

## Third Report on Read's Cavern. (Keltic Cavern.)<sup>1</sup>

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Three previous accounts of current work in this cave have already appeared,<sup>2</sup> since then much further work has been done, both in exploration and in the examination of finds.

A new survey is nearly completed, embodying a few additions and corrections, and tending to confirm the view that the original entrance to the cave was towards the North-Western end. It would seem, also, that the gradient of the entrance was too steep to allow easy access for domestic animals, so that these were probably kept outside.

### I.—EXPLORATION.

No further advance has been made in the waterway previously explored, where the rift mentioned in the last report still marks the limit of progress. Two other waterways have, however, been discovered.

1. Soon after an entrance was first made there was found at the South-East end of the cave a difficult and tortuous passage descending almost vertically among waterworn boulders; this was named from its general shape "Z" Alley. (See section of cave, "I"). It was discovered that this continued down much further; the furthest point now reached is a small rift running about northwards, and taking the combined flow of several small streamlets. The whole passage is very similar to the waterways at the other end of the cavern, and reaches a point just over 200 feet below the surface. This is about half the vertical distance to Langford Rising at the foot of the hill, but as the passage is nearly vertical there is still a long horizontal distance to go. Further progress can only be down the rift along the course of the water; this has yet to be undertaken.

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<sup>1</sup> Since the Ordnance Survey has decided that this cave shall be officially as known Read's Cavern, after Mr. R. F. Read, the discoverer, this title has been used in the present paper, the original name following in brackets (Keltic Cavern).

<sup>2</sup> Nos. 1 and 2, *Proc. of University of Bristol Spelæological Society, Journal of Royal Anthropological Inst.* Vol. LI, p. 200.

2. A few months ago a small rift passage was discovered opening out of the main cavern at E28, and terminating close to the rift discovered when the first excavations were made in 1919. At the end of this there is a stream dropping through from above. This stream flows when the outside stream is taken by the rift swallet.

Opening out of the Boulder Chamber (see longitudinal section of the cave, "G") in a North-Westerly direction a new chamber has recently been discovered, measuring about 18 feet by 8 feet, and containing several groups of stalactites.

Several other small rifts and passages between boulders have been found, but none are of any importance.

## II.—FINDS.

### I. HUMAN BONES.

At the time of the last report only three human bones had been discovered—a radius, and portions of a scapula and a femur. Since then a number of fresh finds has been made, though little evidence as to the nature of the peoples has as yet appeared.

It seems that at least four individuals are represented, one of these being a child (as evidenced by an incompletely ossified metatarsal). The only portions of skull are a minute piece of supra-orbital margin, and a well worn upper bicuspid tooth, showing secondary growth of dentine. Additional pieces of femur have been found, fitting on to the portion already discovered to form the upper three-quarters of the bone.

Several pieces of tibia have been found; the largest shews that the bone was rather flattened sideways. This is in harmony with the marked *linea aspera* displayed by the femur.

Sufficient portions of an *os innominatum* have been pieced together to show that it was female; the acetabular cavity was unusually large.

In the black layer, *i.e.*, mixed with the charcoal of fires, and the remains of animal bones used for food, a very stout fibula has been found, showing signs of having been cut, and having both extremities missing. Such a find, and similar ones from Wookey Hole, bring to mind the possibility of cannibalism.

A number of other bones of less interest has been found.

## 2. OTHER BONES.

Quantities of animal bones are continually being discovered ; the relative proportions of domestic animal bones remain approximately the same, with one exception ; bones of goat are now more numerous than those of horse. The following is the order of frequency : sheep, pig, ox, goat, horse, dog. The following wild animals are represented : roe-deer, red-deer, wild-cat, wild boar, badger, hare, fieldmouse, rabbit, rat ; several rodents not yet identified. In addition the skull of a pigeon, and a shell.

Many of the above are cut, some are charred. A few will be mentioned later under the heading of worked bone.

The animal bones have almost all been found in the black layer ; one or two exceptions probably came from the surface. The black layer, however, showed at the most two or three human bones, the remainder being all found in a stratum of gravelly clay and stone 4 to 15 inches deep, covering the whole width of the cave floor in a broad area in the region of squares 19 to 27. This layer came in across the cave after occupation had ceased, since the black layer passes subjacent to it. It would seem, therefore, that most of the bones belonged to individuals who lived subsequent to the period of occupation, and till further evidence comes to light any deductions drawn from them can be of little value.

