

## An early Antonine fort at Mumrills

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### ABSTRACT

*Accumulated scattered evidence from the defended Roman complexes on the Antonine Wall at Mumrills shows that the early Wall fort occupied the site of the later fort annexe. It is argued that the slight shift in the fort's location arose from a desire to control west/east communications as well as those from the north to the south.*

### INTRODUCTION

In his authoritative account of the excavations at Mumrills near Falkirk from 1923 to 1928, George Macdonald reported the existence of two forts (Macdonald & Curle 1929: 400–6). The later fort used the Antonine Wall as its northern defences and so was clearly of Antonine date. A significant kink occurred in the alignment of the Wall to either side of this fort and Macdonald concluded that the fort had been built just ahead of the construction of the Wall (Macdonald 1934: 195). This, and the fact that the earlier fort largely lay under the annexe of the Antonine fort, consigned the first fort to the 1st century. Despite this, Macdonald could only point to two small pieces of samian and two or three of coarseware of the Flavian period. Consequently, his attribution of the first fort to this early period was at first tentative (Macdonald & Curle 1929: 405–6). Comparison with the sequence at Bar Hill (Macdonald & Park 1906) seemed to confirm this and it fits well with the known historical model of occupation, with invasions under

Agricola and Lollius Urbicus. The Agricolan attribution was widely accepted.

The structural evidence put forward by Macdonald for the early fort came from four places:

S1. A V-shaped ditch with a cleaning slot at the base was found under Sandy Loan on the same alignment as this late road. This formed the east ditch of the fort (A on *illus* 2)

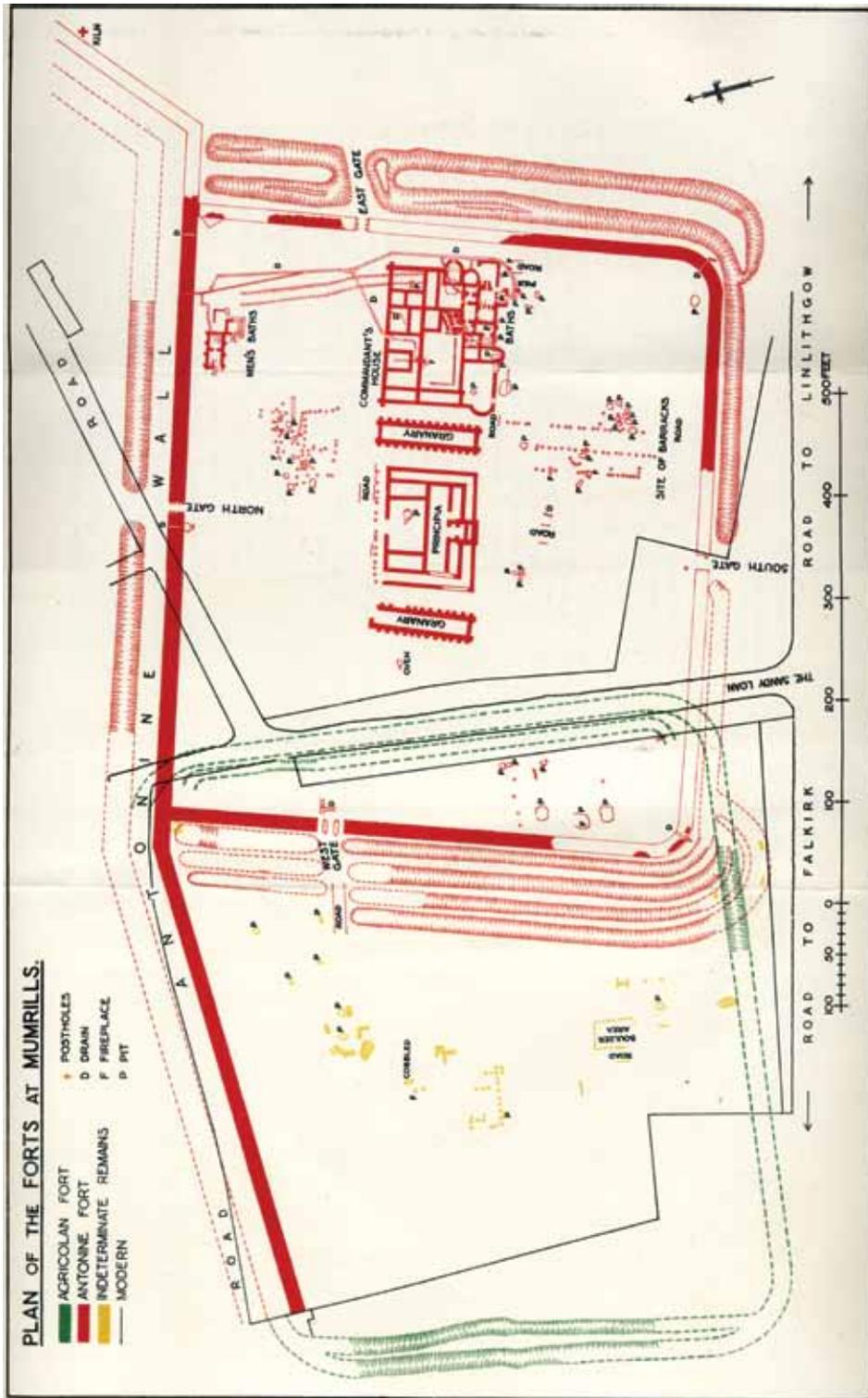
S2. A flat-bottomed trench, 9ft 6ins wide (2.9m) and 2ft 6ins deep (0.76m), was excavated in the field just west of S1. This was interpreted as a wooden palisade trench (B on *illus* 2)

