

Excavations at Ardoch 1970

by David J. Breeze

In 1970 Mr R D Baird, on behalf of Keir and Cawder Estates, offered Ardoch fort and annexe in guardianship to the Secretary of State for Scotland. The north, west and south sides of the monument were defined by roads, tracks or stone dykes, but the east boundary was not clear. In order to establish a viable eastern limit to the guardianship area excavations were carried out by the writer in the last week of October and the first of November 1970 with the intention of determining the correct position of the Roman road and the east defences of the annexe. I should like to thank Mr Baird for readily agreeing to excavation, my colleague Mr I MacIvor for his advice and encouragement both during the excavation and in the preparation of this report and Dr B Dobson who read the report in draft and made several useful comments.

THE ROMAN ROAD

The road running north from Camelon to Strageath skirts the SE corner and the E defences of the fort at Ardoch and crosses the E side of the annexe (fig 1)¹. In the course of the 1896-7 excavations, the road E of the fort was uncovered in three places². In the text the road is described as being 'composed of tightly compacted gravel . . . 25 feet (7.920 m) wide, slightly arched, free from ruts and as smooth as a cyclist could wish'. On the plan, however, the width of the road was recorded as 6.100 m (20 ft) just south and north of the E gate and 8.230 m (27 ft) a little further north. This last, and as will be seen later abnormal, width probably included the 'hard shoulder', to use a convenient modern term, on either side of the road.

North of the 1896-7 excavations five trenches (fig 1, 1-5) revealed that the road continued northwards, lying immediately W of the modern stone dyke. The road narrowed as it proceeded north, thus in trench 1 it was 5.440 m (18 ft) wide, in 3 it was 4.330 m (14 ft), in 4 it was 4.100 m (13½ ft) and in 5 it was 3.900 m (13 ft) - in 2 only the E edge of the road was uncovered. The road as it passed the fort therefore seems to have had a fairly uniform width of 6.100 m (20 ft) narrowing to about 4 m as it crossed the N part of the annexe.³

In trenches 1 and 4 ruts were observed on the gravel road surface. In the latter trench the ruts, 60 mm deep and from 240 to 320 mm wide, were 1.420 m (4 ft 8 in) apart from centre to centre and ran roughly along the middle of the road. On the road surface in trench 1 there were four ruts, and slight traces of a fifth; all were on the W side of the road, the easternmost, and slightest, running along the very centre of the road (pl 10). The ruts, from 15 to 20 mm wide and up to 50 mm deep, were, from west to east, 500 mm, 520 mm, 380 mm and 650 mm apart from centre to centre. The two well-worn outside ruts, the first and fourth, were thus 1.400 m apart and the second and fifth 1.530 m. It is presumed that these ruts were Roman in date though no direct evidence was forthcoming.⁴

The road in trench 5 was sectioned (fig 2). The cambered base of the road, 840 mm thick,

