

ART. IX.—*The Roman Camps at Reycross and Crackenthorpe.* By I. A. RICHMOND AND JAMES MCINTYRE.

THE two camps here described were first studied conjointly by General Roy\* in 1769, when Reycross had not been quarried for limestone and Crackenthorpe was yet unploughed. The former camp has only been summarily described in these *Transactions* (o.s. v, 70-75), in connexion with the historic cross which gave it a name; but like the cross, it once lay half in Westmorland, and an even better reason for describing it here, is its close and illuminating connexion with Crackenthorpe. The latter camp was described by Chancellor Ferguson in 1890 (*Ibid.*, o.s., xi, 312-13), but without attempting to test Roy's plan by indications on the ground, a process which still yields information, if faintly.

The writers visited Reycross in 1932, and noted the north-east angle of Crackenthorpe while speeding across the site on the same journey. Crackenthorpe was examined, in the company of our member, Mr. C. E. Stevens, during the autumn. The surveys were made on 30 August, 1933, with steel tape and prismatic compass, each occupying just over two hours.

(1) REYXCROSS CAMP. The Roman road crossing Stainmore from Bowes, with which the modern road coincides until the seventh mile, climbs steadily for six miles, rising from 900 to 1480 feet above sea-level. The western descent then begins, very gentle for two miles, until the green track drops over the shoulder of Beldoo Hill at the Roman patrol-station of Maiden Castle. On the actual summit, before the memorable view of Cumbria unfolds, General Roy noted the great

\* *Military Antiquities of the Romans in North Britain*, pl. xvii.

