

ART. XVII.—*Report of the Cumberland Excavation Committee for 1934.*

I. THE STONE WALL, TURF WALL AND VALLUM WEST OF BURGH-BY-SANDS.

By F. G. SIMPSON, M.A., Hon.F.S.A.Scot., *Director*,
I. A. RICHMOND, M.A., F.S.A. and JAMES MCINTYRE.

WHEN the explorations of 1933 had shown* that the Turf Wall, with its distinctive turrets, was running at least as far west as Beck, 57*a*, it seemed evident that it was likely to have run as far as the Eden. But it was beyond conjecture whether such turrets continued as far as Burgh Marsh, still more whether they went beyond the Marsh to Bowness. As for finding them, while the line of the Stone Wall in this sector is generally known, the sites of most milecastles and turrets were lost, even in Horsley's day.† The proof of continuity of the Turf Wall depends, however, upon the distinctive construction of the turrets; and the surest way to locate a turret was first to find a milecastle, whence a turret-position could be calculated.

Dealing first with a site mentioned by Horsley‡ east of the Marsh, trial trenches were dug at Watch Hill, east of Dykesfield. The foundation of the Stone Wall was disclosed in fields Nos. 987, 994 and 997 (C. xv, 12).§ The main section was cut on the crest of Watch Hill, in field 997, revealing the footing-course of flags as 8 ft. 8½ ins. wide, and one course of masonry standing on the south face, with an offset only one inch wide. There was,

* *Trans.*, n.s., xxxiv, 132.

† *Britannia Romana*, map 10, facing p. 158.

‡ *Ibid.*, 156.

§ *Ordnance Survey Maps*, 25 inch scale, edition 1925-6, of Cumberland (C).

however, no trace of the milecastle, though the last trench eastwards yielded a scrap of pottery, suggesting that it will be found in the next field to the east, No. 998 (C. xv, 12), where a turnip crop prevented trenching. The berm was abnormally wide, the lip of the ditch being thirty feet from the north face of the Wall. The reason for this great width was explained by an unexpected discovery. Immediately north of the Stone Wall, and continuing to within eight or nine feet of the ditch, laminated turf was found, representing the remains of the levelled Turf Wall. The Stone Wall had evidently been built just behind the Turf Wall rather than upon its site, as if the one barrier had here not been removed before the other was ready.

Operations were then transferred west of the Marsh, to the site of Kirkland milecastle, 78, noted by Horsley* as being "fourteen furlongs from *Boulness*," and still exhibiting a prominent platform. Its examination was, however, delayed by an object demanding equally urgent attention. On entering field No. 1753 (C. xv, 5) for the first time, we were surprised to see a regular reed-filled depression closely resembling the Vallum-ditch, with indications of the attendant mounds. Appearances in the next field, No. 1702 (C. xv, 5), to the south-east across the lane, were even more striking. A section was then made in field No. 1753, establishing the existence of a ditch twenty-three feet wide with the characteristic steeply sloping sides and flat bottom of the Vallum-ditch. The bottom was touched on the north† side, six and a half feet below the present surface, while the south mound was found to lie with its centre-line exactly fifty feet from the centre-line of the ditch, and the surface indication of the north mound appeared at the same

* *Britannia Romana*, 157.

† Between Glasson and Port Carlisle, the course of the Vallum is from south-east to north-west, but we retain the normal terms of "north" and "south" mound, for the sake of clearness.

distance. The dimensions and shape of the ditch, and the spacing of the mounds, one hundred feet from centre-line to centre-line, are characteristic features of the Vallum.* But a feature still more exclusively associated with that work also came to light. The south mound was retained by a pair of turf-built kerbs of the type first found at Brunstock† in 1894, at Hare Hill‡ in 1903, at Twice-Brewed, Cawfields,§ Carrawburgh farm and Halton-Chesters in 1908-10, and at High House in 1934. The occurrence of these kerbs, combined with the uniform dimensions, puts the nature of the work discovered beyond doubt. The existence of the Vallum west of Burgh Marsh had been established.

The next step was to learn whether further indications of the course could be seen. It clearly continued in a straight line to Glasson. Towards Kirkland, the traces are obscured by draining and ploughing; but beyond Port Carlisle, in fields Nos. 1278-79 and 1361-62 (C. xv, 5), the bold wave of mounds and ditch appears once more, petering out only within a quarter of a mile east of Bowness village. It may be added that between Glasson and Drumburgh the prominent open drain running from Glasson south-eastwards appears to follow the course of the Vallum-ditch, which may be expected to have turned sharply at a point west of Drumburgh school, breasting Drumburgh hill and running some distance south of the Castle. A ditch looking not unlike that of the Vallum exists behind the Castle, as Horsley and others have observed:¶ but this might be the post-Roman fosse¶ discovered in 1899, and spade-work is needed to determine the point.

* *Trans.*, n.s., xxii, 356-7; cf. *ibid.*, 362, note.

† *Ibid.*, o.s., xiii, 460, pl. iii.

‡ *Ibid.*, n.s., iv, 245, fig. 3.

§ *Ibid.*, n.s., xiii, 395 (Cawfields); cf. *ibid.*, xxii, 364, note, for the other yet unpublished discoveries.

¶ *Britannia Romana*, 157; *Arch. Ael.*, ser. 1, ii, 119.

¶ *Trans.*, o.s., xvi, 83. It may be recorded here that, by the kindness of Mrs. Jefferson, of Drumburgh House, Drumburgh, we were able to make trial

Following these discoveries, we were to learn that our field-observations between Glasson and Bowness had been anticipated. Canon J. T. Fowler, of Durham, who traversed on foot both British frontier-walls* in 1877, noted in his copy of Bruce's *Wallet-book* † the sectors visible to us at both Glasson and Port Carlisle and recognized them as the Vallum. On the other hand, the feature near Bowness described as the Vallum by Jenkinson‡ in 1875 would appear to be the Military Way. The Fowler notes are collected by Mr. Eric Birley, in the Durham University Journal,§ and it is satisfactory

holes in her garden, hoping to learn something of the south-east limits of Drumburgh fort. The holes revealed a complete dearth of Roman material.

* *The Roman Wall in Scotland*, ed. 2, 293.

† The book is now numbered 172 F 17, in the Chapter Library, and is the edition of 1863. The first note, facing p. 17, reads: "There are traces of Vallum west of Dykesfield. In the second field from Westfield Lane, Glasson, is a stretch of perceptible depression, as of the ditch, perfectly straight and dark-coloured with rushes. In the next field to this, separated from it by a cross-lane, it is decidedly deeper (1877). I thought I saw ditch of Vallum also nearer Bowness, just west of Port Carlisle." The second note, facing p. 215, reads: "As we leave Port Carlisle, we see ridge of Wall in fields on left . . . In one of these fields a fine piece is left in old hedge of large thorns, hazels, etc., one field off road. In this field and next I thought I saw ditch of Vallum . . ."

‡ *Practical Guide to Carlisle, Gilsland, Roman Wall and neighbourhood*, 1875, 179. "Dr. Bruce says it (the Vallum) fell short of the stone Wall by about three miles at each end, but we think that in this he is mistaken, for we had not walked along the line of the Wall many yards from Bowness before we observed a parallel ridge a few yards to the south, and a resident in the district, who accompanied us, said that it must have been the foundation of another Wall, as it contained so many stones." *Ibid.*, 187, "Between Bowness and Port Carlisle, the Wall and Vallum may be traced through the fields by the slightly elevated lines, upon which the herbage has a stunted and discoloured appearance." There is some confusion of thought here. The presence of stones would appear to exclude the Vallum mounds, and even the north mound runs further away than "a few yards" from the Wall. Nor is stunted herbage to be connected with the Vallum, which normally produces more luxuriant growth. The local tradition of a pavement behind the Wall was independently related to us, and applied east of turret 79b, by Mr. R. W. Wills, J.P., of Claremont, Bowness, an interested spectator of our operations at that point.

§ *Durham Univ. Journal*, xxix, 26-31. Mr. Birley points out to us that Hutton, *The Roman Wall*, 306, records an opinion that the Vallum ended here, but cites no actual remains in his support. Of these the most recent observation was made by Mr. F. Wrightson, formerly station-master at Hexham, and communicated nearly ten years ago to the first-named of the

that their testimony, long lost to sight, can be accepted as proved by the spade at the very moment of rediscovery.

Returning to the Stone Wall in field No. 1753 (C. xv, 5), its foundation was disclosed about 70 yards north-east of the Vallum section and its course across the field ascertained. The foundation was here 9 ft. 4½ ins. wide with a rubble core and flag footings extending back about three feet on each side only. The lack of the normally continuous flagging in the centre of the Wall, as at Randylands, 54, and Beck, 57a, had caused the core to sink and the external flags to tip up at the face. In front of the Wall, a very gentle slope, now obscured by the road and disused railway, marks the old foreshore; and trenching revealed that, as Horsley* thought, there had never been any ditch at this point. This compares with the sector on the Eden bank above Beaumont, where the ditch is seen to end just short of the cliff overlooking the river; as if the estuary at Kirkland and the river at Kirkandrews had been reckoned to take the place of the ditch.

Kirkland milecastle, 78, lies partly in field No. 1753 and partly in field No. 1755 (C. xv, 5). In the former field, the west wall was found, measuring 9 ft. 2 ins. across the foundations. One course of masonry stood upon the inner face, above a five-inch offset: the outer face had been robbed.

Having located a milecastle, we sought a turret. The choice of 79b was dictated partly by its accessibility in a grass field (No. 1340, C. xiv, 4), and partly by the fact that this was the last turret on the Wall. If this could be proved to have been a Turf-Wall turret, the Committee's quest of forty years' duration would be ended. The first trench revealed the turret's south wall, 3 ft. 8 ins. thick. The west wall was then traced as an

present writers, who, as a devoted disciple of Horsley, received it with scepticism. *Magnus amicus Horsley, major veritas.*

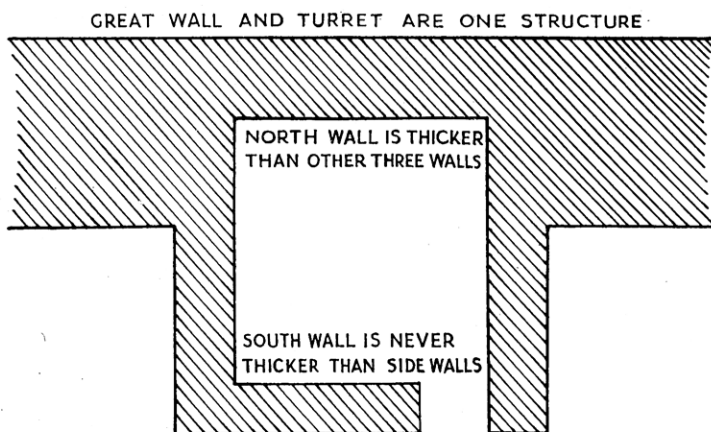
* *Britannia Romana*, map 10, facing p. 158.

independent structure for 15 ft. 3 ins. north of the south-west corner, after which it was robbed away. It was laid upon two layers of cobbles set in red clay, upon which stood a footing of rough masonry, 3 ft. 2 ins. wide, crowned by two courses in well-cut small red-sandstone blocks. Both the north wall and the great Wall were entirely removed. Two points showed beyond doubt that we were dealing with a Turf-Wall turret (fig. 1). Firstly, the independent walling continued at least four feet beyond the point where its outer face must have ended at the south face of the great Wall had it been originally constructed as a Stone-Wall turret. Secondly, the difference in thickness between the south and west walls corresponds to the difference allowed in Turf-Wall turrets for the plinth that occurs upon the north and south walls but not on the east and west walls: while in Stone-Wall turrets, by contrast, the south wall is not thicker than the side-walls, but often slightly thinner. The Turf Wall, first discovered by the Committee in 1895, therefore ran from the Irthing to Bowness.

