

ART. XXXV.—*Notes on the Excavations on the line of the Roman Wall in Cumberland, in 1898.* By Mrs. HODGSON, Newby Grange.

THESE notes on the excavations on the line of the Roman Wall at Birdoswald in 1898 are a continuation of those previously laid before the Society.\* They are an attempt to set forth as plainly as possible the position and measurements of the trenches cut under the superintendance of the Committee whose Report forms Art. XXXIV of the present volume, but without making any suggestion as to the theories to be derived from them.

We began at Birdoswald early in August 1898, by marking out the line on which we had found the axis of the Ditch of the Turf Wall in 1897. It ran from the north turret of the north-east gateway of Amboglanna to a point about 90 feet south of the Stone Wall, close to the eastern hedge of the field which borders the eastern side of the Fort.† The next field eastward, called Chapelfield, had a crop of oats at its western end this year, but the rest of the field was placed at our disposal. So we set a mark in production of the line of the axis already ascertained, and began a long trench 300 feet east of the last trench of last year, ‡ and close to the northern wall of Chapelfield, (which wall—a “dry stone dyke”—runs for most of its length on the site of the Stone Wall). We continued this trench southwards, nearly at right angles to the line of the Wall; and for about 65 feet the soil appeared quite undisturbed as soon as we got about 3 feet below the surface. But south of this we were more

\* These *Transactions*, Vol. xiv, p. 390, and *ante* p. 201.

† See *ante* Plate I, opposite p. 175.

‡ See *ante* Plate II, opposite p. 350.

doubtful

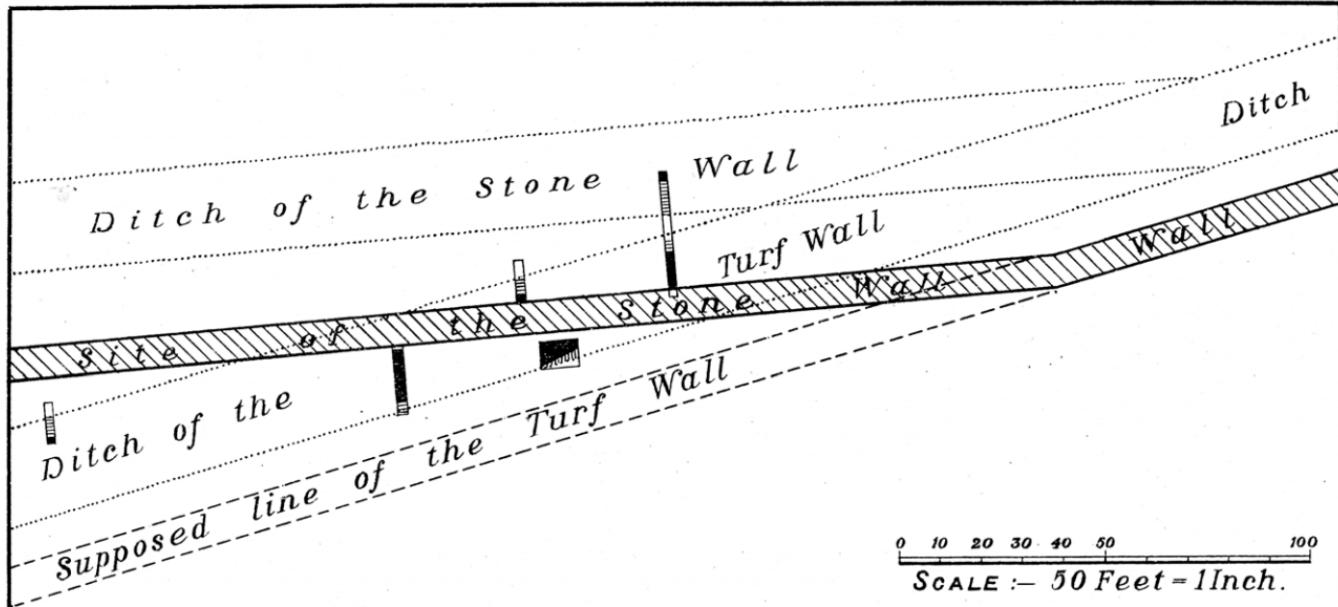
doubtful, the workmen and some of the excavators thinking we had again reached undisturbed soil, while others felt persuaded that the true subsoil was not yet reached. A few more spadefuls settled our differences, as some Roman pottery was thrown up, and we dug on. At a depth of 8 feet we found more pottery and the familiar black mud, so having found our ditch, we proceeded to trace it in both directions. It turned out that we were at the axis of the ditch (within 2 feet of where we had expected to find it,) and the black mud was about 4 inches deep, lying on an undisturbed subsoil of red sand, 8 feet 6 inches below the surface. The north slope of the ditch was well marked by disturbed clayey soil lying on the red sand, with loose, disturbed earth and small stones above it. But the slope was not very steep: the south slope was steeper and more extended. The whole ditch was at a great depth, and must have been much squeezed by the weight of soil above it.

