

ART. XX.—*Notes on the Excavations on the line of the Roman Wall in Cumberland, in 1896 and 1897.** By MRS. HODGSON, Newby Grange.

THE excavations in 1896 were begun at Birdoswald, where it was hoped that we might be able to ascertain the directions taken by the ditches of the Turf Wall and the Vallum, eastward of the point where the former disappears on the surface, and the latter is broken off by the cliff of Blackbank Wood, overhanging the Irthing, where landslips have evidently taken place at various times. The black mud had appeared so persistently in nearly every section we had made across a ditch, that we thought this might be traced under the surface even when all other tokens had disappeared. A trench was accordingly cut about 90 feet west of the western fence of the inclosure at Birdoswald, across the (produced) line of the Turf Wall ditch from High House Farm towards Birdoswald.† We soon came upon a mass of disturbed matter, stones, gravel, and black matter, showing that a ditch had been filled up, but the outline of the ditch was confused, and the stones bore the appearance of a road, though not well marked. Another trench was begun in about the same line, 246 feet from the west wall of the fort. Here the black matter was strong and well marked. It took the form of a ditch with sloping sides (we did not excavate to the bottom), with a line of black, covering undisturbed soil, to the south, apparently the berm of the Turf Wall. Broken black fragments were found above all this, as though the turves had been thrown down, to-

* For Notes on the Excavations in 1894 and 1895, see these *Transactions*, vol. xiv, pp. 390-407.

† These *Transactions*, vol. xiv, Art. x. Plate I., and Art. xvii, Plate I. of the present volume.

gether

gether with earth, stones, and rubbish, to fill up the ditch. Many fragments of Roman pottery were found, including the so-called strainer.* This trench was continued further north, till we came across stones like those in the first trench, and felt satisfied that it was a road. The position and direction led some of us to believe that it was the mural road, and that it had crossed the Turf Wall ditch at the point we first cut, but it was much ruined and had lost any distinguishing characteristics.

A third trench was dug 30 feet west of the last, and gave an exactly similar section of the berm and ditch.

The next trench was an attempt to find the Vallum ditch. It was begun only 50 or 60 feet from the Turf Wall ditch, and continued through undisturbed soil for about 100 feet. Then at last we touched the black matter again, of course at the north end of the ditch, a little to the south of the line of the Vallum from High House, produced beyond where it breaks off at the cliff. A short trench, 189 feet from the fort, and 39 feet west of the long trench, showed black matter again, and we then went on to trace the ditch eastward, cutting a trench across the line indicated by these two. The next, 97 feet from the fort, showed it at once, but another, 62 feet from the fort, gave only undisturbed soil at its north end, and we dug southwards for several feet before touching the north edge of the black mud. In fact, the ditch, instead of making for the fort and passing under it, was curving decidedly southwards. We cut across the new line thus given, 47 feet from the fort, and 125 feet south of a line drawn at right angles to the west wall of the fort from the middle of the south-west gateway, and found the black, with rather more pieces of "Samian" and other pottery than usual (these are not so plentiful in the Vallum ditch as in the Turf Wall ditch). The next trench was begun in line

* These *Transactions*, vol. xiv, Art. xxii, Plate III.

again

again, 177 feet south of the south-west gateway, but it seemed blank. We worked towards the fort, and soon ran into its ditch, which instead of showing black peaty mud, with rubbish above that had evidently been intentionally thrown in, consisted of grey washings, growing darker at the bottom, as though it had gradually silted up. So we dug at the other end of our trench, and 41 feet from the fort we found the real black peat again. In the next trench, just at the corner of the ditch of the fort, the two ditches were really so much mixed as to baffle us. The trench was continued southwards nearly to the edge of the cliff, to make sure, but was entirely undisturbed earth.

I did not myself see any more of this year's trenches, but laid them down on the map from Mr. Haverfield's measurements. He followed the ditch on the same method till it had crossed the modern wall which nearly continues the line of the ancient east wall of the fort. He dug many trenches of which I have no measures, as he measured very few except those where the black was found.