S3. The south ditch of the later annexe cut across the ditches at the south-west corner of the fort in such a way as to show that this south 'annexe' ditch had an earlier origin as the south ditch of a fort (C/J on *illus* 2)

S4. An apparent causeway half way along the two west ditches of the later annexe had subsequently been removed. This would indicate that the west gate of the early fort had been there (D on *illus* 2).

Kenneth Steer was not convinced: 'Although it is argued with great ingenuity, the case for the Agricolan fort has never been wholly

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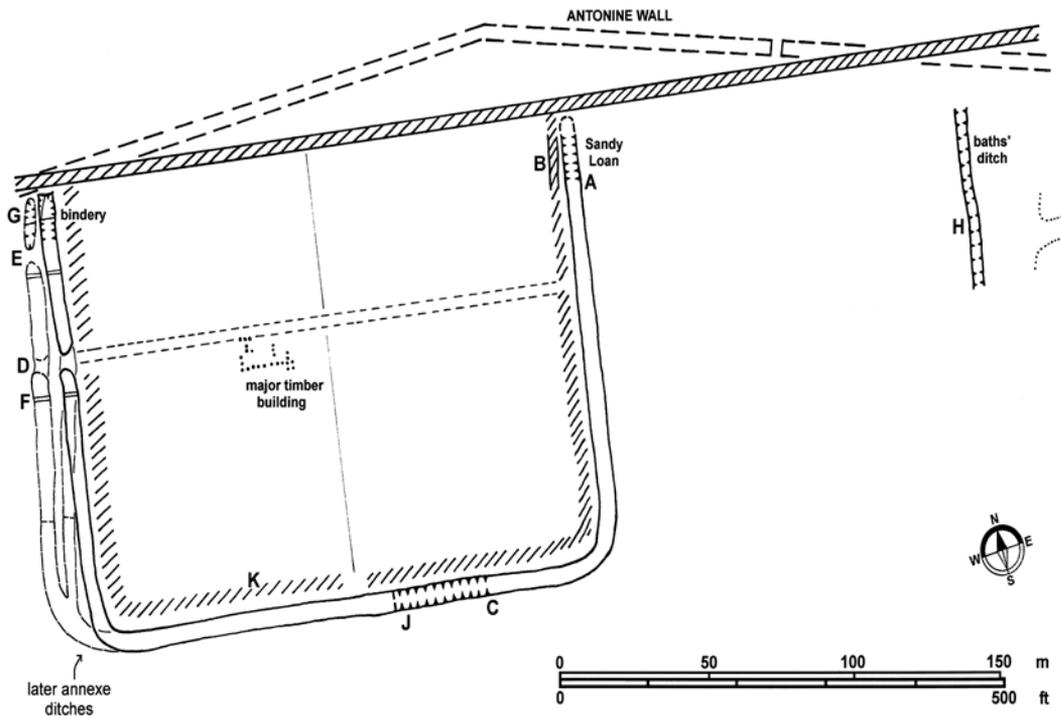
ILLUS 1 Macdonald's plan of the two forts

convincing. At the outset it is difficult to accept the proposition that a general renowned for his skill in making the most of the *opportunitates locurum* would have spurned the tactical advantage offered by the ample top of the Mumrills plateau, and elected instead to pitch his fort in such a position that at least half of it rested on a steep northward-facing slope, thereby exposing it unnecessarily to direct assault. In detail, also, the evidence is loose and unsatisfactory, the remains of the supposed *praesidium* being too fragmentary, and too widely separated, to bear the weight of construction place upon them' (Steer 1961: 89).

