

GOUGH'S CAVE, CHEDDAR, SOMERSET

Rescue Dig, November 1968. Sections Exposed in 1957

NGR ST 467539

By

E. K. TRATMAN, D. T. DONOVAN and J. H. MUSGRAVE

Rescue Dig, 1968

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Information was received that work on the new buildings at the cave was in progress. The site was first visited on November 1st, 1968 but by that time much material had been removed. A sketch plan (Fig. 13) shows the site. This was an area between the back wall of the old buildings and the rock face. For the purpose of recording relative heights the floor of the Guides' room was given an arbitrary height of 10 m. This room is on the level of the platform over the public entrance way.

All the work had to be done very hurriedly so as not to interfere with the progress of building operations.

SITE 1

On inspection portions of a human pelvis and the heads of two femora were seen in the face at 8.60 m. The top of the deposits had been truncated previously and the space between the outer side of the back wall of the old buildings and the undisturbed deposit was filled with loose rubble. The section (Fig. 14) is largely self-explanatory. There was no evidence of disturbance in recent times. There were several bands of "dirty" material. These bands contained charcoal. At 7.10 m was a large boulder close to the rock face. It was covered with a series of layers of brown clay with some sand and small angular stones (2). Generally the sand was fine though there was some coarse. This had the appearance of a natural deposit laid down by water.

On the right of the section and resting against the sloping face of the boulder was charcoal-coloured material blending downwards from 7.25 m into a mass of irregular, somewhat weathered limestones in a red clayey matrix down to 6.60 m, the base limit imposed by construction work. This mass had charcoal pieces, tiny potsherds and animal bone fragments including part of the mandible of a young badger. It

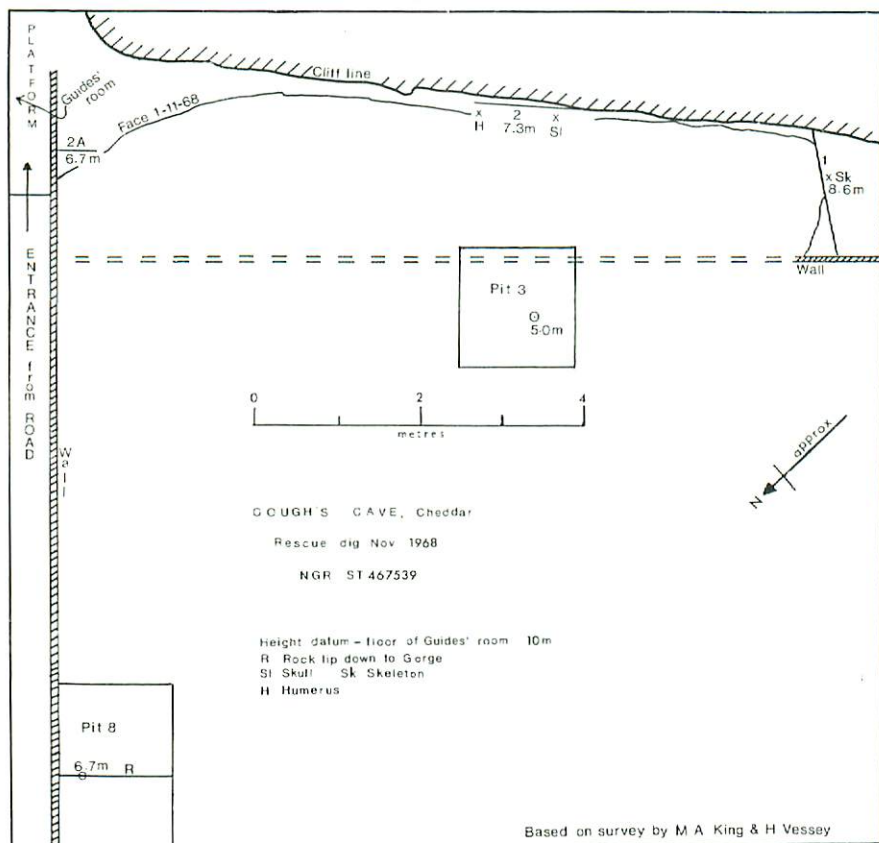


Fig. 13

was possible that some of the stones on the extreme right had been placed when the wall was built.

