Final Report on the excavations of Merlin's Cave, Symonds' Yat

By C. W. Phillips, M.A.

The excavation of Merlin's Cave was completed in 1929, the work having been spread over a number of years, because it was convenient to have an alternative to King Arthur's Cave for work in wet weather; the deposit was already so hopelessly jumbled that it could not suffer by delay. Previous reports have appeared in *Proceedings*, Vol. 2, Nos. 2 and 3.

As was soon recognised by Mr. Hewer, earlier interferences had all but destroyed its scientific value. Not only was most of the deposit turned over by iron miners in the early half of the 19th century, but it was also dug in the '70s, when human remains, and probably much else were removed. A friend of the writer has freely admitted disturbing the deposit when he lived nearby. More recently a tenant removed large quantities of bones, and the cave was visited repeatedly by curio-hunters. A tanged bronze razor (see p. 23) was found by a Monmouth boy, in whose possession, we believe, it still is. We were permitted to photograph it (Plate 4A). At the front of the cave the deposit was a jumbled mass containing the bones of Pleistocene rodents, and of domestic animals; Early Bronze Age, Iron Age, Romano-British, and possibly Neolithic and late Bronze Age artefacts. Many of the bones of domestic animals bore traces of jointing and other butcher's work. The finds became less and less numerous as the distance from the entrance increased, until at the back of the cave they disappeared altogether.

Mr. Hewer's method of excavation was continued. All the disturbed material was removed and examined, most being thrown out of the cave, but some dumped in a pit quarried by the miners, on the right hand side near the entrance. The intact areas thus isolated were excavated in turn.

They were as follows:—

1. The lower part of the deposit on the left of the wide part of the cave near its mouth. The upper foot or thereabouts had been removed, but the Pleistocene rubble was intact and was dug by Mr. Hewer. It was homogeneous and

contained the same late Pleistocene fauna throughout; its residual depth was about 4 feet. It rested on the cave floor. A wall of broken rock separated it from the miners' trench, which seemed to have been driven through a mass of stalagmite-cemented boulders formed earlier than the rubble; hence the appearance of a wall. A part of the rubble has been left *in situ*.

1*a*. The inner corner of the above region was disturbed only superficially, although the stalagmite floor had been broken up. The following stratification was recorded by Mr. Hewer: Limestone fragments, 1 foot 2 inches. Roman-British and Early Iron Age sand or silt, 4 inches. Barren hearth, about 1 inch, considered at the time to be Early Iron Age, as it yielded two fragments of burnished ware, containing calcite granules. The reddish sherd described, however, is not wheel made. There were also half a dozen sherds of coarse dark brown ware, and two amber beads, a bone peg, and a drilled shell. The collection might equally well be Neolithic or Early Bronze Age; the sandy, barren layer seems to indicate a considerable interval between the hearth and the Iron Age rubble above. The hearth lay directly upon Pleistocene sandy rubble as at 1.

2. Although the stalagmite floor of the Alcove had been broken through, a few inches of black earth containing Roman and perhaps La Tene pottery were left. Beneath this were traces of a hearth in breccia containing many bones (B in Mr. Jackson's report), and the rim form No. 11 (Fig. 3), which may be of Iron Age A (Hallstatt) date. It may be noted that elsewhere at least an inch of stalagmite and six inches of breccia, sealed down a Roman pin.

3. On the right of the constriction half way along the cave, a number of large blocks lay as they had fallen from the roof, and formed a rough partition between the main and lower chambers. They were present before the rubble, dated by Pleistocene rodents began to enter by the back of the cave and were already sufficiently well covered with stalagmite to hold most of that rubble back from the lower chamber; hence the difference in the floor levels. The roof of the lower chamber was so low as to render occupation almost impossible; it

can have been used only as a hiding place. Nearly all the finds made in it lay within three feet of a hole leading down from the main chamber, whence they seemed to have fallen. Beneath this hole, and at the entrance of the chamber—at the end further from the cave mouth—was a considerable mass of black earth and charcoal, forming a sort of talus ; among it were part of a bronze nail-headed pin (Plate 4B, No. 6), the head of another large bronze pin (No. 1), two broken bone points and a rough diamond-shaped bone button (Plate 2, No. 18).

Further from the entrance of the lower chamber a rough stratification became visible. On the surface was a layer of red cave earth full of limestone fragments, which increased in depth from nothing over the heap of black earth to 8 inches near its far end. Below this came an inch of black earth, continuous with the heap, which contained Roman pottery and a few bones ; and below again were between 2 and 4 inches of rubble, containing many animal bones, coarse hand-made pottery similar to some Early Iron Age wares, but quite possibly earlier, one of the two bone celtiform implements (Plate 3, Nos. 7 and 7A), and a little charcoal. This layer was strongly brecciated, and overlay a much looser breccia varying from 3 inches to 1 foot in thickness. In the top of the latter breccia occurred the second celtiform implement (Plate 3, Nos. 6 and 6A), within two feet of the first ; many animal bones and some similar coarse pottery. Below again, extending down to the rock floor, were large stones fallen from the roof, leaving many sizeable air spaces between them.

4. At the back of the cave a complete section through the deposit was preserved. A great boulder precariously poised high up had to be removed before the face could be examined.

It consisted of a sandy rubble 10 feet thick, quite similar to that containing the Pleistocene rodents, but brecciated firmly and entirely barren. Upon this were from 4 to 6 inches of loam and limestone fragments, containing a few bones of recent rodents and birds, and covered by traces of stalagmite.

5. The ledge just below the lip of the main chamber. The deposit was usually but a few inches in thickness, and much of its content was modern, but it contained a few scattered human bones, including the mandible of a child of about six years old, several fragments of flint, very many bones of domestic animals, and a piece of burnt rib, decorated with the dot and circle pattern (Plate 2, No. 15).

Evidently it would have been well to dig the talus at the foot of the cliff, beneath the cave. This was not done because by this time it was buried beneath a great pile of sorted material which could hardly be moved on the steep slope without damage to a plantation of young ash trees growing there.

FINDS.

Human Remains.

Human bones had been found in undisturbed parts of all the deposits, save the barren, including the Pleistocene, and in no case do they seem to have been buried. The alcove and the lower chamber, however, yielded none. The disturbed material contained a fair number. Since at 1A they were very numerous in the topmost stratum, it is probable that the majority of these are Romano-British or Early Iron Age. The skull, the impression of which was found in the stalagmite at 1A, can hardly be earlier than Roman.