In 1959 Steer set about re-evaluating the evidence, where possible by excavation. The most important piece of new evidence was encountered at point E (illus 2) early in

the programme of investigation. Due to its significance, Steer's account is given in full: 'Much to our surprise, no sign of any ditches was visible in this section, undisturbed gravel subsoil being present throughout the 90ft long trench at a depth of between 2ft and 2ft 9ins below the turf. Evidently we had encountered by chance an original entrance-gap in the defences, and the significance of this discovery was at once apparent when it was related to the general plan. For the gap is not only sited in a direct line with the slightly oblique entrance through the western ditches of the Antonine fort, but lies too far to the north to have served as the west gate of the presumed Agricola *praesidium*' (ibid: 89).

Steer was also able to reaffirm the Antonine date of the western ditches of the annexe. At point F (illus 2) he found traces of turf derived



ILLUS 2 Proposed plan of the early fort

from the annexe rampart in the fill of the inner ditch. Below this, in primary silting, was a cooking pot and part of the base of a samian form 31, both of Antonine date. He concluded that ‘with the collapse of the western defences the case for the Agricolan *praesidium* can no longer be sustained’ (ibid), though he had effectively only countered Macdonald’s fourth structural point (S4).

He next turned his attention to S3: ‘though the Report states that the single ditch on the south side was cut through at its eastern end by all four ditches of the Antonine fort, the examination of these ditches in 1958 gave ground for thinking the reverse may have been the case’ (ibid). Not only was this statement rather vague – no indication being given of the nature of the examination (the points of intersection had already long been engulfed into the gardens of the 1920s villas) – it was far from decisive, with the use of the word ‘may’ allowing for the possibility of ‘may not’.

On S2, Steer noted that the profile was inappropriate for a palisade trench. This is clearly the case, but Steer was unable to proffer an alternative interpretation. Nor was he able to explain away the ditch under Sandy Loan (S1). Instead, he highlighted its similar alignment to the anomalous ditch running from the east side of the commanding officer’s house to the men’s bathhouse in the later fort (H on illus 2).

