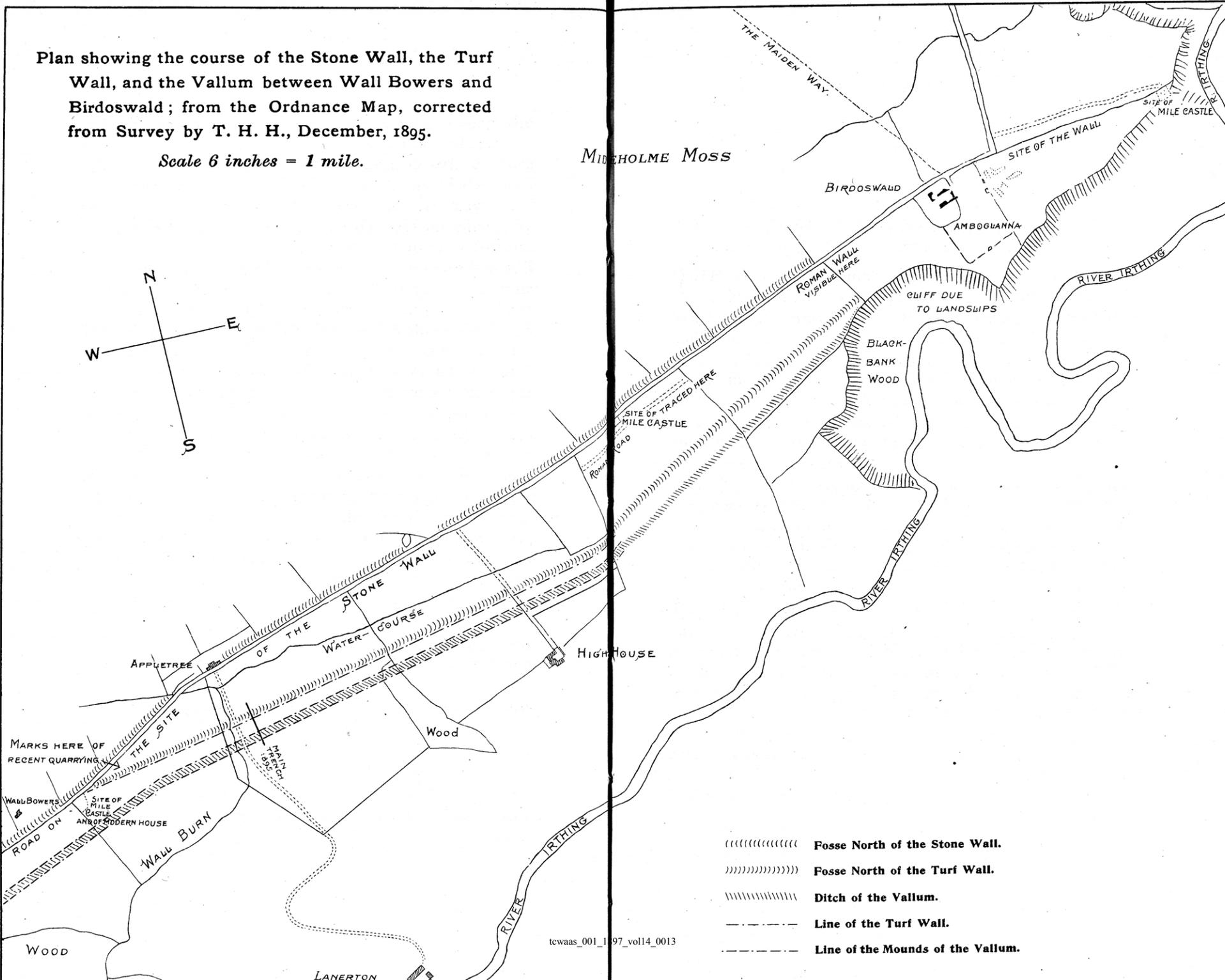
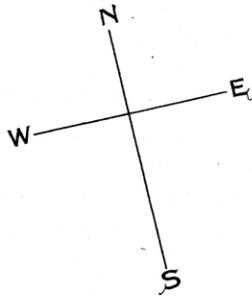


Plan showing the course of the Stone Wall, the Turf Wall, and the Vallum between Wall Bowers and Birdoswald; from the Ordnance Map, corrected from Survey by T. H. H., December, 1895.

Scale 6 inches = 1 mile.



- ((())) Fosse North of the Stone Wall.
-)))))) Fosse North of the Turf Wall.
- ||||| Ditch of the Vallum.
- - - - Line of the Turf Wall.
- - - - Line of the Mounds of the Vallum.

ART. X.—*Report of the Cumberland Excavation Committee, 1895.* By F. HAVERFIELD, M.A., F.S.A.*

THE excavations which were carried out during last August, under the auspices of the Cumberland and Westmorland Antiquarian and Archæological Society, had two main objects, the investigation of the earthworks at Appletree, and the completion of the work begun twelve months before in Bleatarn Park, both of which had been originally included in the programme of 1894, but the first been postponed through want of time. It may be convenient to summarise here the chief results attained in these two excavations.