None present any features of interest, and almost all are fragmentary. Dr. Langford reports that they represent five adults and one child of about 6.

Animal Remains.

Bones were very numerous in the disturbed deposits, and in areas 2, 3, and 5.

The avian and rodent remains were not so plentiful as before, because the later work was carried on outside the rodent rift at the left hand side of the cave in areas 1 and 1A, but when submitted to the late E. T. Newton, Esq., F.R.S., the new set of bird bones proved to contain 28 species, 19 of which had already been found in the cave, while the other 9 were new. The list of the new forms follows, all derived from disturbed material.

Wagtail ... ... *Motocilla lugubris* ? Temm.
House Sparrow ... *Passer domesticus.* L.

Twite ... ... *Carduelis* (Linota) *flaviustris*. L.
Magpie ... ... *Pica rustica*. Scop. (= *P. pica*.)
Green Woodpecker... *Pica* (Wecinus) *viridis*. L.
Eagle Owl ... ... *Bubo ignavus*. Forst. (= *Bubo bibo*. L.)
Represented by two nearly perfect coracoids.
Wood Pigeon ... ... *Columba palumbus*. L.
Black Grouse ... ... *Lyrurus* (Tetrao) *tetrix*. L.
Jack Snipe ... ... *Gallinago gallinula*. L.

The great majority of the other bones belonged to pig, sheep, and ox, and undoubtedly represented the remains of food consumed in the cave. Many of the bones had been split for the extraction of marrow, and others bore the marks of knives and hatchets.

Split vertebræ were very common, and in one case a considerable part of the split vertebral column of a sheep was capable of re-assembly. The presence of such great numbers of sheep bones, and the modern appearance of many of them raised a doubt whether some proportion at least, might not be the result of surreptitious meals of sheep stealers in comparatively recent times. The hill in which the cave is bears the name of Mutton Tump.

Mr. J. Wilfrid Jackson, D.Sc., F.G.S., of the Manchester Museum, has kindly examined the animal remains, and supplied a report, which set these fears at rest.

"The animal remains obtained in the excavations of Merlin's Cave in September, 1928, consist of numerous limb bones, etc., of three domestic animals used as food by the inhabitants of the cave. About 95 per cent. of the bones were found loose in disturbed material; these are indicated by A1.

The remainder are classed as follows: A2, cut and chopped bones from disturbed material; B, bones from a brecciated hearth on the right hand side of the cave (Area 3); and C, bones from a breccia in the lower chamber (Area 3).

The three species represented are the Celtic ox, Celtic sheep, and pig. Remains of these were found in all the locations and were almost equally numerous.

Celtic ox. Broken bones occur most abundantly in material from A1 and C, and among them are several of young animals.

No skulls, horn-cores, or teeth are present, but the remains in general suggest the small Celtic Shorthorn (*Bos longifrons*).

Celtic Sheep. Among the numerous fragmentary limb bones from A1 and C are several slender metacarpals and metatarsals, which

agree with those usually found in pre-Roman and Romano-British habitation sites.

Pig. The bones, jaws, and teeth of this animal are all of the domestic variety, and agree with pre-Roman and Romano-British examples.

Other bones in the collection are :

Red Deer ? From A2 are two scapulæ, and an innominate bone (all broken), and from B are an upper cheek tooth and a cuboid-navicular bone. These are too small for ox, and seem to belong to a species of deer, perhaps small red deer.

Hare. A few fragmentary bones from A1.

Cat. A right lower jaw with teeth from A1.

Small Fowl ? A solitary bone from A1."

Fish Remains.

A few fish bones were found in the disturbed material, and were kindly examined by J. R. Norman, Esq., of the British Museum.

He reports : " I have now examined the bones from Symond's Yat, and find that the larger vertebræ, as well as the long spine-like bones, are those of salmon or trout. The smaller vertebræ appear to be those of some Cyprinid fish, probably roach or chub."

This does not give any new species for the cave.

Molluscan Remains.

Many fragments of mussel shell were found in all parts of the deposit. The more perfect specimens have been identified by Mr. A. S. Kennard, as Unio margaritifer, and he remarked that they seem larger than the average modern specimen of the same shell. This fresh water mussel still occurs quite commonly in the Wye, and doubtless was used by the inhabitants of the cave as food.

Implements of Bone.

Bone objects continued to be found fairly freely in all parts of the deposit, and except where the source is given they were found amongst the disturbed material.

The largest class was a series of bone points made from the tibiæ and metatarsals of sheep. It fell into two clearly distinguished groups.

1. Points made by splitting away part of the shaft of the bone, rubbing the edges smooth, and leaving more or less of one of the epiphyses as a handle. (Plate I.)

Of these there were seven whole and eight fragmentary examples. None of them bore any signs of further adaptation for use save one, which had a groove cut round the head as though for attachment to a line. In most cases the articular end had been left intact, but there were several instances where it had been split away equally with the shaft of the bone. One of the smaller points in this class consisted of a mere splinter of bone with the side of the epiphysis alone left.

2. Points made by snapping or cutting the shaft of the bone obliquely across, near one end, and rubbing down the broken end to a point. (Plate II.)

These were less numerous, and yielded only four whole and one broken specimen, excluding a number of fragments too incomplete for determination.

The type of implement represented by these two groups is so simple that its occurrence is inevitable on most prehistoric sites. None of the present examples showed any clear signs of having been used as lance heads, as did many similar implements of group 2 from the Glastonbury Lake Village and All Cannings Cross, some of which had been bored vertically through the epiphysis to receive a wooden shaft, or an iron pin to attach them thereto.

It would be difficult to establish any chronological significance in such obvious forms, especially as there is no help to be got from stratigraphy in this case, but existing evidence seems to point to the greater age of the split type of point. Its horizon seems to be Neolithic and Bronze Age, while most of the English examples of the rubbed-down point have come from Iron Age sites like All Cannings Cross and Glastonbury Lake Village. The split type of point, however, is not unknown at these sites, and turns up again in the Romano-British deposit of Rowberrow Cavern, and in a Saxon burial in Yorkshire. One of the split points is waisted (Plate I, No. 9).

One point is made from a polished rib (Plate I, No. 8). One of the rubbed-down points is perforated at the head (Plate 2, No. 8).

If Merlin's Cave had been undisturbed when excavated there would have been a good opportunity to procure more evidence for the age of these types of point, but under the circumstances it is impossible to carry the matter any further, except that the presence of a fair amount of Early Iron Age pottery in disturbed material along with the rubbed-down points make it reasonable to speculate that they relate to that period here as elsewhere.

