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INCISED IVORY FRAGMENTS AND OTHER LATE UPPER PALAEOLITHIC FINDS FROM GOUGH'S CAVE, CHEDDAR, SOMERSET

by

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ABSTRACT

Recent excavations in the Late Pleistocene deposits at Gough's Cave have produced ivory fragments with what appear to have been parts of one or more 'notations', an animal rib off-cut and an amber pebble. Here a descriptive account of these is given, in advance of full publication of the excavation.

During the summers of 1986 and 1987, it became possible to sample parts of the remaining Late Pleistocene sediments within Gough's Cave, Cheddar. This was undertaken by a joint team consisting of members of Lancaster University and staff of the British Museum (Natural History).

The 'vestibule' of Gough's Cave was excavated between 1927 and 1931 by R. F. Parry, who removed virtually all Late Pleistocene sediments. His work resulted in the largest collection of 'Creswellian' artefacts yet known from the British Isles. These, as well as the associated fauna and flora, are currently under major review (Currant, 1986; Parkin *et al.*, 1986; Leroi-Gourhan and Jacobi, 1986).

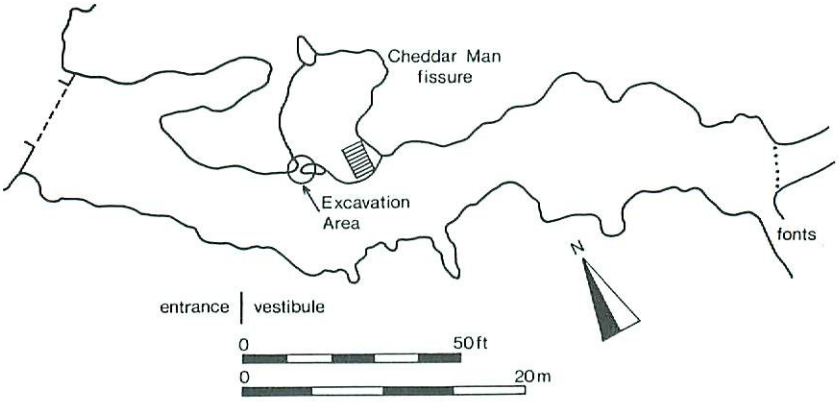

FIG. 1—PLAN OF GOUGH'S CAVE (AFTER DONOVAN, 1955) SHOWING 1986–87 EXCAVATION AREA

The area recently investigated is on the north side of the cave (FIG. 1) and immediately adjacent to the fissure known as 'Cheddar Man Fissure'. In 1903 Arthur and William Gough discovered an almost complete Mesolithic inhumation in this fissure (Davies, 1904). This burial has been dated by radiocarbon to the 10th millenium bp (Burleigh, 1986; Gowlett *et al.*, 1986).

The recent sampling has produced a number of artefacts (including a 'Cheddar point' and a double bevelled mammoth ivory 'rod'), manuports, and faunal remains. There are also a very considerable number of human fossils. Study of this material has just began, and preliminary publication is under way (Cook, in press; Currant *et al.*, 1989)

There is no reason why these fresh finds should not be dated to the same 13,000 to 12,000 bp time span as the bulk of the material from Parry's earlier excavations (Burleigh, 1986; Hedges *et al.*, 1987). To confirm this, however, both human and non-human fossils are being selected for dating through the Oxford A.M.S. system.

Amongst material recovered during this recent sampling are a small pebble of amber, a drawing slate 'cut-off', and six small pieces of ivory, which display a series of regularly spaced groups of incisions. Such finds are extremely rare from British Palaeolithic contexts.

Post-excavation work is still in progress and further excavation is planned. However, due to their importance for the British archaeological record, it is felt appropriate to publish these items. A short description of each follows.

THE AMBER PEBBLE

This was found in a small pocket of sediment underneath the west side of the rock in Fig. 1. During excavation the pebble split, exposing a 'blood red' interior characteristic of amber. It has subsequently been conserved by the British Museum.

The surface of the pebble has been degraded by oxidation and weathering (Fig. 2), and it is now impossible to determine whether it has been shaped by man. Three of the surfaces (Figs. 3 to 5) display faceting which is not common on natural pebbles, but these cannot be ascribed to human activity with confidence. The original source is impossible to determine, as attempts at infra-red spectroscopy by G. Jones (B.M.(N.H.)) have failed due to the efforts of oxidation and weathering. However, the nearest available source of amber during the Lateglacial was the North Sea coast.

At least one other piece of amber is known from Gough's Cave. This was found in the autumn of 1950 in spit 12 of an excavation against the cave wall, just to the east of 'Cheddar Man Fissure' (Donovan, 1955), and associated with the Creswellian industry. This piece has been shown to be of Baltic origin by infra-red spectroscopy (G. Jones, pers. comm.).

