

VII

EXCAVATION AND SURVEY IN NORTH TYNEDALE, 1973-1975

Barbara Harbottle and T. G. Newman

THE ARCHAEOLOGICAL work begun in 1972¹ was continued on the north side of the valley for a fortnight each August, 1973-1975 (plates VII to X). We are once again grateful to the Forestry Commission for permission to excavate on all three sites, and at the Belling Mill to Mr. Cowan, the tenant, to the University of Newcastle for financing the operation in 1973 and the Department of the Environment thereafter, and to the Northumberland County Council for allowing us to hire the Kielder Field Studies Centre. We acknowledge with thanks the help of several people, named below, in identifying and reporting on the finds, and of Miss Yvonne Brown in drawing the clay tobacco pipes, and we remain as indebted as ever to the excavators, and full of admiration for their industry and good humour in the face of climatic extremes.²

In 1973 eight deserted sites of medieval or post-medieval date were known to exist on the north bank: these were in addition to those described in the previous report. With regard to seven of them, it was decided to excavate only those for which the documentary evidence was minimal or non-existent, i.e. Belling Mill, Sandboard Knowe and Long Walls, and to limit work on the others to a historical summary and, where possible, field survey (see fig. 1). Accounts of Bellinghugh Head and Woodhouses are included in this report; notes on Kennel and Black Arm will follow on another occasion. The eighth site of this period (Double Dykes) lay within the native settlement on the west bank of the Pot Burn and has been excavated by Mr. Jobey.

The principal questions which excavation could be expected to answer were their dates of origin and abandonment, and further work on the documentary sources suggested some possibilities. With the exception of Woodhouses, these sites lay beyond the mid-sixteenth-century frontier of permanent settlement as defined in the previous report. For this reason, and also because there is written evidence for their occupation in the seventeenth and eighteenth centuries, it was assumed that Belling

¹ Barbara Harbottle and T. G. Newman, "Excavation and Survey on the Starsley Burn, North Tynedale, 1972", *A.A.* 5, I (1973).

² Mr. P. and Mrs. J. Bettess, Miss J. Blair, Mr. H. Brumwell, Mr. W. Bush, Miss A. and Mrs. J. Carlyle, Mr. P. Clack, Mrs. M. Ellison, Miss E. Evans, Mrs. M. Fadian, Miss M. Finlay, Mr. I. Gale, Mr. A. Gibson, Miss J. Harmer, Miss L. Harrison, Mr. T. Hornshaw,

Mr. D. Macdonald, Mr. C. and Mrs. L. North, Miss C. Owen, Mr. Q. and Mrs. P. Pickard, Mr. S. Potter, Mrs. I. Price, Mr. A., Mrs. F. and Messrs. G. and D. Reed, Miss D. Roberts, Mr. J., Mrs. M., Misses J. and R., and Mr. E. Slade, Mr. M. and Miss H. Snape, Miss J. Stafford, Mr. A. Tyson, Miss R. Wolfe, Mrs. M. and Mr. N. Wright, Mr. G. and Mrs. J. Yates.



BELLING MILL: storeroom at the west end of the kiln



BELLING MILL: the kiln



BELLING MILL: entrance to the kiln flue



BELLING MILL: interior of the kiln



SANDBOARD KNOWE: boulder and clay wall



SANDBOARD KNOWE: south entrance and external flagging



SANDBOARD KNOWE: the eastern addition to the principal house



LONG WALLS: hearth at east end of house

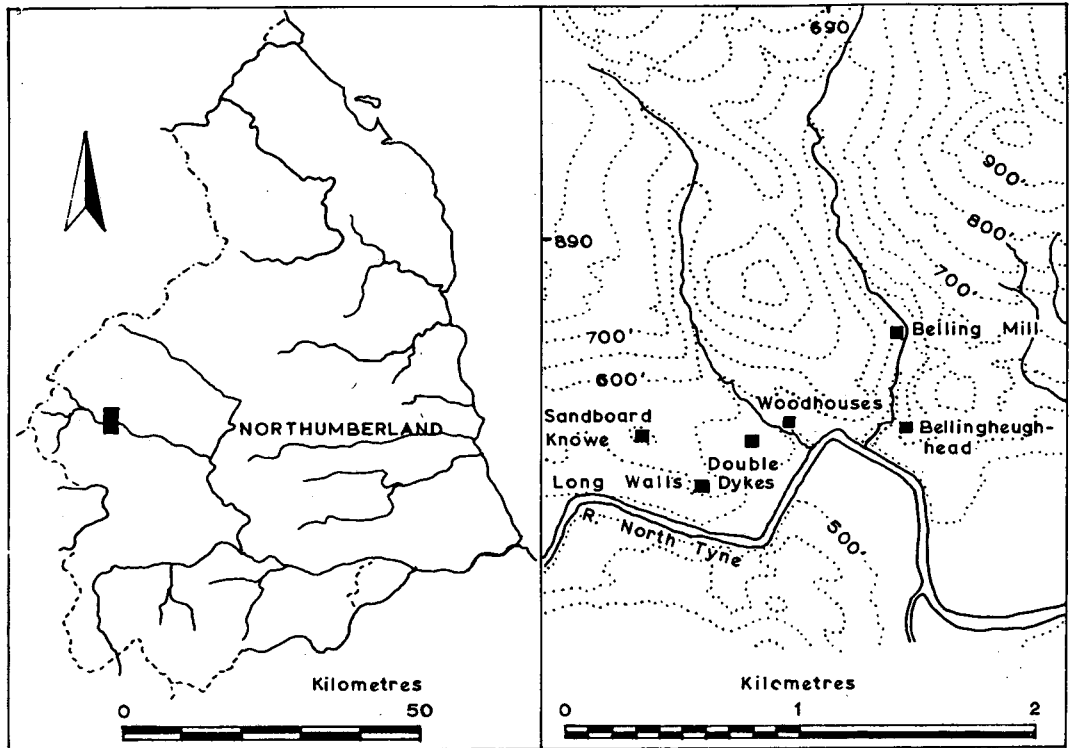


Fig. 1.

Mill, Bellingheugh Head, Kennel and Black Arm were late sixteenth or more probably early seventeenth century in origin, and were part of further colonisation of the upland waste. While it was possible that Double Dykes was also in that category, Sandboard Knöwe and Long Walls were not identifiable in the written sources since their true names were not known, and they could in theory have been shielings, farms abandoned in the Middle Ages, or—like the others—farms with a wholly post-medieval existence.

The available documentary evidence suggested that the last explanation was the most probable since four place-names, which could not be tied to individual sites but which did seem to be associated with the area in question, were found to recur in documents of the seventeenth and eighteenth centuries. Three—Craig- or Craggsiel, Beggar- or Boggarlaw and Longlee- or Langleyshank—all existed in the seventeenth century and one, London or Little London, first appeared in the mid-eighteenth. Craigshiel, indeed, may have originated in the latter part of the sixteenth century since it is shown west of the Belling on Christopher Saxton's map of Northumberland in 1576. It was first associated with Langleyshank and Beggarlaw in 1654 when the three places were listed among lands of the Charlton

family,³ and their general location was confirmed in 1663 when Craigshiel and Beggarlaw, then in the possession of Sir Edward Charlton, were described as in Tynehead Quarter,⁴ i.e. the north side of the valley between Falstone and Deadwater. Evidence for a more precise siting and for the emergence of one large unit from the combination of several small ones can be had from such Land Tax returns as survive between 1749 and 1774 where all three places were grouped in a single entry with London and Woodhouses.⁵

Because the names of these sites have not been found after 1774 their abandonment during (or possibly before) the last quarter of the century seems certain. Their ultimate fate was absorption into the Belling Farm which appears to have assumed something near its final form, if not its final name, by 1780, rather earlier than hitherto supposed. A comparison of the 1774 Land Tax returns with those of 1780 makes the point. In 1774 eight units were taxed separately—Belling; Starsley; Stonehouse and Birniehill; Bellingheugh Head; Kennel; Woodhouses, Mr. Robson's lands; Longleeshank, Craigshiel, Beggarlaw, London and Woodhouses; and Belling Mill, which was held by Thomas Ridley.⁶ In 1780 Thomas Ridley held Kennel, Law, Starsley, Woodhouses and Belling as one, and Rev. Mr. Murray had Bellingheugh Head,⁷ though that too had disappeared from the list by 1791.⁸ The two references to Woodhouses in 1774 are confusing, but new evidence has been found to show that "Mr. Robson's lands" were not permanently included in the amalgamation until in or after 1798, (see below, p. 126).

There was a reasonable chance that excavation would yield some dating evidence as well as information about the plans and building history of Sandboard Knowe and Long Walls, but no hope at all that it would elucidate their real names. So that there can be no correlation with the places named in the documents we have chosen to use entirely artificial titles—the map of the Belling Farm providing the name of Long Walls,⁹ and Sandboard Knowe being derived from the hill on which it is situated. Both sites were noted by Henry MacLauchlan over a century ago, and it is clear from his descriptions that they have changed little since he saw them. "To the west of the camp [the native settlement within which is Double Dykes] ... on Sandboard Knowe are foundations of building ... with a semicircular addition at each end; and ... south-south-west of the camp on Megg's Knowe [Long Walls] is a similar foundation but without the semicircular parts at the ends; the first

³ *Royalist Compositions in Durham and Northumberland 1643–1660*, ed. R. Welford, Surtees Society, Vol: 111 (1905), p. 153.

⁴ J. Hodgson, *History of Northumberland*, Part 3, Vol. I (1820), p. 304.

⁵ Northumberland Record Office, QRP 5, 9, 11, 13, 16, 22, 24, 26, 28 and 30, Land Tax for 1749, 1751–53, 1766, 1770–74: Tynehead Quarter.

⁶ This reference to Stonehouse is an addition to those in the previous report, and confirms the view that it was occupied into the eighteenth century. The location of Birniehill is unknown; Gordon's Walls is a possibility,

but this would place it in what seems to have been Starsley ground. The difference between Mr. Robson's land in Woodhouses, and Woodhouses is unknown. Belling Mill is one of those few places which are listed under townships in which they are not actually located, in this case Tarsset and Tarretburn; no such name is known in that area and there seems no doubt that Belling Mill was sited on the Belling Burn.

⁷ N.R.O., QRP 37, Land Tax for 1780.

⁸ N.R.O., QRP 39, Land Tax for 1791.

