squared end, and if the outer post-hole was inset in it in the same manner as the inner, the wall there must have been at least 8 ft. thick. The relationship of the rampart to this W. wall is difficult to understand, for the rubble of the rampart does not reach the wall in any depth and is covered by a thick band of black earth with some large stones, presumably fallen material, with an overlying gravel layer which extended also across the surviving masonry and into the entrance passage. It seems likely that these deposits represent silting after the removal of the upper part of the wall-material.

The four holes have the following depths from the top of the grit (S. side): S.W.—1.3 ft., N.W.—2.6 ft., S.E.—1.8 ft., N.E.—1.8 ft. They would have held stout posts 1 ft. at best in diameter. The holes are cut more steeply at the back than they are towards the passage and leave the impression that they were dug from the entry passage after it had been faced. Presumably two lintel beams held each pair of posts back rigidly into the gaps in the wall designed for them, which would account for the shallowness of the holes compared to their diameter. The two western holes are closer together than the two eastern so that the two gates were not parallel and help to give the entrance its twist westwards. The passage between the gates was about 9 ft. wide. Owing to the slope of the hill the gates probably opened outwards.

Passing across the inner (S.) opening of the entry but completely disregarding it, and more or less in line with the rampart, is a ditch 3 ft. deep and 8 ft. across. The N. side is gently sloping, the S. steep (see fig. 5, section CD). Both the southern post-holes have been cut through its filling. Beneath the rubble bank the ditch was found to be silted up almost to the brim and covered with a layer of bluish-grey clay, presumably an old turf line. (On the W. and S. sides of Enclosure II the earlier ditch, when overlain by the rubble bank, is much less silted up than this, and was accompanied by an earthen bank which is absent here). No medieval pottery came from this ditch, although a good deal of 13th-century pottery was found immediately over it; but, on the other hand, sherds of a small bowl of Crambeck ware and a coin of Constantine I were found 3-4 ins. from the bottom. The complete absence of Roman finds elsewhere on the site justifies the assumption that this material did not find its way into the ditch at a later period than that to which it belongs. This ditch therefore seems to be a Roman feature not connected with the medieval manor.

THE ENCIRCLING BANK AND DITCH

At the entry the main ditch is 15 ft. broad and 13 ft. deep. It is flat-bottomed, with a slight step on the inside (fig. 5, section CD). On the W. the depth of the

main ditch is the same (section GH) but there is a pronounced 'step' in the inside, the floor of which is about 5 ft. higher than the floor of the ditch proper. On the S. side of this cutting there had been later disturbance, with the removal of the original filling of the ditch and the cutting back of the inner rock face 3-4 ft. It must be assumed that this destruction was part of the quarrying to which reference has already been made. The section on the N. side of the cutting was undisturbed and resembled that of CD. On the S. side the ditch is in the lane and excavation was not attempted. On the E. side the natural slope of the hill falls steeply 20 ft. from the outer bank (fig. 5, section AB). This corresponds to the earth and rubble bank of the other sections. Below, the hill has been sharply steepened. Owing to the slope, this modification must have been more in the nature of a platform than of a true ditch.

Apart from the later interference on the W. side there is a remarkable concordance of the three ditch fillings one with another. The bottom third to a half of the filling is made of angular rubble, mostly large. The rock sides of the ditch break away easily in large pieces and this deposit must have formed very quickly; evidently the ditch needed frequent cleaning to be at all effective. Above this lies a triangular deposit of fine and coarse yellow silt, covering the inner face of the ditch and extending outwards to about half way across. Perhaps this forms only on the inner side of the ditch on account of the greater run-off of water from the bank. The greater part of the rest of the filling is made up of gravel and smaller angular material.

While the W. and N. sections yielded little or no pottery, there was a great deal on the E. scattered down the slope, and throughout the filling of the ditch. This was presumably refuse thrown out from the hall immediately above. The large number of sherds in the upper filling suggests that the hall was still occupied when the ditch was almost fully silted up.

On the E. side there are only two small rubble banks, the outer for the most part being larger and more earthy than the inner (fig. 5, section AB). On the N., W. and S. the banks are bigger and more complicated structures. On the N. side by the entry the bank is about 40 ft. thick. The structure of the bank from the bottom upwards consists of soil overlain by small rock rubble, then by larger rubble, the products of the progressive deepening of the ditch; the earth banks on the W. and S. sides tell much the same story. In the S.W. corner there is another bank within the corner forming a kind of loop. This may be due to a change of plan.

In the S.E. corner there are two complicating features. Just behind the bank and dug partially through the ditch of Enclosure I is a deep pit (fig. 1 for plan, and 5, section MN). It is an irregular oval in shape, about 11 ft. long, 6 ft. broad, and 11 ft. deep. The bottom is flat. On three sides the walls of the pit are formed by the rock face, but where the earlier ditch has been cut through, its filling has been revetted with undressed stones which were carried upwards slightly above the soft filling. The pit was thus provided with firm sides all the way round and was presumably some kind of storage pit or magazine, although its depth seems excessive. Apart from a few bones and sherds the pit was entirely filled with large rubble blocks, presumably fallen from the sides. There were no traces of organic matter, grain or other material in the bottom to give a clue as to its use.

