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The Vallum causeway and fort ditches at Great Chesters

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SUMMARY

An original causeway of boulder clay, revetted in neatly coursed stones, was discovered in 1950 across the Vallum, well to the south of the fort at Great Chesters. No evidence for a monumental gateway was found. The ditch was filled with silt when it was capped by a layer of clay on which lay a secondary road surface overlapping the eastern part of the causeway. To the east of the fort, two ditches were located which may correspond to the two outer ditches to the west.

INTRODUCTION

THE PROPOSAL that an original pattern of spacing of the forts along Hadrian's Wall could be recognised (Swinbank and Spaul 1950) led to an appreciation that there ought to have been a Vallum crossing south of the fort at Great Chesters as a part of this scheme. It was also considered that further investigation of the unusual ditch system might throw light on the suggestion that a larger fort was planned here than was built. The evidence for this possibility lay in the existence of four ditches to the west of the fort and that the butt-ends of these ditches underlie the Narrow Wall which is contemporary with the fort. To attempt a solution of these two main problems, excavations were conducted by the first named writer in September 1950 — when heavy rain prevented more than the uncovering of the eastern side of the Vallum causeway and the north slope of the ditch — and for three weeks in May 1951.

THE SEQUENCE AT GREAT CHESTERS

The fort was chosen by J. P. Gibson for excavation in 1894 (Gibson 1903). The defences were planned, together with some internal and external buildings. In 1925, F. G. Simpson chose the site for his new campaign of excavations, but only undertook one season of work here (Hull 1926). He was able to demonstrate that the fort was bonded with the Narrow Wall at the north-west corner (for terminology, see Breeze 2006). The earlier, abandoned, Broad Foundation lay immediately to the north. Simpson showed that the butt-ends of the four western fort ditches lay under the Narrow Wall, but did not emerge to the north, so that they respected the position of the Broad Foundation. Hull (1926, 199) noted that 'in each case where a ditch runs under the masonry of the Wall, the face of the Wall on the south side has slipped, and in the case of the outer two ditches the fall of the Wall has been complete'. In 1939, Simpson returned to Great Chesters with I. A. Richmond and located MC 43 roughly in the centre of the north wall of the fort and relating to the Broad Foundation not the Narrow Wall (*JRS* 42 (1952) 161-4).



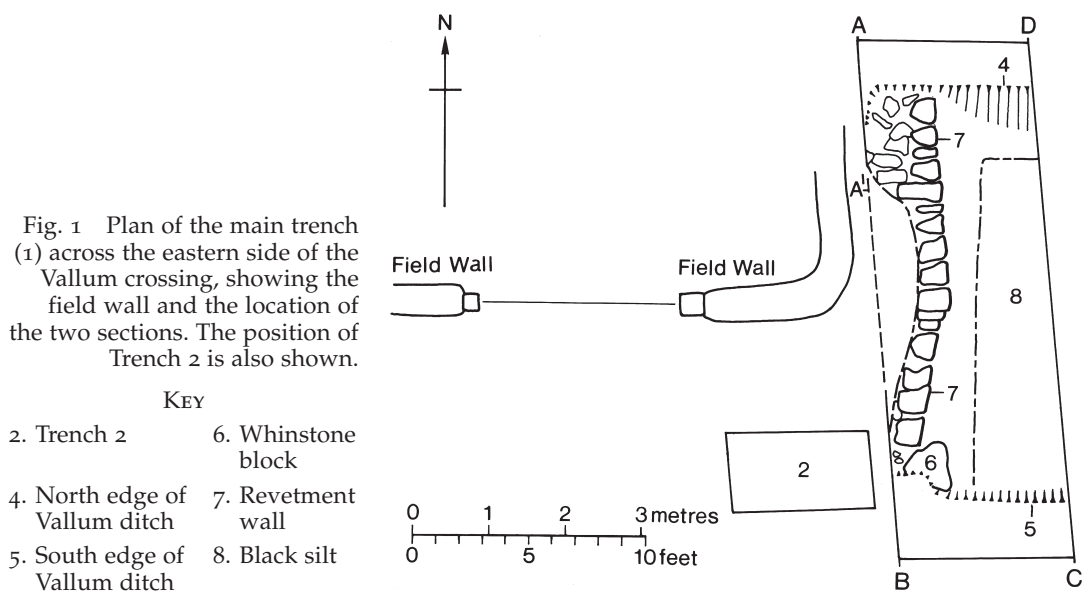
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An inscription found at the east gate (*RIB 1736*) gave Hadrian the title *Pater Patriae* which he did not accept until 128, although Bennett has drawn attention to three earlier inscriptions which accord Hadrian this title (Bennett 1984). If the date of 128 is accepted, it would place the building of the fort late in the sequence (Breeze 2006, 74–5). This might account for the fact that the fort does not lie astride the Wall like many earlier forts. The existence of the four ditches to the west of the fort, all apparently relating to the Broad Foundation, strengthens the case for an amendment to the original plan for the fort, although this would produce a more complicated sequence of: Broad Foundation laid with milecastle; larger fort with two ditches planned; fort reduced in size, with inner ditches added to the west, and bonded with the Narrow Wall which was erected immediately to the south of the earlier Broad Foundation.

