

ART. XXIII.—*Excavations on Hadrian's Wall, in the Gilsland—Birdoswald—Pike Hill Sector, 1927.* By F. G. SIMPSON, M.A., Hon. F.S.A. Scot.

AT the Spring Meeting of this Society at Carlisle on April 22nd, 1926, I described the initial venture in fieldwork of the University of Durham Excavation Committee—the excavations at Great Chesters (Aesica) during September and October, 1925 (these *Transactions*, N.S., xxvi, p. 544: *Arch. Aeliana*, 4th Ser. ii, p. 197).

The results of the season's work were as puzzling as they were unexpected. Their genuineness was not in doubt, but, in Mr. R. G. Collingwood's words, "vouched for . . . by the unanimous opinion of many experts who visited the diggings in order to form an independent opinion," but their bearing upon the problem of structural sequence was generally felt to be so uncertain that Mr. Collingwood did not hesitate to say that its "complications have in late years become almost intolerable," that "these latest results . . . rather add to the complications," and that "no simplification is yet in sight" (these *Transactions*, N.S., xxvi, p. 546).

During 1926, the situation remained unrelieved, and an unfriendly critic of my Committee's programme for 1927, which transferred the scene of operations to Birdoswald, leaving the Aesica complication unsolved, might well have accused us of running away from our difficulties. Last season's work has given us the solution to the central problem of the Aesica complex—the purpose of the foundation running alongside the Great Wall—without cutting another sod in that sector. Not to able strategy on our part, however, but to the weather—of the wettest September on record—must this result be credited.

By September 21st, it had brought our original programme so completely to a standstill that the cessation of work for the season was contemplated. Our scheme of work hitherto had concentrated the greater part of our staff upon deep digging at Birdoswald, now drowned out and unworkable until the general inundation had subsided. That interval afforded, forthwith, an opportunity which we had judged could not arrive for some years, of preliminary attack upon equally important problems confronting us in the immediate neighbourhood. The operations thus begun produced results of such importance that the season's work was prolonged for a full month and did not terminate until November 12th. Though these results were in part as unexpected as those at Aesica, their meaning was clear enough for me to say without hesitation that they have effected a remarkable measure of the simplification of the structural problem that appeared, only two years ago, to have been removed still further beyond our horizon.

A brief survey of the season's work as a whole can best be made by first enumerating the chief problems which remained unsolved last August. There was the greatest and oldest of all, the place of the Vallum in the complex of works. The Vallum, according to the present hypothesis stated in 1922 (these *Transactions*, N.S., xxii, p. 376), is a non-defensive boundary-mark constructed in association with a chain of forts before any kind of defensive wall was thought of. This hypothesis, at first sight shaken by the discoveries at Aesica in 1925, but on second thoughts unshaken, upon the issue of the isolation of the *original* forts, has so far been effectively criticized at one point only, namely the absence of intermediate posts between those forts. In 1922, Mr. Collingwood asked whether the discovery of isolated watch-towers, like those on the German Limes, was not overdue on this frontier also, and shortly afterwards, Professor J. L. Morison, of Armstrong

