

PROBLEMS OF THE ROMAN NORTHERN FRONTIER

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Although the area of the Roman Northern Frontier in Britain is now divided between England and Scotland in antiquity it was never so, and to attempt to study it in two artificial portions, each in isolation, is certainly detrimental to the subject. This fact was realised by Macdonald as it was realised by Richmond, although today we have perhaps tended to lose sight of it. Geographically, the area concerned stretches from the Tyne Valley to Strathmore, and further for there is possibly a case for including the Stainmore Road within the frontier region, and the line of marching camps which runs as far as the Moray Firth must be included. Historically our period opens with Cerialis and continues at least until the middle of the fourth century, if not until the great Stilicho, whose claims against the Irish, Picts and Scots are to be taken more or less seriously dependent on whether the reader interprets the praises of Claudian as literary style or records of historical fact¹. Archaeologically, our latest dated material seems to belong to the time of Constantius Chlorus, although literary references assure us of northern campaigns by Constans, Lupicinus and Count Theodosius. Within this geographical and historical span lies the Northern Frontier of Roman Britain.

Stocktakings are useful things at times. The objects of this paper are to call for closer ties between the Romanists working on the Northern Frontier, and to take stock of the archaeological and historical problems facing them. Space is too short to do more than state the problems, many of which have recently been argued or re-argued in print so that people may feel that some have even been solved. In most cases I would disagree, and I feel that there is nothing to be lost by a restatement, especially if it is a slightly provocative one, which might stimulate people to action.

The Flavian Age. At the moment of writing the spectre of Cerialis is not completely laid. Early pottery exists at Carlisle and although Milton has given up any claim to be Cerialian there are still periodic attempts to see him at Corbridge. The matter will not be settled other than by the accumulation of evidence and the restudy of what we already possess.

Flavian I: The 'Agricolan' Frontier. Our overall knowledge of the first Roman occupation of Scotland is now considerably clearer than it was when the pages of JRS rang to the cries of battle as Macdonald and Davies Pryce/Birley debated the matter. But this is not to say that there are no problems remaining.

The search for more forts is continually being carried out by Dr. St. Joseph. Other areas, particularly the English Midlands, have had their own survey projects based on their own flying, as we in South-East Northumberland have, and results include Webster and Hobley on the Warwickshire Avon Valley, Webster and Stanley on Wroxeter and McCord and Jobey on South-East Northumberland. A plane based on Central Scotland could do so very much more than one based on Southern England, especially when it comes to flying new areas of country or the repeated flying of the sort that the three projects mentioned above required. This is in no way to depreciate St. Joseph's work, but I think he himself would probably admit to heavy overworking at the moment.

Concerning marching camps, the results so far obtained by St. Joseph are outlined in the latest volume of the Journal of Roman Studies² where four series of camps have been identified and tentatively dated. But this is not the end of the story, for even if we accept his dating of the Stracathro and 30-acre camps as Flavian and probably Flavian and the 63- and 120/165-acre camps as Severan, we know that Lollius Urbicus, Ulpus Marcellus, Constantius Chlorus and Constans campaigned in Scotland and presumably built camps during their campaigns. Where is the tangible evidence for these?

Turning to the permanent forts, that between Cardean and Stracathro, the fort at Stonehaven, the fort or forts between Menteith and the Firth of Clyde are the obvious gaps, but there are many others to be sought including the series of which Loudon Hill, Glenlochard and Gatehouse of Fleet are the visible signs. And finally, a point for sheer provocation: we assume Agricola's praesidia where Clyde and Forth 'angusto terrarum spatio dirimuntur'³ lie on the line of the later Antonine Wall. Has anyone ever seriously considered that they might lie north of the Campsie Fells taking full advantage of the great barrier of peat-mosses offered by the Forth Valley and the Vale of Menteith, and run by way of Drymen and Alexandria to the Clyde?

Flavian II: The late Domitianic frontier. Where was the line to which the Roman army withdrew after its abandonment of its northern posts? We know that Inchtuthil, Fendoch and Cardean⁴ are single period forts and their abandonment must have carried Stracathro and any other posts in Strathmore with it. Dalginross and Callander⁵ are less certain, although Callander might well be single period. On the other hand, Strageath and Bertha clearly are more complex, as is Ardoch where a clarification of the situation is long overdue⁶. The enigma of Dunblane, where an apparent temporary camp is defended by a rock-cut ditch⁷, the absence of the site at Stirling and the still untried discovery at Menteith add to the problem.