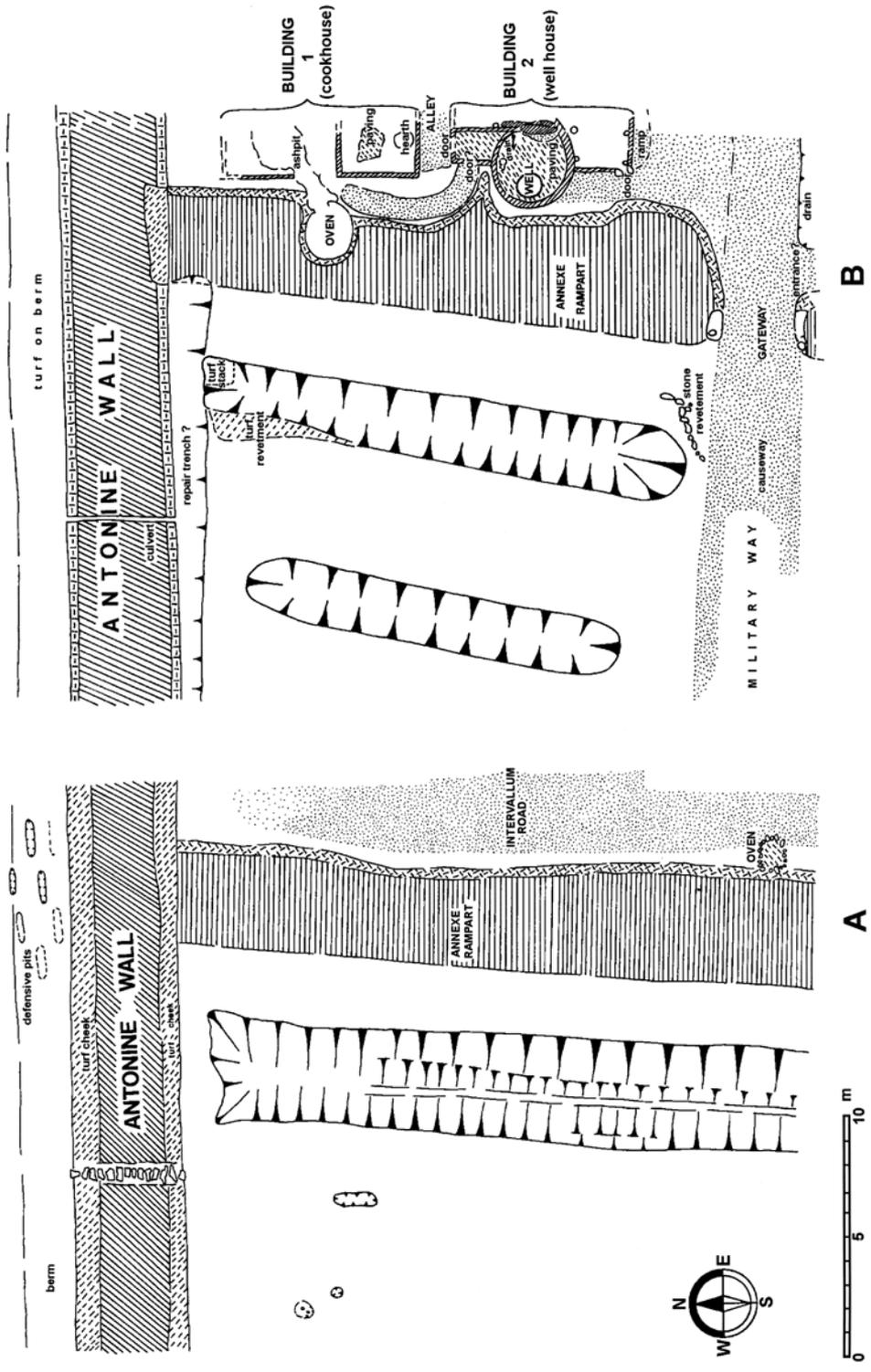
Like the earlier excavation, the 1959 work failed to retrieve any ceramic evidence for occupation in the Flavian period. Steer’s presentation was so compelling that any hint of an earlier fort has since been dismissed. However, the present author has had the opportunity to verify some of Steer’s results on the ground, as Steer had been able to do with Macdonald’s findings. Re-examination of his trench at point E in 2003 showed that the layer that he identified as undisturbed gravel

subsoil was in fact the surface of a west/east Roman road. The inner ditch of the annexe continued under the road (Hunter 2004: 267–7), leaving no doubt that there was not an original causeway here as Steer supposed. S4 has therefore not been disproved. Nor does the discovery of Antonine pottery farther south in the primary silt of the inner ditch negate the possibility of an earlier fort, as even Macdonald argued that the ditch had been re-dug at that date.

Steer was wrong about the western defences (S4), so what about the south defences (S3)? In 2002 a trench was dug in the garden of 42 Polmont Road over the junction of the south ‘annexe’ ditch and the second ditch on the west side of the fort. This located Macdonald’s trench of the 1920s and a somewhat later trench that provided the first indication that the area had indeed been examined in 1959. However, the small 1959 trench had only excavated the west/east ‘annexe’ ditch at a point west of its junction with the fort ditch, with an exploratory arm across open space to the south-east. The fill of the ditch was a relatively homogenous brown sandy loam. The fort ditch lay only 0.3m to the north (Hunter 2003: 303), under an asphalt drive that Steer would not have been able to remove. It is no wonder that Steer was so cautious in the expression of his results!

It would seem that Steer’s rejection of Macdonald’s early fort was predicated upon misinterpretation and confusion regarding the stratigraphy. Consequently, we need to re-evaluate the original hypothesis. Fortunately, we can also add some new information derived from excavations in 2001 at 40 Polmont Road (point J) and the Old Bindery (point G) in 2003.