To aid description the different surfaces of the pebble have been referred to as 'dorsal' and 'ventral'.

THE 'CUT-OFF' RIB

The proximal end of a rib of a large mammal is illustrated in Figs. 6 to 8. The periosteum has been removed from the surface of the bone by longitudinal scraping whilst still 'green', in preparation for carving (Fig. 7). Following this the distal end has been ringed and then snapped off. Traces of the ringing are just visible (Fig. 8). This part of the rib was then discarded. There are traces of carnivore tooth marks, which were made after the removal of the periosteum, and presumably after discard of the bone. While these are more likely due to scavenging at the site by wild carnivores it is worth bearing in mind that the users of Gough's Cave may have had domestic dogs as aids to travel or as pack animals, although no fossils of domestic dog have yet been recovered from the Pleistocene levels in the cave.

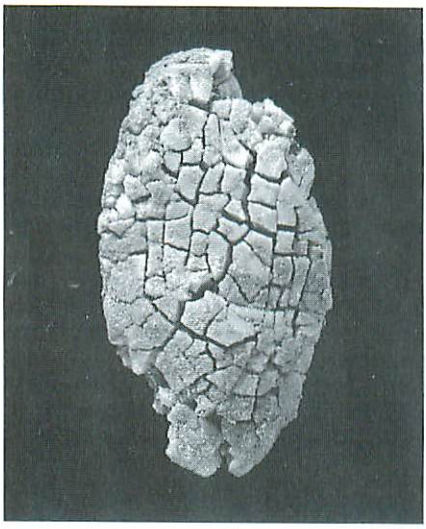

FIG. 2—DORSAL SURFACE OF AMBER PEBBLE; NO FACETING VISIBLE, BUT IT APPEARS ROUNDED

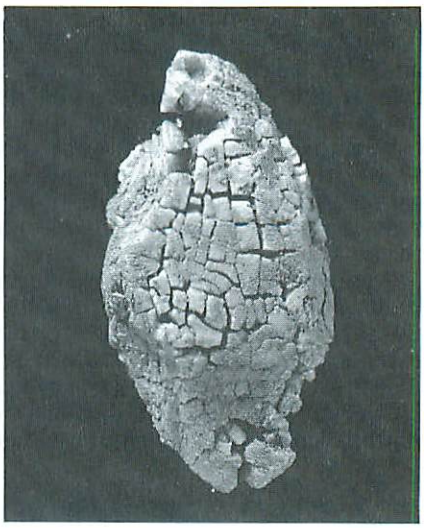

FIG. 3—VENTRAL SURFACE OF AMBER PEBBLE SHOWING FACETING

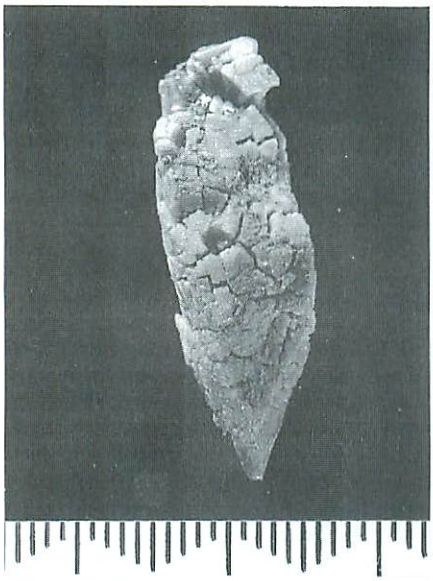

FIG. 4—LATERAL SURFACE OF AMBER PEBBLE SHOWING FACETING

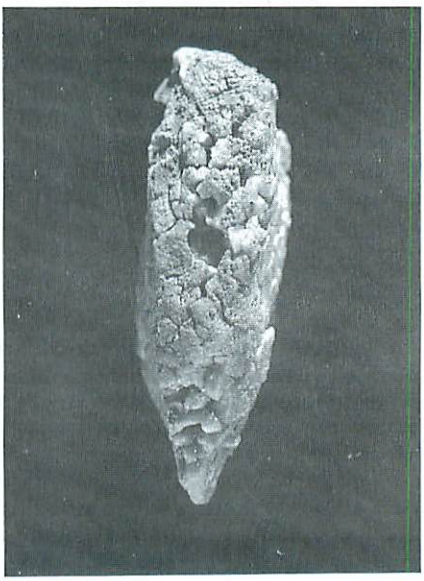

FIG. 5—LATERAL SURFACE OF AMBER PEBBLE SHOWING FACETING

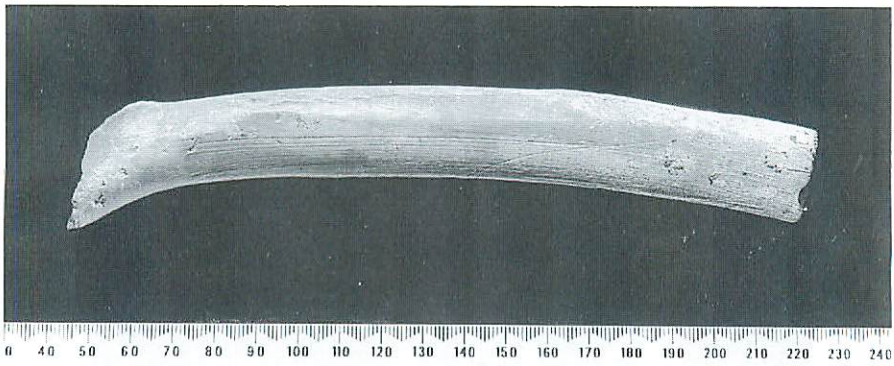

FIG. 6—THE 'CUT-OFF' RIB.

The function of the distal end of the rib is most likely that of a 'drawing slate'; such artefacts are recorded in Britain from the Robin Hood Cave, Creswell Crags (an engraving of a horse's head) and from Gough's Cave (the 'ruler' described in Hawkes *et al.*, 1970). No other artefact type is known from the Lateglacial incorporating sections of ribs prepared in this manner.

FIG. 7—SURFACE OF THE RIB SHOWING LONGITUDINAL SCRAPING AND CARNIVORE TOOTH MARKS

