

II

Hadrian's Wall from MC0 to MC9

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SUMMARY

T*his paper looks at the evidence for the spacing and location of milecastles and turrets from Wallsend to MC9. A model is put forward to show how the little that is known of structures in this sector of the Wall can fit into a coherent scheme. This model indicates that the Wall was originally designed to terminate on the river at Wallsend, although the curtain and structures from MC7 to MC0 were not built until after the decision to narrow the Wall.*

INTRODUCTION

Since 1930, if not before, the Wall in its original design has been seen as ending at the bridge over the river Tyne at Newcastle, and the line from there to Wallsend as being an addition to the original scheme following the fort decision.¹ The curtain wall is bonded in to the west wall of the fort, and is built to a narrower gauge than the Broad Wall which is known to occur from just east of T7b.²

This view was established when T7b was the easternmost structure for which definite evidence was available. It was believed that the positions of MCs 1, 2, and 3, and 5 were approximately known from antiquarian accounts, and the site of MC4 was presumed at a point (Painterheugh) fitting into this evidence. MC9 and the positions of Ts8a and 8b were known, and on this basis MC8 was believed to be 1464m (1602 yards) east of MC9. All the evidence was fully reviewed in the *Northumberland County History*.

In 1985 came the unexpected discovery of what appears to be a milecastle in Westgate Road, Newcastle.³ This does not fit with the

presumed positions of MC4 or 5, and is nowhere near a mile from the bridge over the Tyne. The latter point especially must call into question the original starting point of the Wall, and suggests that a fresh assessment of the evidence is now due. In the course of a very useful paper, Dr. J. Bennett has summarised recent work in this area;⁴ he casts doubt on the ending of the Wall at Newcastle, and discusses the possible location of milecastles. It is the purpose of this paper to take this discussion forward and to look at the evidence anew.⁵ It is the position and spacing of the various structures, that is the turrets and milecastles, which will give the best guide to the way in which the Wall was laid out.

WALLSEND TO NEWCASTLE

Stukeley identified MC3; MCs 1, 2, and 3 were identified by Horsley; MacLauchlan recorded MCs 1 and 2; but the positions given by the three writers do not coincide. Horsley noted a *castellum* "a little west of these *Beehouses* [Stotts' Houses] . . . about three furlongs distant from the end of the wall" (603m, 660 yards); he regarded the Wall as ending at the fort.⁶ His map shows the distance as a little over three furlongs – perhaps as much as 700 yards. Birley suggests that it was as much as 750 yards (686m).⁷ It must be noted that Horsley's map is at a scale of about 1¼" to the mile, and the milecastles are shown at about three times their scale size, which makes precision impossible; it is rather an illustration than a practical map (and see note 28).

When building The Grange, a house now on the corner of Eastfield Avenue and Stott's Road, around 1886, a structure "like a cellar"

was discovered.⁸ This has been taken to be Horsley's milecastle, although the vague description does sound more like a turret. Measured on a map, The Grange lies 704m (770 yards) from the west rampart of Wallsend fort, about one hundred yards more than the figure given by Horsley.⁹

The identification of the site, imprecise though the position is, has had a chequered history. F. G. Simpson¹⁰ believed that it was in fact T0b, while in 1960 Birley¹¹ argued that it must be a milecastle, MC1. Later, G. Simpson, in the course of a review of the changing fortunes of this site, argued that it should be reinstated as T0b.¹²

The situation is slightly confused by a turret reportedly seen by Fowler in 1877 at Stott's Houses.¹³ G. Simpson and, to some extent Bennett, equate this with Horsley's site,¹⁴ but Stott's Houses were about 119m (130 yards) to the east of The Grange, on a site in the vicinity of the modern Dene House on Eastfield Road. Fowler's comment that "I fancied I discerned traces of a turret" is not very convincing and, as noted above, Horsley gave his location as "a little west of these Beehouses". Brand also records a *castellum* "a little to the west of Bees-Houses"¹⁵ a location better fitting The Grange than at the position of Stott's Houses. Similarly, Abbatt records "one hundred yards west of Stote's houses, we come to the first Mile Castle".¹⁶ G. Simpson sees Fowler's turret as being the structure claimed to have been seen by workmen widening Stott's Road in 1936. But Wright points out that The Grange is some forty feet east of the Stott's Road site, and does not believe that what was found in the road was either a turret or milecastle, but simply large facing stones.¹⁷

MacLauchlan puts his first milecastle "about 80 yards" west of Stott's Pow, "at about 6½ furlongs from the centre of the Station at Wallsend".¹⁸ This position is 1243m (1360 yards) from the west rampart of the fort by MacLauchlan's figures, or 1197m (1310 yards) as measured on the map. In view of the imprecision of MacLauchlan's distance from the fort it is the relationship to Stott's Pow which is the more acceptable.¹⁹ This site is therefore 494m

(540 yards) west of The Grange; clearly both men cannot be right in recognizing the position of a milecastle. Horsley gives the size of his milecastle, which initially gives it a convincing ring; he may however be giving merely a generic dimension for something unmeasured, as G. Simpson believes. It is not known what was visible at the time of Horsley's visit, and his *castellum* could have been either a milecastle or a turret.

On the face of it there is no more reason to accept the identification of The Grange with Horsley's site than to believe that Fowler did in fact see a turret to the east of The Grange. But the distance of The Grange from MacLauchlan's MC1 is a standard turret interval, while the 1886 description of "a cellar" better fits a turret than a milecastle. If MacLauchlan recorded his MC1 accurately, and his surveying seems generally to have been good,²⁰ then The Grange site must be a turret, T0b. Birley is dismissive of MacLauchlan's site pointing out that no Roman material has ever been found there.²¹ But the same disadvantage holds good of Horsley's MC2, which is accepted by Birley. In the following pages, MacLauchlan's first milecastle is taken to be MC1.

Horsley's gives his MC2 as "an English measured mile and half a furlong", that is 1709m (1870 yards) from his MC1, which puts it 2413m (2640 yards) from Wallsend fort. Taking The Grange as his MC1, this puts MC2 between Tunstall Avenue and the entrance to Brough Park Stadium on Fossway. Fossway follows the line of the ditch, with the Wall lying a few metres to the south of the road.²²

MacLauchlan's MC2 is "about 7 furlongs [1408m, 1540 yards] from the last"; using the measured position for his MC1 as above, his MC2 is 2605m (2850 yards) from the fort. The Horsley and MacLauchlan positions for MC2 are thus 192m (210 yards) apart. The 1913 OS map gives the position as exactly between the two measurements thus obtained. MacLauchlan also gives the position of MC2 as "about 1½ furlong [302m, 330yds] east of the Windmill at Byker-hill". This virtually coincides with his position as measured from the east, which tends to confirm the accuracy of his surveying.

