

These two sites are similar, but have some obvious differences. Calton Hill has been more carefully searched, and has yielded a useful group of axe fragments, arrowheads, scrapers, and pottery of a late neolithic type. The Moor Grange site has similar components, but the perforated tools and the fabricators may suggest a slightly later date. Neither site has yielded the long lozenge-shaped arrowhead which is typical of Five Wells and other Peak District neolithic barrows.

One or two smaller but similar sites have been found recently by Mr. L. Cooper of Chesterfield. One in the vicinity of Minninglow (SK 208581) has yielded 10 of the same kind of scrapers, a petit-tranchet derivative arrowhead, over 60 pieces of debris and worked flints and an axe fragment which repeat the pattern of the two sites described above. Manby has found a similar group of artifacts in the forecourt and mound of Green Low,<sup>3</sup> including pottery, a rechipped polished greenstone axe fragment, a leaf-shaped arrowhead, and other flints.

The two sites have yielded 31 and 10 axes and axe fragments, some of considerable size. There is no reason why these should not be typical of occupation remains in the High Peak. They indicate firstly a very large trade in axes, mostly from Langdale but probably also from Craig Llwyd and elsewhere, and secondly the great value of the stone, since several have been rechipped, re-sharpened, or used as hammerstones. Several of the axe fragments from Calton Hill were scattered over a wide area, suggesting breakage while clearing and cultivating the land. There is some evidence in these assemblages of the way of life of the late neolithic occupants of the High Peak. Arrowheads and scrapers imply hunting as a part of the economy, and the axes suggest agricultural pursuits. Since no bones have been recovered, it is not possible to say whether stock-rearing played a part in the late neolithic economy.

It is interesting to see the beginnings of a small corpus of Derbyshire neolithic pottery from Green Low, Whaley 2, and Calton Hill. In each case maggot, finger-nail, and groove decorated wares have been represented, in conjunction with beaker at the first two.

<sup>3</sup> Manby, T. G., "The excavation of Green Low chambered tomb", *D.A.J.*, LXXXV (1965), 1-24.

## MANCHESTER UNIVERSITY EXCAVATIONS 1967

### I. BROUGH-ON-NOE (NAVIO) By G. D. B. JONES

**T**HE third season of excavation at the small two-acre fort, on which Roman control of the Peak District was based,<sup>1</sup> was again devoted to work in the north-western quarter of the site. The three-period

<sup>1</sup> J. Garstang, *D.A.J.*, XXVI (1904), 177-204; cf. F. Haverfield, *V.C.H. Derbyshire*, I, 207 with a bibliography of earlier accounts of the site. I. A. Richmond, *D.A.J.*, LIX (1938), 53-65; cf. *J.R.S.*, XXIX (1939), 206 and XXX (1940), 168; a full account of the 1939 excavations by I. A. Richmond and J. P. Gillam exists in typescript but has not been published. For the 1958-9 excavations by J. E. Bartlett see *J.R.S.*, XLIV (1959), 108 and L (1960), 216. For the Manchester University programme see G. D. B. Jones and F. H. Thompson, *D.A.J.*, LXXXV (1965), 123-6, cf. *J.R.S.*, LVI (1966), 201; G. D. B. Jones, F. H. Thompson and J. P. Wild, *D.A.J.*, LXXXVI (1966), 99-101, cf. *J.R.S.*, LVII (1967), 181.

sequence established in 1966 was confirmed without materially refining the chronology of the later occupation. The periods involved are: (i) an initial Flavian (-Trajanic?) timber phase which after demolition was covered by a layer of dumped clay; (ii) a lengthy reoccupation assumed from the evidence of *RIB* 283 to have begun in the governorship of Iulius Verus *c.* A.D. 158; (iii) a late 3rd-century occupation that continued till at least the middle of the 4th century. Excavation in 1967 was primarily concerned with the recovery of structures in plan; accordingly the series of boxes behind the line of the north-western rampart was continued and these were linked south-eastwards with other trenches designed to establish the position of the late *via praetoria*. It was again clear that, because of extensive stone robbing and ploughing and the complexity of the remains, trenching often served only to multiply the problems of interpretation and that area stripping was the better method of excavation. All the excavated areas were cleared to the natural shale subsoil and the results are summarized by periods below.