1. The most striking results were attained at Appletree, near Birdoswald. Here the Vallum is in admirable preservation and a unique feature presents itself; a large ditch runs for more than a mile between the Wall and the Vallum. The examination of this ditch resulted in an astonishing discovery: a new wall was found. The ditch, it appeared, was the ditch in front of a wall built with regularly laid sods and in this point closely resembling the turf wall of Antonine which joins the Clyde and the Forth. It started, it seems, near Birdoswald and ran between Wall and Vallum for about a mile and a half till it joined the line of the Wall about Wallbowers. This is the only occasion when any rampart has been detected *per lineam valli*, save the wall of stone and the ramparts of loose earth which we call the Vallum: to these familiar works we must now add, at

* For the Report for 1894, see these *Transactions*, vol. xiii, p. 453.

least

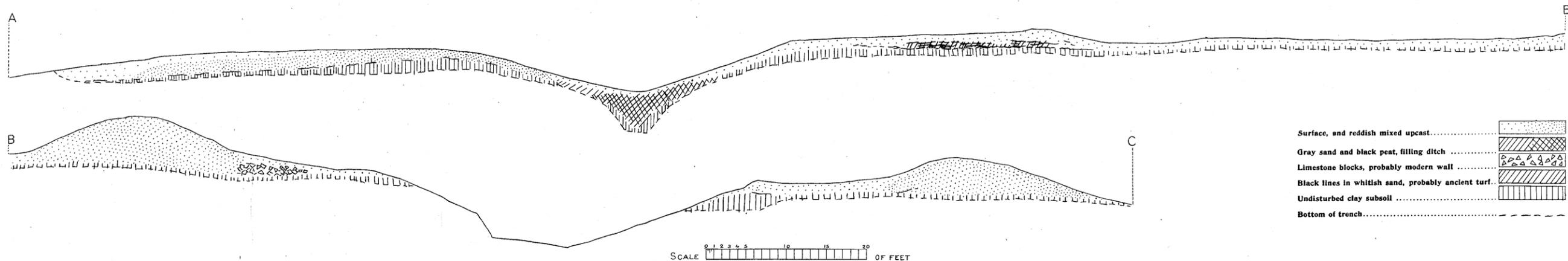
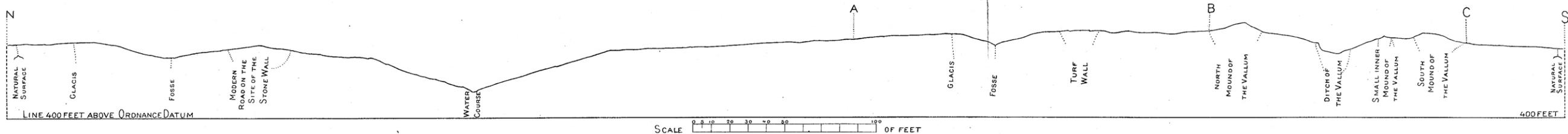
least for 2,000 yards, a third, a turf wall. Further investigation alone can show whether this new-found wall exists elsewhere than at Appletree, and whether it once extended, like the Wall and the Vallum, from sea to sea. But opinions will not differ as to the importance of the discovery, which has introduced a new factor into the whole mural problem.

2. The sections dug through the Vallum at Bleatarn disappointed our expectations. Clear traces of quarrying were found, but no definite date could be assigned nor any argument deduced as to the age of the Vallum. A section carried through the large mound near Bleatarn farmhouse, was more productive: the evidence collected makes it highly probable that this mound is of recent erection. If this be so, all speculations as to its use as a Roman signal station must be abandoned.

As before, the excavations were greatly aided by the kindness of landowners and farmers, who gave all necessary permissions with great readiness. The Society is especially indebted to the Earl of Carlisle, for leave to dig at Appletree and Lanercost and for help in procuring skilled labour, to Mr. S. G. Saul, for leave to dig at Bleatarn, and to the late Mr. Wannop of Bleatarn, Mr. Sproat of Lanerton, and Mr. Blain of High House, the farmers on whose land excavations were made. The committee which initiated the excavations, consisted, as before, of Chancellor Ferguson, Mr. Hesketh Hodgson, and the Rev. W. S. Calverley, F.S.A. All the work done was closely supervised, and the sections were carefully drawn and surveyed by Mr. and Mrs. Hodgson, to whose untiring efforts the Society is again deeply indebted. A statement of expenditure will be found at the end of the report.

During the summer of 1896 it is proposed to follow carefully the lines of the Roman roads along and near the Wall, and to search for further traces of the Appletree turf wall,

I. APPLETREE.



Profile of the Works, with Section of the Turf Wall and Vallum on a larger scale. APPLETREE, GILSLAND.

T. H. H. & E. H. August, 1895.

I. APPLETREE.

Appletree is a deserted farmhouse on the line of the Wall, a mile and a quarter west of the Roman fortress of Amboglanna (Birdoswald). The spot has often attracted notice, for near it, on land belonging to Lanerton and High House farms, the vallum is in astonishing preservation, while a ditch as large as that in front of the Wall, is interposed between the two works. This ditch diverges from Wallbowers, a quarter of a mile west of Appletree, and thence runs eastward almost exactly parallel to the vallum. (See Plate I.) For a mile its course is plain, but near Birdoswald both ditch and vallum grow faint: finally the ditch fades out, while the vallum has been carried away in a landslip. Both, if prolonged, would run into the western face of the Roman fortress, while the Wall comes up flush with its northern face. Nothing like this ditch has been noticed elsewhere *per lineam valli*, and its appearance at Appletree has caused much speculation. Our excavations were devoted to the examination (i) of this ditch, (ii) of the vallum (iii) of the mural road and two neighbouring mile-castles. The work was supervised by Prof. Pelham, M.A., F.S.A., Mr. R. P. L. Booker, M.A., F.S.A., and the present writer; valuable aid was given also by Mr. C. J. Bates, to whom our principal discovery was mainly due. Professor T. McKenny Hughes, F.S.A. also examined the remains and helped in determining the features of the turfwall.