## 3. WORKED BONE. (Plate XXVI).

A third bone handle is a recent find ; it has an incised line round it close to the butt. (No. 1). Another bone needle (No. 2) has been found, pointed, and shewing signs of much wear. An additional metatarsus of sheep or goat (No. 3) very incomplete, has been discovered ; like the previous example it has an antero-posterior hole about 4mm. in diameter, drilled through the middle of the shaft. These resemble specimens of Type A from Glastonbury Lake Village. A sheep's radius (No. 4) has a hole near each end of the shaft, and shews much polishing. This bone, instead of bearing a faint transverse groove across its centre (like specimens found at Wookey Hole by Mr. H. E. Balch) has two such grooves, one near each end ; the bone is more polished at these points, and the grooves give the appearance of having been caused by the rubbing of a cord or thread. A goat or sheep metacarpal (No. 5) has a hole through the proximal epiphysis with another half way

through the bone at right angles close to the same end. This corresponds to Type E, Glastonbury Lake Village.<sup>3</sup> The central cavity has been cleaned out and the middle of the shaft shews much cutting.

The latter three articles, though their use is not certain, were probably connected with the art of weaving.<sup>4</sup>

In addition there are articles of bird bone, much polished. No. 6 consists of one bird bone sliding within another. The inner bone, measuring 22.8 cm. in length, is complete and has trimmed ends. The second article (No. 7) is a portion of bird bone with a trimmed end similar to the inner one of the above pair, though about twice the thickness; it is also highly polished. The use of both these articles is quite unknown.

No. 8, the fibula of a pig, although not cut in any way, shews definite polishing at the middle of the shaft; it might have been used as a spoon, or perhaps was being kept as raw material for some implement.

#### 4. WORKED ANTLER. (Plate XXVI.)

No. 9 is a blunt highly-polished antler tine, broken off at about 7½ cm. from the tip, probably used as an awl or other pointed instrument.

Six more articles coming under the descriptive title of "cheek pieces" have been found, not all complete. Adopting the classification used for the Glastonbury Lake Village specimens,<sup>5</sup> these come under four groups. None have been found of types D and F:—

*Type A.* Two specimens (Nos. 10 and 11) probably with only one hole each. One (No. 10) shows faint traces of the dot-and-circle pattern, the circles being 9 mm. across. This is the only example here of this form of decoration.

*Type B.* In this group come two cheek-pieces mentioned in previous reports; they are highly polished, and the countersunk holes shew signs of much use.

*Type C.* This is illustrated by one specimen (No. 12), having two holes and the beginning of a third.

<sup>3</sup> *Glastonbury Lake Village*. Vol. II, p. 426-7.

<sup>4</sup> *ibid.* Vol. II, p. 422.

<sup>5</sup> *ibid.* Vol. II, p. 441, *et seq.*



*Type E.* Two specimens (Nos. 13 and 14) having the tips of the tines removed, and only one hole. One of these (No. 14) is much denser than any of the other specimens, being made of a very compact piece of antler; it has been suggested that this formed the linch-pin of a chariot. Both shew cutting and subsequent wearing comparable to the Glastonbury specimens.

No. 15 is an antler of roebuck, the base of which shews distinctly that it was cut off the skull. The tines have more polish than is met with in the natural state, and the antler, like bone No. 8, was probably raw material for implements.

#### 5. WORKED STONE. (Plate XXVII.)

New finds of worked stone are five rubbing stones, all of which have had a good deal of use; they were made from flattened and probably waterworn pieces of fine-grained sandstone. In addition, there are two new whetstones, polygonal rods of somewhat coarser sandstone. No. 1 is a rubbing-stone, No. 2 is a hone.

There have also been found three flattened pebbles (Nos. 3, 4 and 5) very much like the counters or gaming-pebbles from Wookey Hole and Glastonbury Lake Village.

#### 6. SPINDLE WHORLS.

Four new spindle whorls have been discovered. Nos. 6 and 7 are made from white lias, similar to the commonest form at Glastonbury Lake Village. The third, No. 9, is a disc apparently cut out of a piece of pot; it is slightly smaller than the lias specimens. The fourth, No. 8, is incomplete: the original article was a ball of red clay, baked like pottery. No decorated specimens have been found.

