

THE HOUSESTEADS TAUROCTONY RESTORED. *See Note 1.*

MUSEUM NOTES, 1963

D. J. Smith

With these Notes it is planned to revive the valuable series which, under the same heading, our Vice-President Dr. J. D. Cowen contributed to the Society's *Proceedings* during his years of curatorship. The purpose of the new series will be threefold: first, to provide records of accessions to the Society's collections of antiquities such as have not appeared since the termination of *Proceedings* in 1956, secondly to describe, briefly, new accessions of unusual interest or significance and old accessions on which fresh information has become available, and third to give short accounts of important work in the sphere of conservation and restoration. All the present Notes refer to objects now in the Museum of Antiquities jointly established by the Society and the University of Durham at King's College, Newcastle, and have been written by myself. It is, however, my hope that others may be persuaded to contribute to future Notes and that accessions to the museums at the Keep and the Black Gate will also receive their due share of attention.

1. ACCESSIONS, 1960-1962

Accessions before 1960 will be listed in future Notes. "A" after the Accn. No. = deposited on indefinite loan by the Society of Antiquaries of Newcastle; "D" = Co. Durham; "N" = Northumberland.

(a) *Prehistoric*

1960.3.A Miscellaneous. Bronze Age and Roman. Provenance unknown. Given by Mr. C. M. Daniels.

- 1960.6 Bronze spearhead. Late Bronze Age. Wideopen, N. Given by Mr. P. Nicolson.
- 1960.7 Polished stone axehead. Secondary Neolithic. Loansdean, Morpeth, N. Given by Sgt. W. Sampson, N.C.C. *AA*⁴ XXXIX 379, Fig. 1, No. 2, 380.
- 1960.13 Food Vessel. Early Bronze Age. Callaly, N. Given by Mr. G. Jobey. *AA*⁴ XXXVIII 241 ff., 243, Fig. 1. (Accn. no. mis-printed on p. 242 as 1960.3.)
- 1960.39 Polished stone axehead. Secondary Neolithic. Thorngraston, near Bardon Mill, N. Given by Mr. R. W. Harding. *AA*⁴ XXXIX 379, Fig. 1, No. 3, 380.
- 1960.41 Bronze palstave and socketed axehead and flint axehead. Bronze objects of Middle and Late Bronze Age respectively. Reported to have been found in Ireland. Given by Mr. J. Atkinson.
- 1960.45 Grooved stone maul. Chalcolithic? Greenleighton, N. Indefinite loan by Mr. H. Johnson, per Mrs. J. Gale. See Note 3 below.
- 1961.2 Four roughly finished specimens from the Langdale axe-factories, Cumberland. Secondary Neolithic. Given by Mr. W. Dodds.
- 1961.4 Leaf-shaped arrowhead of (?) chert. Neolithic/Early Bronze Age. Newcastle, W. Denton. Indefinite loan by Mr. J. Armstrong.
- 1961.8 Grooved stone axe. Chalcolithic? West Chilton, D. Given by Mr. F. J. Berlinson. See Note 4 below.
- 1961.11 Socketed bronze knife. Late Bronze Age. Stocksfield, N. Given by Mr. J. J. Bulman.
- 1962.5 Polished stone axehead set in modern haft. Neolithic. From S. Jutland, Denmark. Presented by the Danish Agricultural Producers' Association.

- 1962.11 Flat copper axehead. Chalcolithic. Cumbernauld, Dunbartonshire. Given by Mr. D. Cassidy. See Note 2 below.
- 1962.14 Bronze ring-headed pin. 2nd cent. B.C. Alnham, N. D.U.E.C. excavations, 1962.