One trench I saw, just outside the site of the south-east gateway, which showed distinct traces of a road approaching the fort. It is in the line of the road marked as such on "the Duke's Survey," by McLauchlan, but we did not find the continuation of it when digging for the Vallum in 1897.

A trench across a small ridge near the north wall of the field, just east of the fort, showed a mass of stone which some of us took to be the foundation of the Stone Wall, but on re-opening it in 1897 we felt sure it was merely débris. (See note on page 181.)

We began again in 1897 with the search for the Vallum ditch.* The first trench ran from the south-east

* See Art. xvii of present volume, Plate I.

corner of the ditch of the fort (which it laid open, and which was again of the greyish silt) diagonally towards the south fence on the edge of the cliff. It must have been within 2 or 3 feet of the last trench of last year, but this was so completely grown over that we could not find it. At 80 feet from the south-east angle of the fort, and 56 feet from the fort ditch, there was black peaty mud till 86 feet from the fort, showing that we had again found the Vallum ditch just where we left off the summer before. Large stones were found a little below the surface in this and in many other trenches, as though they might have been thrown in to finish filling up the ditch. Taking the line indicated by our trenches of the year before we again dug to the eastward, in the direction of the head of a slack going down towards the Irthing, the cliff having broken away here in such a manner as to form a gentler slope than usual. It had been suggested that either the Vallum or a road might have gone down this slope towards the Irthing, so after digging one short trench 30 feet east of the first, in which black mud about 4 feet wide was found, and another 80 feet further east again, 30 feet long, with the black mud from 12 to 22 feet from its southern end, we dug four or five trenches close together just at the head of slope. The westernmost, 42 feet long, showed the black mud at 12 feet to 24 feet from its northern end. Another, close to the spring, seemed likely to interfere with this very important water supply, and was filled up carefully at once. It contained nothing of interest, nor did another not far from it. A fourth, cut for 31 feet across what we thought might be the line of the road traced in 1896 just outside the south-east gate, had black mud all through it, and was apparently following the middle or the northern edge of the Vallum ditch. An opening made at right angles to it soon worked out into undisturbed soil, giving us the south scarp of the ditch. We saw no trace of a road. On
enlarging

enlarging carefully from the road marked in the Duke of Northumberland's Survey as running close to this point, I am inclined to think that we scarcely reached it: the trench should have been continued 3 or 4 feet further north-east, but unless there was something in McLauchlan's day to indicate its position, I certainly think our trenches crossed all the most likely places, in fact, I think his line at this point is impossible. He only notes it as "Supposed Roman way" on the map.

The Vallum seemed to be directing itself towards the north-east corner of the field, and other trenches were dug in this direction. The first of these, about 44 feet from the end of the longitudinal trench, was about 16 feet long, with black in the southern half of it; the next, 90 feet further and 10 feet long, had black matter in the northern half only, so that these showed respectively the northern and southern scarps of the ditch. With regard to the greatly varying width of the black mud several points may be noticed. First, that even when the Vallum is pursuing its usual straight course, both surface measurements and sections show that its width varies considerably. Secondly, that the trenches are not always cut exactly at right angles to the line of the ditch. Thirdly, that the width and depth of the black mud depend more upon the quantity of ancient vegetation in the ditch, and upon the manner of its filling in, than upon the dimensions of the ditch itself. The black mud was generally the only portion of the disturbed earth which was sufficiently distinct from the undisturbed to be accurately measured, but in many cases we could quite well see that the disturbed earth was much wider than the black. In stiff soils like that at Brunstock, we could measure the disturbed clay to an inch, but in the loose stony ground of the district near Birdoswald it is impossible. The black matter was, on the average, about 4 feet below the surface.