(i) The excavations were commenced with a trench from the north of the ditch to the south of the vallum, at a point about 450 yards from the Wallbowers end of the ditch and immediately east of the roadway to Lanerton farmhouse. Here our ditch is 385 feet from the Wall and 120 feet from the north edge of the vallum. It proved to be roughly V shaped but the sides were steeper at the bottom than at the top, and the bottom itself was nearly 20 inches wide. Originally the whole work was
probably

probably 10 feet deep and 32 or 33 feet wide at the top. The earth from it had been thrown out northwards: it formed a layer nearly 45 feet broad, under which the black line of the original surface was distinctly though intermittently visible. In this feature our ditch agrees with the fosse of the Wall, that of the Antonine Vallum and indeed most ditches in defensive works. On the south side of the ditch a very remarkable discovery was made. For nearly 30 feet from its southern lip, the subsoil was found to be overlaid by a black line 1-2 inches thick, most of which (18-20 feet) was again overlaid by alternate black and white lines (see Plates II and III). Parallel trenches revealed similar features more clearly; at 200 yards east and at the same distance west we found seven or eight rows of black lines distinctly marked in grey loam or clay, the whole being 12 feet in length and perhaps $2\frac{1}{2}$ feet in height, though a single black line (as in the first trench) extended further on each side. The lines appear to represent a turf wall, built of regularly laid sods. The lines themselves consist of carbonaceous matter, which can hardly be anything else than decayed vegetation. The interspaces of white clay consist of the natural soil decomposed and discoloured by the overlying vegetable matter.* The whole strongly resembles the remains which the Glasgow Archæological Society found in the interior of the Antonine Vallum and took to represent the decayed vegetation of sods laid regularly one on the other to make a turf wall.† Our wall was probably 12 or 15 feet thick at the base, though fallen sods have extended the black line beyond this width: its height can

* Professor Green has supplied me with the following references respecting the bleaching of soils by decaying vegetable matter:—Sir A. Geikié, *Text Book of Geology*, 3rd ed., pp. 343, 472. T. A. Phillips, *Ore Deposits*, p. 14. Julien, *Proceed. Amer. Assocn.*, xxviii (1879) 340, 347, 348.

† The Glasgow Society's excavations were made in 1892-3, and visited by myself and other archæologists. A detailed report is in course of preparation.

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probably 10 feet deep and 32 or 33 feet wide at the top. The earth from it had been thrown out northwards: it formed a layer nearly 45 feet broad, under which the black line of the original surface was intermittently visible.

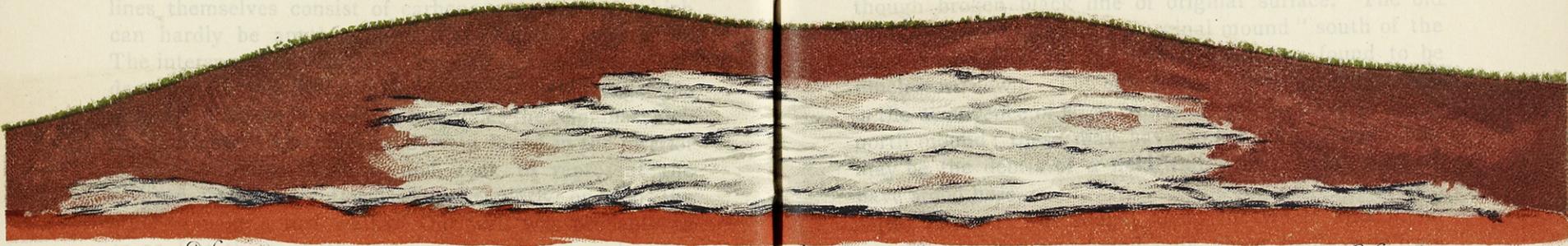
hardly have exceeded 10-12 feet.* Like the Antonine Vallum it had a berm in front of it—probably 10 feet wide; unlike it, it had no stone foundation. The lowness of the mounds on each side of the wall was demolished. The sods (as they lay on the face



Section East of main trench.

rows of black lines distinctly marked in grey loam, the whole being 12 feet in length and perhaps 2½ feet in height, though a single black line (as in the first trench) extended further on each side. The lines appear to represent a turf wall, built of regularly laid sods. The lines themselves consist of a single black line, which can hardly be seen. The interval between the lines is about 1 inch.

(ii) South of the turf wall we found no trace of disturbed soil till our trench reached the vallum, of which we obtained a good normal section. The two principal mounds contain upcast from the central ditch, resting on a distinct though broken black line of original surface. The old "mound" south of the wall was found to be



Section in the Western Field.

extended the black line beyond this width: its help

field belonging to High House farm. It ran between the Wall and the ditch, about 100 feet from the

* Professor Green has supplied me with the following references respecting the bleaching of soils by decaying vegetable matter:—Sir A. Geikie, *Text Book of Geology*, 3rd ed., pp. 343, 472; T. A. Phillips, *Org. Deposits*, p. 14; Julien, *Proceed. Amer. Assoc.*, xviii (1879) 340, 342, 345.