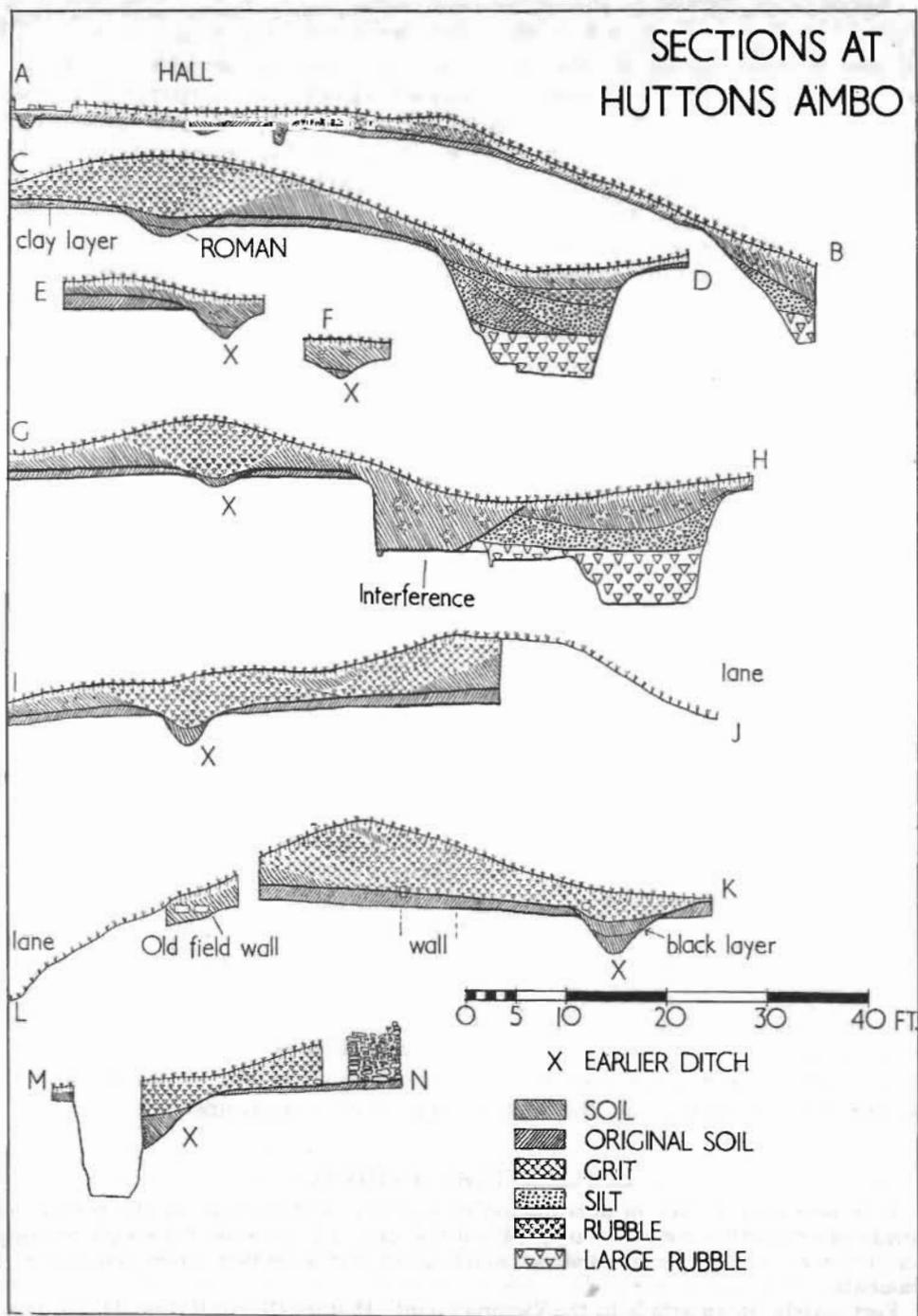


Fig. 5. Sections

About 20 ft. further S. the rubble bank stood 8-9 ft. high. Excavation here revealed a wall 5 ft. 6 ins. to 6 ft. thick and preserved for a length of 35 ft. This wall was curiously placed in relation to the visible features (see fig. 1, letter 'N'). It was just beyond the S.E. angle of Enclosure II, across the main axis of the S. rampart at an angle of about 30°. At its S.E. end its foundations vanished very close to the ditch. To the N.W., 20 ft. away, the upstanding wall ended in a squared face 6 ft. high (Pl. XIVB), but the foundations continued on each side without a break, the N. face for only 2-3 ft., the S. for 14-15 ft., with a well-marked tendency to curve outwards to the S.

This feature remains a puzzle: it is difficult to see how it could possibly have fitted into the defences of either medieval period. It is in any case outside Enclosure I and looks on the plan as if it had simply been incorporated in the defences of Enclosure II as it stood. There is no sign that it was ever linked structurally with the existing rampart to which it stands in a very awkward relationship, and to the E. it was cut by the ditch. It is best regarded therefore as the remains of a structure whose chronological position with regard to Enclosure I is uncertain, though it is obviously earlier than Enclosure II.

Apart from this wall, the bank of Enclosure II showed no evidence in any of the sections cut of the existence of a curtain-wall. The bank structure suggests that it provided a *glacis* type of defence, with perhaps a palisade or curtain-wall on its crest which would have vanished with time. Neither in the ditches nor elsewhere were there any traces of large stones which would have formed part of a curtain-wall, nor did the ramparts show any signs (apart from those already described) of the extensive robbing which alone could have removed the wall so completely: the bank gives every impression of having achieved its modern state by 'natural' means.

We may summarize the occupation of the area in different periods. A neolithic settlement nearby is indicated by the presence of two arrow-heads, some scrapers and other flints. In the 4th century A.D. a Roman settlement of uncertain character is responsible for the ditch containing Crambeck pottery and a coin of Constantine. In the 12th century a timber hall in a triangular enclosure was set on top of the hill. Later the hall was enlarged and rebuilt in stone, and provided with a deep encircling ditch and a stone entry; this must have been a fine sight from the East Riding side of the Derwent. There followed several centuries of desolation and destruction, when the quarrying probably took place. Finally, in the last war the site again became a defended one when troops stationed locally dug five weapon pits along the eastern side of the enclosure.

DOCUMENTARY EVIDENCE

It is necessary to say in anticipation of the next section that all the pottery can be confined reasonably between the middle of the 12th and the end of the 13th centuries. It is therefore to this period that we must direct our attention when consulting the documents.

Fortunately, in an article in the Victoria County History (North Riding, II, pp. 150-4) Miss C. M. Calthorpe has collected over a hundred references and built up a very intelligible history of the parish from the 13th century onwards. A full history of the holders of the

manors in Hutton will be found there, and we propose to make some slight alterations in interpretation, particularly with reference to the 'fourth' manor (see below, pp. 79-80).

It appears from Domesday¹ that even before the Conquest the parish was divided into two; two manors held by the Crown in Low Hutton and a third held by private individuals in High Hutton. Only in the 13th century, however, when the documents become fairly numerous, can we see a clear picture of the villages. There were then three manors: Hutton Colswain by the riverside where Low Hutton is now, Hutton Bardolph in High Hutton, and Hutton Mynchon, now lost, but probably in the region of Hutton Hill. It is the first and most important with which we are concerned here.

The date of the foundation of this manor is uncertain. The first holder of whom there is any record is a *Colsweinus*² who in 1244 was already a historical figure. A grandson of a Colswain lived in the reign of Richard I, and Miss Calthorpe argues reasonably that it was this Colswain or his father who were the original recipients of the sergeanty, presumably about the middle of the 12th century, and that it was from him that the manor derived its name. The fee was held by service of one quarter of a knight's fee, or later in the Middle Ages by a fifth, sixth, or eighth of a knight's fee. In the middle of the 13th century the manor passed through the female line into the Bolton family, towards the end of the 14th century into the Lokton family, and in the middle of the 15th into the Gower family.

In the later Middle Ages the manor seems to have lost a good deal of its importance. It was only a small part of the possessions of the Gower family, and from then until the 19th century there appears to have been no resident lord of the manor. In the 13th and 14th centuries Low Hutton had its own resident priest and church, but in 1743 at the time of Archbishop Herring's Visitation³, the parish was a permanent curacy with High Hutton, but there was no curate and services were taken by the Vicar of Crambe. The church was taken down in 1800 and its site is marked on the O.S. sheet, on the village green, near to the entry into the field in which our site lies. In the 19th century when the new hall was built in the upper village the medieval position was reversed, the high village now holding the main seat.