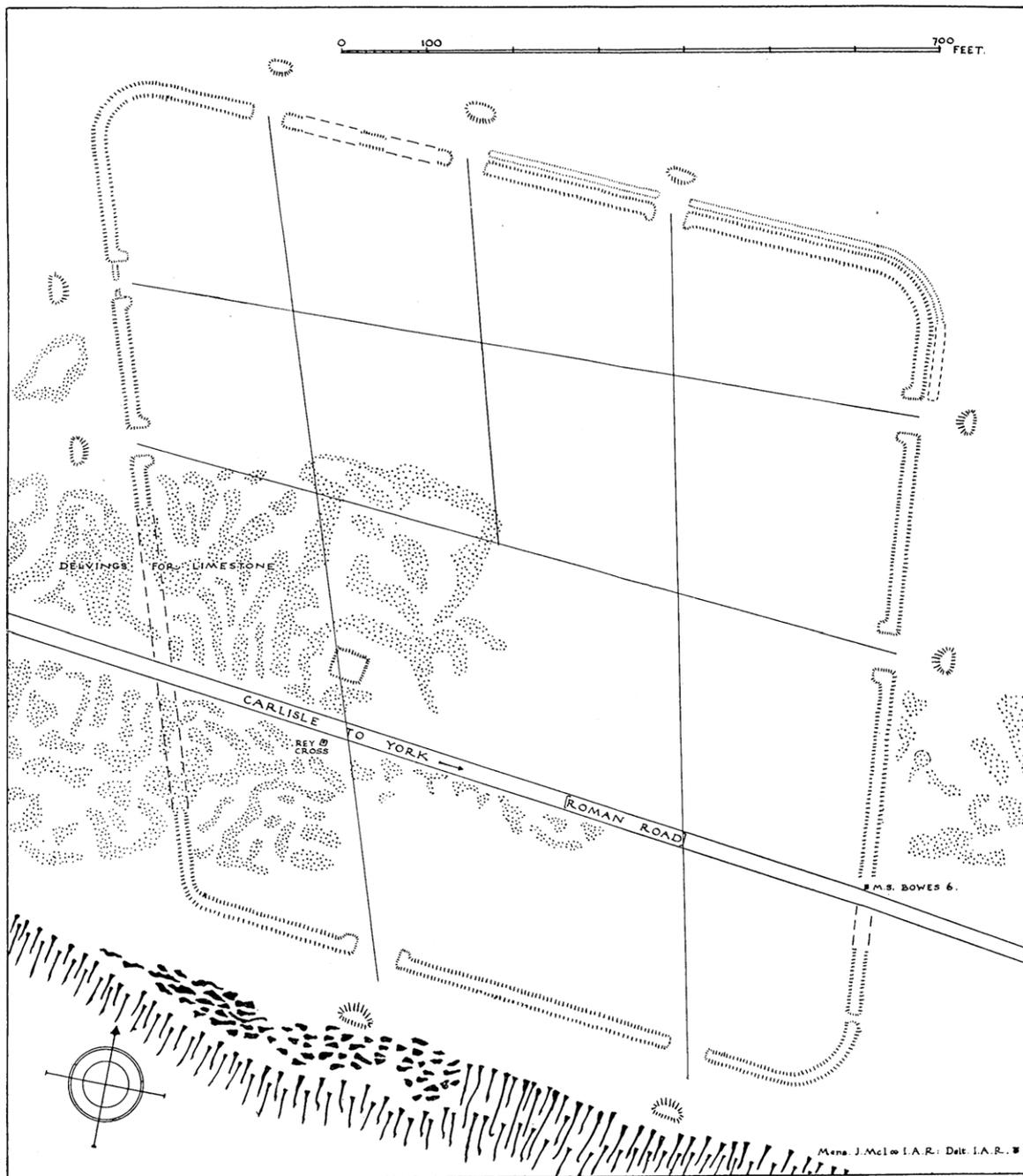


FIG. I.—REYCROSS CAMP.

camp astride the road. Estimating its size as three hundred yards square, he observed (p. 73) that "Two gates on the west side are entire and covered with tumuli. The Roman way leading to Bowes, which is likewise the present turnpike road, hath entered by another gate on that side, and issued by one opposite to it, neither of which could, of course, have any cover. On the north side three gates, with their tumuli, can be traced; two on the east, and two on the south, overlooking the steep bank of the river Greta. Rey-cross stands within the camp, by the edge of the road and seems to have been a Roman milestone, having a fine square tumulus fronting it, on the opposite side of the way." Now the Rey-cross is no milestone but an Anglian monument, as our late President authoritatively established (*Ibid.*, N.S. xxvii, 1-10). But nothing can be detracted from the rest of Roy's statement. Indeed, it looks as if Roy could see the rampart closer to the modern road than we can, since he decided that the road passed through gates where we can only see wide gaps. Again, little now remains of the "fine square tumulus" opposite the cross, near which, according to Maclauchlan,\* workmen found pottery of unspecified date. Hutchinson,† a little later than Roy, says it was a square mound, three feet high and 53 paces in circumference.

There remains only one camp (fig. 1), not two; and Maclauchlan's doubt as to its Roman date may be dismissed. The irregular planning, which puzzled him, is common even in permanent Roman works and connotes either misuse of sighting-lines (the *groma*) or reliance solely upon ten-foot rods (*decempedae*), used by camp-surveyors (*metatores*) on service, with red and white flags and spears.‡ Along their centre-line, the ramparts, now

\* *Archæological Journal*, part 24, 1849, pp. 11-14.

† *Excursions to the Lakes in 1773*, p. 14.

‡ Polybius, vi, 41, 7.

twenty-one feet wide, measure 797 ft. (south), 966 ft. (east), 1008 ft. (north) and 980 ft. (west). The resultant shape is a quadrilateral, with angles turned in sweeping curves. Nine out of the eleven gates detailed by Roy still retain their traverses\* (*tutuli*), unquestionably Roman in type and position. The open site thus defended is a limestone shelf, covered with fine green turf. On the south, a steep rocky slope falls to the Greta, whence a small army could derive its water. The eastern slope is long and gentle, the west side is almost level, though cut by the Rowton Beck. On the north, the limestone bed tilts under a peat moss, now engulfing part of the rampart. Though well drained, the position is terribly bleak and windswept. Permanent quarters would be placed in no such situation: indeed, the Roman ones lay in shelter, six miles eastward at Bowes and seven to the west at Brough. This earthwork is temporary, being in fact a superb example of *castra aestivalia*, placed at the gate of Cumbria by an army intending to march deep into that territory the next day. The excellent state of the remains makes them peculiarly precious, while their form enables an exceptional amount of information to be deduced about their constructors.

