Vigo Cave and Neighbouring Potholes, Co. Clare, Eire

By D. P. S. Hobbs and F. H. Nicholson

Vigo Cave is the only explorable cave of the several known along the western side of Inchiquin Lough. Other small ones are known but all are completely filled with boulder clay. One of the potholes is about 400 yd. away in a valley to the north-west, while the other two are about $\frac{3}{4}$ mile from Vigo Cave to the west (Fig. 11).

VIGO CAVE

(Fig. 12)

(I.O.S. Clare, 6 in. to 1 mile, Sheet 17. Entrance E. 0.9 in., N. 10.3 in. Td. Noan.)

This cave is one of the very few which has a definite piece of folklore attached to it. The authors are indebted to Lt.-Cmd. T. R. Shaw for the following account.

"Two tales are told of Vigo Cave or one of its small neighbours near Lough Inchiquin. In one of the stories (Davies, 1853) the Quin chieftain found a beautiful woman asleep in one of the caves. She agreed to marry him provided he never allowed an O'Brien to enter his castle at Inchiquin. A year or so later the feast celebrating the birth of their son was attended by one of the O'Brien family and the chieftain's wife leapt out of the window with their son and disappeared for ever in the lough. The castle and the land passed to the O'Brien's soon afterwards. Davies (1854) recounts also that the lough was once a flourishing city which sank under the water because of some terrible crime. The 'dark spirit' of its king, who ruled over the surrounding country, resides in a cavern in one of the hills which border the lake, and once every seven years, at midnight, he issues forth, mounted on a white charger, and urges him at full speed over hill and crag, until he has completed the circuit of the lake; and thus he is to continue, till the silver hoofs of his steed are worn out, when the curse will be removed and the city will reappear in all its splendour."

So far we have not found the sleeping beauty nor seen the midnight rider, which is rather disappointing.

In the description of the cave rights and lefts are given going into the cave. The entrance is about 180 ft. I.O.D. and is at the foot of a shale cliff,

which marks the eastern edge of the Upper Limestone Shales just here. The shale boundary here runs approximately north to south and approximately along the 200 ft. contour. The shale is horizontally bedded. The cave runs in obliquely under the hill on a bearing of 200° for 636 ft. passing further and further under the shale. Davies (1854) describes the cave as being nearly a mile long. From the entrance to the small dry chamber at the end the direction is uniform. The roof is formed by the same bed and maintains the same level throughout. The true floor is nowhere visible, due to the cave being filled to a greater or lesser extent with a sandy loam.

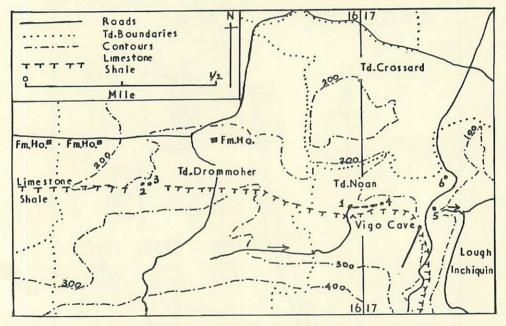


Fig. 11. Sketch map of area of Vigo Cave, Co. Clare, Eire. Reproduced from the Ordnance Survey by permission of the Government of the Republic of Ireland (Permit No. 241). Cave data added by University of Bristol Spelæological Society.

The entrance is in the form of an arch, being about 15 ft. wide and 5 ft. high in the middle. From outside, the ground slopes steeply down through the entrance. The bottom of the slope, which consists of mud and boulders, is 30 ft. from the entrance. Copious trickles of water from the shale cliff above the entrance form a small stream which disappears through a depression in the floor. The height of the cave is here about 25 ft. At this point two enormous limestone flakes narrow the passage from 18 ft. to 9.5 ft. These flakes, both about 1.5–2 ft. thick, and as high as the passage, have come away from the left-hand wall. A few feet beyond the flakes the cave narrows still

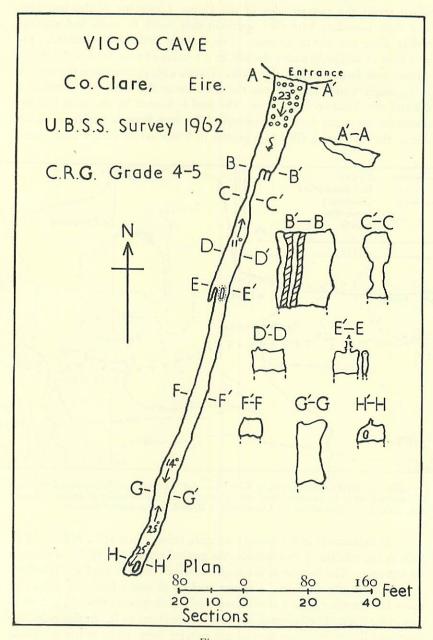


Fig. 12.

further to a width of 4 ft. Almost immediately it widens and the floor slopes steeply up over the loamy fill to within 6.5 ft. of the roof. The roof shows numerous small depressions in its surface, and along a joint running the length of the cave roof pockets have been formed. Some of these solution cavities are approximately 6 ft. high but are too narrow to enter.