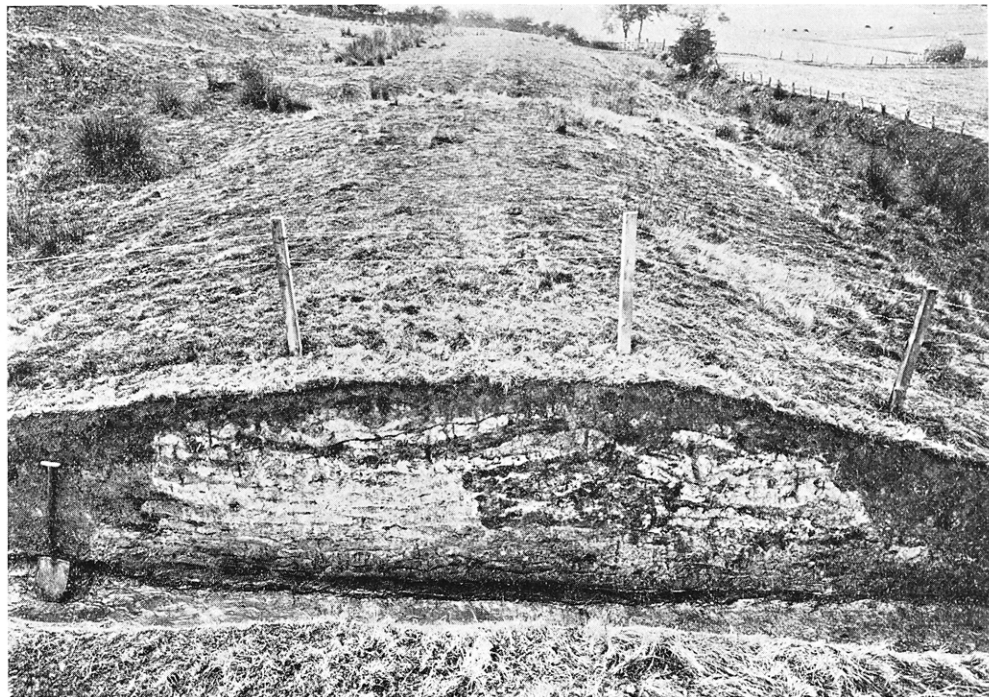


FIG. 1.—THE TURF WALL AT HIGH HOUSE.

TO FACE P. 379.

College, added his conviction that no soldier, ancient or modern, could have left the line of the Craggs totally undefended.

Two other problems were also legacies from the days before the revival of excavation in 1893-4, namely the Roman building, apparently of the milecastle type, discovered in 1870 on Pike Hill near Lanercost, which Dr. Bruce considered had been built before the Wall, and the projecting foundation exposed when the south face of the Wall in the Vicarage garden at Gilsland was excavated in the eighties. At the conclusion, in 1903, of the ten years' work of the Cumberland Excavation Committee, the very reasonable Turf Wall Theory appeared to settle many problems by ascribing the Turf Wall to Hadrian and the Stone Wall to Severus. When, however, it became apparent in 1911 that the Stone Wall was Hadrian's work (*ibid.* n.s. xiii, p. 344), the difficulty of the problems which emerged, namely the interval of time between the two Walls and the original length of the former, was greatly increased.

Apart from the literary record, the foundation of the Turf Wall Theory was the character of the material filling the Ditch of that Wall where it passed *underneath* the present Fort of Birdoswald. The sequence of construction was never in doubt: it was Turf Wall and Ditch—present Fort—Stone Wall. The evidence obtained when the buried Ditch was discovered in 1897, appeared to indicate a much longer period than the few years, probably less than ten, to which the interval had to be narrowed down by the discoveries of 1911, for the report (*ibid.*, o.s. xv, p. 180), described the lowest stratum of filling reached in the trenches as "the familiar black matter," which signified *gradually* accumulated material in an open ditch.

The length of the Turf Wall, according to that theory, *must* have been from sea to sea. If, as now appeared

probable, it was never more than an intermittent work, its original length was surely indeterminable, seeing that it was completely removed to make way for the Stone Wall, except between Wall Bowers and Harrow's Scar, where the latter deviated from the prepared line. While, therefore, a new cross-section of the Ditch, which we had determined to cut in 1927, might give a clearer verdict than that of 1897, nobody for a moment expected that excavation would supply a clue to the original length of the Wall, the existing remains of which, anybody could see, were incomplete at the western junction. To-day we possess not only conclusive evidence that the Ditch was purposely filled up, after being open for so short a period that months instead of years may cover it, but also what I believe to be valid proof, though no trace of the structure remains, that the Turf Wall stood where the Stone Wall stands for a distance of a mile and a third, the limit of last season's exploration.