#### 7. BRONZE. (Plate XXIV).

The few bronze articles found since the last report are of considerable interest.

First is a bronze fibula (No. 1) 9.5 cms. long, from C27, perfect except for the rusting of the iron core of the spring. The spring (No. 2) consists of a bilateral coil of four turns, and is further strengthened by the passage underneath the bow of the chord joining the coils. The foot is expanded in part of its length to form a somewhat U-shaped catchplate, and has a return to the bow,

with which it is fused for most of its length, the line of fusion being marked by a groove on either side; the collar is represented by a slight thickening of the bow. The space enclosed by the foot is broken up by a design of two crescents. The brooch has been placed as belonging to the transitional period of La Tène II—III.

A second bronze fibula (No. 3) is much smaller, being only 4.6 cms. long. The bow is flattened and tapers to a point at the foot, which forms a continuous curve with the bow with a return to form the catchplate. The flat upper surface of the bow is traversed by a groove, this shewing on its floor a raised wavy line with a row of dots along each side. The space in the foot contains no design. The spring (No. 4) is constructed on the same lines as No. 2. The pin is broken in two places.<sup>6</sup>

A curved piece of bronze wire, recently found, probably once formed the bow of another fibula.

The last article is another bronze ring (Plate XXV, No. 1), consisting of  $1\frac{1}{4}$  turns of thick strip bronze expanding from blunt points at the ends to a wide part at the middle. This wide part is marked by two lines of ornamentation like that on fibula No. 2; the two join and are continued round as a fine line.

#### 8. IRON. (Plate XXV).

A number of new iron finds have been made.

No. 2 is a second "Keltic Key," in two portions, smaller than the first one found. It shews traces of wood round the handle.

Nos. 3 and 4 are probably portions of iron brooches; No. 3 has a solid footpiece and catchplate, No. 4 only the head, much corroded.

The next two are the only weapons found up to date (excepting possibly the flint pebble mentioned in No. 1 of these proceedings, which may be a sling-stone). No. 5 is a spear blade with the tip missing; the original length of the blade was about 10 cm., of which 7.5 cm. remain. The portion of shaft is 5.3 cm. in length, and has an annular depression near its end; there is a distinct thickening

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<sup>6</sup> Nos. 1, 3 and 4 are natural size; No. 2 is 2.68 times normal size.

along the base of the blade. The other weapon is the socket of a second spear or lance (No. 6), the original wood of the shaft being still partly present. The corrosion is so great that the original shape of the article is difficult to make out, and it has also been identified as a gouge. Both explanations appear to be equally tenable. Its length is 24 cms.

A flat bar (No. 7) measuring 14.5 cm. by 2.5 cm. by 2.0 cm., when found had a round right angled projection near one end 27 mm. long; on section this proved to be debris covered by a mixture of rust and stalagmite; from the apparent shape of the opposite end one would judge it to be a currency bar, and it has been identified as such, and is probably of single unit weight.<sup>7</sup> It is too corroded to make a weight determination of any value.

From C22-24 comes a rather narrow, flattened rod (No. 8) tapering to almost a point at one end; it is 14 cm. long. It has been suggested that this is a file; but as in the case of other articles the amount of rusting prevents very accurate examination.

No. 9 is a bar 10.9 cm. long, tapering from 2.6 cm. by 1.8 cm. at the thick end to 1.2 cm. by .9 cm. at the narrow end. It is rectangular in section.

In addition to the above, one or two pins and several small fragments of iron have been found.

#### 9. POTTERY. (Plates XXII and XXIII.)

Numerous pottery finds have been made since the last report, particularly in certain areas. These are under several large boulders, such as those in a line across the cave from B36 to the Bridge F; and in the region of squares 19 to 27, where the floor is covered with a gravel and stone layer previously mentioned; the subjacent black layer was found to contain a considerable number of pottery fragments. These were portions of both decorated and undecorated pots, of various types, and a good deal of reconstruction has been done. Several fragments fitted into previously reconstructed pots.

Plate XXII shews a reconstructed portion of a large pot of which many pieces were found. The original pot was about 27 cm.

