could be persuaded to join their local historical or archaeological society where their activities would come under proper supervision, but events have shown that many local societies are themselves not only ignorant of ancient monuments legislation but of the scheduled sites in their own locality. It is hoped to publish the complete Derbyshire list in the next volume of the *Journal*, but in the meantime I shall be pleased to make available for inspection my copy of the complete list and the maps which accompany each schedule to any interested society or individual.

Reports on or enquiries about ancient monuments should be sent to

EXCAVATIONS AT BROUGH-ON-NOE (NAVIO) 1968

By G. D. B. JONES and J. P. WILD

THE fourth season of the Manchester University training excavation in the Peak District was devoted on the Roman side to further work at Navio, the small two-acre fort on which Roman control of the area was based. Work was again concentrated on the northern side of the site, i.e. the *praetentura* of the Antonine and later fort. Previous work in 1966 and 1967 had established a three-period sequence for the fort's history. The phases involved are:

- (i) an initial Flavian-Trajanic timber phase which, after demolition, was covered by clay dumping across most of the interior
- (ii) a lengthy re-occupation assumed on the evidence of RIB 283 (and supported by pottery evidence) to have begun in the governorship of Iulius Verus c. A.D. 158 as part of the Roman response to the Brigantian revolt. In parts of the praetentura two structural phases can be detected within the period, while the principia appears to have survived with slight modifications into the third and last period of occupation

¹ See F. Haverfield, *V.C.H. Derbyshire*, I, 207 with an analysis of earlier accounts of the site; I. A. Richmond, *D.A.J.*, LIX (1938), 54 ff., cf. *J.R.S.*, XXIX (1939), 206 and XXX (1940), 168; a full account of the 1938-9 excavations (halted by the outbreak of the war) by I. A. Richmond and J. P. Gillam exists in typescript but has not been published. For 1958-9 excavations by J. E. Bartlett, see *J.R.S.*, XLIV (1959), 108 and L (1960), 216. For the Manchester University programme see *D.A.J.*, LXXXV (1965), 123 ff., LXXXVI (1966), 99 ff. and LXXXVII (1967), 154 ff.

(iii) this last stage of the fort's history involved a total re-building of the *praetentura* in stone towards the end of the 3rd century. Occupation continued into the first half of the 4th century (see below).

By 1968 three outstanding problems remained relating to the structural and historical picture of the site. Two of them were largely solved during the excavation and the answers will be summarized by periods below.

Period I

Work on the remains of the Flavian fort in 1967 had suggested for a variety of reasons² that the internal arrangements represented a complete reversal of the Antonine layout, i.e. that the Flavian latera praetorii (administrative buildings, etc.) lay on the northern side of the via principalis, which appears to have remained in the same position in all three periods. Evidence in 1967, principally from the ?praetorium, stopped short of final proof. This was forthcoming, however, in 1968 with the location of the Flavian granary in a section cut close to the north-east gate and north of the via principalis. The granary was identified by a row of parallel sleeper trenches forming the substructure familiar from such Flavian sites as Inchtuthil, Fendoch, Pen Llystyn and, closer to hand, Castleshaw. In this case the sleeper trenches (c. I ft. 2 in. wide) were aligned N.E.-S.W. at intervals of c. 2 ft., and it is assumed that they lie transversely to the axis of the granary. Altogether six trenches were found, five close to the *intervallum* road and separated from the sixth by the disturbance associated with a small furnace of period II. Further west later disturbance was so extensive as to remove all Flavian features.

Period II

While many of the chronological uncertainties associated with this period have been solved in the last two seasons, the overall structural layout involving the two phases of timber buildings remains unknown; this will be the case until a still larger area of the *praetentura* has been stripped. For the present, therefore, any detailed discussion would be premature; suffice it to say that the northern corner in 1968 produced the probable verandah of a barracks aligned *per scamna* (N.W.-S.E.) along the edge of the *intervallum* road (fig. 1).

Period III

The section that yielded evidence of the Flavian granary also showed that in plan the eastern half of the *praetentura* formed a mirror image of the western side. The principal problem affecting period III, however, was chronological, and the method of approach adopted was to initiate excavation in an entirely fresh area. Two trenches, 20 ft. by 18 ft., were laid out

 $^{^{2}}$ D.A.J., LXXXVII (1967), 155-6.