3. Two bone celtiform implements were found close one above the other in the breccia in the lower chamber. (Plate 3.)

These curious objects are very similar to a type of bone implement found in some numbers by Professor V. Gordon Childe during his excavations at Skara Brae, and he confirmed the fact himself during a visit to the Society's Museum.

In the "Provisional Report on the excavations at Skara Brae in 1927 and 1928" on p. 264, he says, describing a very similar implement :—

> "This may be termed a celtiform implement, and is one of the most distinctive Skara types. A dozen specimens were collected during the 1928 excavations. The implement is essentially an oblong slice, probably from the flat face of the metatarsal of a bovoid. The whole has been very carefully polished . . . . so as to leave one edge comparatively sharp. In form the resulting implement looks extraordinarily like the celt of polished stone, and still more like the shell celts of the Pacific Islands.
>
> That it was actually used as an axe or adze head seems unlikely ; the designation 'chisel' is sometimes applied to examples from the Swiss Lake dwellings (see specimen in the Archæological Museum at Cambridge from Robenhausen).
>
> Two implements of very similar character come from the Road Broch, Keiss, Caithness, and there is another from Kenny's Cairn in the same country. The latter structure is regarded as a Neolithic burial place, and has certainly yielded Neolithic pottery."

In Mr. E. T. Leeds' report on the Neolithic site at Abingdon (*Antiquaries' Journal*, Oct. 1927, Vol. VII, No. 4, p. 449) mention is made of another bone implement which seems to belong to the same class as the examples from Merlin's Cave. He calls the object a scoop, and describes it as "a portion of the tibia of an ox, 6 inches long, towards the proximal end. The outer face of the bone has been roughly cut into a curved edge, and the sides cut back on the slope for 1½ inches, thus removing the inner face of the bone, and leaving a scoop-like end. The end shows no signs of wear, and the implement, if such it is, is in process of manufacture."

In Mr. O. G. S. Crawford's *Long Barrows of the Cotswolds*, p. 85, an implement is figured which was found in the Bown Hill barrow, and it is described as "a scoop or gouge-shaped chisel made out of the shank bone of a horse."

This evidence is conflicting and does not help us much, but it is at least clear that the majority of the examples which are probably late in date comes from the north of Scotland, while the negative evidence provided by the general absence of such implements from sites of later date than the Bronze Age in the southern half of England argues in favour of an early date for the Merlin's Cave examples. Here again the type, though more specialised than the bone points, is sufficiently obvious to be likely to have occurred at widely separated times and places. The present specimens may be conveniently described as the Round and the Square.

The Round is slightly the larger (10.1 by 4.8 cms.) and has a more weathered appearance. It is made of a slice from a bone of large size—so large that although one side of the implement shows the medullary cavity it is still for all practical purposes nearly flat. The edges have been polished off flat in the same plane as the rest of the implement, and the lower edge has been sharpened by rubbing on both sides to give a rounded cutting blade like that of a polished stone axe. This resemblance is increased by the butt of the implement being slightly narrower than the edge. The striations on the bone show that the polishing strokes were made across the width of the implement. The edge is in very good condition, and shows practically no trace of wear. There is also no sign that the implement has ever been hafted or otherwise attached to a handle for use.

The Square is 9.5 cms. long and 3.3 cms. broad. It is still very white and fresh, and is made of a similar slice taken off a smaller bone, and not so carefully trimmed. The cutting edge is squared at the corners and quite sharp, but little care has been taken to rub down the other edges of the implement. It is not at all unlike a vertical section of a socketed bronze celt, and in this case again the polishing has been done across the implement, and there are no signs of hafting.

These implements are quite unsuitable for any cutting purpose, and the edges show no signs of such wear. They are only fitted for use as scoops and scrapers of soft material.

4. Plate 2, No. 12. Two pieces of the shafts of small bone pins or needles. One of them was clearly from a pin, for the bevelled end is present, decorated with three incised parallel grooves, cut just below the head.

5. Plate 2, No. 10. A small comb made from a rib, found in area 3 in the lower chamber. Its original length was greater, and it entirely lacks the stout character of a weaving comb. The teeth are 13 in number, and little more than an eighth of an inch long.

In its present state the comb is 8.6 cms. long, and the handle has been slightly narrowed below the head leaving the teeth on a rounded end like a flat spoon. At the point of junction between the handle and head a small hole has been bored through the handle. Possibly this little implement was used as a pottery marker, though none decorated by it was found; it is much too slight for weaving or personal use.

6. Plate 3, Nos. 3 and 4. Two spindle whorls made from the severed heads of the femora of sheep. These were found in area 3 of the lower chamber. When separated from the bone the head was carefully rubbed smooth on the underside, and then bored with a vertical hole through the middle.

7. Plate 3, No. 1. Another severed head of a femur still in a rough state. The process of polishing the base has only been roughly carried out, and a small hole has been bored in the base which only penetrates about a centimetre. This is probably an uncompleted spindle whorl for if it is a piece from a game it is remarkable that it is the only one found. It has been suggested that it may be a socket for a drill, or the head of some kind of pin. The smallness of the hole, and the absence of any signs of wear in it make these solutions of its purpose unlikely.

8. Plate 2, No. 15. A piece of fire-blackened rib, ornamented with five dots and circles, found when clearing the ledge just below the cave mouth. This piece has been broken off at both ends. This is a well-known Early Iron Age motive, but it also appears on Anglo-Saxon objects of bone such as combs.

9. Plate 2, No. 18. A piece of bone, showing traces of cancellous tissue which has been sliced off the rib of some large animal, and then trimmed into a diamond shape, 6.7 cms. long, and 4.1 cms. broad. This was found with a quantity of ash and charcoal at the entrance to the lower chamber. The object is not quite flat, and three small holes of varying size have been bored close to each other through its middle. Possibly this was a button.

10. Plate 3, No. 5. A short bone rod, slightly curved round at one end, and a good deal worn all over with use. It is 8.5 cms. long, and was probably a pottery burnisher.

11. A broken tine from an antler, much worn at the end. This was found in the lower chamber in the bottom level, and was probably part of an antler pick.

12. Two pig incisors, with roots trimmed down to a sharp point.

13. A piece of ox rib which has had distinct and heavy wear across one end. This is comparable to similar specimens from All Cannings Cross.