The

The direction of the Vallum ditch having been nearly the same for more than 200 feet, the excavators thought it might be running towards the Stone Wall, and accordingly their next trench was begun only 80 feet from the Wall, near the eastern fence of the field. A little further south a large and well-marked ditch was found, but a suggestion that this might be the ditch of the Turf Wall led to another trench being dug nearly due west of the last, in which black mud at once proved that we had lit upon the Turf Wall ditch. The Vallum ditch was therefore searched for again between the trench near the fence and the last trench in which it had certainly been seen, and was found and further traced with some difficulty in several trenches between this and the fence. It seems to make a very sharp bend at a distance of 200 feet from the Stone Wall and 450 feet from the east wall of the fort, as though the Vallum had come up from the eastward in a line nearly parallel with the Stone Wall, and turned sharply to the south to avoid the site of the fort. Further excavation, however, is needed in the field to the east of the hedge when the crop will allow of it. One trench was dug there, in which disturbed earth forming a ditch was faintly visible, but the slope of the ground here had probably prevented much black mud from forming. In a trench made between the Vallum and Turf Wall ditches, while still searching for the Vallum, we came across the curious piece of stone-work, apparently a conduit, figured in Plate IV. of Article xvii of the present Volume. It was 19 feet from end to end, with 2 feet of loose stones at the ends beyond the set stones. These were large squared blocks 17 inches to 36 inches in length, in two rows facing each other, and $6\frac{1}{2}$ inches apart. No "returns" or connected building or road could be found. It was 520 feet east of the fort.

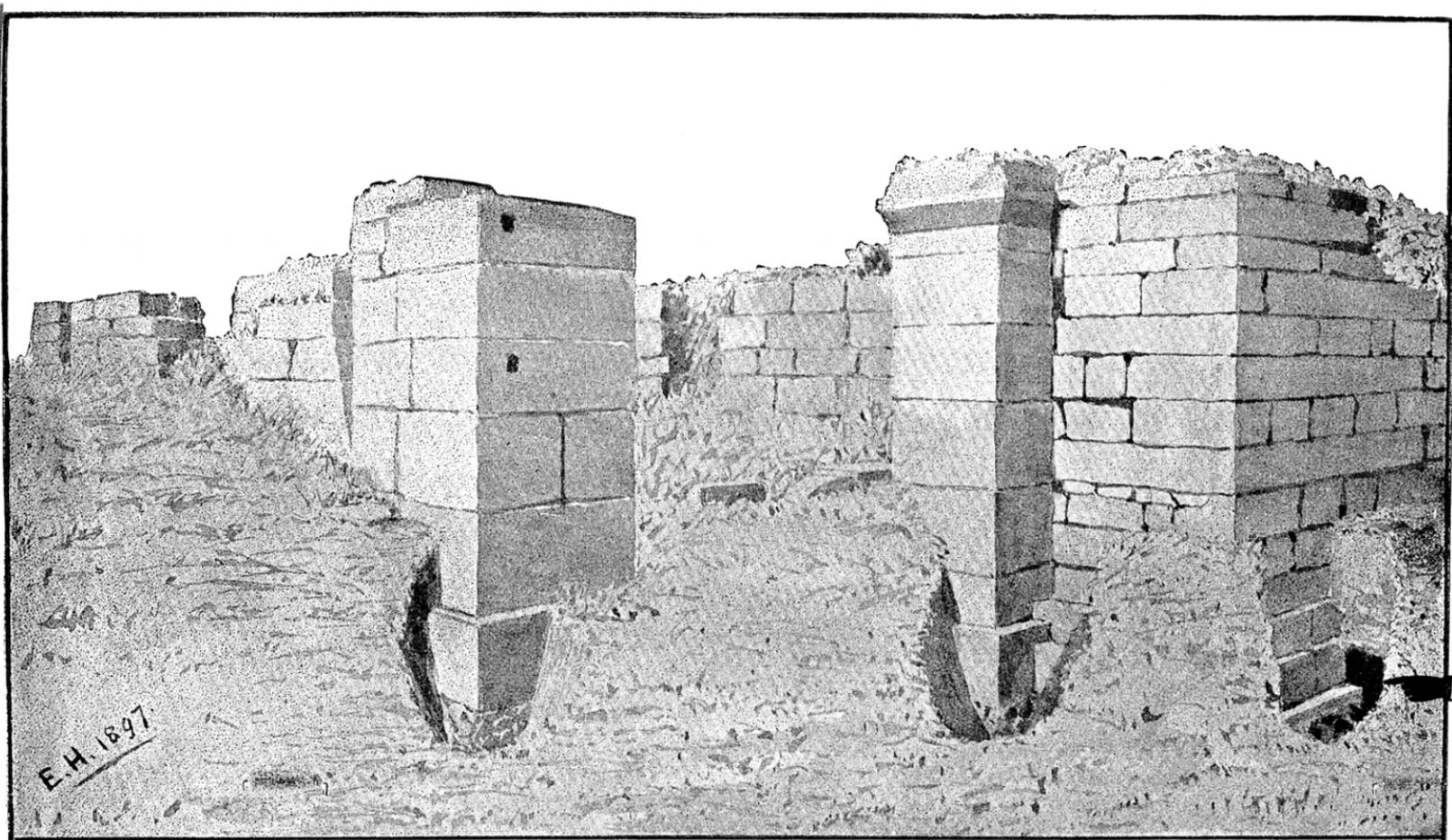
The trench in which the Turf Wall ditch was first found ran parallel to the eastern fence of the field for 160 feet.