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<sup>7</sup> R. Smith, British Museum.

high, with a broad mouth and recurved rim. It is made of a fine reddish sandy mixture, and the surface is black inside and out. The decoration of three lines of cross-hatched triangles is one that has not been found at Glastonbury Lake Village or Wookey Hole.

Plate XXIII, and the remainder of Plate XXII shew new designs found since the last report; most of these were found in the area BC 22-24.

C24 shews part of a pot, most of which has been reconstructed, bearing a wave design and cross-hatching.

E32 represents a few fragments of thin hard and well-burnished pot of a much better quality than most found here; it has a design of cross-hatched triangles, enclosed between two rows of incised circles. The actual dot-and-circle pattern has not yet been certainly found on our pottery, the possible example being too small to make identification certain.

From C22 and B20 come portions of the bottoms of two pots; B20 has a single round hole in it at about the centre, C22 two smaller holes not symmetrically placed. Perhaps the missing portion contained a third hole. These pots with perforated bottoms might well, as has been suggested, have been strainers for extracting wild honey from the honeycomb.

Only two pieces of pottery shew any signs of handles, which are indicated in the fragments recovered by a decided thickening on the outside. The handle was probably of the type figured in Plate LXXIX of the Glastonbury Lake Village.

The type of pottery remains the same, and closely resembles that found at Glastonbury and Meare Lake Villages, Wookey Hole (deeper layers) and elsewhere. None of the pottery appears to have been made on the wheel. In all over forty vessels are represented by the fragments recovered, but none of them have been reconstructed in the drawings unless enough has been recovered to allow of no doubts as to the accuracy of the reconstruction.

#### 10. OTHER FINDS.

In several parts of the cave wood has been found, the structure being well preserved; in one case a large piece has sufficient bark still attached to shew that it was a piece of silver birch.

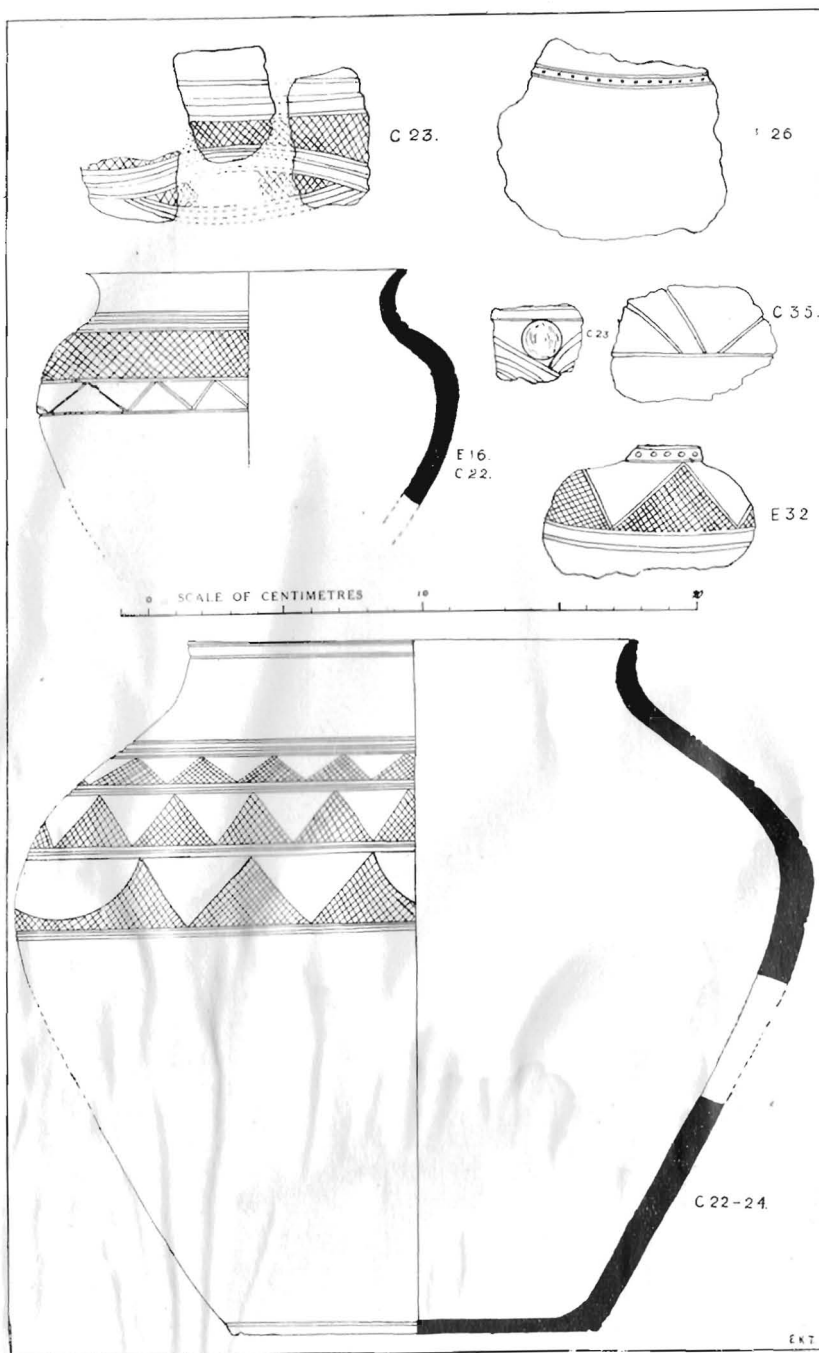
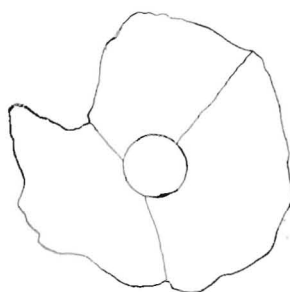