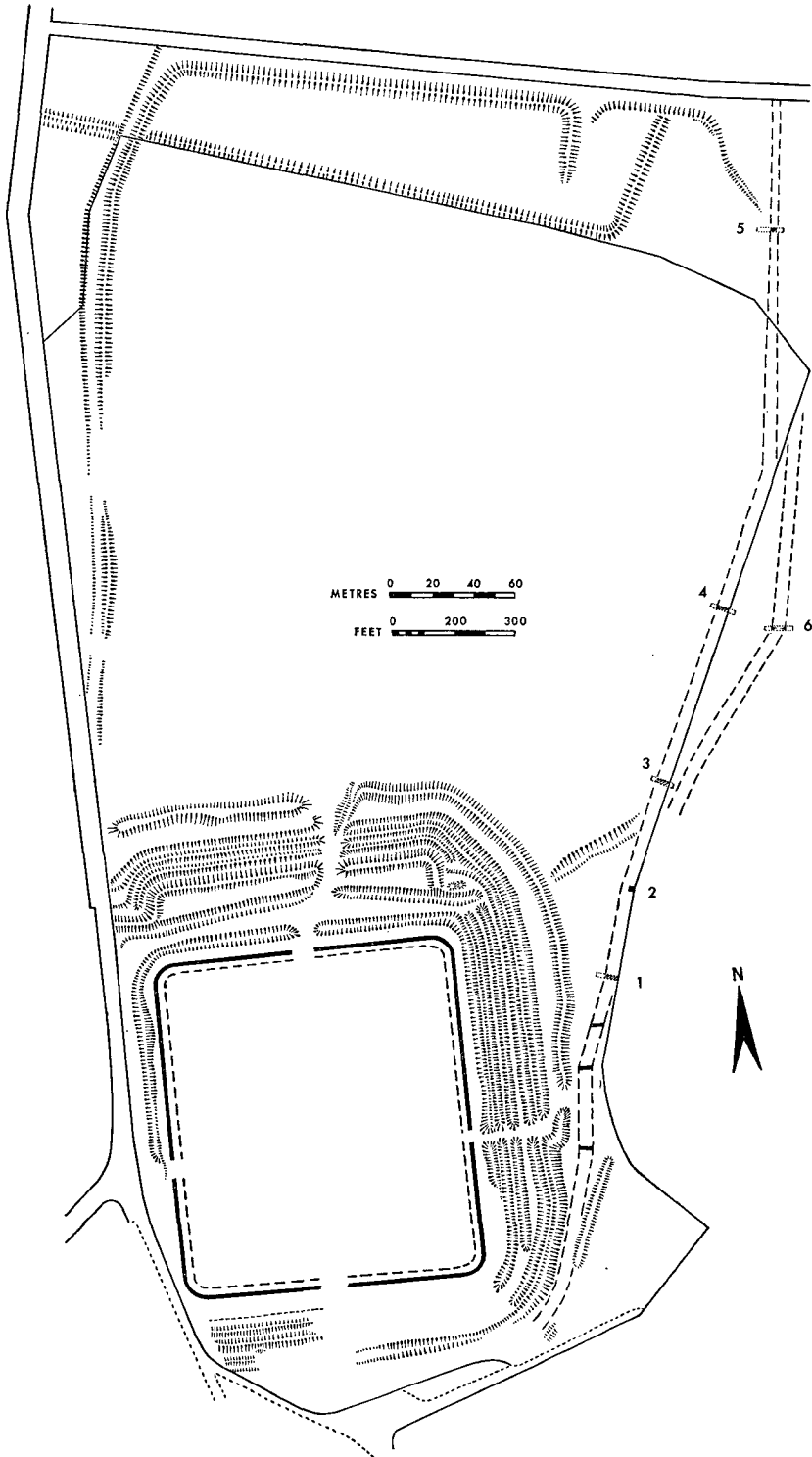


Fig 1 Ardoch fort and annexe

was laid in a trench 7.200 m wide with the bottom 460 mm below the original ground surface on the W and on the E, where post-Roman disturbance had taken place, at least 320 mm. The base had a cambered core of cobbles 3.500 m wide with a maximum thickness of 440 mm. The rest of the base was composed of gravel graded in thickness from coarse at the bottom to fine material at the top on which lay the 3.900 m wide road surface, a single layer of small cobbles and gravel. On both sides of the road was a spread of larger gravel forming as it might be a

