# EXCAVATIONS AT CRESWELL CRAGS

## PRELIMINARY REPORT

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## INTRODUCTION

CRESWELL CRAGS is a gorge which cuts from west to east through a low ridge of Lower Permian limestone that runs from southern Yorkshire into northern Leicestershire. It straddles part of the present border between north-east Derbyshire and north-west

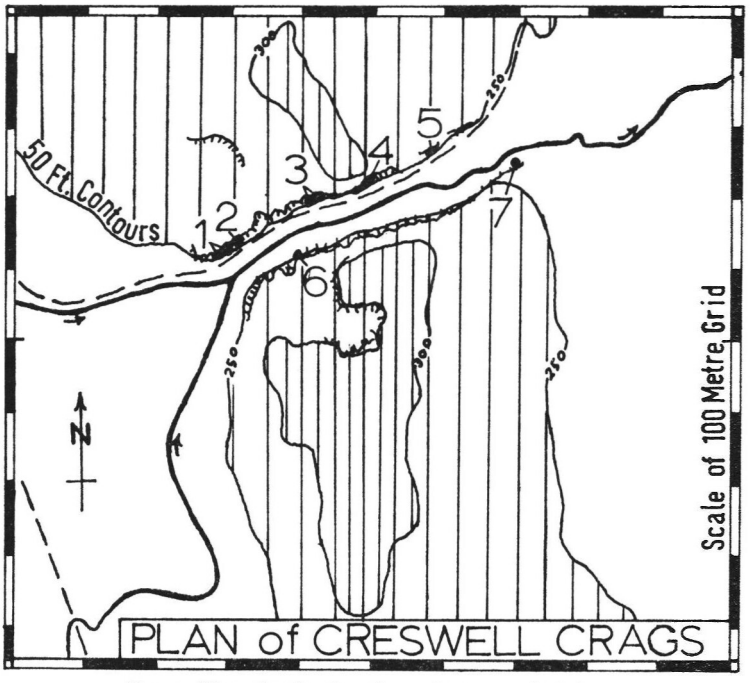


FIG. 1. Plan showing locations of caves and shelters.

1. West End Shelters.
2. Pin Hole (cave).
3. Robin Hood's Cave.
4. Holly Shelter.
5. Mother Grundy's Parlour (shelter).
6. Church Hole (cave).
7. Boat House Shelter.

Nottinghamshire, and four of its cave-shelters (sites 2, 3, 5 and 6 on plan of Creswell Crags) are known to contain collectively evidence of man's use of the Crags intermittently from the middle palaeolithic forward through the 19th century (for further details see Garrod, 1926, and references therein). Near-by quarrying and coal-mining are now both having an adverse effect on the Crags, as is frequent traffic through the Crags.

In July 1969, excavations were conducted at Robin Hood's Cave (Nat. Grid Ref. SK 5431 7419), Holly Shelter (SK 5349 7422) and Mother Grundy's Parlour (SK 5358 7426). Although Holly Shelter, which is just a shallow cliff overhang, was found to be completely sterile except for a 19th-century hearth uncovered just beneath the surface, Robin Hood's Cave was found still to have some stratified palaeolithic evidence, and Mother Grundy's Parlour to have stratified apparently late upper palaeolithic and mesolithic evidence. At the end of July, the trenches at all three sites were completely back-filled in order to protect both deposits and visitors.

## ROBIN HOOD'S CAVE 1969

The work at Robin Hood's Cave entailed the excavation of eighteen adjacent metre squares outside the west entrance (see plan, fig. 2).