(a) *The rampart.* The normal procedure of a Roman army on the march was to build round its sleeping-quarters a rampart of turves, or to surround them with a ditch. At Reycross, the rock, lying very close to the surface, made the turf friable (*soli natura nimia teneritate cespes frangitur*)† and a ditch impracticable. Accordingly, the principle invoked, in Roman text-book words, was *aggeribus . . . fit vallum, si locus petrosus aut arenosus fuerit*,‡ and the rampart was made from surface material

\* *De mun. castr.* 49, 50. It is possible that the mound should be called *lorica*; for the text, freed of emendations, reads "*et lorica . . . similiter ante portas ut titulus ad fossas.*"

† *De mun. castr.* 51.

‡ *De mun. castr.* 53, the rest of the statement being very corrupt. It is interesting to compare the Persian use of sand-bags (Vegetius, iii, 10).

lying on the site. The result was a *vallum* differing considerably in composition though uniform in size. In the central sector of the east side or in the west and central sectors on the south, much rock is visible. The west rampart and west sector of the north rampart are, as revealed by rabbit-scrapes, of fine sandy soil gathered from the surface. The east sectors of the north rampart and the north sector of the east rampart are upcast from a ditch. How the central sector of the north rampart was built is hidden by the peat, but it was probably derived from a ditch also. The diverse construction thus revealed is not without parallel\* and shows a quick appreciation of the resources of the site. The rampart is now twenty-one feet broad at the base, a dimension which, allowing for spread, suggests an original width of about sixteen feet and a height of some eight feet, excluding any stakes that may have been used. This is a different scale from the 'eight-by-six' rampart prescribed† when building in turf or stone, but something like it is imposed by the loose material employed.

(b) *The ditch.* This runs only at the north-east angle and along the east end of the north rampart. It is now about ten feet across. Only excavation could determine its true proportions.

(c) *The gates.* All now existing are of the same pattern, consisting of a simple opening covered by a traverse. The east gates (central and north) are 40 ft. wide. The widths of the north gates are 36 ft. (east), 40 ft. (central) and 35 ft. (west). The west gates are 40 ft. (north) and 32 ft. (central) across. Those in the south rampart are 50 ft. (west) and 43 ft. (east) wide. The *tutuli*, or traverse-mounds which cover the opening, and render an oblique entry necessary, are planned like half-moons, with flat face towards the front. The mounds

\* Cf. Raedykes, *P.S.A. Scot.*, 1, 344; *Tac. Ann.* i, 50.

† *De mun. castr.* 50, "sufficit latum pedes viii, altum pedes vi."

have slightly variant proportions, no doubt depending upon material used, but also markedly different spacing between their centre and the centre of the gate. The eastern group measure; centre, 62 ft. out ( $35\frac{1}{2}$  ft. by 29 ft.); north, 60 ft. out (34 ft. by 26). The northern examples are; east,  $47\frac{1}{2}$  ft. out (34 ft. by 20 ft.); centre,  $60\frac{3}{4}$  ft. out (36 ft. by 24 ft.); west,  $59\frac{1}{2}$  ft. out (30 ft. by 20 ft.). The west pair are; north,  $67\frac{1}{2}$  ft. out (36 ft. by 25 ft.); centre, 66 ft. out (34 ft. by 25 ft.). The southern pair measure; west, 73 ft. out (40 ft. 31 ft.); east,  $72\frac{3}{4}$  ft. out (35 ft. by 30 ft.). These dimensions suggest that while the gates were clearly made to a standard width of about forty feet, the *tutuli* were placed differently by different working-parties. Their spacing mostly conformed to the sixty-foot text-book standard, but dropped below it on the northern ditched sector and rose above it on the south and west. The differences may be taken as proof of sectional building, the kind of work whose speed, according to Josephus,\* outstripped imagination (*θάρτρον ἐπινοίας*). The openings thus defended were also equipped, except the central and west north gates, with returns on each side, defining the *angustiae portarum*:† these were ramps, as at Cawthorn,‡ and the gate between them was blocked, in time of need, not with doors but with a living wall of men.§ Doors were fitted to temporary camps only during sieges:¶ but sometimes a gate was walled up,¶ and it is worth noting that the northern west gate is reduced to a width of ten feet by a narrow bank, clearly intended for this purpose, if of unknown age.