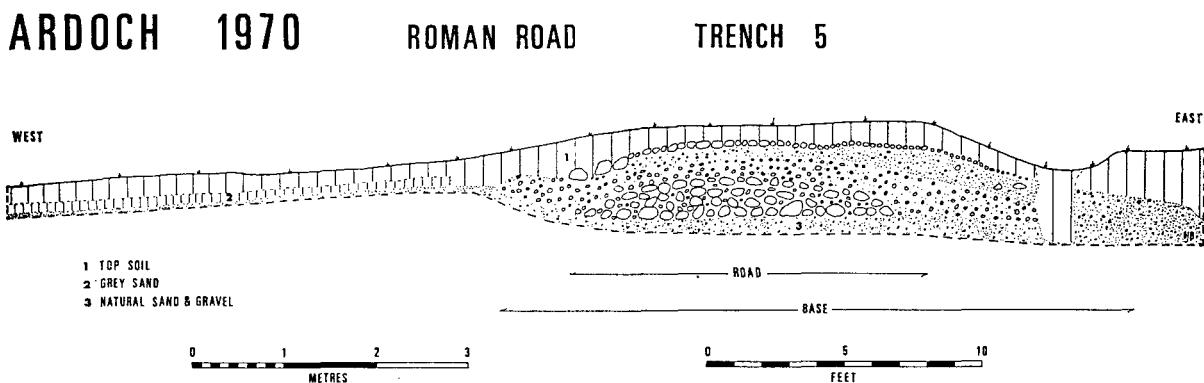


FIG 2

'hard shoulder'. Although disturbed on the W this border was about a metre wide on the E. Similar borders to the road had been noted in the other trenches where they varied from 250 to 500 mm in width. There were no traces of repairs to the road.

Trench 1 was extended 6 m west of the W edge of the road and trench 5 extended 5.300m, but no trace of a lateral ditch was found – probably the gravel sub-soil made such a feature unnecessary. It may be noted that no side-ditches were found in the Parkneuk sector of the road.⁵

No finds were made to date the road which is usually considered to be Flavian,⁶ that is contemporary with the earliest fort at Ardoch.⁷

THE ANNEXE

The extreme limit of the east defence of the annexe lies a little to the E of the road. The southern length of ditch between the NE corner of the fort and the road is still visible on the ground and the north part of the rampart between the NE corner of the annexe and the stone dyke parallel to and E of the road is also just visible (cf fig 1). The east elbow of the defences is, however, only revealed by aerial photography.⁸ It was therefore necessary to section the ditch at this corner to determine the exact limit of the annexe.

A section had been put across the west defences in 1896-7.⁹ The ditch was 5.800 m wide and appeared to have gently sloping sides, giving a depth of 1.500 m, with a channel 900 mm deep and 600 mm wide in the bottom. The effect of the rather wide channel is to give the ditch a V-shaped profile. The gravel rampart stood to a height of 4.200 m above the bottom of the ditch.

Trench 6, 16 m long and 1.500 m wide, was laid out across the east defences immediately north of the calculated corner at right angles to the line of the ditch and rampart. The ditch

was found to be rather wider than that of the west defences being 7 m wide and flat-bottomed, descending steeply on the W side but more gradually, and with a step, on the E (fig 3). The depth below the E edge was 1.600 m and below the W edge 0.600 m. Immediately west of the ditch was a compact layer of mixed cobbles, gravel and sand up to 0.400 m thick, presumably the remains of the rampart. There was slight evidence that there had been some revetting with stones along the E edge of the rampart to prevent it slipping into the ditch. The maximum height of the rampart above the bottom of the ditch was one metre.

