

## The line of the Antonine Wall at Falkirk

by David J Breeze

Investigations in 1913 in Falkirk caused Sir George Macdonald (1915, 128–31) to postulate a different line for the Antonine Wall from that suggested by the Ordnance Survey in 1898. Macdonald subsequently slightly modified his line in the second edition of *The Roman Wall in Scotland* (1934, 122–4). In 1971 and 1973 opportunity was taken of building operations in the former allotment gardens on Arnot Street to check Macdonald's theory.

Macdonald and the Ordnance Survey were in agreement on the line taken by the Antonine Wall from Bantaskin at the W end of Falkirk to Rosehall, situated at the corner between the Pleasance and Booth Place about half-way through the town. Between Rosehall and the entrance drive to Callendar Park they were in agreement at only two points. In the grounds of Rosehall, trenching in 1913 by Macdonald revealed the stone base of the rampart (NGR NS 88747974). The 'direction had been SE by E, almost coincident, in fact, with the conjectural markings on the Survey map of 1898' (Macdonald 1915, 128). Further E in Callendar Park the long straight stretch E of the entrance drive was agreed by both Macdonald and the Ordnance Survey to be the remains of the ditch. Between the two points the Survey restored the line as continuing straight westwards through the great depression in Callendar Park to Rosehall. Macdonald considered this depression to be artificial and suggested a south-westerly diversion to the East Burn turning steeply there to the NW to return to Rosehall. He noted a slight hollow running down to the corner of Callendar Park just E of the East Burn and trenching behind this revealed a 'mass of stones . . . and traces of clay . . . here and there in the interstices', 13–14 ft wide. 'At one point, not very far from the corner of the park wall' was found 'a portion of the kerb still in its original position' (NGR NS 892795; Macdonald 1915, 131). This line has subsequently been confirmed by aerial photography (RAF 106G Scot UK Print nos 5097 and 5098 show the rampart, ditch and upcast mound; I am grateful to Mr J Davidson of the Ordnance Survey for bringing these to my attention).

From the East Burn the Wall crossed the allotment gardens climbing a low ridge overlooking the marshy ground to the N. Trenching in this area failed to locate undisputed remains of either rampart or ditch. At one point, towards the W boundary of the gardens, Macdonald found at a depth of at least 4 ft an amount of decayed vegetable matter which he presumed to have come from the ditch (Macdonald 1915, 129–30). However, it may be doubted whether any vegetable remains would have survived so long in the well-drained sandy soil. It seems quite possible that Macdonald's trench had hit a modern pit. The approximate position of this pit is marked on the accompanying map (fig 5). Further W, between High Station Road and Rosehall, the line of the Wall was plotted by observing traces of subsidence in the houses.

In 1934 Macdonald modified his line to introduce a slight re-entrant by taking into account the difficulties encountered in the construction of the house Woodside in the 1880s, which he presumed had been caused by erecting the house over the ditch. The relationship between the 4 ft-deep hollow and the new line for the ditch was not commented upon, though it would appear that the hollow now lay on the S lip of the ditch. It is the 1934 line for the Antonine Wall through the E suburbs of Falkirk which appears on the current Ordnance Survey maps.

In March 1971 the writer observed the earth-moving operations involved in the construction of the Cladhan Hotel and subsequently in the summer of 1973 the Brockville Club, both in the former allotment gardens on Kemper Avenue which leads off Arnot Street, with a view to checking the line of the ditch – it was felt, following Macdonald, that the rampart would have been com-