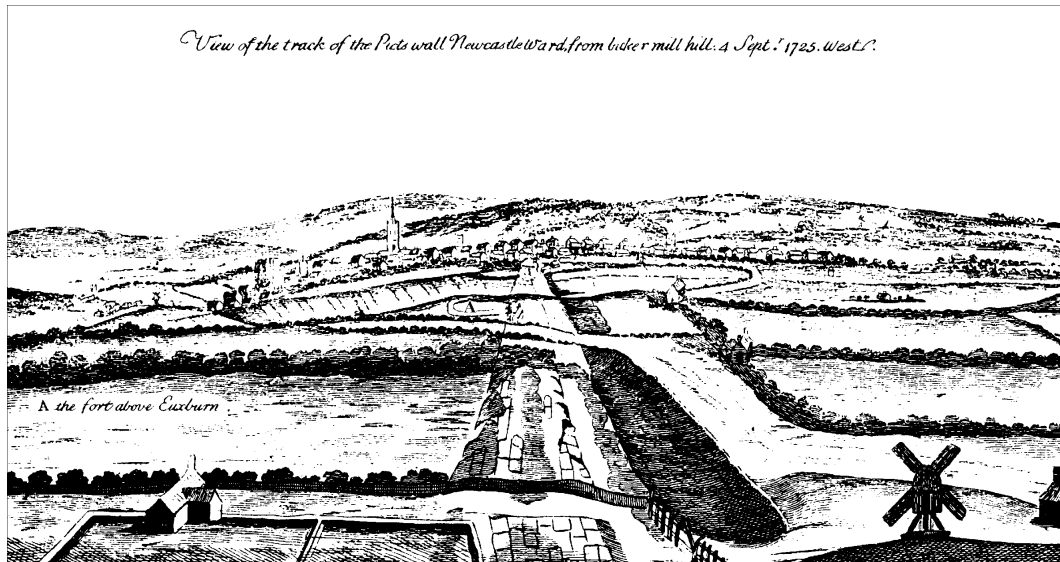


Figure 1 View from Byker Hill towards Newcastle from Stukeley *Iter Boreale* 1776

F. G. Simpson is reported to have dug at the sites of MCs 1 and 2, measuring them as 1453 yards (1328m) centre to centre.²³ This shows a discrepancy from MacLauchlan's figure of 1408m (1540 yards), and roughly divides the distance between Horsley's and MacLauchlan's MC2. However, Simpson found no masonry or Roman artefacts, so there must be some uncertainty about the location of the site, especially in view of the close correlation between MacLauchlan's measurements from both east and west. MC1 is given by Simpson as 1443 yards (1319m) from the east gate of Wallsend, which equates to approximately 1200m (1313 yards) from the west gate; this is almost identical to MacLauchlan's MC1 location as measured on the map, 1197m (1310 yards) from the west gate. Simpson's MC2 is 2528m (2766 yards) from Wallsend west gate.

The position of MC3 is less certain, although it has long been accepted that it lies on the east bank of the Ouseburn, in Stephen Street.²⁴ Stukeley was the first to record the milecastle and it is worth quoting his text:

The Wall passes a very deep valley at Euxburn, so ascends the opposite western hill, very steep, a rivulet now running in the ditch. Having

mounted the hill, a coal-shaft is sunk in the very ditch, and here is a square fort left upon the Wall.²⁵

Ascending the "opposite western hill" ought to put the milecastle on the west bank of the Ouseburn. It must be noted that Stukeley's general direction of travel in this region was from west to east; 'western' might be a misprint for 'eastern' or he may have meant "west facing". His drawing, looking west, reproduced at fig. 1, shows the vestigial remains of a milecastle which appears to be on the west bank of a ravine. However, this is probably the line of Shields Road and Byker Bank, and the Ouseburn is shown beyond the milecastle.²⁶

Horsley's evidence is somewhat equivocal. His map shows the milecastle on the east bank, but his text runs:

At the head of Ewesburn bank, that is the bank on the east side of the village, is the visible foundation of another *castellum* . . .²⁷

The village is presumably Ouseburn (the title Ewsburn may refer to either the village or the burn), but is shown on the west bank of the Ouseburn. The word bank may mean either a river bank or a steep road but, unless he is

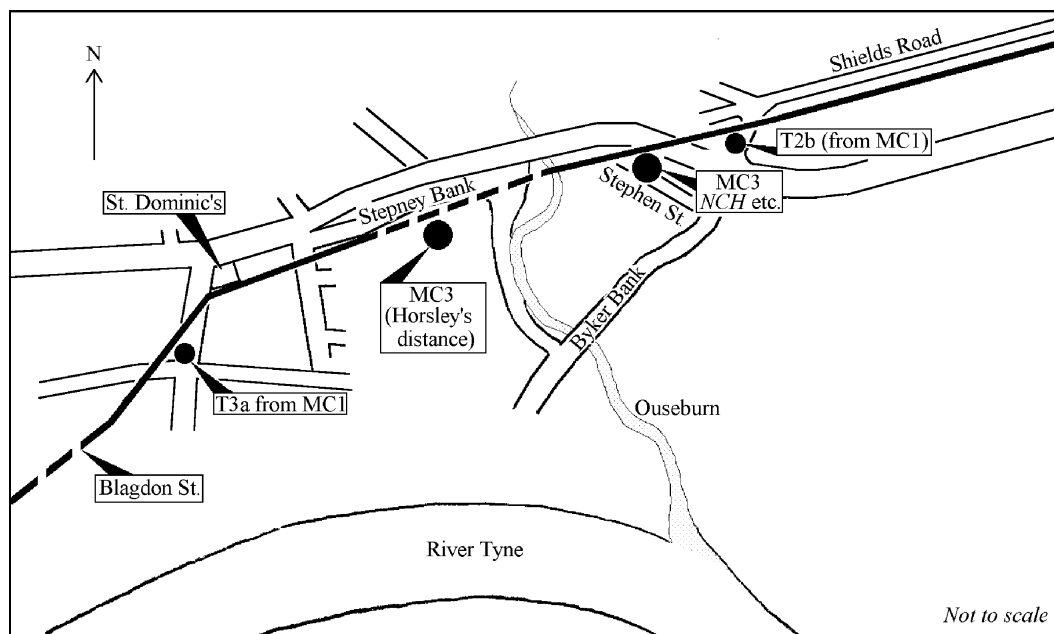


Figure 2 Sketch map of the Ouseburn area, T2b to T3a

referring to a village not shown on the map, between the Ouseburn and the road now known as Byker Bank, “a bank on the east side of the village” should mean the west bank of the Ouseburn. This also agrees with Horsley’s measurement from his MC2 (see below). Collingwood was less than complimentary about Horsley’s surveyor, especially in regard to milecastles further west,²⁸ which does not inspire confidence in locating structures from the map.

Horsley’s text at this point is a little confused. After discussing the milecastle he refers to “ruinous heaps” along the track of the Wall, but has to explain that “(I mean from the end of it to Ewsburn)”, as though he has reached the west bank and is looking back over country already travelled.

Bruce claims that a milecastle stood on the east bank. He mentions “Two large chiselled stones . . . which are believed to have been brought from this castellum”²⁹ but this vague description and provenance do not allow the claim in the *Handbook* that they are “two of the milecastle’s massive gateway stones”. Large

stones of the type used in the base of the Wall at Wallsend fort³⁰ would fit Bruce’s description equally well.

Horsley gives the distance from his MC2 to his MC3 as the same as that between his MC1 and MC2, that is 1709m (1870 yards). Plotting this distance from his MC2 on to the large scale OS map gives a surprising result. This clearly puts MC3 on the west bank of the Ouseburn, about 37m (40 yards) less than two Roman miles from MacLauchlan’s MC1 and 1517m (1660 yards) from MacLauchlan’s MC2, only 37m (40 yards) more than a Roman mile. On the modern map the location is a little to the west of the junction of Stepney Road and Stepney Bank.

A structure which Brand saw in the final stages of demolition on the east bank of the Ouseburn has been taken to be MC3.³¹ But what Brand says is “a castellum or exploratory tower”, which sounds more like a turret unless one wishes it to be a milecastle. Measuring from MC1 puts T2b only 150 yards to the east of the traditional site of MC3; it is not impossible that Brand saw T2b.

