

EARLY BRONZE AGE BEAKERS FROM PIN HOLE CAVE, CRESWELL CRAGS, DERBYSHIRE

By J. A. GILKS

(Tolson Memorial Museum, Ravensknowle, Huddersfield, Yorkshire)

Summary

During the course of excavations at Pin Hole Cave, Creswell Crags, Derbyshire, between 1924 and 1938, A. L. Armstrong found fragments of two Early Bronze Age Beakers and sherds from two Collared Urns. These vessels were not illustrated or described by Armstrong in his excavation accounts, and their find-spots in relationship to the various deposits only roughly marked on a sketch section in his notes. Samples of charcoal taken from the area in which the pottery was found have produced radiocarbon dates which suggest that these layers, described by Armstrong as Mousterian and Developed Aurignacian, probably date to the Late Neolithic and Early Bronze Age periods. Human bones recovered from the same horizons indicate that the cave was used for both occupation and burials.

INTRODUCTION

Geographical location and geology

Pin Hole Cave (Nat. Grid Ref. SK 533741) is situated three-quarters of a mile (1.3 km.) east of the village of Creswell (Fig. 1), on the north bank of a tributary stream of the River Poulter (Eden, *et al.*, 1957, 162), at the western end of the Creswell Gorge, at 250 ft. (76.2 m.) O.D. The gorge traverses the back of an upfaulted ridge of Lower Magnesian Limestone, and it might well have been formed by glacial melt-water during some stage of the Older Drift (Eden, *et al.*, 1957, 162), though there is no evidence, other than its suggestive shape and position, to support this claim. The mouth of the cave is located in a precipitous and heavily undercut wall of limestone, about 15 ft. (4.6 m.) above the present floor of the valley. To the east and west of the entrance, bordering the stream, is an area of marsh which probably rests on a deposit of alluvium and/or Head; the latter being composed of ungraded or poorly-graded stony-clay of local origin, but, as has been pointed out (Eden, *et al.*, 1957, 154-55), the division between valley-bottom Head and alluvium is such that no precise line of demarcation can be detected between them.

THE EXCAVATIONS

Summary of excavations: 1875 and 1924-38

Pin Hole Cave first attracted archaeological interest in 1875, when the Rev. J. Magens Mello excavated part of the entrance fissure to the cave (Mello 1875, 679-83; 1876, 103-6). Mello describes the cave as lofty, about 40 to 50 yards (36.4 to 45.7 m.) in length, with its entrance situated about 15 ft. (4.6 m.) above the floor of the valley. Some 23 ft. (7.0 m.) from the entrance the cave divides into two passages, and at this point the floor was strewn with limestone boulders derived from the roof and sides of the cave. Mello made a cutting in the fissure 25 ft. (7.6 m.) long by 2 ft. (0.61 m.) wide — the width of the fissure at this point. The stratigraphy was simple: below a superficial layer of recent soil 6 in. (15.2 cm.) thick, a deposit of red sand 3 ft. (0.91 m.) thick, containing Pleistocene fauna, rested on a sterile layer of yellow sand of unknown depth. Apart from several fragments of unworked flint, no other evidence of human occupation was found (Mello 1875, 680-82; 1876, 104-5).