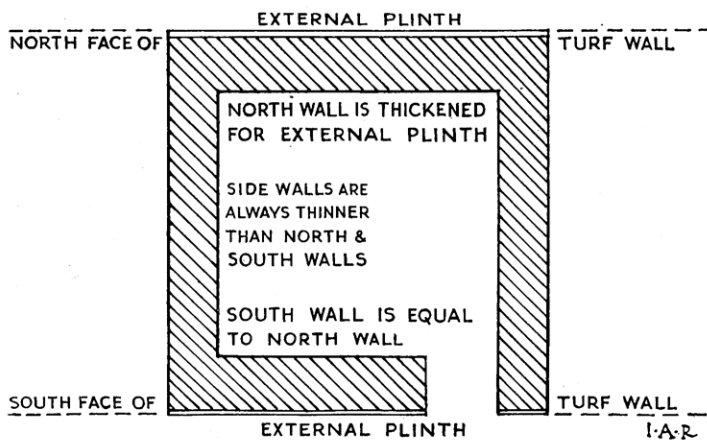
The inquiries thus successfully concluded on both the Vallum and the Turf Wall mark a new stage in our knowledge of the western end of the Wall and the associated frontier-works. Hitherto, the point where the Vallum ended on either side of the Isthmus had remained unknown, and this obscurity still obtains at the eastern end of the frontier.* At the western end, it can no longer be doubted that the terminal station was Bowness, the bold bluff which dominates the western flats and overlooks the lowest ford across the Solway. The termination of the Stone Wall at Bowness has not been in doubt since Camden's day.† But there was the possibility that this point was selected for the terminus only after an extension, resembling the known extension of the original Wall

* *Northumberland County Hist.*, xiii, 517.

† *Britannia*, ed. 1637, 775.



TYPICAL STONE-WALL TURRET



TYPICAL TURF-WALL TURRET

FIG. 1.

between Newcastle and Wallsend. Indeed, this very explanation was not so long ago advanced* to account for the "Intermediate" gauge of the Stone Wall, then thought to be confined to the Carlisle-Bowness sector, but now known to extend as far east as milecastle 54 and to represent no more than the replacement of the Turf Wall in stone.† The present discoveries, establishing the existence of the Turf Wall at Watch Hill and the Turf-Wall turret 79b, demonstrate that no extension is in question, but that even the first version of Hadrian's Wall west of the Irthing ran to Bowness. This fort was therefore the common goal of all three frontier-works. To have determined this uniformity in plan is a fresh simplification of a problem which now moves rapidly towards a final solution.

2. THE TURF-WALL MILECASTLE AT HIGH HOUSE.

By F. G. SIMPSON, M.A., Hon.F.S.A.Scot.,
I. A. RICHMOND, M.A., F.S.A. and K. ST. JOSEPH, B.A.

The site of this milecastle‡ was located in 1933 and a full examination followed in 1934. This revealed that the general design (fig. 2) of a Turf-Wall milecastle, now understood for the first time, did not differ from the normal long-axis stone type,§ the area enclosed being 66 by 55 feet. Turf, however, took the place of stone in the milecastle-walls as in the great Wall, the thickness at their base being throughout the normal twenty feet of the Turf Wall. On the east wall the offset of turf which is so striking a feature of the Turf-Wall section at High House|| (fig. 3) also appeared, the other walls being

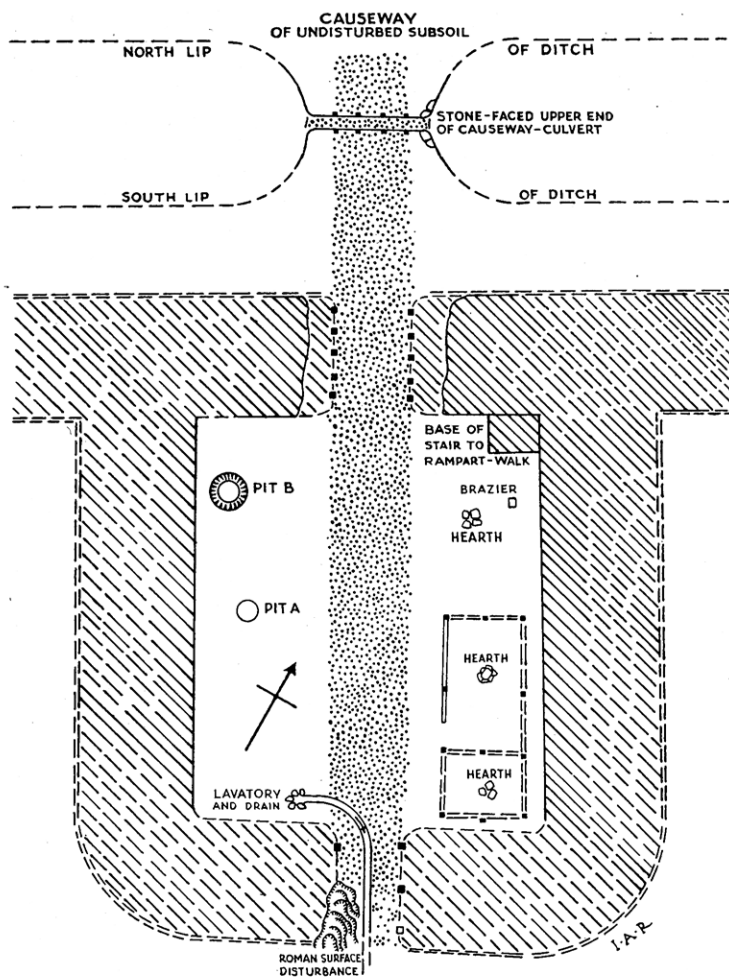
* C. G. Collingwood, *Archæology of Roman Britain*, 82

† *Trans.*, N.S., xxxiii, 133.

‡ *Ibid.*, 147.

§ *Ibid.*, N.S., xi, 398; *Arch. Ael.*, ser. 4, viii, 310, 321.

|| *Ibid.*, N.S., xxviii, 379, fig. 1.



TURFWORK ACTUALLY TRACED
 TURFWORK INFERRED

HIGH HOUSE TURF-WALL MILECASTLE, 50TW.

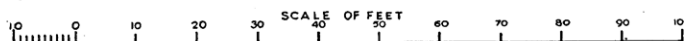


FIG. 2.

too reduced by ploughing to show it. In the High House section, the inner face was almost vertical from the ground to an unknown height, probably to prevent unauthorized ascent. In the milecastle, the arrangement of the rectangular mass of turf in the north-east corner, marking the foot of the stair to the rampart-walk (cf. the stone stair* at Poltross Burn, 48), suggests that the milecastle-walls also had this almost vertical inner face, and that it stood from three to four feet high, the Turf Wall doubtless being similarly treated. Otherwise, the stair would have been cut in the sloping back of the turfwork for its whole length, and no special foot would have been necessary. As it is, the little foot shows that the stair climbed by this means an almost vertical lower stage, and that above this point the slope (fig. 4), was gentle enough to allow of the insertion of wooden steps, leading to a corduroy rampart-walk of normal width. The whole of the outer face was doubtless steep, and its approximate angle is given by the position of the front posts of the gateway-tower, described below. These lay three feet behind the foot of the turfwork, and may be taken to have held both the front of the tower and the crenellation of the Turf Wall running up to it. The width of the gateway was twelve feet, and the height of its doors, designed to admit a laden cart, is not likely to have been much less. This gives an approximate height of twelve feet for the rampart-walk leading into the first floor of the tower, and, therefore, an angle of one in four for the frontal slope. Thus, we arrive at the inferred profile of the Turf Wall, as in the accompanying diagram (fig. 4), where the rampart-walk is also shown related to the other posts of the tower structure.

This diagram serves also to introduce the north gate, which was twenty feet long and twelve feet wide, timbered for fourteen feet on each side with uprights standing in

* *Ibid.* N.S., xi, 420, fig. 12, 424, plan.



FIG. 3.—Section of the Tewa site (1927), looking west.

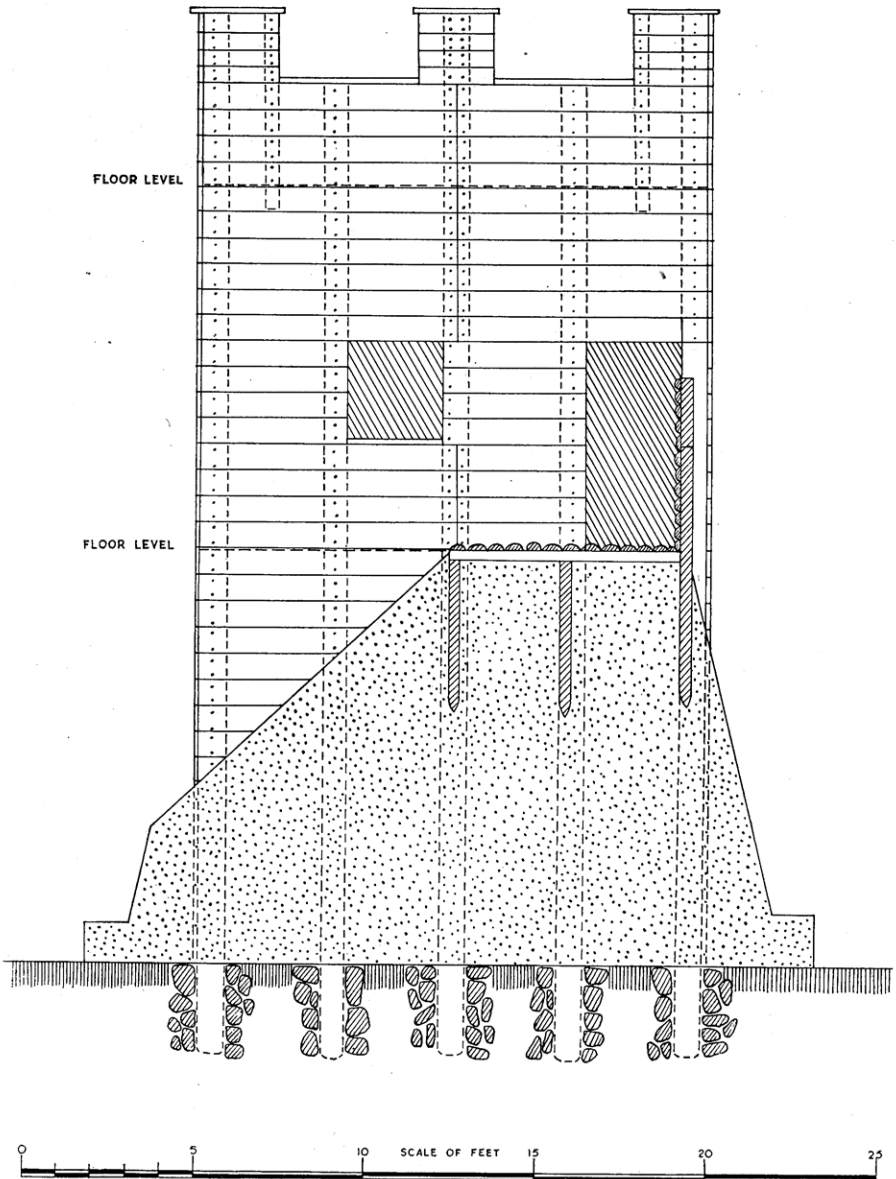


FIG. 4.—Restored section of the Turf Wall, with gate-tower of milecastle 50 TW in background.

five stone-packed holes (fig. 5). The holes were capable of holding nine-inch posts, and the form of the packing showed that the posts had been square. There can be no doubt that posts so large and so closely placed were intended not only to hold the bratticing which kept the Turf Wall vertical on each side of the passage, but also to support a tower. This tower is shown in the restoration (fig. 6), and it will be noted that its internal area, of twelve by fourteen feet, matched that of a normal turret. No doubt its function was to combine, as did the turrets, a sentry-box and signal-tower, and in this belief a flat crenellated roof, from which to signal, has been provided. The roof could also be manned to defend the gateway, in case of attack. But the view that the Wall-turrets, where there were no gates, also had flat roofs similarly crenellated, is strongly supported by the fact that no roofing-tile or slate occurred in the great debris-layer* of the first period at 52a.

The south gate (fig. 7) was a narrower structure, only ten feet six inches wide, but of the same length. These are hardly the proportions of a tower. But conclusive evidence as to the number of posts on each side of the passage was not obtained, owing to disturbance of the Roman surface, probably during the demolition of the milecastle (see below, p. 226). This had destroyed some post-holes and obscured others, just as it removed most of the thinly metallated road and the south end of the covered drain that passed below the road. The impression left upon our minds was that the posts had been fewer, probably three instead of five at each side, as would be comprehensible if there was no tower, but only a gangway, above the gate.† Meanwhile, the absence of a tower is strongly suggested by the proportions, which are not in doubt.