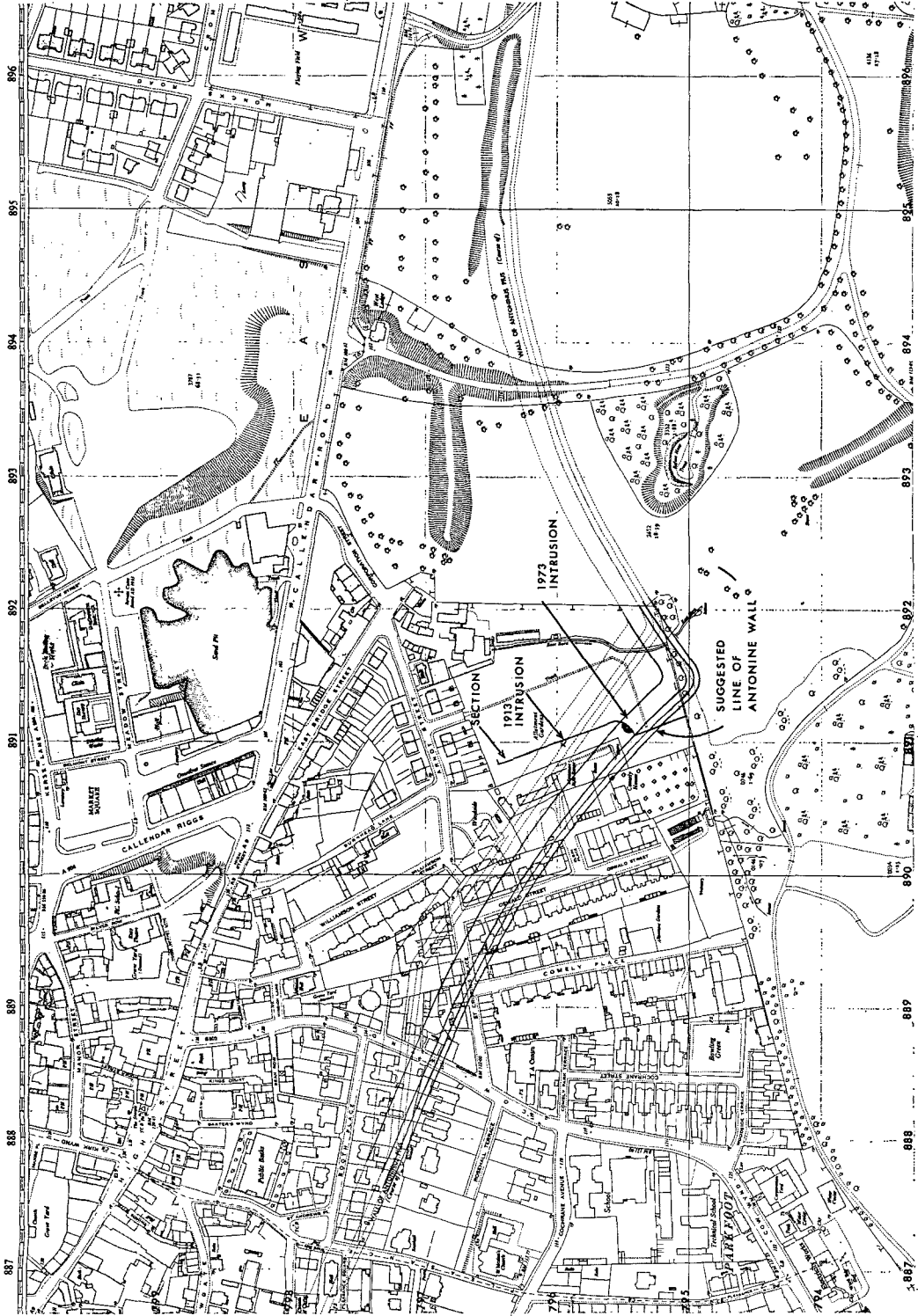


Fig 5 The Antonine Wall at Falkirk (reproduced from the OS 1:2,500 map (NGR NS 8879/8979) with the permission of the Controller of HMSO; additions by T Borthwick. Crown Copyright reserved)

pletely destroyed by the intensive cultivation of this area and that proved to be the case. In the course of the two operations a continuous section 144 m (472 ft) long was excavated towards the W side of the former allotment gardens from a point 7.3 m (24 ft) S of the N boundary up to the S boundary of the gardens. This sloped from a height of about 4 m at the N end to about 1 m at the S. The subsoil throughout the N 90 m (300 ft) was of sand; in the S section it was gravel.