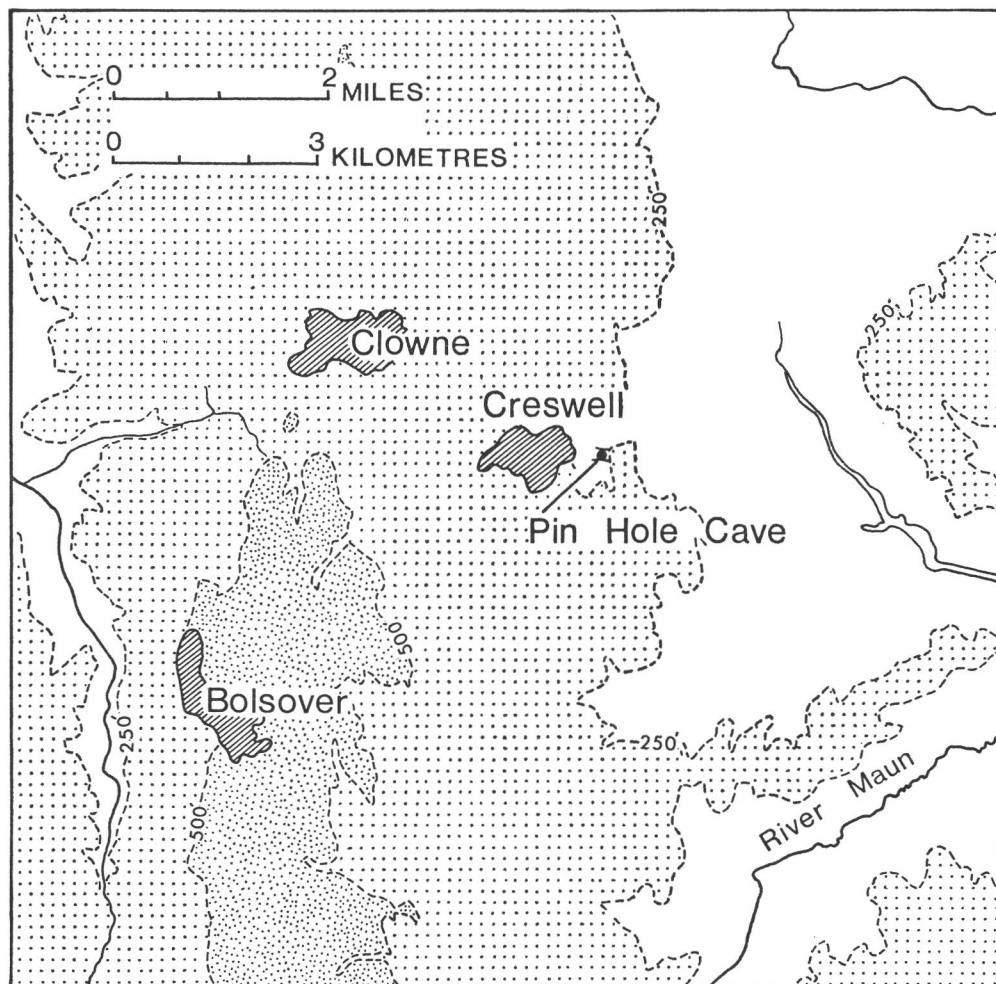


Fig. 1 Location of Pin Hole Cave, Derbyshire (derived from the Ordnance Survey Map of 1913).

No further work was undertaken at the cave until November 1924, when A. L. Armstrong, for the Derbyshire Cave Committee, began a series of excavations which were to continue, intermittently, until 1938 (Armstrong 1926, 117–21, Fig. 3; 1928–29, 27–28; 1931, 330–34; 1937, 78–84; 1948, 5; 1956, 92–97, Fig. 27). Armstrong excavated a trench 12 yards (11.0 m.) long, beyond the northern limits of Mello's cutting, and by 1929 had cleared over 80 ft. (24.4 m.) of the passage to a depth of between 15 and 17 ft. (4.6 and 5.2 m.) (Armstrong 1929, 27). In this section two layers of cave earth were noted and these could be equated with those excavated by Mello in the entrance fissure (Fig. 2). These layers are (a) below black soil and stalagmite, a deposit of red cave-earth, 6 to 7 ft. (1.83 to 2.13 m.) thick, containing Pleistocene fauna and 'Creswellian' implements, and (b) a layer of yellow cave-earth, 10 to 11 ft. (3.05 to 3.35 m.) thick with implements of 'Mousterian' types. The stalagmite capping had been cut through in several areas by 'recent' disturbances which penetrated the red cave-earth to an average depth of 18 in. (0.46 m.) (Armstrong 1926, 118, Fig. 3); according to Armstrong's Register, however, one disturbance penetrated the latter deposit to a depth

of at least 2. ft 6 in. (0.76 m.), and reached the top of a layer of black earth with hearths upon it (Floor 2). At the bottom of this disturbance, and resting on the black-soil and hearths, were fragments of a Beaker (Fig. 3, 1) (Armstrong 1925, 8); charcoal samples taken by Armstrong from this latter deposit, which he described as 'Developed Aurignacian/Creswellian' (Armstrong 1931, 330-31, Fig. 1) have yielded a radiocarbon determination of 1960 ± 120 b.c. (BM-438) (Barker *et al.*, 1969, 289-90; Lavell 1970-71, 9-1). A similar occupation deposit, of black-soil with hearths, was found 1 ft. (0.30 m.) below the first (Floor 1), and this rested on top of a heavy deposit of limestone boulders; no pottery was found associated with this occupation floor. At a depth of 5 ft. 8 in. (1.73 m.) from the surface, at the junction of the red and yellow cave-earths (Fig. 2), Armstrong found fragments of a second Beaker (Fig. 3, 2), in his 'Mousterian/Upper Aurignacian boundary zone'; bulked charcoal from this horizon has produced a radiocarbon determination of 2170 ± 140 b.c. (BM-437) (Barker *et al.*, 1969 289-90;