† The Glasgow Society's excavations were made in 1893, and visited by myself and other archaeologists. A detailed report is in course of preparation.

* The extreme slope at which a turf wall or revetment will stand is, according to modern works on fortifications, 1, or three feet vertical for one horizontal, but a less steep slope is generally employed. Our turf wall may very well have had less steep sides, say 2 and a flat top perhaps four feet broad.

SKETCHES OF THE TURF WALL,
APPLETREE, GILSLAND.

hardly have exceeded 10-12 feet.* Like the Antonine Vallum it had a berm in front of it—probably 10 feet wide; unlike it, it had no stone foundation. The lowness of the remains and their disposal on each side of the wall suggest that it was purposely demolished. The sods (as Mr. Hodgson noticed) appeared to have been laid face downwards (as Roman writers prescribe), to have been cut with “featheredges” and to have been laid so as to break the joints, in each case, of the layer below. The wall was traced for about a mile. Near Wallbowers and its junction with the stone Wall, it had been destroyed by recent quarrying; near Birdoswald it was not distinguishable, but it probably once stretched the whole distance of a mile and a half. Its general course is parallel to the vallum rather than to the Wall.

(ii) South of the turf wall we found no trace of disturbed soil till our trench reached the vallum, of which we obtained a good normal section. The two principal mounds contain upcast from the central ditch, resting on a distinct though broken black line of original surface. The old surface line beneath the “marginal mound” south of the ditch is also plain but the mound itself was found to be much worn down. The only feature requiring explanation is the occurrence of large stones on the south side of the north mound: these may have rolled off the mound or may be the debris of a field-wall which seems once to have stood here.

(iii) The road was sought along the whole area under examination but was found only about half-a-mile from Birdoswald, close to a milecastle. Here it was traced across a field belonging to High House farm. It ran between the Wall and the ditch, about 100 feet from the

* The extreme slope at which a turf wall or revetment will stand is, according to modern works on fortifications, $\frac{3}{4}$, or three feet vertical for one horizontal, but a less steep slope is generally employed. Our turf wall may very well have had less steep sides, say $\frac{2}{3}$ and a flat top perhaps four feet broad.

former

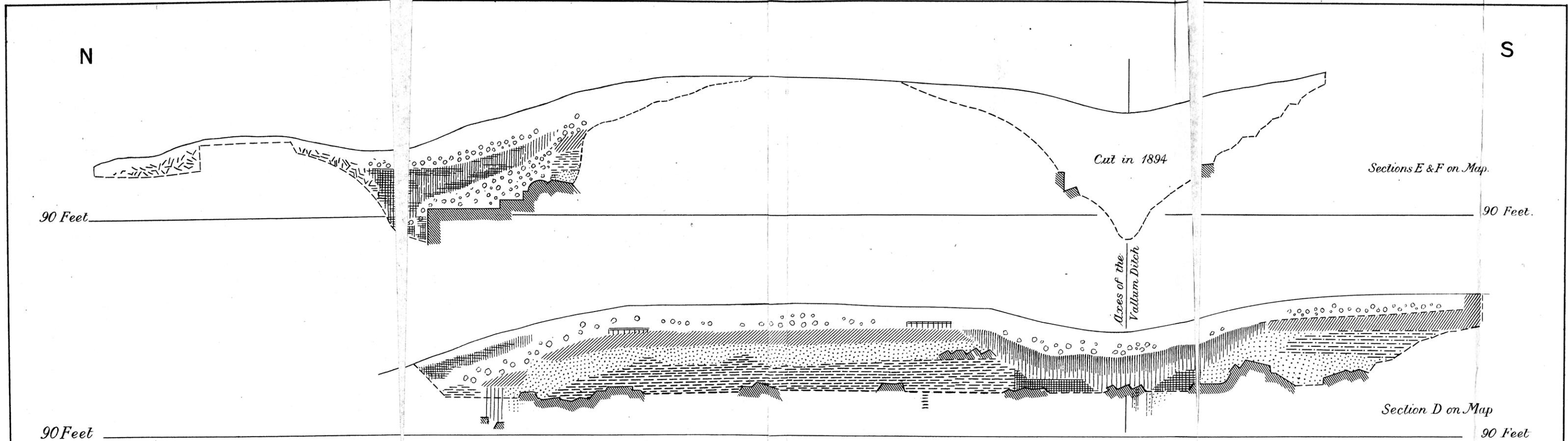
former, and was very much ruined. The best piece was 22 feet wide and built of cobbles and freestone fragments, based on the undisturbed clay subsoil: the kerbstones had been seemingly ploughed away. This road must somewhere cut the line of the ditch and turfwall: the point at which the two works would naturally meet has been disturbed by modern quarrying.

Two milecastles lay within the area of examination: both were trenched but were so ruined that elaborate search seemed useless. One, half-a-mile from Birdoswald on High House farm, yielded a fragment of "Samian" ware, a small stone chisel? and some obviously Roman stones but no walls *in situ*. The other, near Wallbowers, was even less productive. A modern house occupied the site, according to local tradition, about a hundred years ago: we found stone *débris* of no special character and two or three bits of modern pottery.