At

At 6 feet from its northern end was some hard gravel, caked almost like concrete, extending for 7 feet. (Was this the glacis or a covered way? or was it formed later in filling up the Turf Wall ditch?) Here, 13 feet from the north end of the trench and 5 feet below the surface, was a black line, dipping rapidly southwards, evidently the northern slope of the ditch. Three feet further south came the black peaty mud of the ditch, with numerous fragments of glass and pottery, a quern-stone, and (lower down) a whorl, and a piece of oak timber of some size. The black mud extended for 27 feet (the trench is not at right angles to the axis of the ditch) and then the southern slope was found. Southwards the trench showed nothing except where, near its south end, some indistinct traces of disturbed earth in the line of the Vallum ditch led us to conclude that this was where our trench crossed it.

A trench, 90 feet west of this, only 6 feet long, had black mud all through it, and concluding that this was about the middle of the ditch, we followed it up westwards. Two trenches close together, 160 and 175 feet from the long trench, showed one the south and the other the north side of the black mud. Here more pottery and a shoe were found (Plate V, Article xvii, of this Volume). Another trench, 70 feet further west, was given up as useless, as we came upon a modern stone drain. The next was somehow begun too far north, and showed undisturbed soil, but another in the same line, 110 feet from the stone drain, had black mud all through. The next, about 100 feet further on, had the same, and the fragments of pottery included a sufficient portion of one red "Samian" bowl to enable us to reconstruct about two-thirds of it. It has a pretty design, four times repeated, with a figure and animals. This trench was a little more than 100 feet from the north-east gateway of the fort, and the line was making straight for its northern turret, so a trench was dug two feet from this. A little way below the surface came signs
even

even more definite than usual of rubble and large stones having been used to fill the ditch, and then we came to the black mud, very full of heavy stones. A slope indicated that we were near the south scarp of the ditch. Packing the trench just dug, to prevent any danger to the gateway, we drove an opening from it right up to the wall. The trench was only 2 feet wide, as it was not safe to disturb much at once, but we dug into black mud at the bottom, appearing to run right under the rubble which underlies the lowest foundation course, and which seemed to me to be about a foot deep. The lowest course was of large flat stones 2 inches deep, and projecting 6 inches beyond the next course. This was $8\frac{1}{2}$ inches deep, and projecting $3\frac{1}{2}$ inches: the next $7\frac{1}{2}$ inches deep and projecting $2\frac{1}{2}$ inches. This last was 16 inches below the modern surface, and above it the wall of the turret (a continuation of the east wall of the fort) rose for 11 courses, the top one now remaining being on the level of the capital of the north jamb of the gateway. See Plate I, where the stones at the angle of this turret, on the right of the drawing, are to a vertical scale of 4 feet to the inch. The drawing being in perspective, no other stones are drawn to any scale, though all were measured. The interstices in the rubble were full of black mud, which covered the lowest foundation course and came part way up the next. More trenches, which I did not see myself, were afterwards dug near, to ascertain the depth and dimensions of the foundations. The bottom of the lowest course of the north jamb is 3 feet 10 inches, and of the middle jamb 2 feet 5 inches below the level of the stones in which the pivot-holes of the gates are visible. The jambs of the gateway are composed of blocks 10 to 17 inches in depth, and 14 to 23 inches long. Nearly all run the whole width of the jambs—32 inches in the middle jamb, 23 in the north jamb—and in the latter they run back some inches at least into the turret wall