14. A pig tusk, the point of which shows signs of having had its natural sharpness considerably increased by cutting.

15. Five pieces of ox rib, all about 12 cms. long, which have been chopped across at one end. There is no obvious wear on them so that they may be casual pieces, and not a form of crude implement.

IMPLEMENTS OF STONE.

1. Plate IV, No. 10. A Kemmeridge shale bracelet was found in a hole in the breccia just below the entrance to the alcove. It was unfortunately broken in two in getting it out, but it was otherwise quite intact, and was merely a simple hoop of round section. The internal diameter was 5 cms.

2. A small piece of another and larger shale bracelet was found among the disturbed material, but it was too small for much to be made of it.

3. Plate III, No. 2. A spindle whorl roughly made from fine-grained sandstone, 3.2 cms. in diameter, and 1.6 cms. thick, found in the disturbed material.

Several rough flint implements were found scattered through the deposits, but none of them had any particular character. They included :—

4. An oval knife with one scaled edge and narrow scraper end.

5. A triangular knife with two finely scaled edges and bluish white patination.

6. A small thumb scraper finely scaled, with bluish white patination.

7. An unworked flake.

8. A small unworked flake.

9. A small piece of fractured flake.

10. A rough fragmentary flake with a chipped shoulder, and a notch at one end.

11. A round pebble of very coarse sandstone from Area 3 in the lower chamber.

12. A large square-sided hone or rubber of slate-like material from Area 3 in the lower chamber.

13. A lump of hæmatite, possibly used with a strike-a-light.

Nos. 4-10 and No. 13 were from the disturbed material.

IMPLEMENTS OF METAL.

1. Plate IV, No. 8. A bronze pin 7.1 cms. long, found in the strongly brecciated rubble in the floor of the lower chamber. The head of this pin has been beaten out into a flat strip, and rolled into a neat coil. A very similar pin in the London Museum from the Old England site at Brentford is attributed to the period 1200–900 B.C.

2. Plate IV, No. 6. A nail-headed pin of bronze, with the point missing, and 11.2 cms. long in its present condition. It was found at the entrance to the lower chamber.

3. Plate IV, No. 7. A similar, but shorter, pin, in perfect condition. 7.3 cms. long. This was found in the talus behind the boulder at the entrance to the lower chamber.

4. Plate IV, No. 4. A short bronze pin, with a solid faceted head. 3.2 cms. long. This is a typical Romano-British object, and came from Area 2 in the alcove.

5. Plate IV, No. 5. A pair of perfect bronze tweezers, 5.1 cms. long, similar to the damaged specimen found in the earlier excavation. It was found close to the shale bracelet in the breccia just below the entrance to the alcove.

6. A fairly massive bronze ring with round section, and no decoration. Internal diameter, 2.7 cms.; overall diameter, 3.8 cms. This object came from the disturbed material.

7. Plate IV, No. 1. The head of a big bronze pin? This object was found in the talus behind the large boulder at the entrance to the lower chamber, and has collar moulding with a counter-sunk dot and circle device on the flat head, which is 1.3 cms. in diameter. Only a small piece of the shaft remains, and it is not possible to be sure whether its section is round or square.

8. Plate IV, No. 2. A small dome-shaped object of bronze surmounted by a small moulded knob. On the under side there are remains of some sort of square shaft. On the neck joining the knob to the dome are two patches of iron rust on opposite sides, which suggest that an iron ring had once passed through the neck. This object was found in the disturbed material in the floor of the narrow passage at the back of the cave.

The purpose of this object is not clear, but it is tentatively suggested that it is a drawer handle, and that the shaft on the under side was the means of fixing it to the wood of the drawer. This theory is strengthened by the presence in the Silchester Collection at Reading, of a number of exactly similar objects in better condition, which are there described as drawer handles. In these cases the square shank with perforation for retaining pin is present. It is not easy to

see why such an object should be found in Merlin's Cave, but since the cave was a place of refuge rather than a settled habitation it may be the last trace of some small box brought in by refugees.

9. A small fragment of bronze strip from the ledge below the entrance to the cave, Area 5.

10. Plate IV, No. 13. A bronze fibula of "trumpet" type, found in the disturbed material in the narrow passage at the back of the cave. The pin is missing, and the loop at the head is broken. The fibula is harp-shaped, and has collar moulding all round the bow, and round the foot. The prolongation of the moulding round the bow dates it at about 140 A.D.

11. An iron awl in fairly good condition showing a square section over most of its length, and tapering at both ends. From the disturbed material.

12. Another iron rod heavily corroded, but probably another awl, also from the disturbed material.

13. An oblong mass of lead from the disturbed material. It appears to contain some traces of copper, for it shows a slight blue patina.

14. A small roll of sheet lead 4.5 cms. long from the disturbed material. It seems to be just a scrap of lead casually rolled up, but the writer has found almost identical rolls of lead when examining the section of a trench driven through the Roman villa site at Messrs. Fry's factory at Keynsham, and also at Castor, Northants. Possibly these may have been used as sinkers by fishermen.

15. Plate IVA. One of the most interesting finds from the cave, and one which unfortunately was not made during the excavation, was a bronze razor. It was found by a school boy from Monmouth while rummaging in the cave shortly before the Society began systematic excavations, and it remains in private hands. The photograph, which is the only evidence of the character of the razor possessed by the Society, shows it to be a well-developed specimen with a large tang, end notch, and perforation.

The splash of lead which was found during the earlier work has been analysed by Mr. J. Newton Friend of the Birmingham Central Technical College. He reports that it contained .0263 per cent. of silver that is from five to ten times as much as usually occurs in Roman lead. It has not been desilverised. He says, however, that Roman lead occasionally contains a high percentage of silver.

COINS.

One more coin has been discovered in the disturbed material. It has been identified by Mr. Mattingly of the British Museum as a barbarous type, probably minted at Treves in 330–337 A.D.

Of the two coins previously discovered, one was described as unidentifiable in the report, but this has now been brought into passable condition, and has been identified by Mr. Mattingly as a plated denarius of the period 71–72 A.D., and a probable forgery of a silver coin of Vespasian. The obverse bears the head of the Emperor and the reverse implements of sacrifice.

IMPLEMENTS OF WOOD.

No further wooden objects were discovered, but in all parts of the deposit large and perfect pieces of charcoal were common.

They were submitted to Mr. J. Cecil Maby, of the Department of Wood Structure, Forest Products Research Laboratory, Oxford Branch.

He says :—

"The charcoals being in excellent condition, of fair size, and many in number, were identified from their microscopic structure by means of a hand lens. It was not thought worth while to embed the samples and cut sections for examination with a compound microscope.