(d) *Street-lines and castrametation.* No street can now

\* Josephus, *Bell. Iud.* iii, 5.

† Cf. Livy, xxxiv, 46, xl, 25; *Agricola*, 26.

‡ *Arch. Journ.* lxxxix, 31-2.

¶ Cf. Caesar, *B.G.* vi, 38.

§ *Bell. Gall.* viii, 9, "Portis fores . . . imposuit."

¶ *B.G.* v, 50-51, as a sham.

be seen, and it is unlikely that any metallised road existed. But a Roman camp was divided into regular blocks (*pedaturae*) assigned to definite units,\* ranged along regular streets, and in the extant examples we can always recover the lines of the principal streets by joining up opposite gates. The number of gates is, however, usually so small that the operation gives only main divisions, too large to allocate to one unit alone. At Reyccross the gates are exceptionally frequent, and by joining them up we get a framework which must have a story to tell.

The striking feature is the quartering of the troops in a series of regular squares round the rampart, divided from the inner portion of the camp by the *via sagularis*.† The form of the squares is distorted by the bad setting-out of the angles, so that some are exceptionally large. But the basic size, from which the distortion proceeds, is visible towards the west, and works out, allowing for an *intervallum* road, at about 150 feet. This is exceedingly interesting, because that allowance is known to be given to a quingenary cohort‡ when arranged in a square: and the ten such spaces, together with one oblong formed by two more, imply ten quingenary cohorts and one of double size. This in itself is a rare enough result to ascertain by simply planning the ramparts of a field-work. But still another implication follows. The one group of some ten cohorts that regularly operated as a coherent field-army was a legion: and it can be no mere coincidence that the numbers emerging here exactly correspond to the full complement§ of a legion in the field; namely, one milliary cohort, nine quingenary cohorts and one body of *vexillarii*, to which the space of a cohort was assigned. General Roy|| considered this camp to be a

\* *De mun. castr.* 1, 2.

† *Ibid.* 3, not to be confused with the *intervallum*.

‡ *De mun. castr.* 2.

§ Vegetius, *de re militari*, ii, 6; cf. *de mun. castr.* 3, for double size of cohort 1, and 5, for *vexillarii*.

|| *Op. cit.*, p. 73.

work of the Sixth Legion, on typological grounds which cannot be accepted to-day. But, eliminating the numeral, we can accept the camp as a legion's work on grounds which he did not adduce, but of which the cogency cannot be denied.

Inside the *via sagularis* there remains a plot roughly 300 feet square. This, bisected in one direction or another, gives two spaces, for the *praetorium*, with its guard of *equites legionis*, and for the *praefectus castrorum* and six *tribuni militum*. In the latter space, there would also be room for the ambulance-tent and work-shop.\* To judge from the position of the first cohort, which ought† to be near the standards, on the *via principalis*, that street should have run from north to south: but this supposition involves an arrangement based on principles associated with tertiare camps, planned in the proportion of 2: 3, and this is to be eschewed. Thus, while it is possible to suggest a disposition for the camp inside the *via sagularis*, any suggestion has in the present state of knowledge no value compared with the fact unquestionably implied by the outer disposition.