As was noted last year,\* Maclauchlan says when describing the track of the Wall here, † "On crossing the Irthing . . . . we find traces of both the Wall and Mile Castle distinct, the latter about 40 yards from the edge of the cliff. . . . . About 50 yards beyond the Mile Castle, the Wall bends about  $8^{\circ}$  to the northward, and it may be noticed that had this bend not been made, the straight line would have nearly struck the north gate-post of the most northerly entrance in the east front of the station." It was evident that the axis of the Turf Wall Ditch was in such a line as would lead it to join, and to continue, the line of the ditch of the Stone Wall which Maclauchlan here describes. The angle he mentions is about 120 feet west of the north-eastern corner of Chapelfield, and about 270 feet west of

\* *Ante p. 181, note.*

† Memoirs written during a Survey of the Roman Wall, pp. 53 and 54.

where



**Intersection of the Stone Wall  
with the Ditch of the Turf Wall, showing Trenches cut.**

CHAPELFIELD, BIRDOSWALD, 1898.

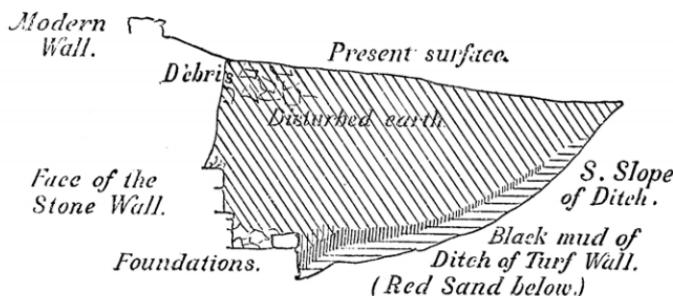
T. H. H. & E. H.

PLATE I. TO FACE P. 367.

where the Wall overhangs the cliff above the Irthing. It was now our object to track the ditch of the Turf Wall to the point where it converges with the Stone Wall, and with that intent a trench was opened, near the field-dyke, about 180 feet east of the first trench, and 250 feet west of the angle of the Stone Wall just mentioned (see Plate I. opposite.) The north end showed first a mass of débris of the Stone Wall, and below that undisturbed soil, but rather more to the south we found lines indicating a slope, and some black mud, 14 to 17 feet south of the dyke, and 5 to 7 feet below the present surface, which showed that we had got the north slope of the Turf Wall ditch again. So we stopped that trench, and began a third 86 feet further eastward and 164 feet west of the

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SCALE:- 8 Feet = 1 Inch.