Concerning the withdrawal the differences of interpretation of the available evidence are best seen by comparing the statements of two of our most recent writers on the subject. In 1967 Professor Frere could argue that 'it became evident that the Clyde-Forth isthmus would have to be the frontier. The forts south of this line in Lowland Scotland were extensively reconstructed, and there were some changes of garrison; but north of it only one fort, at Ardoch, is known to have been rebuilt, and this is probably to be thought of as an out-post'⁸ The same year the late Sir Ian Richmond's posthumous introduction to Tacitus' *De Vita Agricolae* stated 'there is good reason to think that the system of auxiliary forts continued to be held as far north as Strathearn until after the turn of the century'⁹. A recent study of the archaeological and topographical evidence makes me accept Richmond rather than Frere in this matter, and I hope presently to be able to demonstrate that the so-called Gask Ridge signal stations are in reality part of the late Domitianic frontier line, but excavation at Bertha, Strageath and Ardoch is long overdue, and by excavation I mean large-scale work undertaken in each case to settle the problems of layout and modification as well as date. Until this is carried out we will not know the Flavian or Antonine history of these sites.

Structurally, there is still much to be done to improve our knowledge of both early and late Flavian forts. Corbridge I is now known not to be exceptional in size or shape, so that there is an even greater onus on us to recover the full interior plan of Dalswinton with its apparent tripartite division of the retentura.¹⁰ Many of the Flavian I northern forts are large in size: Stracathro, Cardean, Bertha, Dalginross, Ardoch and Menteith¹¹. Why? Did they all contain mixed garrisons as Corbridge and Newstead certainly did in Flavian II¹², or are they rather to be seen as examples of the liberal space allocation allowed the Flavian army in its fort interiors, paralleled at Fordon Gaer, Caersŵs II and Brecon Gaer in Wales¹³, all apparently of only slightly earlier date, and at Newstead, Castledykes, Glenlochar and Dalswinton, inter alia, in Flavian II nearer home¹⁴? Only systematic excavation planned to recover internal details will give us the answers.

The Reign of Trajan. Frere argues that the 'retreat from Southern Scotland under Trajan is, then, best regarded as a planned withdrawal decided upon after a review of manpower, and as a result of the need for more men on the Danube, and not as a retreat enforced by a victorious rising in the north'¹⁵. Newstead and Corbridge he is prepared to see sacked by enemy action, but the burnt layers elsewhere he interprets as evidence that the Roman garrisons destroyed their posts, the timbers of which had already served half their useful lives, before withdrawing south. But even if we admit that there is not yet sufficient evidence to prove a military disaster in Lowland Scotland, there

is certainly a stronger case for enemy action than Frere admits. He accepts the destruction at Newstead on account of the military equipment, etc. buried in the early pits and that at Corbridge because the site lies too far south to be included in the area abandoned. But, if these sites are sacked it is difficult to exclude the burning at Cappock, High Rochester, Blakehope and possibly even Oakwood from the same activity, whether it be the rising of a local tribe or a straight drive down Dere Street from the north. Seen in this light one cannot really argue that there was no enemy participation in the withdrawal even if the burnt levels at Camelon, Castledykes, Crawford and Glenlochar are attributed to a different cause¹⁶. So far, the only real evidence for a peaceful abandonment is to be seen at Milton and Broomholm where the later Flavian forts appear to have been dismantled¹⁷. However, to state this is only to admit that conditions in the West may have been different from the widespread destruction in the East. The problem is essentially one to be solved by excavation rather than argument.

Once out of Scotland the next question is where was the effective Trajanic frontier? Collingwood argued in favour of the Stanegate, where he created the Trajanic limes. Richmond accepted the idea and remembering the interval forts of the German frontier, added similar posts to the Stanegate line; and Birley filled in the details, embracing the whole as an established fact (although not necessarily all Trajanic in date)¹⁸. Yet if we subject this limes to the searching eye of scrutiny we find that not only is the date of many of its components weak, but its overall existence as a regular system is scarcely stronger. Although there may be a good theoretical case for a Stanegate limes the physical evidence for it is still greatly lacking and certainly does not substantiate a recent statement to the contrary¹⁹.