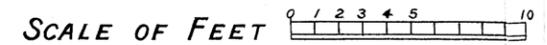
It remains to consider the object and origin of the ditch and turf-wall. Some theories may be put aside at once. Hodgson suggested a drain for a bog: Maclauchlan, an original line for the Wall: Bruce, an additional defence against the south, but the discovery of the turf wall makes all these notions impossible. The idea that the works formed an additional defence against the north is not impossible, but there is no obvious reason for such additional defence at this point. A very different view is likely to attract more attention. Mr. Bates prophesied in print the finding of the turf-wall. In his "History of Northumberland,"* published only a couple of weeks before we began our excavations at Appletree, he suggests (p. 28), that the Wall of Hadrian may have been built of sods and may have been replaced by the later stone wall, built on the exact site of the turf-wall

* Popular County Histories. The History of Northumberland. By Cadwallader J. Bates. London, Elliot Stock, 1895.

except



**SECTIONS OF THE VALLUM, &G.,
BLEATARN, IRTHINGTON.**



The horizontal line below each section is 90 feet above the Ordnance Datum.

- | | | | | | | |
|---|--|--|---------------------|-------------------------------------|--|-----------------------------------|
| Disturbed earths and fillings of ditch, &c. | Surface and reddish upcast | | Undisturbed strata. | Black line of ancient surface | | T. H. H. & E. H.
August, 1895. |
| | Light and dark-bluish gray sand | | | Dark reddish-gray sandy loam | | |
| | Black peat and leaf mould | | | Red clay | | |
| | Sandstone fragments—quarry rubbish | | | Red and yellow sand | | |
| | Bottom of trenches cut | | | Sandstone fragments embedded | | |
| | | | | Red sandstone rock and blocks | | |

except at Appletree. Here, he said, "there are indications of the stone wall having for once swerved from the line of an earlier one of turves or palisades." This theory undoubtedly satisfies several conditions of the mural problem and it has the support of a fulfilled prophecy but it raises some difficulties and it can scarcely be discussed till one essential fact has been determined. At present the Appletree turf-wall is an exception: if it once reached from sea to sea, other traces of it must survive besides the 2,000 yards of it which have been just discovered. It is improbable that Appletree should be the one place where a later-built stone wall swerved from the line of a turf wall. Further discussion is undesirable for another reason. Mr. Bates has, at present, only stated his theory: he promises his full reasons later. Meanwhile, it is worth while to urge on all who have to do with the archæology of the Wall, the importance of searching for further traces of the turf-wall. When we have discovered these, we shall be able to consider whether Mr. Bates is to add to his two successes in prophesying and finding, the third success in interpreting.

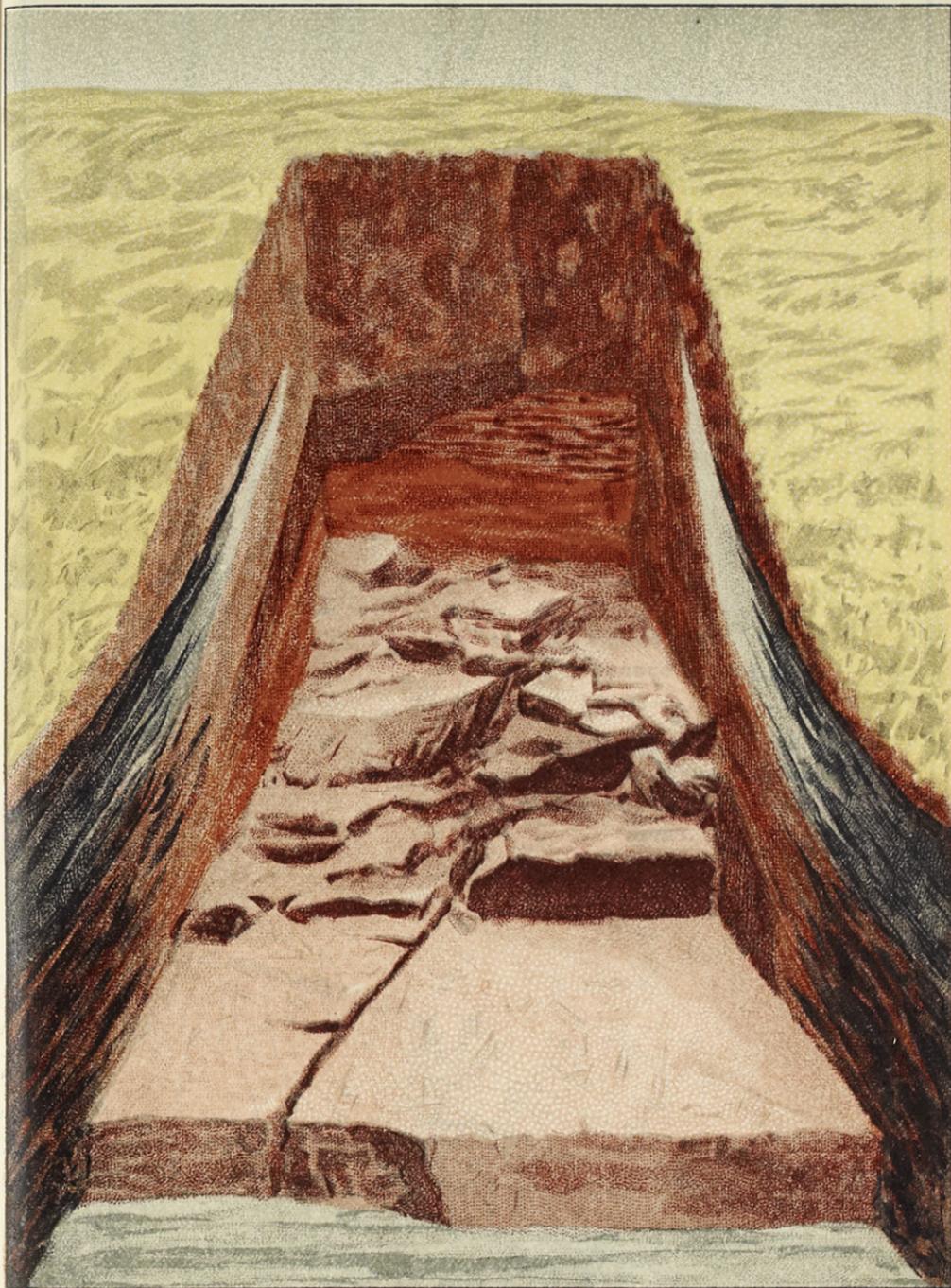
II. BLEATARN.