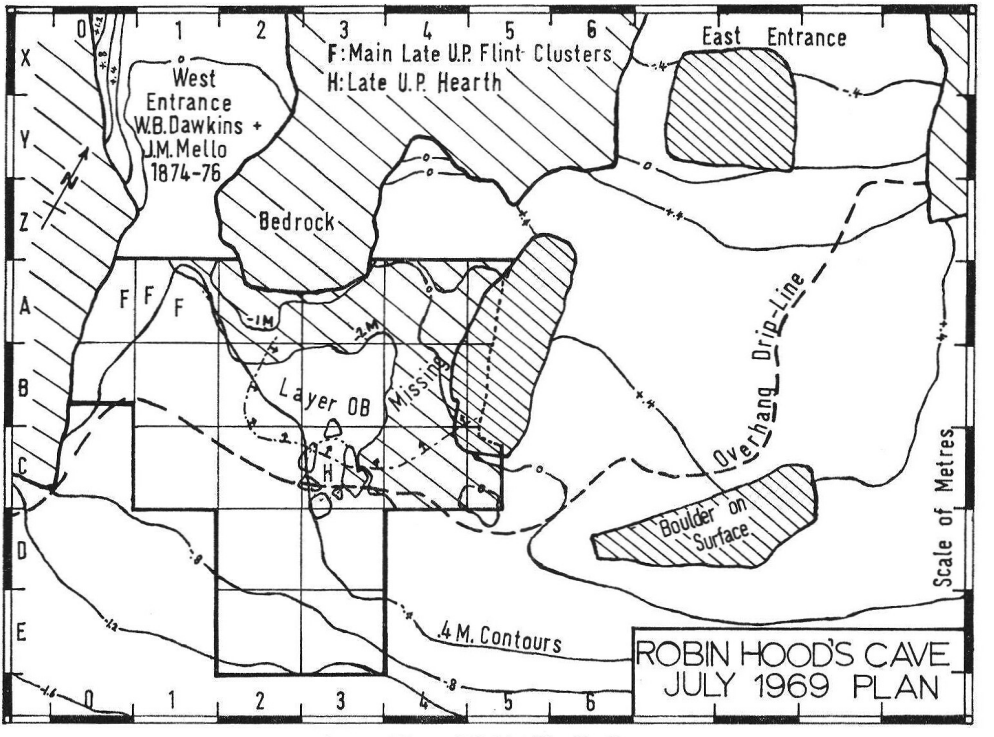


FIG. 2. Plan of Robin Hood's Cave.

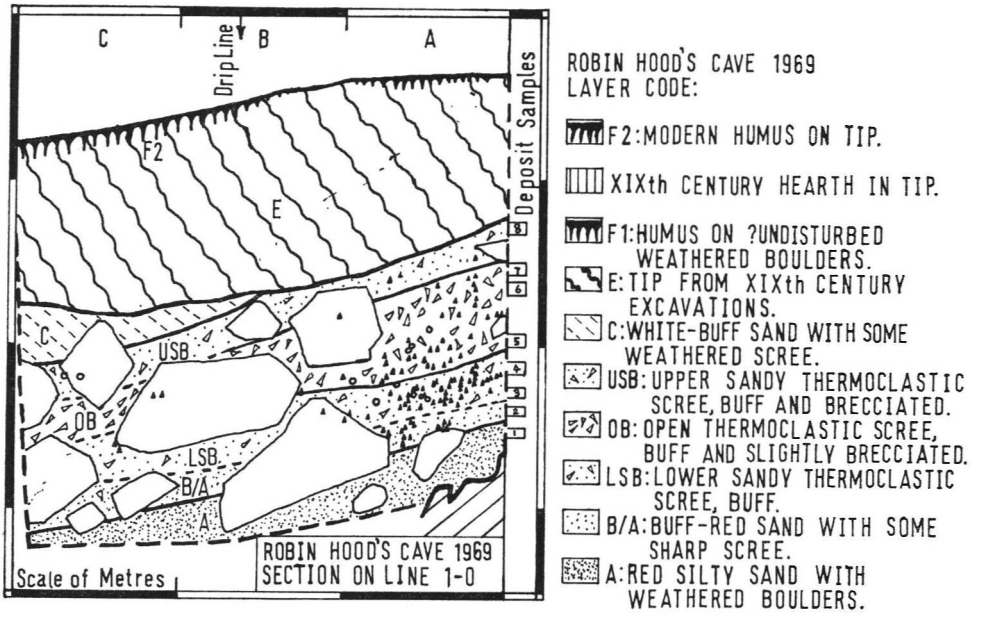


FIG. 3. Robin Hood's Cave, section on line 1 - 0.