### *Period I*

The construction trenches forming the Flavian timber phase were again located in the natural shale. As in 1966, no certain external walls were encountered, and this implies that the building measured at least 75 ft. north-south by 50 ft. east-west (fig. 3). As such it forms no recognized part of a barrack block and is currently best identified as the *praetorium* of the Flavian fort. The arrangements of the internal walls suggest that it was not of the simple courtyard variety but similar in complexity to the stone-built example from Caerhun.<sup>2</sup> In any case the presence of the *praetorium* in this position is further confirmation of Richmond's suggestion that the period I layout was markedly different from its successors.<sup>3</sup> The point was again demonstrated in 1967 further east where sectioning of the *via praetoria* belonging to periods II and III failed to produce its Flavian predecessor, and instead revealed the construction slots of a timber building. The likeliest explanation of the Flavian layout appears to be that the fort faced in diametrically the opposite direction to its Antonine successor. The Flavian administrative buildings would thus have lain on the northern side of the *via principalis*, which appears to have remained in the same position in all three periods, and the fort would have faced in a south-westerly direction. Richmond's work in 1938 defined the line of the south-western Flavian defences<sup>4</sup> and taken with the evidence of 1967 this would make the Flavian *praetentura c.* 115 ft. in depth (allowing for rampart and *intervallum*) and suggest an alignment of barracks *per strigas* (fig. 3). In the postulated *retentura* evidence relating to the size of the Flavian fort is already available from

<sup>2</sup> V. E. Nash-Williams, *The Roman frontier in Wales*, 25.

<sup>3</sup> I. A. Richmond and J. P. Gillam, unpublished typescript.

<sup>4</sup> I. A. Richmond, *D.A.J.*, LIX (1938), 53 ff.