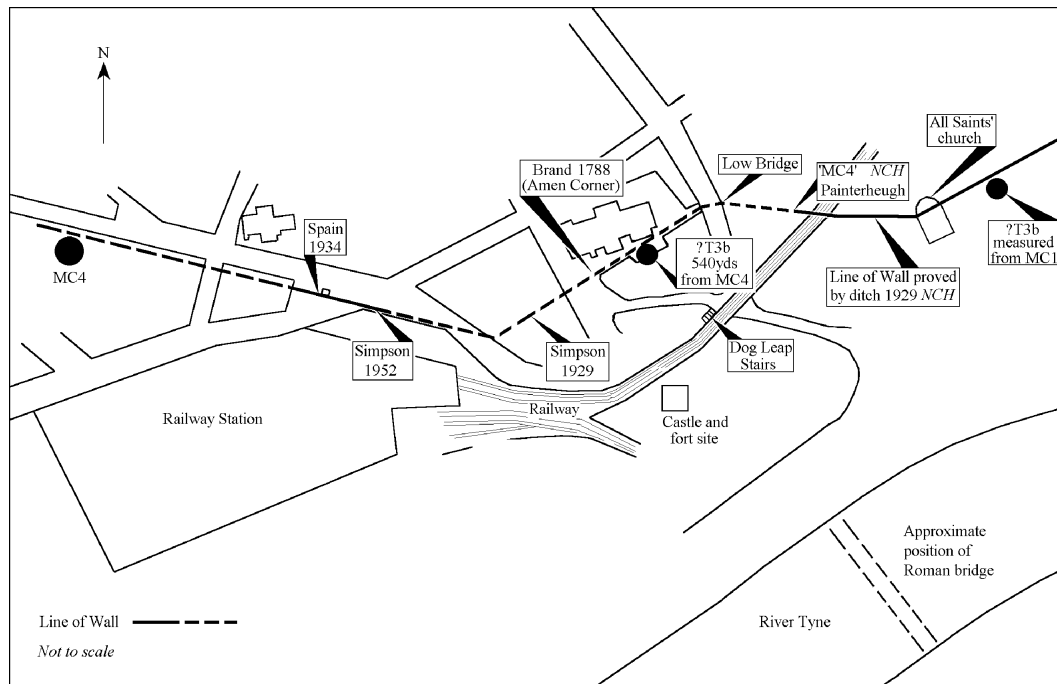


Figure 3 Sketch map of the Wall in Newcastle, T3b to MC4

MacLauchlan found no traces of MC3 and accepted Horsley's map, putting it at about "6½ furlongs [1430yds, 1307m] from the last [i.e. MacLauchlan's last]",³² but he did not put it on his survey map.

Excavation on the traditional site of MC3 failed to find the pre-nineteenth century ground level.³³ The evidence as discussed above is contradictory, and although the balance seems to favour the east bank there is still room for doubt; only excavation can give an answer to the question.

From Byker Hill westwards the Wall runs just to the south of Shields Road, which is on the berm and ditch (fig. 2).³⁴ From there, Bruce believed that it went straight on "about ninety or a hundred feet south" of Byker Bridge.³⁵ On the west side of Ouseburn the line of the Wall is known at the junction of Blagdon Street and Grenville Terrace, and at St. Dominic's Priory to the north east, with indications to the east of the latter.³⁶ Coming up from Blagdon Street,

the Wall is running more or less north-east, and must turn as it approaches St. Dominic's, on which site it was found to be running a little north of due east.³⁷ At some point, whether MC3 is in its traditional position or not, the Wall must make at least one more turn in order to take up the line now represented by Shields Road. From the map, it would not be at all surprising if the Wall had crossed the road in the area now occupied by Byker Bridge, or a little to the south of it as suggested by Bruce. The Wall ditch appears to be in alignment with the upper part of Stepney Bank, with the Wall to the south of the roadway.³⁸ The route is shown in fig. 2.

No other structure is known from here to Newcastle, but the line of the Wall has been traced by means of excavations of the ditch along Garth Heads, through All Saints' Church just south of Silver Street, after which it turns northwards towards Dean Street at its junction with Low Bridge.³⁹ The ditch was last seen in

Painterheugh, where the location of MC4 was assumed, on the basis of finds of pottery and its distance (1467m, 1605 yards) from Stephen Street.⁴⁰ Thereafter the course is not known for certain until the point where it was found by F. G. Simpson in front of the Mining Institute in Westgate Road.⁴¹ Spain found the ditch to the west of this, by the Stephenson Monument.⁴² These several lines are shown on fig. 3.

It has been argued that the Wall must have touched a point near the top of Dog Leap Stairs, as this has been taken to be the north east corner of the fort.⁴³ This is not necessarily the case, and there is no need for such a junction; the fort is believed to be an Antonine addition,⁴⁴ and need not be related in any way to the original line of the Wall. The fort may have been built to the south of the Wall, or the Wall may have been realigned to meet the new fort.

The ditch at Painterheugh showed no sign of a turn as it ran northwest towards Low Bridge, the mediaeval bridge over the Lort Burn⁴⁵ which is now represented by the line of Dean Street. Stukeley says that the Wall was still heading northward after Painterheugh, and makes no mention of it turning south before it reached “the brow of the hill where the Castle stands.”⁴⁶ This statement is unclear, as the castle is south-south-west of Low Bridge. He goes on to say that the Wall joined the castle “where the stairs are”, which must be Dog Leap Stairs, as no other steps go up to the castle on the east side. But even if the Wall did not go quite as far as Low Bridge, it must have reached a point almost due north of Dog Leap Stairs. It would be very remarkable if the Wall had been designed to turn southward through nearly 90°. Even today, the lower end of Dean Street shows itself as a very deep ravine, as anyone who has climbed Dog Leap Stairs can testify, and it would make very little sense for the Wall to turn south to cross it at its deepest point. It seems clear that the Wall aimed to cross the Lort Burn at a conveniently shallow point in the ravine. Low Bridge is the point accepted by the *Northumberland County History*.

F. G. Simpson believed that he had found the ditch in the back street between St. Nicholas Street and Westgate Road.⁴⁷ Brand notes the finding of the Wall somewhere in the vicinity of Amen Corner, on the north side of the upper part of The Side;⁴⁸ it is difficult to know what reliance to put on this report. Both Simpson’s and Brand’s positions could fit into a line between Low Bridge and the Mining Institute, as shown in fig. 3. This line ignores Stukeley’s evidence for the Wall meeting the castle “where the stairs are”. Such a route does not easily fit with other, modern, evidence which must be given preference.

There is one problem which must be borne in mind when looking at the Wall in Newcastle. When the fort was built, if it did not abut the Wall, the Wall may have been rebuilt to meet the north east and north west angles. There is no evidence either way for this, but the Wall as first built may not always have been the Wall as surviving for Stukeley to see.

NEWCASTLE – MC9

The line of the Wall at the Mining Institute and at the Stephenson Monument has already been noted. To the west of these, the next indication is the fragment of the milecastle at the Arts Centre in Westgate Road, presumably MC4 by which notation it will be referred to here.⁴⁹ Discovered by chance during building work, it comes at an awkward position for the spacing of structures in their assumed positions. If the Wall ran from there to the river by a direct route, across the site of the later fort, to meet the river just to the east of the bridge, the distance is 685m (750 yards). If it followed C. E. Stevens’s suggested route to include the mouth of the Lort Burn, the distance to the river is about 915m (1000 yards).⁵⁰ The two possible lines are indicated on fig. 4. It may or may not be a coincidence that MC4 is one third of a Roman mile from the castle keep, roughly in the centre of the later fort.⁵¹ Following the route shown in fig. 3, MC4 is 4713m (5156 yards) from MacLauchlan’s MC1, 271m (296

yards) more than three Roman miles. This figure will reappear in another context.