First, the line of the road as we now draw it is far from satisfactory. From a screened and blind position at Corbridge it (putatively) half follows the Tyne Valley and half skirts it, until it climbs on to the ridge which carried it from Newbrough to Chesterholm. Both the crossing of the Bradley Burn and the Haltwhistle Burn are weak, with the former dominated from the North. Thereafter it takes a slightly stronger line until it is lost beside Nether Denton fort. From here as far as Old Church it is unknown, and the two lengths shown by the Ordnance Survey do not follow the obvious, tactical route. At many points the road is dominated from the north while at others visibility from it is bad and it is known neither east of Corbridge nor west of Linstock, a fact which reminds us that Horsley and the older antiquaries knew it only between the North Tyne and Tipalt Burn, that is no further west than Carvoran. A further point of Horsley's, that it swung north to join Dere Street, or Warburton's that it ran to the Devil's Causeway and then obliquely across the Northumberland

plain are hardly to be taken seriously, although from time to time the general principle is resurrected.

Next, the forts are by no means as securely attested or dated as is often suggested. They are, theoretically alternating fort - interval fortlet - fort, and listed from the East: Corbridge, Wall (Acomb), Newbrough, Grindon Common, Chesterholm, Haltwhistle Burn, Carvoran, Throp, Nether Denton, Castle Hill Boothby, Brampton Old Church, High Crosby and Carlisle. Yet of these, that at Wall/Acomb is still to be found, Newbrough so far has produced only fourth century pottery and structures, Grindon Common has never been excavated while our earliest pottery from Carvoran is Hadrianic²⁰. Throp and Nether Denton, as Corbridge, Brampton and Haltwhistle Burn, are satisfactory, but Castle Hill Boothby and the very existence of Crosby argued solely from a fragment of a Samian ware bowl and a 'Hadrianic' mortarium rim mentioned but not published, are a little weak; and the road has still not been traced to Carlisle. In addition, the early site at Castlesteads, attested by a turf rampart and ditch system, needs to be considered. This means that half of the forts are uncertain while others have produced no more evidence than a few sherds of the right date. Finally, the date and development of the system is also contested. Corbridge, Chesterholm, Nether Denton and Carlisle are Flavian foundations. To this four, Newbrough, Carlisle and Old Church were added to form the framework of the limes system, completed by the interval fortlets and signal stations. But Carvoran and Old Church have produced nothing pre-Hadrianic and Newbrough is fourth century while at Chesterholm at this moment it looks as if the pre-Flavian fort may be no larger than Haltwhistle Burn fortlet²¹. Of the interval fortlets, Wall/Acomb and Grindon are unknown or undug, the size and shape of Castle Hill Boothby is not known, nor even the existence of High Crosby. Only Haltwhistle Burn and Throp are secure and of the right date. In addition, the date of the components and the final system is still shunted backwards and forwards between Trajan and the early years of Hadrian's reign: in spite of Birley's statement that Brampton and the interval forts are early Hadrianic (the 'proto' arrangement of Hadrian's Wall), Gillam and Dobson now both agree that the system is Trajanic²².

To stress these doubts is not to say that there was no Trajanic frontier on the Stanegate, but rather that too often we take it as an established fact when it is not yet archaeologically proven. As Hartley has stressed, 'there is moreover a tendency for theories, originally expounded clearly as theories, to become matters of dogma'²³. With the Stanegate the dogma has far outstripped even the theories. Fieldwork, excavation and a reconsideration of previously produced material are all necessary.

The Reign of Hadrian. And so to Hadrian's Wall. Here, the considerable research carried out between the wars and in the early fifties has solved many of the problems of date and sequence although some still remain, especially those concerning the 2nd century (to which we will turn later).

Structural problems can be marshalled into several groups. Typical of those now unlikely to be solved except by some chance find, or a completely new approach, are the outstanding questions concerning the height of curtain wall and the turrets, and whether these latter had flat or pitched roofs. Amongst the problems which can be solved by excavation, although often this would be difficult and expensive, are the reasons for, and arrangement of, the variations in Wall width to the east of the North Tyne and the line of the Wall and position of the fort in Newcastle. On a larger scale, but still quite capable of solution are questions concerning the original anatomy of almost every Wall fort and, in many cases, the later internal development as well. Hand in hand with this go questions of the nature and strength of garrisons which in spite of our considerable epigraphic and archaeological evidence are far from solved, as Messrs. Breeze and Dobson have recently shown by their pertinent questioning²⁴.