Above this basal layer no objects were found in any of the layers other than that containing the skeleton. This had been placed supine with, presumably, head to the north and extended. It is probable that the rest of the bones had been dug away without being noticed. The bones were in a shallow, scooped-out grave. The pelvis, femora and tibiae were all more or less in their anatomical relationships. Other bones were only generally so or were materially displaced. The small bones of the feet were missing. There was a minute sherd of pottery between the tibiae but this crumbled on touch. Close to the pelvis on the west was a smooth, wedge-shaped piece of limestone with a smooth and possibly shaped outside curve. It had traces of red ochre on it.

SITE 2

In a shallow recess in the rock was a fill of silty-sandy material. In it were a number of fragments of a human skull or skulls. Some of the pieces were in more or less anatomical relationship and all the fractures were ancient. There were pieces of charcoal present. The skull

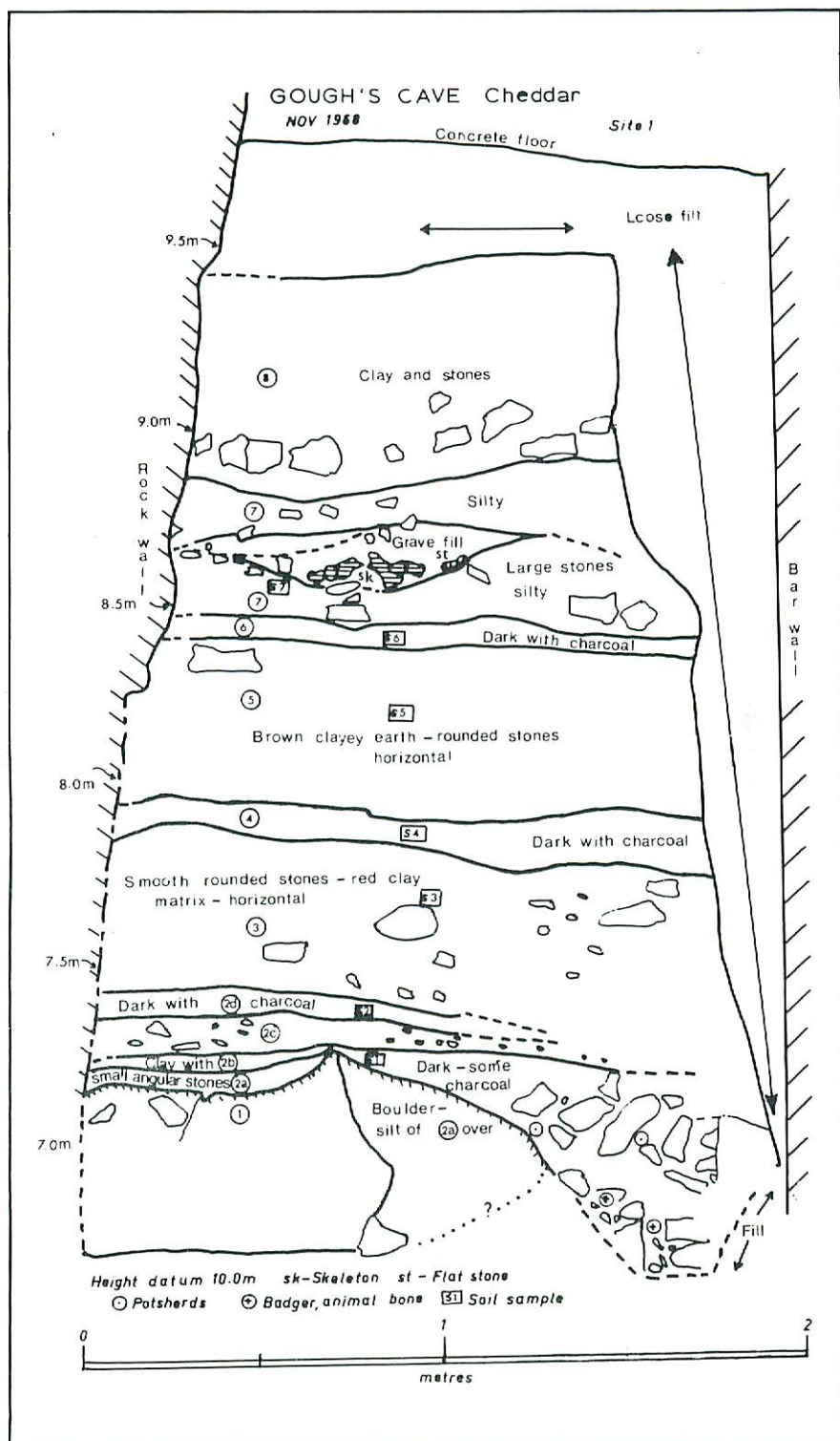


Fig. 14

pieces were at 7.60 m and so too was the distal end of a human humerus, an ox tooth and some animal bone fragments. At about 7.30 m was a sandy clayey mixture, red and sticky. It contained quantities of charcoal, animal bone pieces and a few minute potsherds. It was undisturbed and in places the charcoal was so thick as to be a true hearth deposit. It went down to bedrock. It was probably the same as the pottery layer at site 1. The swift progress of constructional work made it impossible to prepare, let alone draw a proper section.

SITE 2A

The northern end was against the wall of the entrance way to the caves from the road. It was possible to prepare and sketch a section from bedrock, 6.70 m, up to 8.10 m. Above this the cut face was behind the section face. No objects were found (Fig. 15).