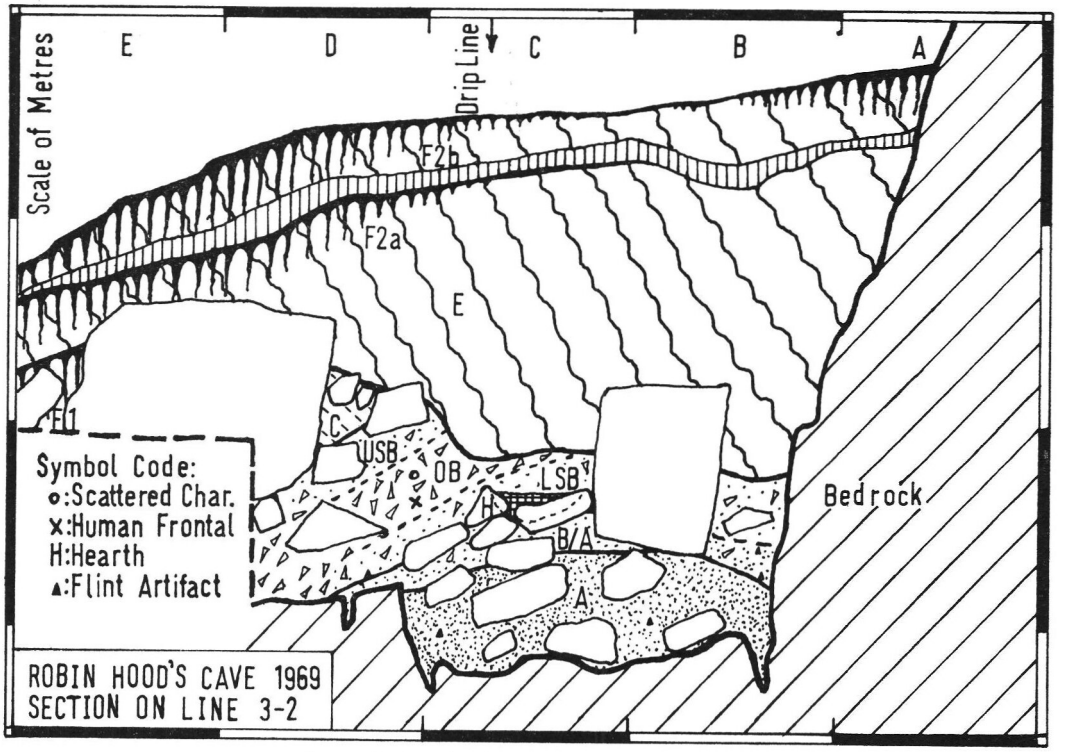


FIG. 4. Robin Hood's Cave, section on line 3 - 2.

Beneath about a metre of tip, which contained in reverse to normal order a small flint hand-axe and other middle palaeolithic tools and then upper palaeolithic tools, was a series of four mainly undisturbed thermoclastic screes (layers USB, OB, LSB and B/A on 1969 north-south sections 1-0 and 3-2) with four respective late upper palaeolithic ("Creswellian") assemblages, which in turn overlaid a basal red silty sand (layer A) with a rather undiagnostic palaeolithic assemblage of three flint flakes and a quartzite scraper (?).

Table 1 gives a preliminary list of artifacts and large mammal faunas by layer from Robin Hood's Cave 1969. Although the artifacts of layer A are undiagnostic, those of the four B layers seem to represent changes in time within the British late upper palaeolithic. Among the backed tools, for instance, there is an apparent rise of "Creswell points" (sub-triangular backed blades) in layers B/A — LSB, followed by a rise of truncated blades and shouldered points in layers LSB — OB at the expense of the earlier "Creswell points". Non-angular backed blades, on the other hand, seem fairly persistent in these three layers. It should be noted that the "Cheddar points" of layer LSB are in this case more rectangular than trapeziform. Finally, in layer USB there is an apparent re-appearance of the "Creswell point" together with the initial appearance of a "pen-knife point" (convex backed blade with opposed basal oblique truncation). There is in addition some variation in the mean breadth/length sizes and ratios of the unbroken backed tools: layer B/A: size 21/77 mm., ratio 0.273; layer LSB: 14/40 mm., 0.350; layer OB: 13/30 mm., 0.433; layer USB: 14/45 mm., 0.311. Of faunal changes and/or preferences, it is perhaps significant that abundant reindeer is associated with the initial rise of "Creswell points", while very abundant wild horse is associated with the presence of shouldered points. Woolly rhinoceros, on the other hand, appears to be a fairly consistent food source, while hyena seems to be a persistent competitor and/or scavenger. The possible presence of ibex in layer B/A is very interesting as it could indicate very cold conditions during the formation of that layer, although taken as a whole, the various large mammal faunas of all five layers listed on table 1 are probably indicative of cold climatic fluctuations. The scientific Latin names are those in current use (Kurtén, 1968).