In 2001 the south ‘annexe’ ditch was re-excavated at its junction with the fourth (ie outer) fort ditch. Macdonald’s trench was readily identified and his backfill



Illus 3 The two phases of occupation at the Old Bindery site excavated in 2003

was removed, leaving a section across the ‘annexe’ ditch and a longitudinal section along its centre at the point of intersection with the fort ditch. The V-shaped ‘annexe’ ditch, which measured 3.2m across and 1.7m deep, had c 0.20m of basal silt. It was then filled to about three-quarters of the way up with broken turf. This distinctive fill was cut by the fort ditch as it swept across it at an angle of 45° (Hunter 2002: 287). Here there is no doubt about the relationship. The fort ditch is later than the west/east ditch. Excavation immediately north of the villa at 40 Polmont Road in 1999, and north of that in 1924 and 1958 had already shown that the outer ditch of the fort had been backfilled by the Romans and a road (Macdonald & Curle 1929: 420, 421) and timber buildings (Steer 1961: fig 3; Keppie 2000: 381) laid over it. It cannot therefore be said that the outer ditch was a late addition to the fort’s defences cutting through the annexe; rather, the annexe was built over it. Work at the Old Bindery site revealed the two annexe ditches, but showed that originally there had been only one ditch on the west side. A causeway had later been formed across this and a second ditch dug farther out. The early ditch had been significantly re-aligned, as shown on illus 3. This matches up with the odd alignment shown on the 1920s plan to the north of the early entrance (S4). It is reasonable to assume that it should continue on this alignment to the south of the entrance, as shown on illus 2. If it did so, then how could the excavators in the 1920s have missed this earlier line? An explanation, though obviously speculation, is readily forthcoming. The original ditch here would have lain under the later annexe rampart, which we know from the Old Bindery site was simply a dump of earth dug from the ditches. This redeposited soil is very hard to differentiate from undisturbed natural, especially in the narrow trenches employed in

the 1920s. Indeed, some of the 1920s trenches were found on the Old Bindery site cutting into the rampart dump, which they clearly failed to recognise. They simply would not have dug through this layer in search of a Roman ditch.

The realignment of the northern butt end of the inner ditch was largely achieved by placing turf on the inside slope of the ditch. It had been deliberately laid in situ and was not the result of collapse or slippage from higher up, such as from a rampart or counterscarp mound. In fact there was no trace of turf in the annexe rampart. Yet in 1958 turf was found in the inner ditch at F. Is it possible that here too the ditch had been realigned using turf? Or was it derived from an earlier rampart belonging to Macdonald’s first fort? The two alternatives are not mutually exclusive, as the early rampart would provide the easiest source of material with which to refill the ditch so that another could be dug on a new line. That this was the case is suggested by the large amount of turf found in the south ‘annexe’ ditch at J. This was not laid in situ and the large quantity, together with tip lines emanating from the north side, indicate that it was indeed derived from a rampart there. Surprisingly, the use of turf at Mumrills is unusual. The later fort has ramparts of clay (Macdonald & Curle 1929: 407–9; Steer 1961: 90). To the west and east, the Antonine Wall was made of earth retained by clay cheeks (Macdonald 1929: 407–8; Steer 1961: 94–5), though the Old Bindery excavation suggested that the cheeks had originally been of turf (Hunter 2004: 267–8).

The use of turf appears to represent an early phase – but how early? As Steer rightly stressed, the north side of Macdonald’s Agricolan *praesidium* was always hypothetical. It must have lain close to the later line of the Antonine Wall, which is how Macdonald explained away its loss. His plan

(illus 1) shows the west ditch of this early fort turning at this point. We now know that the inner ditch came to a square-shaped butt end behind the Wall and did not turn to the east. The outer ditch was later, but in any case, came to a rounded butt end well behind the Wall. An early fort using the inner ditch therefore must be Antonine. This has never been considered before for several reasons. First of all there was a scholarly yearning to find Agricola's forts that were so well known from Tacitus; a longing that had been strengthened by similar designations at Bar Hill and, later, at Croy Hill. Secondly, it was believed that the later fort at Mumrills already exhibited three major phases and therefore another, more radical, change would not fit well with the relatively short occupation of Scotland. Third, Macdonald had already argued that the later fort was built early in the Antonine occupation (see above). This belief was reinforced by Steer when he speculated upon the existence of wing walls (Steer 1961: 95; mentioned, for example, by Hanson & Maxwell, 1983: 106). A fourth point might be added, though undoubtedly it was never stated, that a fort attached to the Wall using the early ditches might require a re-alignment of the Wall itself in this area.