(b) *Roman*

- 1960.1 Fragments of a blue glass flask. High Rochester, N. Given by Miss D. Charlesworth.
- 1960.2 "Thurible" of terracotta. Rudchester Mithraeum, N. D.U.E.C. excavation, 1953. *AA*⁴ XXXII 214, Fig. 12, 215, para. 4.
- 1960.3.A Miscellaneous. Bronze Age and Roman. Provenance unknown. Given by Mr. C. M. Daniels.
- 1960.8-12 Stone objects inc. fragment of inscription. Halton Chesters, N. D.U.E.C. excavations, 1960.
- 1960.15 Two coins. Wylam, N. Donor unknown.
- 1960.16.A Two fragments of an inscription. Chesterholm, N. Given by Prof. and Mrs. E. Birley.
- 1960.17.A Inscription of *Coh. IV Gallorum*, A.D. 213. Provenance and donors as no. 1960.16.A.
- 1960.18.A Tombstone of Fl. Merit(anus?). Provenance and donors as no. 1960.16.A.
- 1961.19.A Fragmentary inscription of *Leg. II Aug.* Hadrianic. From a milecastle near Chesterholm, N. Donors as no. 1960.16.A.
- 1960.20.A Altar to Silvanus. Vicinity of Chesterholm, N. Donors as no. 1960.16.A.
- 1960.21.A Two fragments of a relief portraying the sun-god. Chesterholm. Given by Prof. E. Birley.
- 1960.22.A Fragment of sculpture. Provenance and donor as no. 1960.21.A.
- 1960.23.A Fragment of sculpture, probably from a figure of Mercury. Provenance and donor as no. 1960.21.A.
- 1960.26 Bronze object. Halton Chesters, N. Given by the finder, Mr. N. Foster.

- 1960.28-33 Stone objects including fragments of inscriptions and sculptures. Halton Chesters, N. D.U.E.C. excavations, 1960.
- 1960.35 Altar to the Nymphs and the Genius Loci and associated objects. Carrawburgh, N. D.U.E.C. excavation, 1960. *AA*⁴ XL 59 ff.
- 1960.36 Fragments of an altar. Milecastle 42 (Cawfields). D.U.E.C. excavation.
- 1960.37 Inscription. Provenance as no. 1960.36.
- 1960.40 Coins. Kibblesworth and Team Valley, D. Indefinite loan from Prof. J. W. Heslop Harrison.
- 1961.1 Fragment of white marble with wreathed male head in low relief. Pompeii. Given by Mr. G. N. Drinkwater.
- 1961.3 Coin and other objects. Wallsend, N. Given by Messrs. Swan, Hunter and Wigham Richardson Ltd., per Messrs. L. R. Bousfield and J. Clynes.
- 1961.5 Pottery, Wallsend, N. Anonymous donor.
- 1961.6 Pottery, Wallsend, N. Given by Mr. A. R. Robson.
- 1961.9 Pottery. Newcastle, Benwell. Given by Mrs. Burns.
- 1961.10 Pottery and other objects. Wallsend, N. Donor as no. 1961.3.
- 1961.12 Glass beaker reported to have been recovered from the Tyne at Newcastle, and 3 vessels in black fabric of unknown period and provenance. Given by Mr. C. Spence.
- 1961.13 Three coins. East Boldon, D. Given by Mr. J. K. King.
- 1961.16 Twelve coins. Haltwhistle, N. Given by Mr. T. Mason-Ridley.
- 1961.18 Pottery and metal objects. Roman to modern. Bowness-on-Solway, Cumberland. M.O.W. excavation, 1955. *C.W. Trans.*² LX 13-19.
- 1961.19 Pottery, glass, metal objects. Bath-house, Red

- House, Corbridge, N. D.U.E.C. excavations, 1955-1957. Given by the late Major H. D. Cuthbert. AA⁴ XXXVII 85-176.
- 1961.20 Pottery. Wallsend, N. Given by Messrs. Swan, Hunter and Wigham Richardson Ltd., per Mr. N. Welch.
- 1961.21 Enamelled bronze brooch. Hadrian's Wall, Turret 18b. D.U.E.C. excavation.
- 1962.9 Set of 5 iron nails. c. A.D. 80. From the legionary fortress at Inchtuthill, Perthshire, 1960. Presented by the Iron and Steel Institute.
- 1962.12 Intaglio with representation of a huntsman, set in a modern gold finger-ring. Found at S. Shields, 12 December 1877. Bequeathed by the late Dr. C. H. Hunter Blair. See note 5 below.
- 1962.13 Cameo set in a modern gold tie-pin. Reported to have been found in the area of Hadrian's Wall. Bequeathed by the late Dr. C. H. Hunter Blair. See Note 5 below.