A separate category of questions concerns matters which are not really structural at all. In spite of Horsley's correct identification of the Roman names of many of the eastern and central forts and Richmond's interpretation of the Rudge Cup there are still uncertainties, of which Banna v Magnis, with Fanum Cocidii in attendance, is the most obvious²⁵. Similar is the composition and size of the milecastle garrisons, which we may never know.

The major question for debate in recent years is perhaps in a different class from the others in that it has now become more an intellectual exercise than anything else: that of How and When was the Wall Built? Perhaps someone will eventually attempt to computerize the evidence in an effort to cut out the human element, although I suspect that it is the mental exercise of playing with the pieces rather than the answers which amuses the High Priest of Wall lengths and Standard A and Standard B²⁶.

To list the questions in this way is, perhaps, to play with them, but it does show that the major structural problems concerning Hadrian's Wall are not nearly so many or fundamental as those concerning the Stanegate or the Antonine Wall. To sum up: the main questions are not those of location - a few turrets and milecastles and the line of the Wall and composition of the fort in Newcastle are the main points here. Much more important is our lack of the complete anatomy of forts and their vici, a gap not likely to be filled by digging

in nasty narrow trenches. On Hadrian's Wall our real problems are historical ones and run hand in hand with their counterparts on the Antonine Wall, to which we will now turn.

The Age of the Antonines. The Antonine Wall. If the structural problems concerning Hadrian's Wall are those of anatomy rather than location, this is not true of the Antonine Wall²⁷: Bridgeness (if you follow the Ordnance Survey map), Kinneil, Inveravon, Falkirk, Seabegs and Bearsden are still unknown while Carriden, Auchendavy, Kirkintilloch and Castle Hill also present considerable problems; that is almost exactly half of the forts - if you exclude Watling Lodge, Glasgow Bridge and Wilderness Plantation from the list. Next there is the question of these three last-named fortlets, or four if you include Duntocher I and five if you add the anomaly at Rough Castle²⁸; and also the expansions. To admit this is to admit that we do not yet know if 'interval' or 'mile' fortlets existed on the Antonine Wall nor if there were 'turrets' in the system. However, the answers to such questions can materialise quickly. For comparison let me recall that as late as 1911 the turret system on Hadrian's Wall was not even known to exist, let alone worked out, for only three had been recognised at that time. It was in 1912 that someone realised the spacing, and discovered the system, while it took a great deal longer for someone else to work out the turrets and mile-fortlets on the Cumberland coast.

The major outstanding problem, however, is that of the relative occupation of Hadrian's Wall and the Antonine Wall and the adjacent forts which make up the rest of the frontier complex. This has recently come sharply into focus again with the questioning of even such traditionally accepted dates as A.D. 197, and the whole matter must be considered very carefully. The crux is the paucity of fixed dates and their apparent absence after the middle of the second century. The construction of Hadrian's Wall in the governorship of Platorius Nepos and the Antonine Wall in that of Lollius Urbicus are probably our only clear and certain fixed points. These give us the beginning and end of Period I a on Hadrian's Wall and the beginning of Period I on the Antonine Wall. Thereafter things become increasingly uncertain. There seems to have been trouble in the province in the late 150s and early 160s, possibly on two separate occasions, for rebuilding is attested under Julius Verus and Calpurnius Agricola, whom the Augustan History tells us was sent against the Britons²⁹. The destruction that necessitated the rebuilding of A.D. 158 is generally taken to mark the end of Antonine Wall Period I: thereafter we have one further period of occupation of both Hadrian's Wall and the Antonine Wall in the second century, but we still do not know the order or date of these, in spite of much recent argument and discussion. This is our main problem and it mostly centres on the absence of dating criteria for the latter part of the

century. There are no building inscriptions, precious few coins and apparently no Samian ware to date the latter period of either Wall, only coarse pottery. Whichever way this is considered, the absence of late 2nd century Samian ware on both Walls is a major embarrassment. Here the potential of Carpow, with an apparent late Antonine period of occupation is all important. Unfortunately, however, the site appears to be the sole one where we can hope to isolate late Antonine material.

The arguments arising from the Mumrills excavation I do not propose to restate³⁰, but in passing will make two remarks. First, that it is most disappointing that this site did not provide the desired answer to the problem of the date of Antonine Wall Period II, and second that the question raised by the disparity of date between the coarse and Samian ware from the site is still far from answered in spite of the present tendency to think that a study of the Samian ware from Scotland will provide an irrefutable answer. Late 2nd century coarse ware does exist at Mumrills even if the Samian ware does not.