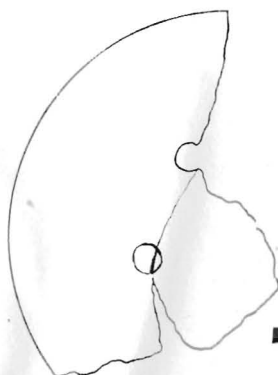
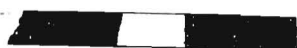
PLATE XXII.



C 26.



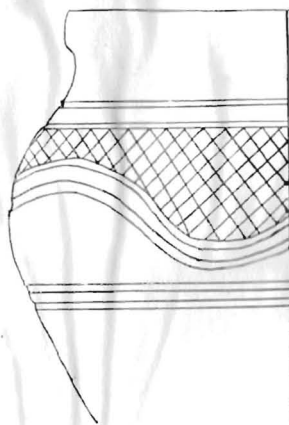
B 20.



C 22.



SCALE OF CENTIMETRES.

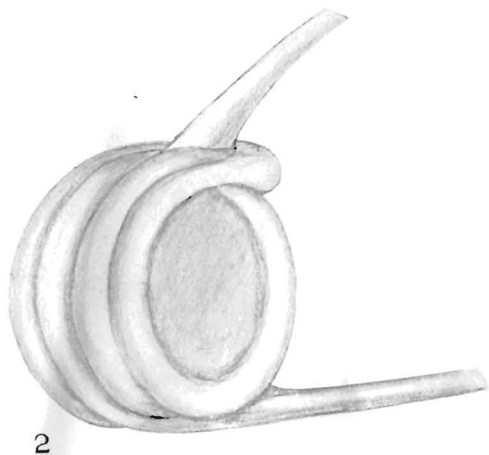
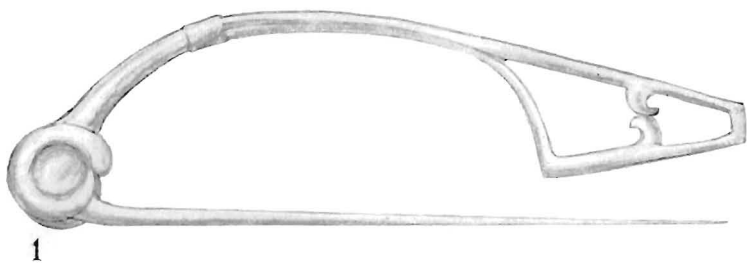


C 24.