These points are easy to reject. Firstly, the structures at Bar Hill and Croy Hill are now known to be early Antonine and we have no *prima facie* reason to suspect Agricola's occupation at Mumrills. No further Flavian finds have been forthcoming. Secondly, the two major phases evidenced at the later fort can now be seen as the result of the secondary addition of the annexe (Bailey 1994), with some rebuilding in the fort accounting for the third phase. The concept of two periods of occupation for the Wall as a whole has also been debunked (Hodgson 1995). Thirdly, Steer tentatively proposed the existence of wing walls because immediately to either side

of the fort the Wall had clay cheeks. These are now known to predominate along the whole length of the Wall east of Watling Lodge (Bailey 1995). The changes in the direction of the Wall in the area of the fort could have been made to accommodate a later installation and do not prove its early date. Finally, this brings us to the re-alignment of the Wall. If the whole fort could be re-aligned, then there is no reason why this could not happen to the Wall too. There is a possibility that the line of the Wall was altered at the Gil Burn at Kinneil (Glendinning 2000) and I would suggest at the fort at Duntocher. Equally radical alterations occurred on Hadrian's Wall, where they are beyond dispute. At Housesteads, for example, the stone wall and a turret were removed for the insertion of the north wall of the fort just a short distance to the north on the same alignment. An even larger stretch of the Turf Wall was replaced to the west of Birdoswald.

The evidence of the west ditch shows that if there was an early Antonine fort at Mumrills, its alignment was only 7° different from that of the west side of the later annexe. This would place the original west ditch perpendicular to the south 'annexe' ditch – and now we come to the reason why the word annexe has so often been placed in inverted commas. We simply do not know that this ditch was part of the later annexe defences. Its western end, that is to say its supposed junction with the western ditches of the annexe, has never been excavated. Its eastern end was cut by the fort ditches. The ditch itself was deliberately infilled with turf. To all appearances this ditch was levelled to allow the annexe to extend to the south and the later annexe ditch may have lain on the line of Polmont Road, which runs in a deep cutting created for the turnpike road in the early 19th century. A Roman iron furnace, presumably associated with this annexe, found at 36 Polmont Road in 2008 (K), occupied the site

where the annexe rampart might otherwise have been expected (Bailey 2009).

The eastern side of the proposed early fort would be as given by Macdonald – another right angle. All of the available evidence, limited though this is, points to the existence of only a single ditch on the west and south sides, and we must assume this also to be the case on the east. The location of Macdonald’s ‘palisade slot’ (B) and its shallow nature suggest that it may have been part of a stepped rampart foundation. The hill slope is at its steepest here and the later west rampart of the fort was terraced in this vicinity (Macdonald & Curle 1929: 409).

The north side of the proposed fort would lie at an angle of 10° to the known course of the Antonine Wall. The north-west corner is fixed by the butt end of the west ditch. The suggested line of the early Antonine Wall would take it just to the north of the north-east corner of the later fort. Unfortunately, there are no modern excavations along this line. The narrow trench found along the south side of the Antonine Wall rampart at the Old Bindery site (illus 3) may conceivably be the robbed out course or the terraced construction trench for the original Wall in this area, though it may equally be connected with the later replacement of the turf cheek with one of clay. The Military Way, or rather the road running across the early fort from west to east, would have been parallel to the early Wall.

The parallel courses of the Wall and road allow us to test the hypothesis further. The west gateway (D) would now be three-fifths of the way up the fort – a reasonable proportion. It is also on line with a road found in 1963 150m to the west (Hunter 1967), following the backbone of the west/east ridge. Projected eastward the line of the road corresponds with the east gate of the later fort and with the angle of the causeway across the ditches beyond. Perhaps then, the earlier road determined

the course taken to the Mumrills Braes. Yet Macdonald argued that the road originally emerged at right angles to the rampart from the east gate of the later fort (Macdonald & Curle 1929: 418–19). The case for this, however, was based merely upon an interpretation of the layout with no stratigraphic evidence one way or the other. Some evidence is available. When the substantial stone structure of this east gate was demolished, some of the stones from it ended up in the perpendicular ditch linking the two ditches south of the entrance and none in the longer, and much closer, link ditch set at an angle. This justifies us in reversing Macdonald’s sequence. It also has the advantage of placing the later road along the south side of a curious enclosure that occupies the area immediately to the south of the Antonine Wall and east of the fort, which has been identified as another annexe for the late fort.

