

X

Notes

1. A Late Neolithic Site At High House, Matfen

Whilst providing archaeological cover for the construction of a major gas pipeline¹ during the summer of 1981, a small flint scatter was discovered. The site was to the north-west of High House, Matfen, Northumberland, and flint was recovered from adjacent corners of O.S. field nos. 0005 and 8122 (NGR NZ 049 701). Only fifteen flints were found, representing a low density of recovery (0.34 flints/100 sq. m.), but the assemblage is of some significance.

The scatter came from a slight rise (at 145 m A.O.D.) where the black shaley bedrock erupted to the surface through the surrounding orange/grey-brown boulder clay. The surface of the bedrock was badly damaged by recent ploughing and the passage of the construction machinery, and the only archaeological feature was recorded in the side of the pipe trench, at NGR NZ 0492 7011. The feature was a U-shaped intrusion, (0.64 m wide, 0.32 m deep), which only appeared in

the east section of the pipe trench, (fig. 1), where it was cut into grey-brown boulder clay. The feature had two fills, the boundary between them being rather indistinct. The lower fill was a granular mix of bright orange and buff clays with flecks of black shale, and the upper fill was a more consistent, grey clay with black shale fragments. No distinct edge was followed in plan, but surface cleaning was impossible because of the spoil heaps. The intrusion did not produce any finds but it could be associated with the surface material.

*The flint:*²

Fifteen flints were found, most of which are made of a light grey flint with a white impurity. Single examples of a grey chert, brown flint with white cortex and a pinkish-buff flint occurred in the assemblage. Five of the waste flakes had been burnt. The following have been illustrated in Fig. 2.

1. An end scraper of a grey flint, with an

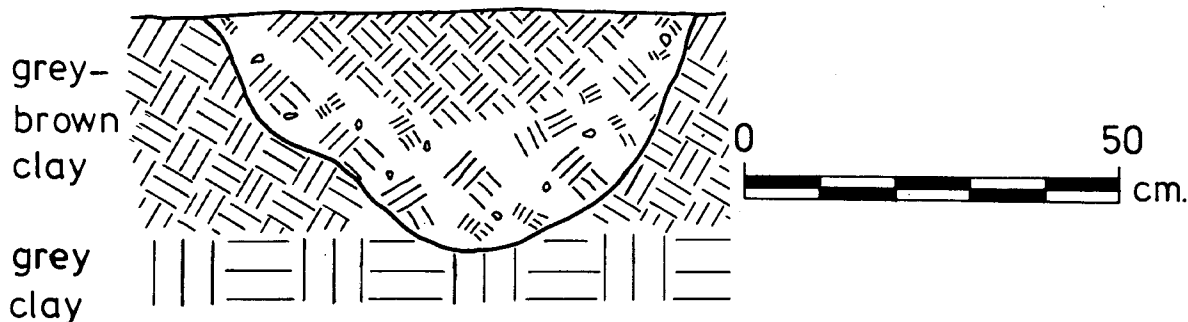


Fig. 1. East section of pipe-trench.