Both the 1913 and the 1934 lines for the Antonine Wall pass directly across the N sector behind the Cladhan Hotel. No trace of the ditch was found in this area, nor of the hollow which Macdonald discovered in 1913. However, in 1973 an intrusion was noted on the bend in the section, 43 m (140 ft) N of the S boundary of the former allotment gardens and 29 m (95 ft) E of the W boundary. It was 6.7 m (22 ft) wide and now 2.6 m (8½ ft) deep; it had probably originally been deeper but the top would have been removed by cultivation and during the earth-moving operations. In profile it tended to be U-shaped rather than V-shaped and was filled with dirty gravel and soil. In spite of its narrowness and shape this would no doubt have been unhesitatingly accepted as the Antonine Wall ditch, save for the fact that the intrusion did not continue north-westwards across the undisturbed subsoil but finished in a neat rounded end, unmistakable for the topsoil had been removed for a distance of some 6 m to the W of the section revealing 3 m of the intrusion surviving. It is possible that the intrusion is a pit, perhaps of medieval or modern date, which had been dug close to the presumed position of the Antonine Wall ditch. This would, however, be a remarkable coincidence especially since no other feature resembling the ditch was noted at any other point in the section. The position of the intrusion is clearly important in determining its date. It lies 38 m (125 ft) behind the 1934 line for the Antonine Wall ditch and 44 m (145 ft) behind the 1913 line. The discrepancy between the 1913 and 1934 lines and the 1973 intrusion may be connected with a change of direction at the East Burn. The exact position where the Wall swung northwards is not known. A point a little further to the SW than that marked on the OS maps would be quite possible. Moreover, the Wall may have curved slightly as it approached the burn as it apparently did while climbing the E side of the valley. A curve from Woodside through the 1973 intrusion to the burn would be very sharp but, if the doubtful evidence of Woodside is ignored, the curve from Rosehall to the burn would almost be a mirror image of that on the other side of the valley. Ignoring the evidence of Woodside would also have the advantage of eradicating the inexplicable twist in the line of the Wall which Macdonald introduced in 1934.

The Antonine Wall ditch is usually stated to be about 12.2 m (40 ft) wide. However, although this is the usual width E of Bar Hill, W of this point it rarely attains this size (Keppie 1974, 156-8). Further, in the E half of the Wall much smaller widths have been noted. At Dean House, Kinneil, in 1960 the ditch was found to be 5.5 m (18 ft) wide, at Kinneil in 1961 it was 8.5 m (28 ft), at Nether Kinneil (Summerhouse Park) in the same year 10.7 m (35 ft) and at Nether Kinneil in 1974 9.7 m (32 ft) (Keppie 1974, 156). At Mumrills the ditch was only 7.3 m (24 ft) wide, though this was probably connected with the existence of the fort here. The narrow width of the possible ditch at Falkirk therefore, though unusual in the E half of the Wall, would not be unique. However, since the intrusion terminated only 3 m W of the section, it is possible that if it was the Antonine Wall ditch the section lay at a point where the ditch was already tapering towards the butt-end, especially since in the grounds of *Callendar House the ditch attained a width of at least 12.2 m (40 ft)* (Keppie 1974, 161-2).

There remains the question of why the ditch should come to an end at this particular point. The most obvious explanation is that this was one side of a causeway leading across the ditch. Macdonald, on the basis of the discovery of stones, pottery (including samian) and a coin, placed the fort at Falkirk in the area known as the Pleasance about 487 m (533 yds) W of the 1973 intrusion. The Ordnance Survey on the *Map of the Antonine Wall* prefers a position 517 m

(566 yds) further W, though for no clear reason. It would be surprising if a separate gate were placed so close to the fort. There is no suggestion in the antiquarian sources, in previous finds or on the ground that there was a separate fortlet here, and indeed it is not an advantageous position in which to place such a structure, for the ground slopes fairly steeply down to the East Burn. It is interesting, though presumably coincidental, that the 'causeway' lies one-third of a Roman mile – the distance between the towers on Hadrian's Wall – E of Macdonald's fort site at Falkirk.

The Antonine Wall was built by legionaries. Different groups almost certainly built the rampart and dug the ditch and were themselves probably subdivided into smaller gangs as on Hadrian's Wall. The point of juncture of two ditch-digging gangs has been noted at forts elsewhere (e.g. Breeze 1970, 125). It seems most improbable but it may be that here two adjacent gangs did not quite meet but left a small gap between their two sectors. No other such feature has been noticed anywhere else along the line of the Wall, and of course may not even exist, though gaps in the ditch were left at three points on Croy Hill and Bar Hill where the effort would have been too great to dig the ditch through solid rock. A further possibility is that it may have been realised that the action of water pouring down the ditch would rapidly erode the sides in the sandy subsoil and so small causeways to break the flow may have been left across the ditch. This again is unparalleled, though the fact that the ditch was not everywhere completed shows that it was not considered essential to have it continuous. The butt-end of the ditch remains a problem. It is, however, hard to escape the conclusion that the intrusion observed in 1973 on Kemper Avenue, in spite of its rather unusual profile, is the Antonine Wall ditch. Macdonald therefore, broadly speaking, would appear to have been right in 1913 and corrected himself wrongly 20 years later, though now it is suggested that the Wall approached the East Burn in a curve similar to that adopted on the opposite side of the valley. Further work will need to be carried out before the significance of the butt-end can be appreciated.

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