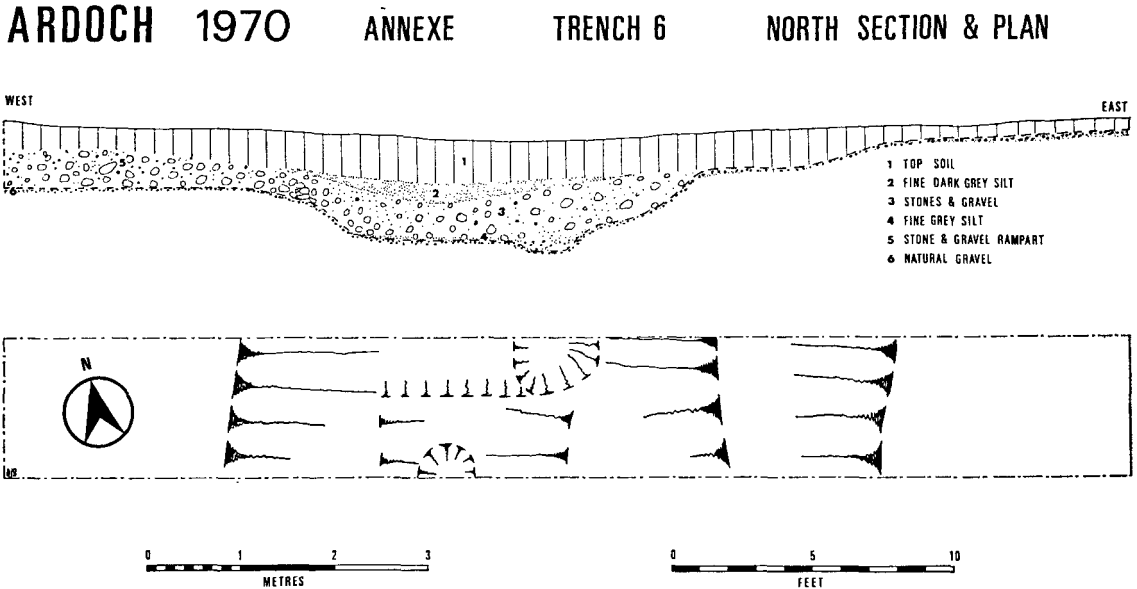


FIG 3

In the bottom of the ditch, on either side of the trench, though not opposite each other, lay two small flat-bottomed hollows interpreted as the butt-ends of small U-shaped channels. Both were 500 mm wide but the north one was 400 mm deep and the south 500 mm. That the channels were not opposite each other would suggest that the excavation trench was exactly on the corner of the defences where the rampart and ditch swing north. Also since the channels, which presumably should have met to form one continuous channel along the bottom of the ditch, did not meet, it is suggested that here two working parties met, one presumably digging the north section of the ditch and the other the south.

A layer of fine-textured grey silt about 40 mm thick covered the bottom of the ditch. The rest of the ditch was filled with a layer of cobbles, stones and gravel 400 mm thick, the fill of the channels having a higher content of fine gravel. On this rested a layer of fine black silt 200 mm thick, the whole being covered by ploughsoil about 400 mm in depth. There was no doubt that most of the fill of the ditch had come from the rampart, the composition of the two being so similar that it was difficult to determine where the one ended and the other began. This might suggest that the east defences were deliberately slighted at some stage, while the small amount of silt in the ditch implies that it was regularly cleared out, or possibly filled in soon after construction. The west and north defences do not appear to have been slighted and it is difficult

to see why the east defences have been, though there may be some connection with the position of the road.

No finds were made to date the construction of the annexe. It is highly unlikely that it is post-Roman, the existence of typical channels in the bottom of the ditch on both the west and east sides alone pointing to a Roman date.¹⁰ Its function would appear to be that of annexe to the fort,¹¹ though Crawford considered that it may have been a labour camp for the soldiers building one of the forts.¹² The north defences of the annexe, however, appear to override the SE corner of the 120 acre temporary camp implying that the camp is earlier.¹³

Since there is no evidence for third- or fourth-century occupation at Ardoch and the annexe is presumed not to be post-Roman, this would seem to imply that the 120 acre camp is not later than the final re-occupation of the fort in Antonine II and could even antedate the Antonine I re-occupation. But Dr St Joseph has suggested that the camp is Severan in date, mainly on the evidence that it belongs to one of two closely linked post-Flavian series of camps.¹⁴ Although, as Dr St Joseph points out, there is only one definitely attested post-Flavian series of campaigns north of the Forth-Clyde isthmus, those of Severus, since Ardoch and some other forts in Strathearn appear to have been occupied on the same two occasions as the Antonine Wall, Lollius Urbicus must have campaigned in this area in the early 140s, as must also the general who re-occupied the Antonine Wall later in the second century, possibly Ulpius Marcellus in the early 180s.¹⁵ As Dr St Joseph has demonstrated that the 120 acre camp is post-Flavian, it is not inconceivable that it – and the whole series of 120 acre camps – belongs to one of the second-century campaigns, the annexe being constructed after the fort was re-occupied following the campaign.

The strong arguments adduced by Dr St Joseph for a Severan date¹⁶ – the apparently short interval between the construction of the 63 and the 120 acre camps at Ardoch, their similarity and the fact that Severus is known to have conducted at least two campaigns in Scotland, in one of which the far north of Britain was reached – appear to be in direct conflict with the evidence provided by the relationship between the annexe and the 120 acre camp. In the present state of knowledge it is seemingly impossible to reconcile this conflicting evidence.