(c) *Anglo-Saxon*

- 1961.22 Remains of two human skeletons. Corbridge, N. D.U.E.C. excavations, 1947.
- 1962.7 Chamfered stone in three pieces with interlace carving. Probably 10th cent. Hurworth, D. Given by Dr. A. Macdonald.
- 1962.10 Glass bead. Dilston, N. Given by the late Mr. T. Dixon, per. Mr. W. Bulmer.

(d) *Facsimiles and casts*

- 1960.4 Reproductions of two palaeoliths found at Leigh-on-Sea, Essex. Given by Mr. B. M. Upton.
- 1960.44.1 Cast of the tombstone of Flavinus in Hexham Abbey. Indefinite loan by the National Museum of Wales, Cardiff.
- 1960.44.2 Cast of the inscription of *Leg. II Aug.* from Bridgeness. Indefinite loan as no. 1960.44.1.

- 1960.44.3 Cast of the tombstone of Regina at S. Shields. Indefinite loan as no. 1960.44.1.
- 1960.44.4 Cast of the Corbridge Lion. Indefinite loan as no. 1960.44.1.
- 1960.44.5 Cast of the tombstone of Victor at S. Shields. Indefinite loan as no. 1960.44.1.
- 1960.44.6 Cast of the figure of Fortuna from Birdoswald. Indefinite loan as no. 1960.44.1.
- 1960.44.7 Cast of a relief of Sol at Corbridge. Indefinite loan as no. 1960.44.1.
- 1960.44.8 Cast of a fragmentary relief from a Dolichenum at Corbridge. Indefinite loan as no. 1960.44.1.
- 1961.15 Reproduction of a Roman lamp. Provenance and donor uncertain.
- 1961.17 Facsimile of the bronze sword-scabbard of the 1st cent. A.D. found in the Tweed at Carham, N. Presented by the Trustees of the British Museum.
- 1962.1 Facsimile of the silver patera in the Backworth Hoard. Presented by the Trustees of the British Museum.
- 1962.2 Facsimile of the handle of a silver patera in the Capheaton Hoard. Donors as no. 1962.1.
- 1962.3 Facsimile of the small Roman bronze group of a ploughman and his ox-team from Piercebridge, D. Donors as no. 1962.1.
- 1962.5 Facsimile of a silver halfpenny of Canute. Presented by the Danish Agricultural Producers' Association.

(e) Foreign

- 1960.5 Flint arrowhead. Probably N. American Indian. Newcastle upon Tyne. Donor unknown.
- 1960.41 Bronze palstave and socketed axehead and flint axehead. Bronze objects of Middle and Late Bronze age respectively. Reported to have been found in Ireland. Given by Mr. J. Atkinson.

- 1960.42 Two chert blades. Period ? From Ireland ? Indefinite loan by Mr. B. M. Upton.
- 1961.1 Fragment of white marble with wreathed male head in low relief. Roman. Pompeii. Given by Mr. G. N. Drinkwater.
- 1962.4 Collection of stone artefacts. Period uncertain. Chile. Given by Mr. H. G. Bradshaw.
- 1962.8 Fragment of a wooden hair comb. Probably Greco-Roman. Philadelphia, Egypt. Given by Mrs. G. H. J. Daysh.

(f) *Paintings, engravings, etc.*

- 1960.24 Engraving. Indefinite loan from the University Office, Durham.
- 1960.27 Photograph of the late R. C. Bosanquet. Given by Dr. and Mrs. C. I. C. Bosanquet.
- 1962.6 Oil portrait of the late F. G. Simpson, by Alphaeus Cole, 1947. Bequeathed by the late Mrs. F. G. Simpson.

(g) *Models*

- 1960.25 Model of native settlement at Riding Wood, N. Made and given by Mr. W. Bulmer.
- 1961.7 Model of a hut in the native settlement at Huckhoe, N. Made and given by Mr. W. Bulmer.