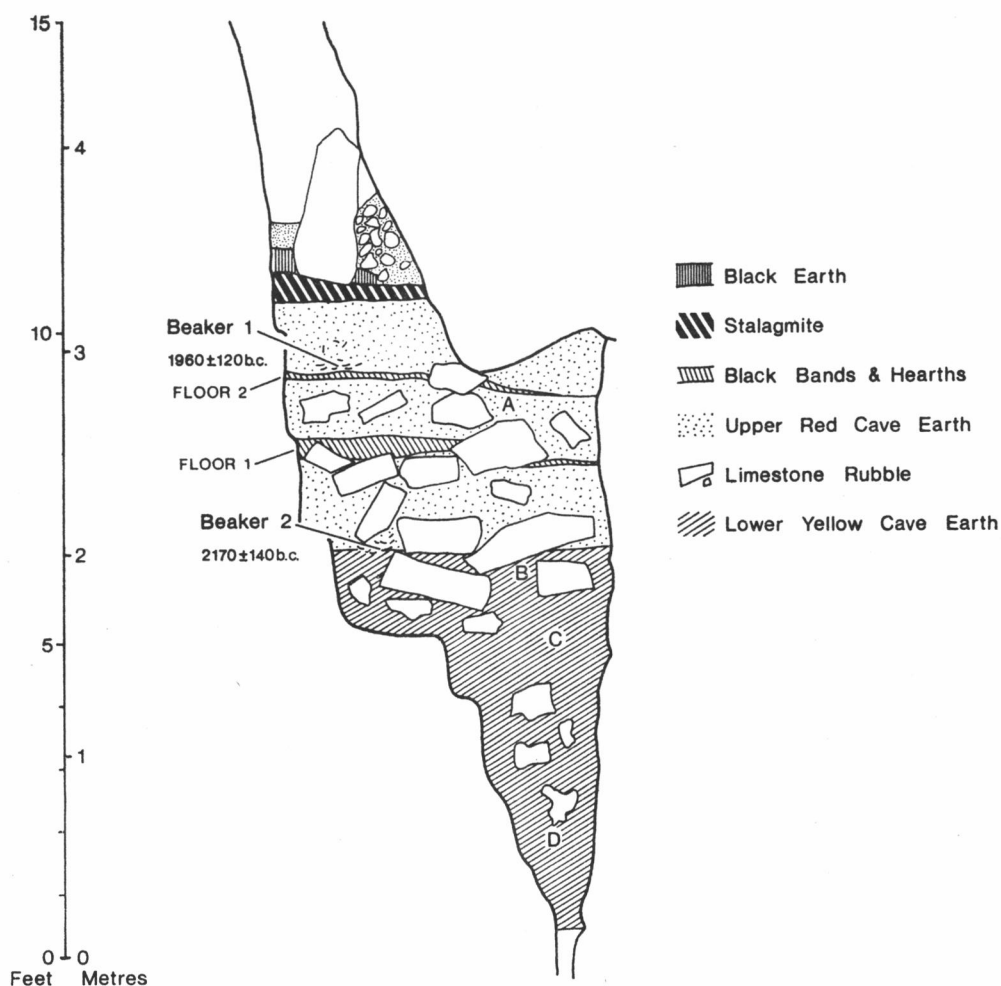


Fig. 2 Section through cave showing depths at which the Beakers and charcoal samples were found. A: The Rodent corner. B: Upper Mousterian Level. C: Lower Mousterian Level. D: Lower Palaeolithic Level. (After A. L. Armstrong and J. A. Gilks).