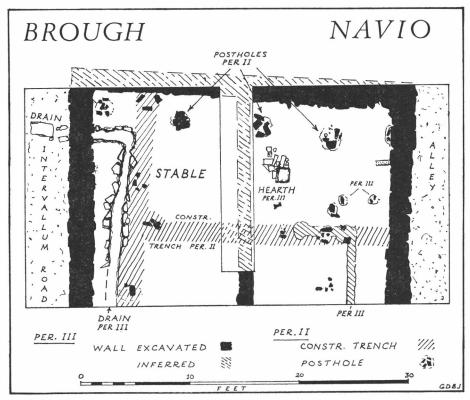


Fig. 1. Plan of north end of barrack I.

in 1968 in the north corner of the fort to investigate the north-eastern end of barrack I of period III, the south-western portion of which had been recorded in the excavations of 1967. It was hoped that the medieval ploughing which had removed most of the stone buildings of period III in the vicinity of the via principalis and in the retentura would have spared more on the lower ground. These hopes proved correct; for the main outer walls of the block and an internal partition running N.E.-S.W. were preserved to a height of two and three courses (plate IIa, fig. 1). By contrast, in the section cut in 1967 north-east of, and parallel to, the via principalis only small patches of the foundation of the period III structures could be traced.

The stone barrack-block, which was separated from the north-western rampart of the *praetentura* by a metalled *intervallum* road, proved to have provided stable and workshop(?) accommodation, at least at its north-eastern end. The building measures overall 31 ft. 6 in. wide by c. 128 ft. long, approximately two-thirds of the length of the standard auxiliary barrack. Excavation revealed that the north-eastern end of the block

had been built out over the gravel surfacing of the north-eastern *intervallum* road of period II, and so a few extra feet had been gained by the period III builders. On its eastern side the block was separated from its neighbour by an alleyway about 9 ft. wide on the analogy of the pattern

established in 1967.

The main outer walls were built of rough-cut blocks of local gritstone without mortar, set on a slightly wider foundation of pitched stone with yellow clay bonding. The thickness of the walls varied, but the maximum measurement over facing-stones and rubble core was 2 ft. 5 in. The outer cross-wall at the northern end had been brought up to, but not bonded into, the main axial walls. A slightly narrower (1 ft. 6 in. wide) partition running N.E.-S.W. divided the block into two long rooms about 12½ ft. across. Although a great deal of fallen stone was encountered, it seems best to reconstruct the block as a half-timbered building on stone dwarf-walls. The main weight of the roof was supported on the outer walls with assistance from the internal partition. The diamond-shaped roofing-slates, which had covered the roof in this period, were found in profusion in the debris.

The floor of the western room, the stable, had been set with flat cobbles and patched with gravel. The evidence for its role as a stable came from the mucking-out drain found parallel to the north-western wall (plate IIIa, fig. I) — and some horses' teeth! It ran to the end wall of the block and turned at right angles to pass out under the main wall, under the *intervallum* road and defences, and so presumably into the Noe. An interesting feature of the drain is the triangular gap which was left in the wall above the drain-cover at floor-level. Those who have watched the mucking-out

of stables and shippons will readily appreciate its purpose.

In view of the wrecked state of the south-western end of the same building, it is uncertain how much of the block was stabling. The presence of a substantial hearth in the eastern half of the north-eastern end perhaps identifies that section as a workshop or smithy (plate IIa, b). Alternatively the presence of a transverse (fig. 1) partition could point to living quarters and indeed the hearth has a very close parallel with those found in the *contuberniae* of the Deanery Field Barracks, Chester.³ In any case, even if the greater proportion of the building were a stable, no more than 25 animals could have been housed there; Roman farmers allowed 8-9 ft. per beast.⁴

The final destruction of the building was associated with a little burnt material. The walls had collapsed, not piecemeal, but in sections, and the roof-slates were scattered both above and below the main debris. This seems more likely to represent deliberate demolition by the with-

drawing force than enemy action.

In reporting on their excavations of 1938-9 Sir Ian Richmond and

³ A.A.A., XV, pl. II.
⁴ Columella I. vi. 6 (10 Roman feet); Vitruvius VI. 6. 2 (7 Roman feet); Palladius I. 21 (8 Roman feet).