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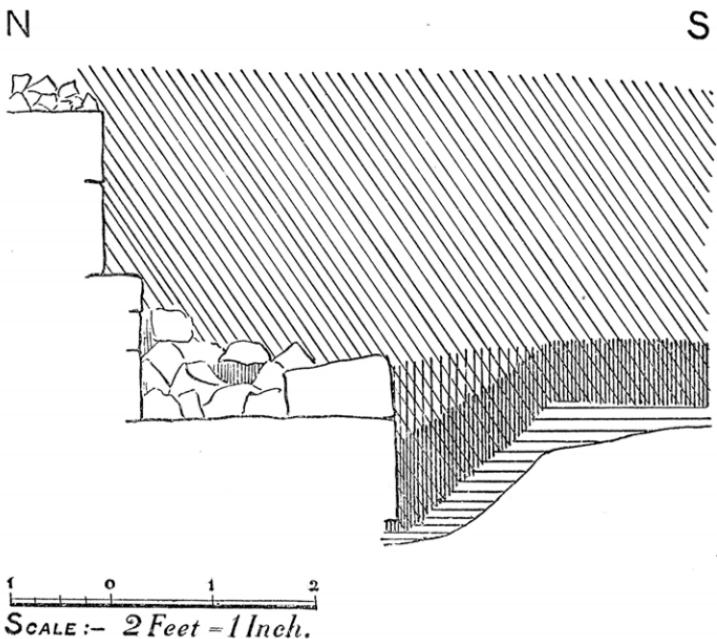
FIG. I.—THIRD TURF WALL, TRENCH, 1898.

CHAPELFIELD, BIRDOSWALD.

angle in the Wall (figs. 1 and 2.) The labour of removing débris was soon rewarded by clear lines of black in the red sand, only 3 feet below the surface, and

15 feet

15 feet south of the field dyke. The lines were running down sharply towards the north, so we were on the south edge of the ditch this time, and we dug on towards the Wall. We followed the slope of the ditch downwards, always digging till undisturbed red sand showed plainly beneath the black matter, and presently came upon a huge foundation stone, about 12 inches deep, extending



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FIG. 2.—PART OF THE THIRD TURF WALL TRENCH, 1898.  
CHAPELFIELD, BIRDOSWALD.

right across our trench, (which was 2 feet wide) without its sides being found, and going back under the next course of the Wall, southwards from which it projected 2 feet 6 inches. There were loose stones lying on the top of this large stone. One of them was of the familiar wedge-shape,  $13\frac{1}{2}$  inches long,  $7\frac{1}{2}$  by 6 inches at the larger end

end, and  $4\frac{1}{2}$  by 4 at the smaller. Amongst all these was a quantity of black leaf mould, and one or two fragments of Roman pottery, somewhat stained with the black matter. An upper foundation course, 20 inches deep and projecting 4 inches, rested on the large foundation stone, and above this ran two courses of the face of the Stone Wall itself, the uppermost being about 4 feet below the surface. This course ran back at least a foot into the rubble and concrete which forms the core of the Wall. Under the foundation stone lay the black mud, the stone coming within an inch or two of the bottom of the ditch, which could be exactly determined by a strong clear line of black on the red sand. This line sloped sharply, as for a small V shaped ditch or "cunette" at the bottom of the flatter main ditch. I should think that the south face of the foundation stone was here about a foot south of the axis of the ditch. We afterwards dug a little more at the south end of the trench, and noted that the south slope of the ditch continued upwards to 11 feet from what I have supposed to be the axis, although the black mud ceased at 10 feet. This, allowing for the angle at which the trench was cut, would give 21 or 22 feet for the total width of the ditch, 3 feet 4 inches (horizontal) for the south slope, 4 feet 9 inches for the nearly level bottom coming next it, and 1 foot 7 inches for the southern slope of the cunette. The cunette probably had a flat bottom, 18 inches wide, as apparently at Appletree.

A fourth trench, quite shallow, was begun 35 feet further east, running for 9 feet parallel with the Wall. It was about 5 feet broad and showed the south slope very distinctly, still converging on the Wall, and about 4 feet below the surface.