The relationship between the annexe and the road is not entirely certain. The way the road appears to run over the NE corner of the annexe and in general the awkward relationship between the east defences and the road might be taken to suggest that the annexe was constructed before the road. However, the annexe defences change direction when they meet the road thereby strongly implying the prior existence of the latter. Moreover the earlier construction of the annexe would seem to be improbable in view of its presumed Antonine date, unless of course this stretch of the road is itself Antonine which is unlikely.¹⁷

It is clear that the earthworks at Ardoch still pose many problems for which excavation offers the only, but uncertain, hope of solution.

THE EARTH DYKE

In trench 5 an earth dyke, forming part of the field-system recorded by Roy,¹⁸ was sectioned. The dyke was of two periods. The earlier standing on the west edge of the road was 900 mm wide and stood to a height of 400 mm. Its successor completely enclosed it, being 2 m wide and 700 mm high. No evidence was found to date the field-system.

NOTES

1. Margary 1967, 492 Road 9a. Margary fails to note that the 1896–7 excavators demonstrated that the road by-passed the fort to the south-east.
2. Christison and Cunningham 1898, 432 and pl v.
3. A few miles to the north at Parkneuk the road was found to be 19 ft wide in 1967 (*Discovery and Excavation in Scotland 1967*, 37. Cf also *Discovery and Excavation in Scotland 1969*, 38).
4. For post-Roman use of this route further south see RCAHM *Stirlingshire* (1963), 115–16.
5. See n. 3.
6. Cf Frere 1967, 115.
7. Cf Crawford 1949, 34–8 for the latest most detailed discussion of the problems relating to the Flavian fort (with a caveat by I A Richmond in his review: *JRS*, XLV (1955), 213). It is generally considered that the inner ditches are part of the defences of the long (Antonine I?) fort and the two outer ditches added when the fort was later shortened (Antonine II?), and that these have obliterated the defences of the earlier Flavian fort (cf Richmond 1936, 312–14, Steer 1964, 196 and St Joseph 1958, 90). But it may be considered possible that the two outer ditches belong to the Flavian fort with the inner four ditches on the south and east, two on the west and one on the north belonging to the long (Antonine I?) fort, the innermost being filled in when the stone fort was constructed and the two ditches dug eccentrically across the abandoned part of the long fort; this might be thought to best explain the awkward situation at the NE corner. If the ditches are Flavian – which is doubtful – it is just possible that the strip of land between the west ditch of the stone fort and the modern road N of the west gate preserves the line of the west rampart; as far as can be calculated from the disposition of the internal buildings and the siting of the east ditches, the west rampart ought to lie in this position. This turf and timber fort would seem to have had a mixed garrison of legionaries occupying the *retentura* and auxiliaries (possible a *cohors milliaria peditata*) in the *praetentura* a point made independently by Mr G S Maxwell in discussion.
8. St Joseph 1970, 164.
9. Christison and Cunningham 1898, 437 and pl vi no. XII.
10. However, for the occurrence of similar channels or slots in the perimeter ditch of a homestead of the Romano-British period in Northumberland, see Jobey 1970, 63–4.
11. Cf Richmond 1936, 314 and Steer 1964, 196.
12. Crawford 1949, 33. For a possible labour camp NE of the fort (and from its position possibly post-dating the annexe, or at least the decision to construct the annexe), see St Joseph 1951, 62.
13. Roy 1793, 63. Cf Crawford 1949, 33.
14. St Joseph 1969, 114–19 and 1970, 163–78. It is interesting to note that one of the vital pieces of evidence suggesting a post-Flavian date also comes from Ardoch, namely the fact that the east rampart of the 120 acre camp appears to overlie a signal-station which is generally considered to be Flavian.
15. Cf Gillam and Mann 1970, 25ff.
16. St Joseph 1969, 116–19
17. It is hypothetically possible that the stretch of road just N of the fort was rebuilt on a different line when the fort was re-occupied in the second century. There is no evidence for this which, if it had existed, is surprising, for the area has been subjected to intensive aerial photography. It could be argued that the whole road N from the isthmus is Antonine but its relationship to the Gask Ridge signal-stations, from one of which there is now Flavian pottery (*Discovery and Excavation in Scotland 1968*, 29), and the fact that the road appears to continue further N than the present known limit of Antonine occupation at Bertha towards the northernmost Flavian forts would suggest that it is in fact Flavian.
18. Roy 1793, pl x.

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Ardoch, trench 1; road from W showing ruts