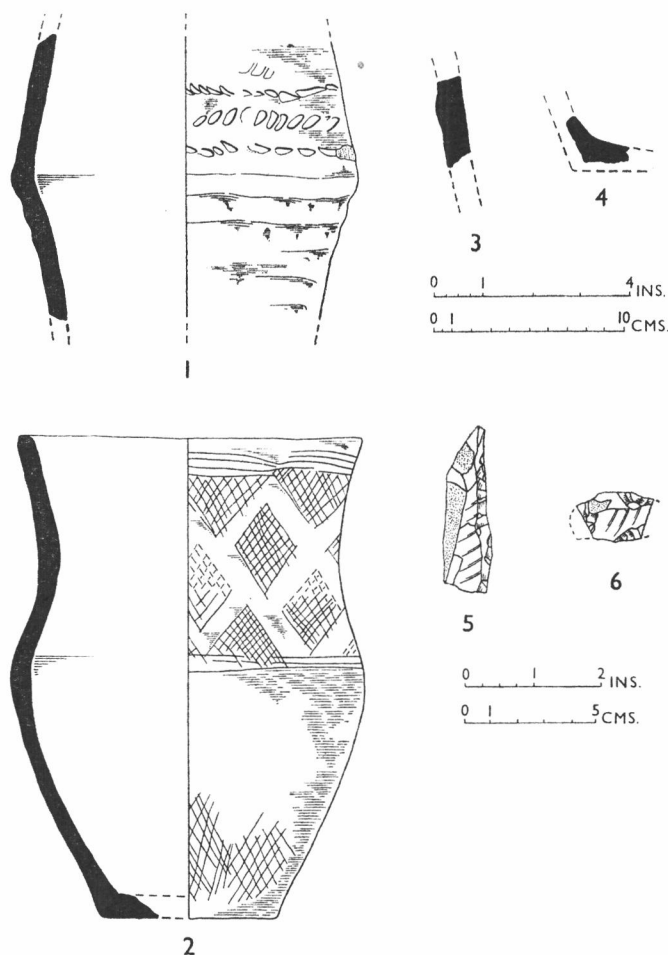


Fig. 3 1 and 2: Beakers. 3 and 4: Collared Urns. 5: Flint Knife. 6: Broken Double-edged scraper. Nos. 1-4 ($\frac{1}{4}$). 5 and 6 ($\frac{1}{2}$).

Lavell 1970-71, 9.1). Armstrong does not record this Beaker in either his Register or in his published excavation accounts, and the depth at which it was found is only roughly marked on some of the sherds.

According to Kitching (1963, 14-15) and Jackson (1967, 14), human remains, although scanty, were recovered by Armstrong from the red cave-earth at between 2 and 4 ft. (0.61 and 1.22 m.) down. At least one adult and a child are represented.

Sequence of events

The cultural material, comprising two Beakers, two Collared Urns and numerous flint implements, recovered by Armstrong from the upper red cave-earth and the top of the lower yellow cave-earth, suggest that these layers, especially the former which had at the top two occupation floors with hearths upon them, date to the Final Neolithic and Early Bronze Age periods. Armstrong describes the tool assemblages recovered from the base and middle sections of the red cave-earth, as 'Mousterian' and 'Developed Aurignacian'; the implement forms represented are principally backed and obliquely

blunted points and knives produced on stout flint flakes and blades (Armstrong 1926, 118–20, Fig. 2, 2), which can be ascribed by their form to the Creswellian Culture.

In view of the archaeological content of the upper red cave-earth, it is the opinion of the writer that the deposits excavated by Armstrong above slab layer 2 are postglacial (Armstrong 1931, f. 331). The flint implements recovered imply that the deposit of red cave-earth between the top of slab layer 2 and the base of occupation floor 1 was formed during the postglacial final Palaeolithic (Creswellian) and probably Mesolithic and Neolithic periods; whilst the two occupation floors (Floors 1 and 2) above cannot, owing to their cultural content, be earlier than the Late Neolithic/Early Bronze Age.

The digging of the grave(s) must have coincided with the initial Late Neolithic/Early Bronze Age occupation of the site. Fragmentary human remains representing at least one adult and a child were found by Armstrong in the top 4 ft. (1.22 m.) of the upper red cave-earth, with a marked scatter of human bones at between 4 and 5 ft. (1.22 and 1.58 m.) down, about 1 ft. (0.30 m.) below occupation floor 1. Whether the two burials occupied the same grave or were interred separately cannot be determined, but one of the burials was certainly accompanied by a Beaker (Fig. 3, 2). The scatter of human bones in disturbed soils at the top of the deposit and above occupation floor 2, was probably the result of the re-working of cave soils in the area of the burials during Romano-British and Medieval occupations, as pottery of both periods, recovered from above and below the stalagmite capping, in pits and hollows recorded by Armstrong in his notes (Armstrong 1925, 8) clearly attests. As no graves were found penetrating floor 1, it is presumed that the burials were inserted prior to the formation of the black soil layer (Floor 1) and the accumulation of occupation debris upon it, although the later disturbances might well have removed all trace of any cut-graves.

