

ART. III.—*Report on the recent explorations at Dog Holes, Warton Crag.* By J. WILFRID JACKSON, F.G.S. (Manchester Museum).

Read at Carlisle, June 27th, 1912.

THANKS to the kind interest and generosity of this Society, the Lancashire and Cheshire Antiquarian Society, and several other friends, I have been enabled to devote a fortnight of my vacation this year to making further investigations at Dog Holes, Warton Crag.

In the course of these investigations several interesting objects were met with, along with the usual evidences of human occupation of the cave, such as charcoal, burnt and split bones, pottery, etc.

The most important find was a weaving comb made from red-deer antler, which agrees in many respects with similar combs found in excavating the Late Celtic Lake Village, at Glastonbury. This interesting object measures $4\frac{1}{2}$ inches in length and is $1\frac{3}{8}$ inches in breadth at the toothed end, narrowing towards the base to $\frac{5}{8}$ of an inch, and then widening out abruptly to form a cross piece $1\frac{3}{8}$ by $\frac{1}{2}$ inch at the end. It possesses eight prongs, fairly regular in their length, and is beautifully ornamented on its rounded side with a closely-arranged trellis pattern separated at intervals by straight lines.

Combs of this character, but generally plain, have occurred at several places in the North of England. One was found at Lancaster in 1850 associated with Roman and other remains, and is now in the Liverpool Museum. This specimen is unornamented, but the dentated end possesses the unusual number of sixteen teeth, of which ten are perfect.

Others have been found at the following places :—one near Stanwick Church, Yorks.; one in the Dowkerbottom Cave, Craven; and another in the Roman Baths at Hunnum, Haltwhistle, Northumberland.

Another interesting object found at Dog Holes consists of a circular bronze button $1\frac{1}{4}$ inches in diameter. The face is ornamented by a central boss and an outer raised ring situated well within the edge. The back possesses a short rounded shank, placed centrally and at right angles to the face, to which is attached a triangular flattened piece which runs parallel with the face. The triangle is not solid throughout, but possesses an open central triangular area as if to accommodate a strap or similar object. The precise application of this interesting find is uncertain, but its appearance suggests its use as a belt or sword fastener.*

Amongst the other objects of interest found at the cave are one or two highly oxidised iron tools; a narrow strip of lead; three polished bone pins or awls; large and small flint flakes, and some fragments of Late-Celtic pottery, similar to that found in previous excavations.

The above miscellaneous objects were not all associated together, but were discovered in different parts of the cave. The flint flakes were found in close proximity to several interesting human remains, comprising an almost complete skull, unfortunately badly broken up by the fall of large limestone blocks from the roof and walls of the cave. A human lower jaw found near by is remarkable in being without traces of the sockets for the second premolar on either side, a parallel instance being recorded from this cave in 1910 in which the second premolar and sockets were also absent on either side.

Whether any significance can be attached to this

* Similar objects were discovered in Manchester during excavations at Castlefield, and were designated "Cloak Fasteners." See *Roman Fort at Manchester*, 1909, p. 158, pl. 90, fig. 14. and pl. 92, fig. 14.

curious circumstance is uncertain, but it is a known fact that certain tribes to-day are in the habit of knocking out a particular tooth as a mark of chieftainship. It appears possible that some such custom may have obtained in bygone times.

All the remaining teeth are present or represented by their sockets. They are remarkably free from traces of decay, but, as is usual in prehistoric skulls, they are worn down to a uniform level by friction brought about from the mastication of gritty food.

The total number of human remains met with up to the present in this cave represents quite a score of individuals, fifteen being discovered in one chamber alone. This fact seems to indicate that the place was used repeatedly as a sepulchre, the confined nature of the cave precluding the idea of a wholesale burial.

The precise age to which these interments belong is somewhat doubtful; they certainly antedate considerably the later Romano-British occupation of the cave, as they occurred deeper down in the clayey débris. As mentioned in my previous Reports on this cave, the burials greatly resemble those of the Bronze Age in the sepulchral cave at Gop, near Prestatyn, Flintshire.*

The most interesting animal remains found in association with the human remains were the teeth and limb-bones of the extinct wild ox (*Bos primigenius*); antler, limb-bones and teeth of red deer; antler and limb-bones of roebuck; molar teeth and tusks of wild boar—one of the tusks having been worked into an ornament and perforated at one end as if for suspension as a charm.

Hopes had been entertained that the weights used in

* There is some probability of their being referable to the earlier part of that period, as associated with them was a fragment of ornamented rude pottery seemingly pertaining to the beaker class.

The remains, too, present many features common to the Iberic people of the Neolithic Age. They belong to a short race, about 5 feet 4 inches in height, and the skulls exhibit marked dolicho-cephalic tendencies. Signs of fusion with the later round-headed Goidelic race seem scarcely apparent.

connection with the beautifully preserved bronze balance, found at this cave in 1910, would be met with, but, though much time and arduous work were expended in search of these, they failed to reveal themselves. This is much to be regretted, as a decision upon the age of these scales rests largely upon the standard to which the weights conform, *i.e.*, Late-Celtic or Roman. Sir C. Hercules Read (British Museum) has referred the scales to probably late Roman date (4th or 5th century), but the style and ornamentation (dot and circle design) seems suggestive of Celtic influence.

In concluding this Report I should like to emphasize the extreme difficulty encountered in working the cave owing to the large size of the fallen limestone blocks and the want of proper facilities for their easy removal. To this can also be added the unfavourable weather conditions, which considerably hampered continuous work.