# NAVIO — BROUGH-ON-NOE

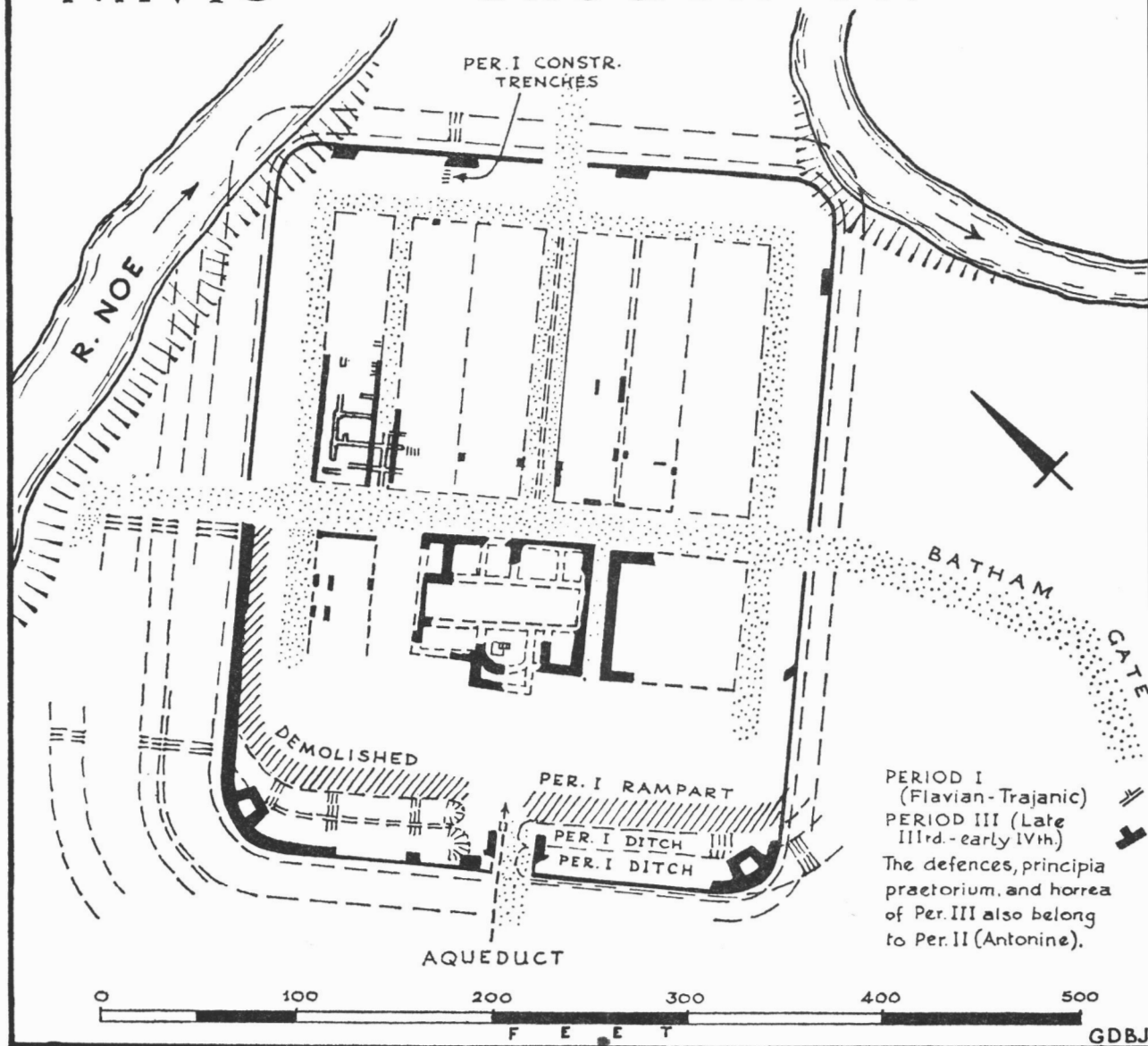


FIG. 3. Plan of Navio.

work in 1965.<sup>5</sup> On the eroded north-eastern rampart period I construction trenches were found sealed beneath the mass of the Antonine rampart. This implies that, allowing for the *intervallum* and rampart, the Flavian defences must have extended further northwards by 40 ft., if not more, and consequently that the Flavian fort was appreciably larger than its successor. It means that, just as today, the northern side of the fort was subject to severe erosion by the river Noe in the thirty odd years between the early 2nd-century abandonment and the re-establishment of the site under Iulius Verus.

### *Period II*

Work was continued on the substantially built timber building partly examined in 1966 on the northern side of the junction of the *intervallum* and the *via principalis*. With the increase in the excavated area in 1967, it became apparent that the two structural phases observed in 1966 represented the remains of two superimposed buildings, one of which was a barrack block. This was indicated by the discovery of the barrack verandah on the eastern side, but the nature of the other structure involved is still not apparent because of the limited area excavated. The scale of fig. 3 does not allow the complex structural features of the buildings to be shown in detail.

The earlier phase in this building sequence produced a substantial amount of late 2nd-century black burnished wares, the break between it and its successor appearing to lie *c.* A.D. 200. Taken with Richmond's belief that the *sacellum* represented an early 3rd-century insertion into the pre-existing *principia*,<sup>6</sup> it suggests that Brough may also belong to the group of Pennine forts, like Ilkley and Brough-by-Bainbridge, that underwent extensive reconstruction during the Severan consolidation of Northern Britain.

### *Period III*

The pessimistic forecasts made in 1966 about the survival in recognizable form of any structures belonging to period III proved mistaken in the event. Towards the lower side of the north-western quarter sufficient topsoil had accumulated to protect the stone foundation courses from complete removal by ploughing. Excavation in 1967 showed that a presumed barrack block 28 ft. wide and approximately 135 ft. long ran alongside the late *via principalis* (fig. 3). This was flanked to the east by a 9-ft. paved alleyway. Trenching further eastwards suggested that space between the alley and the late *via praetoria* was filled by two more barrack blocks of roughly 28 ft. width separated by a narrow gravelled passage-way 2 ft. wide. This arrangement is supported by the partial plan of an equivalent pair of buildings recovered by Richmond in 1939 on the eastern

<sup>5</sup> D.A.J., LXXXV (1965), 123 ff.

<sup>6</sup> I. A. Richmond and J. P. Gillam, unpublished typescript.

side of the *via praetoria* and shown in fig. 3. The actual road measured 17 ft. across with a central drain  $2\frac{1}{2}$  ft. wide.

The plan of the late *praetentura*, therefore, seems to suggest the presence of six stone barracks aligned *per strigas* in the restricted area available. This is surprising because, assuming that a cavalry unit is not involved, the barracks imply the presence of the six centuries forming a quingenary cohort. Hitherto the small size of the late fort has been interpreted as meaning that only part of a unit could have been stationed there.<sup>7</sup> The present evidence suggests the presence of a full unit, on paper strength at any rate, living in cramped conditions.

No further information was recovered in 1967 to refine the chronology of period III but two discoveries threw light on the character of the occupation. A *ballista* ball, recovered from the *intervallum*, indicates that the defences were equipped with *ballistae*, though there is no evidence for the late rampart having projecting turrets. Secondly a circular lead ingot and a fragment of thick lead off-cut were also found. The role of Brough as a collection centre for *galena* has, of course, been known for some time<sup>8</sup> but the tell-tale nodules of stream ore have so far been limited to the Flavian and Antonine periods of the fort's occupation. It is now clear that lead processing continued at Brough into the 4th century.

Further excavation in the *praetentura* will take place in 1968.<sup>9</sup>

<sup>7</sup> S. S. Frere, *Britannia*, 153.