The tree genera represented are given below, together with the number of specimens of each received. Species cannot be stated, and where uncertainty exists as to genera the alternative genus is stated. In these instances, however, it is intended that most weight should be given to the genus first named.

In all, 109 specimens were received and examined. Some of these were evidently from small stems and/or branches, others from bigger and older stuff. Oak was particularly abundant.

Aesculus sp. (Horse Chestnut)	1
Alnus sp. or *Corylus sp.* ? (Alder or Hazel)	8
Betula sp. (Birch)	6
Corylus sp. (Hazel)	12
Corylus sp. or *Alnus sp.* ? (Hazel or Alder)	3
Cratægus sp. or *Pyrus sp.* (Hawthorn or Apple, etc.)	2
Fraxinus sp. (Ash)	3
Populus sp. (Poplar)	4

Populus sp. or *Salix sp.* (Poplar or Willow)	2
Pyrus sp. (Plum, Apple, Rowan, etc.)	6
Quercus sp. (Oak)	47
* *Quercus sp.* or *Castanea sp.* (Oak or Sweet Chestnut)	6
Rhamnus sp. (Buckthorn)	1
Salix sp. (Willow)	2
Salix sp. or *Populus sp.*? (Willow or Poplar) ...	2
Tilia sp. (Lime)	4

* These may have been *Quercus sp.*, but the specimens bore a greater resemblance to *Castanea* than to *Quercus* in a hand lens view.

Note.—The English names given above represent common British species of each genus, and are not necessarily applicable in the present instance."

GLASS.

A few more pieces of thick bluish glass of Roman type have been found in the disturbed material, and several fitted together sufficiently to show that they had formed part of the neck of a bottle.

POTTERY.

A fair amount of pottery has been found in most parts of the deposit and, unless otherwise stated, it comes from the disturbed material. It has seldom been possible to get much idea of the character of the pots when intact because in no case is more than a fraction of the original present. This is particularly the case with the older material.

The certain range of the pottery is from the Bronze Age to the Romano-British period. Some of the small fragments of very rough pot may belong to the Neolithic or Middle Bronze periods, though it becomes increasingly unlikely that there is any Neolithic pot present as the excavations which are being carried on in various places show us more clearly the relative excellence of the craftmanship of the Neolithic potters.

The most important find has been another small piece of the beaker ware which was first found here in 1924. Fortunately, the new piece fits the old, and provides a longer stretch of the typical beaker decoration, but it gives no more information about form, and the assembled pieces still only represent a mere scrap of the original vessel. The only comment which can be made is that the excellence of the workmanship and material suggest an early date.

Another possible fragment of beaker was also found; a small piece of smooth dark brown ware bearing along its upper edge traces of a decoration of two close parallel lines of small square and rectangular depressions which look as though they have been made by running an irregularly toothed wheel, or impressing a rough comb against the pot.

These finds, though interesting, do not require any comment beyond that made by Mr. Hewer in the last report.

ROUGH POTTERY.

Many very fragmentary pieces of rough pottery, containing large lumps of calcite, were found here and there right through the deposits. All had been made by hand, and most of it was very friable.

1. Rim fragments and part of the body of a roughly-formed hand-made pot. Straight-sided, hard, thin, reddish ware containing large bits of calcite. Rim form 1 (Fig. 3).

2. Piece of the rim of a roughly-formed, hand-made bowl. Lip slightly rolled over on the inside. Paste blackish inside and light buff outside, containing calcite. Rim form 2 (Fig. 3).

3. Fragment of rim with flattened top, almost equal overhang inside and out. Straight-sided, hand-made. The ware contains hard black fragments, but has a fairly good paste, and could stand hard usage. Reddish on the outside and black inside. Rim form 3 (Fig. 3).

4. Fragment of the rim of a big pot. Flattened form with overhang on both sides, rather rounded on the inside in this case. Hand-made, paste well-fired and hard. Rim form 4 (Fig. 3).

5. Fragment of rim of straight-sided pot, also pieces of the body. The rim is rolled over outwards, and has an oblique finger tip ornament. Hand-made of a close hard paste, containing hard black fragments. Rim form 5 (Fig. 3). This piece was found in the close breccia on the floor of the lower chamber.

6. Large piece of the rim of a straight-sided vessel. The rim is flattened, and has a slight outward overhang, and a more pronounced one inwards. Hand-made of hard reddish paste, containing sand and hard black granules. Rim form 6 (Fig. 3).

7. Small pieces of the rim of a shallow bowl. Flattened rim with no outward, but definite inward, overhang. Hand-made from hard red paste, well-fired, Rim form 7 (Fig. 3).

This piece of pot may quite possibly be Neolithic, but there is not enough of it present to be sure about the form.