Returning to our early fort, the road would pass in front of a substantial post-holed structure set on the same alignment. This major timber building, in the area of the later annexe, was discovered by Macdonald who considered it to be imposing enough to have been the *principia* of the early fort (ibid: 500). Unfortunately, he was unable to tie it in to a stratigraphic sequence. On the plan of the proposed fort (illus 2) it can be seen to lie a little west of centre. It is reminiscent of the first phase of the commanding officer’s house in the later fort (Macdonald & Curle 1929: plan on page 437).

The reconstructed plan also shows a north/south ditch well to the east of the early fort. This was found in the 1920s underlying the commanding officer’s house (Macdonald & Curle 1929: 437). Although the text describes it as ‘shallow’ (ibid: 494), a photograph shows it to have been reasonably substantial (ibid: 495). It runs parallel to the proposed early fort and would suit an annexe for it.

This was the state of the evidence when it was laid out at a Northern Frontiers Seminar in April 2008. Then, in June of that year, the results of geophysical work by GSB Prospection Ltd on behalf of Historic Scotland became available. It shows the north/south ditch just mentioned as running on the same line as on Macdonald's plan, but extending farther to the south, beyond the commanding officer's house, until it is masked by the rampart of the later fort. This corroborates that it is early and that it is not connected with the drains associated with the various baths of the late fort.

More importantly, the geophysical survey shows a linear feature at right angles to the north/south ditch crossing the north-east corner of the late fort. This feature extends eastward, beyond that fort, and is earlier than the stone base of the Antonine Wall here. It is a negative magnetic anomaly, which we might expect to represent a ditch. The correspondence with the predicted line of the early Antonine Wall rampart suggests that it may be the robber/demolition trench of the original stone base, similar to that found at the Bindery site – gratifying confirmation that there was an early Antonine fort at Mumrills.

The eastward line of the early Wall thus indicated deviated well to the south of the known line. Perhaps it had originally been the intention to take the Wall straight down to the floor of the Westquarter Burn and then up to the site of Weedingshall House (across the site of Grandsable Cemetery), across the Fairy Glen (the valley of the Polmont Burn) and then along the ridge to the site of Polmont Church. Apart from the two dips into the valleys this would have kept the Wall to the high ground in keeping with what happens elsewhere (Bailey 1996; the first Ordnance Surveyors thought this the most advantageous line). It would also be more appropriate for

the alignment of the next section of the Wall to the east, from Polmont Church to Millhall. In the event, it was decided to avoid the two steep-sided valleys and place the Wall a little in advance of the hills on low-lying wet ground (Keppie, Bailey et al 1995: 611–19). The decision to cross this swamp has long been an inexplicable one, but it was clearly deliberate. The only identifiable tactical advantage achieved by taking the barrier down to the edge of the marshy margin of the Forth Estuary is that it gave greater control over west/east movement (the main road from Polmont to Airth ran through 'Beancross' from at least the 18th century and the name, signifying a road crossing, is found as early as 1625).

The original fort was set on a north-facing slope at the east end of a long west/east ridge. It was not at the summit, which lay a little to the south, but it did command extensive views to the north, west and east. Moving the fort to the east diminished the views to the west and placed dead ground, previously in front of the east annexe, in front of the fort. Probably to compensate for this dead ground an extra ditch was placed here (Hunter 2005: 398) and this too appears on the magnetic survey. A comparison to the similar dead ground and additional ditch at Duntocher is immediately obvious (Robertson 1957); Old Kilpatrick less so (Miller 1928; it is interesting to note that Macdonald (1934: 198) compared the narrowness of the known ditch at Mumrills to that in front of the fort at Old Kilpatrick). Macdonald was certain that the siting of this fort at Mumrills was made in order 'to lay the southern rampart along the top of the natural escarpment' (Macdonald & Curle 1929: 400). This certainty was picked up by Hanson and Maxwell (1983: 106), though they did question why the Wall hereabouts had not been placed farther north. Indeed, it is not easy to see why the location of a fort on a

north-looking frontier should be determined by the strength of its southern defences, nor why this should then skew the whole frontier. In fact, it is not even true to say that the south rampart of the fort is positioned on the top of the escarpment, as the ground on the west side of this frontage is higher outside the fort (see, for example the locations plans in both Macdonald & Curle 1929 and Steer 1961). The only apparent advantage in the change in position of the fort is that the new location commanded the wide floor of the Westquarter Valley at this point. Once again this would be useful to control west/east movement. Prior to the construction of the embankment for the Linlithgow road in 1834 the main road took a gentle descent, just to the south of the fort, to a ford (shown as the track to Burnside Cottage in Steer 1961: 86, fig 1). Bleau's version of Timothy Pont's 16th-century survey, printed in 1640, shows the main road from Linlithgow approaching Mumrills from this direction and a similar line has been suggested for a Roman road (RCAHMS 1929: xxv)