⁹ N.R.O., ZAN Bell 57/18.

impression of the uses of these outworks is, that they were used as places of watching, but not coeval perhaps with the camp."¹⁰

THE SURVEYS

WOODHOUSES (NY 688 883)

Woodhouses now consists of three ruined and largely demolished stone buildings, standing just above the 500 foot contour, and looking south-westwards over the Pot Burn, close to its junction with the North Tyne (see fig. 2). The main building consists of a series of three rooms, and is set into the slope of the land, so that in the middle of the north-east, or back, wall, the ground level outside the house is 1.5 m above the house floor. Apart from this, the average height of the walls is about 0.80 m. There is no internal connexion between the three rooms, and each of them has its own entrance in the front (south-west) wall. The central and eastern rooms are equipped with fireplaces set into the partition walls: the side slabs of the fireplaces remain in position, rising to a height of 1.40 m, and comparable with those at Starsley.¹¹ The eastern room also contains a small piece of walling, abutting the back wall near the fireplace end, the purpose of which is obscure; it could, however, have supported a staircase, for it may be assumed that the building had an upper floor. This eastern room, with the presumed room above it, would appear to have formed a separate, self-contained, dwelling.

The central room, with its fireplace, must also have formed the ground floor of a dwelling, and if an upper floor may be allowed, this upper floor would probably have extended over the western room. The west room was evidently not part of the dwelling, and could have served as a barn or byre.¹² The existing entrance may not be original, for the front wall of this room has been partially reconstructed in very poor dry stone walling, and the room probably used as a sheep-pen in the nineteenth or early twentieth century.

Outbuilding 1 survives to only one or two courses of stonework, but was evidently of poor construction, and very much off-square in plan. From its north corner run traces of two walls which may be field or yard boundaries. Outbuilding 2 is most peculiar, being set into the top of the very steep slope down to the Pot Burn. Its small size (5.50 m × 3.00 m) precludes its use as anything but a small shed, while its situation and its southwestern aspect strongly suggest that it may have been a garden summer-house.

These buildings, except for later alterations to the west room of the main building,

¹⁰ Henry MacLauchlan, *Notes not included in the Memoirs already published on Roman Roads in North-umberland* (1867), 67-8.

¹¹ *Arch. Ael.* 5, 1, 158.

¹² Such an arrangement was not uncommon in the eighteenth century, and may still be seen, for example, at Thornbrough, east of Corbridge.

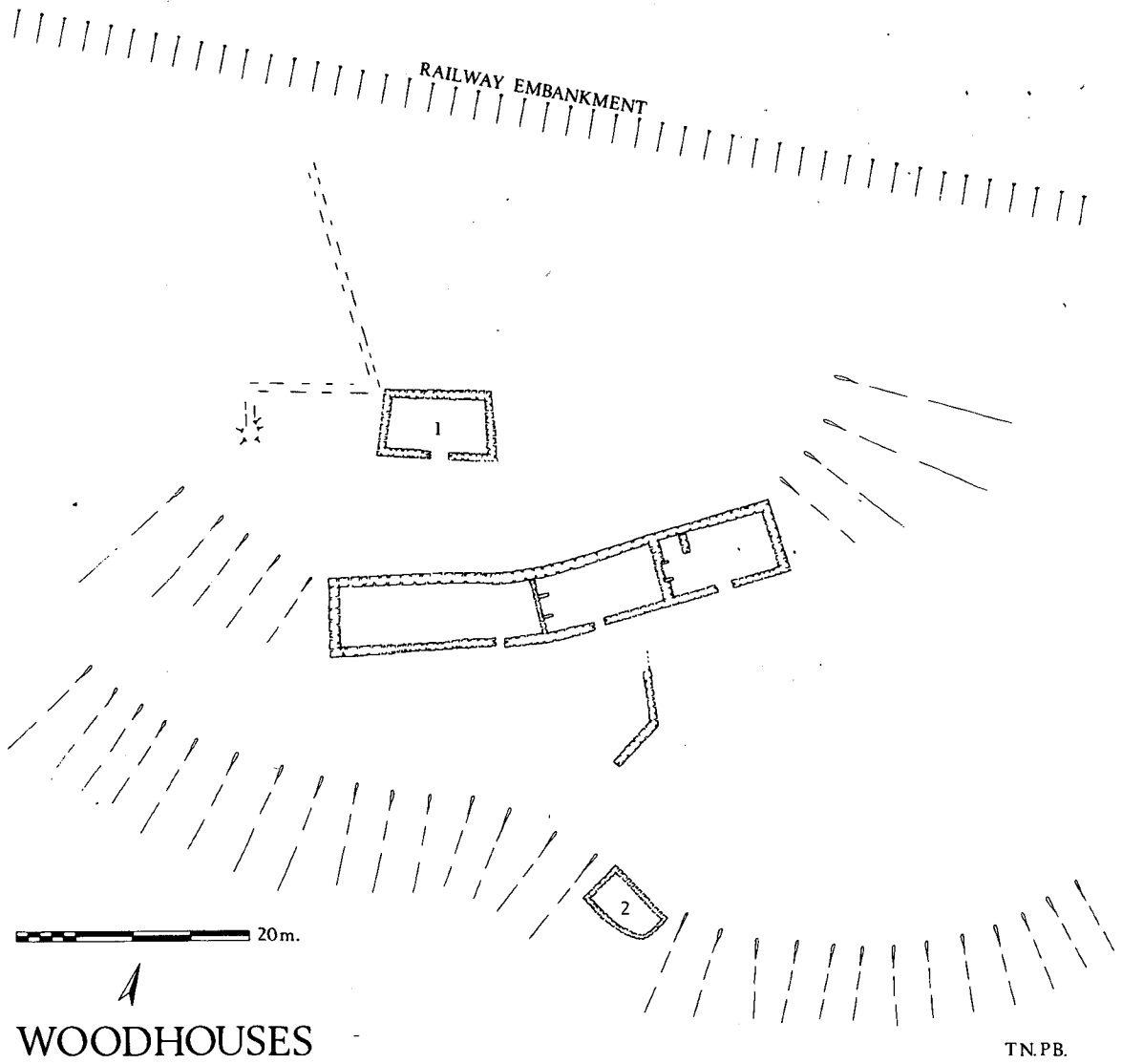


Fig. 2.

may be identified with those erected by "Robson, to whose father Tarsset Castle belonged". There was a cottage for his gardener, which may be represented by the east room of the main building, or less likely by outbuilding 1. Since Hodgson also said that the house "was the first good one that high"¹³ it seems that Robson was of a higher social class than the typical Tynedale farmer of the time. On the other hand, the plan of his house with two dwellings and a farm-building under the same roof, would indicate a working rather than a gentleman farmer, and the Woodhouses land was tilled, not just grazed.

In or before 1795 George Sumner, of Homehill in Cumberland, became the owner of tenements and land amounting to 306 acres called Woodhouses which he let to his tenant at Emmethaugh.¹⁴ This was probably Robson's part of Woodhouses, and its use by a tenant farmer living on the other side of the river would explain why, in 1814, Hodgson found the buildings dilapidated and the field walls thrown down. In 1798 Sumner and John Reed of Chipchase exchanged their properties of Woodhouses and Tarsset Hall in order to consolidate their existing holdings, Reed certainly having an interest in the Law in the early nineteenth century. The story of Woodhouses ended with its inclusion in the Belling farm in or before 1818.¹⁵

The place-name Woodhouses is first recorded in the mid-sixteenth century,¹⁶ and that at least one house earlier than Robson's existed on the same site is indicated by older walling incorporated within the new. Most of the back wall, the north-west wall, and the extreme west end of the front wall are constructed of heavier and better masonry than the other walls; it is 1.00 m thick, on average, and though substantial, is not as heavy as the masonry to be seen in the typical bastle. The east room seems to be all newer work, and the joints are bonded in, but the partition wall between central and west rooms is butted up to the back wall, and bonded with the front wall, confirming the impression that the back wall belongs to an earlier structure. Of the nature of this structure, however, there is little indication.

BELLINGHEUGH HEAD AND BELLING PARK (NY 694 882)

The remains surveyed and described are located south-west of the Belling farmhouse in the field referred to in nineteenth-century inventories as Belling Park,¹⁷ and in a small area beyond the meadow at the Bellingheugh (see fig. 3). The existing farm buildings are not considered here.

The structure at the Bellingheugh must be identified with the pair of cottages noted

¹³ John Hodgson's MSS, Notebook N, pp. 294, 297. (In the library of the Society of Antiquaries of Newcastle.) This statement is difficult to accept until it is realised that all the houses higher up the valley than Falstone were built, or rebuilt, during the mid-nineteenth century. Eighteenth-century housing was evidently of a very poor standard.

¹⁴ Evidence for Sumner's ownership of Woodhouses, and his subsequent exchange of the property is in deeds kindly shown to me by Brigadier and Mrs. Archibald of Wadge Head, Tarsset.

¹⁵ *Arch. Ael.* 5, I, 150.

¹⁶ 1552: W. Nicholson, *Border Laws* (1705), p. 261.

¹⁷ N.R.O., ZAN Bell 65/3.