In the 13th and 14th centuries a combination of Hoton or Hotun with Colswayn or Kolsweyn seems to have been the proper title for the riverside manor. For instance, of thirteen instances between the reigns of John and Edward III this is the name, once Netherhoton, and twice Hoton super Derwent. From the 16th to 18th centuries, however, Hutton upon Derwent is the normal name of the village. In the 14th century the position is complicated by the appearance of a fourth manor, Hoton Coleswayne, not held in chief by the crown. Its first appearance in the documents is in 1375, and it is worth quoting part of the entry from the Calendar of Close Rolls⁴:

' . . . at his death the said Thomas (de Bolton) held jointly with Agnes his wife, (whom the said John has taken to wife) of the gift of Adam de Appilton, chaplain . . . a messuage and garden called Gaytskogh, nine tofts, fourteen bovates and 60 acres of land, 7 acres of meadows and 30s. of rent in Hoton Coleswayne, which are held in chief, and likewise jointly with said Agnes the manor of Hoton Coleswayne and three bovates of land in the town with the site of a water mill upon the river Derwent . . . '.

The same confusion exists at the end of the 15th century. In the Inquisitions post-mortem in 1488⁵ the manor is described once as 'Manor of Hoton on Darwent, worth 12*l*., tenure unknown', and elsewhere two manors are mentioned; 'Manor of Coleswayne on Darwent', and 'Manor of Hoton, worth 8*l*., held of the King in chief, by service of 1/5 knight's fee'.

In view of the 13th century evidence it can hardly be the second Domesday manor. Nor is it likely that it escaped the attention of fairly numerous 13th century writers that there were two manors where they only spoke of one. The water mill now belongs to the

¹ V.C.H., Yorks, ii, 202 and 242.

² *Book of Fees*, p. 1198, *tenuit in Hoton quinque carucates et vii bovates et unum molendium per serviantiam custodienti portam castri Eboraci*.

³ Yorks Arch. Soc., *Rec. Ser.* (1928), LXXII, 56.

⁴ *Cal. Close Rolls*, 1374-77, 163.

⁵ *Cal. Inq.* p. m., H. vii, I, 117, 232.

'fourth' manor, although as we have seen a water mill was part of the original grant to Colswain, and on the other hand no water mill is now mentioned as part of the estate held in chief from the Crown. The simplest way out of this difficulty, although it encounters difficulties of its own, is to assume that the 'fourth' manor comprised the site, water mill and part of the property of the original manor of Colswain, which somehow or other had been separated from that part of the estate held in chief. This separation might be connected with the rather complicated series of events when Thomas de Bolton enfeoffed Adam de Appilton, chaplain, of his property in 1344¹ when the 'fourth' manor is not mentioned. The 'chief messuage with a toft called Gaytescove' is first mentioned in 1297². This was presumably the actual residence of the Bolton family. Our site may still have existed at this time with buildings, but was probably already in ruins.

This suggestion, although not without difficulties, offers some solution to the problem of the 'fourth' manor. It can be understood that if the name Hutton Colswain was applied strictly to the ruined site it was not suitable for the new manor or village as a whole, for which Hutton upon Derwent became the normal name. Seen in this way no problem of a fourth manor arises; it is merely the original name properly used for the original site.

We suggest then the following correlation between the archaeological and documentary evidence. The timber hall was perhaps the first hall built by Colswain when he originally received the sergeanty around the middle of the 12th century. At a later date, but before the manor came into the hands of the Bolton family, the whole site was altered into something more befitting the keeper of the gate of the King's castle at York. Later on, probably before the end of the 13th century, the site was abandoned.

Two interesting points arise from this suggested correlation.

The name Colswain is a Scandinavian one³. This accords with the modern view of the importance of Scandinavians in post-Conquest York⁴. The timber hall differs markedly from the main types of hall distinguished by Miss Wood⁵ from surviving stone halls of the Norman period; the aisled and first-floor types. Her third type, the ground-floor form, comprises only a few doubtful examples, distinguished from ours by the position of the entries. Comparison with stone halls is in any case not very satisfactory because the plan of the hall at Hutton is clearly related to its method of building with timber sleepers.

The plans of no pre-Conquest halls have yet been published. The documentary references to Anglo-Saxon houses are often of doubtful value, but we are forced to use them.

Byrhtferth, writing in the early 11th century, clearly describes the building of a sleeper-built house⁶; after surveying the site and cutting the timber, then the sills are fitted fairly (i.e., into the sleeper sockets). How the walls were fitted to the sills we are not told⁷. Byrhtferth describes three subsequent operations: laying the beams, fixing the rafters to the ridge pole, and propping this (?) with *cantlum*. The walls of the hall certainly must have needed beams to resist the outward thrust of the roof. On the nature of the roof itself the archaeological evidence is silent, nor can we identify the *cantlum*, which may have rested on the ground surface.

Although Bede was writing four centuries before the hall at Hutton was built we are close to the area where he lived. According to Mr. Chambers⁸ we may infer from the famous simile of the sparrow flying through the hall⁹ that Bede had in mind a hall in

¹ *Cal. Pat. Rolls*, 1343-45, 221.

² *Yorks Arch. Soc., Rec. Ser. XXXI*, p. 61.

³ A. H. Smith, *Place Names of the N.R. of Yorks.*, pp. 40-2.

⁴ F. M. Stenton, *York in the Eleventh Century*, *York Min. Arch. Tracts*, 1927.

⁵ M. Wood, 'Norman Domestic Architecture', *Arch. J.* XVII (1935), 167-242.

⁶ *Byrhtferth's Manual*, E.E.T.S. 177 (1929), 142. 'Ærest man asmeað þæ huses stede, and eac man þæt timber beheawð, and þa syllan fægere gefegð, and þa beamas gelegð and þa ræftras to þære fyrste gefæstnað and mid cantlum underwriðað . . .'

⁷ See Appendix, p. 86, where the conjectural reconstruction of both halls is fully discussed by Mr. J. T. Smith of the Royal Commission on Historical Monuments.

⁸ R. W. Chambers, *Beowulf, An Introduction*, 2nd ed. (1932), 361-2.

⁹ Bede, *Ecc. Hist.*, Bk. ii, chap. xiii, *Rec. Com.*, *Mon. Hist. Brit.*, p. 164, *accenso quidem foco in medio, et calido effecto coenaculo, furentibus autem foris per omnia turbinibus hiemalium pluviarum vel nivum, adveniēnsque unus passerum domum citissime pervolaverit, qui cum per unum ostium ingrediens, mox per aliud exierit.*

which (a) there were two doors (of this there can be no doubt); (b) these two doors were opposite one another at either end of the house; and (c) that the hall was a single room without division. It is interesting that the archaeological evidence at Hutton allows us to make precisely the same three inferences about the timber hall, although it is not certain that Bede intended his simile to be taken in quite such a literal spirit.

The main changes with the construction of the stone hall were the increase in length and breadth. The latter brought new problems of roof construction, increased support being given to the ridge pole by the central posts. The alteration in plan, particularly the 'screen', shows a building much closer to the later medieval hall familiar from surviving examples. It is noteworthy that neither hall was aisled.