PITS

The contractors dug a series of pits for foundations. Two of these are shown in Fig. 13. Pit 1A (not shown) was about 9 m south of pit 3. The section exposed consisted of angular limestone debris of all sizes in a matrix of sticky, brown sandy-clay. There was a layer of bones in the matrix at 5.8 m. The fauna represented was Holocene and included ox, red deer, horse and sheep or goat. Bedrock was not reached in this pit at 5.50 m. In pit 3 no bones were exposed in the section. Bedrock was at 5.0 m. Pit 8 exposed the rock lip down to the gorge at 6.70 m. It was quite impossible to do any excavations in these pits.

COMMENTARY

This rescue dig cannot be regarded as satisfactory. Too much had already been removed and the time limits imposed by the progress of the clearing process prevented anything but the most hurried investigations.

The burial at site 1 must have been made when the body was in an advanced stage of decay but when some of the ligaments were still holding. The bones were those of a youth of about 18 years. The flat smooth piece of limestone seemed to have been deliberately selected and placed. The skeleton was well above the layer containing pottery and charcoal. So presumably the skeleton was not very ancient.

The pottery from sites 1 and 2 was similar. It has been examined by Dr. Isobel Smith and Mr. A. M. ApSimon. Both have stated that it is impossible to date other than that it is prehistoric. It could be anything from Neolithic to Iron Age.

The material at site 2 had the appearance of having been washed out of the cave. As some of the skull pieces were in anatomical relationship it was probable that the skull was more complete when deposited at site 2. How much had been removed by the mechanical shovel could