BELLING HEUGH HEAD AND THE BELLING PARK

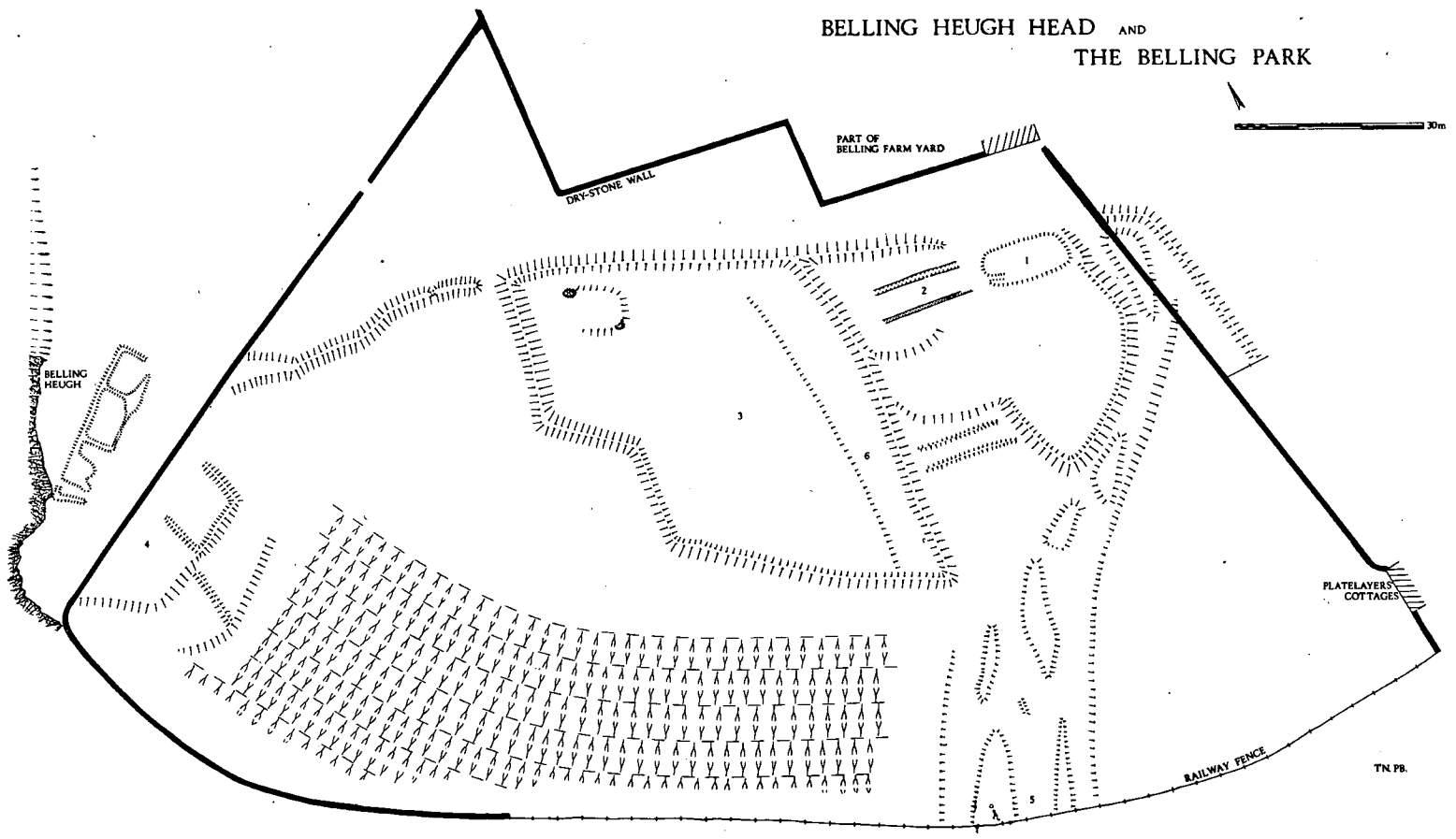


Fig. 3.

by Hodgson in 1814,¹⁸ and marked as Bellingheugh Head on a map of probably similar date.¹⁹ It is impossible to say when they might have been built, and the remains are completely turf-covered, so they may be the result of a single building operation, or of a complex history of building and modification. The earliest documentary reference so far encountered is in the Land Tax return of 1749, the latest in that of 1781.²⁰ Bellingheugh Head seems for a time to have been a land-holding separate from the Belling, but later in origin, and was probably one of the farms established in the post-medieval period, as suggested above. The ruins of the cottages certainly appear more recent than the remains within the Belling Park, and their situation was far from ideal, wedged in as they were between the wall of the meadow and the almost sheer drop of the heugh.

Within, but pre-dating, the park field are a group of enclosures and other settlement remains, which bear comparison with those at the Fawns (but without the defensive banks) and at Hazeldean, Cocklaw.²¹ The Fawns is attested in the fourteenth, fifteenth and sixteenth centuries, and Hazeldean, in all probability, in the sixteenth century. This, together with the associated rig-and-furrow ploughing, allows the Belling site to be broadly fitted into context as a late medieval farmstead or hamlet. The bastle house which formerly existed at the Belling,²² however, was incorporated in the farm buildings, and thus was clearly outside the area under consideration.

Only one building (at 1 on the plan) can be identified with certainty, though the parallel depressions at 2 may mark the robbed foundations of another. Other suitable building sites might be in the north corner of enclosure 3, where there is a rocky plateau, and in the enclosures at 4. The enclosures may be presumed to mark the boundaries of yards and gardens, though enclosure 3 is peculiar in having no visible entrance.

The rig-and-furrow cultivation appears contemporary with the enclosures, for there is a clear headland at both ends of the furrows. The original extent of the cultivation cannot be determined, for it has been clipped by the railway, but its area was probably not much greater than can now be seen: beyond the railway line the ground falls very steeply to the haugh. It must be presumed that there were other adjacent areas of contemporary cultivation, but that they have been obscured by afforestation.

Before the construction of the railway, the Belling was a minor focal point in the communication system of the valley. A major track-way can be seen entering the park (at 5 on the plan), and curving towards the Belling farmhouse. The multiple furrows of the track can be taken to indicate prolonged use over ground apt to be wet; indeed the field has a general slope towards 5 from all directions. The track seems contemporary in origin with the occupation of the settlement, so that a period of use of three hundred years, or possibly more, may be envisaged.

¹⁸ Hodgson's Notebook N, p. 297.

¹⁹ N.R.O., ZAN Bell 57/18. Reproduced in *A.A.* 5, I, 149.

²⁰ N.R.O., QRP 5, 38, Land Tax 1749 and 1781.

²¹ G. Jobey, "Further Notes on Rectilinear Earthworks in Northumberland", *A.A.* 4, XXXIX (1961), 90-92, 98-99.

²² N.R.O., ZAN Bell 65/3.

After approaching the Belling farmhouse, the track would seem to have turned northwestwards through the present farmyard to the Heugh, whence it can be traced in a north-easterly direction above the Belling Burn. It is possible that this awkward kink at the Belling was originally avoided by going through the middle of the settlement, and that the lynchet and bank at 6 on the plan denote its earlier and more direct course. If the track is followed along the top of the bank of the Belling Burn, its junction with the old road from Hawkhope can be traced, after which it drops to the valley floor, and crosses the burn at the Belling Mill. It then heads up a hollow way on its way to Plashetts, and is almost immediately lost in the trees. In the other direction, the track divides immediately after leaving the Belling, a branch going to the Law by way of Woodhouses, while the main part goes south across the haugh and fords the Tyne to Shilburnhaugh, whence tracks fan out to the main valley road, to Yarrow and to Yarrow Moor.

With the building of the railway, and the rebuilding of the Belling farm soon after, the line of the track was shifted to the east side of the platelayers' cottages, where it crossed the railway by a level crossing. It may be guessed that the traffic on this and the other tracks on the north side of the river declined from that time on, and most of them were subsequently obliterated by forest planting. From 1960, after the railway had been closed and its track lifted, its course became the normal route to the Belling and remained such until 1976 when the construction of the reservoir began.

THE EXCAVATIONS

BELLING MILL (NY 693885)

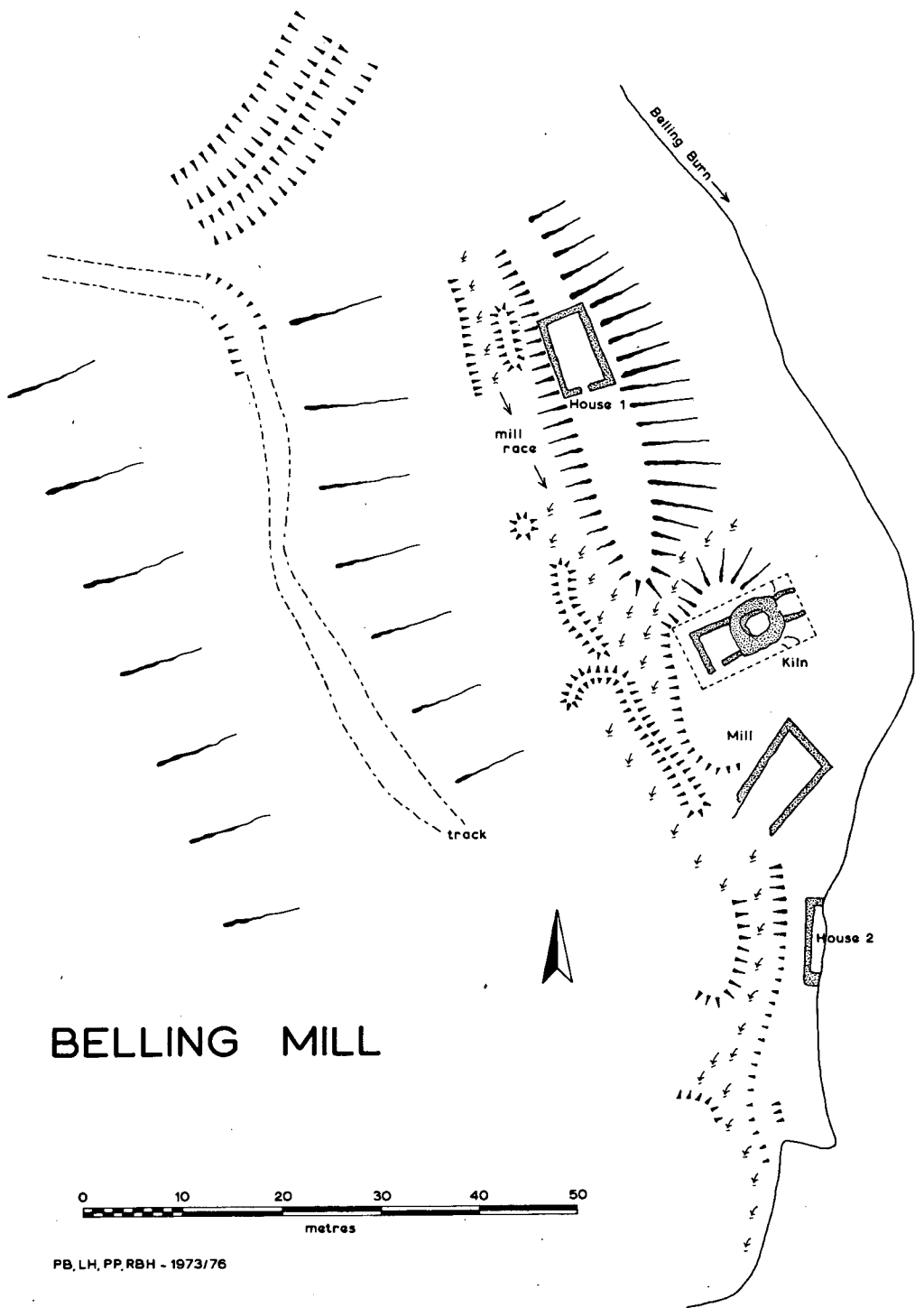
The deserted settlement of Belling Mill lies on the west bank of the Belling Burn about half a mile above its confluence with the Tyne. The earliest reference to the mill was in 1663, when it was held by Edward and Matthew Robson,²³ the latest 1774.²⁴ It was omitted from the Land Tax returns of 1780, and was shown on the map of the Belling Farm merely as "Belling Mill Close".²⁵

The settlement is bounded by the bow of the burn on the east, the string of the mill-race on the west, and consists of four ruined stone buildings set just high enough above the burn to be safe from flooding though not from erosion (see fig. 4). The northernmost building (House 1) was probably a dwelling, measured externally 9.30 m by 5.70 m, and was entered by a door in its south wall. The overgrown walls were approximately 0.65 m thick and, though the north wall contained boulders, the east wall which stood 0.50 m high was constructed of smaller, coursed rubble.

²³ Hodgson, *History of Northumberland*, Part 3, Vol. I, 302.

²⁴ N.R.O., QRP 30, Land Tax for 1774, Tarsset and Tarretburn Quarter.