It should be emphasised that only a small part of MC4 was seen: the south west corner and the south wall as far as what seems to have been the position of the south gate. It looks like a milecastle but it is conceivable that it is not. It has been suggested to the writer that the line of the Wall at this point seems to be too far south to form the north wall of a milecastle, and instead would meet it part-way down the side walls;⁵² this would make it similar to the gateway through the Wall at Portgate. For a road aiming north from the bridge the ascent from the river would have been easier than a more direct line, but the detour would be longer than is necessary. On present evidence, especially the position of other structures to the west as discussed below, the present writer tends towards identification as a milecastle.

Horsley believed he had identified what is now regarded as MC5, but the evidence is unsatisfactory. To quote, "I thought I discerned traces of a *castellum* behind the Quarry House".⁵³ Apart from the fact that he does not sound very certain, Quarry House was on the north side of Westgate Road,⁵⁴ and "behind Quarry House" suggests a site well north of the road, whereas the Wall is now known to run just south of the road.⁵⁵ Although Horsley went on to say that "the wall appeared to go through the midst of the [Quarry] house", his MC5 is difficult to regard as realistic; perhaps he had seen some mediaeval structure.

It is 795m (870 yards) from the Westgate Road milecastle to Horsley's MC5, which is about 55m (60 yards) over half a Roman mile. This, if what Horsley saw was a turret, and if it were in fact on the south of the road not the north, might lend some weight to Bennett's suggestion that there was but one turret between each pair of milecastles for the first eight miles.⁵⁶

However, other structures do not fit into a pattern of half-mile intervals. Measuring out one-third Roman mile intervals westwards from MC4 gives the following positions on the south side of Westgate Road, located by reference to modern street names:

T4a	Opposite Villa Place
T4b	Quarry Bank Court (formerly Back Elswick Street)
MC5	Mill Lane North
T5a	Wingrove Road
T5b	Farndale Road
MC6	Broomridge Avenue
T6a	Two Ball Lonnen
T6b	Gretna Road/Coldstream Road
MC7	Thorntree Drive
T7a	Opposite end of Legion Road (80yds short of T7b)

These points can be no more than approximate but are nonetheless interesting; in the following discussion the above sites are identified by the suffix (h) to avoid confusion. Turret 6a(h) falls almost exactly where Shafto recorded a turret,⁵⁷ although on Collingwood's numbering this is 6b. The proposed site of MC7(h) at Thorntree Drive is the traditional site of T7a, although such identification was based on no more than the finding of coin in the vicinity.⁵⁸ Turret 7a(h) is only 73m (80 yards) short of the actual position of T7b. The close correlation of these sites can hardly be chance. Their relative positions are shown in fig. 4.

West of T7b/7a(h) there are problems with whichever system one uses. The locations of turrets 8a and 8b are known, and are reasonably believed to trisect the Wall-mile,⁵⁹ which would make it about 1464m (1602 yards) long between the assumed position of MC8 and the known MC9. MC8 is said to be on a natural rise, although excavations produced only occupation earth and pottery.⁶⁰

The Wall-mile from the calculated MC7(h) to the assumed MC8 is about 1216m (1330 yards), 265m (290 yards) short of a mile. The existing turret 7b is 649m (710 yards) from MC8,⁶¹ 41m (45 yards) east of the halfway point to MC7(h). It is also only 73m (80 yards) more than one-third of a Roman mile from the calculated position of MC7(h). Five Roman miles is 7405m (8100 yards); the measured distance from MC4 to MC9 is 7122m (7792 yards), 282m (308 yards) short of the theoretical distance.⁶² It was shown above that the excess over three Roman miles from MC1 to

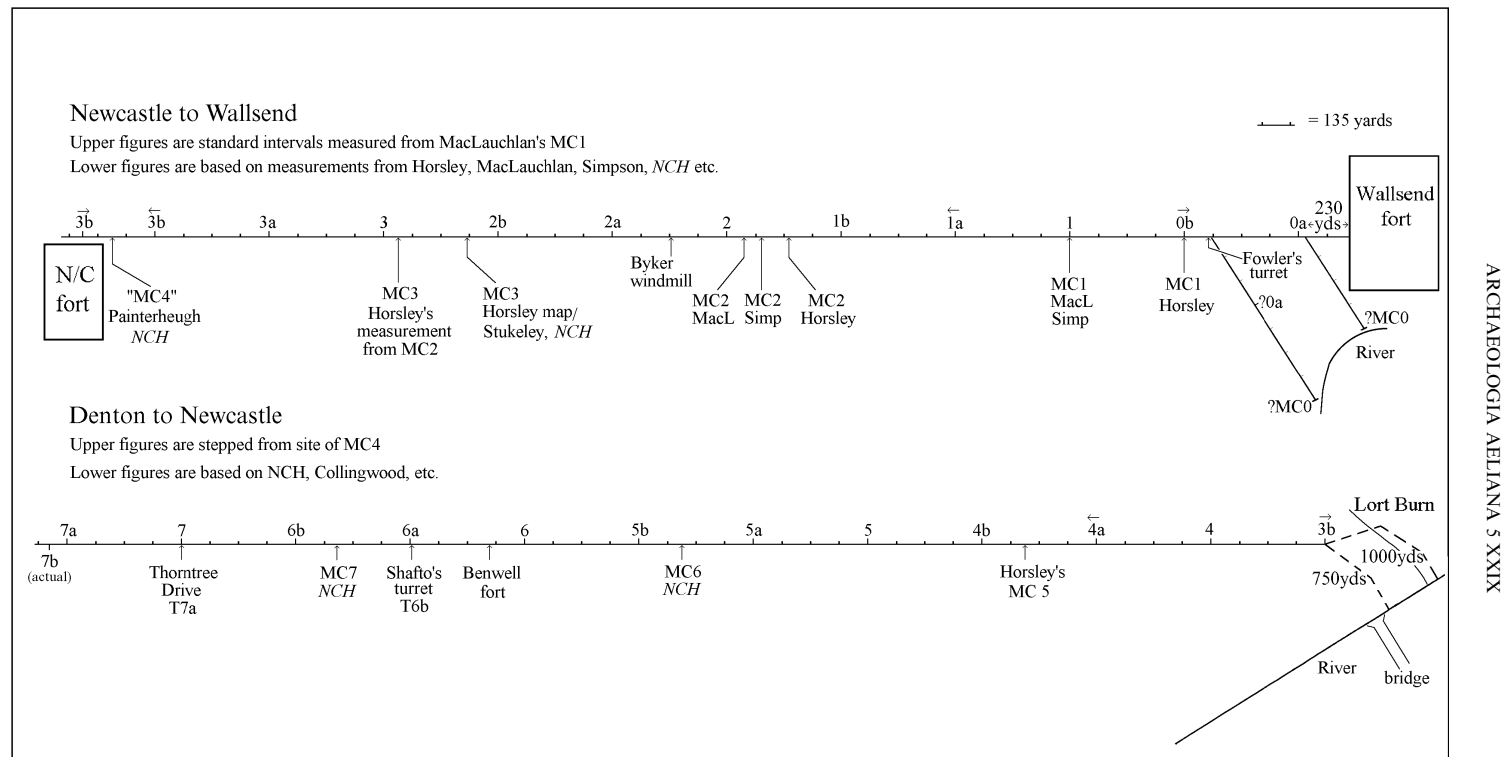


Fig. 4 Theoretical and actual location of structures, MC0 to T7b.