Some possibly relevant radiocarbon age estimates include an estimate of 12,378 ± 150 B.P. (*c.* 10,428 B.C. BM-524, Campbell, 1970a and b) for a humerus of *Ursus arctos* from a late upper palaeolithic layer with true trapeziform backed blades (or true "Cheddar points") at Sun Hole in Cheddar Gorge, Somerset (Tratman, 1955), and an estimate of 10,413 ± 210 B.P. (*c.* 8,463 B.C. Q-66, Godwin and Willis, 1959a) for organic mud from the top of a late-glacial mud layer with *Equus* bones in association with a small shouldered point at Flixton site 2 in the Vale of Pickering, East Yorkshire (Moore, *et al.*, 1954). Presumably the time range of the late upper palaeolithic at Robin Hood's Cave would encompass these two "dates".

TABLE 1

Preliminary list of artifacts and large mammal faunas
by layer from Robin Hood's Cave 1969

| Artifacts: | Layers: A | B/A | LSB | OB | USB |
|---|---|---|---|---|---|
| Backed Tools: | | | | | |
| Truncated Blade | — | — | 1 | 4 | — |
| Non-angular Backed Blade | — | 1 | 1 | 2 | — |
| "Creswell Point" | — | 2 | 5 | — | 1 |
| "Cheddar Point" | — | — | 2 | — | — |
| "Pen-knife Point" | — | — | — | — | 1 |
| Shouldered Point | — | — | 1 | 2 | — |
| Other Tools: | | | | | |
| Burin | — | — | — | 2 | 1 |
| Concave End Scraper | — | — | — | — | 1 |
| Broken End Scraper | 1? | — | 1 | — | 1 |
| Borer | — | 1 | — | 1 | — |
| Awl | — | — | — | 1 | — |
| Burin/Backed Blade | — | — | 1 | 1 | — |
| Broken Trimmed Blade | — | — | 1 | — | — |
| Core Scraper | — | — | — | 1 | — |
| Waste: | | | | | |
| Flint Waste | 3 | 31 | 85 | 73 | 13 |
| Quartzite Waste | — | 1 | 1 | 1 | — |
| Bone Work: | | | | | |
| Bone Awl | — | — | — | 2 | — |
| Totals: | 4 | 36 | 99 | 90 | 18 |

| Large Mammal Faunas: | Layers: A | B/A | LSB | OB | USB |
|---|---|---|---|---|---|
| Carnivores: | | | | | |
| Hyena *(Crocuta crocuta)* | xx | xx | x | x | x |
| Wolf *(Canis lupus)* | x | — | — | — | — |
| Common Fox *(Vulpes vulpes)* | x | x | — | — | — |
| Artic? Fox *(Alopex?)* | — | — | x | — | — |
| Brown Bear *(Ursus* cf. *arctos)* | — | — | — | x | x |
| Herbivores: | | | | | |
| Woolly Rhinoceros *(Coelodonta antiquitatis)* | x | x | x | x | x |
| Wild Horse *(Equus przewalskii)* | — | x | xxx | xxx | x |
| Red Deer *(Cervus elaphus)* | — | — | — | x | — |
| Giant Deer *(Megaloceros giganteus)* | — | — | — | x | — |
| Reindeer *(Rangifer tarandus)* | — | x | xx | x | — |
| Ibex? *(Capra* cf. *ibex)* | — | x | — | — | — |

x : present; xx : abundant; xxx : very abundant.

From a large series of radiocarbon age estimates for organic material from widely spaced purely environmental sites in Britain, it is now thought that the British late-glacial lasted from *c.* 13,250 to *c.* 10,250 B.P. (*c.* 11,300 to 8,300 B.C.), and that it included a marked climatic amelioration, known as the Allerød Interstadial, from *c.* 11,950 to *c.* 10,750 B.P. (*c.* 10,000 to 8,800 B.C. Godwin and Willis, 1959b; West, 1968; Campbell, 1970b). As various probably related late upper palaeolithic industries are known to cover the whole of the late-glacial in the Netherlands and its immediately adjacent neighbours (Bohmers, 1963), there seems no reason why the same should not hold true for the more favourable parts of England and Wales. However, it should be borne in mind that the British late upper palaeolithic might extend partly into the early post-glacial, at least according to a number of rather curious radiocarbon age estimates from Aveline's Hole and Gough's Cave in Somerset, Anston Cave in Yorkshire, and Mother Grundy's Parlour (see Campbell, 1970b and references therein).