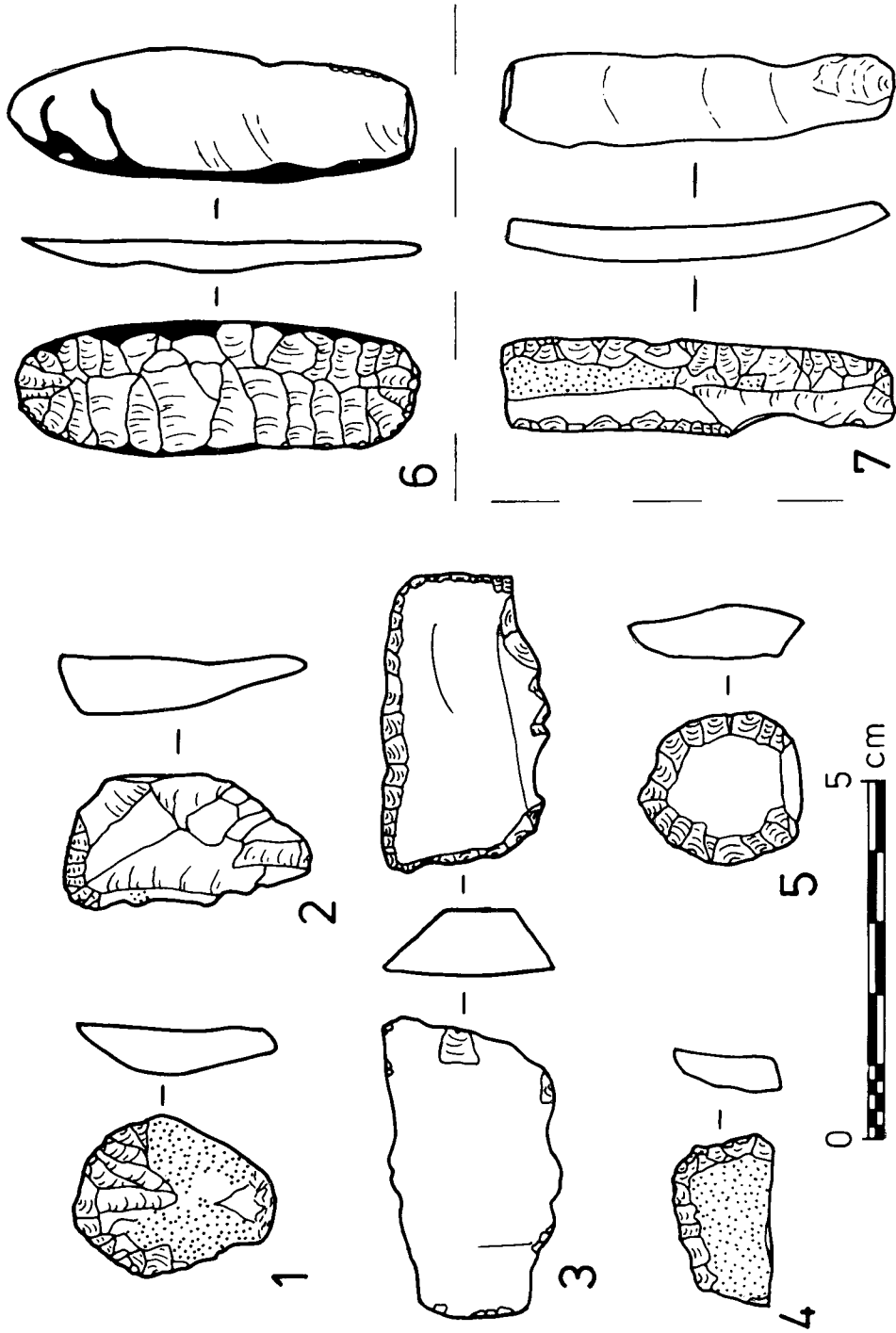


Fig. 2. Flint finds from High House, Mattfen.

abraded pebble cortex, showing evidence of burning.

2. A steeply retouched end scraper of a mottled grey flint.
3. A scraper, retouched on three sides, of a light grey mottled flint. The retouch is on the bulbar surface.
4. A scraper made of broken flake in a brown flint with an abraded white cortex.
5. A scraper of a grey chert with the dorsal surface stained black. The retouch is crude and steep.
6. An edge-polished, plano-convex, flint knife made of a mottled, light grey flint. The blade is very thin (4 mm), and the dorsal surface is completely covered by pressure flaking, with one edge polished on both surfaces and the other edge showing some polishing and some utilisation.

The remainder of the assemblage consisted of a core/hammerstone, a utilized blade, and seven waste flakes.

The presence of the flint knife in an assemblage with such a high proportion of scrapers indicates a Late Neolithic date. The absence of any pottery makes a "cultural" attribution difficult, but this distinctive form of flint knife has tended to be found at Grooved Ware Sites.³ The evidence from a large number of Grooved Ware settlement sites in East Yorkshire is summarized by Manby.⁴ Here the sites often survived only as groups of pits, located by field collections of artefacts and so are similar to the site being discussed here.