THE EXCAVATION OF THE VALLUM CAUSEWAY

The line of the Vallum to the south of Great Chesters fort is distinguishable as a slight depression skirting the gentle escarpment of the Whin Sill on the low summit of which the fort is situated, roughly 200 m to the north. The situation of the Vallum is low-lying and therefore subject to severe water-logging even in dry weather. The road to Great Chesters farm still uses the site of the Vallum causeway. Immediately to the east of the road is a field wall which turns westwards to cross the causeway position, rendering excavation difficult (fig. 1).

The causeway, though not so well preserved, resembled that at Benwell (Birley *et al.* 1934). Its revetment wall was composed entirely of freestone blocks, reasonably dressed and neatly coursed, with as many as five courses surviving (fig. 2). The number of courses visible slowly decreased from north to south. The revetment bulged outwards just south of its centre. (This is probably the result of the weight of water underground or of the pressure of the soil accumulation above it.) At that point, the revetment was broken and stone had evidently fallen off into the ditch. The bulge seemed to be confined to the top few courses since the



lowest visible course was almost in line with the north and south junctions of the revetment wall with the slope of the Vallum ditch.

The top of the causeway at its north-east corner was uncovered for a distance of 2.15 m (7 ft) to the south and approximately 1 m (3 ft 3 ins) westwards. To have proceeded further in either direction would have risked undercutting the field-wall. The original bank of subsoil forming the causeway was traced for 60 cm (2 ft) southwards before it disappeared beneath the field-wall. It was most marked, however, that between this bank and the revetment, the north slope of the Vallum ditch was rough and practically vertical, as at Benwell, rather than smoothed to its normal slope. This fact emphasises the contemporaneity between the digging of the Vallum ditch and the construction of the revetment. The situation immediately to the east of the causeway, in the open ditch, was quite different. The side of the ditch became less vertical and was excavated down to a distance of 1.85 m (6 ft) below modern ground level: that is approximately 1.07 m (3 ft 6 in) from the top of the Vallum ditch. At a depth of 1.55 m (5 ft) below ground level, the pinkish-yellow subsoil changed to a greyish pink. The greyish silt which covered the courses of the revetment changed to a dense black lower down in the ditch. This black silt supported the revetment on the east and was removed to display the coursing to a depth of 1.85 m (6 ft) below ground level.