The new section of the Ditch supplied exceedingly interesting evidence of purpose and time. At the bottom, the drainage-channel, 1 foot 6 inches square, was full of clean rain-washed sand from the sides, but contained nothing indicating vegetable growth in the Ditch. Above the channel, the Ditch, 27 feet 6 inches wide and 7 feet 10 inches deep, was filled to the Roman surface with blocks of peat, doubtless cut from Midgeholme Moss immediately to the north of the fort. That many of the blocks near the bottom were lying upside down was proved by the fact that on the underside were the remains of a thick growth of heather.

In order to afford present-day students an opportunity of studying the structure of the Turf Wall, a new section of the rampart was cut at High House, the first since the original discovery in 1895. Fig. 1 is, I believe, the first published direct photograph of this Wall. Our experience at this section added another page to the record of good

fortune due to bad weather. On September 21st, we had as our guest Mr. Ian Richmond of Belfast University. Having to leave us the following morning, he was compelled to inspect our trenches during the deluge. We found the sides of the section at High House caved in below the turf, but the latter still standing, sheltering the new face behind from direct rain-wash. On that naturally fractured surface, we saw immediately below the turf, more clearly than the most careful scraping produced when later on the photograph (Fig. 1) was taken, pale red and, here and there, very pale grey lines of lamination. When the section was first cut ten days earlier, lamination was noticed only at the bottom of the mound where, to a depth of about 2 feet, the familiar indications of piled sods were strongly marked. I had come to the conclusion that, at this point at any rate, the rampart contained no sods except those cut from the track of the Ditch, laid down first, and that the superstructure had been the promiscuous upcast from the Ditch.

My experience at Cawthorn in 1923, and Mr. Richmond's during 1924-7, enabled us to recognize in the red lines evidence of turf as reliable as that of the normal black lines, the transition from black to red being due as at Cawthorn to the presence of iron in the local water. Though the rampart is thus rightly described as a wall of turf-sods, it is not an entirely homogeneous structure. In the photograph can be seen an unlaminated mass near the middle of the mound: this is clayey upcast. Its presence is, I believe, another addition to the accumulating evidence that the Turf Wall was a temporary structure, erected on the line *prepared for the Stone Wall* (*ibid.*, N.S., xiii, p. 359).

The evidence for the pre-existence of the Turf Wall appeared during our attempt to solve Pike Hill. That site had remained so long in obscurity owing to our ignorance until 1911 of the number and disposition of the

turrets between the milecastles. Up to that time, Pike Hill was not too near the known site of Bankshead Milecastle to be that of the next turret, possibly of abnormal size because of its wonderful position as an observation point. When the uniformity of their disposition was found to be such that three turrets could be located in one day, after chance had located only five in a century, it was not difficult to make headway with its solution. The next three turrets in order, two to the east and the third to the west of Bankshead, were quickly located. It was then seen that Pike Hill fell about half-way between the third turret and that milecastle, and must therefore be outside the milecastle and turret system.

When to this fact is added the observation by Dr. Bruce that the northern corners of the building appeared to have been rounded, the significance of the site will be recognised. Is it the first of the isolated watch-towers, coeval with the original forts and the Vallum, which Mr. Collingwood and Professor Morison feel *ought* to exist? This hypothesis receives some support from the position of the Vallum hereabouts. It takes a course to the south across ground which, for the Vallum, slopes uncommonly steeply sideways, that could have been entirely avoided had it been carried over the hill. Was this post there first? We shall await, somewhat impatiently, the excavation of Pike Hill.

The three new turrets also supply the suggested clue to the pre-existence of the Turf Wall. We expected to find the first two underneath the public road, like the Stone Wall at Wall Bowers, Pike Hill and beyond, where its stones appear in the surface. Instead, Piper Sike and Lea Hill Turrets appeared wholly north of the road surface, with their north walls only 6 feet from the Ditch instead of 20 feet as usual. Further, the turrets proved to be independent structures, upon which the Stone Wall abutted without trace of bond; and, instead of being flush with

its north face, they projected northwards nearly 2 feet. The same details of position and construction appeared at the third turret, which, owing to the more northerly position of the modern road at this point, lies almost wholly below its surface. In addition, along its north wall only, was the bevelled plinth seen in Fig. 2. This feature doubtless also existed originally at Piper Sike and Lea Hill.