We now began a fifth trench, this time north of the Wall. We should have liked it to be exactly opposite the third trench (in which we had exposed the face of the Stone Wall), but in spite of the solidity of the foundations

tions we had seen, our workmen doubted the stability of the dry stone dyke above it, and declined. So it was dug between the two last trenches, 135 feet west of the angle of the Stone Wall, and nearly 300 feet east of our first trench of this year. Under the débris the ground was so exceedingly firm that the workmen declared they had reached undisturbed subsoil, but some of us insisted on going deeper, and we presently found the north slope of the ditch perfectly clear (fig. 3.) Working towards the

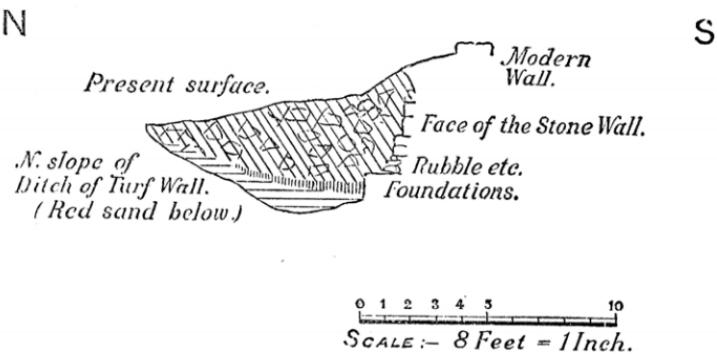


FIG. 3.—FIFTH TURF WALL TRENCH, 1898.  
(NORTH OF THE ROMAN WALL) BIRDOSWALD.

Wall, its foundations and two courses of its facing stones were soon exposed, being almost exactly the same as on the south face. And we could again see the ditch going under it.

The next trench (the sixth and last across the Turf Wall ditch) was again to the north of the Stone Wall, 96 feet west of its angle, and 39 feet east of the fifth trench. It extended northward for about 30 feet. We did not find the face of the Wall here, its stones having apparently been removed. But rubble and concrete indicated the core, and the foundation course below seemed to be very deep—we dug 6 feet down without reaching the bottom. It consisted of cobbles thrown somewhat

somewhat loosely together, and cemented into a rigid mass by concrete, the interstices being only partially filled up. The form of the Turf Wall Ditch was rather puzzling (fig 4) as the black lines sloped down northwards

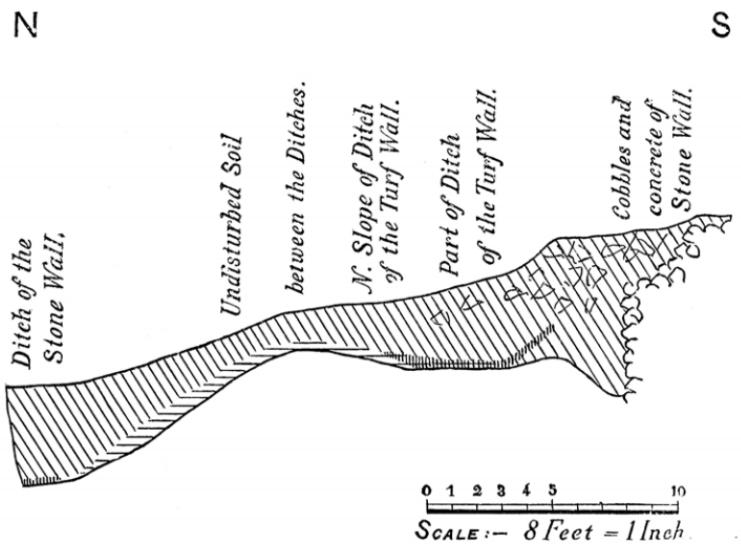


FIG. 4.—SIXTH TURF WALL TRENCH, 1898.  
(NORTH OF THE ROMAN WALL) BIRDOSWALD.

and then curved up again, as if the whole ditch were here north of the Wall, and the black portion only 7 feet wide, but after close study, and taking this trench in connection with those previously made, we felt no doubt that the supposed south slope was merely black matter squeezed up by the pressure of the Stone Wall, or thrown down from above. It may be remembered that the soil below this black line was certainly disturbed earth, as the cobbles could not have been laid without disturbing it. The north slope of the Ditch was in its true line, and no doubt part of the Ditch lay under the cobbles. North of the Turf Wall Ditch came some undisturbed soil quite near

near the surface for a few feet, and then another slope was seen, leading down to the axis of the Ditch of the Stone Wall, where a little dark grey silt was found. This ditch is plainly visible on the surface for some distance east and west. It bore no sign of having been intentionally filled up, while the workmen expressed their opinion that near the Stone Wall the Turf Wall Ditch had not only been filled up, but that the ground had been carefully pounded and made as firm as possible.