* *Ibid.*, N.S., xxxiv, 150, fig. 15.

† Cf. Throp, *Trans.*, N.S., xiii, 369

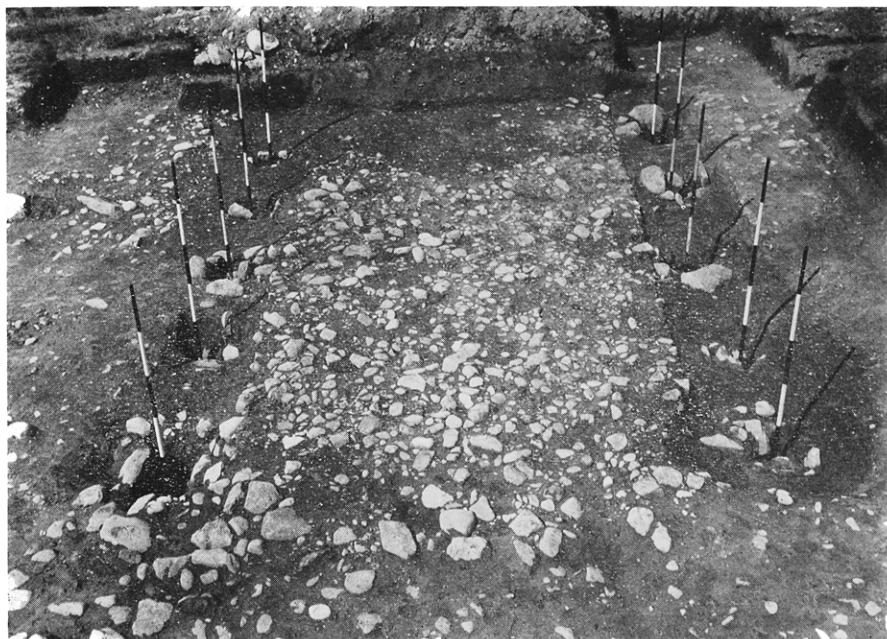


FIG. 5.—North gate of Turf-Wall milecastle 50 TW, from the south.

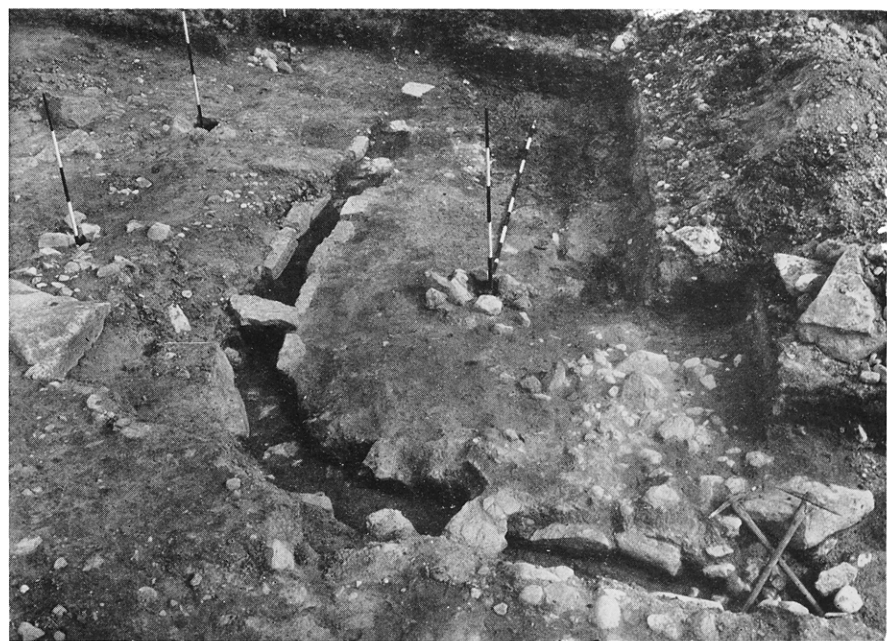


FIG. 7.—South gate of Turf-Wall milecastle 50 TW, from the north.

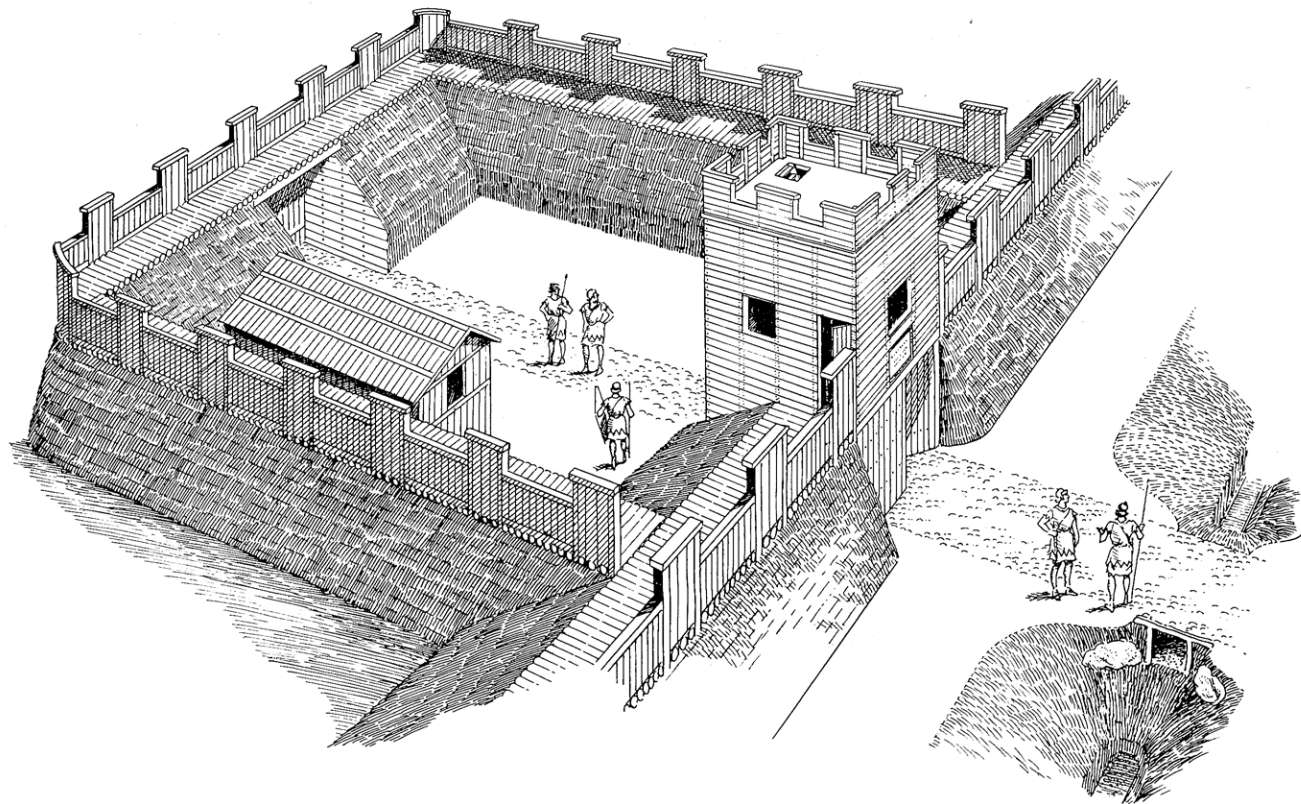


FIG. 6.—Restoration of Turf-Wall milecastle 50 TW.

TO FACE P. 224.



FIG. 8.—Causeway and culvert at Turf-Wall milecastle 50 TW, from the north.



FIG. 14.—Turf-Wall turret 50b TW, from the north.

TO FACE P. 225.

The lightly-metalled road which passed through the milecastle crossed the Turf Wall's ditch by a causeway* of undisturbed subsoil. This is the first time that such a causeway has been sought, or discovered, at a milecastle, and traces of another were detected later in the season at Randylands, 54. It may be expected that on level ground this type of causeway would be an entirely uninterrupted mass of undisturbed subsoil. But on the steep slope at High House, as also at Randylands, the stability of the causeway would be threatened by standing water on its upper side. To obviate the collection of too large a volume of water, the causeway was provided immediately below the road with a flood-culvert,† two feet six inches wide and deep (fig. 8). The culvert sides had been lined with wood, later removed, and the whole culvert, after silting up, had been covered by a later roadway. Eight three-inch posts, four on each side of the culvert, which had once held the wooden sides, were still in position. Massive stones lined the upper mouth of the culvert protecting it from erosion; and the bottom, for the same reason, had been cobbled. It will be noted that the posts not only exactly matched the width of the milecastle-gate, but were placed directly opposite it. Doubtless their planking supported a road of uniform width.

Within the milecastle, the accommodation had been of the simplest. The whole of the west side, thinly covered by occupation-earth, had been left empty of buildings, as if for stores. Man had disturbed the subsoil at two points only, digging a couple of pits at the end of the occupation, and spreading the upcast from them on top of the trampled mud and ashes. At the extreme southern end of this side, however, a *dolium* had been set in a circle of stones, from which a neat

* Cf. *Arch. Ael.*, ser. 4, 177, for the Benwell causeway.

† *Ibid.*, 178, fig. 2, for the position of the culvert there.

covered drain led through the south gate (fig. 7). This arrangement is very like the similar drain in the north gate of the Antonine Fort at Bar Hill,* and doubtless served as a lavatory, in the various senses of the word. Only the smashed remains of the *dolium* were found, insufficient to show whether it had a hole pierced in it, as might be expected, to drain off the contents.

The east side of the milecastle had been reserved for habitation. In the southern two-thirds lay a wooden barrack (fig. 9), divided into a long room for men and a room half the length for an officer in charge. Each room contained a hearth.

The last act of the men had been to extinguish their fire by covering the embers with a stone. These hearths were perhaps for warmth rather than cooking; for an external hearth, north of the barrack, had been subjected to more use; while near it some thin flakes of heavily burnt stone still covered the rusted remains, impossible to preserve, of an iron brazier or gridiron, as found at Newstead.†

Reference has already been made to Roman disturbance of the surface at the south gate and to the removal of the woodwork in the causeway-culvert. This was not, however, the only sign that the milecastle had been purposely dismantled. At the north gate, for six feet on each side of the passage, the Turf Wall had been entirely removed, in order to get at the boarding or bratticing held behind the main uprights of the tower. During this work, the stones of the roadway had been scattered loosely about on the stripped space. The south gateway might have been expected to yield similar evidence: but the digging had here been more roughly done, and modern ploughing had removed the turfwork. It was evidently at the moment of this demolition that

* *The Roman forts on the Bar Hill*, general plan.

† *A Roman frontier-post*, 270, pl. liii, 2.



FIG. 9.—Wooden barrack at Llan-wydd, Anglesea, 50 TW, from the north.