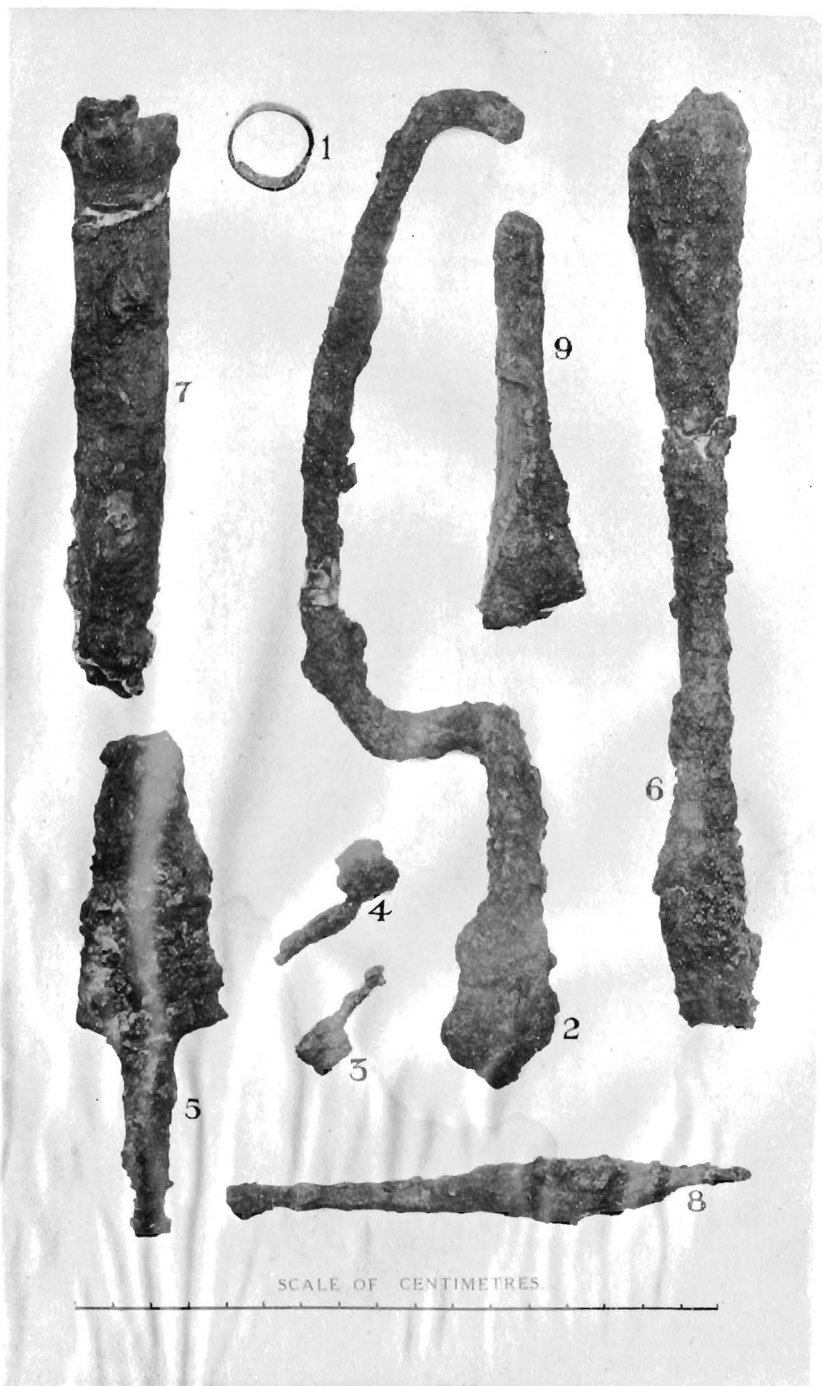
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**PLATE XXIV.**

All are drawn full scale except No. 2.



**PLATE XXV.**

No. 1 is made of bronze, the remainder are iron.



PLATE XXVI.