Plate I. (opposite p. 367) shows the position of all the trenches described above except the first, and indicates the lines taken by both Ditches, on a much larger scale than in the plan of Chapelfield, Plate II. opposite p. 350 *ante*.

It should, I think, be noticed that from near the angle in the Stone Wall (about 120 feet west of the north-eastern corner of Chapelfield) there runs on the north side of the Stone Wall for about 400 feet westward a piece of high ground about 20 feet in width.\* I am inclined to think that though this may be partly natural, it is certainly partly artificial, and intended to act as a buttress to the Stone Wall where the crossing of the Turf Wall Ditch made a weak point. It is true that most of Chapelfield is higher than the ground north of it, and it also seems that the Turf Wall Ditch ran at a slightly higher level than the Stone Wall Ditch west of the point of divergence (about a foot higher). But there are strong indications that the ground south of the Stone Wall has been levelled up, and north of it the trenches show masses of stones and sand that cannot be natural, and can hardly be accounted for as débris of the Wall. I think that a point where the natural conformation of the ground would give stability may have been chosen

\* It is indicated by shading in the plan, plate II. of the report for 1898 *ante* opposite p. 350.

for this point of divergence, and that the builders of the Stone Wall may have added to it for the same reason.

I do not think that any of this year's trenches crossed the line of the Turf Wall itself, but the field has been so much levelled and ploughed that search must have been perfectly useless. There was no trace left of it in the long trench that crossed it last year, though that field has been much less pulled about. I incline to the belief that it was intentionally razed from Amboglanna to the point of divergence eastward, and again westward of the station to the point where its ditch becomes visible on the surface in the field next but one to Birdoswald.

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We heard from the tenants at Birdoswald that there were remains of a building about the middle of Chapelfield, so we traced its foundations. Then we continued the trench which ran along the eastern face of this building northwards, in search of the Vallum Ditch, which we found here 135 feet south of the Stone Wall. It was in very nearly the same line in which it had appeared in the three easternmost trenches of last year. [One of these has unluckily been omitted from last year's map, plate I, *ante* p. 175. It lay 28 feet west of the long trench which ran along the western side of the hedge bounding Chapelfield, and near its southern end. It is inserted in plate II, of this year's report, opposite p. 350 *ante* in the lower left hand corner. I much regret the omission, especially as still further west the line of the Vallum is very puzzling for some 200 feet, after which it turns definitely southwards to go round the fort of Amboglanna].

I did not see the rest of the trenches while they were open, but I have seen their positions since, and have had the measurements given me.

The second trench cut this year in search of the Vallum Ditch was about 125 feet east of the first. It contained

no black mud, but the slope of the ditch was clearly traced by the disturbed and undisturbed soil.

The third trench was 90 feet east of the second, and again showed disturbed soil.

In a fourth trench, 120 feet east of the third, black mud and some Roman glass and pottery were found 5 feet below the surface, 70 feet south of the Stone Wall, and about 70 feet west of the Mile Castle.