Mr. I. P. Gillam suggested that the late fortlet may have held a detachment of about 250 men.⁵ The evidence for stables revealed in 1968 adds the further point that the detachment consisted, at least in part, of cavalry. This would be appropriate if the function of the fortlet in its latest phase remained that of guarding the local lead-working areas. But it would be unwise to be dogmatic about the size of the unit in period III. The work of Mr J. E. Bartlett in 1958-9 showed that the south-eastern ditch of the fortlet had been filled in the 4th century and a stone building and causeway erected over it. It is possible that this was an annexe rather than a structure in the vicus.

The date at which the timber buildings of period II were replaced in stone appears to be the end of the 3rd or beginning of the 4th century. A coin of Carausius dated to A.D. 288 and showing slight traces of wear was found lodged in the courses of the partition-wall in the stable.8 A few sherds associated with the demolition of the period II structure can be dated to the same period.9 The pottery from the demolition-layers of the stable and finds recorded in previous excavations (see appendix and fig. 2) suggest that Brough was given up before c. A.D. 360.

 $^{^5}$ I. A. Richmond and J. P. Gillam, unpublished typescript of 1938-9 excavations. 6 For a 4th-century ingot see D.A.J., LXXXVII (1967), 158. 7 J.R.S., L (1960), 216, pl. XXI, 1. 8 J. Brit. Arch. Assoc., 22 (1959), 33 ff., pl. XIII, 2. 9 Richmond and Gillam.

APPENDIX (fig. 2)

Note on the latest pottery from Navio

The pottery considered below was directly associated with the latest phase of the stone-built stables of period III in the northern corner of the fort. A proportion of it was burnt.

- Derbyshire ware cooking-pot with characteristically grey, gritty, fabric and mottled orange surface. Probably from the kilns at Hazelwood (D.A.J., LXXXII (1962), 33, fig. 6, A19). Late 3rd or early 4th century.
- 2. Dales ware cooking-pot with soapy black calcite-gritted fabric. For a discussion of the ware see J. P. Gillam in *Ant. J.*, XXXI (1951), 154 ff. Late 3rd or early 4th century.
- 3. Dales ware cooking-pot.
- 4. Dales ware cooking-pot.
- 5. Flanged bowl in sandy grey-brown fabric with a lighter grey core. The inside has been heavily, the outside lightly, burnished.
- 6. Flanged bowl in sandy grey fabric. Similar to Gillam type 228, dated to c. A.D. 310-370.
- 7. Flanged bowl in grey gritty fabric with blue-grey core.
- 8. Straight-sided flanged bowl in sandy grey fabric with orange core. Probably mid-4th century in date (cf. *Proc. Leeds Phil. and Lit. Soc.*, XII (1966), 61, fig. 12 no. 77, from Ilkley).
- 9. Hammer-headed mortarium in pipeclay fabric with black grit. Burnt. Gillam type 280, current c. A.D. 270-350. Probably made in the midlands.
- Small bowl in buff fabric with orange-brown colour-coat. It may be of South Derbyshire or Lincolnshire origin.
- 11. Bowl or dish in dark grey gritty fabric akin to black-burnished A. It has a buff-grey core and may have been burnished inside.
- 12. Bowl in smooth orange fabric with grey core. Lines are crudely painted in black or burnished around the outside of the body. Perhaps a product of kilns in South Derbyshire or Staffordshire.
- 13. Segmental dish with orange, slightly gritty, fabric and traces of orange-brown colour-coat. Burnt. Vessels of this class (ultimately derived from Dr. 38) were made in a variety of fabrics at pottery centres in the midlands and South-East England from the late 3rd until the late 4th century. This specimen may have been made in South Derbyshire or Staffordshire, but no narrow dating is possible.
- 14. Flanged bowl in white fabric with black colour-coat. Burnt. Probably a Nene valley product.
- 15. Flanged bowl imitating Dr. 38 in creamy-white fabric with traces of orange colour-coat. Burnt. This is a common type in the late 3rd and 4th centuries and difficult to date more precisely. It may be a product of the Nene valley. Similar vessels in other fabrics were made at Swanpool in Lincolnshire (cf. Ant. J., XXVII (1947), fig. 4, D33).