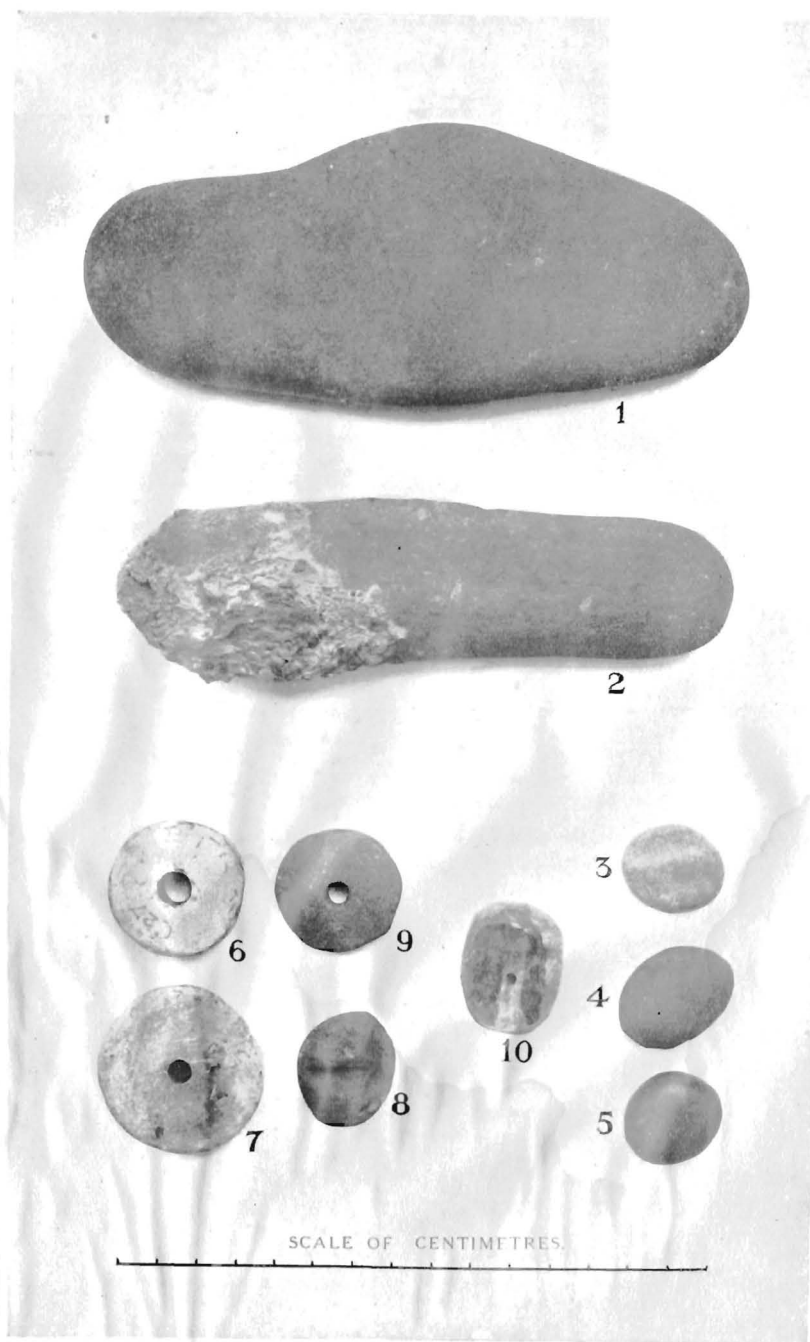


PLATE XXVII.

At F18 a curious object was found, like a walnut with one side missing, and a tube running down its centre as an axis. A considerable part of this article consists of iron or iron rust. Its purpose is unknown. (Plate XXVII, No. 10.)

At C23 was found a little hollowed-out ball of clay 5 cm. in diameter and 3.5 cm. in height, roughly moulded in a basin shape. Very similar articles have been found at Glastonbury Lake Village.<sup>8</sup>

In several places in the cave lumps of grey-green clay have been found. This exactly resembles clay found at Wookey Hole, where in one case a lump of clay was found stuck on a stick, evidently laid aside by the potter during his work.

### III.—CONCLUSIONS.

All the finds made since the last report go to confirm the conclusions contained therein, with the slight modification that the occupation was temporary compared with the length of occupation of Glastonbury Lake Village or Wookey Hole. The finding of the large bronze fibula makes it possible to date the finds more accurately, as it belongs to the period B.C. 50—A.D. 1.

I am indebted to several eminent archaeologists who have been kind enough to examine the finds, and in many cases to give most valuable information concerning them; also to Mr. E. K. Tratman for much of the material used in the compilation of this report, including the drawings from which plates XXII and XXIII are made.

The photographs from which Plates XXV—XXVII are made were taken by Mr. J. H. Savory.

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<sup>8</sup> *Glastonbury Lake Village*, Plate LXXXIX.

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