DISCUSSION

The Beakers and Collared Urns

Dating

Both Beakers belong to Clarke's Final Southern British (S4) Beaker tradition (Clarke 1967, 195–7; 1969, 68; 1970, vol. 1, 234–5). Vessel 1 (Fig. 3, 1) appears to be part of a characteristic Biconical Rusticated Beaker, decorated above the shoulder with uneven circumferential lines of finger-nail impressions, whilst below the shoulder, rows of similar impressions have been smoothed into plastic ribs and ridges. Vessel 2 (Fig. 3, 2) is equally a characteristic 'fine ware' Beaker, decorated with the usual careless, fine-blade reserved lozenge decoration on the neck and base of the body. According to Clarke, both of these vessels would be at home in the same Final Southern British (S4) Beaker domestic assemblage, at an expected date of c. 1550–1400 BC (Clarke 1970, vol. 1, 243). Clarke stressed in his corpus that this particular type of Beaker could hardly be assigned to a precise beginning or end, and that the form might well overlap the end of the Final Late Southern British Beaker group, possibly by a substantial amount (Clarke 1970, vol. 1, 242).

Nothing need be said about relative chronology, as this has been treated in detail elsewhere (Clarke 1970, vol. 1, 242–3). For absolute dating, attention need only be drawn to the Beaker occupation site at Cottage Field, Wattisfield, West Suffolk, where Beakers, decorated with circumferential lines of vertical finger-nail impressions, were associated with charcoal which produced a C_{14} date of 1570 ± 150 b.c. (BM-77) (Robertson-Mackay 1961, 102–3; Clarke 1970, vol. 1, 243; Lavell 1970–71, 3J.1). Typologically, however, this site is early in the Final Southern British Beaker development and comes from an area in which the form first evolved. The terminal date of 1400 BC is only approximate, and if a connection is admitted, as Clarke suggests, between Covesea Ware and the Scottish 'Sub-Beaker' group, then this date has only typological significance in Scotland.

The two S4 Beakers from Pin Hole Cave were, however, associated with charcoal, which, when processed by the British Museum Research Laboratory, produced two

radiocarbon determinations of 1960 ± 120 and 2170 ± 140 b.c. respectively, which were both *earlier* than the suggested date of c. 1500 BC for the beginning of the Final Southern Beaker tradition, by four and six centuries. Research by the writer has shown that the charcoal samples analysed were in fact 'bulked'; a series of small samples being brought together to provide a sufficient quantity to process. It is possible that one or more of the smaller samples included might well represent *old* charcoal from the Creswellian horizon which had been incorporated in the filling of an Early Bronze Age grave with charcoal from a contemporary hearth site close to the grave; this contamination would, therefore, distort the dates, making them *early*. If one takes this point into consideration, and the size of the \pm bracket, the dates presented are by no means irreconcilable, though inevitably their precision for dating the Beakers is at the same time reduced.

Very little of value can be said about sherds 3 and 4 (Fig. 3, 3 and 4), apart from their difference in fabric, the thickness of the basal fragment and the wall sherd, with smoothed outer surface, clearly illustrate that they have come from two Early Bronze Age Collared Urns. Any attempt to be precise about the shape of the urns from which the pieces are derived would, because of their small size, be purely speculative, and it is sufficient to record that sherd 3, with an average wall thickness of 12.5 mm., is probably from the body of an urn of quite large proportions, whilst sherd 4 is from the base of a second urn, whose diameter cannot be determined. The fabric of this latter sherd resembles that of a Collared Urn from Elbolton Cave, Wharfedale, and dated by the present writer to the end of the 15th century BC (Gilks 1973, 46–50, Fig. 4, 7).