Discussion

In view of the lack of comparable stratified 4th-century pottery from neighbouring sites it is difficult to offer a precise date for this group. I am grateful to Mr. and Mrs. B. R. Hartley and Mr. M. Todd for their comments on some of the vessels described here. Cooking-pots in Dales ware and Derbyshire ware probably continued to be made until the middle of the 4th century, but residual sherds of Derbyshire ware

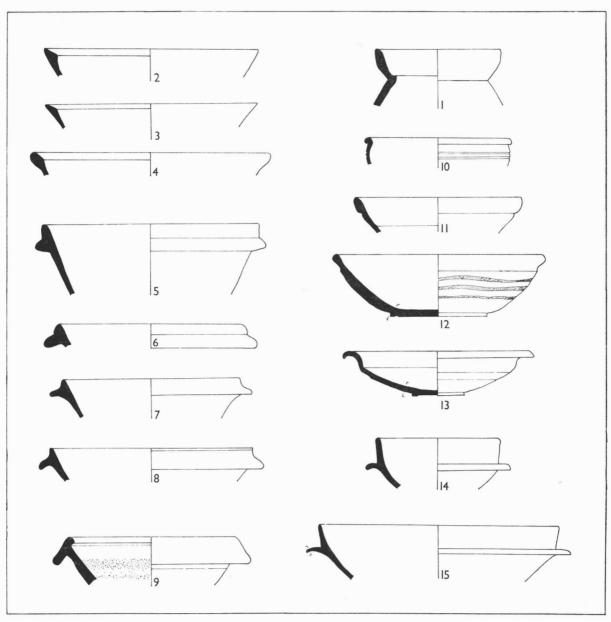


Fig. 2. Pottery from barrack I ($\frac{1}{4}$).

could in any case be expected in 4th-century groups from Brough. The four colour-coated bowls (nos. 10, 13, 14, 15) may be of 4th- or late 3rd-century date. The mortarium factories in the midlands from which no. 9 originated went out of production about A.D. 350. Two of the four straight-sided flanged bowls (nos. 6, 8) with their muddy brown fabrics appear to be mid-4th-century products.

The absence of any of the recognizable types of pottery circulating in the north just before, and for a period after, the Picts' War (A.D. 367-9) is noteworthy. But this may not be so striking as it seems, since Brough lies at the northern end of the market supplied by the midland potters, while most of our knowledge of pottery after the Picts' War is relevant to the Pennine forts and the pottery-centres in East Yorkshire. None of the grey flanged bowls and painted wares from Crambeck or close copies and parallels made elsewhere are present. On the other hand none of the colour-coated products of the Oxfordshire kilns has been found at Brough. It seems reasonable, therefore, on present evidence to date this group to the mid-4th century.

A LARGE CINERARY URN AND ROMAN COIN FOUND AT GLOSSOP

By J. WILFRID JACKSON

In 1958 a large middle bronze age cinerary urn was found at Glossop and remained in the possession of the owner, Alderman J. C. Hurst, until July this year when he kindly gave it and its contents to the Buxton Museum. The urn was found during the excavations for his bungalow on the south slope of Shire Hill, Glossop, by him and his two helpers, Tom Haynes and T. Barnes. The urn was inverted in an erect position with its rim resting on a layer of charcoal overlying stones. The removal of the urn in a perfect condition was impossible owing to its fragile state. The fragments were carefully extracted from the surrounding soil and were taken away by Dr. E. J. Fisher, of Harrogate. The urn was later skilfully reconstructed by Mr. H. J. Stickland (plate IIIb). Numerous burnt human bones were found within the urn, but there were no further finds.

The dimensions of the urn are: height, 13 in.; width at top of rim, 11 in.; width at widest part, 11½ in.; width at base, 6 in. It has an overhanging rim with incised trellis decoration which extends down part of the body. The grave in which it lay appeared to be a shallow one, about three feet across, and the burnt bones were on the top of brushwood. There were no indications of a mound over the burial or of other burials on the sloping surface in the near neighbourhood.

During the same excavations in 1958 a Roman coin was found near the site of the bronze age urn but not associated with it. It was submitted to Mr. G. F. Willmot, Keeper of the Yorkshire Museum, York, who reported: "The coin is of Constantine II, Caesar 317, Augustus 337-340. One cannot read all the letters but there are