On the southern side, the junction between the revetment and the slope of the ditch proved to be quite different. A vertical stump of boulder clay projected forward of the normal slope of the ditch (as exemplified to the east) as though it had been left to receive the end of the revetment. A large block of whinstone was placed between it and the revetment wall approaching from the north. Any doubts concerning the original character of the causeway were dispelled by the existence of the projecting stump of boulder clay, although it is

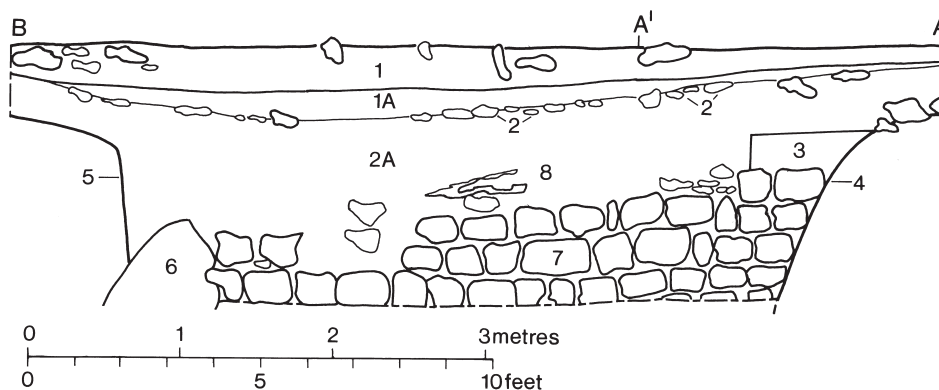


Fig. 2 Section on the line A-B showing the east retaining wall of the Vallum causeway. The section at A-A1 is set back 457 mm from the main section.

KEY

- | | |
|----------------------------|--------------------------------|
| 1. Topsoil | 4. North slope of Vallum ditch |
| 1A. Grey silt | 5. South slope of Vallum ditch |
| 2. Yellow sandstone | 6. Whinstone block |
| 2A. Mixed grey/yellow fill | 7. Revetment wall |
| 3. Bank of subsoil | 8. Black silt |

unfortunate that the position of the field-wall prevented the tracing of the undisturbed boulder clay of the causeway fully across the width of the ditch.

In an attempt to discover whether the original causeway had been metalled, a small trench (2 on fig. 1) 1.85 by 1.02 m (6 ft by 3 ft 4 ins) was cut between the section exposing the causeway and the modern farm track. A very rough, sparse layer of flattish stones, cut by a modern field-drain, was reached at less than 30 cm (1 ft) below ground level, reminiscent of the rough cobbling above the causeway that had been noted when the revetment was examined in 1950. Immediately below the cobbles, the familiar yellowish-pink boulder clay subsoil re-appeared, adding confirmatory proof to the originality of the causeway. But no road-metalling could be associated with the original causeway. This is puzzling since a roadway might be expected to be metalled, and metalling, if only light, was discovered both at Benwell and at Housesteads (Birley *et al.* 1934; Birley and Charlton 1934, 186–7). Perhaps the solid, compact nature of the subsoil may account for the lack of it.

The causeway at Benwell is 5.80 m (19 ft) wide. Using this information to try to find the western limit of the Great Chesters causeway, a small trench was cut at approximately 6.10 m (20 ft) west of the south edge of the east revetment, immediately west of the farm road. The southern lip of the ditch was uncovered near the surface, just before it runs beneath the field wall and enters the meadow to the north. Ditch-filling was soon encountered and therefore it may be assumed that the breadth of the causeway does not extend to this point.

No indication was found as to whether a monumental gateway had ever been erected over the causeway. Such masonry, if it had existed, may have been removed in Roman times, or even when the present field-wall, gateway and road were constructed. Yet, there was no evidence suggestive of a deliberate demolition of the causeway. It is possible that no monumental archway existed, as was considered to be the case at Housesteads (Birley and Charlton 1934, 187).

The excavation shed some light on the subsequent history of the causeway. It is clear that the ditch on each side of it must have been open for a considerable length of time to allow such a depth of dense black silt to accumulate (fig. 3). This silt was clearly a natural filling of decayed vegetable matter, and not an artificial one. Silt reached to within 60 cm (2 ft) of the top of the ditch across its whole width. Unfortunately, it produced no datable finds. However, near to the north lip of the ditch, by the causeway, a practically complete *pilum murale* (9 on fig. 3) — the first to be found on Hadrian's Wall — was embedded in the black silt (Bennett 1982).