The excavations at Bleatarn consisted of (i) some trenches about 270 feet east of the Baron's Dyke, in connection with a deep cutting dug last year by the Rev. W. S. Calverley, F.S.A., (ii) a small trench across the line of the Wall near the east end of the Park, and (iii) a cutting made in Bleatarn mound. The excavations were supervised by Mr. Hodgson and the present writer.

(i) One of the sections cut at Bleatarn in 1894 (*Report*, pp. 463-4) had suggested the conjecture that a quarry, possibly of Roman date, either underlay or interfered with the north mound of the Vallum and the conjecture seemed to be worth testing. Accordingly a part of last year's trench was re-opened, and three parallel ones were dug

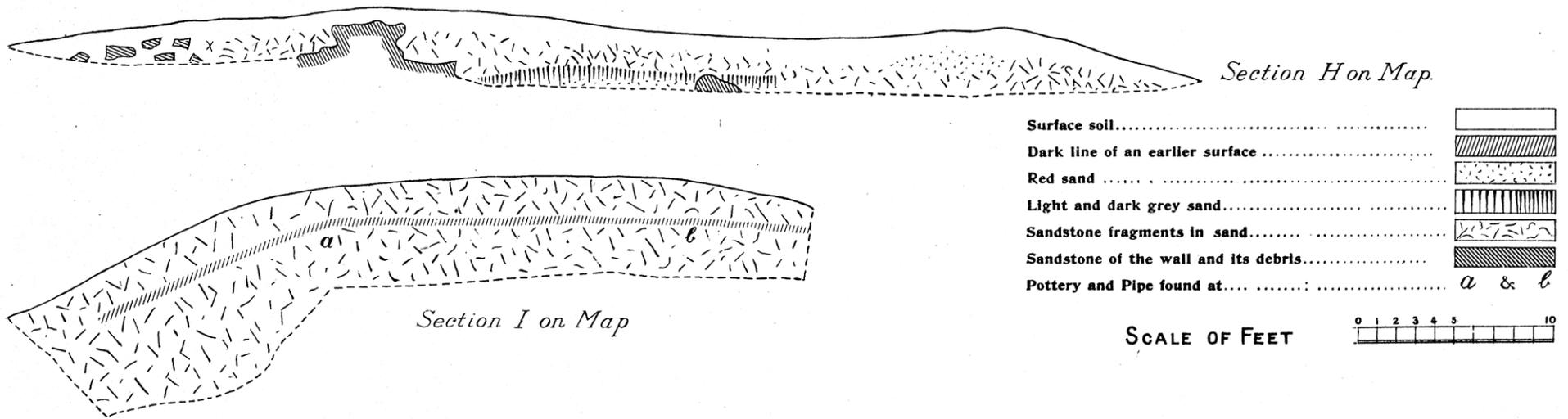
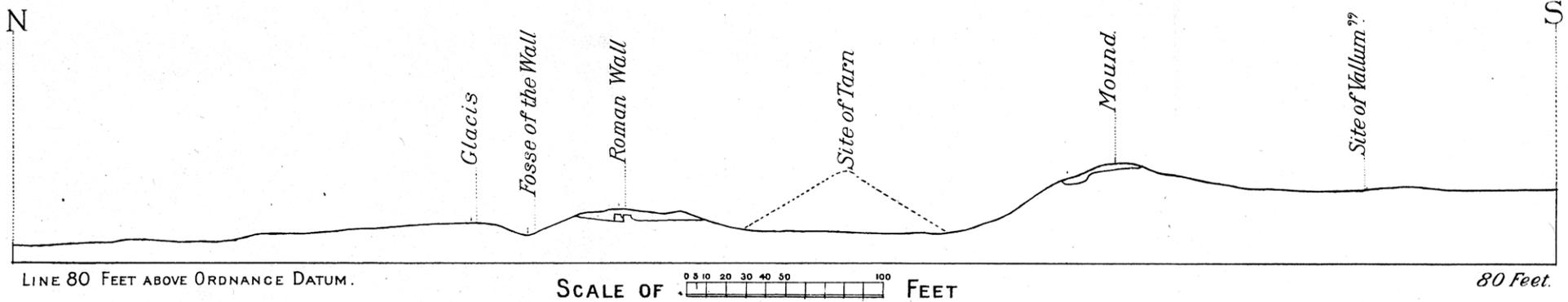
dug a few feet to the west (see Plate IV.) The subsoil at the spot, according to the report of Mr. J. G. Goodchild, F.G.S., who examined the largest trench, consists of three layers, glacial in origin—on the top, glacial loam and red sand, below that a compact rubble of angular sandstone fragments, and at the bottom large blocks of the same red sandstone bedded in sand. The solid sandstone rock is perhaps not far below and either it or the large blocks above it have been quarried extensively in the northern, *i.e.*, the lower half of the field, where surface depressions show disturbance both north and south of the line of the Wall. The Vallum seems to have run along the edge of the quarried area, but its details are no longer discoverable. Its ditch, filled with peat and grey sand, descends with much abruptness into the subsoil described above, but its mounds have been ploughed down beyond recognition. A band of dark red sandy loam, with bits of "black line," overlies the subsoil for 30 feet north of the ditch and may belong to the northern mound, 39 feet * north of the scarp of the ditch the subsoil has been broken into in search for stone, and a nearly level surface of rock was uncovered by us on which both Mr. D. Burns, C.E., F.G.S., and an experienced local quarryman confidently recognised pick-marks (see Plate V). The relation of this quarry to the Vallum cannot be fixed. The lie of the strata exhibited in the section proves that the Vallum has not been carried across it but rests on the undisturbed subsoil. On the other hand it is possible that it has been carried into the Vallum. The contoured plan made by Mr. Hodgson (see Plate VI.) shews that our pick-marks and a corresponding surface depression impinge on the line which we should expect the Vallum to take. The ruined state of the Vallum forbids precise conclusions, but there is some slight reason to think that its northern