Returning, then, to the arrangement outside the *via sagularis*, it must be observed that Reycross camp is an undoubted example of the square castrametation which was replaced by the tertiare plan laid out in long narrow blocks, as described in *de munitionibus castrorum*. If that work‡ were precisely dated, it would give a rough date for the camp within the Roman period: but the proposed dates cover all the second century and run into the third, a matter not settled nor ripe for summary here. Actual remains do not help much. Had the work been

\* *De mun. castr.* 3.

† *Ibid.*, *loc. cit.*

‡ It must be remembered that the work itself is a fragment, to which both title and author were only assigned in a medieval rubric. Despite some more recent conjectures, the title is inapposite and the author hypothetical.

permanent, the square form would have suggested a pre-Hadrianic date; but, though practice in the field was sooner or later influenced by the theory applied to permanent work, dated field-works are scarce. Yet the one indubitably Agricolan camp in Scotland, hard by the fort at Newstead,\* has sides in the ratio of  $13\frac{1}{2}:16$ , and a *via principalis* coming almost at one third. Thus, here at least Agricola's army was adopting a metation coming between the square and the tertiate oblong then being introduced in permanent work at Chester and Caerleon, not to mention contemporary examples in other provinces. This is not to say that the square form went clean out of use: but the presumption is created that its days were already passing. Another point, observable on the ground, also suggests an early dating. As noted by General Roy, the Roman road ran through two of the camp's gates, where, he suggests, *tutuli* were not provided. Camps lying athwart a main road and blocking it are very rare: they usually lie to one side. But at the east gate of Reycross the road kinks by three degrees, as is very clear on the Ordnance Map and on an aerial photograph placed at our disposal by the Archaeological Officer, Mr. O. G. S. Crawford. This suggests that the road was laid out aiming for the gate, and changed direction inside it; in other words, that the camp was already there. If so, the camp would be early indeed, for the making of the road† can hardly have been postponed beyond the early years of Agricola's governorship. The camp would belong to the first Roman invaders of Cumbria, which is exactly what its position suggests. Later marchers, sure of their ground, would hardly have halted here.

\* J. Curle, *A Roman frontier post*, p. 16. One may compare the earliest camp at Chew Green, which measures 990 by 990 ft. square, with a mound outside its one visible gate (west); see Bosanquet, *Hist. of Berwickshire Nat. Club*, xxv, pp. 63-4, and pl. ii.

† Six-Inch Ordnance Map, Yorks. (N.R.) sheet xi, S.W.; Air-photograph, Site 602, no. 6898, which does not, however, include the whole site.

‡ Cf. P. Ross, *Transactions*, N.S. xx, 10.

One more point is worth a few words. The "fine square tumulus," noted by Roy and by Hutchinson, is a reality and can still be picked out among the limestone delphs. The present indications are of a slight mound opposite the cross, thirty feet from north to south, and thirty-seven from east to west,\* with sharp angles. This is not like any tumulus; yet, if the cross was really set upon it, and our late President† thought the statements of Leland and Gibson to have implied such a site, the mound marks something of respectable age. Excavation might yet solve the problem, and perhaps yield a Roman signal-tower connected with Maiden Castle.

(2) CRACKENTHORPE CAMP (fig. 2). When Roy saw the camp, it lay on a common, and was imposing enough to be compared with the south camp at Birrenswark. To-day, the plough has done its work, reducing the rampart to a broad platform with rather sharp outer edge, and filling up the ditch so as to be visible only at the north and south angles. But the right crop conditions would show all to a skilful observer from the air.

The north field south-west of the main road has been ploughed but is now pasture. In 1932, Mr. C. E. Stevens and the first writer were able to pick out the portions of the north-west and south-west ramparts in this field, together with one gate, as shown by Roy, in the latter rampart. But we thought that the mound in the hedge-bank on the edge of the main road, taken by Roy for part of a *tutulus*, was formed by shovelling back earth to make a gap in the bank itself; and, the distance from the rampart, being much greater than at the other *tutuli*,

\* These measurements would give a circumference of 134 ft., which accords not badly with Hutchinson's 53 paces.