<sup>8</sup> I. A. Richmond, *D.A.J.*, LIX (1938), 53 ff.

<sup>9</sup> I wish to thank G. and T. Earle for permission to excavate; Mr. and Mrs. J. Eyre and Mr. R. W. P. Cockerton for their interest and practical help; Mr. R. G. Maxwell who undertook a fresh survey of the site; Mr. D. C. Coombs and Dr. J. P. Wild and the Manchester University students who carried out the work.

## 2. MAM TOR By D. COOMBS

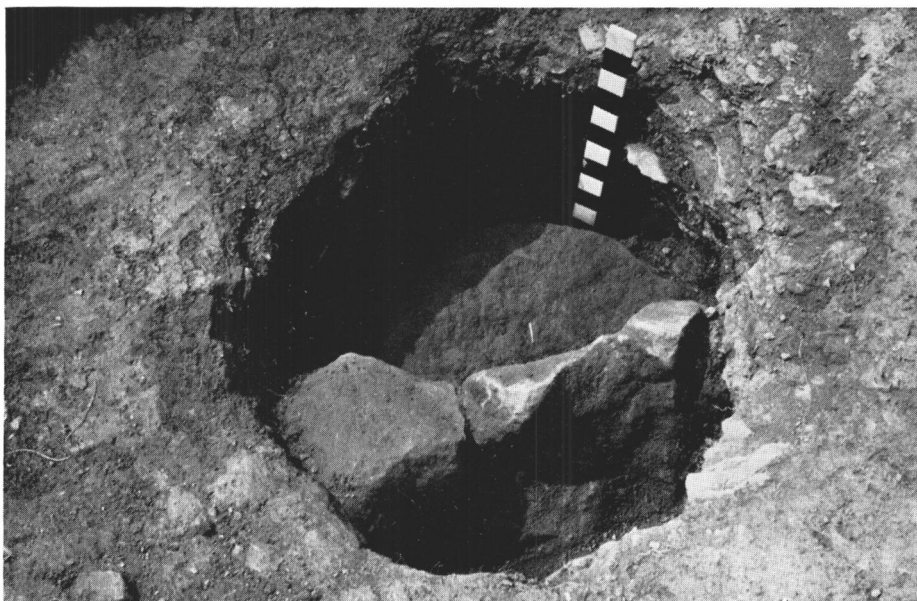
THE excavations on the hill-fort at Mam Tor<sup>1</sup> (SK 128837) concentrated on a small area behind the eastern rampart in the north-east corner of the site. A slight depression within the area indicated that it might be the location of an Iron Age hut circle like the one excavated in 1966. Excavation revealed a platform cut into the hill-side containing an interrupted semicircular gully partially enclosing a random scatter of post and stake holes (plate Ia). One large post-hole (plate Ib) approximately at the centre of the semicircle contained a number of large stones which had been used as packing for the post. To the south of the hut circle was a large pit; nothing was found in the pit and it is thought that it might have been used as a sump.

In the gulleys numerous sherds of Iron Age pottery were found representing one of the largest collections of pottery from any Derbyshire Iron Age site. A preliminary analysis of the pottery has revealed two basic forms; a sharp shouldered situla type of vessel, and a globular pot with

<sup>1</sup> For a previous report see *D.A.J.*, LXXXV (1965), 123.



a. Hut circle.



b. Post-hole with stone packing.

MAM TOR.



a line of finger-pinched decoration on the belly. These vessels are of the same tradition as the situla and globular vessels that seem to be typical of Iron Age A sites in the south of England. At present it is impossible to give an accurate date to the Mam Tor pots, though stratigraphy indicates that occupation was of a single phase only.