* 49 feet from the axis of the ditch.



TRENCH AT BLEATARN (F on Map)
Showing red sandstone, rock and fragments.

Extended from a Photograph by Miss G. B. Hudson. tcwaas 001 1897 vol14_0013 Drawn by E. Hodgson, August, 1895.



Profile across the Wall and Mound, with Sections on a larger scale.
BLEATARN, IRTHINGTON.

T. H. H. & E. H. August, 1895.

earthworks were not respected by the quarrymen. We have no evidence when these quarrymen worked or any special reason to call them Roman.

(ii) The lie of the ground in the east of Bleatarn Park will be intelligible from the annexed profile: it consists of (1) a high mound, (2) north of that a deep depression called in the maps Blea Tarn, and now full of peat, and (3) a ridge along which the Roman Wall ran: north of this is the fosse of the Wall, and some surface indications of quarrying, as the ground drops towards Scaleby Meadow. A section (see Plate VII.) was cut across the ridge, revealing the core of the Wall *in situ* and much red sandstone debris from it, and immediately south of the Wall, a layer of black (peaty?) sand overlying the natural sandy subsoil. This layer resembles one found in similar position last year at Brunstock (*Report*, p. 459) and is probably a peat deposit amid the debris of the Wall. No trace of the mural road was found: it will be remembered that it was not found last year in the western part of the Park (*Report* p. 463).

(iii) The mound at Bleatarn was cut into from the north side, and the trench was carried down to a point where the old surface line should have appeared (see Plate VII). The soil was uniformly sandy earth with fragments of red sandstone and had obviously been disturbed. In the centre of the mound, three feet below the surface, we met fragments of glazed pottery, probably eighteenth century ware, and, not far off, the bowl of a so-called fairy-pipe such as was used in the seventeenth and eighteenth centuries. According to old residents, Squire William Richardson, nick-named the Nabob, had here a sort of "Belvedere" to enjoy the view, and it is quite possible that he piled up the mound in order to set his summer-house thereon. Mr. Richardson was one of the many Cumbrians who were successful in trade a century ago: he was owner of Rickerby Hall in the adjacent parish of
Stanwix

Stanwix about 1775-1805,* and if he built the mound, it will belong to that period. It must be remembered, in estimating the depth at which the pipe-bowl and potsherds were found, that the height of the mound (according to local evidence) was reduced some 40 years ago for road making and that the soil of the mound appears to be uniform throughout. The relation of the mound and the tarn are not quite clear. It is possible that the earth came out of the tarn, which (in this case) will be no older than Mr. Richardson, but it is at least as likely that the tarn is older and that the vallum was levelled to supply earth for the mound. The name Bleatarn, "the blue tarn," like Bleatarn in Westmorland, Blea Fell, Bleamire, &c., is quite conceivably Norse, in which case the tarn must be some eight or nine hundred years old. Unfortunately, in spite of considerable search, we have not been able to trace the name in documents. In Richardson's will it is spelt Blettern, as it is still pronounced locally; in Donald and Hodgkinson's Map of Cumberland (1770-1774), in Warburton's "Vallum" (1753), and in Horsley's "Britannia Romana" (1732) it appears as Bleatarn. It is remarkable that Hutton in his "History of the Roman Wall," 2nd edition, describing his tour in 1801, makes no allusion to any special mound or tarn (p. 217) unless he erroneously takes the tarn to be the ditch of the wall, which he says is "here in high condition." Warburton is also silent.