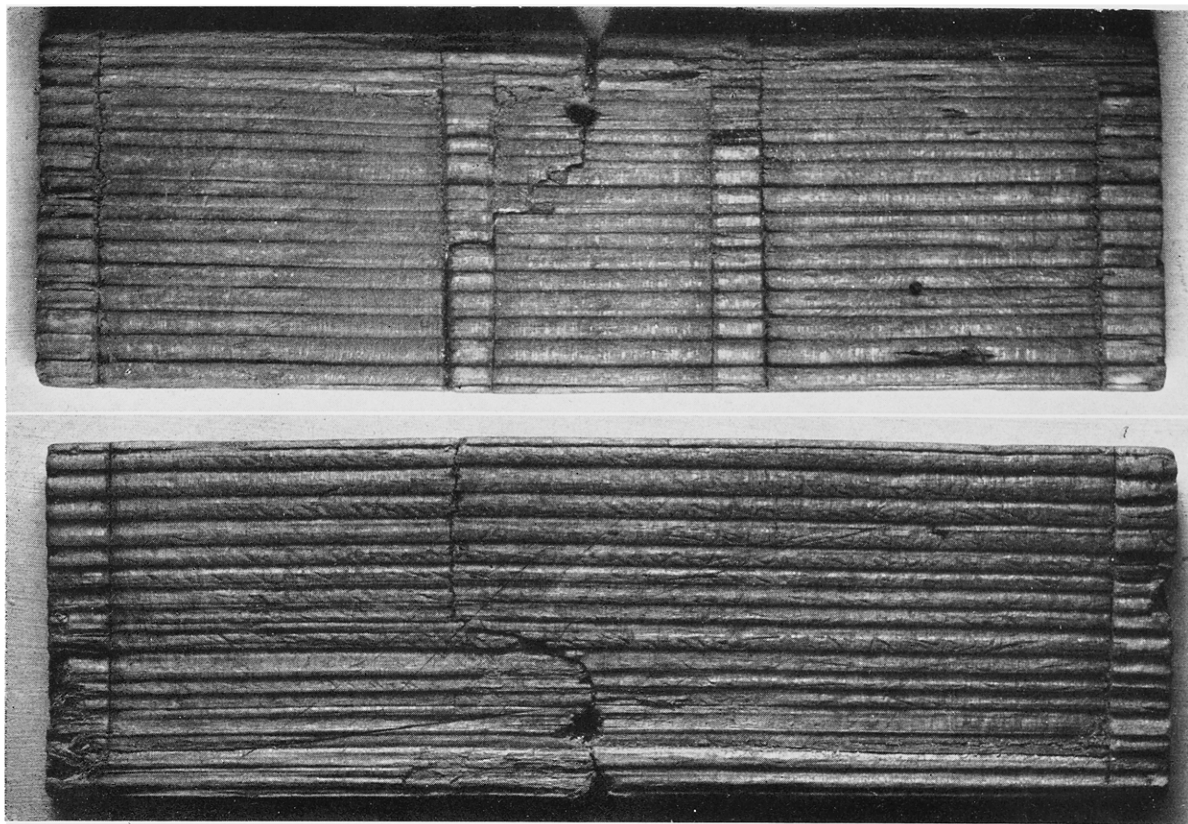


FIG. 10.—Fragment of wooden writing-tablet from milecastle 50 TW; the wax has perished, but indecipherable characters of the *tilis* remain.

the pits on the west side of the milecastle were dug; for, as already noted, the upcast from them was spread far and wide over the occupation-earth. The purpose of such pits was amply illustrated by the contents of the southernmost (A), which was seven feet deep. The filling was as follows: the upper two and a half feet had been carefully sealed with the upcast, forming a tell-tale ring of differently coloured earth. Then came a mass of bracken and heather, still in good order, mixed with floor sweepings—a little coarse pottery, including a broken drinking mug, a fresh but acid-bitten *dupondius* of Trajan (Cos. V, A.D. 103-112, as *Cohen*, 383), an old shoe, the broken leaf of a well-used wooden writing-tablet (fig. 10), and a bundle of fragments from leather tents.

Roman soldiers in camp usually slept upon a litter* of straw or bracken, gathered by them as part of their routine; and the contents of this litter reflect all the varied occupations that marked the later hours, eating and drinking, gaming for money, boot-repairs, writing letters, stitching the tents. These, however, were not quite the tasks of men in the permanent quarters of the milecastle, where tents, for example, had no place. As the disposal of the upcast from the pit denoted, the relics buried in it belong to the demolition-party, which pitched its tents by the side of the structure to be demolished. Nowadays, such rubbish would be burnt; on Hadrian's Wall, a bonfire might have been mistaken for a signal.†

Even more striking proof, however, of the association of the pits with demolition, was to come from the northern pit, B. This had not been sealed tidily with clay, because it contained very little rubbish. It had been allowed to collapse and silt up, a process which would not take long,

* *Trans.*, n.s., xxxiv, 64, first note.

† This illuminating suggestion was made to us by Mr. Robert Hogg, of Tullie House Museum. It accounts completely for the Roman habit.

as we were able to judge from the collapse of the sides of pit A a few hours after the removal of the tightly-packed contents, by which they had hitherto been held in position.

The only objects produced by pit B were four pieces of pottery, among which was a fragment of a Samian vessel* of the type Curle II, a survival into the Hadrianic age; some small joiners' chippings and a rough scrap of split timber, which reposed unwashed for some days. When at length examined, for the sake of studying the tool-marks indicating that it had been sawn up, this timber proved to be the most remarkable object ever discovered since the Committee began its work by finding the Turf Wall forty years ago. It was no less than a fragment (fig. II) sawn and hacked from the wooden dedicatory inscription of the Turf-Wall milecastle. No better proof of the use to which the pits were being put could be desired. The party which dug them was evidently engaged in dismantling the milecastle's gate, above which such a tablet would be affixed.†

It may be emphasised, by repeating certain details, that this dismantling was not preceded by any long occupation. The layer of occupation-earth was often extremely thin. The hearths within the barrack were little used, and the hearths outside, if more heavily fired, were never renewed; in striking contrast, for example, with the first Turf-Wall turret at Garthside, 54*a*, where not only the hearth but also the floor was once re-made (*Trans.*, N.S., xxxiv, 138). Lastly, the pottery matches only that from the earliest levels in the Stone-Wall turrets, 49*a*, 50*a* and 50*b* and milecastle 50 in this sector,‡ thus showing that the construction of the Turf Wall and the Stone Wall hereabouts was virtually contemporaneous. In short, the conclusion§

* Cf. *Trans.*, N.S., xiii, 341.

† Cichorius, *Die Traianssäule*, Taf. 37, scene li, figures just such a tablet on a wooden gate-tower.

‡ *Trans.*, N.S., xiii, 339-344.

§ *Ibid.*, 344.



FIG. 11.—Fragment of Hadrianic building-inscription on oak, from Turf-Wall milecastle 50 TW.

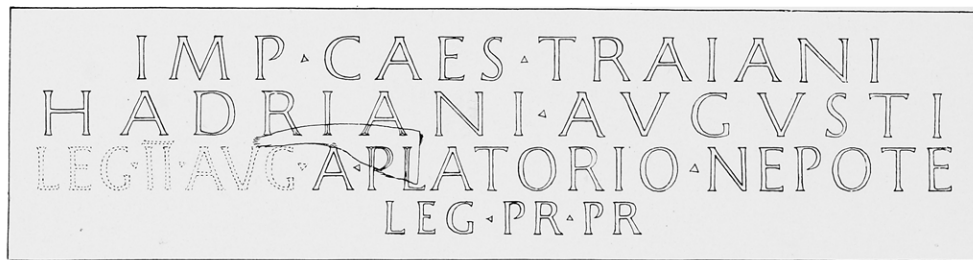


FIG. 12.—Restoration of Hadrianic building-inscription from Turf-Wall milecastle 50 TW (By Mr. R. G. Collingwood).

drawn in 1911, that the Stone Wall, turrets and mile-castle in the sector independent of the Turf Wall were erected soon after the Turf Wall, is now doubly fortified by the independent proof of its corollary, that the Turf Wall was here dismantled very soon after its construction. Hitherto, the proof of this has rested solely upon the very light occupation noted at turret 50*b* TW.

Perhaps even more important, however, is the light shed upon the date and purpose of the Turf Wall by the dedicatory inscription of the milecastle. The text of this invaluable document is discussed in detail by our President below. Here the statement may be anticipated to the extent of saying that the inscription is one of Hadrian and Platorius Nepos, dated to A.D. 122-126 and of essentially the same type as that used in Stone-Wall milecastles east of the Irthing. It is thus certain that the Turf Wall, now proved to run from the Irthing to Bowness, was designed as the counterpart west of the Irthing of the Stone Wall east of that river. Hadrian's Wall was to consist of two distinct parts, five-eighths built in stone and three-eighths in turf, this arrangement forming a permanent scheme from the first. This hypothesis, advanced last year,* has now become verified fact.

3. THE INSCRIPTION FROM THE TURF-WALL MILECASTLE AT HIGH HOUSE.

By R. G. COLLINGWOOD, M.A., F.S.A., F.B.A.

During the excavation of High House Turf-Wall milecastle, an inscription of unusual interest was found. In itself, the object discovered (fig. 11) was merely an irregularly-shaped fragment of oak, $10\frac{1}{4}$ by $3\frac{3}{4}$ ins. by $1\frac{7}{8}$ in. thick; but it had evidently been part of a plank,

* *Ibid.*, N.S., xxxiv, 134.

2 Roman inches thick, planed on both sides, plane marks being still visible, and deliberately destroyed by sawing and splitting. On discovering it, the excavators, recognizing it as part of an inscription bearing the name of Hadrian, sent it to me for examination, and ask me here to repeat the substance of the report which I then submitted to them.

The object is part of an inscribed wooden slab comparable to the stone dedication slabs found at Stone-Wall milecastles.* The remaining letters (fig. 11) are five in number with traces of a sixth. None is complete; but those in the upper line are presumably RIA, since the possible alternatives RFA, RPA, RTA, make no sense. Those in the lower line are PI or PL, and $2\frac{1}{4}$ ins. before the P there is the faint trace of a letter-head which might be A, H, I, L or the like. The lettering has been cut with great skill and elegance by a proficient workman, and this fact is significant both as showing that the inscription was an important one attached to a structure intended to be permanent, and as making it possible to count on accuracy in the lay-out of the letters when the attempt is made to restore the original text.

Assuming RIA in the first line, we must regard this as part of the name either of Hadrian or of Antoninus Pius. Since the Turf Wall at Appletree is earlier than the Stone Wall, and the Stone Wall in the same sector is certainly Hadrianic,† we must accept the former alternative, and

* These are: (1) *CIL* vii, 662, Housesteads milecastle (37), *leg. ii . . . A. Platorio N . . .*; (2) *CIL* vii, 661, presumably from Hotbank milecastle (38), near which one half of it was found, *Imp. Caes. Traian. Hadriani Aug. leg. ii Aug. A. Platorio Nepote leg. pr. p[r.]*; (3) *CIL* vii, 660, believed to come from Castle Nick milecastle (39), though the late J. P. Gibson, in a letter to Haverfield now at Oxford among the Haverfield MSS., asserts that on the evidence it must have come from Hotbank—same text as the last; (4) *CIL* vii, 663, Cawfields milecastle (42), *Imp . . . H . . . le . . . A. Pla . . .*, in which the spacing and cutting of the letters are exactly similar to those of nos. 2 and 3, and therefore it is to be inferred that the same legion was named. All four texts are therefore identical.

† Even apart from this argument, I can see no way in which the inscription could be plausibly restored so as to contain the name of Antoninus Pius.

restore HADRIANO, or as in the other milecastle-inscriptions HADRIANI, the size and spacing of the letters being determined by the existing fragment.

In the second line we cannot read PIO or PII, since Hadrian did not use that title. The obvious alternative is to read [A.] *Pl[atorio Nepote]* as in the other milecastle-inscriptions. The spacing and size of the letters, slightly narrower and more compressed than those of the first line, are again given with accuracy.

When these restorations have been made, we have two incomplete lines of text together implying a wooden slab or plank about 5 ft. long. The end of the first line gives exactly room for AVGVSTI; the beginning of the second, by analogy, should contain the name of a legion, and the only one of those employed on the Wall for which there is room is LEG. II. AVG. The inscription would then be completed by adding, at the beginning, a line IMP. CAES. TRAIANI, and, at the end, another LEG. PR. PR.

The result (fig. 12) is an inscription verbally and, apart from a contraction or two, literally identical with those on the other milecastle-slabs, and differing from them only in lay-out; a difference determined by the fact that a stone slab tends to be short and wide, a wooden plank long and narrow. The text as thus restored may, I think, be regarded as certain in its general sense apart from the name of the legion, for which I would only claim probability.

The historical importance of the inscription consists in the facts (a) that it definitely dates the Turf Wall to the reign of Hadrian; (b) that it places it in the governorship of Platorius Nepos. Various alternative possibilities are thus excluded: (i) that the first phase of the Wall-frontier (broad Stone Wall in the east, Turf Wall in the west) was either pre-Hadrianic or came early in Hadrian's reign, and that the result of Hadrian's visit

was the decision to build a stone wall from sea to sea, i.e. that his visit inaugurated the second phase of the Wall-frontier; (ii) that this first phase dates in construction, as well as in planning, during Hadrian's visit and not after his departure.* The inference is that Hadrian's own scheme for a Wall, drawn up during his visit, specified a ten-foot Stone Wall in the east and a Turf Wall in the west, and that he left Platorius Nepos to carry out this plan. Whether this same governor took the step of replacing the original plan by that which was finally adopted we do not know for certain.