Although no definite early upper palaeolithic ("Proto-Solutrean") evidence was found during the 1969 excavation at Robin Hood's Cave, such material is known from the 1874-76 excavations by Mello and Dawkins (see Garrod, 1926, and references therein). Its stratigraphic position in relation to the late upper palaeolithic material at this site is not certain, but presumably it was found beneath the late upper palaeolithic, as indeed was the case at for example Soldier's Hole in Somerset (Parry, 1930). Its age may be imprecisely guessed by comparison with the early upper palaeolithic assemblage at Badger Hole, Somerset, which now has a radiocarbon age estimate of older than 18,000 B.P. (BM-497, Campbell, 1970a and b). Furthermore, it may be of relevant significance that a slight climatic amelioration may have occurred with a central date of about 18,675 B.P. during what was otherwise the British maximum cold full-glacial of *c.* 26,000 to *c.* 13,250 B.P. (Campbell, 1970b).

Additional noteworthy finds from the 1969 excavation at Robin Hood's Cave include a human frontal bone from layer OB, square D3, and a fairly well-defined hearth in layer LSB, square C3 (see fig. 4, section 3-2). The main flint artifact clusters of layers B/A, LSB and OB, on the other hand, are all in squares A1 and A0 (see figs. 2-3, plan and section 1-0).

## MOTHER GRUNDY'S PARLOUR 1969

The work at Mother Grundy's Parlour entailed the excavation of six adjacent metre squares outside the present shelter (see plan, fig. 5). Beneath a capping of 19th- and 20th-century tip (layer E on fig. 6, 1969, north-south section 1-2) and mixed neolithic (?) to 19th-century humus (layer F), were clusters of mesolithic artifacts in a humic matrix with weathered boulders (layer D) and in a dark orange partly weathered sandy scree (layer C). The latter layer overlaid a scatter of apparently late upper palaeolithic artifacts in a light orange sandy thermoclastic scree (layer SB) and in a similarly coloured loose thermoclastic scree (layer

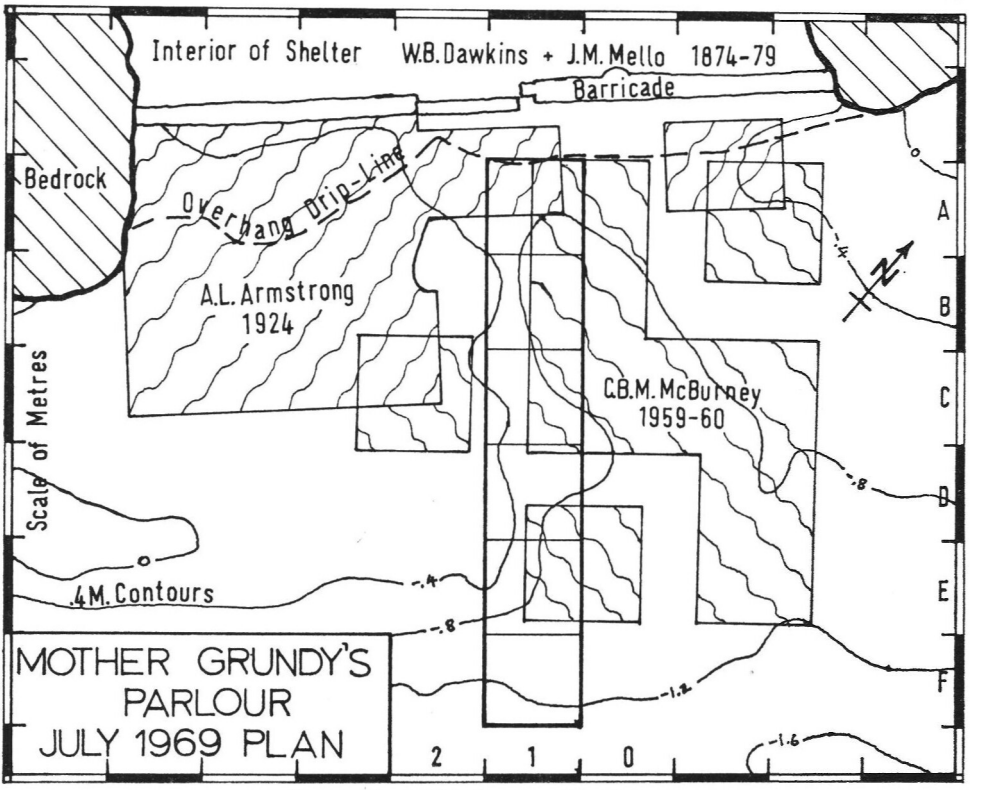


FIG. 5. Plan of Mother Grundy's Parlour.