Above the black silt was a layer 60 cm (2 ft) thick of greyish-yellow clayey material (2A on figs. 2 and 3), originally taken for undisturbed subsoil. This thick layer covered the eastern side of the causeway and extended for at least 5.70 m (19 ft) to the east. It consisted of decomposed yellow sandstone mixed with soft grey clayey silt and seemed to be an artificial filling of the ditch. The top of this layer at the causeway was marked by yellow sandstone cobbles forming a definite compact level, which might be termed light road-metalling. It has already been noted that similar sandstone cobbles formed the only metalling above the boulder clay near the centre of the causeway. This cobbled level was not, however, apparent in the small trial trench to the west of the farm road.

No absolute date may be ascribed to this process of artificial filling, but a similar process has been observed at Benwell, Housesteads and Birdoswald in the Roman period (Birley *et al.* 1934; Simpson and Richmond 1930, 247–52; Birley and Charlton 1934, 186–7). Thus it seems reasonable to suppose that this was the case at Great Chesters too. The process of filling the

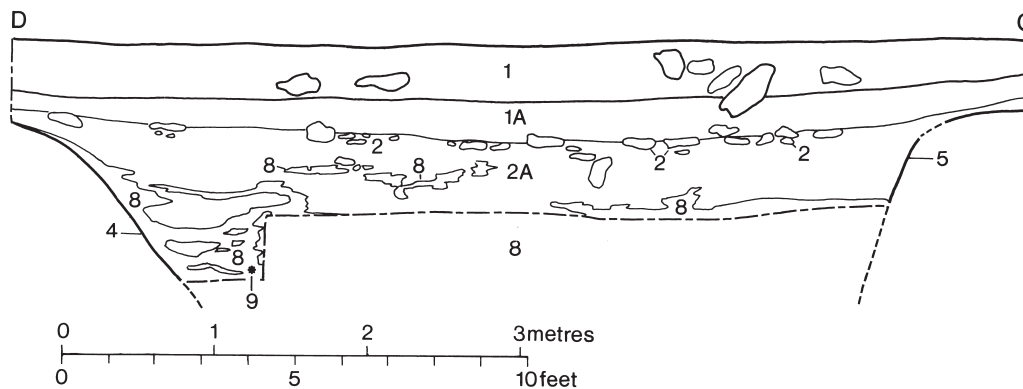


Fig. 3 The east section of Trench 1, on the line D-C, showing the fill of the ditch.

KEY

- | | |
|----------------------------|--------------------------------|
| 1. Topsoil | 4. North slope of Vallum ditch |
| 1A. Grey silt | 5. South slope of Vallum ditch |
| 2. Yellow sandstone | 8. Black silt |
| 2A. Mixed grey/yellow fill | 9. <i>Pilum murale</i> |

ditch artificially has continued until recent times since quantities of stones and broken tiles had to be removed before excavation could begin. No buildings were discovered overlying the filled-in ditch, unlike Benwell and Housesteads. This seems easily explicable on the grounds that the civil settlement at Great Chesters lay wholly to the north of the Vallum and that the latter was 200 m from the fort. The later construction of the Military Way closer to the fort would also have led to the causeway at Great Chesters falling out of regular use.

THE DITCHES OF THE FORT

The excavation in 1925

In 1925, an excavation by F. G. Simpson located as many as four ditches on the northern sector of the western defences. A brief account of this work appeared but a full report was not published owing to Simpson's illness (Hull 1926). Simpson subsequently handed his records to the first writer of this article and the note below draws on those to amplify the published report.

One section was cut across the four ditches visible on the surface at a distance of about 7 m (23 ft) south of the Narrow Wall. This is the only point at which the ditches have been excavated to their full depth. Only the depths of the ditches, the width of the inner ditch and the distances between the centre points of the ditches were recorded. The ditches were all of a different depth (measured from ground level), the innermost being 1.45 m (4 ft 9 ins) deep, the second 1 m (3 ft 3 ins), the third 1.70 m (5 ft 3 ins), and the outermost 1.93 m (6 ft 3 ins). Simpson recorded the width of the inner ditch as 6.34 m (21 ft). As the two outer ditches are deeper, it may be presumed that they are also the widest. The berm separating the outer two ditches from the inner two is the widest of the three berms. The second ditch is both the shallowest and the narrowest.