The loamy fill is covered with dry or nearly dry moon milk or soft stalagmite and small boulders protrude partly through it. There are drip holes in the floor as much as 3 in. deep with an average diameter of $\frac{1}{2}$ in. There are no mounds round these holes and very little splash deposit. Side recesses show deposits similar to those of the main floor. Bat faeces were found on the floor at the top of the slope and beyond, when the cave was visited on July 17th, 1962, but no bats were seen. Davies (1854) records the presence of many bats "which flap their wings in the face of the explorer, and whirl round his taper, [and which] fail not to impress him with a sensation of awe".

At the top of the slope there is evidence of slight slumping, for residual mud on the walls indicates that the floor has dropped a few inches. The fill continues at the same level for 100 ft. before sloping down steeply to make the height 18 ft. The walls here are very dry and dusty. The passage floor slopes up again steeply on the far side of the hollow and the passage becomes only 3 ft. high and 8 ft. wide. There are more roof pockets, and these contain helicites. This type of formation can also be seen on the left-hand side, 2 ft. above the floor, growing out from a calcite filled joint in the wall.

The last 10 ft. of the cave slope down and to the right into a small dry chamber, the explorable end of the cave. This chamber can also be approached from a side passage, which leaves the main passage directly ahead, and joins up with the back of the small chamber.

There is much evidence that the cave was formed under phreatic conditions, that is by solution under the water table. There is no evidence at all that there has been a stage of vadose solution. The cave is also unusual because it runs in a straight line in under the shale covering of the limestone. It has no valley system associated with it nor is there any evidence of there having been one. The roof of the cave at its mouth is about 100 ft. or a little more above the surface of the lough, so that when the cave was formed the local water table must have been well over 100 ft. higher than it now is. The loamy fill can only have come in through the mouth. Thus the topography of the area when the cave was being formed and subsequently filled must have been quite different from that at present existing. The inference is that the cave was formed prior to the last glaciation, and while the infilling may be of glacial origin its exact nature has not been determined.

The steep slope down from the entrance appears to have been produced by slumping, induced by the trickles of water from the cliff above the entrance removing the finer elements of the fill through deeper and unknown channels. Similarly the other hollows are likely to be due to slumping though there is no immediate local apparent cause for this.

The survey was made using a metallic tape and a handbearing, liquid filled, prismatic compass, R.A.F. Type O6A. A clinometer was used where necessary. The plan and sections were drawn directly from the survey data.

POTHOLE 1

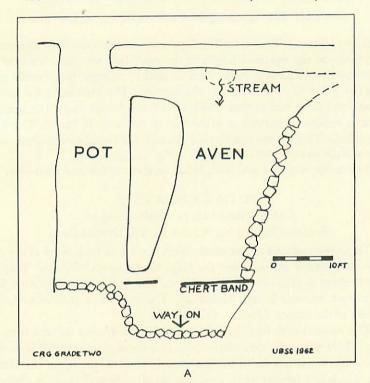
(Fig. 13A)

(I.O.S. Clare, 6 in. to 1 mile, Sheet 16. Entrance E. 36.0 in., N. 10.2 in. Td. Noan.)

Just north of Vigo Cave the shale boundary turns west and a considerable valley has been incised in it. In the bottom is a small stream running down from west to east. As soon as it reaches the shale edge the stream plunges down the pothole, which is fenced round and has a large ash tree growing at its west end. Under low water conditions, as on the occasion of our visit, all the water goes down through another opening a few feet upstream from the pothole. The pothole can be entered along the dry stream bed. It is nearly circular, being 12 ft. in diameter and 40 ft. deep, smooth-sided and floored with cobbles and pebbles. Parallel to the pot is a large aven, roofed over, and the stream enters from one side at the top. The aven connects with the pot at the top and bottom of the pitch (Fig. 13A). The upper connexion is some 6 ft. from the top-surface level and as wide as the pot. Below this level the aven is narrower, being only 5 ft. wide at the bottom. The lower connexion with the pot is a short low crawl. The aven has a smooth, chert band floor, deeply fluted vertical walls, a solid wall at the pothole end and a steep unstable boulder slope at the other end.