(h) *Uncertain.*

- 1960.34 Stone object. Period and provenance uncertain. Donor unknown.
- 1960.38 Lump of chain mail. Period uncertain. Island of Coll, Hebrides ? Indefinite loan by Mr. B. M. Upton.
- 1961.12 Roman glass beaker reported to have been recovered from the Tyne at Newcastle, and 3 vessels in black fabric, period and provenance unknown. Given by Mr. C. Spence.

II. NOTES

1. *The restoration of the Housesteads Tauroctony. Pl. XI*

In last year's volume¹ I described the restoration of the unique pierced relief depicting the birth of Mithras² which was found in fragments during the excavation of the Housesteads Mithraeum in 1822.³ The same excavation brought to light several fragments from another relief, of well known type, portraying Mithras in the act of sacrificing the primordial Bull.⁴ These included three joining fragments from the sinister side of the relief, showing (from top to bottom) one of the horns of a crescent moon—symbol of the goddess Luna, the figure of Cautopates—one of the twin torchbearing companions of Mithras, and the fore-legs of the Bull. When fitted together these gave both the size and the shape of the original relief: arched at the top, it measured 7 ft. 4 ins. in width and 6 ft. 3 ins. in height. Its dimensions suggest that it may have been carved from more than one piece of stone and, unlike the corresponding relief in the Carrawburgh Mithraeum⁵ which rested on a projecting stone shelf, it may actually have been built into the wall behind and above the Birth relief.

It had long been planned to restore this relief⁶ for exhibition in the joint Museum of the University of Durham and our Society but it was late in 1961 before the task could be contemplated. First a drawing or cartoon was prepared, one half the scale of the original. This took the form of a simple reconstruction of the scene, in which the exact position of the surviving fragments could be indicated.

The next stage was to transfer this drawing, at the same

¹ *AA*⁴ XL (1962), 277-280, Pl. XXVII.

² C. M. Daniels, *ibid.* 108-110.

³ *AA* I (1822), 263 ff.; 288; *Lapidarium Septentrionale* (1875), No. 192.

⁴ Daniels, *loc. cit.*, 107-108.

⁵ *AA*⁴ XXIX (1951), 1 ff., 9, Fig. 3, Pl. XIV, B.

⁶ Prof. I. A. Richmond and I made a rough, preliminary, full-scale cartoon some years ago.

time enlarging it to full scale, to the material chosen for the restoration. This was expanded polystyrene,⁷ now widely used for its insulating properties.

The work of carving then began, and when this had been completed, and the surface hardened by flame, the parts corresponding to the surviving original fragments were cut out to a depth exactly sufficient to receive them. In addition to those already mentioned, there are part of the head of the Bull, the body of the small dog which always reaches up to lick the blood from the wound in the Bull's neck, the right shoulder of Mithras and part of his tunic.⁸ These had flaked away from the surface of the original relief and had to be bedded into the polystyrene.

Finally the polystyrene was coloured with latex emulsion paint, appropriately tinted with poster colours to resemble stone.

It can fairly be claimed that the final result makes a striking—one may even say a dramatic—exhibit. It has been mounted at a height which must have been approximately that of the original, above and behind the relief depicting the birth of the god and its two flanking altars.

The restoration was carried out by one of the Museum's two artists (Mr. R. L. Cessford) and the Museum's Senior Technician (Mr. W. Embleton) under the direction of the Assistant Keeper (Mr. C. M. Daniels).

2. *A flat copper axehead from Dunbartonshire. Fig. 1*

In July 1962 Mr. David Cassidy, son of our member Mr. J. Cassidy, presented to the Museum a flat copper axehead (1962.11), reporting that he had dug it up in August 1961 in his aunt's garden at 2, Eastfield, Cumbernauld, Dunbartonshire.

⁷ See my recent article, "More uses for polystyrene", in the *Museums Journal*.

⁸ Another fragment—the hand of Mithras grasping the hilt of the sacrificial dagger—was recorded by Hodgson but has since disappeared; cf. Daniels, loc. cit., 107, note 15.