MC4 is measured as 271m (296 yards). This is a close coincidence too great to be ignored, and will be discussed later.

It begins to look as though the Wall structures were laid out from MC4 to MC7 with, to judge from T6b/6a(h) at Two Ball Lonnen and the putative T7a/MC7(h) at Thorntree Drive, turrets at one third of a mile. T7b (actual) may have been designed to be half way to MC8, or it may have been set at about one third of a mile from MC7(h). Either way it does seem that this turret ought to be T7a.

DEDUCTIONS

It must be unlikely that, if Wallsend-Newcastle were an addition related to the fort decision, the milecastles would have been laid out with no regard to the new fort. The distance of 1197m (1310 yards) from MC1 to Wallsend fort does not give the impression that the position of the milecastle was surveyed after the fort decision; certainly there was no attempt to divide equally the distance from Newcastle to the fort. This, in conjunction with the distance of between 685 and 915m (750 to 1000 yards) from MC4 to the bridge surely means that it is inescapable that the Wall was not designed to end at the bridge in Newcastle.

The position of MC4, if it is indeed a milecastle, cannot be related in any way to a line planned to run from a point close to the bridge at Newcastle. Its position does seem to fit with two turrets between each pair of milecastles, as far as MC7 and perhaps T7b/7a(h); such spacing coincides with Shafto's turret at Two Ball Lonnen, the putative site at Thorntree Drive, and almost meets T7b. The so-called long mile between MCs7 and 8 does not seem to exist; instead, this mile is more likely to be about 265m (290 yards) short of a Roman mile. This is very close to the 282m (308 yards) by which MC4–MC9 is short of five Roman miles.

Milecastle 3 seems to have been on the east bank of the Ouseburn, although the possibility that it lay on the west bank cannot be wholly excluded. Following the route shown on fig. 3

the distance from the traditional site to MC4 is 2108m (2306 yards). Measuring back from MC3, Stephen Street, to MacLauchlan's MC2 gives Wall-mile 2 as 1197m (1310 yards), and Wall-mile 1 (MacLauchlan) as 1408m (1540 yards) (F.G. Simpson gives 1453 yards, 1328m). *NCH* gives Wall-mile 2 as 1420 yards, measuring from Horsley's MC2. It may be no more than a coincidence, but from MacLauchlan's MC2 to Horsley's measured position on the west bank is 1517m (1660 yards), very close to one Roman mile. Horsley's measurement is quietly ignored by most writers.

Wall-mile 7 is calculated here as 1216m (1330 yards), and Wall-mile 8 is reasonably believed to be 1464m (1602 yards). A breakdown of the figures is given in the Appendix.

Even with these variations, it may be noted that the total distance from MacLauchlan's MC1 to MC9, as measured on the 15" OS map, is 11834m (12,948 yards), an average of 1479m (1619 yards) per Wall-mile. This is remarkable, but in practice is unlikely to be quite so accurate. The practical difficulties of measuring from the map are such that the true figure must be a little to one side or the other of the measured total. But measuring both surveyed distances and theoretical locations from the map means that the relative positions will be accurate.

If, as seems to fit the evidence put forward above, the Wall was designed from the first to run from Wallsend, it remains to explain three anomalies: the long mile 3, the short mile 7, and the reason for the curtain wall being narrow at every point excavated between Newcastle and Wallsend.

The variations in Wall-miles 3 and 7, seen in conjunction with the exact number of Roman miles from MC1–MC9, does suggest that the Wall was surveyed in one operation from (or to) Wallsend, and that the position of some structures was varied for local reasons. MC1–MC4 is 271m (296 yards) longer than three Roman miles; Wall-mile 7 is 265m (290 yards) short of one Roman mile, and MC4–MC9 is 282m (308 yards) shorter than five Roman miles. These figures are all so close as to make it certain that, within a continuous

survey from MC1 to MC9, an error of 265–282m (290–308 yards) was made, or that the structures MC4–MC7 were deliberately moved westwards as a block.

It must be remembered that the argument for faulty surveying rests on the identification of new locations for sites to the east of MC8. One factor which might argue to the contrary is that a long mile 7 may be to some extent supported by the spacing of the Vallum crossings. In Wall-mile 7 “several gaps” are about 60 yards (55m) rather than the more usual 45 yards (41m) or so apart, and have been taken to reflect the length between MCs 7 and 8.⁶³ In 1922 Simpson and Shaw recorded the spacing of Vallum crossings,⁶⁴ although not in this area. They show that the gaps are at about 45 yard (41m) intervals, with a few exceptions up to 60 yards (55m) in the Shield-on-the-Wall to Twice Brewed section. The variations were put down to individual decisions on the part of the officers in charge of the working parties.

The gaps were evidently intended to be 20 Roman feet, leaving an undisturbed length of mound of 120 Roman feet, and 35 gaps per Roman mile. If in the ‘long mile’ the gap size and number were the same, then the mile would be 1919m (2100 yards) long. This fits very well with three times the distance from MC8 to T7b, 1947m (2130 yards). Using the traditional positions, based on measurement from Horsley’s MC5, MC7 is 1881m (2058 yards) from the assumed site of MC8.⁶⁵

However, the length of the long mile so arrived at depends on MC7 being in the appropriate position and this has never been found. As Stevens pointed out,⁶⁶ if MC7 were in the position suggested by the *NCH*, the distance from this to T6b (Shafto’s turret) would be only 353m (386 yards), suggesting that Wall-mile 6 might be only 1058m (1158 yards), remarkably short. The *NCH* solves this by suggesting that T6b was placed halfway between Benwell fort and the presumed site of MC7. Stevens dismisses this by pointing out that the forts came after the turrets were built, and notes that there is evidence only for a long curtain either side of T7b. In fact, a long curtain to the east of T7b depends on an assumed

position of MC7 which cannot be justified as it is measured from Horsley’s MC5. Turret 6b/6a(h) is a long-established fixed point, from which the position of MC 7 can more safely be assumed.

Elsewhere in this volume Dr. D. J. Breeze and the present author have argued that the first stretch of Wall to be built was from MC22–MC7, following which the fort decision was taken and the building of the curtain wall delayed. This could mean that the survey of the milecastle and turret positions, perhaps marked by pegs, was in some disarray and could have been misread. Perhaps it was necessary for this section to be resurveyed, with an error of about 275m (300 yards) in the starting point. In a second phase of building, a gang beginning at the Lort Burn and working westwards, with T3b near the cathedral as their first structure (see fig. 3), would not necessarily have known, or indeed cared, how their work related to what had been built from MC7 westwards. Another gang working east from the Lort Burn, beginning with their T3b to the east of All Saint’s could then work their way to the east. This is not an entirely satisfactory explanation, but it does more or less fit the very few known facts.