All four ditches ran beneath the Narrow Wall but did not emerge to the north. Over each of the four ditches the southern face of the stone wall had collapsed. In each case too, the depression caused by the subsidence is visible on the surface. Simpson also noted two more depressions further to the west which may suggest the existence of two additional ditches.

The excavations of 1950–1951

The four ditches on the western side of the fort extended to the south-west corner and then appear to merge into one deep, broad ditch which continues round to the east gate. This broad depression bordering the southern and eastern ramparts points unmistakably to the existence of at least one ditch round the fort. But a study of air photographs suggests that the terracing obvious on the ground at the south-east corner of the fort might represent a complex ditch system. It was to substantiate or reject such suspicions that the excavations took place, the trenches being located to avoid civil buildings and the Military Way. The position of the farmhouse prohibited any investigations at the north-east corner.

Trench 1, 24.40 m (80 ft) long, was placed south of the Military Way. The high bank of earth and stones covering and concealing the precise line of the east rampart, and surmounted by a high field-wall, prevented a thorough investigation of the inner of two ditches. The outer lip of this ditch, nearest to the rampart, and both lips of a second ditch, were located in the reddish-brown pebbly subsoil. A berm of 3.65 m (12 ft) separated the two. Neither was excavated to any depth since that was not the aim and the constant influx of water was no inducement to deep digging. The outer ditch was 7.66 m (25 ft) wide across the top and both slopes of the ditch were gradual, suggesting a shallow ditch. The eastern lip was later covered by a fine edging of a north-south road, about 3.7 m (12 ft) wide, which was traced almost to the Military Way though no clear junction was discovered. Its surface was generally poor and no east kerbing could be distinguished.

All of the other trenches excavated were designed to trace the outer of the two ditches round the south-east corner of the fort. One trench uncovered its eastern lip almost due east of the south-east corner of the fort. Its western lip was 7 m (23 ft) to the west. Still further south, small trenches located the turn of the ditch and showed that it had narrowed to 3.35 m (11 ft) towards the west, whilst two gullies led to the south-east. These were difficult to interpret without further investigation but may have been designed to drain the ditch (Swinbank 1954, 166–8 provides a full description). The western lip of the outer ditch was only 3.35 m (11 ft) from the measured position of the eastern.

Conclusions

A partial comparison of the ditches discovered in 1925 with the two revealed in Trench 1 in 1950 is now possible. Though the two ditches on the east side of the fort were not fully excavated, their slopes suggested that they were relatively shallow. Yet a continuation of the lines of the slopes of the outer ditch would give an estimated depth of rather more than 1.85 m (6 ft) below ground level. Whilst no argument could be based on a comparison of this hypothetical depth with the known depth of the ditches on the west, it is nevertheless noteworthy that the estimated depth corresponds more with that of the outer two ditches rather than the inner two on the west. Moreover, this correspondence between the outer ditch on the east and the outer two on the west may be carried further. Though no measurements are

given for the width of any but the inner ditch on the west, it may be presumed that the outer two ditches are both wider than the inner two, from which they are separated by a wider berm. There is, accordingly, a likelihood that the two outer ditches on the west run completely round the fort to form the two ditches to the east. It is possible that the two inner ditches will prove to merge with the third ditch at the south-west corner of the fort.

GENERAL CONCLUSIONS

The excavations demonstrated the existence of an original causeway across the Vallum south of the fort, thus confirming the position of Great Chesters as one of the primary forts on Hadrian's Wall. The causeway was less than 6 m (20 ft) wide. No evidence was found for an arch over the causeway nor was there any primary metalling. Following considerable silting, the ditch to the east of the causeway was in-filled with clayey material which spread over the eastern part of the causeway. A rough and intermittent road surface was laid over this material. The possibility that the two outer ditches on the west side of the fort may correspond to those revealed in 1950–1 on the east strengthens the possibility that a larger fort was planned for this site than the one constructed.

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