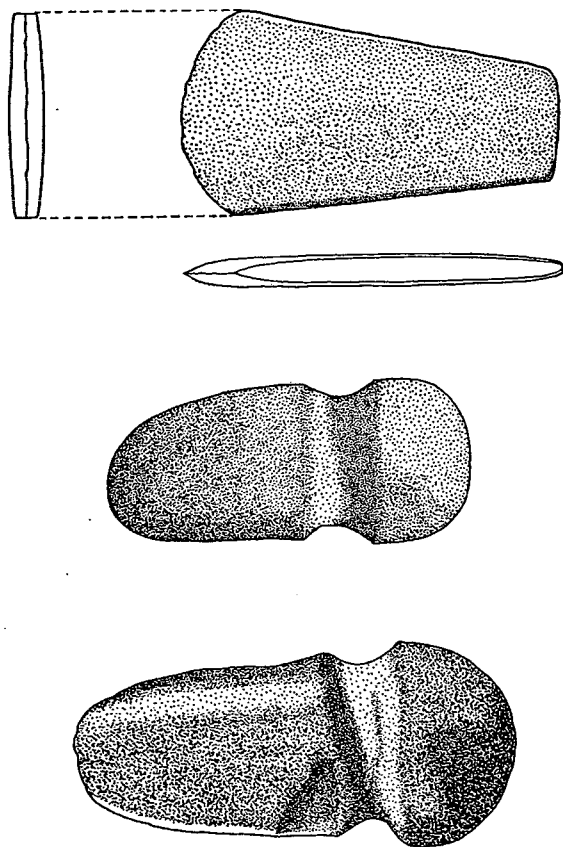


FIG. 1. FLAT COPPER AXEHEAD, DUNBARTONSHIRE (TOP);
GROOVED STONE MAUL, GREENLEIGHTON, NORTHUMBERLAND
(MIDDLE); GROOVED STONE AXEHEAD, WEST CHILTON, CO.
DURHAM (BOTTOM).

Drawn by Miss M. M. Hurrell. Scale 1:3

A good early specimen of its type, it measures $6\frac{1}{16}$ ins. in length, $3\frac{3}{8}$ ins. in width at the cutting end, $1\frac{3}{4}$ ins. in width at the butt end, and $\frac{7}{16}$ in. in maximum thickness. The profile of the butt shows a slight outward curve. The long sides are almost straight and measure 5 ins. in length. There is only the faintest hint of flare at the cutting edge, which forms a pronounced curve and shows two facets. The facet of the cutting edge may have been formed by hammering but the inner facet is slightly concave and has presumably, therefore, been ground. Viewed from above or below or from either end the axehead is seen to taper towards the ends and, less markedly, towards the long edges. No form of decoration can be detected. In shape it compares with some Irish specimens of the Copper Age,⁹ and though a suggestion of Irish origin would fit well with its place of discovery, there are abundant copper deposits in southern Scotland,¹⁰ and the possibility of Irish origin is not supported by the following report kindly prepared by Dr. R. F. Tylecote, Senior Lecturer in the Dept. of Metallurgy, King's College, Newcastle upon Tyne. Beyond this the present evidence will not carry us.

Metallurgical report by Dr. R. F. Tylecote, 3rd Dec. 1962

"The axehead was covered with the usual copper-rich patina and weighed 837 g. (29.5 oz.). A small core (2 mm. dia.) was trepanned from the centre of the side of the axehead for the purpose of microscopical examination. A hardness test was made on both ends of this core which was 12 mm. long; the hardness (D.P.N. 1 Kg) was 108 on the end nearest the edge and 105 on the other end.

The core had a distinct coppery colour showing that it was a comparatively pure copper and not highly alloyed.

⁹ Cf. G. Coffey, *The Bronze Age in Ireland* (1913), Fig. 4, Nos. 4, 6, 7, Fig. 5, first in top row. It may also be compared with one or two of the flat axeheads in our own collection of Irish Bronze Age weapons (Accn. no. 1852.101, Northumberland Coll.) and with our axehead from Ramshaw Mill, Wark, Northd. (1933.19): analysis would almost certainly prove these specimens also to be not of bronze but of impure copper.

¹⁰ Cf. R. F. Tylecote, *Metallurgy in Archaeology* (1962), p. 17, Fig. 2, p. 18, Table 6.