This leads on to the third of the anomalies, the lack of Broad Wall between Newcastle and Wallsend. The belief that the Wall between Newcastle and Wallsend was an addition, because it was built to a narrower gauge, is bound up with the belief that the Wall was begun at Newcastle and was largely completed to Broad Gauge from there to the North Tyne, or at least as far as MC22. The argument, mentioned above, that the length MC22–MC7 was built first, means that there is now no need to look for Broad Wall east of MC7. The fort decision, and the approximately concurrent Narrow Wall decision, were probably taken before the legions had completed work from MC7 to the North Tyne; there is sufficient evidence for Narrow Wall in the sector to make this likely. On resumption of work to the east of MC7 following dislocation, any curtain wall and structures would be built in Narrow Wall as a matter of course and one would not expect

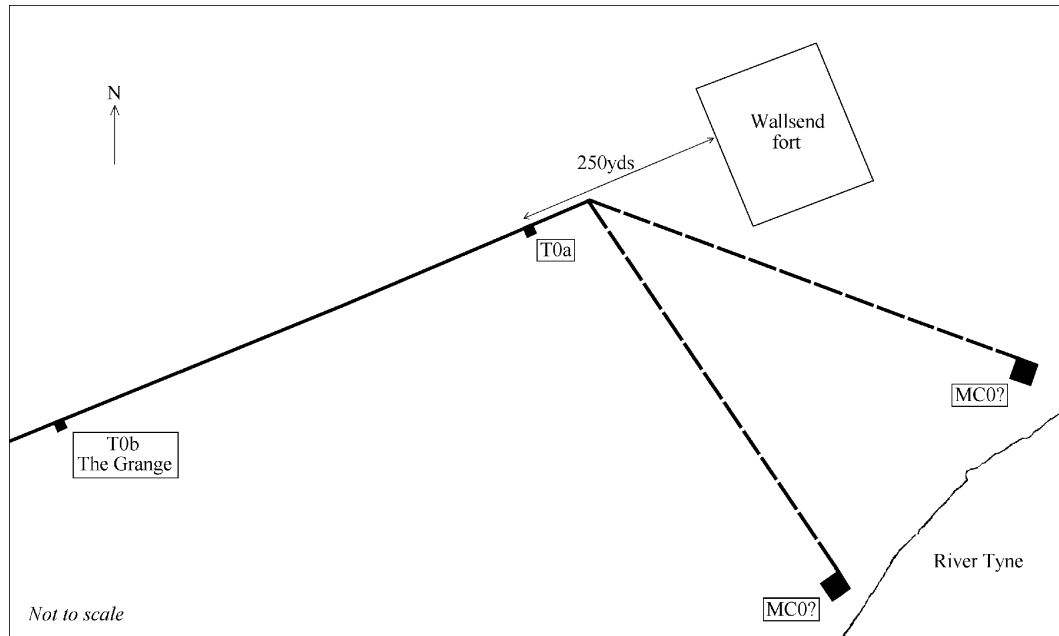


Figure 5 Sketch map showing possible end of the Wall, MC0 to T0b

to find Broad Wall east of MC7. What has been seen of MC4 is not built to broad specification, although it must be said that it is not impossible that two of the three legions may always have built milecastles with side walls to a gauge of about 8 Roman feet.

Bennett has recorded the discovery of what is apparent Broad Foundation at St. Francis' church, and postulates that the Newcastle-Wallsend length was planned from the beginning and that some start was made before the gauge of the Wall was reduced.⁶⁷ Bidwell casts doubt on this, pointing out that there was subsidence at St. Francis' and, as found in excavations in Buddle Street, the narrow foundation may have slipped to give the appearance of a broader gauge.⁶⁸

What is believed to be Broad Wall was found by F.G. Simpson in front of the Mining Institute, but only the south side of the Wall was seen. The description reported by G. Simpson⁶⁹ is of Standard A construction with a flag footing. The photograph in that report shows

roughly squared stones rather than flags, and it is not unlike part of the Wall close to Wallsend (NZ 298659). There are two offsets in the Mining Institute section, but the Newcastle to Wallsend section also had offsets⁷⁰ and with only one stone of the second course still remaining it is impossible to be certain that the Mining Institute discovery is Broad Wall; it may well be, but there is some room for doubt. It seems, at least in part, to have been so designated because this was where Broad Wall ought to have been in the light of (what was then) current theory. The first confirmed piece of Broad Wall is roughly halfway between turrets 7a and 7b (Collingwood's numbering).

If these arguments are accepted, then the Wall from Newcastle to Wallsend is narrow on narrow foundation for the same reason that lengths of the Wall over the crags are narrow on narrow foundation: they were both built late in an original programme which called for a stone wall from Wallsend to the Irthing. The lack of broad foundation is likely to be due to

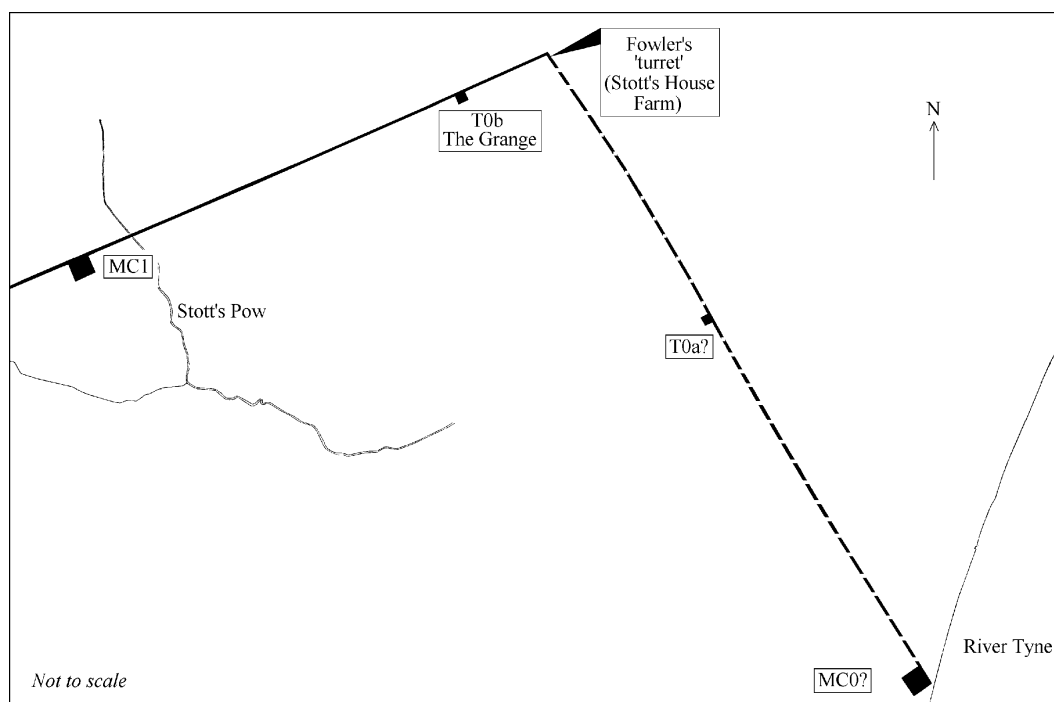


Figure 6 Sketch map showing possible end of the Wall, MC0 to MC1

a lack of priority on the crags and in front of a major river; the foundation there could wait.

ALTERNATIVE TERMINI

1. Wallsend

If it is assumed that the Wall was always intended to run from Wallsend, before the fort was planned, then there are at least two choices of line which would put MC1 at about one Roman mile from the river. One line might turn a little south at about the position of T0a (as measured back from T0b at The Grange), either at right angles or less; two options are shown in fig. 5, both of which put MC0 just short of the present HW mark. Alternatively, if the line had been planned to turn southwards a little way east of T0b then MC0 could again have been on the river bank one mile from MC1 (fig. 6). The second option has the merit of providing an angle under Stott's Farm which Fowler could have mistaken for a turret.