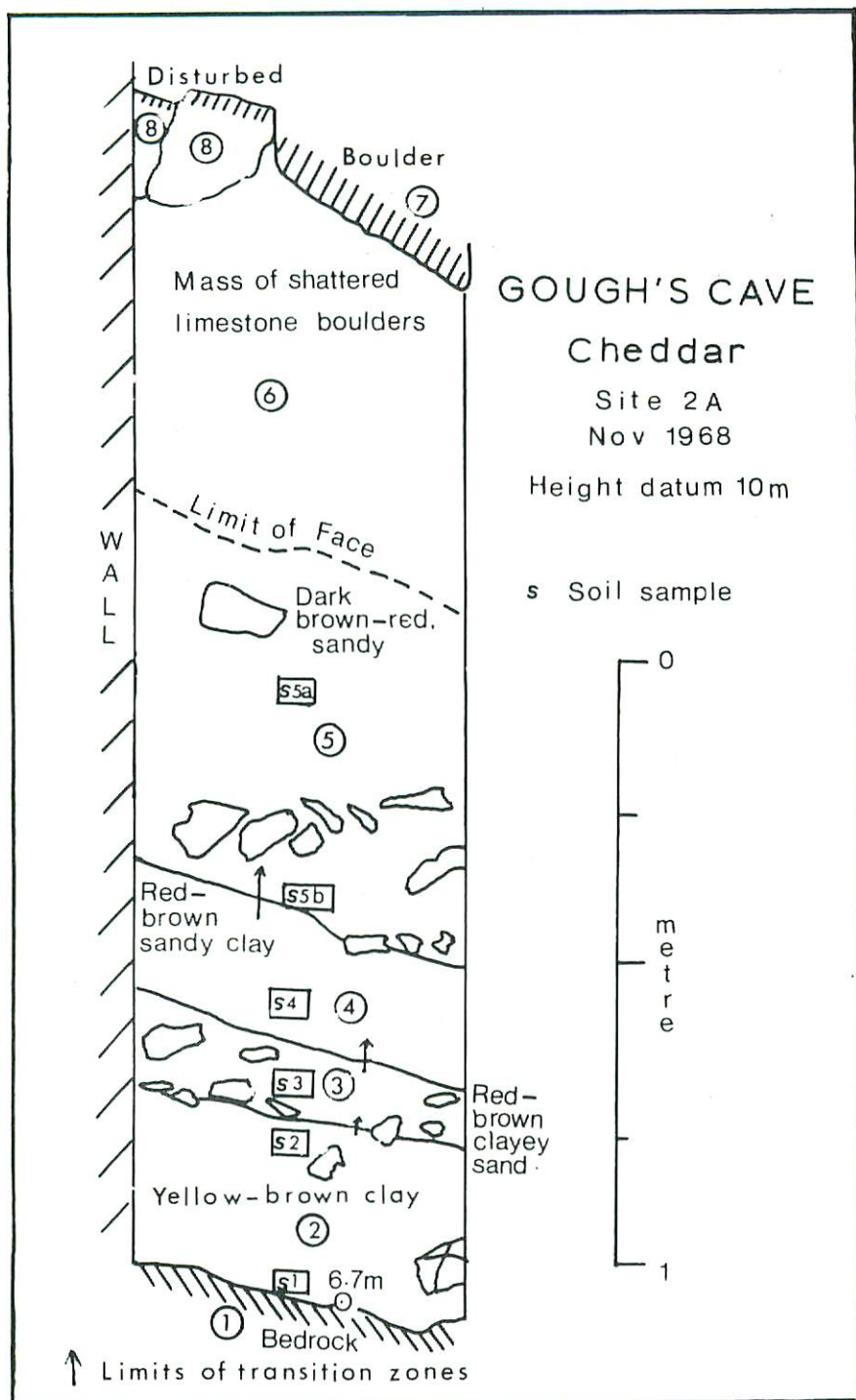


Fig. 15

not be determined. Pottery again occurred below the human bones. But this fact has to be taken in conjunction with probable fluvatile action so the bones are not necessarily later than the pottery. Certainly the bones look ancient and seem to be fairly well mineralised.

This human material cannot be dated. Dr. Musgrave suggests, on the anatomical evidence, that the human material could be of Upper Palaeolithic date but is unable to draw an absolute conclusion.

The total evidence suggests that there was an extensive area of occupation outside the mouth of the cave under the shelter of the overhanging cliff. It remains undated other than it was prehistoric and post-Palaeolithic. None of this material survives except over a limited area now sealed under the ground floor of the cafeteria. Just how much was destroyed when the restaurant and cafeteria were put up in 1934 and 1935 is not known. The clearing work for these buildings did involve the removal of the major portions of the talus-slopes down from Gough's Old Cave and the Slitter, which has the Long Hole or Roman Cave at the top. There are no items in the museum from this digging.