Under the microscope it was found to be a solid solution with very fine grain. The grains were heavily twinned; some of the twines were bent and a few slip bands were visible. Lead was absent.

An attempt was made to estimate by chemical methods the main impurities. The arsenic content was low, c. 0.25%. Antimony, tin, silver and zinc were negligible, but the iron content was relatively high, c. 1%. This is rather unusual, as most of the Irish flat axes tend to have arsenic contents in the range 1-4% with lower iron.

We can say that this implement is essentially an impure copper which owes most of its strength to working. It has been worked and heated after casting and has been further worked in the cold state. The final hardness achieved is the combined result of the impurity content and the cold work, and made the axehead not much inferior to the later cast tin bronzes.

I am indebted to Dr. J. D. Gilchrist for the chemical examination."

3. *A grooved stone maul from Greenleighton, near Rothbury, Fig. 1*

This is the first artefact of this type to be acquired by the Museum. It was found in 1960 by Mr. Harry Johnson, a quarryman, who, through the agency of Mrs. Joan Gale of Rothbury (Northd.), has deposited it in the Museum on indefinite loan (1960.45). In a letter to the writer Mrs. Gale reported that it was discovered when the overburden was being removed "on a flattish piece of moorland on the brink of the Greenleighton limestone quarry,¹¹ at the western end of the quarry cutting. It was in the soil which was turned up by a mechanical digger, and had not been buried in the clay but was clean. The place is a slight hollow on a hill-top with a wide view in all directions, and there is nearby

¹¹ Nat. Grid. Ref. NZ/027920.

a small circular hollow which could perhaps be a hut site? ”¹²

The maul has been made from a river-worn pebble of hard, greyish fawn stone. It measures 5 ins. in length, $2\frac{1}{4} \times 1\frac{3}{4}$ ins. in maximum cross-section, and weighs 0.398 Kg. The groove varies in depth between $\frac{1}{8}$ and $\frac{1}{4}$ in., in width between $\frac{7}{8}$ and $1\frac{1}{8}$ ins., and completely encircles the stone. Slight damage to the more rounded end may be taken to have resulted from its use as a hammer, but it seems unlikely that it can ever have been employed for any purpose requiring more than moderate force.

Grooved stone mauls are found in widely separated parts of the world and have actually been noted in use among primitive peoples in modern times.¹³ There is therefore an understandable tendency to suspect specimens of unknown or dubious provenance as being perhaps of exotic and even relatively recent origin. The precise record of discovery of the Greenleighton hammerstone is thus especially valuable, for the possibility that a “curio” could have been lost in such an out-of-the-way spot is so unlikely that it can surely be dismissed at once. It is, moreover, not the only specimen of its kind to have been found in Northumberland, for a grooved maul of closely similar form, though smaller, has been found near Percy’s Leap, on Hedgeley Moor.¹⁴ Another example, which in size and shape immediately recalls the Greenleighton maul, is in the Castlesteads collection at

¹² Mr. G. Jobey has since inspected this site and informs me that he is inclined to regard it as a purely natural feature.

¹³ Cf. J. Evans, *Ancient Stone Implements of Great Britain*, 2nd edn. (1897), chap. IX; Warren K. Moorehead, *The Stone Age in North America* I (1911), chap. XIII; Vayson de Pradenne, *L’industrie des ateliers à maillets de Murs, Congrès Préhistorique de France (Soc. Préhist. Française), Compte Rendu de la Xème Session*, 1931 (1933-34) 146 ff., esp. Fig. 1. I owe the last reference to Mr. R. B. K. Stevenson.

¹⁴ *Cat. of the Antiquities at Alnwick Castle* (1880) 29, No. 130, illust.; it is described as being “of gneiss, with a broad central groove, round which probably was twisted a flexible rod or withy, serving as a handle. Each extremity is rounded. Length $3\frac{1}{2}$ ins., diameter about $2\frac{1}{4}$ ins.” A grooved stone maul noted in the Museum at Berwick upon Tweed is reported to have been found at Pallinsburn near Branxton, but I myself have not seen it or made any enquiry about it; vide *NCH* XIV, 55, §(e), No. 1.