If the hall of the earlier stage has a native character, the main feature of the next stage, the massive fortification of the site, was not inspired by native habits. Taken as a whole the large fortifications seem to be disproportionate both to the modest building excavated with its poor finds, and to the assessment of the fee at only one quarter of a knight's fee. Presumably the early holders of the sergeanty had to do actual duty at York castle, and perhaps we are seeing at Hutton an imitation of grander fortifications in royal castles in the neighbourhood, of which the sergeant from his office had first hand experience. At York itself, unfortunately, the bailey at the foot of Clifford's Tower has long since been built over, and comparisons are not possible. Pickering Castle is a more instructive example¹. It lies in fact a mile or two nearer Hutton than York. Originally a Norman motte-and-bailey castle, it was greatly changed in the latter part of the reign of Henry II, dated by Pipe Roll entries to 1180-86. In these years the stone curtain wall of the Inner Ward was built and the Colman Tower at its entry. The only certainly older stone building is the Old Hall whose foundations survive. It measures 45 by 20 ft. compared with the 45 by 25 ft. of the timber hall at Hutton, but more interesting than this are the two entries in opposed corners of the short ends exactly as at Hutton. There are, of course, many differences, and the whole work at Hutton has a clumsy, rustic and unfinished appearance not found in the royal castle. Nevertheless, the resemblances are sufficiently close to justify the suspicion that the change from wood to stone at the castle, perhaps only a few years earlier, was in the mind of the author of the great change at Hutton.

¹*Pickering Castle, Yorkshire*, Ministry of Works Guide (1958).

THE FINDS

ROMAN

POTTERY. Close to the bottom of the ditch at the entry together with the coin described below were found the sherds of a bowl of hard grey ware (fig. 6), with everted rim, a furrow round the shoulder, and beneath it two lines of rouletting.



Fig. 6 (4)

Hutton Colswain lies barely two miles from Crambeck and it is reasonably certain that the pot came from the well-known kilns there excavated by Dr. Corder¹. None of the bowls illustrated by Corder are exactly like it, but we may compare nos. 31, 35 and 36 'miscellaneous bowls'. In a later paper² Dr. Corder calls this form Type 13, and as it is not found at the signal stations he believes that it was not made after 370 A.D. On these grounds the ditch may be dated about 350.

COIN. At the same place was found a bronze coin of Constantine the Great: diameter approx. 18 mm. Obv. CONSTANTINOPOLIS, her helmeted head facing left. Rev. no legend, standing figure of Victory facing left. Exergue, plain TRP. This is the ninth issue from Treves, assigned by M. Maurice, May 330 to December 333³.

MEDIEVAL

For advice and discussion the author is indebted to Mr. G. C. Dunning, F.S.A., of the Ministry of Works, Mr. G. F. Willmot, F.S.A., and Mr. T. C. M. Brewster. Mr. J. G. Hurst, F.S.A., has also given valuable advice on the pottery as on many other matters.

POTTERY

The pottery was found mainly in three areas; the hall, the slope and ditch near it, and in the entry above the Roman ditch. Owing to the absence of two distinct floor levels in the hall, and the small quantity of sherds from elsewhere which can be definitely assigned to the first stage, little distinction can be made between earlier and later pottery.

Glazed wares were few, and included three sherds of hard grey porous ware bearing four incised lines with specks of glaze visible in the cracks. Spouts such as that illustrated in fig. 7, no. 8, would not be out of place in the 12th or 13th centuries (*cf.*, for example, *Oxoniensia*, V, 1940, 42-9). The absence of decorated handles and other later features may be noted.

The unglazed pots conform roughly to the same shape with rim diameters of from 7 to 11 in., thickened rims, swelling bodies, and sagging or flat bases. They are normally without ornament and the colour varies from light red or pink, in the vessels from the double-bottomed rubbish pit, through shades of grey to a yellow in the upper part of the ditch and entry. The grits are sometimes large and rilling is found in several cases.

Three vessels were complete. The plain, rilled example (fig. 8, 1) is closely paralleled by a complete pot from Kirkstall Abbey⁴ which is dated to the 12th century. The two other vessels (fig. 7, 1 and 2) have pressed-down rims analogous to a vessel from Old Sarum⁵, and are ultimately related to the 'scratched ware' described by Mr. Dunning⁶ and occurring in the south of England in the late 11th and first half of the 12th centuries. When examining the pots here illustrated Mr. Dunning referred them to the very end of the 12th century. If the double-bottomed rubbish pit was filled to allow the stone hall to be built, and if this change was inspired by the changes at Pickering in 1180-86, this date would fit remarkably well.

The most useful comparison for the great mass of the pottery may be made with that published from Knaresborough Castle, found in a context dated from documentary evidence earlier than 1212⁷: The square and clubbed rims, the paste and dimensions are similar. Both sites yielded imported granite hones. The absence from Knaresborough of the rim types found in the upper filling of the ditch suggests that occupation at Hutton Colswain continued after 1212.

¹ P. Corder, 'The Roman Pottery at Crambeck, Castle Howard', *Roman Malton and District, Report I* (1928), 28-9, Pl. ii.

² *Ant. J.*, XVII (1937), 403-13.

³ J. Maurice, *Num. Const.*, i, 479. I am indebted to Mr. S. E. Rigold for assistance in identifying this coin.

⁴ Thoresby Soc., *Kirkstall Abbey Excavation*, 1951-54, Rep. ii, esp. Pl. iii, fig. 6, and Rep. iii, fig. 12.

⁵ *Ant. J.*, XV, 36 and fig. 11.

⁶ *Arch. J.*, CVII (1950).

⁷ *Ant. J.*, XXXIII (1953), 211-3.