Sites producing Late Neolithic pottery are very rare in the North-East of England. Grooved Ware has only been recorded from the Milfield basin and Hart, Durham, and Peterborough Ware from seven other locations.⁵ No other edge-polished flint knives have come from this area but a rather cruder, unpolished plano-convex knife is included in a large surface collection from Ryton (NZ 142 644) on the southern side of the Tyne Valley, producing mainly Neolithic forms but with some earlier and later elements. (Cocks Collection, Museum of Antiquities, Newcastle). This is illustrated as no. 7 on the figure.

For practical reasons, work was restricted to the working width of the pipeline, but isolated flints of Late Neolithic/Bronze Age date were found to the north and south of this site. This suggests that sites of this date may be widespread in this part of Northumberland, but will only be found by intensive fieldwork similar to the programme in East Yorkshire.⁶

R. C. TURNER

NOTES

¹The author was employed by the British Gas Corporation, and thanks are due to them for their support and co-operation.

²Dr. J. Weyman kindly gave her valuable comments on the flintwork and the reference to the piece in the Cocks Collection. The flintwork has been deposited in the Museum of Antiquities, University of Newcastle with the exception of that illustrated as no. 2 which was kept by the landowner, Mr. Urwin of Matfen High House.

³See Wainwright G. J. and Longworth I. H. (1971). "Durrington Walls: Excavations 1966-8", *Soc. Antiquaries Res. Rep.*, xxix, 235-306.

⁴Manby T. G. (1974). "Grooved Ware Sites in Yorkshire and the North of England", *B.A.R. Brit. Series*, 9.

⁵Information taken from Miket R. (1976). "The Evidence for Neolithic Activity in the Milfield Basin, Northumberland" in Burgess C. and Miket R. (eds) "Settlement and Economy in the Third and Second Millennia B.C." *B.A.R. Brit. Series*, 33, 113-143.

⁶Manby op. cit.

2. *Tormenta*, *Auxilia* and *Ballistaria* in the Environs of Hadrian's Wall

In my recent article on the design of Hadrian's Wall I pointed out that to the best of my knowledge there was no supporting archaeological evidence for the deployment of arrow-shooting engines in the environs of the Wall.¹ When the article was in press, however, I learned that sixteen *ballista* bolt heads have been positively identified from levels 1-5 of the excavations at Vindolanda. These levels cover the period A.D. 85-125, when the site was garrisoned by units of *auxilia*: levels 1 and 4 *cohortes* I *Tungrorum*; levels 2-3 *cohortes* VIII

Bataavorum; level 5 probably *cohors I Tungrorum*. The presence of legionaries at Vindolanda is only recorded in one of the documents excavated there, which amount to nearly 1000. The document in question comes from level 4, which relates to a period post A.D. 105.² This confirmation of the deployment of *tormenta* in the frontier region during the period leading up to the conception and the building of the initial stages of the Wall adds considerable weight to my general thesis that the effective range of these support weapons was most probably a primary tactical consideration in determining the distance between the milecastles and turrets. Furthermore, this new evidence lends material support to my supplementary postulate, *pace* Breeze and Dobson,³ that some of the *auxilia* at least were equipped with *tormenta* by early in the second century A.D.,⁴ because the bolt heads from levels 1–3 at Vindolanda must surely have originated from auxiliary units.

There is of course epigraphic evidence from High Rochester that *tormenta* were available to the *auxilia* of a later period. The building of a *ballist(arium)* by *cohors I Fida Vardullorum* is recorded in A.D. 220 under Elagabalus; and the same unit recorded the rebuilding of a *ballis(tarium)* some years later under Alexander Severus (A.D. 222–235), the exact date cannot be established.⁵ The word *ballistarium* is normally taken to mean a platform on which a missile-firing engine was mounted,⁶ but there are no firm grounds for this extremely dubious interpretation.