Brampton, Cumberland,¹⁵ but unfortunately there is no record of its provenance. This, and the two specimens from Northumberland, may be compared with some of the grooved stone mauls in the large series from Alderley Edge, Cheshire.¹⁶ These implements, reported to be of local stone, were associated with the well known coppermines which have been worked, probably intermittently, from prehistoric to medieval times. The association of grooved stone mauls and coppermines in both the Old World and the New has been widely noted,¹⁷ and has led to suggestions that this type of artefact originated as early as the Chalcolithic and was a specialised tool devised for use in coppermining and in the contemporary, rival industry, flintmining.¹⁸ This cannot, however, explain the discovery of such artefacts in Northumberland where there are no deposits of either copper or flint, and in the present state of knowledge it is impossible to offer any firm opinion either as to their exact use¹⁹ or as to their date.

In the hope that the Greenleighton specimen might prove to be of local stone it was submitted to Dr. D. A. Robson,²⁰ Dept. of Geology, King's College, Newcastle. Dr. Robson

¹⁵ I am indebted to Mr. Robert Hogg for photographs and details of this and other grooved hammerstones in Cumberland, Westmorland and Lancashire, and for kindly placing at my disposal his file of notes on grooved stone mauls in general. At the same time I wish to express my thanks to Mr. R. B. K. Stevenson and to Mr. W. Dodds, for patiently answering my enquiries and for sending me much useful information concerning these artefacts in Scotland and the north of England.

¹⁶ C. Roeder, Prehistoric and subsequent mining at Alderley Edge, *Trans. Lancs. and Cheshire Antiq. Soc.* XIX (1902) 84-89 and plate f. p. 84, "Lawton No. 5", "Lawton No. 6"; C. Roeder and F. S. Graves, Recent archaeological discoveries at Alderley Edge, *ibid.* XXIII (1906) 17-29.

¹⁷ Evans, *op. cit.*, 233 ff.; Moorehead, *op. cit.*, 233; V. de Pradenne, *loc. cit.*, 154; *Bull. de l'Associació Catalana d'Antropologia, Etnologia, Prehistoria II* (Barcelona, 1924). I owe the last reference and a summary of this article to Mr. R. B. K. Stevenson.

¹⁸ Cf. V. de Pradenne, *loc. cit.*, 178-179; G. Clarke, *Prehistoric England* (1940, rev. 1962) 101.

¹⁹ Evans' suggestion (*op. cit.* 236) that small grooved pebbles of soft stone may have been net-sinkers cannot be applied to the two hard stone mauls from Northumberland, neither of which, in any case, was found in the vicinity of water suitable for net-fishing.

²⁰ I take this opportunity to thank Dr. Robson for his reports on this artefact and on the grooved stone axe described in Note 4.

kindly reported, however, that microscopic examination of a thin section revealed that the stone was igneous in origin, probably a volcanic rock, but not local. Dr. S. J. Tomkeieff, Professor Emeritus of Mineralogy, to whom he had shown it, thought that it might have come from somewhere in the Lake District or from the southern uplands of Scotland. The stone was not one so far identified in Northumberland.

4. *A grooved stone axe from Co. Durham. Fig. 1*

To the best of my knowledge no grooved stone axes have hitherto been recorded from Co. Durham. The specimen now to be described was presented to the Museum in 1961 by Mr. F. J. Berlinson of Batts House, 3 Highside Road, Heighington, Co. Durham (1961.8), who reported that it had been ploughed up in 1923 near West Chilton²¹ in that county; though certain of this, and able to account for its whereabouts between 1923 and 1961, he could not vouchsafe any additional information.

Like the Greenleighton maul, this artefact was also originally a water-worn pebble but of larger and somewhat different form. It measures $7\frac{1}{4}$ ins. in length, $3\frac{3}{8} \times 1\frac{11}{16}$ ins. in maximum cross-section, and weighs 0.852 Kg. The groove, however, is similar to that of the Greenleighton hammer, varying in depth between $\frac{3}{8}$ in. and $\frac{1}{8}$ in. and completely encircling the stone. One end is rounded, but the other has been ground to form a cutting edge.