E.H. 1897

Part of the N.E. Gateway, Birdswald, showing the foundations, and the ditch of the Turf Wall.

wall. The courses of the turret wall vary from 6 to $9\frac{1}{2}$ inches in depth, but one of the stones is 44 by 40 inches in its other dimensions, and some others are much the same size.

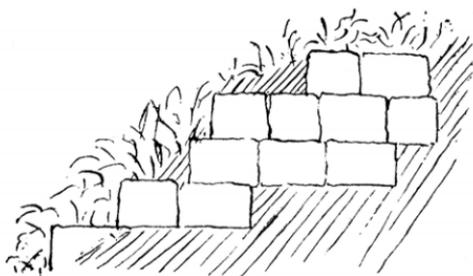
The Plate does not show nearly enough difference of shade between the black mud of the Turf Wall ditch and the brown subsoil of all the other trenches.

Two trenches were dug inside the fort, one showing the south slope of the ditch, 153 feet west of the jamb of the gateway, another, black all through, 27 feet west of the first. We should have liked to dig south of these, and try whether this ditch had been the north ditch of a stone or a turf fort, but there are so many traces of buildings, and the place has been so pulled about, that it seemed hopeless, and would, at all events, take much longer time than we could then give.

The excavations across the line of the Vallum at the Poltross burn (see the description in the Committee's Report, *ante* p. 179, and Plate VI. of that Article,) consisted of some trenches at the head of the slopes. In both a deep but rough cutting through rock was visible at a few feet below the present surface. The cutting had been filled up, probably by natural causes, with *débris* and loose earth, but the slope of the ground made it impossible that a black deposit should have formed there. With the kind assistance of the Messrs. Wright, we proceeded to search for the masonry which had been discovered in 1886. The natural cleavage of the rock produces blocks so nearly rectangular that in some places it is very difficult to decide what is natural rock *in situ*, and what are squared blocks of masonry. But low down, just where the steep slopes end in a nearly vertical fall towards the burn, Mr. Wright exposed four pieces of what was undoubtedly masonry, one on each side of the Vallum ditch on each side of the burn. The woodcut represents one of them, and is drawn to scale.

They

They are mere facing-walls—I saw no trace of a corner or “return,” nor of there being more than one thickness of stone. Each course was 8 inches deep.



Masonry near Poltross Burn

Another trench, across a slope lying between the Vallum and the Wall, was cut in hope of finding the military road. Nothing was found, but our search could hardly be described as very thorough, time and weather failing us. On the eastern or Northumberland side of the burn a depression runs south of the Vallum ditch and slightly diverging from it, across which a trench was cut. It contained dark-grey shaley matter, which dries in flakes. We thought that the place had been dug for surface coal: it is just at the outcrop of the strata.

These Notes are a continuation of those which I submitted to the Society with the large scale drawings of trenches, &c., made in 1894 and 1895, and which were printed in these *Transactions*, Vol. XIV, Article XX, pp. 390-407. They are entirely distinct from the Reports of the Cumberland Excavation Committee (Article XVII. of this Volume and Article XXII. of the preceding Volume), and are merely an effort to express as exactly as possible the appearance and position of the trenches, so as to enable those who did not see the excavations to understand the method pursued and to see the reasons for the conclusions to be drawn from the work.