Further questions include the date of the Brigantian revolt, not necessarily located in the 150s, and the real date of the end of Hadrian's Wall Period I b - the traditional A.D. 197. This 'fabricated' date has had an interesting history: Craster, working on the coins from Simpson's Poltross Burn excavation, gave our first Wall sequence: Period I A.D. 122 - c. 180 with phases I a and I b indicating the two occupations attested within it. Period II lasted from the rebuilding of the Wall after A.D. 181 to about A.D. 270, Period III from then until the middle of the 4th century, with a putative Period IV beginning about A.D. 370. As a result of the 1929 season at Birdoswald, Collingwood, with Richmond as the sorcerer's apprentice, revised this on the grounds of a Severan inscription dated A.D. 204-8 and a Diocletianic one dated A.D. 297-305. Collingwood argued that Hadrian's Wall Period I should run from A.D. 122 to 197, when Albinus stripped the province bare taking most of the British army to Gaul, and Period II from c. A.D. 205 to the end of the 3rd century. Birley further worked out the details, and this view has held the field ever since³¹. Actually, it has had a pretty good innings of over 40 years, and when one considers what little evidence there is for it perhaps one could even say an incredible innings of over 40 years. Both the destruction in Commodus' reign which brings Ulpius Marcellus to Britain and the war which brings the Severi have stronger cases, although there are still problems attaching to each³². At the moment Craster's date of A.D. 180 seems to be a much more satisfactory one than 197. Messrs. Gillam and Mann are shortly to publish their appraisal of the whole of this problem, which we must await for the latest discussion of the point.

One problem which is nearer a solution is that of the third period of occupation of the Antonine Wall. Richmond showed that there was no Antonine III at Newstead: MacIvor did not get a third period at Rough Castle although Macdonald had and Steer proved it did not exist at Mumrills. What goes for two Wall sites can go for others, and McCord and Tait only got a tidying up - and no more - at Camelon³³.

Finally, some questions which do not concern the Wall. Glenlochar and Loudon Hill stick out literally and metaphorically to emphasize our ignorance of the western 'edge' of Roman Scotland in the second century. Where are the rest of the forts in this area? In neither the Flavian nor Antonine periods do we have a satisfactory picture of this area. Similarly, the northern forts present problems and it is high time we knew the Antonine history and anatomy of Bertha, Ardoch and Strageath, to mention only the most obvious sites.

Later Problems. From the end of the 2nd century onwards we see the picture less clearly and also the problems. On Hadrian's Wall there is the Severan rebuilding, the use or abandonment of turrets and even some milecastles. On the Antonine Wall the third period has already been mentioned. Further north the Severan campaigns are slowly being given their archaeological reality by Dr. St. Joseph while the work of Messrs. Birley, Wilkes and Leech at Carpow is of the greatest importance. But if Carpow, what of other sites? South Shields is now much more fully recorded, if still unpublished. What of other ports or protected anchorages between, and what of the inland sites?

In addition, we have the late anatomy of the Hadrian's Wall forts to consider: the contubernae at Housesteads and elsewhere, the domestic occupation of granaries and headquarters buildings and other new arrangements which in effect turned the forts into fortified villages. The late anatomy of the Stangate forts is completely unknown as is that of the forts on Dere Street. St. Joseph's recent photograph of Risingham shows what can be revealed from the air, but frankly I think that it is much more likely to show a late medieval fortified village of the same sort as that still occupying High Rochester, than the Roman interior plan³⁴. If excavation at Bertha, Ardoch and Strageath is overdue it is equally overdue at Risingham and High Rochester, especially in the case of the former where the site is entirely free of obstruction.

A formidable list; what are we doing about it all? Too little, I fear, although a few people are certainly not shirking the task. The main shortage, and a universal one, is money. This shortage is likely to get worse as more of the simple answers are found and we are forced back on the complex matters which require large-scale excavation, including the stripping of fort interiors.

The problem is not limited to any one area and seems to apply equally on either side of the border. The next problem does concern Scotland specifically, for there is a very great shortage of trained Romanists north of the border. When one studies the pages of JRS and Discovery and Excavation it is quite clear that since the last war the vast majority of Roman work in Scotland has been carried out by a very small number of people, one of whom was based successively at Newcastle and Oxford in any case. Also, amongst the ranks of the Roman excavators in Scotland there is a certain number who are based south of the border. What is clearly needed in Scotland is a full-sized teaching and research department in a university devoted to Roman Studies. I think one probably cannot stress this point too strongly. We also need organised seminar and discussion meetings for those who are actually concerned with the planning and carrying out of work in the field which will bring together workers from the whole area of the frontier. The possibility of a seminar now seems quite likely; that of a University department is further away, but should be striven for with no less determination and perseverance.