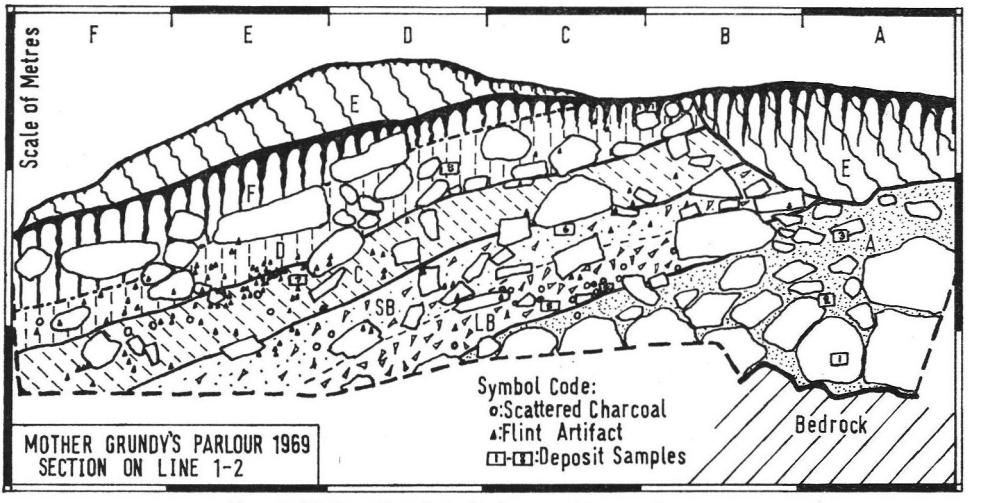


FIG. 6. Mother Grundy's Parlour, section on line 1 - 2.
Layer code:

F. Mixed neolithic? to 19th-century humus.
E. Tips from 19th- and 20th-century excavations.
D. Weathered boulders in humic matrix.
C. Dark orange, partly weathered, sandy scree.
SB. Light orange, sandy thermoclastic scree.
LB. Light orange, loose thermoclastic scree.
A. Sterile, buff, silty sand with weathered boulders.

