

No other exact parallel is known to the writer: these two brooches are clearly the products of a local workshop. Circular brooches with applied animal figures are, however, fairly widely known. From Wookey Hole comes an example bearing a hare (?) to right within a beaded border (Balch, 1914, *Fig. 13*). A second group, which has a plain linear border in place of the beaded type, comes from sites in the south and east of England. Its latest member may be a specimen from Lancing (Sussex) showing a hippocamp of ordinary Roman-provincial style (Leeds, 1933, *Fig. 30a*); its earliest, perhaps, the Santon Downham (Norfolk) specimen, datable to about A.D. 50-75, bearing a gryphon of deeply Celtic style, well compared by the late R. R. Clarke with the devices of Celtic coins or repoussé figured work such as that of the Marlborough bucket (Toynbee, 1964, *Plate Ic*).

Circular applied brooches bearing triskele patterns are also well known and belong to the later 2nd and 3rd centuries A.D. (Note 1). Their Celticism, however, owes much to Continental sources. It is stylistically close to the swelling scrollwork of the cast openwork attachments so common along the Rhenish and Danubian frontiers of the empire, and imported in some quantity into this country (Note 2). The *appliqué* technique, however, seems to remain an essentially insular phenomenon. Motifs of a vaguely Celtic character are also found on the bright enamelwork produced in the Namur region in the 2nd century, and it is tempting to see in the deservedly popular small zoomorphic silhouette, brooches (Note 3), the inspiration for the animals of the Camerton/Charterhouse and Wookey type.

Note 1. A list, *Medieval Archaeol.*, Vol. III (1959), 85 and n. 16. Another group abandoned the Celtic style in favour of designs ready made to scale upon the imperial coinage, e.g. *Allocutio* scenes: R. G. GOODCHILD, *Antiq. J.*, Vol. XXI (1941), 1ff. Their beaded border—retained as a feature of the triskele type and also of the Camerton/Charterhouse-specimens—may well be derived from the beaded border of the coin-prototype.

Note 2. Compare, e.g., the Vechten silver buckle, *Archaeol. Trajectina*, Vol. III (1959), *Plate 2*, 2, with that from Silchester, G. C. BOON, *Roman Silchester* (1957), *Fig. 11*, 2. Other examples, Caerleon, *Archaeol. Cambrens.*, 1932, 84, *Fig. 33*, nos. 30-31.

Note 3. E.g., BRITISH MUSEUM, *Guide to the Antiquities of Roman Britain* (1951); F. HENRY, *Préhistoire*, Vol. II (1933), 128-129.

GEORGE C. BOON.

Investigations at Stanton Drew Stone Circles, Somerset. In 1958 Grinsell and Kendal reported briefly on their probing for lost stones and concluded that Seyer's account (1821) was correct about the stones missing at the west end of the south side of the 'avenue of the Great Circle and the next stone south on the perimeter of the circle. They concluded, like Seyer, that the stones lay buried under the soil. They numbered these stones 1 and 2. Seyer had also reported other areas of burnt grass in times of drought and he interpreted these as being above buried stones notably between Dymond's (1896) 7 and 8 and 9 and 10 (Seyer's 10 and 13).

In 1961 Professor L. S. Palmer started an extensive electrical resistivity survey of the Great Circle but ill health prevented the completion of the work and, after his death, the records were examined in the Physics Department of the University and pronounced to be essentially negative in that they provided little evidence of any value in assessing the site. The present author worked with Professor Palmer on the site and took the opportunity to carry out extensive probing, involving the whole of the perimeter of the Great Circle and the south side of the avenue of that circle as far as the line of the old hedge bank and the steep drop to the flood channel of the River Chew.

A start was made at the site of the missing stones which Grinsell and Kendal claimed to have located. At first it seemed that their conclusions were correct and that the missing stones lay buried where they claimed them to be. The next objectives were the gaps between visible stones, either upright or prone, where it was thought that additional stones might lie buried or might reasonably be assumed to have once stood. Here again at a number of these sites a hard layer was found at a depth of 0.5-2.0 ft., but no outline of any stone could be determined except in the case of stones lying prone but still partly visible. The forms of these stones could be determined accurately both as to their outlines and uneven surfaces. The "feel" of these stones under the probe was quite different from the feel of the ground where stones had been suspected and probed for.