The demolition of the Turf Wall entailed the destruction of this inscribed slab. It was cut up, evidently, with some care. Had it been used as firewood, this irregularly-shaped piece, which split awkwardly owing to crooked grain, would have been burnt with the rest; the pieces, therefore, must have been used for some purpose which needed straight grain; for example, they may have been made into tent-pegs, of which the Newstead examples are from 10 to 20 ins. long.† In any case, no other fragment of the same size could have told us so much; and a pious archaeologist might feel that he owes a sacrifice to Fortuna Conservatrix.

4. TURF-WALL TURRETS BETWEEN WALLBOWERS AND HARROW'S SCAR.

By F. G. SIMPSON, M.A., Hon.F.S.A.Scot.,
I. A. RICHMOND, M.A., F.S.A. and K. ST. JOSEPH, B.A.

Appletree, 50b TW. This turret was discovered as long ago as 1928, when a summary account of its excavation was given in these *Transactions* (N.S., xxix, 306).

* The possibility that the Turf Wall was designed to be a merely temporary structure I assume to have been already ruled out by the Cumberland Excavation Committee's work in 1933, *CW*², xxxiv, 133-36.

† Curle, *A Roman Frontier-post*, 310.



FIG. 15.—Turfwork in contact with the east wall of Turf-Wall turret 50*b* TW.



FIG. 16.—Turf-Wall turret 50*a* TW, from the south.

The fuller account, awaiting another example from this unique sector where the Turf Wall was never overlaid by the Stone Wall, is now due, following the excavation of turret 50a TW, and the location of 49b TW. Appletree turret (figs. 13, 14) lay twenty-two yards west of the measured interval from Wallbowers milecastle, 51. It had been much robbed, no doubt by the builders of the Stone-Wall turret 50a, 150 yards north; and the fact that the footing-flag course had been laid directly upon the cleared subsoil instead of upon the normal pitching in a foundation-trench, meant that the removal of the footing-flags obliterated all trace of the turret. Thus, only one face of the north and west walls remained complete; a gap was torn through the south wall, while the south-east angle was entirely missing. All this was foundation work, laid in two courses, of which the upper was not seldom missing, while only the north end of the east wall retained a short length of the lowest course of true walling, 2 ft. 6 ins. wide. The preservation of this fragment is important for two reasons. Since the foundations of this turret are of uniform thickness, designed to carry a wall over three feet thick, the presence of the thinner side-wall gives the required proof that these turrets also had the plinth at back and front which is an invariable feature of Turf-Wall turrets* whose masonry is sufficiently preserved. Secondly, the work was here standing high enough to retain on its outer face five layers of the actual Turf Wall (fig. 15), providing the only surviving case yet discovered of turfwork in actual contact with a Turf-Wall turret. Elsewhere, the turret remains are too badly robbed or the turf has been removed by the builders of the Stone Wall.

The fragmentary nature of the remains rendered it impossible to tell at which end of the south wall the doorway had been, though the position of the hearth, out of

* e.g. *Trans.*, n.s., xxxiv, 148, fig. 13; xxxiii, 264, fig. 18.

centre towards the east side, suggests that the door may have been on the west, as at 54a (*Trans.*, N.S., xxxiv 139, fig. 6), rather than on the east, as at 52a (*Trans.*, N.S., xxxiv, 149). With the hearth were associated fragments of a *dolium*, but the layer of occupation-earth was remarkably thin, as in parts of milecastle 50 TW, betokening only a brief occupation. Finally, the relation of the turret to the ditch was normal, with a berm six to eight feet wide.

High House, 50a TW, was discovered in 1934, not without considerable trouble, since it lay thirty-three yards too far east in relation to milecastle 50 TW, though in correct relation to turret 49b TW. This turret (figs. 13, 16) was even more thoroughly demolished than 50b TW, and both north and south walls had been cut through by two field-drains. But the foundations were laid in a trench, of which the outline was plain, even where the foundation had been totally removed. Total removal occurred at the north end of the east wall and the west end of the south wall, and only small pitching remained over much of the rest. But the footing course covered the pitching at the south-east corner, while the north end of the west trench still retained both this and a scrap of walling, 2 ft. 6 ins. wide. Once more, this walling usefully confirmed the presence of narrow side walls, as compared with the wider front and back walls for which the wide trenches were clearly cut. It will also be noted that, as at 52a (*Trans.*, N.S., xxxiv, 149, fig. 12), the walls were laid against the outer edges of the trench, which enclosed a square of twenty Roman feet, leaving a narrow strip of stone packing on the inner side. In front of this turret, as at 50b TW, the berm was narrow, about six to eight feet wide.

Turret 49b TW was located in 1934, thirty-three yards east of the measured position in relation to milecastle 50 TW, but correctly placed in relation to turret 50a TW.

Only the two side walls were located, both much robbed. It was noted, however, that the foundations of this turret

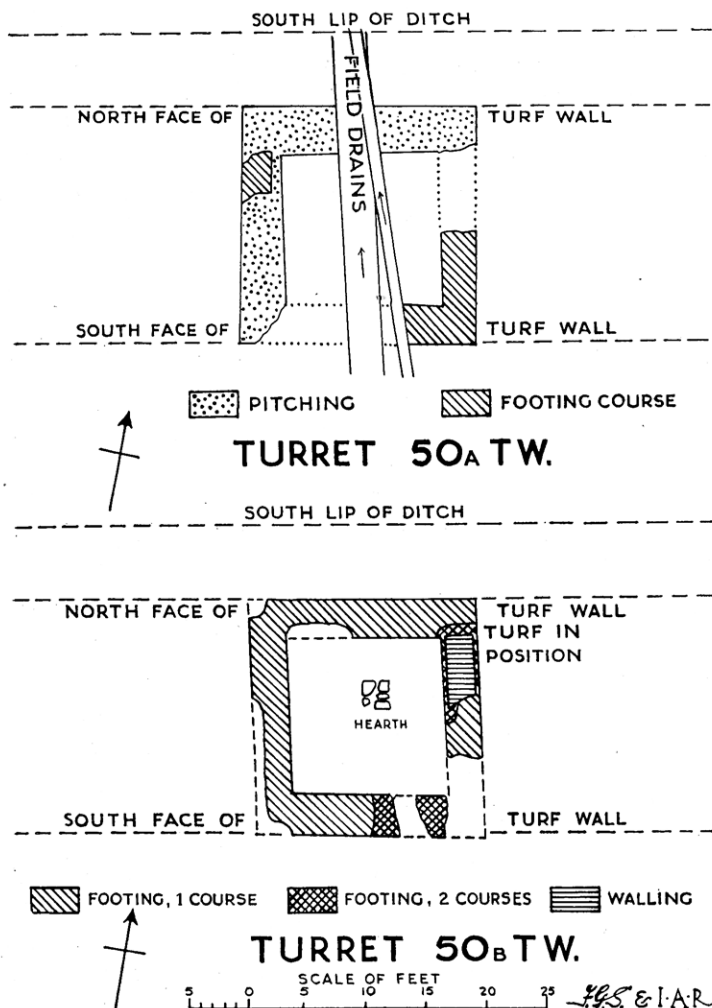


FIG. 13.

also had been laid in a trench, so that the plan of the whole turret should be recoverable, if desired. For

present purposes, it was sufficient to locate the site, reserving its examination in full to future workers.

It may be observed that the discovery of this turret raises the question, not hitherto within the scope of practical discussion, as to the site of turret 49a TW. On the Stone Wall, the place of this turret is taken by Birdoswald Fort. But the Turf Wall is known (*Trans.*, n.s., xxviii, 379) to run below that fort as an earlier and independent structure, and might therefore be expected to have possessed a turret cancelled in the later arrangement. On the other hand, there may have been a gate through the Turf Wall at this point, corresponding to the Vallum-crossing. It is hoped that the examination of this question will take place during the forthcoming season.

Turf-Wall turret-intervals between milecastles 49 and 51. Turret 50b TW lies 522 yards east of milecastle 51, Wallbowers. Turret 50a TW lies 545 yards east of 50b TW, and 507 yards west of milecastle 50 TW. Turret 49b TW is 571 yards east of milecastle 50 TW, and 1028 yards west of milecastle 49, Harrow's Scar. Any comment upon the last measurements must await explorations east of turret 49b TW.

5. RANDYLANDS MILECASTLES, 54.

By F. G. SIMPSON, M.A., Hon.F.S.A.Scot. and
I. A. RICHMOND, M.A., F.S.A.

The discoveries at High House, 50 TW, already recorded, took us back to Randylands, to ascertain whether the clay bank found inside the Stone-Wall milecastle in 1933 (*Trans.*, n.s., xxxiv, 146, fig. 8) could be more definitely associated with a milecastle of the Turf Wall phase. The existence of a cobbled road through the north gate of milecastle 50 TW led first to an examination of the cobbling discovered outside the north gate of

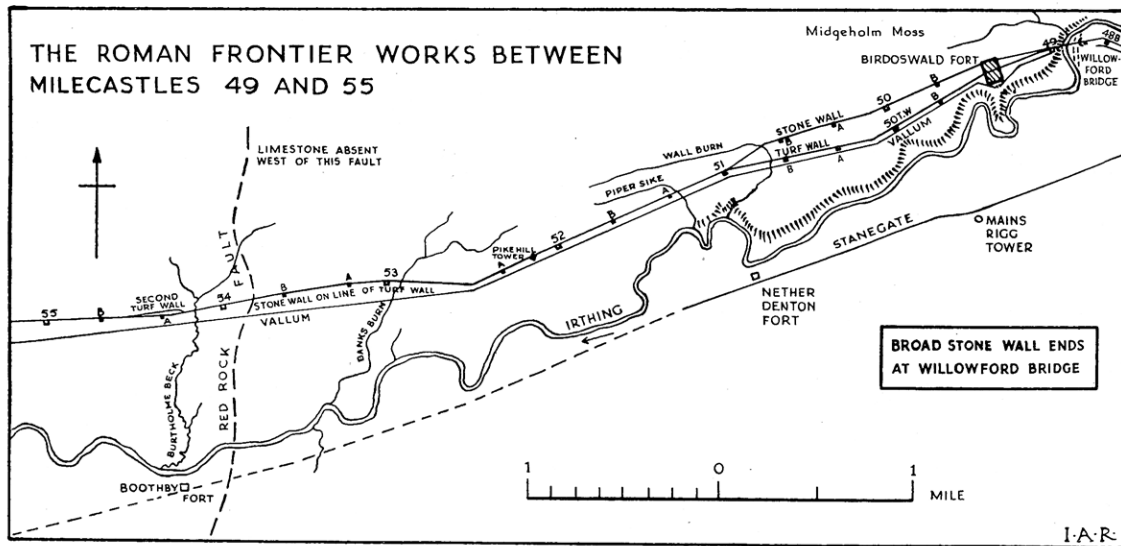


FIG. 17.

EXCAVATION COMMITTEE FOR 1934.

Randylands stone milecastle in 1933 (*loc. cit.*). This cobbling proved to be a road twelve to fourteen feet wide, running right across the abnormally wide berm, but entirely unrelated to the stone milecastle, since its axis lay 12 feet east of that of the stone gateway. The conclusion was inevitable, that this roadway had belonged to the milecastle of the Turf-Wall phase.