A hole down through the chert floor of the aven gives access to a small chamber roofed by this same chert band and leading off from this is a fairly extensive joint controlled phreatic maze. The stream can be followed for about 70 ft. to a small pool. The floor of this section being cobbles and mud. From this point the maze is more or less horizontal with a dry, on this occasion, sandy or mud floor. It extends for a further 200 ft., the passages being typically 3–4 ft. high and 1–2 ft. wide. It ends in a pool about 10 ft. deep and which is in a rift. The pool can be traversed over and the rift followed for about 30 ft. to the end of the accessible part. The rift is some 20 ft. high above the pool and higher still at the far end. The pool may be at the level of the local water table.

It is obvious that the pothole and its continuation is of post-glacial origin and is occupied by the stream that made it. There is no direct evidence



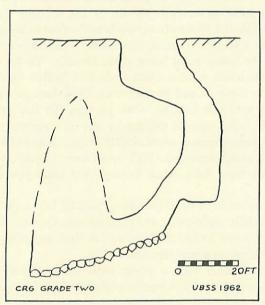


Fig. 13.—A, Lough Inchiquin Area, Co. Clare, Eire. Section of pothole 1, Td. Noan, of Fig. 11. B, Section of pothole 2, Td. Drommoher, of Fig. 11.

to link the system with the surface depression about 130 yd. to the east of the pothole, as the explored length of the cave does not quite reach as far. The depression looks as if it had been formed by collapse but it could mark an earlier point of engulfment of the stream. The stream in the cave is probably the same one as that which runs through and under the boulders of a large collapsed chamber near the side of the lough (Clare 17, E. 1·2 in., N. 10·6 in.). This stream can be seen through the boulders and soon comes to the surface and runs into the lough. (Fig. 11, (5).)

The tackle required is a 40-ft. ladder, a short tether and a life-line.

POTHOLES 2 AND 3

(I.O.S. Clare, 6 in. to 1 mile, Sheet 16.

Entrance E. 32.9 in., N. 10.9 in. Td. Drommoher.)

These two potholes are situated within 100 yd. of each other at the edge of the shale which extends over the ridge to the south of them. They are situated about $\frac{1}{2}$ mile west of Vigo Cave, in a valley running down from west to east, towards Lough Inchiquin. The valley is a shallow one along the flank of the ridge. (Fig. 11, (2 and 3).)

The western pothole (Fig. 13B) takes several streams derived from the shale. There is a 15 ft. rope climb down to a sloping floor, which is covered with boulders and is 8 ft. wide. It descends 10 ft. to the lip of the vertical pitch, which is a further 25 ft. deep, almost circular and 12 ft. in diameter. It is overhung some 20 ft. above the lip by the opposite side of the pot. The vertical is followed by a 10 ft. scramble to the floor of the main chamber. This consists of a large aven going up almost to the surface with a sloping boulder floor, the lowest point being at the far side. To the right, there is a 7-ft. high flat-roofed section which leads to a further aven, about 20 ft. high. A hole in the mud and boulder floor leads through a boulder choke to a pool in a very low bedding plane passage. To the left of the main aven, two small avens may be entered by way of a narrow rift. They are parallel to the main aven and are of similar height. Bones of a small animal, probably a fox, were found quite high up in one of these avens, indicating that the animal must have fallen through the small openings near the top.

The system has been developed along parallel joints, giving a series of avens, and especially exploited at one point to form the pot. Also of interest is the system of joints hading at about 45°, at right angles to the aven, and these have given rise to minor features.

The eastern pothole takes a stream from the south side of the valley. It consists of one large and two smaller potholes which have coalesced. It is approached by a 15-ft. slide down a steep grassy slope to the lip of the pot. The pothole is 40 ft. deep, with vertically fluted sides. Over the top, where

the pots have coalesced there is a bridge. The floor is of mud, boulders, rotting farm stock and other debris.

The potholes lie in a narrow depression in the floor of the main valley and the depression is elongated along the axis of that valley. The slope of this has been reversed at the eastern end of the depression, where it is related to the eastern pothole. The situation of the potholes and the drainage system that has formed them clearly indicate a post-glacial origin. The tops of the potholes are at 200 ft. I.O.D. and the deepest point reached is 120 ft. I.O.D. and possibly less. This is only 40 ft. above the surface of Lough Inchiquin so that the bottoms of the potholes are at or very close to the water table and the chances of finding explorable extensions are remote.

The place where the waters rise is unknown, but traditionally, beasts thrown down the holes, dogs being specially mentioned, eventually come out in Lough Inchiquin. This is the most likely place for the waters to rise, but whether flood waters would be able to wash the carcasses through is more problematical.

The tackle required is a 40-ft. ladder and a 20-ft. tether.

REFERENCES

DAVIES, J. R., 1853, "Legends of County Clare", Notes and Queries, Vol. 8, No. 210, 436.

— 1854, "Legends of County Clare", Notes and Queries, Vol. 9, No. 222, 73.