The course of the Wall west of Wallsend is well clear of the river, and it may be asked why it did not come in a straight line from the apex of the bend in the river. This may be explained by the topography. The Wall is sited on the edge of more or less level ground rather than running diagonally across the slope down to the river bank. At its final termination it might be expected to turn more or less sharply down the bank, as indeed happens with the branch wall at the south east corner of Wallsend fort. It is better to take a wall straight down a slope rather than across it; there is much less chance of slippage.

2. Newcastle

Although this paper takes the view that the Wall probably ran to Wallsend in the original scheme, the alternative of an end in Newcastle must be examined.

C. E. Stevens's idea of the Wall going east of the bridge to include the mouth of the Lort

Burn – the Lort Burn extension (see note 50) – is superficially attractive but does not fit into a regular scheme of spacing. If, going by Low Bridge and then to the river, the line had met the river as much as 365m (400 yards) to the east of the bridge, it would have been only two-thirds of a Roman mile from MC4. A possible alternative is that it went even further east to include the mouth of the Ouseburn. This is still an estuary sufficient to moor boats but the distance, taking the route over Low Bridge, All Saints', and on to the east bank of the Ouseburn, would be about 6.4 turret intervals. This is moving to the realms of speculation, and is put forward merely as one doubtful possibility quite unsupported by evidence.

There is no obvious reason why the original line of the Wall should have gone down to the river at Newcastle. Traditionally the bridge is ascribed to Hadrian on the basis of his family name,⁷¹ but the same family name is shared by Antoninus Pius. It is at least possible that the bridge was built as part of the installation of the Military Way on the return from the Antonine Wall. Until the Military Way was established under Pius, there was no obvious reason to provide a bridge at Newcastle, for there was no road for it to connect to. Bidwell and Holbrook note the suggestion that there was a route running north from Newcastle to join the Devil's Causeway, but see no evidence for its existence.⁷² The repair of the Wall in this

area is firmly dated to 158 by *RIB* 1369, and pottery from the rebuilt bridge at Chesters, converting it from a foot bridge to a road bridge, has established a mid-Antonine *terminus ante quem*.⁷³ However, the new bridge at Chesters may have been built to carry a diversion of the Stanegate, and may date to the move forward into Scotland under Pius; there was certainly other building work being carried out at Chesters at that time.⁷⁴

The work carried out on the Roman settlement in Gateshead does not throw any light on the date of the bridge. Pottery "was mainly of later second- and third-century date with a few earlier sherds."⁷⁵ The same source suggests that there may have been a fort there which was replaced by the Newcastle fort on the return from the Antonine Wall.

Given that MC4, Westgate, is in fact a milecastle, it seems highly probable that the Wall was originally designed to run past the bridge at Newcastle (if it were built then) to end on the river bank close to the later fort at Wallsend. If MC2 were 73m (80 yards) west of MacLauchlan's position, and MC3 lay on the west bank of the Ouseburn as measured by Horsley, then the distance from MC1–MC4 would be divided equally into Roman miles, save for the 282m (308 yards) by which the block MC4–MC7 is out of position. MCs 2 and 3 may have been moved for local reasons.

APPENDIX: TABLE OF DISTANCES WALLSEND TO MC9

Structure	Intervals	Intervals	From Wallsend		Notes ("Hors" = "Horsley", "MacL" = "MacLaughlan")	metres	yards
	metres	yards	metres	yards			
Wallsend W gate							
T0a(h)	210	230	210	230			
Stott's Houses	375	410	585	640			
The Grange T0b	119	130	704	770	Grange – Hors MC2	1709	1870
MacL MC1	494	540	1197	1310	MacL MC1 – MacL MC2	1408	1540
Horsley MC2	1216	1330	2413	2640	Hors MC2 – Hors MC3	1709	1870
MacL MC2	192	210	2605	2850			
MC3 Stephen St.	1197	1310	3802	4160	MacL MC2 – Stepney Bank	1517	1660
'MC3' Stepney Bank	320	350	4122	4510			
'MC3' (from MC1)	59	65	4159	4550			
T3b(h) (from MC1)	987	1080	5146	5630			
'MC4' Painterheugh	123	135	5269	5765	Painterheugh – Stephen St.	1467	1605
T3b(h) (from MC4)	147	161	5416	5926	Painterheugh – Stepney Bank	1111	1215
MC4 Westgate	494	540	5910	6466	Painterheugh – MC4	641	701
T4a(h)	494	540	6403	7006	Stephen Street – MC4	2108	2306
Horsley 'MC5'	302	330	6705	7336	MacL MC1 – MC4	4713	5156
T4b(h)	192	210	6897	7546	Excess over 3 Roman miles	271	296
MC5(h)	494	540	7391	8086	MC4 – Hors 'MC5'	795	870
T5a(h)	494	540	7884	8626			
T5b(h)	494	540	8378	9166			
MC6(h)	494	540	8871	9706	MC4 – MC5	1481	1620
T6a(h)/T6b (Shafto)	494	540	9365	10246			
T6b(h)	494	540	9858	10786			
MC7(h)/(T7a)	494	540	10352	11326	MC5 – MC6	1481	1620
T7a(h)	73	80	10846	11866			
T7b	649	710	10919	11946	MC6 – MC7	1481	1620
MC8	477	522	11568	12656			
T8a	486	532	12045	13178	MC7 – MC8	1216	1330
T8b	501	548	12531	13710	Short of 1 Roman mile	265	290
MC9			13032	14258			
Average Wall-mile MC1 – MC9			1479	1619	MC8 – MC9	1464	1602
					MC4 – MC9	7122	7792
					Short of 5 Roman miles	282	308
					MC1 – MC9	11834	12948

NOTES

¹ *NCH*, 13, Newcastle (1930), 501, 537–8; Grace Simpson (ed.), *Watermills and Military Works* Kendal (1976), 10.

² *NCH*, 13, 528; Grace Simpson, *op. cit.*, 10.

³ Barbara Harbottle, R. Fraser, and F.C. Burton, "The Westgate Road Milecastle, Newcastle upon Tyne", *Britannia*, 19 (1988), 153–62.

⁴ Julian Bennett, "The Roman Frontier from Wallsend to Rudchester Burn Reviewed", *AA*⁵, 26 (1998), 17–37.

⁵ This arose out of ongoing research for a post-graduate degree in the University of Durham. The author is grateful to Professor J. Price and Dr. B. Dobson, as joint supervisors, and to Dr. D. J. Breeze who made a number of useful suggestions.

⁶ John Horsley, *Britannia Romana* (1732), 136, 135.

⁷ Eric Birley, "Hadrian's Wall: some structural problems", *AA*⁴, 38 (1960), 39–60.

⁸ *PSAN*², 2 (1886), 190.

⁹ All measurements are taken from Godfrey's reduced reprints of OS maps, at a scale of about 15" to one mile. Distances measured are given as exact figures, but it must be noted that in practice they may be several yards to either side due to the problems of measuring from a map. The Roman mile is taken as 1481m (1620 yards), with turret intervals of 494m (540 yards). No allowance has been made for sloping ground: Ouseburn, the biggest valley, would add no more than 5m at most to the two-dimensional measurement. Others, such as Stott's Pow which, perhaps with others, is now filled in, and Pandon, might bring the total to as much as 20m or so. It does not seem worth while trying to allow for these, given that measuring from the map is likely to make for cumulative errors which would balance this figure – or perhaps double it.

¹⁰ Grace Simpson, "The moving milecastle: or how Turret 0b came to be called Milecastle 1", *AA*⁵, 3 (1975), 105–15.

¹¹ Birley, *op. cit.* (note 7).

¹² Simpson, *op. cit.* (note 10).