Both the broken double-edge scraper and the flint knife produced on one edge of a stout flake are from the upper red cave-earth. Similar edge-trimmed knives have been found on many occupation and burial sites in the north of England. In Derbyshire a knife of similar form was found in the Food Vessel phase primary 'coffin' grave at Barrow 4, Swarkeston (Greenfield 1960, 21, Fig. 8, 18), whilst the writer has found knives of this type on open occupation sites at Holdsworth (Gilks, forthcoming) and at Castle Hill, Denby (Gilks 1974, Fig. 2, 21), both in western Yorkshire. The knife from the latter site was found associated with typical Late Neolithic/Early Bronze Age polished-edge scrapers and plano-convex knives (Clark 1932, 158–62), a form of knife found associated with Beakers and/or Food Vessels, in numerous graves under round barrows in east Yorkshire (Simpson 1968, 198–200). In short, both implements would be quite at home in the Beaker phase occupation at Pin Hole Cave, but whether these tools were found unstratified or with occupation refuse cannot be determined.

CONCLUSIONS

A. L. Armstrong recovered from Pin Hole Cave, between 1924 and 1938, fragments of two Early Bronze Age Final Southern British (S4) Beakers, and sherds from two Collared Urns. The Beakers can be tentatively dated, according to Clarke's reclassification of British Beaker pottery, to c. 1550–1400 BC, and the Collared Urns, on comparative evidence, to the 15th century BC. It has not been possible to prove conclusively that the vessels accompanied the inhumation burials as grave goods or were part of occupation debris; but it is suggested here that, according to stratigraphical evidence, the Collared Urns and Beaker 1, found above, and resting on, floor 2, at the top of the upper red cave-earth, are probably derived from an occupation deposit which was not identified by Armstrong as being Early Bronze Age. Beaker 2, however, was recovered from the junction of the red and yellow cave-earths, in an horizon which produced human bones representing at the very least two individuals; this Beaker might well have accompanied one of the burials as a grave offering, although Armstrong does not record human bones in association with Beaker fragments.

ACKNOWLEDGMENTS

I am indebted to Mr. A. J. N. W. Prag of the Manchester Museum for permission to publish the Beakers from Pin Hole Cave, and to Dr. R. David for making the vessels and Armstrong's Register of Notes available for study. To Dr. I. H. Longworth, British Museum, and to Dr. D. L. Clarke, Peterhouse, Cambridge, I owe a special debt of thanks for their assistance and advice given to me during the preparation of this paper. The following individuals provided information and readily made material available for study: Messrs. D. Bramwell, Bakewell; I. L. Burton, Buxton Museum; M. J. Dolby, Doncaster Museum; P. S. Baldwin, Craven Museum, Skipton, and Miss P. Beswick, City Museum, Sheffield. Miss C. Lavell, Council for British Archaeology, London, kindly provided further information on the radiocarbon determinations for Pin Hole Cave.

CATALOGUE

POTTERY: Fig. 3, 1-4

1 BEAKER Diameter of shoulder: 18.1 cm.; Height (remaining): 14.6 cm. Three large, unweathered, joining sherds of this vessel survive. A hard ware, dirty-brown-grey exterior with some buff-tones; extensively pitted grey-brown interior which is carbonised in the angle of the shoulder. Dark grey-black core; tempered with angular limestone fragments up to 7 mm. in diameter. Decoration takes the form of three circumferential lines, of shallow, unevenly spaced, finger-nail impressions, above the shoulder. Below are two distinct, but badly pitted ribs/ridges, with the remains of two further ribs/ridges below.

2 BEAKER Diameter of mouth: 17.8 cm.; Diameter of shoulder: 18.2 cm.; Height: 24.8 cm.; Diameter of base: 9.2 cm. Forty-eight sherds of this Beaker survive. A hard ware, dirty buff-orange-grey exterior; grey-buff interior covered in places with a red soil 'concretion'. Dirty grey-black core; tempered with pieces of shale and angular limestone fragments up to 3 mm. in diameter. Decorated below the rim with four incised circumferential lines. The neck is covered with incised pendant triangles and diamonds, bordered below, on the shoulder, by three incised circumferential lines. On the lower part of the body of the vessel is a zone of rough, less carefully produced, incised cross-hatching.

3 COLLARED URN A single thick wall sherd in a hard compact paste. Grey-brown-orange exterior which has been smoothed vertically, probably with a wooden spatula. Dirty buff-brown interior, dark grey-black core; tempered with angular limestone fragments up to 3 mm. in diameter.

4 COLLARED URN Base angle with outer surface detached. Soft paste; dark grey interior, orange core; tempered with angular limestone fragments up to 4 mm. in diameter.