ACKNOWLEDGMENTS

The survey and levelling on which figure 13 is based were done by Messrs. M. A. King and H. Vesey of the Department of Geography, University of Bristol. Mr. A. M. ApSimon and Professor D. T. Donovan assisted with the Rescue Dig. To all these thanks are given.

DISPOSAL OF THE FINDS

The skeleton from site 1, the pottery from sites 1 and 2 and a copy of this report have been placed in the Museum at the cave. The reconstructed calotte from site 2 and the humerus are on loan to the Society's museum and catalogued under M22. The notebooks, photographs and negatives of the sections at sites 1 and 2A are in the Society's Library also under M22.

SECTIONS EXPOSED IN 1957

By

D. T. DONOVAN, PH.D., D.SC.

In the autumn of 1957 the path into the cave was lowered by a maximum of about seven feet, resulting in a level pathway beneath the entrance in place of the steep ascent and descent which used to exist. At the same time the iron gates shown as a reference point by Donovan (1955, figs. 12, 16) were removed. Most of the original deposits in this area had been removed at an earlier date. An undisturbed section was, however, exposed and drawn beneath the site of the iron gates. Along the south-western side of the approach cutting the lower part of the section remained undisturbed. These sections were sketched by D. T. Donovan and are shown in Figure 16. No finds were seen or reported.