In view of this, further extensive probing was made between consecutive stones on the north-north-east quadrant (Dymond's 18-20). The same hard layer was found as in other parts and yet there was no likelihood that the layer represented buried stones as the probings were made in three concentric rows 3 ft. apart and probing at 2-ft. intervals in each row. So if the hard layer represented stones then, in this segment at least, the stones must originally have formed a continuous, unbroken ring.

But it was also found that if heavier pressure was applied to the probe it went through the hard layer into softer soil below. It was then necessary to repeat all the previous probings of the first series but using much heavier pressure. In every case, except where part of a stone was visible, heavy pressure pushed the probe through the hard layer into a softer layer below. The hard layer was estimated to be 2-6 in. thick with its top on average about 1 ft. down and it was very extensive.

Another intensive probing was made in the area of Grinsell's and Kendal's 1 and 2. Once again the probe went through over the whole possible area except for a small area about 2 ft. square which did seem to have a true stone fragment under the soil.

Along the south side of the avenue no hard layer was found at all.

It might be argued that the stones long buried may have rotted and so would let the probe pass through. But the hard layer was far too thin for it to be composed of rotten stone and, furthermore, the layer was well nigh continuous between Dymond's 18-20. Therefore another explanation has to be sought, short of proof by excavation.

The Great Circle lies on the top of a low terrace of the River Chew. The whole of the north-east perimeter is very close to the edge of the terrace and the avenue of this circle is off the terrace and so is the north-east circle itself and its avenue. It seems likely, therefore, that the hard layer represents an iron pan about 1 ft. down and 2-6 in. thick over a large part of the area of this terrace. The matter has been discussed with Mr. L. S. Curtis of the Geography Department of the University of Bristol and also with Dr. Findlay of the Soil Survey. Both considered that this was a distinct possibility but, of course, only excavation can prove or disprove the theory. Such an iron-pan layer if slightly variable in depth and distribution could be the indirect cause of burnt patches appearing in the grass in dry weather. But Seyer may not have been as accurate as has been thought, for though I have seen the site in times of drought I have not yet seen any burnt patches.

Various writers about Stanton Drew (e.g., Grinsell, 1958, p. 70) have remarked that "a line drawn south-westwards through the centres of the N.E. and Great Circles will also pass through the Cove" and "a line drawn through the centre of the S.W. circle and Great Circle will, if projected north-eastwards, continue to Hauteville's Quoit". It is concluded from this that each trio is contemporary and as some of the same elements occur in both trios that the whole is probably a contemporary structure. This may be so, but it by no means follows that it actually is so. After all, some of the structures could be later than others and something added later might well be aligned on existing structures. Once again only excavation can settle this point. Though analogy can be misleading the evidence from comparable sites is usually to the effect that there were several phases, separated by considerable time intervals, at these sites and so one might expect this to be so at Stanton Drew.

The Cove presents its own problems. It now consists of two upright slabs 10 ft. apart and between them, lying prone, a larger slab. The first thing to consider is whether this was originally upright and has fallen or whether it was originally prone. Alas, the question cannot be answered without excavation, but by analogy with other sites it is more likely to have been upright as at the Cove of the central structure in the north inner circle at Avebury, while a prone stone would demand an analogy with Aberdeenshire. But if upright, any ceremonies performed within the Cove would be completely hidden from any of the three circles, which would not have been so at Avebury.

The three stones of the Cove are dissimilar to those of the circles. The latter are, in general, rough unhewn blocks of rectangular or square section. They are thick stones. The three stones of the Cove are essentially slabs with relatively thin rectangular sections, but whether this has any archaeological significance is unknown.

However, Grinsell (1958) has rightly drawn attention to certain similarities to Avebury. The stones of the circles themselves in their massive untrimmed shapes are strongly reminiscent of those at Avebury. In the Cove there is an added analogy with the Cove in the central area of the northern inner circle at Avebury, where the two stones remaining in form match the two smaller ones at Stanton Drew. It will also be noted that the standing stones at Stanton Drew Cove are fairly closely matched with

the paired stones of the West Kennett Avenue at Avebury, the supposedly male and female elements (*Plate 9*).

