

## CAVE NOTES: MEARLEY QUARRY CAVE PENDLE HILL, LANCASHIRE

by

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NGR SD 77404100

Length 13 m

The cave was explored by the author and others in March 1986, following information from members of the British Geological Survey, who had noted the site during their re-survey of the area.

The entrance is located in the wall of a small abandoned limestone quarry at a height of about 235 m AOD on the northwest slope of Pendle Hill above Lane Side Farm, in the parish of Mearley. The quarry is the only exposure of rock on a hillside which is otherwise mantled in glacial drift. The exposed rock is a thickly bedded light grey limestone, the upper part of the Pendleside Limestone of the Worsten Shale Group (Earp *et al.* 1961 p.70).

The cave entrance is a 0.75 m diameter tube which descends at 45° for 1.3 m before levelling out (Figure 1). After a further 2 m a junction is reached, with

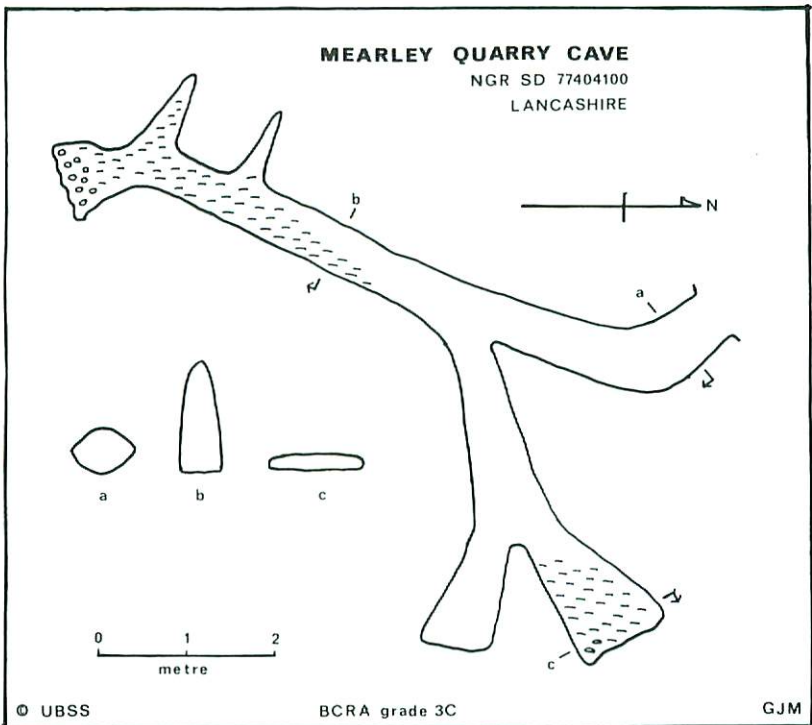


Figure 1. Survey of Mearley Quarry Cave

rifts going off to both left and right; both ways close down after only 4 m in too-tight bedding planes and rifts, and both have short side branches also of rift shape. All the passages are phreatic in type, being formed along joint planes. Much of the wall area of the cave is covered in a soft, crumbly calcite deposit but there are no other significant sediments in the cave.

Mearley Quarry Cave is probably all that now remains of an old drainage system that functioned prior to the deepening of the Ribble valley, presumably by the glacier which has left considerable quantities of drift in the area. Despite an intensive surface search, no other caves were located on Pendle Hill. The only other cave in the area appears to be a choked phreatic arch at about the same elevation as Mearley Quarry Cave in the Knoll Limestone of the nearby Worsaw Hill (at NGR SD 77974325). This is 7 m wide and could be penetrated for about 4 m over a soil and pebble fill.

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#### REFERENCES CITED

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