FLINT: Fig. 3, 5-6

5 KNIFE, made on sides of flake; dark translucent grey-brown flint with cortex patch on left-hand side.

6 DOUBLE-EDGED SCRAPER broken at both ends. Mottled grey-white flint with cortex patch on nose; frost fractured on the ventral surface.

FLAKE (*not illustrated*), grey flint with white spots and bands; no secondary working.

BIBLIOGRAPHY

- ARMSTRONG, A. L., ?1925 *Register of Notes*, Manchester Museum (unpublished).
 ARMSTRONG, A. L., 1926 'Excavations at Creswell Crags, Derbyshire, 1924-26', *Transactions of the Hunter Archaeological Society*, iii, 116-22.
 ARMSTRONG, A. L., 1928-29 'Pin Hole Cave Excavations, Creswell Crags, Derbyshire. Discovery of an Engraved Drawing of a Masked Human Figure', *Proceedings of the Prehistoric Society of East Anglia*, vi, pt. i, 27-29.
 ARMSTRONG, A. L., 1931 'Excavations in the Pin Hole Cave, Creswell Crags, Derbyshire', *Proceedings of the Prehistoric Society of East Anglia*, vi, pt. iv, 330-34.
 ARMSTRONG, A. L., 1937 'Excavations at Creswell Crags, Derbyshire, 1928-32', *Transactions of the Hunter Archaeological Society*, iv, 178-84.
 ARMSTRONG, A. L., 1948 'Exploration of Caves in the Derbyshire District', *Archaeological News Letter*, no. 7 (November 1948), 5-6.
 ARMSTRONG, A. L., in LINTON, D. L., 1956 *Sheffield and its Region*, Sheffield 1956.
 BARKER, H., BURLEIGH, R. J. F., and MEEK, N., 1969 'British Museum Natural Radiocarbon Measurements VI', *Radiocarbon*, 11, 289-90.
 CLARK, J. G. D., 1932 'The Date of the Plano-Convex Knife in England and Wales', *Antiquaries Journal*, xii, 158-62.
 CLARKE, D. L., 1967 'A Tentative Reclassification of British Beaker Pottery in the Light of Recent Research', *Palaeohistoria*, xii, 179-98.

- CLARKE, D. L., 1969 'The Beaker Folk', *Current Archaeology*, no. 14, 67-70.
- CLARKE, D. L., 1970 *Beaker Pottery of Great Britain and Ireland*, vols. 1 and 2, Cambridge University Press, 1970.
- EDEN, R. A., STEVENSON, I. P., and EDWARDS, W., 1957 *Geology of the Country around Sheffield*, H.M.S.O., 1957.
- GILKS, J. A., 1973 'The Neolithic and Early Bronze Age Pottery from Elbolton Cave, Wharfedale', *Yorkshire Archaeological Journal*, 45, 41-54.
- GILKS, J. A., 1974 'A Neolithic Occupation Site at Castle Hill, Denby, near Huddersfield, Yorkshire', *West Yorkshire Metropolitan County Archaeological Research Committee, Occasional Papers*, no. 1, 1-10.
- GILKS, J. A., forthcoming 'The Excavation of a Medieval Manor House and Deserted Village at Holdsworth, 1966-1969'.
- GREENFIELD, E., 1960 'The Excavation of Barrow 4 at Swarkeston, Derbyshire', *Derbyshire Archaeological Journal*, lxxx, 1-48.
- JACKSON, J. W., 1967 'The Creswell Caves', *Journal of the British Spelaeological Association*, vi. no. 41, 8-23.
- KITCHING, J. W., 1963 *Bone, Tooth and Horn Tools*, Manchester University Press, 1963.
- LAVELL, C., 1970-71 *Archaeological Site Index to Radiocarbon Dates for Great Britain and Ireland*, Council for British Archaeology, 1970-71.
- MELLO, J. M., 1875 'On Some Bone-Caves in Creswell Crag', *Quarterly Journal of the Geological Society*, xxxi, 679-83.
- MELLO, J. M., and HEATH, T., 1876 'On the Exploration of Creswell Crag Caves', *Transactions of the Manchester Geological Society*, xiv, pt. iv, 103-111.
- ROBERTSON-MACKAY, R., 1961 'Beaker Coarse Wares: An Analysis of Beaker Domestic Pottery', *Archaeological News Letter*, vol. 7, no. 5, 99-103.
- SIMPSON, D. D. A., 1968 'Food Vessels: Associations and Chronology', in *Studies in Ancient Europe*, Leicester University Press, 1968.