Stanton Drew, like Avebury, is situated down in the valley bottom in close association with a river. But the two avenues at Stanton Drew both end, as far as can be seen, at the edge of a channel of the River Chew.

Finally, for the sake of future archæologists, it is worth recording that a very large old elm tree approximately at the centre of the Great Circle was finally felled and removed in 1963. Its removal caused a major disturbance in the central area where its presence had certainly destroyed any archæological subsoil features that may have been there.

E. K. TRATMAN.

Trial Excavations at and the Pleistocene Fauna from the Long Hole, Cheddar, Somerset. (N.G.R. ST 46655388. U.B.S.S. Catalogue No. M 21.) This cave lies 120 ft. above the main show cave at Cheddar that is generally known as Gough's Cave. It is part of the high-level system of the underground drainage and has long been abandoned by the stream. The mouth is about 20 ft. wide and 10 ft. high and overlooks the bottom of Cheddar Gorge. Beyond the mouth it is connected with Gough's Old Cave (Tratman, 1960) by a large circular funnel leading nearly vertically down to the lower cave. Collapse of the material filling this was triggered off by excavations made by Gough to make the lower cave into a show cave. Beyond this shaft there was formerly a steep scree slope down to the level of the road. This slope was known as the Slitter. This great mass of scree has now gone. It yielded, from time to time, several Bronze Age items of which a double-looped palstave is in the museum at the show cave. The scree has also yielded Romano-British pottery and some of this is also in the museum. The Long Hole itself had many Roman coins (Boon, 1958), including a hoard, and indeed the cave is frequently described locally as "The Roman Cave".

At the mouth there is ordinarily a copious drip on the right side quite sufficient to form a water supply for a small community. Just inside the entrance arch, on the right, is an opening in the floor which leads down into the roof of the inner part of Gough's Old Cave. The floor rises gently and after about 100 ft. another passage is seen with a boulder floor sloping down on the right. This passage descends steeply and is eventually connected with the top of "The Fonts" in the main show cave. (The connexion is blocked with a thick boulder choke.) Opposite this passage, and thus on the left, is a very steeply rising rift passage in the roof. The floor of the main cave continues to rise, in places quite steeply, to where a tricky little climb of 15-20 ft. leads up into the higher level, and one passage off this has living tree roots in its mud filling, so the surface is not far away.

As both the lower caves had yielded important remains including those of the Late Pleistocene, it was thought that the Long Hole would be worth excavating in spite of the known disturbance that had taken place. Just inside the entrance a trial trench 4 ft. wide was dug to rock. It was soon found that the whole deposit had been completely disturbed. No objects, other than obviously modern ones, were found, not even animal bones.

A second trench, 40 ft. further in, produced the same evidence of complete disturbance.

A third trench near the limit of the twilight zone was dug with the aid of artificial light. Rock was encountered a few inches down on the left side, looking in, and at a somewhat greater depth on the right, where it was noted that two thin stalagmite floors had been broken through by earlier diggers. Nothing worth recording was found.

It had been noted on various visits over a number of years that bits of ancient-looking bone had fallen out of the roof rift already mentioned on the left. This passage ascends very steeply and it is necessary to jam oneself between its walls to prevent a too rapid descent to the floor of the main cave. At the top of the accessible part is a loose angular limestone scree, quite unweathered and with only a small amount of fine material. It is dangerously unstable and digging it from below is risky work. However, a few remains were found and subsequently identified. They were lemming (*Dicrostonyx gulielmi*) (a skull and three mandibles), ox tibia, part of a canine of a large carnivore (almost certainly lion), the pelvic bone of a large hare and a gnawed rib fragment probably reindeer.

The survey of the cave shows that it is running roughly parallel to the cliff face of the Gorge, so that the rift must open to the surface close to the lip of the Gorge or



PLATE 9

Left: The Cove at Avebury. *Centre:* The Cove at Stanton Drew. *Right:* Paired stones, 26a (foreground) and 26b (background), of West Kennett Avenue, Avebury.