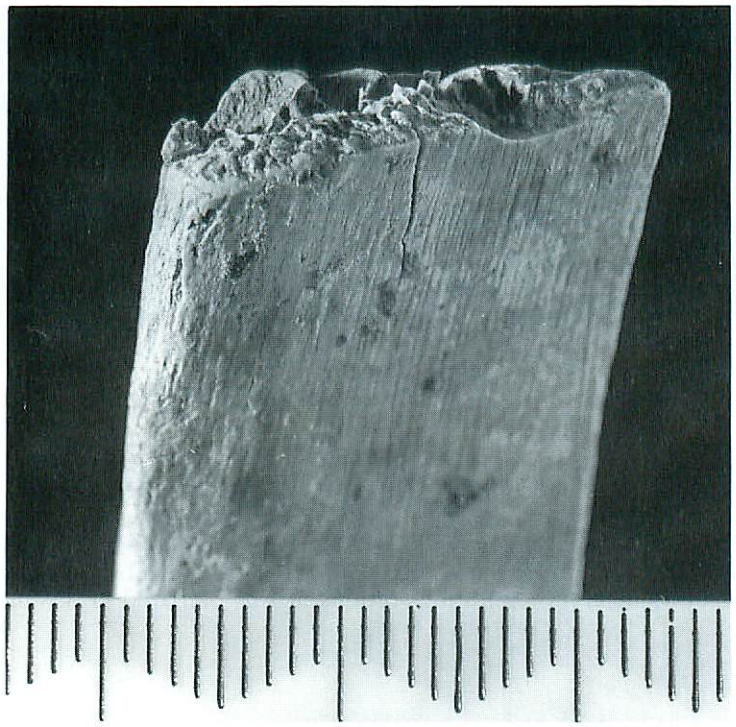

FIG. 8—DISTAL END OF THE RIB; THE TRACES OF 'RINGING' ARE JUST VISIBLE

THE INCISED IVORY

Of the seven fragments so far recovered, five were recovered from the residues of water sieving. Beyond plotting of immediately visible artefacts and fossils there was no 'on site' processing. Instead all sediment was collected and taken to the British Museum (Natural History) for examination. It was there put through a 'soft jet' water sieve, with a 0.5 mm mesh. The residue was then sorted by hand.

These fragments are identified as having parts of deliberate 'notations' rather than casual butchery marks. At least two pairs of fragments are parts of the same object, as they conjoin. Parallels for these 'notations' are rare both in the Continental and British records, but they do exist—perhaps the best being also from Gough's Cave, but made on bone (described by Parry, 1931; Hawkes *et al.*, 1970; Tratman, 1976; Campbell, 1977).

Description

1. (From find context G.C. 87. 71) FIG. 9. A notation made on two conjoining fragments of ivory. Only a small area of the original bone surface survives, and this appears 'sharp'. However, too little remains to determine whether the surface was prepared for carving. There are both recent and ancient break surfaces. There are three clear groupings of incisions. Group 1 is complete, and is made up of sixteen incisions, its length being 5.8 mm.

FIG. 9—CONJOINED NOTATION ON IVORY. G.C. 87. 71. NOTATION NO. 1

Group 2 is likewise complete, but has only eleven incisions formed by at least thirteen strokes. It is 3.7 mm long. Group 3 is again complete and with eight incisions, having a total length of 2.7 mm. The overall dimensions of this fragment are a length of 38.1 mm, maximum width of 19.5 mm, and a maximum thickness of 5.0 mm.