²⁵ N.R.O., ZAN Bell 57/18, no. 7.



BELLING MILL



PB, LH, PP, RBH - 1973/76

Fig. 4.

The second building from the north was the kiln, and the third the mill. The latter was 6.60 m wide at the east end, at least 12.00 m long and tapered towards the one time position of the wheel. Footings *c.* 0.20 m in height projected beneath walls of mortared, roughly coursed rubble 0.68 m wide: the east wall stood 1.95 m above the footings. Less than half survived of the southernmost building which was perhaps another dwelling (House 2). Although the upper stretch of the mill-race no longer existed it had presumably left the burn close to the head of the waterfall, which was *c.* 46 m north of House 1, and had flowed in a tolerably straight line as far as the mill. Beyond that point, as often happened, the tail race had been left to find its own way back to the burn. Running diagonally up the rising ground west of the site was a surviving stretch of the track which passed the south side of the Mill to link the Belling with Plashetts.

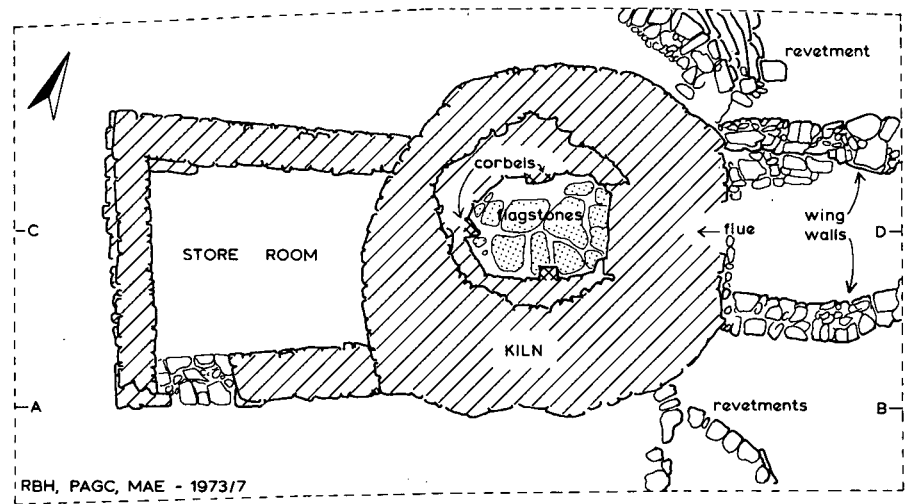
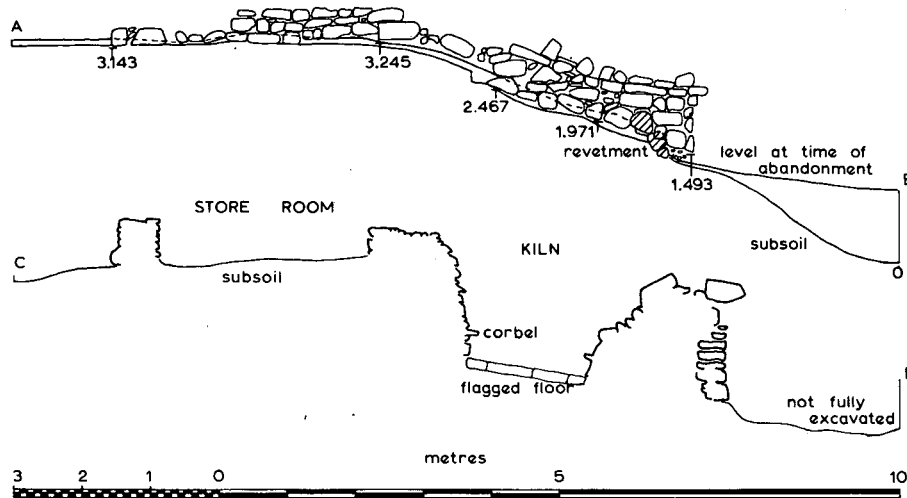
The kiln (see fig. 5) was chosen for excavation in 1973, partly in the hope of obtaining scientific evidence of its function, partly because it had already been attacked by a school group (without the knowledge of either landlord or tenant), and partly because the collapse of the arched entrance to the flue was imminent. It was clear before excavation began that the building was of two parts, the eastern being the kiln proper and the western a small, almost square, room. The whole was so arranged that the room was built on the top and the kiln into the side of the bank of the burn with the flue opening towards the stream. The disturbance by earlier diggers was at the north-west angle of the building, and immediately outside the flue.

The bank on which the kiln was constructed had a rock base similar to that forming the bed of the burn. Just beyond the foot of the bank the rock fell away sharply, but there was not time on this occasion to explore this dip or to discover whether it was natural or man-made. Above, the bank rose in bands of hard orange sand, water-worn cobbles and yellow to brown sand to a height of *c.* 2½ m.

To accommodate the kiln a semicircular hole with sloping sides was dug in the bank, some of the upcast surviving in a small heap to the north. The sides of the hole were then lined with very roughly coursed and mortared rubble which was increased in width to become a proper wall at external ground level. The walls survived to a maximum height of *c.* 1.80 m, and varied in thickness at the top from 0.70 m to 1.50 m. They splayed from a sub-oval flagged floor about 1.80 m north-south by 1.40 m east-west to a circular opening at the top with a diameter of about 2 m, and projecting from the walls about 0.50 m above the floor were three flat stones or corbels.

The room at the west end of the kiln had the external measurements of *c.* 5.10 m from north to south by 3.70 m east to west. Its walls of roughly coursed rubble, bonded with yellow clay, were some 0.50 to 0.60 m thick above projecting footings on the west side, and stood *c.* 0.65 m high. The room was entered through a door about 1.00 m wide at the west end of its south wall: jammed in the stones of the threshold was a small copper coin, probably a William III farthing of between 1696 and 1699 (no. 13). Since its north and south walls abutted on the west end of the kiln it was clear that the room was an addition, but even though it had been necessary to dig a trench for the building of its north wall through layers of vari-

BELLING MILL: THE KILN



RBH, PAGC, MAE - 1973/7

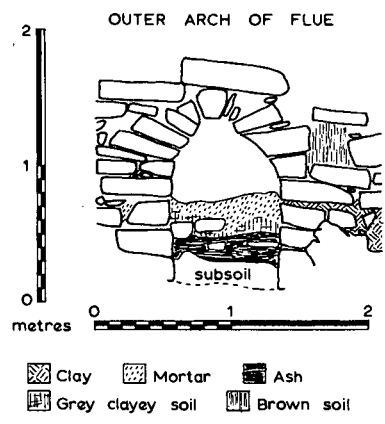


Fig. 5.

coloured sand, probably the upcast from the hole for the kiln, the interval between them could have been insignificant. A fragment of clay pipe stem was found in the supposed upcast. Inside the room the orange sandy subsoil seems to have formed the only floor surface, and showed traces of a channel, small pits and a blackish patch in the centre. There was no clue to the function of this room, and it must be presumed to have stored whatever substance was dried in the kiln.

The stratification outside the structure, to north, west and south, was not complicated. There was a fine pebbly surface in the south-west corner of the trench, i.e. outside the door to the room, and part of the way down the bank. Trodden into this surface were clay pipe stems and a tiny fragment of glass. Over most of the area outside the building to the south there were small cobbles; where these covered the pebbly surface they appeared to be a relaid path, and they were retained in position on the steepest part of the slope by two small revetments, almost steps, the lower consisting of three courses of stones, the upper of one. Below the bottom revetment, however, the cobbles were on sand, and here it was possible they were part of the subsoil. In this area they were covered by yellow-grey clay. The sequence on the slope along the north side of the trench was fairly similar: on subsoil of grey clay there was a substantial revetment, about 1.00 m in height and containing some boulders. Overlapping its foot was a layer of clay which, on this side, overlaid some ash, which had emanated from the kiln flue (see below). Brown soil, perhaps the first layer of topsoil or a collapsed turf roof, covered both north and south revetments, and was in turn overlaid by the tumbled walls, stones lying everywhere in the area of excavation beneath the turf but particularly thickly at the east and west ends.

The interior of the kiln, and the area immediately outside the entrance to the flue remain to be described. They have to be treated separately since the instability of its inner arch made it impossible to clear out the whole flue and so establish the connexion between inside and outside. The outer arch was partly filled with layers of black and red ash, the lowest of which fanned out from the mouth of the kiln towards the east end of the trench, filling the dip in the rock noted above. Found in this ash were clay pipe fragments (nos. 8 and 9) of perhaps the first quarter of the eighteenth century. Built on top of this first level of ash and flanking the entrance were two walls of rubble, *c.* 0.50 to 0.60 m wide and 0.60 to 0.80 m high. It appeared that part of the northern revetment had been removed to accommodate the northern wing wall, and that this may have replaced an earlier one whose footings survived on the south side. Ash produced after the addition of these wing walls was contained by them in the space immediately in front of the kiln. What was not established was the precise location of the fire which produced all this ash. The outer arch of the flue was not burnt, there was no hearth east of it and, as will appear, there was no evidence for a fire within the kiln itself. The remaining possibility was in that part of the flue which could not be examined, the ash being raked out at intervals and spread about outside.

As said already, the bottom of the kiln was constructed of heavy flagstones and, neither they nor the side walls showed any trace of burning. Covering the floor was

a layer of grey clayey soil containing a few stones and unburnt twigs, bark and a birch peg (no. 15). A thin red-orange crust, which had folded up against the walls, separated the grey clay from brown clay. Thereafter the sequence was the same as outside—dark soil beneath heavy stone tumble, which was covered by topsoil, here full of mortar which had washed out of the walls.

Excavation confirmed the dates of occupation provided by the documentary evidence, that is from the mid-seventeenth century to the late eighteenth and, as a result of the pottery found beneath the tumble, suggested that the site may not have been wholly abandoned until after 1800. It did not, however, provide a satisfactory answer to the question of the function of the kiln. In view of its resemblance in size and construction to those used for corn-drying in Ireland and Wales²⁶ that is the obvious solution, and apparently comparable structures are thus interpreted in north-east Cumbria.²⁷ More recently, however, similar kilns in the southern Lake District have been explained as potash kilns.²⁸ Such is the choice: which is the more probable?