The Turf Wall at its base is about 20 Roman feet wide and its berm 6 feet. The turrets are about 20 Roman feet square and their berm-width is 6 feet. They are, therefore, exactly astride the track which the Turf Wall would have occupied. That this Wall was still standing when these turrets were built is surely no unreasonable inference from such a remarkable chain of structural evidence. How much further west these conditions obtain at the turrets, and what happens at the milecastles, are our new problems.

It is now time to explain why our work was transferred from Aesica, with its questions unsolved, to Birdoswald. We went to Aesica expecting to locate an isolated fort, one of the original chain. Instead, we obtained what we have come to recognise as strong presumptive evidence that no fort existed at Aesica until the Stone Wall was actually being built, and that previously the Stanegate fort at Haltwhistle Burn was probably still in commission. We returned to Birdoswald, therefore, on our original quest, that of an early fort, presumed to exist below the present one somewhere between the Turf Wall line and the known deviation of the Vallum.

This search was persistently hindered by the waterlogged condition of the ground. The existence of an occupation stratum, apparently of early Hadrianic date, below that of the present fort, was however established. Structural remains have still to be located, and these we hope to find next season when we return, equipped with

a pump more than a match for last year's inrush, which has been presented to my Committee by Mrs. F. C. Garrett, of Hexham, the Chairman of the Swainston Pump Company.

A word must be added concerning our preliminary trenches at Wall Bowers Milecastle. They tested the surface indications of a ditch circumscribing the site south of the Wall (a unique feature), the junction of the east wall with the Great Wall and the depth of occupation earth in the interior. The ditch proved to have been only half dug. It appears to be coeval, not with an earlier isolated building of the Pike Hill type as I had suspected, but with the milecastle. The junction is right-angled as usual and exhibits a feature noticed in 1911 at High House, the next milecastle to the east, namely that the lower courses of the Great Wall have been laid before those of the milecastle wall (*ibid.*, N.S. xiii, p. 316). There is no bonding between the facing stones. In the interior, the wall of an internal building was located and good evidence of stratification obtained. The site will well repay complete excavation some day.

One question remains, that of the "wide foundation" of the Wall. This feature was illustrated on Warburton's Map 130 years before it appeared again in the Vicarage garden at Gilsland. As we now realize, it was found at several points during the campaign of the Cumberland Excavation Committee (*ibid.*, O.S. xiii, pp. 459, 466 and 467), but it was not until the excavation of Poltross Burn Milecastle in 1909-10 that it was found in association with adjacent portions of the Wall which varied greatly in thickness (*ibid.*, N.S. xi, p. 404). The solution was not in sight, and the Aesica foundation went unrecognised as a link in the chain of evidence, until, in May 1927, Mr. Parker Brewis and I examined the Wall near Heddou-on-the-Wall (*Arch. Aeliana*, 4th Ser. p. 118), following the publication of Dr. Shaw's report on the Turrets and Bridge

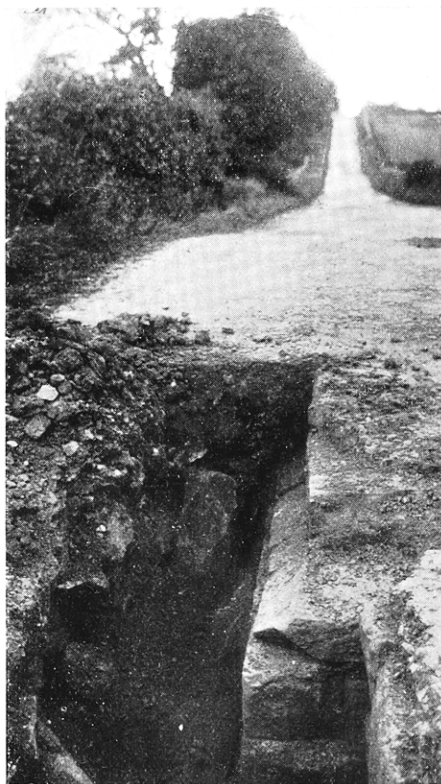


FIG. 2.—THE TURRET WEST OF PIKE HILL,
SHOWING THE PLINTH: PIKE HILL
ON THE SKYLINE.