According to local tradition the tarn contained many

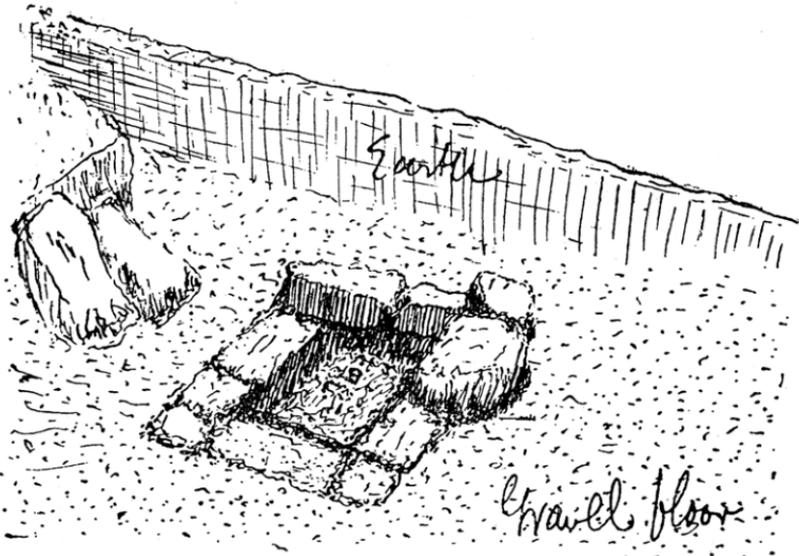
* The Manor of Rickerby was mainly sold by the lords to the tenants, but a remainder was purchased by Mr. Richardson, of Rickerby, prior to the issue of Nicolson and Burn's "History of Cumberland" in 1777 (vol. ii. p. 452.) Mr. Richardson was afterwards, in 1794, a subscriber to Hutchinson's "History of Cumberland," where there is this account of him: "At Rickerby, Mr. Richardson has purchased estates with a neat house, laid out beautiful gardens. . . . This gentleman was a native of this place and went early to London, where by trade he raised a large fortune. He now amuses himself in this retirement with buildings and agriculture, having improved the estates he has purchased, here and in the neighbouring parishes, to a high degree." His will was proved at Carlisle in 1807.

piles

piles of wood sixty years ago. It is difficult to understand the use of these piles. Hutton and Warburton have a statement to the same effect, that the wall was here carried over mossy ground by means of piles, which may refer to the Wall on White Moss, west of Bleatarn.

III. LANERCOST.

Excavations were made in the "green" of Lanercost Priory, by the Rev. W. S. Calverley. It was ascertained that a mound and ditch once ran along the north and west sides of this "green," just inside the modern wall, but the date and even the dimensions of this work were



CIST AT LANERCOST.

not determinable. Close to the western gateway some, probably mediæval, masonry was unearthed and near it and inside the above mentioned mound and ditch, a small stone cist containing fragments of an urn and bones. The urn appeared to be Romano-British and might belong

belong to a rude cremation burial of a known type. The bones are pronounced by the authorities of the Oxford Museum not to be human, so far as they are identifiable; three pieces certainly belong to a deer. But such bones not unfrequently occur, I believe, in similar interments: they have been explained as remains of the funeral feast. There is no reason to think that the Priory was ever the site of a Roman camp, but the spot may have been casually inhabited in Roman times. The Roman road sometimes called the Stanegate appears to have passed down the Irthing valley from Gilsland to Nether Denton and Lanercost on its way to Brampton, and chance remains might well be found at Lanercost, as they have been at Nether Denton, close to the rectory and church.

Incidentally search was made for two centurial stones which were built up in Lanerton farmhouse in Horseley's time (C. I. L. viii, 847, *a. b.*). Both have vanished—they were lost, probably, more than thirty years ago, when the present farmhouse was built.

IV. MAIDENWAY.

A section was cut through the Maidenway about three miles from Birdoswald and four from Bewcastle, on the moor close to Ash Crag and High Stead Ash, where the grass grown ridge of the road can be clearly traced for some little distance. By the advice of Lord Carlisle's drainers, whose local knowledge was invaluable, we made a trench 15 yards north of a gateway through which the line of the road passes, about 500 yards west of High Stead Ash farmhouse. We found the road in excellent preservation. It was about 16½-17 feet wide, edged with large squared kerbstones and constructed with large and small pieces of freestone and cobble, packed very tightly in a layer 8 inches thick and set on the natural clay subsoil. The centre of the road was raised but our
section

section did not show the large central stones which were found in some sections of the mural road.

Incidentally the camp marked on the Ordnance Map a little north of Triermain was inspected and found to be nothing but the remains of surface quarrying.

EXPENDITURE 1895.

	£	s.	d.
Compensation at Lanercost 1894-5 ...	4	0	0
Labour at Lanercost ...	2	2	0
Bleatarn Compensation ...	5	0	0
„ Labour ...	13	13	0
Geologists, expenses of ...	1	10	2
Appletree Compensation ...	4	10	0
„ Labour... ...	6	16	0
	<hr/>		
	£37	11	2

This expenditure has been defrayed by subscriptions collected in Oxford, leaving intact for 1896 the second £50 voted by this Society. The total expended in two years has been £84 13s. 2d. of which this Society has furnished £50.