None of the Roman historians or military writers uses *ballistarium*. Indeed in Latin literature it is found only in a minor *fabula* of Plautus, and in that context it is ambiguous; it could mean either a missile-firing engine or the place where it is mounted, but more probably the former.⁷ The technical Latin term for a *tormentum* firing platform is certainly *tribunal*.⁸ It seems apparent that the word *ballistarium* recorded at High Rochester is from a vocabulary peculiar to the Roman military encountered in epigraphy; a special usage enjoying official recognition, which was separate from both the *sermo castrensis* and

literary Latin. Words from that vocabulary do not always lend themselves to ready translation, and occasionally defy any definition; *propugnaculum* is an example of the former,⁹ and *cylisterium* of the latter group.¹⁰ Fortunately *ballistarium* does not produce intractable difficulties for translation; the stem *ballist* puts its usage in a familiar context. The only obstacle that we have to overcome is a tradition, which goes back to the middle of the nineteenth century,¹¹ and persists with variation to the present day,¹² that *ballistarium* at High Rochester refers to a firing platform. The tradition is a solecism compounded by a misconstruing of Ammianus Marcellinus XXIII, 4, 5, the text of which is almost certainly corrupt; and a disregard or ignorance of the science of kinetics.

There is absolutely no substantive evidence that the inscriptions at High Rochester are in any way connected with the stone and clay foundations erroneously identified by Sir Ian Richmond as firing platforms for *onagri*;¹³ and nothing to connect the inscriptions with D. B. Campbell's postulated sheltered emplacements for light arrow-shooters.¹⁴ It is highly improbable that *cohors I Fida Vardullorum* would have erected their elaborate dedicatory inscriptions in celebration of the completion of structures so evidently prosaic as barbettes, Roman practice and unit pride would simply preclude it. The dedications must have referred to edifices of some distinction.

My suggested explanation of the circumstances surrounding the inscriptions is as follows. The cohort at High Rochester had a complement of *ballistae*, and as the engines required regular maintenance and repair, and covered storage when not operationally deployed, a building was specially built for these purposes in A.D. 220. Some years later under Alexander Severus a rebuild of that self-same building was required, the necessity for that should occasion no surprise. In essence, the word *ballistarium* means a magazine and workshop for the *tormenta* of *cohors I Fida Vardullorum*, and at any given time there was only one *ballistarium* at High Rochester.

G. H. DONALDSON

NOTES

¹AA⁵, 16 (1988), 125–37.

²I am indebted to Robin Birley and the Trustees of the Vindolanda Trust for permission to publish this information in advance of the official Research Report. The tablet referring to legionary troops is no. 943.

³D. J. Breeze and B. Dobson, *Hadrian's Wall*, London (1987), 185–6.

⁴Loc. cit. 128–9.

⁵RIB 1280; RIB 1281. The difference in the abbreviations is of no significance. The reconstruction *ballistarium* is without doubt correct.

⁶E. W. Marsden, *Greek and Roman Artillery, Historical Development*, Oxford (1969), 84 n. 4.

⁷Poenulus, I, 1, 74.

⁸Hyginus Gromaticus, *De munitionibus castrorum*, 58.

⁹R. Rebuffat, "Propugnacula", *Latomus*, 43 Fascicule 1 (1984), 3–26, 17–22.

¹⁰IRT 869. J. M. Reynolds and J. B. Ward Perkins, *Inscriptions of Roman Tripolitania*, London (1952), 211.

¹¹J. C. Bruce, *The Roman Wall*, third edition, Newcastle upon Tyne (1867), 322–23.

¹²D. B. Campbell, "Ballistaria in first to mid-third century Britain: a reappraisal", *Britannia*, 15 (1984), 75–84, 84.

¹³AA⁴, 13 (1936), 170–80.

¹⁴Loc. cit.