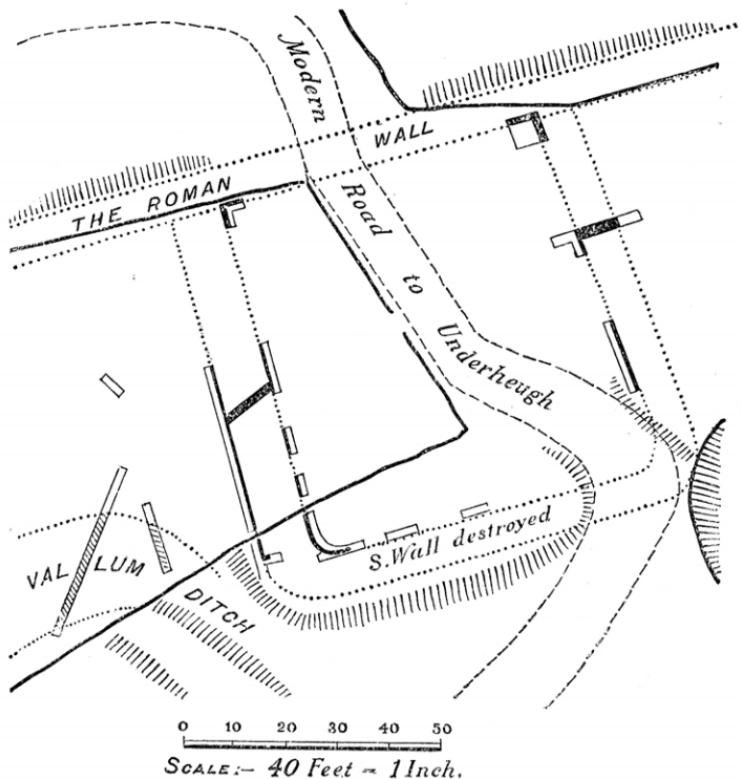
So far the line of the ditch was straight since entering Chapelfield, and it may be noticed that it was again almost parallel with the Ditch of the Turf Wall, and about 100 feet south of it.\* Mr. Haverfield has noted before† in his Report of the Excavation Committee for 1895, that the general course of the Turf Wall is parallel to the Vallum rather than to the (Stone) Wall. Indeed the two ditches run nearly parallel from the point of divergence of the Stone and Turf Walls near Wall Bowers, till within 800 feet of Amboglanna, and are between 100 and 200 feet apart. They only diverge from one another where the Vallum turns southward to avoid the fort, and come together again before entering Chapelfield, continuing parallel till the Turf Wall Ditch crosses the Stone Wall. The line of the latter is quite different.

A fifth trench was cut still nearer the Mile Castle, being only 24 feet from its wall at the northern end of the trench. No black mud was seen, but the slopes were traceable in the disturbed earth, which was 5 or 6 feet deep in the middle of the trench. The line of disturbed earth at the northern end of the trench, which indicated the north slope of the ditch, was seen to be curving distinctly and rather sharply southwards, and in the next trench, 10 or 12 feet south-eastward, and 12 feet only from the Mile Castle, the north end of the trench showed undisturbed soil, and the north slope of the ditch was quite

\* Plate I, p. 346.

† These *Transactions*, Vol. xiv, p. 189.

18 feet south of the general line it had pursued throughout Chapelfield. This was only 12 feet from the southern hedge of the field, (fig. 5) so it could not be fully excavated. On



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FIG. 5.—REMAINS OF "MILE CASTLE" ON HARROW'S SCAR, ABOVE THE IRTHING, NEAR BIRDOSWALD, 1898.

the south side of the hedge, close to the south-west corner of the Mile Castle, a slack indicates the Vallum Ditch, heading directly for a line of scarp running down to the Irthing. The axis of this slack was only 10 feet from the wall of the Mile Castle, so that the south-west angle of the latter was practically on the site which is usually occupied

occupied by the north mound of the Vallum. The ditch and the south mound seemed unusually small and narrow and it may be noted that the ditch is narrow when curving south of the forts at Amboglanna and Procolitia. Also the direction is not what would lead it to join the line of the Vallum where it is next certain, *i.e.* near the school and vicarage at Gilsland. Still, I cannot say that I feel at all sure whether the Vallum curves in order to avoid the Mile Castle, or for quite independent reasons. I incline to think the latter.

The trenches cut to determine the exact position of the Mile Castle are drawn in Fig. 5. I did not see them when open. A short trench was also cut 23 feet west of the Mile Castle, and 30 feet south of the Wall, to see if the Vallum Ditch had continued in a straight line, but nothing but undisturbed soil was found.

Anything of the nature of a road has again eluded us. We did not make definite search for it because, as in the case of the Turf Wall, any possible remains would almost certainly have been ploughed out. But there must have been one, if not two, roads between Amboglanna and the Mile Castle, and it is strange that no trace of such a thing should have been found, except just outside the south-east gateway.