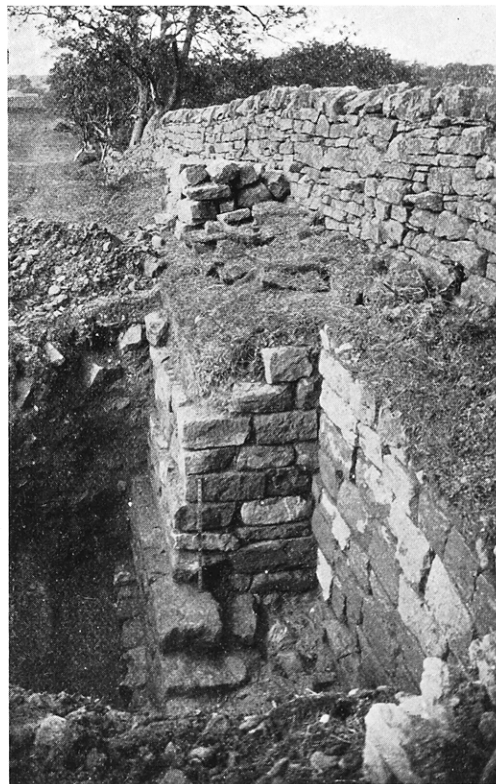


FIG. 3.—A TYPICAL "POINT OF REDUCTION"
FROM BROAD TO NARROW WALL:
AT WILLOWFORD EAST TURRET.

at Willowford in April (these *Transactions*, N.S. xxvi, p. 429). At Poltross Burn, the milecastle walls were over 9 feet thick: the Great Wall adjoining was the same for a few feet, but was then abruptly reduced, wholly at the *south* face (compare Fig. 3), to about $7\frac{1}{2}$ feet. This, it will be remembered, is the average thickness of the above-ground remains of the Stone Wall. There was, however, no corresponding alteration in the foundation upon which this narrow Wall stood. It continued without a break, projecting exactly as at the south face in the Vicarage garden 200 yards away. At the time, it appeared to Mr. Gibson and myself more probable that this represented an alteration in design than a total reconstruction following enemy action (*ibid.*, N.S. xi, p. 404).

Dr. Shaw was led, as the result of his work at Willowford in 1923-4, to the conclusion that a short interval had elapsed between the broad and narrow Walls, and that in the interval the foundation, which is continuous throughout the Willowford—Poltross Burn sector and eastward for an unknown distance, carried a superstructure of earth, or turf, except at the Bridge, turrets and milecastle, where short lengths of broad Wall are standing. Dr. Shaw's hypothesis was shaken by the evidence from Heddon. There the broad Wall was found, 9 feet 7 inches thick and still over 4 feet high, at a point nearly half-way between the nearest milecastle and turret. It was evident that a fuller examination was needed of the facing and core of the Wall between Willowford and Poltross Burn. Nearly twenty trenches were dug, including a complete cross-section in the Vicarage garden. This proved the core of the narrow Wall and that of the foundation below to be a homogeneous mass of mortared rubble, and demonstrated the absence of any interval during construction. Amongst others, Dr. Shaw himself inspected our trenches and was satisfied that the Wall must have been altered during construction.

When this solution is applied to the Aesica foundation, which is identical in dimensions and construction with the lowest courses of the foundation from Willowford to Poltross Burn, does it not represent the *unfinished* foundation for the broad Wall in that sector? Why, when the decision to alter the thickness was taken, it was not completed and the narrow Wall built upon it as elsewhere, instead of alongside upon a foundation of its own, is not yet clear, but there is plenty of time for the explanation to appear when the work is resumed in that sector.

In a trench 260 yards west of Willowford East Turret, the centurial stone described by Mr. Collingwood on p. 387, was found among fallen facing stones at the south side of the Wall.

During the examination of the Wall structure and of the material from the Turf Wall Ditch I received most valuable help from Professor Hickling and Dr. Blackburn, of Armstrong College.