To use the kiln for corn-drying the three corbels would have to support vertical posts which in turn would prop a raised floor, accessible from the neighbouring store room and solid enough to carry the grain, but not so solid as to prevent hot air from the fire in the flue being drawn through it, presumably by a hole in the roof. The corbels were too low to be immediate supports for the floor which, at that level, would have cut across the inner arch of the flue, and so have been too near the fire for safety and too near the bottom to allow the air to circulate. No certain remains of the drying floor itself were recovered. It is possible that the twigs and bark found on the bottom may have been part of it, (branches were used for this purpose in the Irish examples), or could one interpret "the tubular concretions containing ferric iron compounds, formed round unknown objects" as evidence for a fine iron grille? Odder than a missing floor was the total absence of grain from the layers inside the kiln. Turning then to the location of the kiln and its proximity to the mill, it is surprising to find that there was a need for these buildings in the mid-seventeenth century at a height of nearly 600 feet O.D. Belling Mill was not, however, the only one in those uplands of Northumberland not noted for corn-growing. In North Tynedale there was a mill near Gatehouse and another at Ridge End, and Mr. John Philipson has reminded us of those at Barrow, Grasslees and elsewhere in Coquetdale. It is nevertheless interesting that most of the north Cumbrian kilns were associated with farms where the small quantity of grain grown could be ground with hand-querens. Finally, it is probably an indication of a fairly early date of construction to find kiln and mill as separate buildings.

While corn-drying is not proved, the making of potash is really doubtful.

²⁶ Sir Lindsay Scott, "Corn-Drying Kilns", *Antiquity*, Vol. 25 (1951), 196–208; *P.R.I.A.* Vol. 26 (1906–07), 270 and plate XX.

²⁷ H. G. Ramm, R. W. McDowall, Eric Mercer, *Shielings and Bastles*, Royal Commission on Historical Monuments, England (1970), 44, 46 and fig. 14.

²⁸ M. Davies-Shiel, "A little known late medieval industry, Part 1. The making of potash for soap in Lakeland", *CW* 2, Vol. LXXII (1972), 85–111; and "Part II: the Ash Burners", *CW* 2, Vol. LXXIV (1974), 33–64.

Admittedly a mill is at hand, but Mr. Davies-Shiel's other criteria are not present, i.e. extensive areas of bracken, and relevant field-names and occupational surnames. We are also left in doubt as to how many of his kilns show traces of burning on the wall surfaces,²⁹ or on the floors, and how many retain evidence of a ledge (comparable with the Belling corbels) on which a pot or floor could rest.³⁰ Dr. S. M. Linsley has pointed out that a pot could not be used without a vertical chimney at the rear of the kiln opposite the entrance to maintain the draught.³¹ The conclusion must be that these kilns are archaeological features worthy of more detailed investigation.

THE FINDS (fig. 6)

POTTERY

J. E. Parsons

The excavation produced a total of seventy-six sherds which dated from perhaps the middle of the seventeenth century to the early nineteenth.

From brown soil over the north revetment

1.*Three sherds, (two conjoined), of a bowl (?), in fine red ware glazed dark brown on both

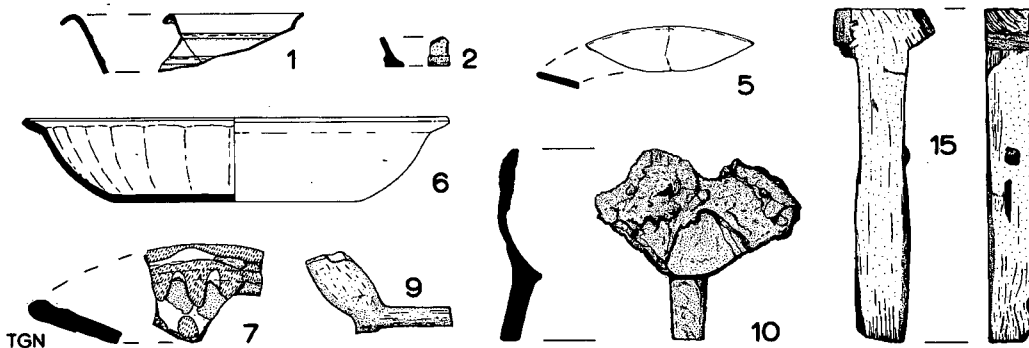


Fig. 6. (1) Finds from the Belling Mill.

²⁹ Davies-Shiel (1972), 89.

³⁰ *Ibid.*, fig. 4 shows a kiln with such a ledge: Davies-Shiel (1974), fig. 2b without.

³¹ Elfhow has a chimney, Davies-Shiel (1972), fig. 1a, but it is not a potash kiln.

sides, and decorated internally with at least two horizontal yellow bands in slipware tradition. Diam. 29 mm. 18th/early 19th century.

From the tumble at the entrance to the flue

- 2.*A tiny fragment of the basal angle of a vessel in off-white fabric, with a single glaze spot on the underside. 17th century?

From the tumble outside the door of the room

3. Three wall sherds of a Bellarmine jug. Second half of the 17th century.
4. Fragment of a dish in red ware with internal tortoiseshell glaze. 18th/early 19th century.

From the soil beneath the tumble in the south-east corner of the trench

- 5.*Two conjoined fragments of the rim of a cream-glazed earthenware plate. Diam. 21 mm. 18th/early 19th century.

From the tumble, and soil beneath it, in the south-east area

- 6.*A large number of rim, wall and base sherds, many conjoined, of a white-glazed dish in cream earthenware, with fluted interior. Early 19th century.

Unstratified

- 7.*Rim sherd of a trail slipware plate, yellow on brown. Second half of the 17th century. Diam. 32–33 mm.

Two sherds were found while cleaning the section left by the burn's erosion of House 2 and its annexe. They both came from dark soil fairly near the top of the section, were both covered with glossy brown glaze and were probably 18th century.

CLAY TOBACCO-PIPES

J. E. Parsons

One complete bowl, part of another and thirteen fragments of stem were recovered, and in general appeared to date from the late 17th into the early 18th century. The two worthy of individual comment were:

From the bottom of the ash outside the north wing wall

8. Stem, with flat spur between two rosettes. This would have terminated in a Parsons type 10 bowl. 1710-50.³²

From the ash outside the south wing wall

- 9.*Bowl with flat spur between initials, one being certainly I. I am grateful to Mr. Adrian Oswald for the following comment: "I read I/C. Parallels in Scotland, e.g. Linlithgow Palace,³³ perhaps one of the Colquhoun family, starting in Glasgow 1668. On the other hand shape-wise there is something in common with Tarboton's pipes from Hull (N. Walls), 1689-1724. However, it is so badly finished in what is clearly a local clay that I feel a Border or Scottish origin more likely. I would think a 1720, give or take 10 years, date likely." Two fragments of stem were found with this bowl.

Of the remainder, one stem fragment was found in the upcast from the hole dug for the kiln, three on the ground surface outside the door to the room, one underneath the upper of the southern revetments, one on top of the early north wing wall, and the remainder from the tumble and topsoil.

GLASS

Small fragments of clear and green bottle glass were found in the tumble outside the building, one beneath the tumble in the kiln, one beneath the tumble in the flue. One fragment of a green bottle came from the ash outside the south wing wall, and a minute sliver from the old ground surface outside the room.

IRON

On the kiln floor

Tubular concretions, identified by Mrs. Alison M. Donaldson as "containing ferric iron compounds, formed round unknown objects".

From black soil beneath the tumble in the kiln

- 10.*Two fragments of a skillet.

³²J. E. Parsons, "The Archaeology of the Clay Tobacco-Pipe in North-East England", *A.A.* 4, XLII (1964), see figs. for type nos.

³³L. R. Laing, "Excavations at Linlithgow Palace", *P.S.A.S.* XCIX (1966/7), 126, no. 12.

From brown soil over the north revetment

11. Half a horseshoe.

From in or just below the tumble

Nine corroded objects of uncertain shape. Most were probably nails.

BRONZE

From the tumble inside the room

12. Small round object, probably a button, with the loop on the back broken.
13. Most of a circular band, flat in section, 5 mm wide and 20 mm in diam.

COIN

Between the stones of the threshold of the door into the room

14. Small copper coin. Mr. G. D. Robson wrote, "There is so little of the surface left that it is difficult to make much of it. However, the form of it suggests a William III farthing of 1696-99, and I think I can make out the letters GV as part of the inscription."

ANIMAL BONES

This has been the only site of the four so far excavated in North Tynedale to produce any animal bones. Thirteen were found and identified by Miss Wendy Greenwood. Those from or beneath the tumble in the kiln were rabbit, and the three from the topsoil in the room were from a 2-year-old sheep.

SOIL SAMPLES AND WOOD FRAGMENTS

Alison M. Donaldson

From the floor of the kiln

Assorted pieces of wood, all *betula* (birch), and bark, probably birch, and all uncarbonised.

- 15.*A birch "peg" was recovered from this material.

From ash in the south-east area and in the entrance to the flue there was charcoal, all *betula*.

From the red-orange crust in the kiln there were abundant rootlets, abundant seeds of *Urtica dioica* (stinging nettle), and one *achene* (pip) of *Rubus fruticosus* (blackberry). There was no trace of burning or carbonisation.

Unfortunately this throws no light on the function of the kiln, indeed these are the types of plants which could grow in the area after its abandonment. The presence of rootlets suggests that they grew actually on a primary or secondary fill of the kiln. Neither plant suggests especially high levels of potash.

COAL

Small pieces of coal were found in the tumble in the room and beneath the tumble in the south-east area.

SANDBOARD KNOWE (NY 682 882)

Sandboard Knowe, or Sandboard Heads as it was called in the early nineteenth century, was a rounded hill rising to 600 feet O.D. about midway between the farms of the Belling and the Law. On its top were the grass-covered ruins described by Maclauchlan who, even if he exaggerated their dimensions at 35 yards by 10, described their surface appearance accurately enough. The site is now surrounded by the Forestry Commission's spruce trees, thus making it impossible to look for associated enclosures, or to see the narrow rig-and-furrow recorded to the east and south by the Ordnance Survey.³⁴ Like the ridge on which Long Walls was situated, the top of Sandboard Knowe was composed of boulder clay, and because this clay was needed for the construction of the dam of the reservoir both sites had to be excavated by the end of the 1975 season, work at Sandboard Knowe being carried out in the rather wet August of 1974.

Although the intention of excavating the whole site was not fully realised, most of a solidly constructed one-roomed house was uncovered, together with a less substantial stone addition at each end. The building overlay one pit (1) which certainly pre-dated it, and contained other features which may have and these, grouped as phase I on fig. 7, will be described first.

Beneath the western annexe there was an L-shaped bank of yellow clay and stones. This was probably the only part to survive of something larger, and hence was probably earlier than the main house, but the stratification was too sparse to confirm this, and nothing was found to date it. Cut into the subsoil in both the house and the eastern annexe were a number of small pits (0.40-0.50 m in diam., 0.25 m

³⁴ Ordnance Survey archaeological record card, NY 68 NE 5.