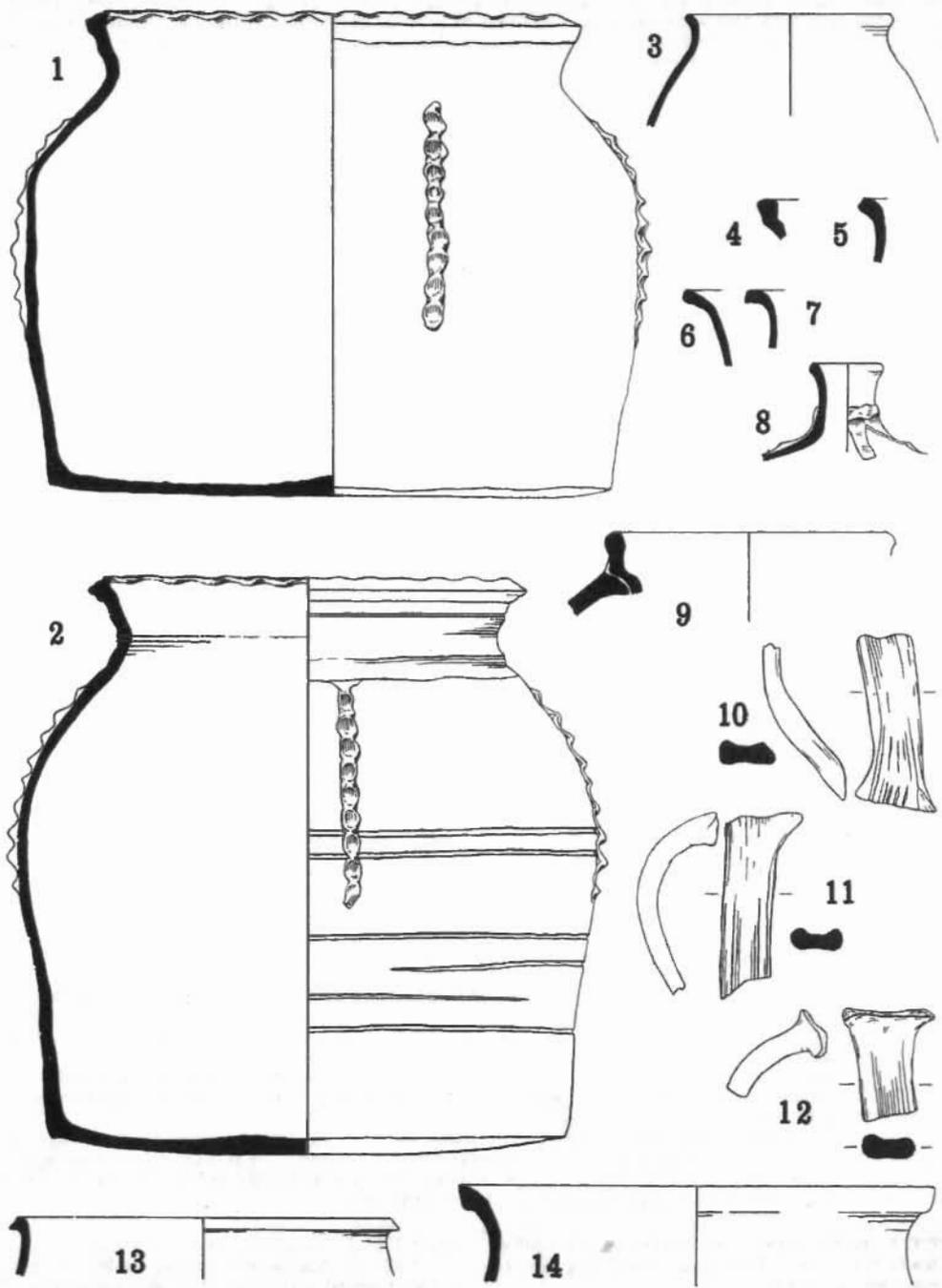


Fig. 7. Pottery (1)

Negative evidence shows that the site was not occupied in the later middle ages: the extensive nature of the excavation allows us to say this. Mr. Brewster has recently published pottery from two sites near Scarborough¹, and subsequently he has dug kilns for this Potter Brompton ware at Potter Brompton; similar pottery was found at Wharram Percy, a few miles the other side of the Derwent². During the late 13th and 14th centuries this type of pottery must have found its way to the site had it still been occupied. Indeed, the scarcity of glazed jugs is a fairly sure indication that the site had fallen out of use, for at a moated site recently excavated by the author at Anlaby, near Hull, which was abandoned in 1342, scarcely any cooking pottery but only glazed jugs were found³.

We may therefore say with confidence that the manor was occupied between about 1150 and 1300, and probably mainly between 1175 and 1250.

FIG. 7

1. Squat round-shouldered vessel with nearly flat base and applied vertical impressed bands and impressed rim. Found in the double-bottomed rubbish pit.
2. As no. 1 above. Also from double-bottomed rubbish pit⁴.
3. Upper part of pot: unlike all the others from the site the everted rim is not thickened. Pinkish yellow ware. From earlier ditch and therefore associated with Stage I.
4. Rim of jug. Red ware. From earlier ditch on south side, and so Stage I.
5. Rim. Grey ware. From hearth to south of hall and so Stage I.
6. Rim of bowl. Light yellow ware. From upper silting of ditch in front of hall.
7. As No. 6 above. Same provenance.
8. Spout, probably set obliquely on side of vessel; partly glazed. An impressed band is applied round the neck of the spout, from which run other radiating impressed ribbons. From the hall.
9. Rim and shoulder of jug; partly glazed. Below the rim the neck turns in sharply, the handle fitting below the angle. From the hall.
- 10, 11 and 12. Strap handles from jugs; partly glazed on upper surfaces. No. 10 from the black layer in the earlier ditch at the S.E. corner, nos. 11 and 12 from the hall.
13. Rim, light yellow ware. From upper silting of ditch in front of hall.
14. Rim, black section and yellow surface. From yellow silting in middle layer of ditch in front of hall.

FIG. 8

1. Pot with sagging base, undecorated but with pronounced rilling on lower body. Pink ware. From double-bottomed rubbish pit.
2. Rim, very coarse gritty ware. From slope between hall and ditch.
3. As no. 2 above, grey, rough and gritty. Same provenance.
4. Rim, pink. From north end of hall.
5. Rim, thin ware, grey with reddish surface. From the hall.
6. Rim, pink ware. From the hall.
7. Rim, yellow. From the hall.
8. Rim, gritty grey ware with yellow surface. From the hall.
9. Rim, as above. From the hall.
10. Rim, porous and gritty. From the hall.
11. Rim, gritty black section, yellow surface. From the slope between hall and ditch.
12. Rim, as above. Same provenance.
13. Rim, yellowish. From the entry.
14. Rim as above. From the entry.

METALS

BRONZE. *Needle* (fig. 8, C). The needle is 2.7 in. long and rather thick; the head hammered flat and a large oval eye bored through it. Found in the hall.

IRON. *Knife* (fig. 8, A). Blade and part of tang. The tip of the blade missing, but overall length 3.5 in. Found in the hall.

Arrowhead (fig. 8, B). 2.5 in. long. The head which is narrow and diamond shaped in section passes down into a broader round socket. From the hall (*cf.* London Museum Medieval Catalogue, Type 8, developed 'in answer to the increasing use of defensive armour'. Our head is fairly early in the series and can probably be referred to the 13th century).

Horseshoe. Fragment, found in the hall. Surface indications show two nail-holes, but an X-ray photograph made in the laboratory of the Ministry of Works showed four squarish holes, and indicated that these were near the damaged edge, which is 'wavy'. Wavy edges are found until the middle of the 13th century.

¹ T. C. M. Brewster, 'Two Medieval Habitation Sites in the Vale of Pickering', *Studies in Yorks. Arch.*, no. 1 (1952).

² Dated by a coin of Henry VI in the upper level.

³ *Y.A.J.*, XXXIX (1956), 67-85.

⁴ Mr. J. Anstee who reconstructed these pots has pointed out that they are composite, the base being made separately from the body. The marks of the join are clear.

Nails. Six; one from north-east gatepost hole, two from sleeper trench, the rest from the hall.

A *ferrule* was also found, and other unidentified objects.

LEAD.

Two pieces of lead were found in the double-bottomed rubbish pit. The smaller piece was submitted to the laboratory of the Lead Manufacturers' Research Association at Greenford, to whom we are indebted for the following analysis:

Silver, 0.005%
Copper, 0.013%
Lead, 99.8%

'This sample consists of lead which has solidified from the molten state in contact with some irregular-shaped fibrous substance and is consistent with the suggestion that it may be the result of molten lead falling into a mass of straw'.