The fact that the berm at milecastle 50 TW was of the same width as at all turrets between 49^b TW and 55^a, now led to the expectation that the post-holes of a timber gateway would be found at the sides of this road, well north of the stone milecastle (see plan, fig. 18). But, for reasons revealed at a later stage, the post-holes were not forthcoming either at the position anticipated or anywhere north of the stone milecastle. Thus, after recovering the hitherto conjectural plan of the stone north gate, by exposing the pitched foundation of its east jamb, we turned to the stone barrack found in 1933, intending to search below its stratification for the Turf-Wall occupation-level. Stone-robbing and subsequent ploughing had rendered the later history of the building a little difficult to understand. The earliest stone level had been deliberately covered with clean clay, which sealed the top of the demolished west wall, as if the later barrack had been set against the west wall of the milecastle, while the earlier one stood free, eight feet away from it. The clean clay layer, being placed directly upon the second-century occupation-earth, must represent the first stage of the third-century restoration. The floor and relics of that period were absent, nor was a Constantian level found: for the clay sealing was immediately covered by a flagged floor, upon which only late fourth-century pottery occurred. Evidently, the latest builders within the milecastle had removed earlier floors. Examples of such removal were already available from milecastles 51 and 52 (see below, p. 252). The first stone building



FIG. 10.—Stone barrack in milecastle [twydas_002_1935fv0135_0020](#) levels in section below its walls and floor.

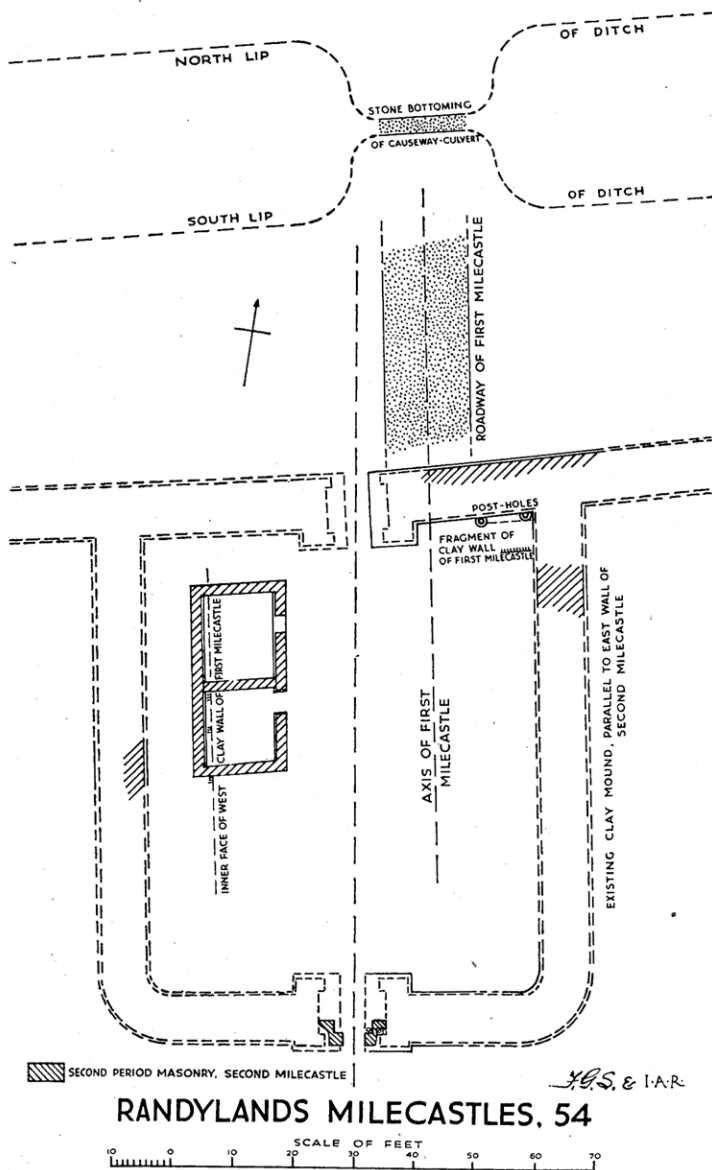


FIG. 18.

(figs. 18-20) was well preserved below the clay which sealed it. As revealed in 1933, there were two rooms, entered at their north-east corners. The clay floor of the southern room yielded no hearth, few relics and a little trampled ash, suggesting use for stores or arms, rather than for habitation. The dividing-wall between the two rooms had been built after the main shell of the building. The north room had been much used, evidently as the quarters of a *contubernium*. Its north end was flagged. On its east side, between the door and the south wall, there was a prominent couch of stone, three courses high, of the type discovered in turret 52a (*Trans.*, N.S., xxxiv, 150). A similar structure had apparently been continued along the south wall in clay and stones; while the position of the hearth, and the quantity of clean clay supporting its back suggests that the same arrangement had obtained along the west wall. These benches would form a *triclinium* remarkably like those* of Numantia and Masada, the normal equipment of the Roman army, but the first example to be discovered in Britain. The hearth, heavily burnt and once repaired, was set within the space bordered by these benches. Two nether millstones remained in position, sunk in the floor, while an upper stone, found near by, is set in its original position for the photograph (fig. 19). There was also coarse pottery, of which the distinctive feature is its similarity to that discovered in milecastle 50 TW, belonging to the sector of Turf Wall rapidly rendered obsolete. Yet this pottery comes from the lowest Stone-Wall level at Randylands, suggesting that even so far west the replacement of turf by stone was still rapid, as compared with the less rapid reconstruction at the very next turret, 54a, beyond the Red Rock Fault (*Trans.*, N.S., xxxiv, 141).

A demonstration of the fact that the lowest layer of

* Schulten, *Masada*, 110-112 and *Numantia*, iii, 152, iv, 28, 162.

the second milecastle at Randylands was indeed distinct from the first occupation was now forthcoming. Two sections (see fig. 19) were cut below the floor of the south

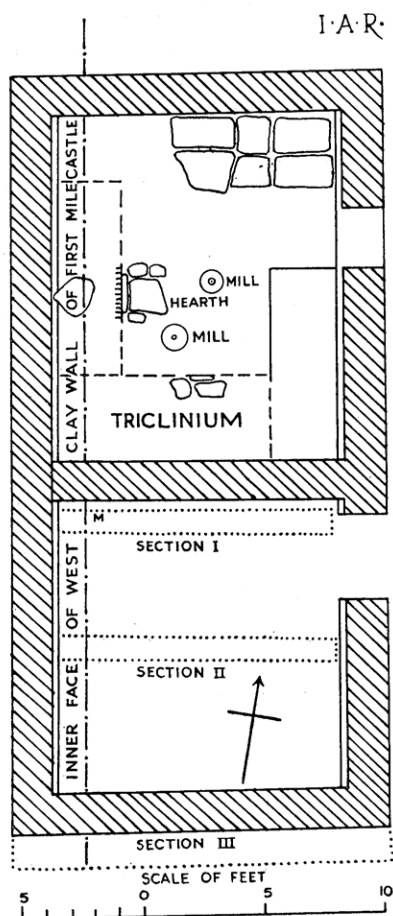


FIG. 20.—Plan of stone barrack in milecastle 54, showing domestic arrangements and excavators' sections.

room of the barrack and one outside its south wall, and two trial-holes in the north room. The trial-holes revealed that the Turf-Wall levels were here riding up to the surface, so as to be entirely removed, together with some depth of subsoil, by the foundation-trench of

the north wall of the second milecastle. Further south, the first level was deeper, separated from the lowest level of the stone barrack by a layer of clean pink clay, and lay actually below the walls of the building (fig. 19). It was marked by a thick layer of ashes, yielding, in the south section, a fine upper millstone of bee-hive pattern, and, in the north section, at point M in fig. 20, a typically Hadrianic *mortarium*, suggesting that the whole layer would repay further examination. The three sections also provided an invaluable clue to the planning of the first milecastle. The excavation of milecastle 50 TW had shown that the occupation-layer always ended abruptly against the inner face of the milecastle wall, thus defining its exact bounds. The Randylands sections revealed the same fact, for the west limit of the dark earth occurred at the same point in each section, evidently terminating at a common obstacle, running in a straight line. This clean material was artificially placed, since it lay above the old surface line; and analysis was presently to reveal its substantial similarity to the clay bank cut through by the north wall of the second milecastle. There can then be no doubt that the sections had revealed not only the occupation-earth but the inner face of the west wall of the first milecastle. Another valuable conclusion about the planning of that milecastle follows (see fig. 18). The inner face of its west wall occurs at exactly the same distance east of the second milecastle's west wall as its roadway lies east of the second milecastle's long axis. This would imply that the successive milecastles had been of the same plan, but that the second was planted 12 feet west of the first. The north limit of the internal area of the first milecastle also becomes clear from the following facts. Since post-holes of the first north gate were lacking at all points along the roadway across the berm, and since the occupation-layer of the first milecastle extended almost to the back of the second milecastle's

north wall, it is clear that the first gate must have been covered by the Stone Wall. Below that Wall, however, all trace had been removed by the foundation trench, which had also cut away the cobbled road. It is equally clear, however, that the remaining fragment of clay bank must represent the inner edge of the north wall of the first milecastle, while the post-holes within it were probably connected with a stair or ramp provided at this point. The position of the east wall is less certain. It appears to be represented by the prominent mound of clay* immediately outside and parallel to the east wall of the second milecastle. The south wall remains to be located. Trenching should reveal the limits of the occupation-earth in this direction, and perhaps the south gate. Meanwhile, a technique of recovering Turf-Wall milecastles overlaid by the later works in stone may be claimed as within the range of practical application.

The last point determined in 1934 was whether the ditch in front of the milecastle, which lies on a steep westward slope, as at High House 50 TW, had been crossed by a similar causeway of undisturbed subsoil, containing a culvert. Excavation quickly revealed that the ditch had been dug in very soft sand, as at turret 54a, and that its original outline had been almost totally obscured by weathering and subsidence. Nevertheless, there still remained (fig. 18), exactly opposite the cobbled road and covering its twelve-foot width, a narrow strip of stone bottoming at a depth of three feet. It is difficult to resist the conclusion that this represented the floor of the original culvert. No original posts nor wooden lining were found, but at the upper end there was much unhewn timber, representing as it seemed, a tree which had been washed down the ditch in post-Roman times. The subsidence already noted emphasizes the extreme

* Clay, because the works normally built in turf were in this sector made of clay, see below, p. 245. A trench revealed nothing about the mound except its composition.

softness of the Randylands subsoil. This defect must have become apparent at latest during the digging of the ditch, with the result that an abnormally wide berm was provided from the first at the milecastle and for over a hundred yards in each direction. In other words, the "Turf" Wall, here built in clay, was set back from the ditch to ensure its stability, and the Stone Wall followed the same line for the same reason. It may be remarked that the precaution would be rendered even more necessary by the heavy beating to which the clay structure was presumably subjected, for this would shake the subsoil anywhere near the scene of operations.

6. THE USE OF CLAY INSTEAD OF TURF IN THE GREAT WALL AT RANDYLANDS AND GARTHSIDE.

By F. G. SIMPSON, M.A., Hon.F.S.A.Scot. and
I. A. RICHMOND, M.A., F.S.A.

The discovery, in 1933, of a clay bank in the north-east corner of Randylands milecastle, 54, where turfwork might have been expected, was rendered the more remarkable by the fact that High House, 50 TW, was found in 1934 to be walled entirely in turf. When this fact was supplemented by the information that the west wall of the first milecastle at Randylands had been clay-built, the matter appeared to call for an exact analysis of the remains and an extension of the inquiry. At this stage it was also recollected that the first Turf Wall at Garthside had not appeared completely normal in composition, while the second was composed of clods, revealed by analysis to be "pond-bottom accumulation," in the words of Dr. Kathleen Blackburn's report (*Trans.*, N.S., xxxiv, 140, note). A point in field No. 461 (C. xii, 13), between Garthside turret and Randylands, was therefore selected for examination, where the Stone Wall appeared

to be built on top of a prominent earlier mound. When trenched, this mound was found to be composed of material similar to the clay bank and west wall at Randylands. Samples were therefore taken from these three points and submitted to Dr. Arthur Raistrick, of Armstrong College, for analysis, together with a sample from the well-known section of the Turf Wall at Appletree. His report follows herewith.