3. An Engraved Wood-Block of the Newcastle Arms

A prominent and admired feature of the dedication page of Grey's *Chorographia* as originally printed in 1649 is an impression of a block of the shield of arms of Newcastle upon Tyne, and many editions since have repeated this feature. In the Society's possession¹ is a wood-block of this shield with the same or similar surround as in 1649. As certain defects in the impressions in the 1649 edition are present in our block, it did not for some time occur to me to doubt that we were holding the original block. This fond belief was sadly shaken when I examined the block and found that it had been engraved on the end-grain of a hard-wood, probably box. A block engraved in the seventeenth century would have been

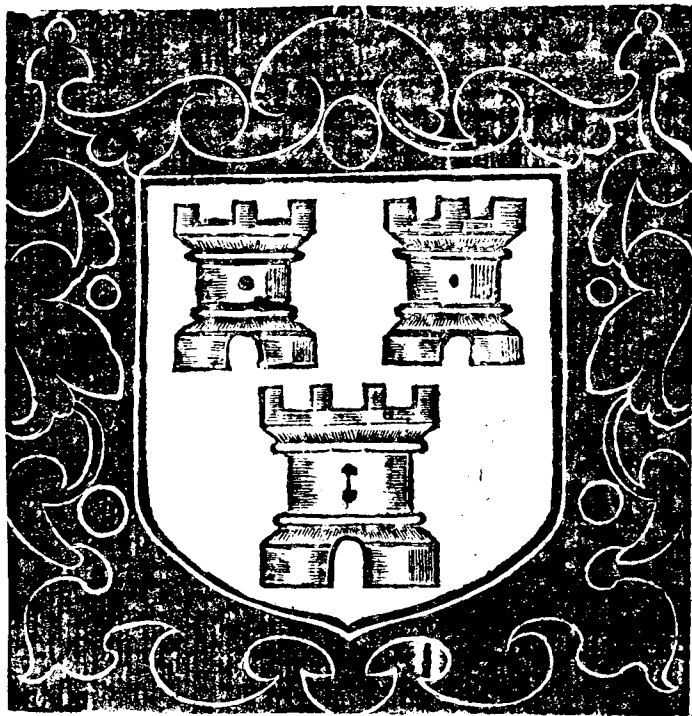
cut along the grain in a soft-wood.

A distinction is now made between a *wood-cut* carved with knife or chisel along the grain and a *wood-engraving* cut with graver and scauper on the end-grain.² The difference in technique determines a different approach by the executant. A wood-cut is conceived as black lines or solids on a white ground; a wood-engraving as white lines on a black ground.³ Familiar examples of the wood-cut are the illustrations of old chap-books. From the time of Bewick wood-engraving virtually superseded the wood-cut in the illustration of books printed by letterpress. Our block might appear to be somewhat anomalous in having a solid surround into which fairly fine scroll-work in a Jacobean style has been cut. For this engraving tools may have been used, such tools must have been available for the copper-plate engraving that was in common use at the time. Nevertheless it would have been cut along the grain in a soft-wood.

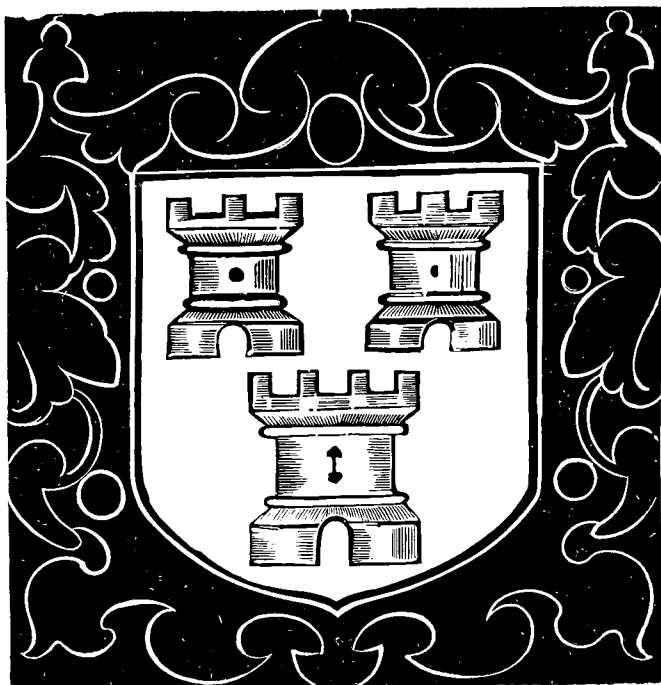
The block in the Society's possession is engraved in wood prepared by a skilled supplier. It has been prepared on the end-grain from box or a similar wood. To ensure stability it has been quarter-cut, so that the centre of the annular rings in the wood is on one edge of the block and close to a corner. In a lightly inked impression these rings can be seen, though I have not detected them in any impressions of early printings. So this may be attributable to wear. The printing surface is 88/9 by 86/7 mm.