The manner of the execution of the realignment of the western ditch of the original fort suggests that there was only a short interval between the two forts. This timeframe would allow the original fort to be sited as an isolated stronghold in the existing landscape, often called a 'primary fort', anticipating the running barrier. By the time that this barrier arrived the tactical considerations of the site must have been reviewed in the light of experience farther west. The construction of the linear component altered the whole logistics of the control of movement and here, at Mumrills, with just a little tweaking, it was possible to restrict west/east communication as well as that on a north/south axis. The repositioning of the fort and the Wall to its east resulted.

## BIBLIOGRAPHY

- Bailey, G B 1994 'The provision of fort-annexes on the Antonine Wall', *Proc Soc Antiq Scot* 124: 299–314.
- Bailey, G B 1995 'The Antonine frontier in Callendar Park, Falkirk: its form and structural sequence', *Proc Soc Antiq Scot* 125: 577–600.
- Bailey, G B 1996 'Stream crossings on the Antonine Wall', *Proc Soc Antiq Scot* 126: 347–69.
- Bailey, G B 2009 'Excavations at 36 Polmont Road, Laurieston', *Calatria* 25: 1–9.
- Glendinning, B 2000 'Investigations of the Antonine Wall and medieval settlement at Kinneil House, Bo'ness, Falkirk', *Proc Soc Antiq Scot* 130: 509–24.
- Hanson, W S & Maxwell, G S 1983 *Rome's North West Frontier: The Antonine Wall*. Edinburgh: University Press.
- Hodgson, N 1995 'Were there two Antonine occupations of Scotland?', *Britannia* 26: 29–50.
- Hunter, D M 1967 'Laurieston: Roman road', *Discovery and Excavation Scotland*, 52.
- Hunter, F 2002 'Roman Britain in 2001 (Scotland)', *Britannia* 33: 284–90.
- Hunter, F 2003 'Roman Britain in 2002 (Scotland)', *Britannia* 34: 300–6.
- Hunter, F 2004 'Roman Britain in 2003 (Scotland)', *Britannia* 35: 265–71.
- Hunter, F 2005 'Roman Britain in 2004 (Scotland)', *Britannia* 36: 393–402.
- Keppie, L J F 2000 'Roman Britain in 1999 (Scotland)', *Britannia* 31: 379–84.
- Keppie, L J F, Bailey, G B et al 1995 'Some excavations on the line of the Antonine Wall, 1985–93', *Proc Soc Antiq Scot* 125: 601–72.
- Keppie, L J F & Walker, J J 1989 'Some excavation along the line of the Antonine Wall, 1981–5', *Proc Soc Antiq Scot* 119: 143–59.
- Macdonald, G 1934 *The Roman Wall in Scotland*, 2nd edn. Oxford: Clarendon.
- Macdonald, G & Curle, A O 1929 'The Roman fort at Mumrills, near Falkirk', *Proc Soc Antiq Scot* 63 (1928–9): 396–575.

- Macdonald, G & Park, A 1906 *The Roman forts on the Bar Hill, Dunbartonshire*. Glasgow: MacLehose, Jackson & Co.
- Miller, S N 1922 *The Roman Fort at Balmuildy*. Glasgow: MacLehose, Jackson & Co.
- Miller, S N 1928 *The Roman Fort at Old Kilpatrick*. Glasgow.
- RCAHMS 1929 *Inventory of Monuments in Midlothian and West Lothian*. Edinburgh: HMSO.
- Robertson, A S 1957 *An Antonine Fort, Golden Hill, Duntocher*. Edinburgh: Oliver & Boyd.
- Steer, K A 1961 'Excavations at Mumrills Roman fort, 1958–60', *Proc Soc Antiq Scot* 94 (1960–1): 86–132.