SANDBOARD KNOWE

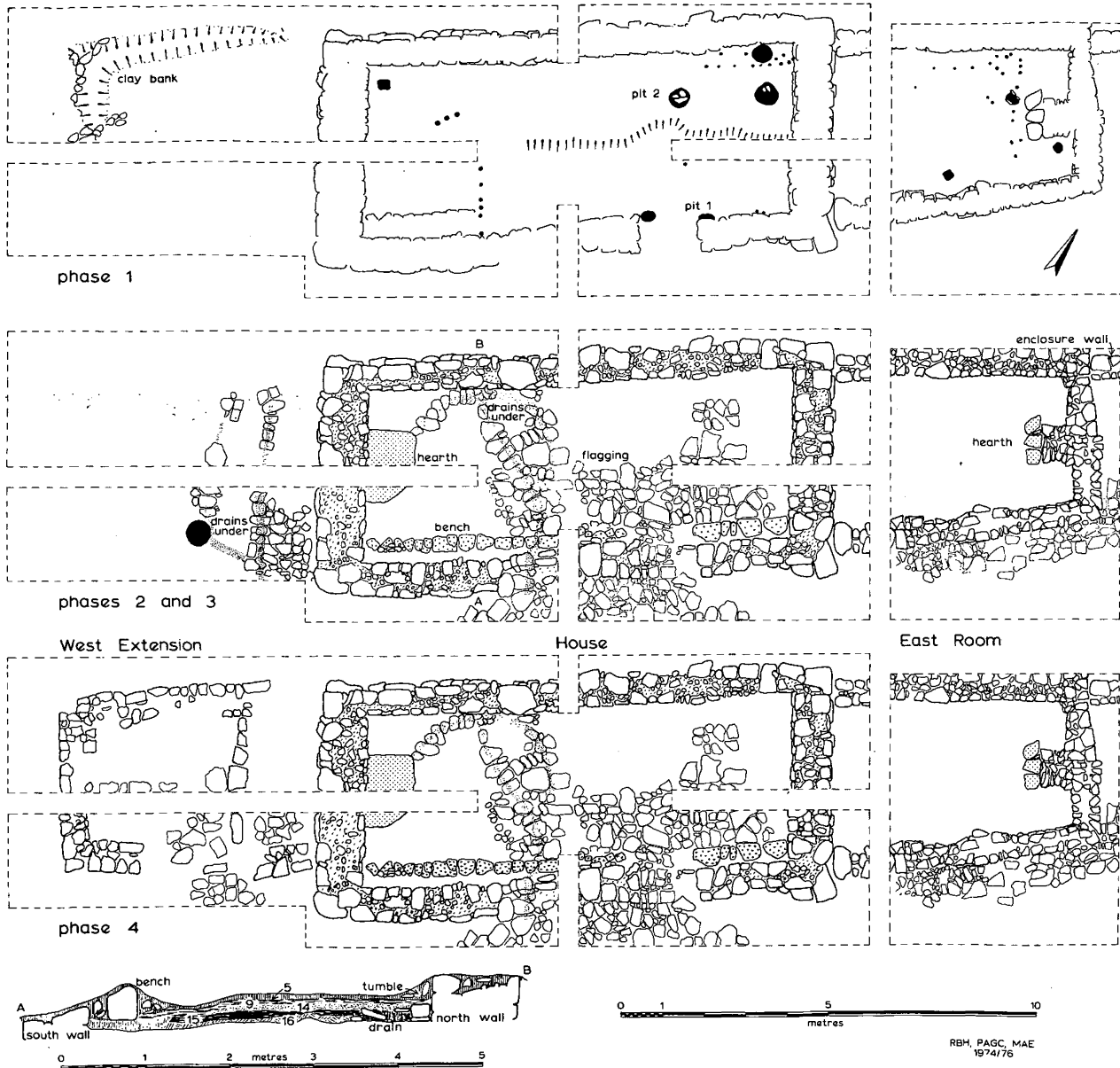


Fig. 7.

deep), post-holes (0.20-0.25 m square or oblong, and the same in depth) and stake-holes (0.05 m diam., 0.10 m deep). Pit 1 was partly covered by the south wall of the house; the rest could have been contemporary with its construction though not with its use since they were covered by floor and occupation layers. No overall pattern emerged; datable objects were found in only pit 2, and these were clay pipe fragments (no. 38) and so probably resulted from early occupation of the house. It was conceivable that there had been some form of human activity on the hill-top before the stone building, but how long before and for what purpose is unknown. The only artifact which was wholly out of context was a medieval sherd of the late fourteenth or early fifteenth century (no. 16), found in an otherwise undated but apparently later layer of ash in the western extension. On the strength of this one find it can merely be suggested that some or all these features may have had a short-lived function in the medieval period.

Next in the sequence was the house itself, 12.50 m long overall from east to west by 5.50 m wide (phase II). Its walls survived to a maximum height of 0.60-0.70 m, and were constructed of clay-bonded rubble 0.80 to 1.00 m thick based on a foundation course of boulders which were set directly on the clay subsoil. A flagged opening *c.* 1.25 m wide survived in the eastern half of the south wall. Against the west wall of the room was the hearth, (though time ran out before this could be fully revealed), and running from it eastwards was a small drain. This began by being built on the surface of the subsoil, with capstones standing proud, and then became a covered groove which forked, one channel going under the south wall of the house, the other dying under the flagging which had been laid to level up the wet, low-lying south-east quarter of the building. The drain and interior flagging were certainly part of the initial layout, and the fragments of pottery, clay pipes and bottle glass found in the wall core, on the subsoil and in the pits could all be seventeenth-century. The pipe bowls found in the drain and pit 2 have been dated more precisely to 1640-70 (nos. 38, 40). Outside the south front of the house the first laid surface was a roughish though compact one of stones of varying sizes.

Much of the evidence for subsequent occupation (phase III) was concentrated around the hearth in the west end of the house. Brown soil (layer 16) covered the subsoil in this area, and over it were successive layers of red and black ash (15). No pottery was found in these levels, but the tobacco pipe fragments (e.g. no. 41) suggested a reasonable sequence of deposits from the mid- into the late seventeenth century. The grey sand (14), which covered most of the west end, was perhaps an attempt to hide the squalor of the ashy floor, and another improvement was the insertion of a stone "bench" along the inner face of the south wall. Once again ash began to spread outwards from the hearth (layers 9 and 5), these later deposits reaching the eastern half of the house where one or two random flagstones had been laid over them. The pottery (nos. 18-20) and pipe fragments (no. 44) from these upper layers of ash ranged in date from the seventeenth into the early eighteenth century. The flagging along the outside of the house, from around its south-west corner to the south-east corner of the eastern annexe, appeared to be another addition, perhaps when the annexe was built, since the flagstones were set on brown

soil which had accumulated over the original stone surface. A pipe stem bearing the stamp of Edward Crages gave this external flagging a *t.p.q.* of 1707-17 (no. 45).

Since the eastern room was not of one build with the house it was clearly a later addition, and was indeed much less substantial. It measured *c.* 6.00 m from west to east, 4.50-5.00 m across, and the walls were one to two courses high and 0.50-0.60 m wide. Because there was no gap in the wall the position of the door remained uncertain. A projection from the inner face of the east wall, with stones set on end flanking one side of three flagstones, appeared to be the remains of a hearth, but burnt patches on the clay subsoil showed that there had also been fires in other places. A thin layer of ash (layer 13) with some small pieces of unburnt coal among it covered most of the interior, and indeed provided the only evidence of occupation. Once again there was no pottery, and only clay pipe fragments (no. 47) were found to give a date of use from perhaps before 1700 into the early eighteenth century. Running east from the north-east corner of this room was the beginning of an enclosure wall.

Because the improvements to the house and the building of the eastern room could not be related to one another with any certainty, plan 2 on fig. 7 is a summary of phases II and III. Also included on this plan are some minor features found outside the house to the west, *i.e.* two small drains beneath intermittent flagging and a pit, all certainly earlier than the stone structure here, and separated from it by a layer of brown soil. The flagstones over the eastern drain, which in its southern part was stone-lined, were at the same level as and probably contemporary with those along the south side of the house. Since this floor was here covered by ash which had been cut through for the insertion of the western drain and then the pit there was a rough sequence of events, even if the purpose of the features remained obscure. Finally came the small western extension, *c.* 4.50 m from north to south by 5.00 m east to west, with walls—where they survived—*c.* 0.80 m wide and with an earth core. It contained a few flagstones and so was perhaps a building rather than just an enclosure or pen.

It seems likely that this little house on Sandboard Knowe was finally abandoned in the early eighteenth century: none of the datable finds appeared to be later than *c.* 1730. One must assume from its situation that it had been a farm but one in which at least the principal room and the eastern addition had been living quarters. From the thickness and construction of the walls it can only have stood one storey high, and the absence of identifiable roofing materials suggests it was covered with thatch or turf. The grey sandy soil which overlay parts of the floors was perhaps the fallen remains of such a covering. Finally, if this building is to be correlated with one of those names for which there is documentary evidence then the place-names must continue in use as descriptions of units of land without implying the existence of occupied dwellings.

THE FINDS (fig. 8)

POTTERY

J. E. Parsons

There was a total of eighty fragments of pottery and chips of glaze from at least fifteen different pots, a figure calculated from their general appearance and not from joins. All the pieces were small, and some had lost part or all their glazed surfaces so that in a few cases identification was impossible. Apart from the one medieval vessel mentioned above, the sherds probably dated from just before 1650 to the second or third decade of the eighteenth century. Unlike the clay pipe fragments, few were recovered from construction or occupation layers, and most were found immediately under, in or on top of the tumble.

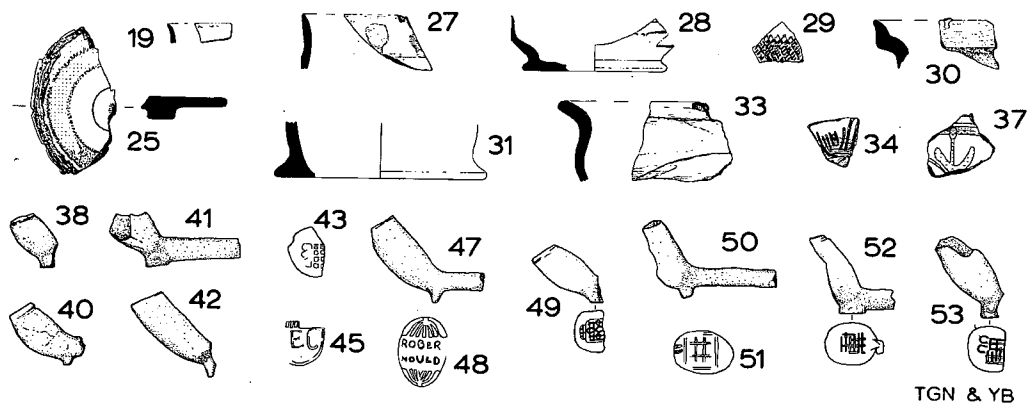


Fig. 8. Finds from Sandboard Knowe ($\frac{1}{4}$, except for pipe marks which are $\frac{1}{2}$).