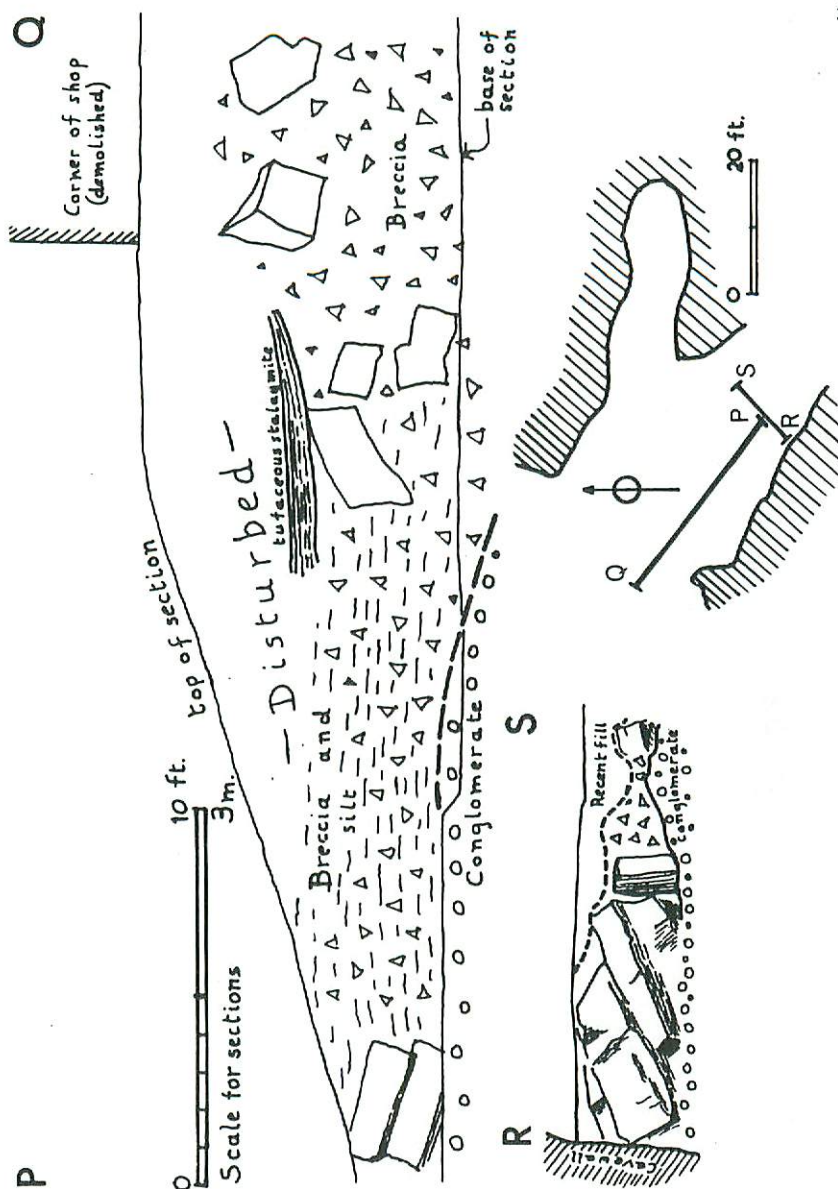


Figure 16. Sections exposed at the entrance to Gough's Cave, Cheddar, during lowering of the path in 1957. P-Q was drawn on 14 November, 1957, and R-S on 23 October, 1957. The conglomerate and breccia of the sequence recognised by Donovan (1955) are distinguished by conventional ornament, except that large blocks in the breccia have been drawn in to scale. The block at the south-west end of Section R-S is noteworthy. Six feet northwest of Q the rock floor was exposed with breccia resting on it, the conglomerate being here absent. The sketch plan is based on Donovan (1955, text-fig. 12).

The north-western end of section P-Q was later covered by the eastern end of the wall shown at the left-hand side of EKT's fig. 13. The section at point Q is therefore close to that drawn in more detail in EKT's fig. 15. The top of the section at Q is probably not very different in level from the 10 m datum used for the 1968 sections.

THE HUMAN REMAINS FROM SITE 2, GOUGH'S CAVE, CHEDDAR—NOVEMBER 1968

By

J. H. MUSGRAVE, M.A., DIP.ANTH., PH.D.

Professor Tratman has kindly invited me to examine these remains and write a short report on them. They comprise an incomplete calotte, several isolated cranial fragments and the distal end of an adult right humerus. They have been catalogued in the Gough's Cave catalogue as $\frac{1A.1}{1}$; $\frac{1A.1}{2}$; $\frac{1A.1}{3}$; $\frac{1A.1}{4}$; $\frac{1A.1}{7}$; and $\frac{1A.1}{8}$, but in this report will be referred to as fragments 1-8. The skull fragments apparently all belong to a single individual.

Fragment 1. (Not figured). This includes part of the right temporal, parietal, sphenoid, frontal and zygomatic bones. This belongs to the fragments figured in Pl. 1.3.

Fragment 2. (Pl. 1.1; 1.2). This is a fragment of the supraorbital portion of the frontal bone with parts of both nasal bones fused thereto. The supraorbital tori and the glabella-region (Pl. 1.1) are well developed as the following measurements indicate: Supraorbital Projection 9.0 mm; Glabella Projection 5.0 mm. These measurements were taken according to the technique described by Howells (personal communication, 1969). The roof of each orbit is pitted with a number of small holes or *cribra orbitalia* (Pl. 1.2). Whether they are pathological or not is not clear. They certainly are not as numerous or as deep as those figured by Brothwell (1963, Pl. 2). The frontal sinuses do not appear to have been extensive (Pl. 1.2). This fragment almost certainly belonged to an adult male. It is part of the same skull as fragment 3 but cannot be directly joined to that as a vital part is missing.

Fragment 3. (Pl. 1.3). This is part of the left side of the frontal bone, parts of the left and right parietal bones and the occipital bone, reconstructed by Professor Tratman. Fragment 1 articulated with the right side of the frontal bone but is not shown in Pl. 1.3. Even though all these fragments comprise a large part of the cranial vault not enough has been preserved to make detailed measurement possible. The only measurement taken was the thickness of the bone at bregma, 5.5 mm, a score fairly close to the means for the numerous populations studied by Twisselmann (1941).