Locality of Specimens.	Colour.	Rounded quartz grains.	HEAVY MINERALS.							HUMIC MATTER.	POLLEN.				
			Zircon.	Hornblende.	Garnet.	Rutile.	Tourmaline.	Barytes.	Iron ore.		Alder.	Birch.	Willow.	Ericoid.	Ferns.
I. East of 54a ..	Red	A	a	l	l	c	c	c	a	—	—	—	—	—	—
II. 54, N-E corner ..	grey	l	a	v	r	l	c	—	l	—	—	—	—	—	—
III. 54, under W. building	grey	c	a	v	r	l	c	—	l	v	—	—	—	—	—
IV. Appletree, T. W. ..	gr.-br.	—	v	—	—	—	—	—	—	A	c	l	r	a	a

Key to signs used in the table:

A = very abundant.
a = abundant.

c = common.
l = little.

r = rare.
v = very rare.

Notes upon the samples. I, and II and III form two distinct groups, though related. II and III approximate very closely to normal boulder clay on the Carboniferous area; while the differences apparent in I would be explained by the presence of a larger proportion of New Red Sandstone in such clay. Striking differences in the local geology are largely obscured because the clays in question are far-travelled and of wide derivation; the local change from the Carboniferous to the New Red Sandstone is thus reflected only in contamination of the clays, as shown in the Table.

IV differs in all respects from all three. It contains a fair proportion of peaty material, yielding abundant tree and plant pollen.

No more striking demonstration of the contrast in material could well be forthcoming than is here supplied by Dr. Raistrick. At Appletree, the precise organic nature of the Turf Wall and its cespiticious composition are proved with an altogether new precision, not hitherto applied to turf ramparts of the Roman age; and the result is to tell us, not merely the fact that the Wall was there turf-built, but to indicate also the type of vegetation characterizing the surrounding landscape. Samples from the Turf Wall throughout Cumberland would enable us to reconstruct a detailed picture of the local *flora* in Roman days, a novel possibility beyond the dreams of older generations. But at Randylands we are confronted by the inorganic local clay, used as a substitute for turf.

Before offering an explanation of this change in conditions, it must be observed that the phenomenon is entirely local; for turfwork is known to exist both at Banks Burn milecastle, 53, and at Howgill turret, 54*b*. Thus, the area in which clay was employed hereabouts was not a large one. It is curious, moreover, to note that exactly the same state of affairs occurs upon the line of the Stanegate, about a mile further south. At Nether Denton, the fort is known (*Trans.*, N.S., xxxiv, 154) to be turf-built; at Boothby (Castle Hill), the fort (*Ibid.*, 155) has a rampart of beaten clay; while at Castlesteads, excavation has yielded an early stage in turf (*Ibid.*, 159-165). This suggests that we are dealing with a condition affecting a narrow belt of country, crossing the line of the Wall from north to south. Sir George Macdonald, considering an analogous change from turf to clay in the material of the Antonine Wall,* was led to the view that the incidence of clay building coincided with a belt of woodland. Bearing this suggestion in mind, and putting the matter before Dr. Raistrick,

* *P.S.A.Scot.*, lix, 282-4.

we were at once furnished with a very similar suggestion. At just this point, the lines of the Wall and the Stanegate are crossed by a well-known geological feature, known as the Brampton kame belt,* consisting of sands and gravel. This, Dr. Raistrick observes, would be more likely to support woody growth, or scrub, than the colder clays which cover the surrounding areas. Once more, therefore, geology appears to supply a ready and convincing answer to a question affecting the use of local materials. No turf suitable for walling could be got in an area covered with scrub. Recourse would therefore be had to the next best material, namely clay; just as when local supplies of lime failed, the change was made from stone to turf. The result is not only to emphasise the dependence of the Wall-builders upon local supplies, but to demonstrate their sagacious reaction to the changing conditions of the countryside in which they were at work. The reproach sometimes made, that the Roman army-engineers had a tendency to enforce regulations in unsuitable circumstances, is not applicable here. If the major geological change from limestone to red sandstone, resulting in the absence of local supplies of lime, reveals the Turf Wall to be a concession to Cumbrian conditions, the minor local difference, contributing to the absence of turf and causing a local change from turfwork to clay, demonstrates that variation was possible within the larger mutations.

7. BANKSHEAD MILECASTLE, 52.

By F. G. SIMPSON, M.A., Hon.F.S.A.Scot. and
I. A. RICHMOND, M.A., F.S.A.

The excavations of 1933 left upon our hands the problem presented by the great width of this milecastle

* Geological Survey Memoir, sheet 18, 149.

(*Trans.*, N.S., xxxiv, 14). This year, the generous interest of Mrs. Nicholson enabled us to examine the remains of its south wall, below the south lawn of Bankshead House (figs. 21, 22). The internal dimensions so determined prove to be 90 ft. 3 ins. from east to west, and 76 ft. 9 ins. from north to south. Bankshead is thus the largest milecastle yet known upon the great Wall, and its exceptional dimensions call for explanation.

A determining factor is undoubtedly to be recognized in the occurrence in this sector of the extra signal-tower at Pike Hill (*Trans.*, N.S., xxxiii, 271-3), which lies between the milecastle and turret 52a. This circumstance doubtless necessitated a garrison at least one and a half times the normal strength, since three towers had to be manned instead of two. Indeed, the milecastle itself is actually one and a half times the normal size of stone milecastles from Carvoran westwards. But the further discovery, at the south gate, of a well-burnt hypocaust-pillar, used up in road-filling of the final repair (see below, p. 253), suggests that the buildings within the milecastle had been more elaborate than usual. No other example of a hypocaust within a milecastle has yet come to light, a fact which would also fit the presence of a larger garrison, since heated quarters imply the residence of a more important officer.

Another point of general import is also raised by these discoveries. When Poltross Burn milecastle, 48, was examined, it was thought that its buildings, filling the area in which they stood, represented the typical complement of a milecastle. But excavation since that time has not revealed another example; and it becomes, indeed, increasingly clear that the strength of the milecastle-garrisons was considerably lower than once seemed likely. It will be noted, for example, how much space there is to spare upon the excavated west side of milecastles 50 TW and 54. Much remains to be learnt



FIG. 22.—Bankshead milecastle, 52, excavations at the south gate.



FIG. 26.—Bankshead milecastle, 52, general view of south gate, from the north.

TO FACE P. 248.

about the organization of the milecastles, and only further work on this important matter can provide the material for generalizations.

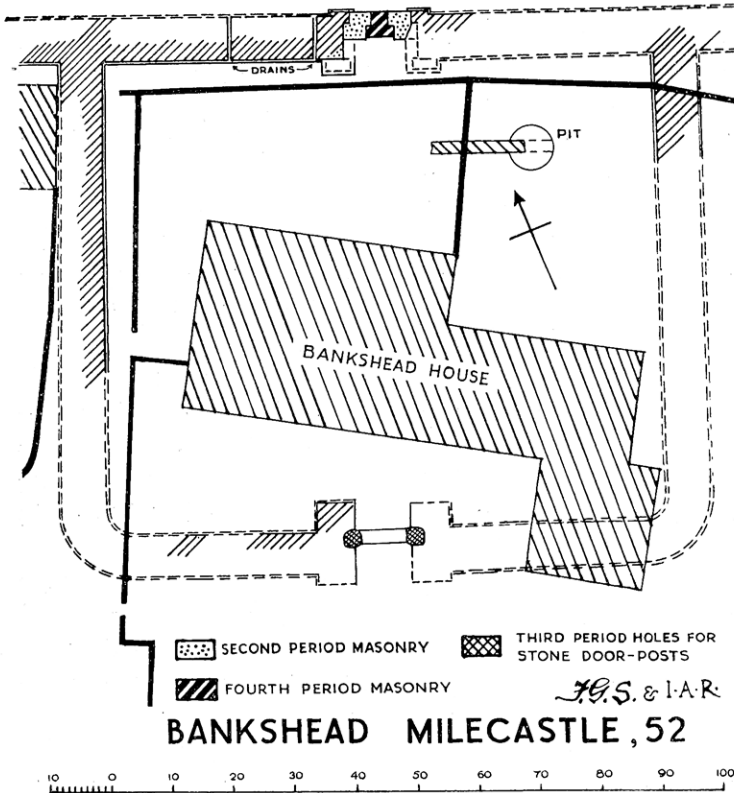


FIG. 21.

Little remained of the internal buildings at Bankshead. The only fragment recovered was a fifteen-foot length of walling in the north-east quarter, just too short to show which way the barracks had faced. We were generously

allowed to cut trial trenches in the whole area available, but these yielded only evidence for complete removal of the Roman levels by deep cultivation. The gates of the milecastle, however, proved of quite exceptional interest, and call for special attention from students of the later phases of the Roman occupation.

The north gate lay entirely below the modern road, which the Cumberland County Council, following their established tradition of interest in our work, allowed us to remove temporarily in two sections. This work revealed four modifications of the gateway (figs. 23-25). The earliest gate was of type III, with the deep backward projections of the inner jambs, which had, however, been later removed, leaving only the pitching of the first period. During the first period also the levels in the gate had been raised, and new pivot-holes provided for the double doors, a phase already well-known as period *Ib*. This is the third occurrence of this alteration in a Stone-Wall milecastle replacing a Turf-Wall milecastle, the other examples being both gates of milecastle 50 and the south gate of milecastle 54. In the second main period, as also at 50 and 54, the gate was reduced in width (fig. 25), while the inner jambs, as at Castle Nick, 30 (both gates), and Winshields, 40 (south gate), were taken down and rebuilt without projections.* At this time the gateway can hardly have carried a tower, an inference which implies the remodelling of the earlier signalling-system based upon the turret-intervals, and wins support from the disuse of turrets, as 50*a* and 54*a* in this neighbourhood (*Trans.*, N.S., xiii, 306, pl. iii; xxxiv, 139). Nor was the gate any longer of service for carts or horsemen. Only pedestrians could now file through the 2 ft. 10 ins. passage-way of the new postern-gate.

* Winshields, *Trans.*, N.S., xiii, 318, fig. 16: Castle Nick remains unpublished.

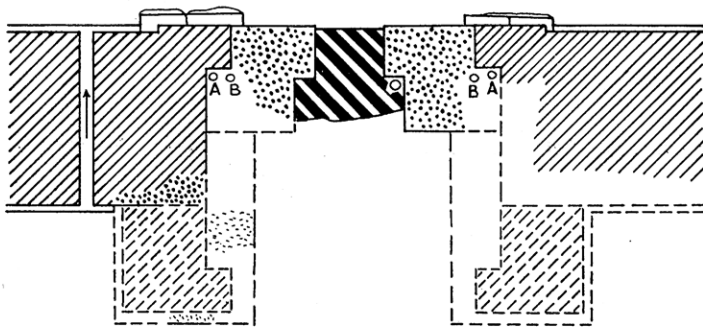


FIG. 24.—Bankshead milecastle, 52, north gate from the north.

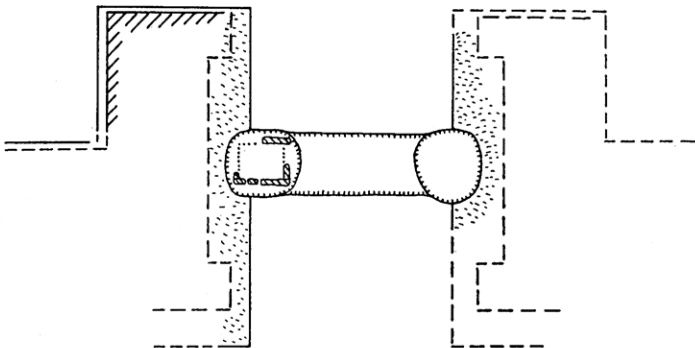


FIG. 25.—Bankshead milecastle, 52, north gate from the south, showing reducing-walls and later blocking.

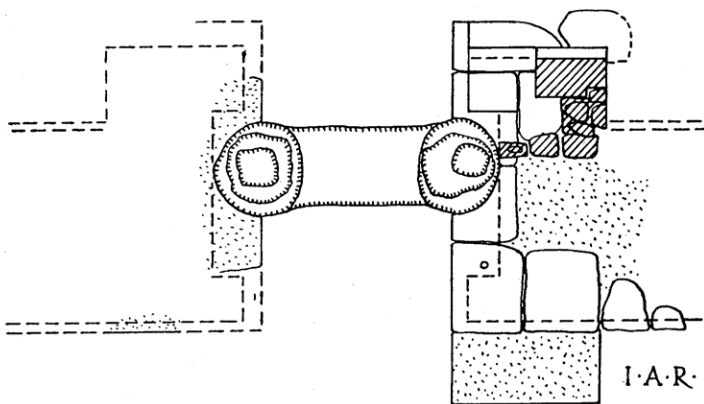
TO FACE P. 250.



