

## East Twin Swallet, Burrington Combe, Somerset

By

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(O.S. 6 in. to 1 mile, Somerset 18 N.W. N.G.R. ST 47955814)

The entrance to this cave was opened in 1936 by this Society and an account of it was published together with a survey (Pearce, 1944). A fresh survey has recently been made and several points of interest emerge from a study of it. The cave is formed in the Z beds of the Carboniferous Limestone which dips here at  $43^\circ$  in a north-easterly direction. The three chambers that form the major part of the cave follow the direction of the dip, in contrast to the nearby Goatchurch Cave, in the West Twin Valley, where the major galleries are all formed along the strike. The only strike passages in the East Twin Swallet are the Entrance or East Passage, the corresponding passage, which can take the whole stream, opposite it in the floor of the First Chamber, and the poorly developed Stream Passage.

There are three chimneys in the Second Chamber on the west wall. The first is difficult to enter and extends up dip for about 20 ft. to a stalagmite choke. It is likely that this connects with the small side passage, opening off the East Passage, at B' (on the survey), which is also choked with stalagmite. The second chimney, hairpin shaped, has both entrances leading down dip into the Second Chamber. The third opening rises vertically out of the lower part of the Second Chamber. The chimney can be climbed up for 25 ft., but beyond this there is a very steep mud slope. The top cannot be very far beneath the surface, although no evidence of it can be seen there.

On the east wall of the Second Chamber, opposite the foot of the third chimney are three striking rock ledges. These are shown in the cross section DD' and as three thick dotted lines on the elevation. All three lie at the angle of dip. They are formed, presumably, out of three bands of limestone less soluble than the rest. The bottom two are covered with stalagmite flow.

Stream action has modified the shape of the Second Chamber at floor level since the original account was written and it was a matter of considerable disappointment to a party, excavating for a presumed extension of the cave, when they found themselves in the Third Chamber with its inscription "U.B.S.S., 1940". However, their re-opening of this Chamber was followed by its survey. It was noted that it would not be impossible to dig for a continuation of this chamber as was thought in 1936 (Pearce, 1944, p. 126), but it would be necessary to use explosives and there would be the

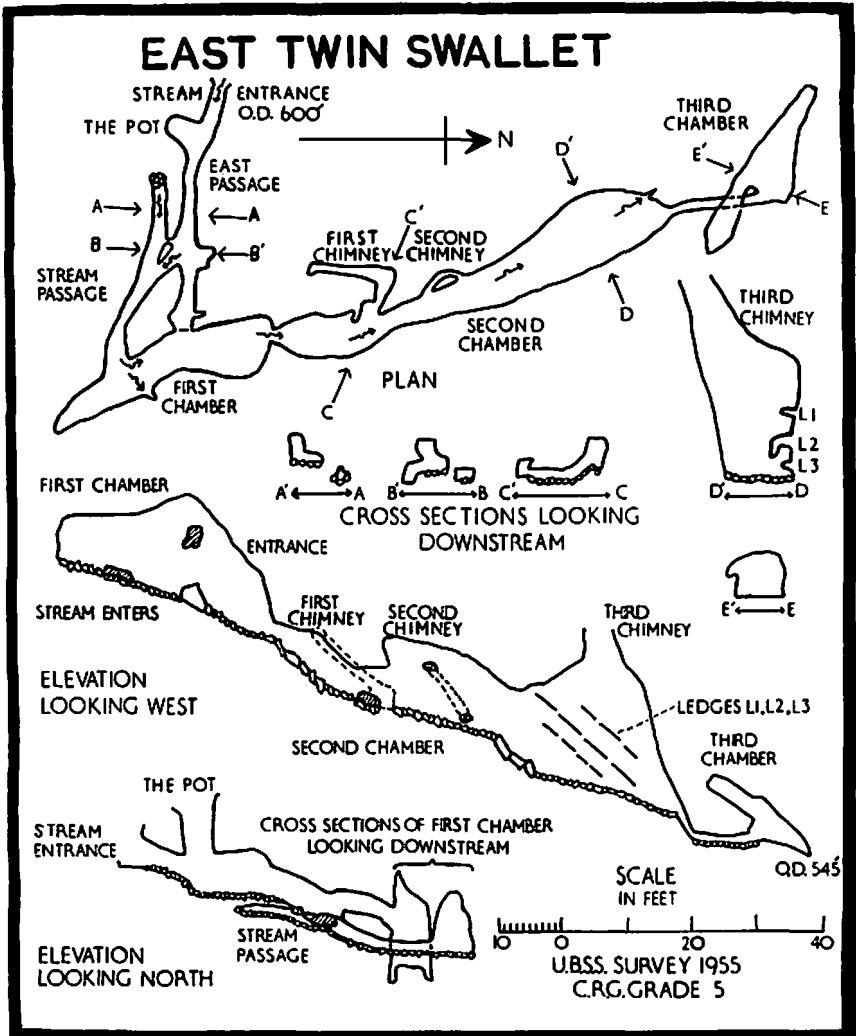


Fig. 31.

difficulty of keeping the connecting passage between the Second and Third Chambers open.

Flooding of the Third Chamber must be of quite frequent occurrence ; grass, straw, worms, etc., are found there. Flies are numerous in the summer months on which the toads in the Third Chamber presumably feed. These amphibians, of which there are usually a couple, seem able to adapt themselves quite easily to cave life. The last two that the author found were very

slothful and did not react in any way to light. One of them was almost white and both appeared to be well fed.

This cave is not very stable. The floor is strewn with boulders under which the stream normally flows. The walls and roof, especially in the upstream portion of the Second Chamber, consist of boulders cemented together with red mud. In the Stream Passage the mud contains many fossils, mainly crinoids and brachiopods, dissolved out of their limestone matrix. This is a common phenomenon in the caves of the area.

The survey was made using a prismatic compass readable to  $1^\circ$ , a clinometer, and a wire-reinforced linen tape. All measurements were the average of three separate readings. The cave has been considered as being in two parts for the purpose of drawing the elevations. The First, Second, and Third Chambers were projected into a vertical N.-S. plane viewed from the east. The Entrance Passage was projected into an E.-W. vertical plane viewed from the south. Where one passage enters another the entrance is shown on the survey as a diagonally shaded area. A C.R.G., Grade 5, rating is claimed for the survey.

#### REFERENCE

*Proc. = Proceedings, University of Bristol Spelæological Society.*

PEARCE, R. A. J., 1944, "East Twin Swallet", *Proc.*, Vol. 5 (2), 124.