Fragments 4, 5 and 6. (Not figured). These isolated fragments could not be identified or re-assembled with accuracy. It is probable that they are parts of the skull already described. Fragments 5 and 6 were submitted to the British Museum (Natural History) for a nitrogen analysis, the result of which is still awaited.

Fragment 7. (Not figured). This probably belonged to the antero-inferior part of the left parietal bone. Grooves on the inner surface match those for the anterior divisions of the left middle meningeal vessels quite closely. It could not be articulated with the rest of the cranial vault to which it almost certainly belonged.

Fragment 8. (Pl. 2.1; 2.2). This is the most interesting piece of all. It is the distal one quarter of a right humerus and clearly belonged to a large, robust male. The large medial epicondyle (width 22.0 mm), the extensive lateral supra-condylar ridge and the great bi-epicondylar width (70.5 mm) all indicate this. Measurements were taken to estimate the length of the whole humerus, and thus the stature of its owner, and also to determine the size of this fragment in comparison with other humeri of living *Homo sapiens*.

The techniques used to assess the length of the whole humerus were those formulated by Steele and McKern (1969). They entail measuring the lengths of defined segments, in the present case segments 4 and 5. The respective lengths were 2.45 cm and 1.58 cm.

The length of the whole humerus was then assessed by Steele and McKern's Percentage and Regression Methods. It should be emphasised that the constants by which the segment lengths are multiplied are incorrectly printed in Steele and McKern's paper. The decimal points are misplaced: e.g. 0.18 should read 1.8. The estimated length of the whole humerus was 32.1 cm. The stature of its owner was 170.9 cm according to the technique devised by Trotter and Gleser (1958) for such determinations.

These estimates of humeral length and total stature should be treated with caution. They are derived from a single fragment and not from a whole bone or series of long bones. Moreover, Steele and McKern's constants were derived from a study of American Indian long bones: Trotter and Gleser's are based on White American males. Neither are really applicable to British prehistoric populations.

However the fact that ideal constants are unavailable should not prevent an attempt to assess stature. Hence it was gratifying to discover that the assessments of stature of the owner of the Gough's Cave humerus fall at the lower limit of the various estimates of stature of European Upper Palaeolithic males. Von Bonin (1935) has calculated the height of such men as 172.1 cm ($n=11$). Camps and Olivier (1970) have done likewise on two individuals from the type site of Cro-Magnon (171.0 cm) and on 5 from the Grottes de Grimaldi (178.0 cm). Musgrave here has taken the lengths of 3 humeri (sex unknown) from Cro-Magnon

and, using data published by Vallois and Billy (1965), has estimated the stature of these persons to be 171.8 cm.

A glance at plate 2 will indicate that the Gough's Cave humerus was quite large and the measurements show it to have belonged to a moderately tall individual. It would be pleasing to confirm that it and the cranial fragments described above belonged to a member of an Upper Palaeolithic population. The stratigraphical evidence is rather against this (Donovan, 1955) but the chemical evidence, when it becomes available, may point in that direction.

ACKNOWLEDGEMENTS

I would like to thank Professor Tratman for inviting me to report on these interesting remains, and Mrs. Pat Walton for her valuable assistance in preparing the plates.

NOTE

Space and publication costs have made it impossible to reproduce all the tables of measurements on the humeral fragment. However these have been deposited in the Library of the University of Bristol Spelaeological Society, where they may be studied. They may also be obtained from the author.

REFERENCES

These, with the exception of Donovan, 1955, deal with the human material. It has not been considered necessary to add any others. Donovan's paper lists the appropriate references on the stratigraphy within the cave. Ed.