From the ash over the subsoil in the western extension

16. Six conjoined wall sherds of a small globular jug in a hard grey-brown fabric, with faint traces of external purplish glaze. Late 14th-early 15th century.

From grey sandy soil (14) beneath the flagging in the house

17. Fragment of cobalt blue and white tin-glazed ware. 17th century.

From reddish ash (9) in the house

18. Fragment of stoneware with basketwork decoration. 18th century?
 19.*Rim of cup or mug in stoneware, glazed dark brown outside, off-white internally. Early 18th century.

From coaly black layer (5) in the house

20. Three fragments of a vessel in cobalt blue and white tin-glazed ware. 17th century.

Under the flagging (of phase 3) outside the door of the house

21. Rim and wall sherds of a bowl (?) in pinkish-buff fabric, darker red on the exterior, and with amber glaze inside, on the rim and patchily outside.

From brown soil covering the phase 1 feature in the western extension

22. Fragment of tin-glazed ware, the very soft dirty buff fabric covered with cream glaze on one side, white and mauve on the other.

From grey soil over the flagging (? fallen roof) in the house

23. Fragment of white tin-glazed ware, perhaps part of no. 31.

From the tumble, inside and outside the house

24. Four wall sherds of a stoneware vessel, probably English. It bears traces of mottled grey/brown glaze on the outside, and is covered internally with reddish-brown glaze. 17th century.
- 25.*Pieces of the base (and other sherds) of a polychrome (pale and dark blue, pale and dark brown) tin-glazed dish or bowl with foot-ring. 17th century.
26. Fragment of white tin-glazed ware, similar to nos. 23 and 31.
- 27.*Rim, covered with yellow glaze decorated with dark brown slip. 18th century.
- 28.*Base of a yellow-glazed vessel with dark brown slip decoration.
- 29.*Another fragment (see no. 18) of stoneware with basketwork decoration.
- 30.*Part of the rim of a green-glazed dish or bowl.

From the brown soil or humus, between the tumble and the turf, over the whole building

- 31.*Three fragments (two conjoined) of the basal angle of a plain white tin-glazed drug jar.
32. Another piece of no. 27.
- 33.*Three sherds making up another and larger section of the rim of no. 21.
- 34.*Part of the base of a cobalt blue and white tin-glazed vessel.
35. Another piece of no. 22.
36. Part of a trail slipware plate, yellow on brown.
- 37.*Fragment of polychrome tin-glazed ware, (blue, green and yellow on white).

CLAY TOBACCO-PIPES

J. E. Parsons

Two hundred and forty-five fragments were recovered from all layers associated with the stone building, i.e. phases II, III and IV. Almost ninety per cent were unstamped pieces of stem and chips of bowls, and will not be discussed further.

The clay tobacco pipes from this site constitute an important group within the date brackets of c. 1640-1730. They add appreciably to the knowledge of the relatively small quantity of identifiable Scottish material as yet published. Previously recorded distribution of 17th- and 18th-century Scottish pipes across the Border is confined to one bowl from the Belling Mill, (no. 9 above), and another from Hartlepool in Cleveland.³⁵

Of the pipes illustrated nos. 39-43, 48-52 are of Scottish origin. The regional characteristics noted by Adrian Oswald³⁶ are borne out by the Scottish pipes within the group. To date, the absence of identifiable Scottish imports amongst large groups recorded in Newcastle has been noted.

From reddish-brown soil filling pit 2 in the house

38.*Flat-based bowl with rouletted rim, type 24, with marked swelling on the back of the bowl, narrow mouth and slightly kinked base, c. 1640-60.

Reddish brown soil (11) covering the north edge of the depression in the subsoil in the south-east quarter of the house; perhaps the same as the filling of pit 2

39. A flat-based bowl similar to no. 38.

Inside the drain in the house

40.*Spurred bowl, poorly made in rather soft clay, with pronounced forward slope, type 3. Scottish, c. 1640-70.

Brown soil (16), over subsoil and drains in the house

41.*Pipe with thick softish bowl and plain flat base with moulded initials IW³⁷ on the sides of the base. This Scottish form has the characteristic inward kink and splayed foot, and is associated with five other bowls of c. 1650, giving an initial date to this form in the North-East of 1640-70.

³⁵ A. Oswald, *Clay Pipes for the Archaeologist*, (British Archaeological Reports 14, 1975), 43-44 and fig. 5n No. 3 and 5.

³⁶ *Ibid.*

³⁷ I.W., maker unknown, but could be mould error of the recorded W.I. maker, *ibid.*, fig. 5n no. 4.

Grey sandy soil (14) in the house

- 42.*Type 6 bowl with moulded rosette on either side of spur. The rather high position of the rosette suggests Scottish manufacture. C. 1680–1710.
- 43.*Part base with inward kink and splayed foot. “Castle-portcullis” stamp in relief. Scottish, 1680–1720.

Coaly black layer (5) in the house

44. A bowl similar to no. 42, though the rosettes are poorly defined.

Beneath the flagging of phase III outside the entrance of the house

- 45.*Type “a” stamp with initials EC within an ellipse. One of the “a” marks of Edward Crages, Gateshead, 1707–17.
46. Spurred bowl, type 3, with on the stem the stamp of four fleur-de-lis within a lozenge.

Ash (13) over the subsoil in the eastern room

- 47.*Spurred pipe, type 6, as no. 42 but with no spur mark and a slightly larger capacity, reaching the ultimate size for this form. 1680–1710.

Sandy soil (12) over ash (13) in the eastern room

- 48.*Two pieces of stem, both bearing the type “a” stamp of Robert Mould, Gateshead. Probably by Robert junior, 1693–1730, rather than by his father, Robert, 1659–91.

Brown soil over the later flagging in the western extension

- 49.*Flat-based bowl with mould initials WB (maker unknown) on sides of base. Stylised “castle-portcullis” mark in relief on the base, *cf.* Hartlepool pipe.

In the tumble, inside and outside the house

- 50.*Pipe with flattish spur and malformed stem, and relatively horizontal bowl, type 9. Fabric and manufacture suggest a Scottish origin. 1680–1720.
- 51.*Relief base stamp of rather poor definition indicating a “castle-portcullis” form of relief mark. Scottish, 1680–1720.

In the brown soil or humus between the tumble and the turf over the whole building

- 52.*Pipe bowl with poorly trimmed mould lines and flat base. Moulded initials IC³⁸ (maker

³⁸ See no. 9 above.

unknown) on sides of base. Badly formed base stamp in relief of "castle-portcullis". Scottish, 1690-1730.

- 53.*Bowl with base profile similar to no. 41, but of softer thinner section and more barrel-shaped. Moulded initials IW above the base which has a relief "castle-portcullis" stamp. Scottish, 1680-1720.

GLASS

Three types of vessel were represented by the seventeen fragments of glass found.

54. The dark green, squat bottle with flanged rim and heavy base typical of the 17th century. The eleven pieces of this type were recovered from the phase II flooring outside the house, in layer 5 inside, in the tumble and the humus.
55. A thick-walled vessel in blue-green glass—three fragments from layer 12 and the tumble.
56. Three fragments of the wall of a fine, white drinking vessel, from ash (13) in the eastern room and in the tumble.

IRON

Iron objects, in a very corroded state, were found in all layers except 15 and 16. They included nails, of various sizes, one complete pony shoe and fragments of others, pieces of blades of small knives and of something nearer the size of a cleaver, and parts of other tools or fittings, not now identifiable.

IRON SLAG

Three lumps of slag were found in the humus and the tumble. Mr. D. Maxwell, of the Department of Metallurgy, University of Newcastle, identified the material as typical bloomery slag, dark grey in colour and showing "the narrow meandering runs of obviously sticky material". Although there was no trace of iron-working within the area of the excavation, slag has been recorded on this hillside on earlier occasions.³⁹

COPPER ALLOY

Part of a button, with a convex outer surface and hollowed back, 15 mm in diam., was found in layer 9 in the house.

³⁹We are grateful to Mr. A. M. Tynan for drawing our attention to this reference: *Memoirs of the Geological Survey for England and Wales*, $\frac{1}{4}$ sheet 108. S.W., New

Series sheet 7, Geology of Plashetts and Kielder, C. T. Clough, H.M.S.O. 1889, p. 54.

COINS

Mr. G. D. Robson has identified the following:

57. Æ Halfpenny (?). Probably George II, or early George III. From layer 4 in the house.
58. Æ Farthing or Farthing Token, 17th century. From the tumble over the flagging outside the entrance to the house.

STONE

59. Broken hone, a minimum of 82 mm long, 20 mm wide and 12 mm thick.

COAL

Coal was obviously easy to obtain since quite large unburnt lumps, up to 90 × 40 × 20 mm, were found in the upper layers, noticeably in layer 5 in the house.

BONE

Tiny fragments of burnt bones were found in those parts of the building where there had been fires, i.e. ash (13) in the east room, beside the hearth in the house, in the pit in the western annexe, and in one or two other places. They have not been submitted for detailed examination.

LONG WALLS (NY 685 879)

Long Walls lies on the end of a ridge running parallel with and some 200 m north of the Tyne. From here the ground falls steeply south and east to the haugh, and more gently northwards into the dip which separates this site from Double Dykes. Though the whole area was planted with spruce some ten years ago it was still just possible in 1975 to see Otterstonelee to the south-west, and the Belling down the valley to the east. Visible before excavation began were the bracken and grass-covered ruins of a building over 30 m long from east to west, some 8 m wide and divided by a cross-wall into two sections of unequal size. Since there was not enough time to clear the whole structure it was decided to expose the end walls, the partition and the gaps which appeared to be entrances.

Like Sandboard Knowe, the top of the ridge on which Long Walls was situated was composed of yellow, rather sandy clay. There had been no attempt to cut a level platform for the building which lay on the slope, the ground falling about 2 m

between the west and east ends. While the walls of the longer, eastern room were set directly on the clay subsoil, grey sandy soil flecked with spots of burnt material was sandwiched between the subsoil and the foundations of the west room: it seems likely that this was the remnants of the original topsoil.

The building, when finally cleared, was found to measure 31 m by 5.50 m externally, and to contain two rooms, the eastern *c.* 17.50 m long, the western 10.75 m (see fig. 9). The walls were of clay-bonded rubble on boulder foundations, stood a maximum of 0.70 m high and varied in width above the footings from 0.90 to 1.10 m. The boulders projected from the external faces right round the building, and also beneath the west face of the internal wall where the upper courses of the side walls of the smaller room rode over them. This showed that the eastern room had been built as a unit and the western added, but there was no other evidence for an interval of time between them and it is probably a fact of little significance.