† *Transactions*, N.S. xxvii, 7, for a quotation of these very confused statements. Our President did not take into account this particular mound, but suggested one of the camp *tutuli*. This is always possible, but the mound by the road is the more likely spot, the cross-shaft being put on the other side of the road when this mound was despoiled of its stone.

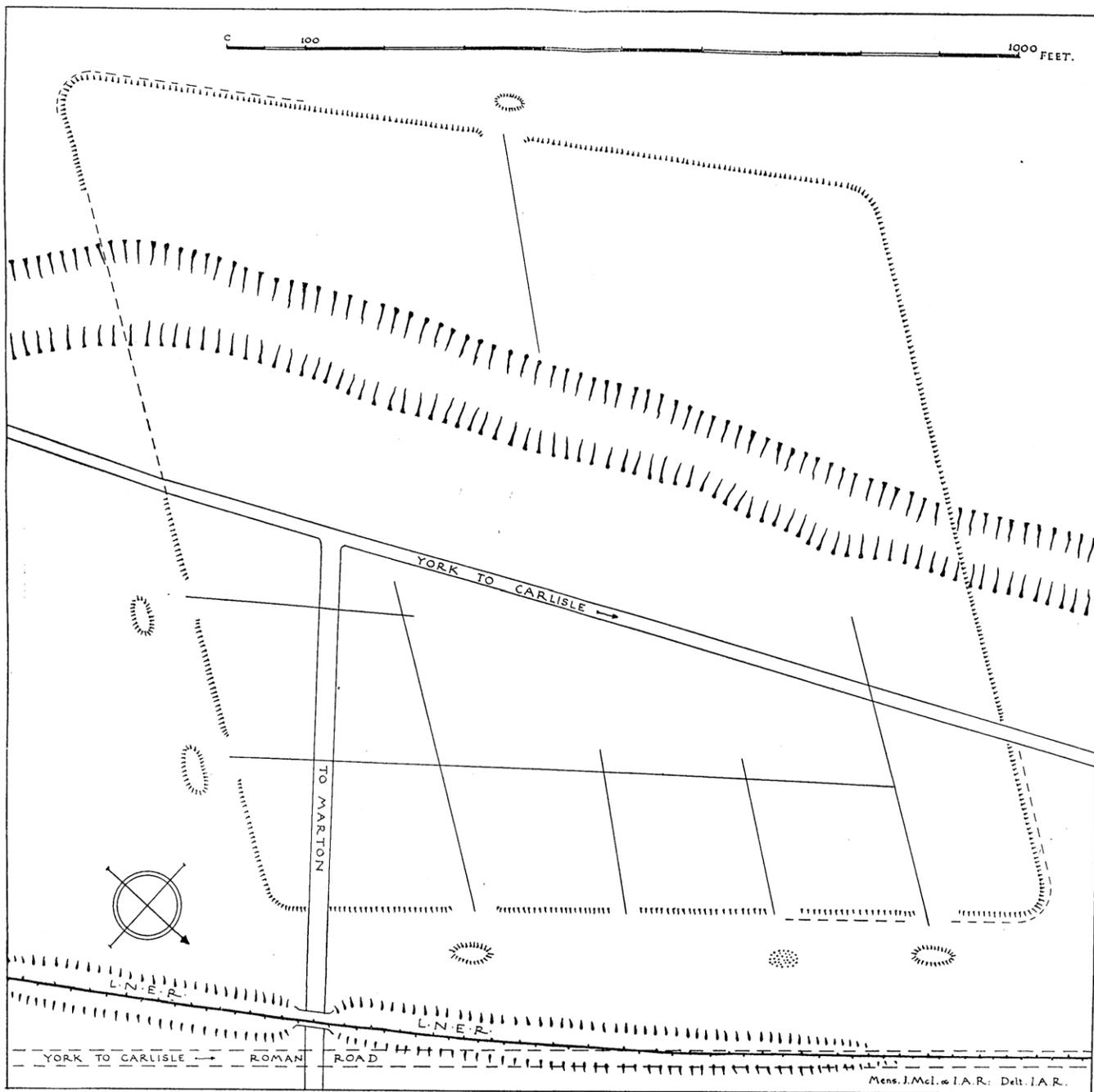


FIG. 2.—CRACKENTHORPE CAMP.