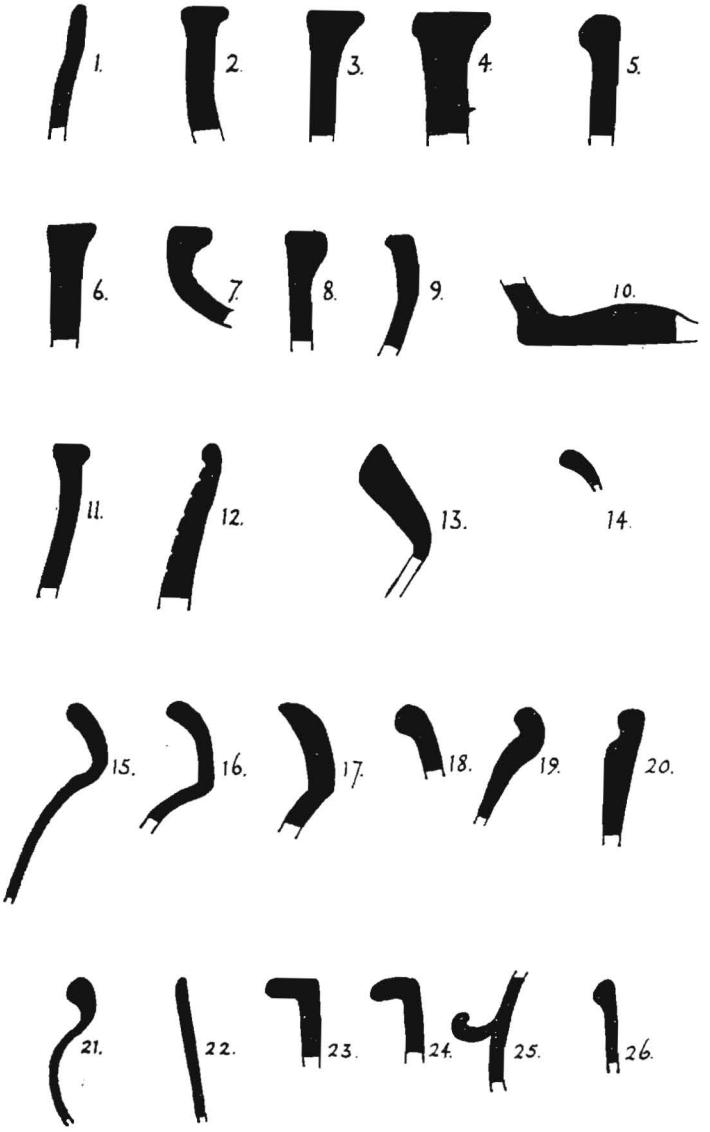

FIG. 3 (Scale ½-size).

8. Small rim fragment of pot, flattened on top with outward and inward overhang. In this case it is difficult to determine which is the inside and which the outside. Hand-made of blackish paste, containing calcite fragments. Rim form 8 (Fig. 3).

9. A piece of very coarse pot 1 cm. thick, made of whitish paste containing a few calcite fragments. It is black on the inner, and red on the outer side. The pot has broken across a small boss about .7 cms. high. There is no sign that the boss has been pierced to take a cord.

10. A piece of hard black hand-made pottery, with a hole neatly bored through it from the outside.

11. A fragment of slightly everted rim from a crude hand-made pot of reddish paste intermixed with black granules. Just below the rim on the outer side is an oblique stroke made when the clay was still wet. There is not enough of the pot present to say whether this is part of a rough decoration carried right round. Rim form 9 (Fig. 3).

12. A large piece of base from a heavy hand-made pot. It is perfectly flat, but the inner side of the sherd rises up slightly in the middle. Diameter of the base 12 cms. The paste is good, and contains little binding material. Form 10 (Fig. 3).

13. Fragment of flat base of a crude hand-made pot. The paste is black, and contains large fragments of calcite which have lost all hardness. The pot is crudely modelled, but well-fired and the contrast between the red exterior and the black interior is very marked.

14. A large number of pieces of hopelessly smashed crude, hand-made, and well-fired pot, containing many pieces of calcite. The rim is straight, thin, and slightly everted.

POTTERY FROM THE BRECCIATED HEARTH IN THE ENTRANCE TO THE ALCOVE, (Area 2), September, 1928, see *Proceedings* for 1924. p. 151.

A number of pieces of pot, including a few fragments of rim form 11 were found here. They seem to belong to one pot hand-made of a hard well-fired paste, containing sand. The rim is flattened with slight outward overhang and inward roll. This may be of Iron Age "A" (Hallstatt) date.

BUFF WARE.

1. A piece of the rim of a thick wheel-made (?) pot of buff paste of good quality carefully smoothed inside and out, with a vertical and slightly everted rim. Rim form 12 (Fig. 3).

The pot was at least 25 cms. in diameter at the mouth and carried an incised decoration on its upper slope.

This decoration consisted of seven parallel, equally spaced, horizontal grooves, marked in the pot before firing.

This solitary piece, which has no other parallel in the cave, was found among the charcoal and ash accumulated behind the large boulder by the entrance to the lower chamber, which has already been described, as screening a number of other objects which had obviously slipped down from the main chamber. The rim form and decoration are characteristic of La Tene II.

2. A small fragment showing very little curvature, of a highly burnished buff ware marked with a five-toothed comb.

3. A piece of the much everted rim of a large pot. Rim form 13 (Fig. 3). The pot was wheel-made, and has an olive-buff burnished surface. It probably belongs to the Roman period.

4. A piece of rim, form 14 (Fig. 3). Wheel-made, with a burnished surface.

BLACK WARE.

Many fragments of hard black burnished ware, with cross hatch decoration were found in the disturbed material, but in no case was there sufficient to make any restoration possible, nor was any found actually *in situ*. All of this pottery may be referred to the Romano-British period, and it is all wheel-made.

1. A piece of black, well-fired, burnished ware. Well-formed everted rim. Cross-hatched decoration on the body of the pot. Rim form 15 (Fig. 3).

2. A piece of hard black pot with everted rim, probably burnished, but much weathered. Rim form 16 (Fig. 3).

3. A piece of thick black ware with bold, everted rim, unburnished. Rim form 17 (Fig. 3).

4. A fragment of a beaded rim from another black pot, burnished. Rim form 18 (Fig. 3).

5. A piece of rim from a highly burnished pot with a small, nearly vertical lip. Rim form 19 (Fig. 3).

6. A piece of burnished pot with a small vertical lip flattened at the top.

7. Two large pieces from a pot of thin, hand-made ware of good quality. These fragments must have belonged to the bottom of a large bucket-shaped pot or to a dish, for they have practically no curvature.

The few pieces of black base found were all simple flat forms with no pedestal or umbilication.

Of 94 pieces, other than from base or rim, 49 had traces of cross-hatch pattern, but all were too small to be of any value.

OTHER ROMAN POTTERY.

A certain amount of pottery was found which clearly belonged to the Romano-British period, but none was found in the intact deposit save a piece of the flower-pot like vessel which was mixed with the talus behind the boulder at the entrance to the lower chamber (No. 1 below).

1. Side shards from two small flower-pot like vessels wheel-made, of hard red paste. The lip is quite straight in each case, but one of the pots has a rough decoration of parallel vertical burnished lines rising to within an inch of the rim. Rim form 22 (Fig. 3).

Nearly the whole of the base of one of these pots was found, and it was perfectly flat.

2. A quarter of the rim and some of the side of a bowl, with everted beaded rim made on the wheel, from a fine red paste. Rim form 21 (Fig. 3). The diameter at the mouth is 14 cms., and there is a slight decoration of two parallel horizontal lines traced on the upper slope of the bowl.

3. A small fragment of pseudo-Samian ware which appears to have been part of the side of a bowl. Pieces of the decoration on two of the compartments of the design are present, but only one is recognisable as the hind leg and tail of some animal, possibly a lion. Three other inconsiderable pieces of pseudo-Samian were found including one small fragment of rim form 26 (Fig. 3).

4. A piece of the side of a vessel of pseudo-Samian ware, with a rim of peculiar design, not unlike that of a mortarium, but the vessel seems to have been too slight for such a purpose. Rim form 25 (Fig. 3).