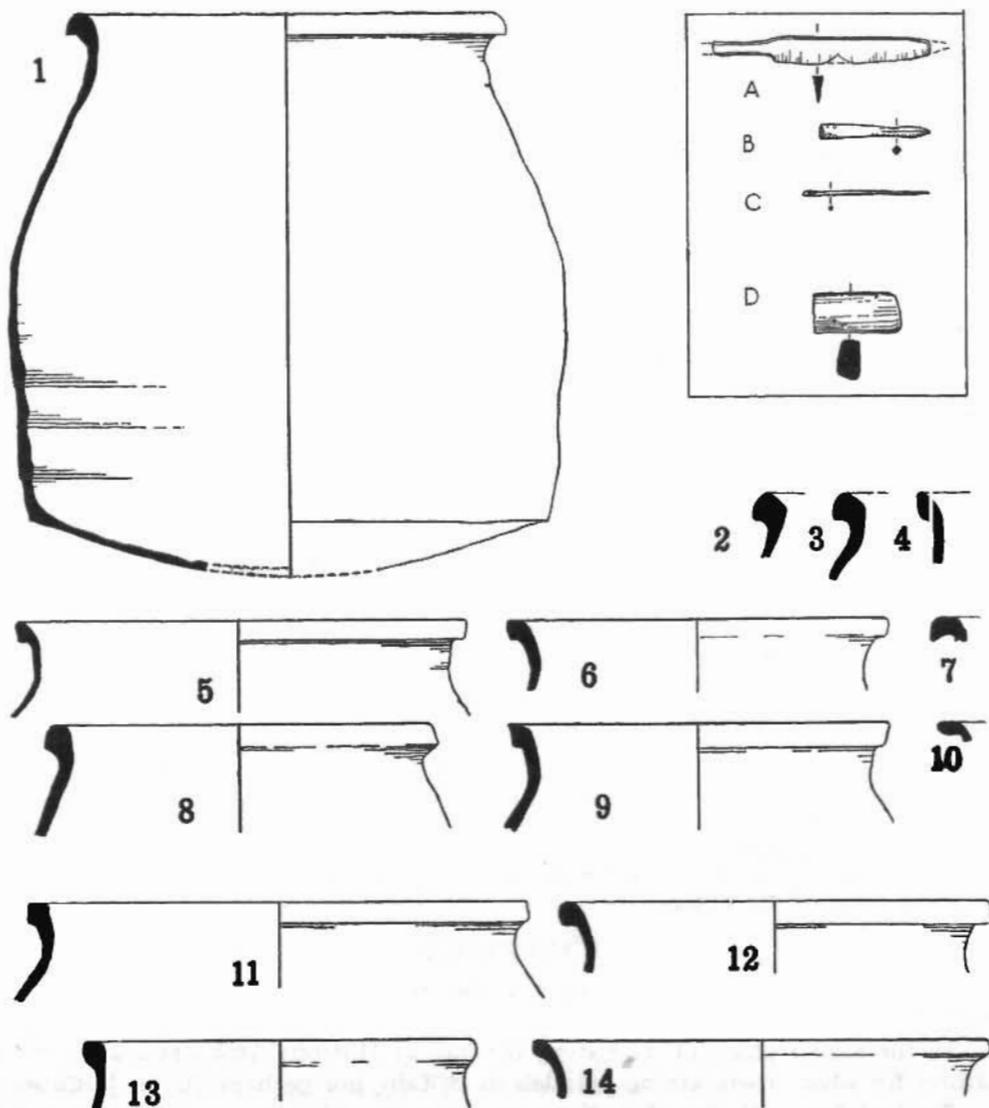


Fig. 8. Pottery and small finds (†)

The larger piece, approximately 8 in. by 3 in., shows this 'fibrous substance' more clearly and for this reason the lead was sent to Dr. D. M. Turner in the Department of Agriculture at the University of Leeds. I am indebted to her for a letter on the nature of the 'fibrous substance' from which the following paraphrase has been made:

Identification from imprints on the lead:

Edge or lobe of leaf, probably oak; a straw; pieces of grass.

Identification from plant remains:

Flakes from the straw groove confirm that it was barley. Parts of lemmæ and outer coats of barley grain were found elsewhere. A few disrupted pieces of grass.

A small piece which is probably Common Rush, *Juncus communis*.

It is not possible to say whether the barley was of the two, four or six-rowed types. It is unlikely that a floor would be strewn with unthreshed barley, and possibly the lead came from a granary. The grains of barley might, however, derive from barley grain.

The present author for his part considers it more likely that the lead was spilt in some casting operation, either inside or outside the hall. The latter view might explain the grass. Moreover, it seems more probable that an operation such as this would not have been done in a timber building. The presence of rush is interesting, since it clearly was not growing by the hall.

MISCELLANEOUS

JET. A shapeless lump, 6 in. by 3.5 in. and 3.5 in. thick, was found in the double-bottomed rubbish pit at the north end of the hall. It was examined in the Ministry's laboratory and proved to be Whitby jet. Whitby is 30 miles from Hutton and this was probably picked up from the beach. It was presumably intended for the manufacture of buttons or beads, although none were found on the site.

WHETSTONE. A fragment, 1.8 in. long, was found in the hall area (fig. 8, D). Both upper and lower surfaces were smoothed by rubbing. Mrs. June E. Morey of the Geological Survey has kindly written the following report:

The hone is made from a muscovite granulite. The rock is composed of sub-angular quartz grains (which average 0.1 mm. but may reach 0.4 mm. in diameter), a considerable quantity of interstitial muscovite flakes (0.1 mm. long) and a little almost colourless chlorite. Iron ores—magnetite and limonite—occasional grains of apatite, rounded grains and numerous aggregates of granules of epidote are also present. Calcite occurs in patches.

The granulite is similar to the granulite of a number of hones sectioned from archaeological sites in Yorkshire (ENQ's 1047-50, etc. See: *A Petrographical Study of Medieval Hones from Yorkshire*, Morey and Dunham, *Proc. Yorks. Geol. Soc.* (1953), XXIX, pt. 2, no. 8). It was suggested that a possible source for the granulite was amongst 'the Dalradian rocks of Strathspey, Gaick and Forest of Atholl district of Aberdeen'. This specimen may have come from that district or further to the north or west of Scotland.

FLINTS. A number of flints, retouched or waste flakes, were found over the site, principally in the area of the hall. There were two arrowheads, five blades, seven scrapers, seven cores, three retouched flakes and sixty waste flakes. One of the arrowheads is small, leaf-shaped and finely worked, retouched on both surfaces. Although no prehistoric pottery was found on the site, these flints must be classified as neolithic.

BONES. A number of bones of domestic animals dating from the medieval occupation were recovered from the hall, the ditch in front, the earlier ditch and the deep pit on the south side.

ACKNOWLEDGEMENTS

The excavation was made possible by the kind permission of the owner, Colonel L. S. Starkey, and the tenant, Mr. F. Revis. The loan of a dumpy level from Malton Council is gratefully acknowledged.

The author wishes to record the generous help given by Professor W. F. Grimes in the preparation of the paper.