¹³ E. Birley, "On a copy of Bruce's Wallet Book" *Durham University Journal*, 29 (1934), 26–31.

¹⁴ G. Simpson, *op. cit.* (note 10); Bennett, *op. cit.* (note 4).

¹⁵ John Brand, *History of Newcastle* (1789), 1, 605.

¹⁶ Richard Abbatt, *A history of the Picts or Romano-British Wall and of the Roman Stations and Vallum*, (1849) 15. This was his record of the first Pilgrimage, and he will have been guided by Bruce in his identification of the site as that of a milecastle.

¹⁷ R. P. Wright, "The locating of Roman structures along the line of Hadrian's Wall between Wallsend (Segedunum) and Milecastle 2", *AA*⁵, 13 (1985), 213–14. The modern road is no closer to The Grange than is shown on the OS map of 1916; Stott's Road appears to have been straightened to the north of The Grange and not alongside it. It seems clear from this that the 'cellar' could not have been in the grounds of The Grange at a point later taken by the road.

¹⁸ Henry MacLauchlan, *Memoir Written during a Survey of the Roman Wall* (1858), 8. The 1914 OS map shows the milecastle at 68 yards west of Stott's Pow; MacLauchlan's estimate of 80 yards has been used in the calculations and measurements given here.

¹⁹ *NCH*, 13, 494, gives the distance as "1443 yards [1319m] from the north east angle of the fort." This more or less agrees with the distance on the map.

²⁰ Beryl Charlton and John Day, "Henry MacLauchlan: field archaeologist and surveyor" in Roger Miket and Colin Burgess (eds), *Between and Beyond the Walls*, Edinburgh (1984), 4–37.

²¹ Birley, *op. cit.* (note 7), 39–60.

²² *NCH*, 13, 495.

²³ Simpson, *op. cit.* (note 10), 113. *NCH*, 13, 495 uses Simpson's distance from MC1 to MC2.

²⁴ e.g. *NCH*, 13, 495, where it is placed at the north end of Stephen Street.

²⁵ William Stukeley, *Itinerarium Curiosum*, 2: *Iter Boreale* (1776), 66. When discussing Benwell fort he implies that the site is on the far (i.e. east) bank of the Ouseburn.

²⁶ The writer is grateful to Mr. W. B. Griffiths for discussing the course of the Wall at this point.

²⁷ Horsley, *op. cit.* (note 6), 136.

²⁸ R. G. Collingwood, "John Horsley and Hadrian's Wall", *AA*⁴, 15 (1938), 1–42, especially pages 3–4. The measurements "are given with a very fair degree of exactitude" but in referring to the map says "as a piece of surveyor's work it is a poor performance."

²⁹ J. Collingwood Bruce, *The Roman Wall*, 3rd edn. (1867), 96–7.

³⁰ *NCH*, 13, fig. 7.

³¹ John Brand, *History of Newcastle*, (1789), 1, 138. G Simpson (note 10) and E. Birley (note 7) have both seen this as MC3.

³² MacLauchlan, *op. cit.* (note 18), 8.

³³ Bennett, *op. cit.* (note 4), 23.

³⁴ *NCH*, 13, 495. In December 2000 the Wall was found on the south side of Shields Road, just to the east of Heaton Road. Paul Bidwell kindly drew the attention of the writer to the excavations.

- ³⁵ *PSAN*², 1 (1885), 358.
- ³⁶ *NCH*, 13, 497; Bennett, *op. cit.* (note 4).
- ³⁷ Bennett, *op. cit.* (note 4), fig. 4.
- ³⁸ *NCH*, 13, 497. Brand (note 31) believes that the Wall "must have formed a small angle at the arch by which it has crossed the Ouseburn". There would probably have been a substantial bridge, spanning 10–15m; the burn is tidal to above Byker Bridge.
- ³⁹ *NCH*, 13, 448–9.
- ⁴⁰ *NCH*, 13, 498.
- ⁴¹ F.G. Simpson in "Roman Britain in 1952" *JRS*, 43 (1953), 110; G. Simpson *op. cit.* (note 1), 176–7.
- ⁴² G. R. B. Spain, "The Roman Wall in Westgate, Newcastle upon Tyne", *AA*⁴, 11 (1934), 227–33.
- ⁴³ *NCH*, 13, 516.
- ⁴⁴ Paul Bidwell (ed.), *Hadrian's Wall 1989–1999* Carlisle (1999), 99.
- ⁴⁵ G. Simpson, *op. cit.* (note 1), 173.
- ⁴⁶ Stukeley, *op. cit.* (note 25), 68.
- ⁴⁷ G. Simpson, *op. cit.* (note 1), 176. A Roman date was confirmed by the finding of a shoe in the bottom of the ditch.
- ⁴⁸ Letter to Beilby, 24th March 1788, *Newcastle Magazine*, 3, (1824), 297.
- ⁴⁹ Harbottle *et al.*, *op. cit.* (note 3).
- ⁵⁰ C. E. Stevens, *The Building of Hadrian's Wall*, CW Extra Series, 20, Kendal (1966) 21. This is Stevens 'Lort Burn extension' which is not, *contra* Bennett *op. cit.* (note 4), the Wall from Newcastle to Wallsend.
- ⁵¹ Harbottle *et al.*, *op. cit.* (note 3), give the distance as two thirds of a mile, but the scale on their fig. 1.2 is incorrect.
- ⁵² Paul Bidwell, pers. comment. The simulation in the courtyard of the Arts Centre bears little relationship to what was found.
- ⁵³ Horsley, *op. cit.* (note 6), 137.
- ⁵⁴ *NCH*, 13, 516 "where the Bay Horse now stands." This building is now a Hari Krishna centre.
- ⁵⁵ *NCH*, 13, 515.
- ⁵⁶ Bennett, *op. cit.* (note 4), 32.
- ⁵⁷ Brand, *op. cit.* (note 31), 606, plate i.
- ⁵⁸ *NCH*, 13, 528.
- ⁵⁹ *NCH*, 13, 531.
- ⁶⁰ *NCH*, 13, 531.
- ⁶¹ *NCH*, 13, 529.
- ⁶² Bennett, *op. cit.* (note 4), 31, computes this as 260.9m (285 yards.), a pleasing near-coincidence of calculations which can hardly be bettered given the inaccuracies inherent in measuring positions from a map.
- ⁶³ *NCH*, 13, 538; R. G. Collingwood, *The Book of the Pilgrimage*, Kendal (1930) 11; *Handbook*¹³, 72.
- ⁶⁴ F. G. Simpson and R. C. Shaw, "The Purpose and Date of the Vallum and its Crossings", *CW*², 22 (1922), 353–433.
- ⁶⁵ *NCH*, 13, 528.
- ⁶⁶ Stevens, *op. cit.* (note 50), 20.
- ⁶⁷ Bennett, *op. cit.* (note 4), 26.
- ⁶⁸ Bidwell, *op. cit.* (note 44).
- ⁶⁹ Simpson, *op. cit.* (note 2), 177–8 and plate B, 177.
- ⁷⁰ *NCH*, 13, 493.
- ⁷¹ P. T. Bidwell and N. Holbrook, *Hadrian's Wall Bridges* (English Heritage 1989), 101–3, raise the question of the dating of the bridge and its possible association with Pius.
- ⁷² *ibid.*
- ⁷³ Bidwell, *op. cit.* (note 44), 120.
- ⁷⁴ *RIB* 1460, 1461.
- ⁷⁵ Bidwell, *op. cit.* (note 44), 99.