5. A piece of the handle of a vessel of hard red ware. It is roughly fluted.

6. Pieces from two pots of coarse bluish-grey ware which seems to have been subjected to considerable heat. Rim forms 23 and 24 (Fig. 3).

7. A few fragments of a thin greyish-blue ware.

8. A piece of a bowl of red ware with a bluish exterior, ornamented with three parallel horizontal blue lines.

9. Pieces of coarse wheel-turned reddish ware with parallel horizontal markings.

10. Two small fragments of black ware, ornamented with parallel comb markings. The paste is very fine, and this may be badly burnt Samian.

GENERAL CONSIDERATIONS.

The Pottery.

With a single exception, the coarse hand-made pottery found in this cave can only be dated, if at all, with reference to rim forms. The exception is No. 5, where a finger tip ornament has been applied obliquely to the outer edge of the rim. This seems to be a typical feature of Hallstatt or Iron Age "A" pottery, or, less certainly, of the late Bronze Age. Examples of very similar ornament applied to better fashioned pots have been found by members of the Society on the Early Iron Age hill top settlement of Little Solsbury, near Bath, and also at several Mendip sites.

The occurrence of a single example of this style in the cave must not be made to bear too much, but the corroborative evidence supplied by the presence of several rim forms, notably Nos. 1, 2, 3, 4, 6, 8, 9, and 11, which bear a close resemblance to examples attributed to the Early Iron Age "A" in the Hampshire Field Club's recently published report on the excavation at St. Catherine's Hill, Winchester, p. 108, make this date probable for most of the rough pottery, although far to the west of the known region of Iron Age "A" culture.

Against this it is worth recollecting that there is a very general absence of base fragments belonging to the coarse pots which suggests that they may possibly have been round-bottomed bowls. Objects have been found in the cave which may tentatively be ascribed to the Neolithic period, but there can be no satisfactory proof in the absence of undisturbed stratigraphy.

The evidence for Bronze Age occupation is not in much better case. There is definite proof in the pieces of beaker, and the curl-headed pin for some Bronze Age occupation, but the coarse pottery cannot safely be associated with it. Some of it may belong to the Middle Bronze Age, but the evidence of the bone points operates in favour of an Iron Age date.

The piece of buff pottery with rim form 12 is characteristic of La Tene II, and is similar to forms in Figs. 13 and 14, on pages 114 and 117, of the St. Catherine's Hill Report. This carries the occupation on to the black ware with burnished exterior, and cross hatch decoration, which may mostly be referred to the period of the Roman occupation. Forms 19 and 20 suggest a beaded rim, and may belong to the Early Iron Age, but their material and manufacture are very superior to that of the rough pottery already described.

Distinctively Roman pottery is not very heavily represented, but this may be due to the liability of those who have pillaged the cave

in the past to take away this obvious ware in preference to the more friable older material.

Any evidence which might be afforded by the quantity of the different forms of pottery found in the cave as far as it might throw light on the relative lengths of the different occupations is here quite useless, for it is practically certain that the pottery is not here in its original quantitative proportions.

GENERAL CONCLUSIONS.

The cave has produced no evidence of occupation by Palæolithic man other than a few human bones, but from the close of the Neolithic period to the later days of the Roman occupation it has been a place of occasional resort by poor folk.

The bone celtiform implements, the split points, and possibly some of the pottery may hint at a Neolithic occupation, but no stone implements save a few fragments of flint which may belong to any age have been found to support their testimony.

Typical products of the Bronze Age are present in the beaker ware, the curl-headed pin, and probably some of the rough pottery, but the total amount of this material is very small. The razor is a Bronze Age form, but may equally well have been in use in Hallstatt times.

Occupation becomes much denser in the Iron Age and Romano-British periods, though here again all the relics are poor.

One of the most salient points which emerges from a consideration of all the finds taken together is the absence of objects indicating a settled occupation. In caves like Wookey Hole, it was possible to make a fairly complete reconstruction of the life of an Iron Age family, but at Merlin's Cave all the normal necessities of settled life like querns and textile-making implements are absent. The absence of querns is not surprising, since the occupants of the cave are not likely to have practised agriculture in any age. They seem to have been poor folk leading a hard existence, and many may have been refugees.

This is the driest cave that the Society has ever encountered, and has evidently been so for a long time. It is fairly inaccessible, but unless there were large trees growing on the slopes below, or masses of ivy obscuring the entrance, its existence would be clear to passers-by on the river below. This would be no advantage to refugees, but probably they were the most frequent occupants.

Many of the most valuable results of this excavation lie outside the region of archæology.

PLATE I. Merlin's Cave.

1-7, 9-13 } Split Bone Points.