seemed to support this view. In the south field, we could find nothing: but the very dry summer of 1933 revealed to the writers the rest of the south-west rampart, together with the ditch at the angle, and about one hundred feet of the south-east rampart, aiming straight for the sector visible across the road.

North-east of the road, 533 feet of the rampart are visible in the field south of the Marton lane, together with two gates with their *tutuli*. The gates are now gaps, fifty (south) and seventy-six (north) feet wide; the *tutuli* appear as very shallow mounds, widely spread, with centres sixty feet out. These mounds are about fifty feet long, and showed better in the grass of 1932 than in the corn-stubble of 1933, but were distinct in both. The east angle shows quite boldly, and beyond it, across the lane, the rampart stands quite high in the hedge-bank, where a large oak grows on it.

In the field north of the Marton road, almost all of the north-east rampart is visible. Roy saw here four gates. In 1932, when the field was under roots, the *tutuli* of three of these were to be seen, defined by slight mounds and extra strong growth in the roots: they corresponded to Roy's two northern and southernmost gates. In 1933, when the field was under lucerne, the northernmost and southernmost *tutuli* alone could be discerned. But the gates were very well defined with an extra growth of lucerne on the ends of the rampart, while the ditch came out distinct towards the north by an absence of growth, as if lucerne did not take to the drained position. This phenomenon was pointed out to the first writer a week later at St. Alban's, on the site of a prehistoric ditch, by Mr. Casey, and is, therefore, a constant condition in dry weather. In short, careful observation can still pick out nearly all that General Roy recorded in 1769, and the site of Crackenthorpe can be put back on the map without the broken lines which distinguish it on the Ordnance Survey.

Conclusions may also be drawn about its disposition. In the first place, it is rather larger than Reycross. Its ramparts measure 978 (north-east), 929 (north-west), 1039 (south-west) and about 1070 (south-east). The planning is hardly more regular; and the site is worse, because it is intersected by a broad gully, in which no one can have been expected to pitch tents. Allowing for this, the place would hold an army much the size of that at Reycross.

General Roy thought that the camps belonged to the same host, because they were planned so much alike. Bearing in mind the point that nothing else like them is known in Britain, though many temporary works have been planned since Roy's day, it is difficult to avoid accepting his conclusion. Exactly the same arrangement as at Reycross is visible round the *via sagularis* on the south-east and north-east sides; and, continuing the squares round the rampart, there would be room for twelve squares and one double oblong made of two squares. This is two more than the total at Reycross, but two from the interior have to be allowed for where the gully occurs, and the *metatores* have achieved this, in the only way possible in a square arrangement, by adding a square more to one side, with the effect of doubling the extra accommodation required. Thus, there was rather more room than at Reycross.

Apart from its connexion with Reycross, there is nothing to date the camp, for the Roman road does not pass through it, but runs parallel with its north-east side, in the great straight sector from Brackenber Moor to Eden bridge at Temple Sowerby. The distance between the two camps is just over sixteen miles along the line of the Roman road, a respectable distance for an army on campaign to cover; and the site, though broken by the gully, is one of the few open sites for a large camp in this rolling country, while the Eden lies near for water. In fine, the two works are likely enough to have been set up

by the same legion, and there is some reason for thinking that they mark the passage of early Roman invaders of Cumbria, penetrating a land whose inhabitants, as now known from our President's maps,\* were too few to attempt a pitched battle.

\* *Ibid.*, N.S. xxxiii, 186, map. 5.