This stone was not sectioned, but Dr. Robson²² reported that on appearance alone it too could possibly have come from the Lake District. It is quite a different stone from that of the Greenleighton specimen, being "igneous, probably basic igneous, something like a basalt. Its density is 2.84 grms./cc. compared with 2.90 grms./cc. for whinstone and 2.676 grms./cc. for Cheviot andesite. The Cheviot felsite, which is a distinctly pink rock, has a density of

²¹ Nat. Grid. Ref. NZ/284302.

²² See above, p. 232 and note 20.

2.46 grms./cc. It does not come from the Cheviot area or indeed from any part of Northumberland."

It is unfortunate that the circumstances of discovery of this artefact are not so precisely known as are those of the Greenleighton maul, for, like the grooved maul, the grooved stone axe is particularly well represented in North America²³: there is therefore the possibility that this specimen is a lost curio, though again, as in the case of the Greenleighton maul, it would seem unlikely either that so unattractive an object would have caught the eye of a collector, especially when the abundance of the type in North America offers a wide selection of finer and more interesting specimens, or that, if indeed a curio, it should have been lost where it is reported to have been found. When the alternative possibilities are carefully weighed one against the other it seems probable, in my view, that the West Chilton axe, like the maul from Greenleighton, can be accepted as a genuinely local antiquity. It seems, however, impossible to offer any positive suggestion as to its date, though its obvious affinities with grooved mauls might be regarded as an indication that it served a not dissimilar purpose and may be assignable to the same period.

Of other examples of grooved stone axes in or attributed to the north of England,²⁴ one which is reported to have come from Bigland in the Cartmel Valley (Lancs.), c. 1890, appears (from a photograph) almost certainly of North American origin: it is polished all over and the groove does not entirely encircle it. Two of similar type but unpolished are in Tullie House Museum, Carlisle: one of them is said to have come from Edenhall, Penrith (Cumberland), but the provenance of the other, on loan from the Friends' School, Wigton (Cumb.), is not known. Two others, also unpolished

²³ Cf. Moorehead, *op. cit.*, Chap. XVII, and particularly his comment (p. 296) on the material normally selected for grooved axes in North America: "Nine tenths of the axes in a given collection are made of igneous rocks, and the great bulk of the igneous rocks used are the fine textured rocks, especially basalt and diabase."

²⁴ Again I express my thanks to Mr. Hogg for placing photographs and information at my disposal.



INTAGLIO OF RED JASPER FROM SOUTH SHIELDS. HT. $\frac{3}{4}$ IN. *See Note 5.*

but of slightly different form and both completely encircled by the groove, are in the museums at Kendal and Keswick respectively: the Kendal specimen is reported to have been found in the grounds (or garden) of the Girls' High School at Kendal, but there appears to be no information relating to the specimen at Keswick.

5. *The intaglio and cameo bequeathed by the late
Dr. C. H. Hunter Blair. Pl. XII*

In his Will, summarised in *The Times* on 28th January 1963, Dr. Hunter Blair left to the Museum his "intaglio in red jasper (hunter and dog) set in a gold ring" and his "cameo of Cupid on a sea horse set in gold as a tie pin", together with all his books on heraldry and seals. After consultation with Miss L. Hunter Blair it seemed best to deposit the books on indefinite loan in the University Library, Newcastle, on the understanding that they will be kept together there and will be known as the "Hunter Blair Bequest". The intaglio (1962.12) and the cameo (1962.13) have both been recently re-published²⁵ and it is only necessary to add one detail which seems worth recording. This is the inscription engraved inside the ring which gives the place and actual date of discovery of the intaglio as "12: Dec: 1877. South Shields." No such precise information is available for the cameo: all that Dr. Hunter Blair himself could tell me about it, three or four years ago, was that it had been found in the area of the Wall.

²⁵ D. Charlesworth, Roman jewellery found in Northumberland and Durham, *AA* XXXIX 19, 32, no. 12 (intaglio), 19, 34, no. 2, pl. VIII, 2 (cameo).