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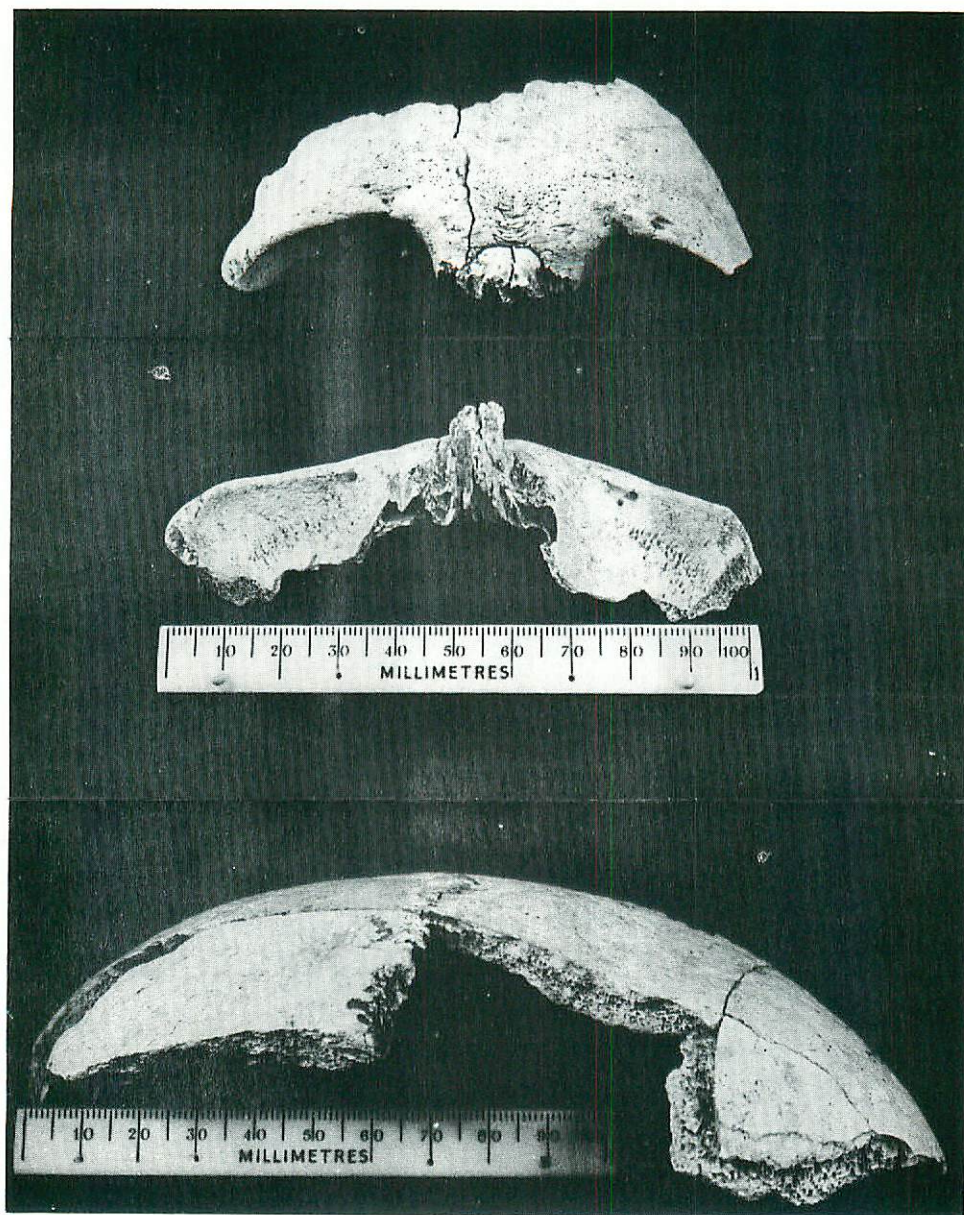


Plate 1

- 1.1 Gough's Cave frontal bone (fragment 2). Viewed from the front.
- 1.2 Gough's Cave frontal bone (fragment 2). View of roof of orbits showing *cribra orbitalia*.
- 1.3 Gough's Cave calotte (fragment 3 and associated pieces). View of left side.



Plate 2

- 2.1 Gough's Cave humerus (fragment 8). Posterior aspect of distal end of right humerus.
- 2.2 Gough's Cave humerus (fragment 8). Anterior aspect of distal end of right humerus.