It was impossible to be certain about the original number of doorways since the removal of even one boulder by stone robbers could have left a hole big enough to be an entrance. In the western room there was a gap of *c.* 1.15 m in each long wall, but two doors in such a comparatively small space seemed improbable. While a southern door was more likely, and the shallow groove at its sill could perhaps have been part of the fittings, the hard trampled surface one would associate with constant traffic was outside the north gap. In the eastern room it seemed reasonably clear that there had been opposing entrances at its west end. The southern one was the only gap on this side and the northern was marked by the flagging which lay across the line of the missing wall. If this argument is continued, however, the northern entrance becomes a double one since more flagstones survived east of the isolated boulder.

Because the building lay along and not across the slope, surface water would tend to seep down its length and provision had been made for this. In the two end walls there was a space, filled with soil, between the boulders, and under the internal wall there was actually a small gap. In the rooms themselves no drain survived as such. Instead, the water had been allowed to find its own way out, scooping little pockets and runnels in the clay as it did so, and this central oozy mess had then been hidden from sight under random flagging of various sizes and shapes, in places two deep.

The feature peculiar to the western room, a hearth, helped to determine its function. The hearth lay against the centre of the partition wall, and although it was covered with blackish, burnt material the hearth stones showed little trace of fire. They were, however, secondary since beneath them was an earlier hearth, a mere hollow in the ground, and it was the fire in this that had discoloured the foundations of the wall. Since this room had been heated and the other had probably not, it seemed virtually certain that this formed the living quarters. In the eastern room there was nothing to indicate function, and while the easy answer is to say it must have been agricultural the floor surface appeared too clean for the room ever to have sheltered beasts.

The stratification over the flagging and hearth resulted from the collapse of the building, not from its use. Greyish sandy soil was found to lie rather patchily down

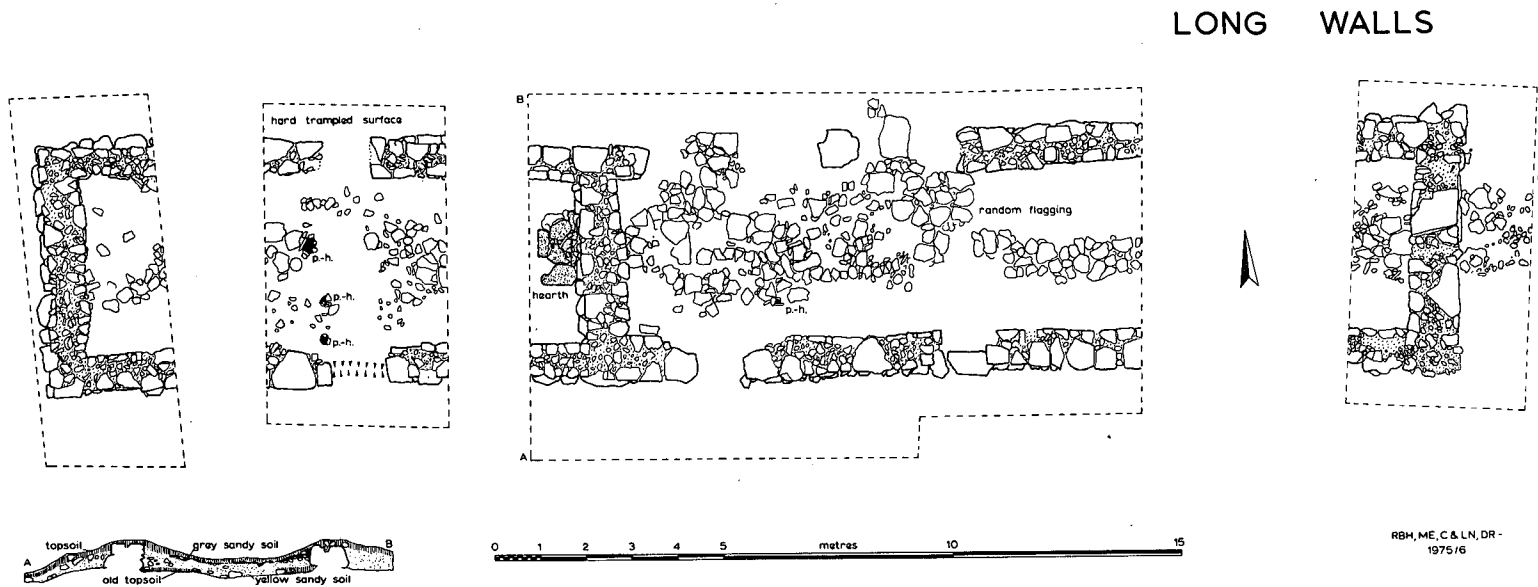


Fig. 9.

the middle of both rooms, and it seemed possible that this was the remains of a collapsed turf roof. Above, and particularly thickly beside the walls, were tumbled stones and yellow clay. The yellowish sandy soil under the topsoil was probably a mixture of yellow clay and humus.

It is easy enough to imagine Long Walls as it must once have been—a long, single-storeyed, two-roomed building with smoke rising out of a hole in the middle of its turf roof. It is, however, quite impossible to say when it was built, when it was abandoned, and indeed whether it was ever really occupied. The only artifact which was probably relevant was a fragment of the stem of a clay tobacco pipe found lying on the subsoil beneath the tumble outside the east end of the building. A few shapeless fragments of iron were recovered, a broken flint scraper, a small piece of coal, and a lump of clinker: their testimony was not deafening.

Long Walls must remain a matter for speculation. If we accept the most recent criteria for shielings it possesses one essential characteristic, the absence of associated enclosures, but does not conform in other respects. It is altogether too big and substantial and stood, according to MacLauchlan, in isolation. The lack of a single medieval artifact, the presence of a clay pipe fragment, and the building's general resemblance to Sandboard Knowe in construction and in the size of the living quarters, perhaps tips the balance in favour of a seventeenth-century farm. In addition, traces of rig-and-furrow and field banks were recorded here by the Ordnance Survey before afforestation.⁴⁰ Even if it were built as such, however, it cannot have been used as more than an occasional shelter, and it can only be correlated with one of the four unlocated place-names if, as has been suggested already, we can assume these names could be applied to land-holdings without occupied dwellings.

THE FINDS (fig. 10)

STONE

Unstratified

60.*A round socket, c. 28 mm deep, carved in a small block of sandstone, 128 mm square and a maximum of 82 mm high.

On the subsoil, outside the east end of the building

61.*Reddish-brown broken flint scraper, probably Neolithic.

⁴⁰ Ordnance Survey archaeological record card, NY 68 NE 9.

CLAY TOBACCO-PIPE

On the subsoil, outside the east end of the building

62. One complete section of pipe stem, 19 mm long, and three other tiny fragments. The hole is quite large, and off-centre, and the piece is thus more likely to be 17th-century than later.

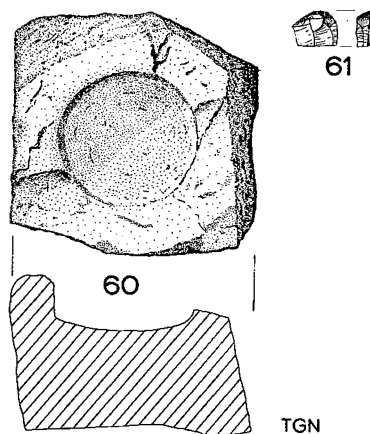


Fig. 10. Finds from Long Walls ($\frac{1}{4}$)

IRON

A dozen, very corroded, fragments, most probably being nails, were found both inside and outside the building, on the subsoil, on the flagging and in the tumble.

COAL

One small piece was recovered from the sandy soil below the topsoil in the eastern room.

Conclusion

These excavations, together with that at Double Dykes, give considerable support for the suggested limit of permanent settlement in the mid-sixteenth century, and

for the theory, based originally on the documentary evidence, that on the north side of the river a number of the post-medieval settlements were short-lived. Even the lack of finds at Long Walls does not invalidate this. If this theory is accepted, we must then go on to ask whether sites of this type and date can be identified elsewhere in similar topographical conditions, why they existed so briefly, and whether they possess any characteristics which would make it possible to identify them without excavation.

On the first point, there can be little doubt that they do await discovery elsewhere, and that examples of fruitful places to explore would probably be the upper stretches of Redesdale and Coquetdale. It now seems certain that the first-named author misinterpreted Memmerkirk in 1963⁴¹ and that, far from being a shieling, it possessed all the features and indeed the finds needed to put it in this class of seventeenth-century farmsteads. Nor, in any attempt to understand the agricultural history of the uplands, should quite substantial ruined stone buildings be ignored, or dismissed as "shepherds' cottages". They may have ended as the second or third dwellings on large farms, but they may have begun as farmsteads in their own right.

There is no lack of possible reasons for depopulation in the eighteenth century: they include climatic change, farms which were too small in proportion to the comparatively unproductive marginal land, deliberate decisions by the larger landowners on farming policy, or any combination of these, and other reasons. To reach even a tentative conclusion a fairly precise date of abandonment is needed, together with an idea of the acreage and nature of the land attached to the farm, and knowledge of the policy of the landowner if the farm were tenanted. This information is not, at the moment, available for the sites of the excavations: it has not been possible to use the Charlton papers at Hesleyside, and it is not known if there are any surviving papers of the Reeds of Chipchase.

Finally, what are their diagnostic features? It would be foolish to be dogmatic since there are too few excavated examples on which to base a conclusion. Nevertheless, the living quarters at the two sites of Sandboard Knowe and Long Walls were remarkably similar in their overall size, *c.* 12.50 m by 5.50 m, and both had a hearth against an end wall and a door in a side wall. In both cases the real length was much greater for, even if the functions of the other rooms remained undiscovered, they were there as barn, dairy or pantry. Both could probably have been paralleled on a number of the Duke's farms as late as the mid-nineteenth century. On the Belling Farm in 1853, for example, there was a two room cottage at the Belling, with dairy and pantry, a one roomed cottage with dairy attached at Belling Burn Head, and a one roomed cottage at the Law, with dairy partitioned off the entrance passage. The first two had "temporary lofts", and all three were thatched.⁴² It would probably never be difficult to distinguish this type of dwelling from a late medieval bastle, even if both were ruinous and turf-covered, since the latter would

⁴¹ Barbara Harbottle and R. A. S. Cowper, "An Excavation at Memmerkirk, Northumberland", *A.A.* 4, XLI (1963).

⁴² N.R.O., ZAN Bell 65/3, Survey of the Belling Farm.

normally have been much wider. Stone House for example being 7.50 m across, and there was rarely any building attached to a bastle. It is possible that there are unexplored medieval houses of other types which could be a source of confusion, but this is a hazard which could be avoided by investigation of the written sources. The end is thus the beginning: the definition of the late medieval frontier of permanent settlement immediately suggests possible areas for later colonisation, and unlocated place-names taken from seventeenth- and eighteenth-century documentary evidence confirm that the colonisation took place.