APPENDIX

By J. T. SMITH

PHASE I

In the earlier phase of its history the hall at Huttons Ambo presents certain features for which there are no parallels in Britain, nor perhaps on the Continent.

To deal first with the plan, there are two opposed entrances at the east end of the gable walls, in the corners. Such a placing is extremely rare and quite

different from the normal medieval mode of entry (in ground-floor halls) by means of a cross passage. The cross passage is a universal feature of surviving medieval houses, modified only by the occasional omission of the second door at the far end where local conditions made it useless¹. This deviation from custom at Huttons Ambo suggests that the plan belongs to a tradition quite different from that of the late middle ages, but the lack of close parallels makes it difficult to be more precise. The boat-shaped houses at Trelleborg had doors at the ends, as had the two most substantial buildings at the Hallstatt site on the Goldberg². Perhaps it is to a Scandinavian or north European tradition that this hall in the Danelaw belongs.

The situation of the doors must inevitably have made a centrally-placed hearth inconvenient. Although no certain Phase I hearth was found, the Phase II hearth is so conveniently sited in relation to the earlier hall that it may have done duty at both periods.

The Phase I structure is not easy to reconstruct. The trenches or slots may well have housed timber sills, but if so the curved alignment of the W. wall points to a very crude method of setting-out. Alternatively, these footings trenches might have housed upright split logs such as are still to be seen in the church at Greensted in Essex³, or whole logs as at Goldberg. With these two last methods the depth to which posts were driven in would inevitably vary slightly, so causing a few deeper post-holes to appear along the line of the trench; this was so at Trelleborg. The absence of such variations at Huttons Ambo argues in favour of timber sills.

Now timber sills may serve to carry either a timber framework with some lighter material filling the spaces between main posts, or a solid timber wall. The former method is common in the later middle ages but it is quite uncertain when it originated. It is normally associated with the use of sill-beams, but if the infilling is to be durable and weatherproof exact carpentry and tight jointing are essential. For these reasons any construction comparable to the late medieval timber framework is unlikely.

The second possibility is that the walls were built either of horizontal or vertical logs. Horizontal timbering is a very ancient mode of building, one widespread in northern Europe, which demands careful treatment of the corners to ensure stability. This was normally achieved by crossing the timbers of the gable walls over those of the side walls and fitting them together with a notched joint⁴. This means that there is an overlap of timber at each corner, so that at a corner built in this manner the sill trenches would cross too. Since this feature is absent at Huttons Ambo the use of horizontal logs is improbable, though the width of the footings trenches is actually enough to allow for a slight overlap. Even if another mode of corner timbering had been used, one must suppose some extra support at the corners for which evidence is entirely lacking.

¹ E.g., the hall of Stokesay Castle. *Arch. J.*, CV (1948), Suppt., Pl. XIV.

² P. Norlund, *Trelleborg: G. Bersu, Vorgeschiedliche Siedlungen auf dem Goldberg bei Noydlingen*; plan reproduced in V. Gordon Childe, *Prehistoric Migrations in Europe* (1950),

224.

³ Royal Commission on Historical Monuments, *Essex*, II, 112.

⁴ S. Erixon, 'Corner Timbering in N.W. Europe', *Folkliiv*, 1937.

We are therefore left with vertical timbers placed close together as the most likely solution, since with this technique the corner construction is compatible with the archaeological evidence.

At Greensted where the walls are built of split logs, the corner is turned by a three-quarter log. A sill is obviously desirable in order to provide a firm base for the split logs, and similarly a wall-plate is required, in order to tenon the head of each log into it and so enable the wall to resist roof thrust more easily. The precise structural form cannot be inferred, but at least it must have been much less regularly and accurately built than the nave of Greensted church, to judge by the lack of alignment in the W. wall.

The walls of Greensted church are hardly more than a man's height, and no more need have been provided in a house. The walls of surviving 14th century aisled domestic halls are not much more than 6-7 ft. high, the provision of light being hardly considered important in such a building; hence we may assume a low wall, which in conjunction with a steeply-pitched roof might be able to resist a considerable thrust.

Nevertheless, when we reconsider the roof even in conjunction with a heavy timber wall, some internal support seems essential. Again the lack of significant variations in the width or depth of the sill trenches limits the possibilities. The thickening of the N. wall-trench may be connected with a stout post to carry the roof ridge, but since it has no fellow in the S. wall, this must remain uncertain. Similarly, the projection midway along the W. wall-trench lacks a counterpart on the E. side.

The position of the hearth may perhaps be a clue to the roof construction; its placing may have been dictated as much by the presence of a roof ridge as by the two doorways. Now in the north of England, in Lancashire and Westmorland, and probably in Yorkshire, medieval roofs are normally built with a ridge¹. This is in marked contrast to the practice in the English lowlands, where the roof covering was normally carried directly by pairs of common rafters pegged together at the apex, no ridge being used. Furthermore, in Lancashire and Westmorland side fireplaces are almost invariable in open halls², in contrast with the lowland practice of the open hearth. The Goldberg houses, too, show the feature of the non-axial hearth, which like the side fireplace appears to be either an attempt to avoid setting fire to a roof ridge or a sign of the carpenter's inability to contrive an axial smoke outlet which would involve breaking the ridge-beam.

The span of the hall, about 23 ft., demands some form of internal support, of which there was no sign at Huttons Ambo, unless the first cutting of the post-holes numbered 5-10 be associated with Phase I. Structures with a single row of posts parallel to the long axis of the building are hardly known to have existed; the farm at Mayen in its earliest Roman phase (1st century A.D.) has been reconstructed thus³, but since it is unique, it is not a very safe analogy.

¹ Based on Royal Commission on Historical Monuments, *Westmorland*; Henry Taylor, *Old Halls of Lancashire and Cheshire*; and for Yorkshire, on illustrations in a variety of local publications. The evidence for this last county is admittedly unsatisfactory. The question is

discussed more fully below, p. 89-90.

² As was noted by Sir Cyril Fox and Lord Raglan, *Monmouthshire Houses*, I, 88.

³ *Bonner Jahrbucher*, vol. 133 (1928), reconstruction, pp. 141-52; the plan only is reproduced in Olwen Brogan, *Roman Gaul*, 122.

An alternative system of roof structure might resemble the one assumed in the latest reconstruction of the Trelleborg houses¹, using timber sills above ground level. Unfortunately, no evidence was discovered to show definitely what intermediate support the roof had, if any; it is just possible that a tie-beam 23 ft. long without such support rested at one end on a heavy timber housed in the projection from the W. wall footings trench.

PHASE II

Mr. Thompson has described the difficulty of determining the size of the building, which conforms to no known type. The following discussion is thus inevitably vague, and is not a reconstruction so much as a statement of the conditions which a reconstruction must fulfil.