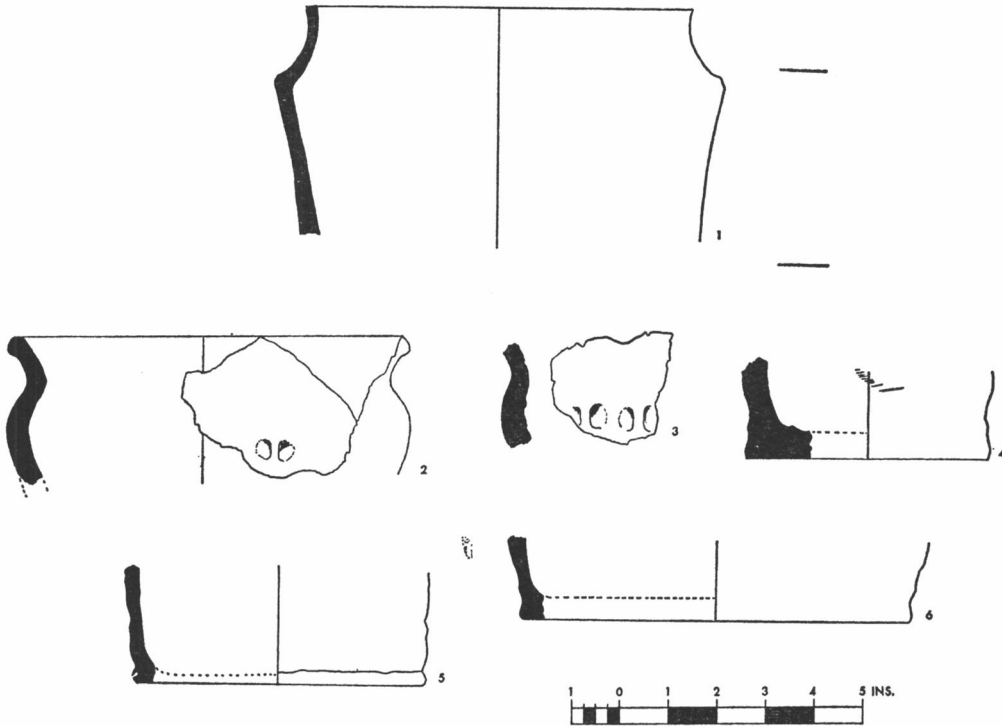


FIG. 4. Pottery from Mam Tor (4).

*The pottery (fig. 4)*

All the pottery is hand-made, well fired and on the whole free from tempering material.

1. Situla shaped vessel. The pot is very thin walled and of a fine fabric. Externally buff/red/grey in colour with traces of finger smearing, internally black.
2. Thick walled globular vessel with a line of finger pinched decoration. Externally black/grey in colour, internally black.
3. Body fragment of above pot.
4. Fragment of flat base. Thick and heavy walled, externally buff/pink in colour, internally black.
5. Fragment of flat base. Fine thin walled fabric, externally buff in colour, internally black. Slightly squeezed out base. Probably base of pot number 1.
6. Base fragment. Externally grey/red in colour, internally red with a black core. Traces of finger smearing externally.



## 3. THE GREY DITCH, BRADWELL By J. P. WILD

**A** HITHERTO unexplored linear monument known as the Grey Ditch in the parish of Bradwell (SK 177815) was investigated. It consists of a rampart (c. 8 ft. high and 21 ft. wide at its base) and to the north of it a roughly V-shaped ditch (c. 6 ft. deep and c. 21 ft. wide). It blocks the northern entrance into Bradwell Dale from the Hope valley.

Three separate sectors of the Grey Ditch survive as visible earthworks: (1) on the ridge to the east of Bradwell Dale, (2) across the valley floor between the eastern ridge and Micklow hill, and (3) between Micklow and the western side of the dale near the modern cement works. The ground between these sectors is steep enough to afford a natural protection against the movement of large bodies of troops or animals and was apparently never fortified.

A section cut mechanically across the Grey Ditch on the eastern ridge where it is best preserved showed that the rampart consists simply of upcast from the ditch.<sup>1</sup> There are possible traces of a rough stone revetment at front and rear, but there is no berm. At the highest point of the Grey Ditch on this ridge there is a gap in the rampart and ditch system wide enough to allow a wagon to pass through. Excavation at this point revealed no sign of timberwork or of any additional protection at the entrance, but suggested nevertheless that it was an ancient gateway. No dating evidence came to light.

A section cut in pasture on the eastern slope of the valley floor made it clear that the profile of the earthwork has been greatly altered here by ploughing.<sup>2</sup> The dimensions, however, appear to have corresponded to those of the sector on the ridge.

Although it is now known how the rampart and ditch were constructed, the major historical problems of date and purpose remain obscure. The builders of the Grey Ditch clearly regarded the Roman road from *Navio* to Buxton as a focal point for traffic; the ditch is therefore likely to be post-Roman. The *terminus ante quem* is provided by references to the Grey Ditch in late medieval documents. On the whole, taking into account monuments such as Offa's Dyke, a Dark Age date would seem on present evidence to be the most appropriate. If this is so, the purpose of the defensive line may be bound up with the little-known political arrangements in the area between the Roman withdrawal and the establishment of the later Anglo-Saxon kingdoms.

<sup>1</sup> Through the kindness of Mr. Terence Eyre.

<sup>2</sup> Through the kindness of Mr. J. Dalton.