I desire to express the warmest thanks of my Committee and myself for permission, most readily granted at every request, to excavate at so many points over the wide area finally covered by the season's work: at Gilsland, to Lady Henley and her tenants, Messrs. J. T. Baxter of Throp and T. Laidler of Willowford, to the Rev. A. L. Webb, Vicar of Gilsland, the London and North Eastern Railway Company and Mr. F. E. Harrison, District Engineer, and Mr. Frederick Milvain and his agent, Mr. A. Armstrong, M.I.M.C.E.; at Birdoswald, to Mr. Irwin A. Wright; and from High House to Pike Hill, to Lady Cecilia Roberts and her tenants, Messrs. J. Laidler of High House, J. Wilson of Lanerton and A. Wannop of Lea Hill; to Mrs. Coulson and her tenant, Mr. T. Warwick of Bankshead, and to the Brampton Rural District Council and Mr. G. A. Gray, A.M.I.C.E., the Council's Surveyor.

We offer our grateful thanks to this Society for the generous grant of £25 towards the expenses of the work, and to the Editor of the *Durham University Journal* for permission to illustrate this article with blocks already used in that *Journal*.

THE CENTURIAL INSCRIPTION.

By R. G. COLLINGWOOD.

Between Willowford East and West Turrets, 260 yards from the former, on the south side of the wall, a centurial stone was found among fallen material. The stone is a facing-stone of the usual type, of buff freestone. The inscription runs,

COH VI
 O LOVSISV
 AVIS

"*Coh(ors) vi, c(enturia) Lousi Suavis.*" Lousius Suavis, whose *nomen* is obviously a variant spelling of the *nomen* Lovesius, was already known from two or possibly three inscriptions: one from the neighbourhood of Chesters and one or two from Haltwhistle Burn. The first (CIL. vii, 600) was at Tower Tye, where early antiquaries quaintly misread it as "*coh(ors) vi loco suavi*" "The Sixth Cohort, in a pleasant spot." Its ultimate provenance is not known, but, like all the stones at Tower Tye, it must have come from quite close at hand. It is now in the Chesters Museum. The second (CIL. vii, 680) is also at Chesters, and Hübner (*ad loc.*) says that it is identical with the third and comes from the same place, namely Haltwhistle Burn. That Hübner is right in saying that there are two from Haltwhistle Burn, I do not believe; I can only find one at Chesters now, and only one is mentioned in Bruce (*Lap. Sep.* 225 "found . . . recently at Haltwhistle Burn Head"). It was built into an outhouse there (*Arch. Ael.* ser. 2, vi. p. 54).

Cases of centurial stones in duplicate are not common; those in triplicate are very rare, and are valuable because they give a clue to the rotation of working-parties in building the Wall. This is the first instance in which every copy of the triplicate inscription belongs to an independent position of the century in question; there is only one other set of triplicates, and two of these come, probably, from the two ends of the same length of work done. Here the distances separating the three stones are:

Tower Tye—Haltwhistle Burn	$12\frac{1}{2}$ miles
Haltwhistle Burn—Willowford	$4\frac{3}{4}$ miles
Tower Tye—Willowford	$17\frac{1}{4}$ miles

It may be pointed out that this distribution is difficult to account for except on the hypothesis that the rotation of working-parties caused the same century to recur every 4 to $4\frac{1}{2}$ miles. Tower Tye and Haltwhistle Burn Head happen to be places where building-stones from the Wall are unlikely to have been brought from any great distance, and therefore a large margin of error in the distances is not indicated; and in the case of the Willowford stone one may assume that it was found close to its original place. Now if three legions, each having 60 centuries, worked in such a way as to make the centuries recur at 4 to $4\frac{1}{2}$ miles apart, each century would build, at one time, a section of Wall between 40 and 45 yards long; and it will be remembered that the crossings of the Vallum are 45 yards apart. This supplies a possible explanation for the frequency of the Vallum crossings. Each century may have been assigned a crossing of its own, for each length of Wall which it built.