Footnotes

1. Possibly the most convenient collection of literary references concerning the Northern Frontier is J.C. Mann: The Northern Frontier in Britain from Hadrian to Honorius: Literary and Epigraphic Sources (1969). Claudian - Nos. 202-3.
2. JRS LIX (1969), 104.
3. Tacitus: Agricola 23.1.
4. I.A. Richmond and R.M. Ogilvie: Cornelii Taciti De Vita Agricola (1967), 76 for Inchtuthil and Fendoch. JRS LIX (1969), 202 and LVIII (1968), 177 for Cardean.
5. JRS LII (1962), 162 for Dalginross. JRS XL (1950), 92, XLI (1951), 120 and XLIV (1954), 86, and Trans. Glasgow Arch. Soc. XIV (1956), 35 ff. for Callander - Bochastle.
6. For Strageath, Ardoch and Bertha see O.G.S. Crawford: Roman Scotland (1949), Chaps. III and IV.
7. Dr A.S. Robertson: The Roman Camp(s) on Hillside Farm, Dunblane, Perthshire (Glasgow Arch Soc. 1969). The camps are apparently without structural remains which makes the rock-cut ditches difficult to explain.
8. Britannia (1967), 120.
9. Richmond and Ogilvie: Tacitus, 76.
10. Corbridge: the results of unpublished work in recent years. Dalswinton: Trans. Dumfries and Galloway Soc. XXXIV (1955-6), 9 ff.

11. That is camps of 6 acres or more in size: JRS LI (1961), 123, LV (1965), 83, LIX (1969), 109 and Crawford: Roman Scotland Chap. III, for Stracathro, Cardean and Bertha, Menteith, Dalginross and Ardoch.
12. AA⁴ XLVI (1968), 126.
13. Nash-Williams/Jarrett: Roman Frontier in Wales (2nd edition 1969), 48, 66 and 85.
14. Richmond: PSAS LXXXIV (1949-50), 1-38, Robertson: Castledykes (1964), 13, and fig. 5, Trans. Dumfries and Galloway Soc. XXX (1951-2), 1-16 and refs. in note 10 above.
15. Britannia, 122.
16. See bibliography Britannia, 394-5, note 14 above, JRS LIV (1964), 155, and information supplied by Mr Tait for Camelon.
17. JRS XLI (1951), 122, and unpublished results of the writer's excavations.
18. Collingwood and Myres: Roman Britain and the English Settlements (1936), 126 ff., and Birley: Research on Hadrian's Wall (1961), 134 ff. for bibliography of Stanegate.
19. B.R. Hartley: Northern History Vol. I (1966), 15.
20. Contrary to Birley: Research, 134 where it is said to be likely to be Flavian.
21. Archaeological News Bulletin for Northumberland, Cumberland and Westmorland No. 1 (June 1968), 5.
22. Mr Gillam tells me that he now believes the forts and interval fortlets to be built c. A.D. 105, immediately after the retreat from Scotland.
23. Northern History, loc.cit., 7.
24. AA⁴ XLVII (1969), 15 ff.
25. Horsley: Britannia, Richmond: AA⁴ XII (1935), 334 ff., Research, 192.
26. AA⁴ XXVI (1948), 1 ff. and C.E. Stevens: The Building of Hadrian's Wall, C & W extra series XX (1966).
27. Macdonald: Roman Wall in Scotland (2nd edition 1934), Robertson: The Antonine Wall (third reprinting 1968) and Steer: AA⁴ XLIII (1964), 1-39.
28. Ant. Wall, 56, 79 and 87.
29. Mann: Sources 62-74 and J.P. Gillam: Trans. Arch. and Ant. Soc. Durham and Northumberland X (part IV 1953), 359-76.
30. PSAS XCIV (1960-1), 86-132.
31. CW² XI (1911), 390 ff., Antiquity IV (1930), 102-4 and AA⁴ VIII (1930), 164 ff.
32. Mann: Sources 83 and 112.
33. Newstead loc.cit., Mumrills note 30 above, Rough Castle information supplied by Mr Gillam and Camelon information supplied by Mr Tait.
34. JRS LIX (1969), pl. III.1.