8 Rib Point.
14-15 Rib Spatulæ.

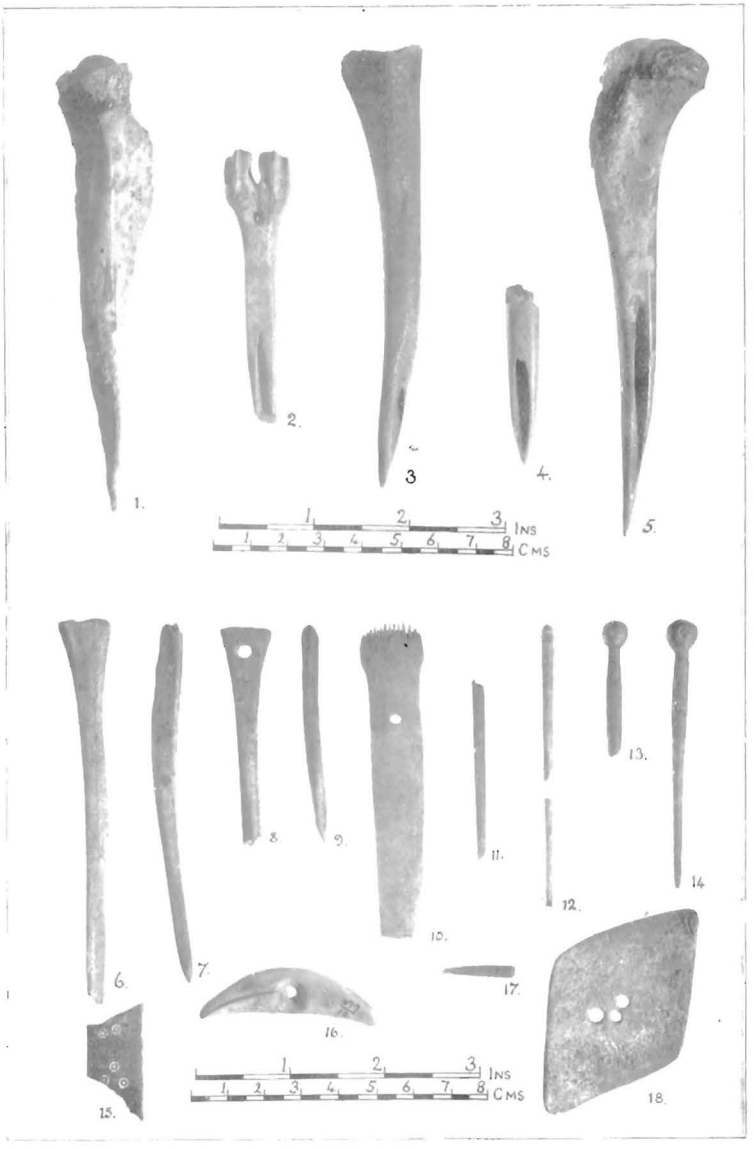

PLATE II. Merlin's Cave.

1–5 Obliquely Worked Points.
6–9 Slender Points.
8 Perforated (?) Point.
10 Comb.
11–14 Pins.
15 Decorated Rib Fragment.
16 Perforated Canine.
17 Notched Peg.
18 Bone Button

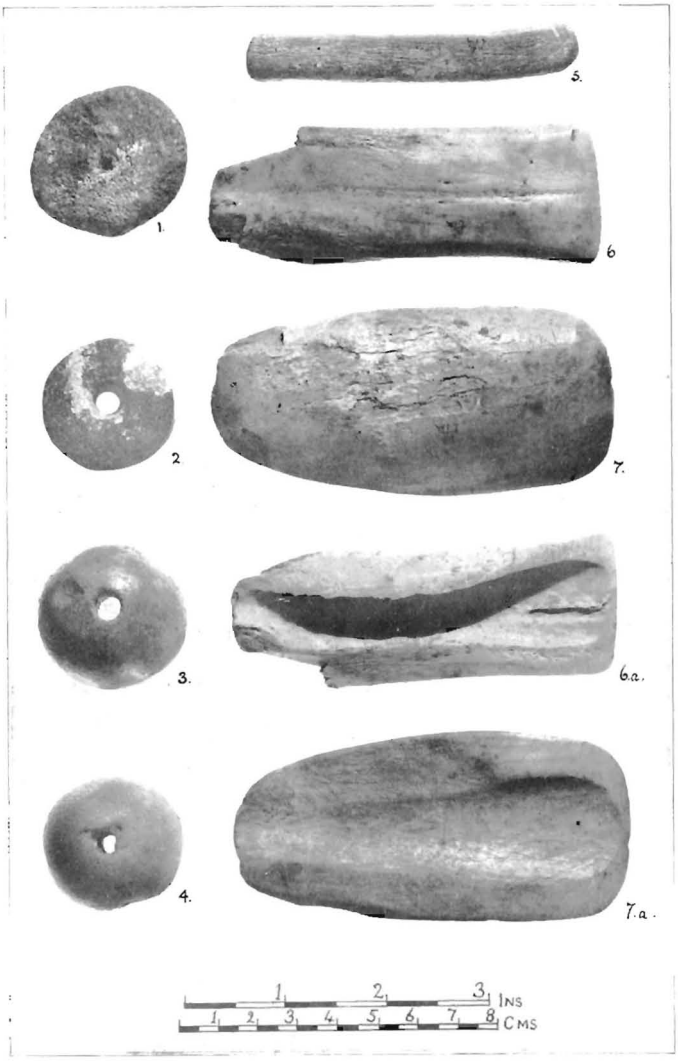

PLATE III. Merlin's Cave.

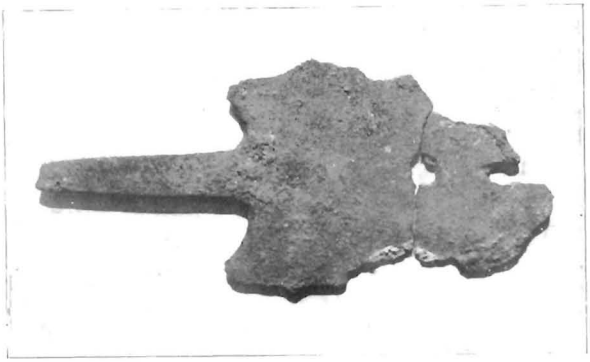

PLATE IVa.

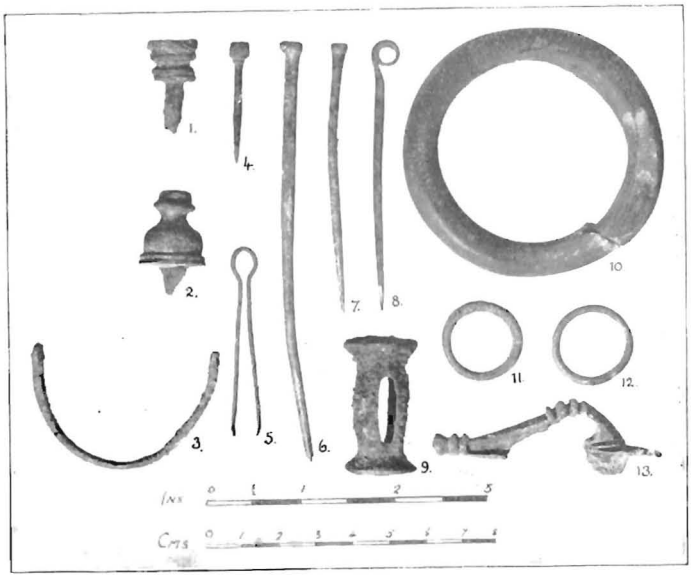

PLATE IVb. Merlin's Cave.

The Pleistocene microtine fauna has proved unusually rich and interesting, while the avian remains have also thrown further light on the distribution of a game bird like the ptarmigan in the late Pleistocene, and have also given rise to more than a suspicion of the former existence of a smaller variety of that bird.

The charcoal specimens found so freely, and in such good condition have also afforded some evidence for the composition of the prehistoric Forest of Dean.

The excavation of this cave has been an extreme example of the difficulties which investigators sometimes have to face in this Western region, where the search for minerals not long since, was so ardent and, scientifically, so destructive.