Examination of the impressions here reproduced shows that certain defects⁴ visible in the 1649 impressions have been scrupulously repeated in our later block, which is clearly the work of an engraver of considerable technical skill.⁵ He has even reproduced the variations in thickness of line which arose from the natural inclination of knife or chisel to stray along a misleading grain. There are two unintended differences. The later block is 2 mm less deep than the original impressions. Also in scoring a guideline for the head of the shield the fine tool has over-run some 1½ mm at the top right-hand corner. This over-run is exceedingly fine, in richly-inked impressions

THE NEWCASTLE SHIELD
OF ARMS



a) Photo-copy (not exact for size) from the Society's copy (Ai/74) of the 1649 *Chorographia*. The intrusive black mark islanded in white near the foot is evidently from a piece of broken type come adrift from the text and lying on the surface of the block.



b) Impression from the block in the Society's possession, used in our 1813 edition of *Chorographia*.

tends to fill in, and may not therefore be easily detected.

Our block was first used, as far as I can ascertain, in the edition of *Chorographia* that the Society published in 1813. The reproduction of sundry mis-cuttings in the original may seem over-subtle, but I think we may dismiss any intention to mislead. This is not a forgery: I suggest that the engraver was instructed to make a "fac-simile", and, barring the over-run, he carried this out to admiration. The shortfall in the depth may be the error of the supplier of the wood.

The block was used again in the edition published for the Newcastle Typographical Society in 1818, printed like our 1813 edition by Sarah Hodgson of Union Street. Finally it appears again, printed brilliantly, in the edition of 1892.⁶

As a postscript it may be added that the wood-engraving of Newcastle Keep (No. 22 in the check-list, see note 1 below) which appears on the half-title of the first volume (1822) of *Archaeologia Aeliana* makes an even earlier appearance on the title-page of our edition of *Chorographia* in 1813.⁷

JOHN PHILIPSON

NOTES

¹No. 31 in the check-list published on pages 16-17 of the 1987 Annual Report of Council. The surmise therein that it was engraved by Joseph Crawhall may be dismissed.

²See Beedham, R. J., *Wood Engraving*, London (1938), 50-2.

³A Bewick vignette appears as a black impression islanded on a white page, nevertheless the image is constructed of white lines cut out of black.

⁴These defects include three places in the surround where the graver has run off the intended line, has been lifted, and its course resumed on the true line.

⁵In the hope that this might prove to have been Bewick or one of his engravers, I examined the Bewick workshop accounts for the relevant period. The earliest entry for the Society is 1816 when a seal was cut for us. There are no entries for Sarah Hodgson in the relevant years.

⁶Any study of this block involves a critical survey of the successive editions of *Chorographia*. To include any discussion of these would throw this note out of balance; but, as the thief of time may rob me of the opportunity of completing such a survey to my satisfaction, may I record here that the two mysterious editions (our Ah 104 and Ah 126) left undated on the index cards in the Black Gate are issues of the Typographical Society's edition of 1818.

⁷I am grateful to the Librarians of the Literary & Philosophical Society, of the Newcastle Central Library and of the Newcastle University Library for the facility of examining their copies of various editions of *Chorographia*, and, as much or more, to the zeal of our own volunteers in the Black Gate library. For access to the Bewick Accounts I have to thank the Tyne and Wear Archive Office, and I am indebted to the Laing Art Gallery for the opportunity to consult the Bewick correspondence they hold. I profited greatly from a discussion with Mr. H. T. Eyres about the wood in which our block is engraved.