2. (From find context G.C. 87. 60) FIG. 10. An incomplete fragment of ivory, broken at both ends. The date of breakage is uncertain due to its eroded nature. It is now impossible to determine whether the surface was 'smoothed' by man before working. Three groups of incisions are visible. Group 1 may be incomplete, but the traces of eleven incisions survive. Group 2 is complete with fourteen incisions formed by at least sixteen strokes. Group 3 is again

FIG. 10—NOTATION ON IVORY G.C. 87. 60. NOTATION NO. 2

incomplete with only eight incisions surviving. The total length of group 1 is 3.6 mm, group 2 is 4.6 mm, whilst group 3 is 2.5 mm. The overall length of the object is 27.8 mm, the maximum width 18.0 mm and the maximum thickness 6.0 mm.

3. (From find context G.C. 87. 60 and 90) FIG. 11. This fragment is made up of two conjoined pieces. However it remains incomplete. Again the date of breakage is uncertain due to the worn surface of this piece, and it is impossible to determine whether the surface was prepared for carving. The raw material is again identified as ivory. Six groups of incisions are visible in two registers—A and B.

FIG. 11—CONJOINED NOTATION ON IVORY. G.C. 87. 60./90. NOTATION NO. 3

Register A: Group 1 is incomplete, and only four incisions survive. Their total length is 2.3 mm. Group 2 is completed by the conjoin, and consists of fifteen incisions. There is also an oblique stroke above this register, but this appears to be 'accidental'. Group 2 is 6 mm in length. Group 3 is also complete with nine incisions. The length is 3.7 mm. Group 4 is incomplete, with four incisions surviving. Their length is 1.5 mm. Register B: group 5 is complete, with ten incisions and a length of 5.0 mm. Group 6 is incomplete with four incisions now extant, their length being 1.9 mm. The total length of this conjoined fragment is 20.7 mm.

4. (From find context G.C. 87. 60) FIG. 12. As with nos. 1, 2 and 3, this fragment is incomplete and made of ivory. The date of breakage is unknown. It is uncertain whether the surface was prepared for working. There are only two groups of incisions. Both are incomplete, and in both cases only three incisions survive. Group 1 is 0.6 mm in length while group 2 is 0.9 mm long. The total length of this fragment is 4 mm.

5. (From find context G.C. 87. 60) FIG. 13. The raw material is again ivory. It is possible that this fragment is not from a deliberately incised object, as the two incisions appear uncertainly related one to another. These may be butchery marks. This fragment has a maximum length of 8.5 mm, a maximum width of 5.4 mm and a maximum thickness of 4.8 mm.

FIG. 12—FRAGMENT OF NOTATION ON IVORY. G.C. 87. 60. NOTATION NO. 4

FIG. 13—FRAGMENT OF IVORY WITH ? NOTATION. G.C. 87. 60. NOTATION NO. 5

DISCUSSION

The recovery of these fragments must be due to the excavation techniques employed. Because of their minute size and eroded nature it is highly unlikely that they would have been recovered using 'normal' excavation procedures, for example the shaker frames widely used in British cave excavation. Vibration against sharp rock fragments with such a device would obliterate any notation, if not the objects themselves.

All of the notations are made on Mammoth ivory. However, it is unclear whether Mammoth formed part of the local Lateglacial fauna or not. Lateglacial Mammoth is known from other parts of Britain, but as yet there is no firm evidence for a presence in or around Cheddar Gorge. It is equally possible that the ivory was obtained from a distant source, and it is worth noting that it was found within 50 cm of the amber pebble, which was certainly of non-local origin.

Any attempt at interpreting the function of these notations would seem unwise at present. Other, more complete examples, have been suggested as 'calendars' or 'calculators', on the basis of the total number of incisions present. This interpretation is by no means certain.

Further, it is interesting to note the relatively large number of apparently non-utilitarian artefacts which have been recovered from Gough's Cave, in both old and new excavations. These include the amber pebbles, sea shells, and 'notations'. The overall function of this site, and those surrounding it, during the Lateglacial, may be more than just that of a 'hunting camp'. The further recent discovery of a large number of human fossils with clear evidence for dismemberment and disarticulation (Cook, in press.), if not deliberate breakage, may suggest a 'ritual' aspect to the use of Gough's Cave rather than as just a shelter for hunters of horse and red deer. This suggestion can only be tested by future excavation, which may or may not support it.

For the moment, it is not possible to quote any human fossils from a British cave location outside of Cheddar Gorge which are certainly of Lateglacial age. If this observation stands the test of future dating programmes this further emphasizes the unique nature of human use of Gough's Cave at this time.

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