BANKSHEAD, 52: NORTH GATE



BANKSHEAD, 52: SOUTH GATE



WALLBOWERS, 51: SOUTH GATE

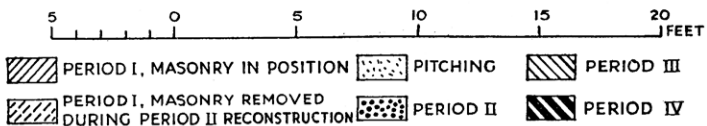


FIG. 23.

The third stage was marked by the raising of the floor and threshold of the postern, and may be taken to correspond to the Diocletianic restoration of the frontier, just as the narrowing of the gateway belonged to the restoration under Severus. These events are dated by the Birdoswald inscriptions, to c. A.D. 205 and A.D. 296-305 respectively (*Trans.*, N.S., xxx, 199-201).

The fourth phase, however, is marked by an altogether new change. The gate was totally blocked (fig. 25) by a rough wall lavishly mortared. Hitherto, the only example* of a blocked milecastle-gateway has been furnished by Portgate, 22, where the blocking was Severan, and to be explained as the elimination of a gate which uselessly duplicated the passage through the Wall provided by Dere Street, 263 yards to the west. No such duplication can be adduced as a factor in this case, and the blocking itself belongs to the last phase of the Wall's history, presumably to the restoration of Count Theodosius in 369. Bankshead has not, indeed, yielded pottery of this period. But such ware occurs at Pike Hill signal-tower (*Trans.*, N.S., xxxiii, 272), for which this milecastle provided the garrison, and the total removal of all later levels within the milecastle goes far to account for the dearth.

If the north gateway had proved particularly interesting, the south gate (figs. 23, 26) was to provide evidence of an entirely new character concerning the reconstruction of milecastle gateways. Working along the inner face of the south wall, and uncovering the west inner jamb of the gate, we had not gone far in our search for the passage-wall, when the stone-kerbed edge (fig. 27) of a large rectangular cavity appeared. It proved to be one of a pair of deep stone-lined holes, dug about half-way through the gate-passage, close to the passage-walls, and connected by a shallower slot (fig. 28). These holes were filled with

* *Arch. Ael.*, ser. 4, viii, 326, pl. lviii, fig. 2.



FIG. 27.—Bankshead milecastle, 52; west post-hole for door-post of later south gate.

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FIG. 30.—Wallbowers milecastle, 51; rock-cut post-holes and threshold-slot of later south gate.

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FIG. 28.—Bankshead milecastle, 52, post-holes and threshold-slot of later south gate.



FIG. 29.—Wallbowers milecastle, 51, south gate; threshold-slot and post-hole of later gate cutting earlier foundation.

tumbled rubbish, including many fragments of strong iron binding or strapping, perforated with nails and showing at least one welded joint. Wood still adhered to some fragments, which had clearly belonged to a heavy, oak door bound with iron. The slot connecting the holes had been robbed of whatever it had once contained, and then solidly filled up to carry a later road-surface of small cobbles and random flagging, including a large mill-stone (fig. 28). In order that the objects, namely doorposts of some kind, to be placed in the holes should abut upon the passage-walls, it had been necessary to cut through the massive foundations of the original stone gateway; and though the holes, like post-holes in general, were roughly rounded, the remains of the stone kerbing and lining showed that the doorposts held in position by them had been squared. The slot was about two feet wide and deep, while the holes were about two feet six inches across the top and three feet nine inches deep. In cutting the slot and laying the new road, the late builders removed all earlier road-levels right through the gateway.

The objects which these holes were intended to contain were so large that the use of timber is virtually excluded. The most massive timbers used for gate-posts do not exceed a foot square, whereas these holes were meant to hold squared objects about twice as large. Thus, it is necessary to seek for an alternative to timber, which, in the Roman world, could only be masonry. In other words, the holes may be taken to have held large doorposts and a threshold of stone, intended to carry a flat arch, usually with relieving-arch above. This type of gateway is a late one, as introduced to Roman architecture in the west, the earliest dated examples* appearing as posterns in Aurelian's wall at Rome, about A.D. 275. But the type spread, and there would be nothing surprising in its occurrence by the end of that century in Britain.

* Richmond, *City Wall of Imperial Rome*, p. 247.

Nor is this date inconsistent with the evidence at our disposal. It has hitherto been regarded as axiomatic that the treatment of the north and south gateways of milecastles was the same in each period. This change belongs to the penultimate restoration, the last being represented by the removal of the threshold and the provision of a new road-surface. That this road was the last is proved by the finding of the iron stripped from the doors in the empty door-post holes at its edge. This final road-surface may therefore be regarded as a change introduced under Count Theodosius, after the disaster of 367-9; and the new gateway thus modified may be accepted as Constantian (c. 296-305), a dating which allows time for the narrowing of the south gate in the second or Severan period, to match the north gate. This avoids the unlikely assumption that the Bankshead gateways were never similar after their first destruction. In short, the placing of the notable change in the Constantian period is supported both by its style and by local considerations.

Before discussing this remarkable type of gateway, it seemed necessary to determine whether the Bankshead example had any parallel in the immediate neighbourhood. The south gateways of milecastles 50 and 54 were already known to possess Severan reducing-walls. At Banksburn, 53, only the foundation-pitching of the west side remained at the south gate. No more than the jambs were located in 1932 (*Trans.*, n.s., xxxiii, 268, fig. 20). The full length of the passage-wall foundation was therefore exposed in a new trench and found to be intact. There was no Constantian post-hole. The trench incidentally revealed in position a portion of the original stone threshold, of the type found* at milecastles 13 and 17.

Wallbowers milecastle, 51, produced, however, a second

* Milecastle 13, *Arch. Ael.*, ser. 4, viii, pl. lxii, fig. 1; milecastle 17, *op. cit.* ix, pl. xxxviii, fig. 1.

example (figs. 23, 29) of the new type of south-gateway reconstruction. Indeed, the evidence was even more striking, because the great foundation-flags of the original gate were still in position, and had been cut through in making the holes, while the threshold-slot was cut in the living rock (fig. 30), removing, as at 52, all earlier road-levels. On the east side of the passage also one stone of the original passage-wall remained, showing that from the inner end of the passage at least as far as the new doorposts the original structure had been retained.* Bankshead, 52, however, yielded the clearest evidence that the front of the original stone gate had been taken down to its very foundations, which were covered by the road-surface contemporary with the Constantian work. But the exact plan of the front which was then erected could not be recovered, for not one stone remained in position. It was clear, however, that the last reconstruction at both milecastles was of the same type; for at Wallbowers the threshold-slot had been filled by the latest road, exactly as at Bankshead, the threshold having been then removed.

The fact that the particular type of south-gateway reconstruction represented at these two milecastles is not extended to the neighbouring milecastles, 50, 53 or 54, proves that the change may be regarded as a Constantian variation of local significance. At that time, it was found desirable to widen the southern entry to these particular milecastles, while retaining the Severan foot-way at the north. Presumably the reason for this widening was to provide access for wheeled transport conveying some exceptional type of stores. Why these milecastles alone should have required this provision

* The original external buttress on the east side of the south gate, visible in fig. 29, must not be mistaken for later work. It is an original provision, bonded with the foundation-flags, and is no doubt connected with the steep southward slope existing at this point. In the absence of superstructure, its original aspect must remain doubtful.

remains obscure, but a possible explanation, bearing in mind the proximity of the special signalling-tower at Pike Hill, would be that they were more intimately connected than others with the trunk signalling-system of the Great Wall, and that beacon-fuel or inflammable material was carted into them. In this connexion the place of milecastle 51 as a link between the Stanegate fort of Nether Denton and the tower at Robin Hood's Butt on Gillalees (*Trans.*, N.S., xxxiii, 241-5) must not be forgotten, but added to the evidence available for a Constantian reorganization of the Stanegate. In general, however, the whole question of signalling on the line of Hadrian's Wall remains dark, and its elucidation must await the discovery of parallel material in other sectors.

8. STANWIX.

By F. G. SIMPSON, M.A., Hon.F.S.A.Scot. and R. HOGG.

The work begun in 1932, in the girls' playground of the Elementary School (*Trans.*, N.S., xxxiii, 276), was continued until the whole available area had been examined. At the northern end of the area, it was found that the great Wall, reported as " narrow Wall " in 1932, conformed to the Intermediate standard since recognized to extend from near milecastle 54 to Bowness (*Ibid.*, pp. 132-133): the remains of the foundation were nowhere less than nine feet in width. The remaining area, running back for nearly one hundred feet, had been at first covered with a spread of gravel, in and below which second-century pottery was obtained at the south end. The earliest pieces of this ware are Hadrianic, and came from a small hollow below the gravel, over which a fragment of still later wall had subsided. In addition to this fragmentary wall, four parallel walls were found in line with the great Wall, representing, it would seem, two buildings placed



FIG. 31.—The northward turn of the Vallum-ditch at Stanwix.

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lengthwise behind the Wall, about fifteen feet behind it, and separated one from the other by a space of ten feet. The northern building was about twenty-five feet broad, the southern twenty-two, and only foundations were left, the floor-levels having been robbed. Nevertheless, the pottery scattered about and associated with the foundations was entirely of the period A.D. 305-367.

The result of this work is to correct the impression gained in 1932, that this area lay within the fort. It would seem that the ground lay empty of buildings until early in the fourth century, resembling, indeed, the open spaces covered with paving or pitching, often identified as parade-grounds (*Trans.*, N.S., xxviii, 337-8) and always lying outside the fort to which they belong. This would imply that the fort lay still further east of the traditional position, from which it has already been ousted (*Trans.*, N.S., xxxii, 147-8); and the true site yet remains to be discovered. It will be recalled that this implication agrees with the conclusion drawn (*Trans.*, N.S., xxxiv, 156) from the presence of original permanent causeways across the Vallum south-east and east of Stanwix Church. If these have to do with the fort and the northern road to Netherby, then the buildings in the School playground must lie wholly west of the north road and far west of the fort itself. Only further work can be expected to elucidate the matter.

The work of tracing the Vallum (fig. 31) entailed a correction in impressions hitherto recorded (*Trans.*, N.S., xxxiv, 156). New trenches cut to trace the northward turn at the west end of Rickerby Park, revealed that the turn continued, until it became twice as sharp as the angle so far explored turning through thirty-four degrees instead of seventeen. The result is to corroborate even more strongly the conclusions drawn from the less acute turn; for it becomes clearer than ever that the Vallum turned away from the river-crossing at Eden Bridge, to

follow the Wall even more closely towards the crossing of the river at Hyssop Holme Well.

At the south entrance to Stanwix House, the easternmost of the original causeways across the Vallum was further examined. It was found that to north of the causeway a strongly metalled road was running from east to west and beginning to curve towards the north. No explanation of the feature can yet be offered, but the fact is here put upon record. The cost of all the work at Stanwix was borne, as previously, by the Carlisle Corporation.

The warmest thanks of the Committee are offered to the landowners—The Earl of Carlisle at Randylands, Lady Cecilia Roberts and Mr. Charles Roberts at Wallbowers milecastle and High House, Mrs. Nicholson at Bankshead, Mrs. Holliday at Banks Burn, Mrs. Moore at Kirkland milecastle, Mrs. Jefferson at Drumburgh, Mr. Irwin A. Wright at Birdoswald, Mr. W. M. Hodgson at Watch Hill and Mr. J. Atkinson at Bowness—and to the tenants, for permission to excavate; also to Mr. W. James, Agent for the Naworth Estate, and Mr. S. Walton, Agent for the Boothby Estate.

Our special thanks are due to Mr. G. O. Lockwood, the County Surveyor, and Mr. R. Forster, Divisional Surveyor, whose kindness greatly facilitated the work at the north gate of Bankshead milecastle, as at turret 52*a* last year; also to Mr. Paul Brown and Miss C. Whyte, who drew specially for this report the restoration of High House Turf-Wall milecastle, which forms so striking an addition to the record.