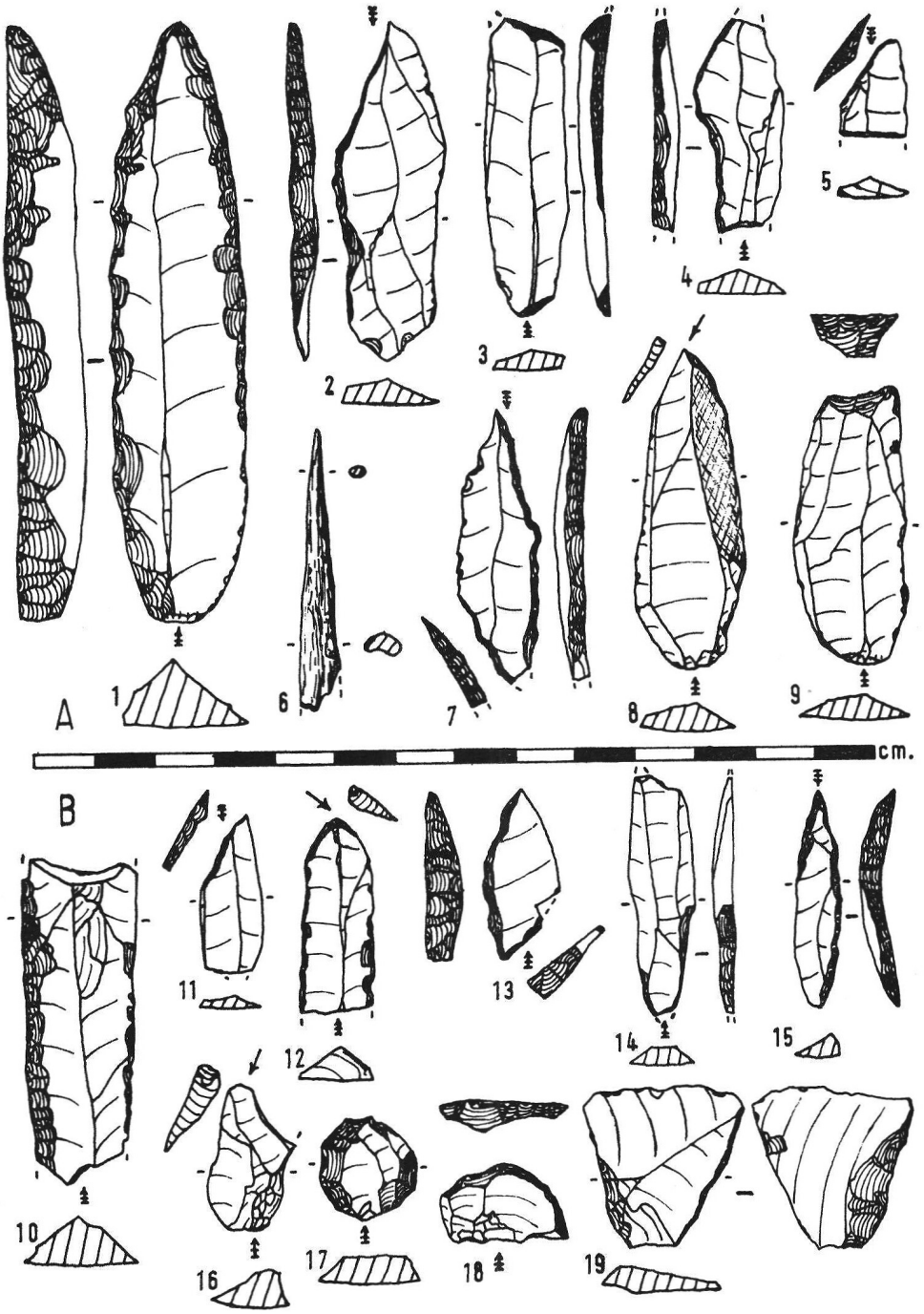


FIG. 7. Selection of tools.

LB), which in turn overlaid a basal layer of sterile buff silty sand with weathered boulders (layer A).

Table 2 gives a preliminary list of artifacts and large mammal faunas by layer and layer-interface from Mother Grundy's Parlour 1969. The artifacts from layers LB and SB are basically undiagnostic, but it is believed that they represent part of the peripheral scatter from the late upper palaeolithic-like (cf. "Creswellian") clusters found to the west and east, respectively, by A. L. Armstrong (1925) and C. B. M. McBurney (1969, personal communication). In support of this possibility it may be noted that a "pen-knife point" (similar to fig. 7, no. 1 in Armstrong, 1925) and a possibly shouldered point were found at the interface (C/B on table 2) of layers C and SB. Both Armstrong and McBurney found numerous "pen-knife points", most being towards the base of the thermoclastic scree, i.e., in their equivalents of layer LB. The artifact assemblages of layers C and D, on the other hand, are mostly if not entirely mesolithic, and include notably, a series of non-angular backed narrow bladelets. There are in addition two "petit tranchet" pieces (or "transverse arrowheads") from layer D; however, it must be stressed that these come from the top of layer D and away from the main mesolithic cluster of the D/C layer-interface of square E1 (see fig. 6, section 1-2). In fact, they may even conceivably be neolithic rather than late mesolithic, as three badly decomposed neolithic (?) peck-cord ware sherds come from just above them in layer F, although the latter are from a mixed context. Differences in the mean breadth/length sizes and ratios of the backed tools from the various layers are also evident: layer SB: size 12/28 mm.,

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FIG. 7. A. Robin Hood's Cave. Late upper palaeolithic tools:

Layer B/A: 1. Large non-angular backed blade
2. Sub-triangular backed blade, "Creswell point"

Layer LSB: 3. Sub-trapeziform backed blade, "Cheddar point"
4. Shouldered point

Layer OB: 5. Obliquely truncated blade fragment
6. Tip of bone awl

Layer USB: 7. Backed blade with opposed oblique truncation, "pen-knife point"
8. Oblique burin on retouched blade
9. Concave end scraper on blade

B. Mother Grundy's Parlour 1969:

Late upper palaeolithic-like tools:

Layer SB: 10. Broken trimmed blade
11. Obliquely truncated blade
12. Oblique burin on retouched blade fragment

Interface C/B: 13. Short, thick "pen-knife point"
14. Possibly shouldered point

Mesolithic tools:

Layer C: 15. Backed narrow bladelet with awl-like point
16. Oblique burin on obliquely snapped core-trimming flake

Interface D/C: 17. Small round scraper on flake
18. Short end scraper on flake

Possibly neolithic tool:

Layer D: 19. "Petit tranchet" on flake (see text, p. 55).

ratio 0.429; interface C/B: 12/34 mm., 0.353; layer C: 8/36 mm., 0.222; layer D (excluding the two "petits tranchets") 8/29 mm., 0.276. Despite how intolerably small these backed tool samples may be, it is very tempting to compare layer SB of Mother Grundy's Parlour with the ratio for layer OB at Robin Hood's Cave, and likewise interface C/B with layer USB, both of which have a "pen-knife point". Conversely, any similarity between the ratios for layer D at Mother Grundy's Parlour and layer B/A at Robin Hood's Cave is countered by a considerable difference in the mean sizes of the two sets of backed tools, as one would expect.

Faunal changes recorded on table 2 are highlighted mainly by the replacement of wild horse, the most abundant food animal in layers LB

TABLE 2

Preliminary list of artifacts and large mammal faunas by layer and layer-interface from Mother Grundy's Parlour 1969

| Artifacts: | Layers: | LB | SB | C/B | C | D/C | D |
|---|---|---|---|---|---|---|---|
| Backed Tools: | | | | | | | |
| "Petit Tranchet" | | — | — | — | — | — | 2 |
| Truncated Blade | | — | 2 | — | — | 1 | 1 |
| Backed Narrow Bladelet | | — | — | — | 2 | 1 | 2 |
| "Pen-knife Point" | | — | — | 1 | — | — | — |
| Shouldered Point | | — | — | 1? | — | — | — |
| Other Tools: | | | | | | | |
| Burin | | — | 1 | — | 1 | — | — |
| Round Scraper | | — | — | — | — | 3 | — |
| Short End Scraper | | — | — | — | 3 | 1 | — |
| Broken End Scraper | | — | — | — | — | — | 2 |
| Borer | | — | — | — | — | — | 1 |
| Awl | | 1 | — | — | 1 | — | — |
| Broken Trimmed Blade | | — | 1 | — | — | — | — |
| Core Scraper | | — | — | 1 | — | — | — |
| Waste: | | | | | | | |
| Flint Waste | | 10 | 17 | 13 | 54 | 35 | 34 |
| Quartzite Waste | | 1 | 1 | — | 4 | — | 35 |
| Totals: | | 12 | 22 | 16 | 65 | 41 | 77 |

| Large Mammal Faunas: | Layers: | LB | SB | C/B | C | D/C | D |
|---|---|---|---|---|---|---|---|
| Carnivore: | | | | | | | |
| Brown Bear *(Ursus* cf. *arctos)* | | x | — | — | — | — | — |
| Herbivores: | | | | | | | |
| Wild Horse *(Equus przewalskii)* | | xxx | xxx | x | x | — | — |
| Wild Boar *(Sus scrofa)* | | — | — | — | — | — | xx |
| Red Deer *(Cervus elaphus)* | | — | x | — | — | — | — |
| Giant Deer *(Megaloceros giganteus)* | | x | — | — | — | — | — |
| Bovid *(Bos/Bison* sp.*)* | | — | — | — | x | x | xx |

x : present; xx : abundant; xxx : very abundant.

and SB, by a large bovid in layer C which then goes on to become abundant in layer D. The presence of giant deer (or "giant Irish elk") in layer LB is probably indicative of cold conditions, while the abundance of wild boar in layer D is probably indicative of warmer, much improved conditions.

Possibly relevant radiocarbon results obtained by Godwin and Willis (1962) on bulked charcoal samples from the 1960 excavation by McBurney are as follows: layer B 8800 ± 300 B.P. (Q-551), interface C/B 7602 ± 140 B.P. (Q-552), layer C 6915 ± 140 B.P. and 6705 ± 140 B.P. (Q-553/4). Although these age estimates are at least stratigraphically consistent, the one for layer B disagrees a great deal with the late-glacial-type fauna of the lower portion of layer B as found by Armstrong (Base and Lower Middle Zones, 1925). But the possibility that layer B is at least partly post-glacial is increased by the presence of shell fragments of hazel nuts (*Corylus avellana*, Godwin and Willis, 1962), a shrub characteristically abundant in post-glacial pollen zone VI, Boreal, of Britain, but very rare or absent before that.

It is intended that the full report on these 1969 excavations at Creswell Crags will include much more detailed accounts of the above and related data. Work on such is already under way including, among other studies, the preparation of many charcoal and bone samples for radiocarbon dating.

*Acknowledgements*

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