The association of the stone footings with the main series of post-holes numbered 1 to 10 permits a few tentative deductions to be made. The post-holes are irregularly aligned, with a curve approximating to that of the W. wall. They are so irregularly spaced that no combination of them will produce a series of equal-sized bays. Their present uneven disposition may partly be accounted for by the later insertion of some posts by way of repair. If nos. 2, 4, 5, 7, 9, and possibly also 10 are taken to be original they space out fairly evenly to form three bays of 11-12 ft. with two slightly larger bays to the S. Such irregularity is no more pronounced than in other early timber buildings known by excavation. On this hypothesis post-holes 3, 6 and 8 are repair work, and, indeed, the fact that the last two are considerably shallower than their (original) neighbours may argue in favour of their later date.

These post-holes can hardly have been placed to one side of a rectangular building in the way noted in the Roman farmhouse at Mayen for there is no trace of a wall footing on the E. side sufficiently near to meet the case. Presumably they formed, as Mr. Thompson has suggested above (p. 73) a row of posts down the middle of the building, a form of construction for which no excavated parallel has been found in Britain and few elsewhere.

Such a construction has, however, been inferred by German writers who have investigated the history of timber building in their country. They presume from surviving roofs the existence of an earlier vanished type of building which had a row of posts down the middle, supporting a ridge-purlin or ridge-tree².

In my opinion it is possible to relate surviving English medieval roofs to this German hypothesis, and to do this will necessitate a lengthy digression. In lowland England it can be shown how roofs develop from aisled buildings dating from the 13th and 14th centuries. The arcades or colonnades which gave support to a wide span are gradually superseded in the 14th century by roofs which derive part of their support from kingposts standing on tie-beams, thus clearing the hall of inconvenient posts. The actual roofs consist of pairs of rafters coupled at the apex

¹ *Aarbøger* (1952), 108-66.

² See a diagrammatic reconstruction of this type in H. Walbe, *Das Hessisch-Fränkische*

Fachwerk (Giessen, 2nd edn., 1954), fig. 68 following Josef Schepers, *Das Bauernhaus in Nordwestdeutschland* (Munster, Westphalia, 1943).

and joined by collars which rest on a collar purlin supported by kingposts¹. The important thing to note about this class of roof is that no ridge is ever used.

By contrast there is a second and quite different category of medieval roofs which does always employ a ridge purlin. The ridge is supported by heavy kingposts which are themselves carried on tie-beams or collars and are held firm by principal rafters. The principal rafters are either tenoned at the foot into a tie-beam or have the collar tenoned into them; in all the early examples the upper end of the principals abuts the kingpost, not the ridge. This type of construction seems to have a predominantly highland distribution. It is one of several 'highland zone' modes of construction, all of which involve using a ridge. The contrast between this type and the previous one can be seen in the volumes of the Historical Monuments Commission; medieval roofs in Westmorland (excluding crucks) are solely of the latter type, those in Essex solely of the former.

Now the ridge-purlin type of roof is, so German archaeologists think, derived from a primitive type of building with a middle row of posts. It can be proved from surviving examples that the other class, roofs of coupled rafters, derives from the abolition of two arcades; it is possible, therefore on English evidence, that a similar process was at work to produce our ridge-purlin roofs, except that only a single 'arcade' had to be removed.

If this hypothesis be accepted, the hall at Huttons Ambo becomes intelligible and may even fit into a coherent pattern of development. Though much larger than the small and crudely-built Anglo-Saxon huts at Sutton Courtenay², it yet belongs to the same structural class or family, of which the distinguishing characteristic is the use of a ridge-purlin and posts to support the roof.

It is remarkable that this manor-house should have retained such a primitive form of structure right into the 13th century. The building technique is equally primitive. That the footing is not well built is perhaps not surprising in view of the enormous demand at this period for stone buildings of many kinds which may well have diluted the mason's craft, and in any case the really good masons would not have undertaken so small a work. The carpentry also was inexact. The lack of careful alignment in the posts implies that the ridge-purlin did not have to be fitted by a mortice-and-tenon joint to the head of each post; some simpler and weaker joint sufficed. Only the exact setting-out and tight, precise jointing of the late middle ages enabled a carpenter to join posts to beams by the diagonally-placed struts which would keep a wooden building stable for centuries. The Huttons Ambo hall, lacking such refinements, was no doubt as rickety and fundamentally unstable as its plan suggests.

We may now reconsider the plan. Our hypothetical ridge-purlin roof precludes an open fire in the middle of the house immediately below it, hence the necessity of placing it in one of the two aisles. South of the hearth, in the W. wall, is a large opening which was apparently intended for a pair of doors, unless it has been robbed on the S. side. The lack of post-holes for the jambs may indicate that they were built on the sill, the centre post being provided as a door-check. By its width

¹ This development was outlined briefly by Sir Alfred Clapham in the Historical Monuments Commission Inventory of *Essex*, IV. For greater detail see J. T. Smith, 'Medieval Aisled Halls',

Arch. J., CXII (1936), 76-94.

² *Archaeologia*, vol. 92 (1947), plans at pp. 85, 86, 88, 89.



A. Looking westwards across the Hall; post-hole No. 6 in centre, hearth in left background



B. North end of Hall looking east; rubble extension wall in foreground, post-holes Nos. 2, 3 and 4 in cleared area

HUTTONS AMBO, YORKSHIRE



A. The entry to Enclosure II. South side with S.-E. post-hole and Roman ditch



B. The wall embedded in the bank at the S.-E. corner of the enclosure
HUTTONS AMBO, YORKSHIRE

this doorway (if unrobbed) must have been the main entrance to the hall; if it was so, this was presumably the lower end of the hall, or at least that is what would be expected in the light of contemporary lowland practice. The superior end was towards the north, and if the more southerly of the two possible sites for the N. gable wall be accepted, it implies that a considerable part of that end was virtually unheated. The functional differentiation of the N. end from the hall proper which is suggested by the proportions of the plan may correspond to the structural differentiation suggested by the three small post-holes on the E.-W. line. It may thus be reconstructed as a hall and inner chamber; a freestanding kitchen was no doubt somewhere to the south.

This reconstruction is tentative, even speculative, written in the hope of stimulating discussion which may produce more definite conclusions and in the belief that it is better to try to make positive deductions now than to wait perpetually for clearer evidence. There remain a number of questions to which no answer can be attempted. Why is post-hole no. 10 placed beyond the S. wall? Does it in fact belong to Phase II? Even in such elementary forms of building construction one expects to find the terminal support of a ridge-purlin incorporated into the structure of the gable end. It may be that the Phase II builders were so unaccustomed to working with stone that they could not achieve the union of two main architectural features; a terminal post and the sill on which it stood. Such a post, if there is not a good mortice-and-tenon joint at its base, is dangerously insecure, while a post embedded in the ground might have been difficult to incorporate into a timber wall; for this reason it is possible that post-hole no. 10 does really belong to Phase II. Unfortunately, we do not know how the roof terminated at the N. end, where there was no corresponding exterior post-hole; on later lowland analogies a hipped termination is possible at the upper end of the hall, combined with a gable at the lower end. There may, however, be insuperable difficulties connected with a ridge-purlin roof which would have made such a solution impossible at Huttons Ambo. Certainly there is no evidence that the hipped type of roof was ever used in the highland zone in conjunction with a ridge-purlin.

The Institute is indebted to the Ministry of Works for the grant that has enabled this paper to be published.