

PREHISTORIC MINING HAMMERS FROM BRADDA HEAD, ISLE OF MAN

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**Abstract:** Two stone hammers are described from Bradda Head, and comparable finds are considered. An Early-Middle Bronze Age date is tentatively suggested.

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The two implements described here were found in 1987 at the Bradda Mines, Port Erin, Isle of Man during a general visit by one of the authors (T.W.).

The Bradda Mines worked a strong vein that strikes across the headland for just under one kilometre and which is exposed in the sea cliffs to the north and south. The mineralisation is principally lead and copper (malachite, cuprite, melaconite, copper pyrite, copper sulphate, atacamite and native copper) in a quartz vein surrounded by a country rock of Manx slate (Dewey and Eastwood 1925 p81).

The tools were found at the South Bradda Mine (SC185697) where the southerly outcrop of the vein has been exploited in a massive opencast running from the sea level to the cliff top, a vertical rise of almost 120 metres. Tool A was found in backfill material spilling out of the opencast directly behind the remains of the 19th century enginehouse of the mine, and tool B was collected from compact backfill within the opencast some 18 metres above sea level.

Both tools are sea-worn pebbles which could have been collected from beach deposits near to the mine. Tool A is a squat oval of basalt measuring 160 x 115 mm. One face is complete, whilst the other is characterised by two large flake-scars which have been detached, probably through heavy pounding, from either end. This spalling has also obliterated the broader end and part of the side, but the opposite end is intact and exhibits close pitted batter marks which are obscured in part by a small flake scar. Tool B is a long oval cobble of slate measuring 165 x 75 mm. There are batter marks at both ends but associated flaking is restricted to one end only; these flake scars are not as severe as on tool A, and the implement is almost complete. Isolated patches of bruising along the body may be accidental or the result of later (post-use) damage.

The Bradda Head hammerstones are the first stone implements from the Isle of Man to have been found in a direct mining context. They are very similar to the unmodified cobble hammers found at a number of copper mines in mid and north Wales and in Co. Cork, Ireland. Recent radiocarbon dates from three of these sites - Mount Gabriel, Llandudno, and Cwmystwyth - indicate a date range of 1550 - 1100 BC for such tools, and on typological grounds at least, the hammers from Bradda Head should fall within the same time span.

Two stone tools with possible mining associations have been recorded previously on the island. In the collections of the Manx Museum is a slim perforated "battle axe" or "axe hammer", some 150 mm long which was found at the Foxdale Mine at the turn of the century. Although this is probably nothing more than a chance prehistoric find it is worth noting that perforated stone tools are known to have been used in metal mines. Perforated adze-hammers have been found at the Bronze Age copper mines at Timna, Israel (Rothenberg 1972) and Oliver Davies (1937 p3) refers to a "large perforated stone hammer" discovered underground at the Trecastel Mine in the Conwy Valley, Gwynedd. And on a more general level Roe (1967 p67) has suggested a relationship between axe hammers and the distribution of copper ores in SW Scotland. The second Manx tool is shown in a photograph (Manchester Ref. Lib. M277/2/9) which illustrates part of the collection of F.S. Graves, an Edwardian antiquary who carried out a great deal of fieldwork at the Alderley Edge mines in Cheshire. The photograph shows a massive hammer about 300 mm long which has a very pronounced central groove. These crude, median grooved hammers are known from Chalcolithic (Copper Age) mines at Chinflon in Spain (Rothenberg and Blanco Freijeiro 1980 plate 1) and it is possible this Manx example could also have been associated with mining operations of an equally early date. Graves never gave this implement a precise provenance and it would appear to be lost now.

The occurrence at Maughold of a mould for casting flat axes and bar ingots (Tylecote 1987 p41) indicates that Early Bronze Age metallurgy was being practised on the Isle of Man. The Bradda Head hammerstones may suggest that metal mining was taking place on the island at the same time. These two implements also add to the small number of mines in Britain and Ireland where such tools have been found and they increase significantly the distribution of such sites.

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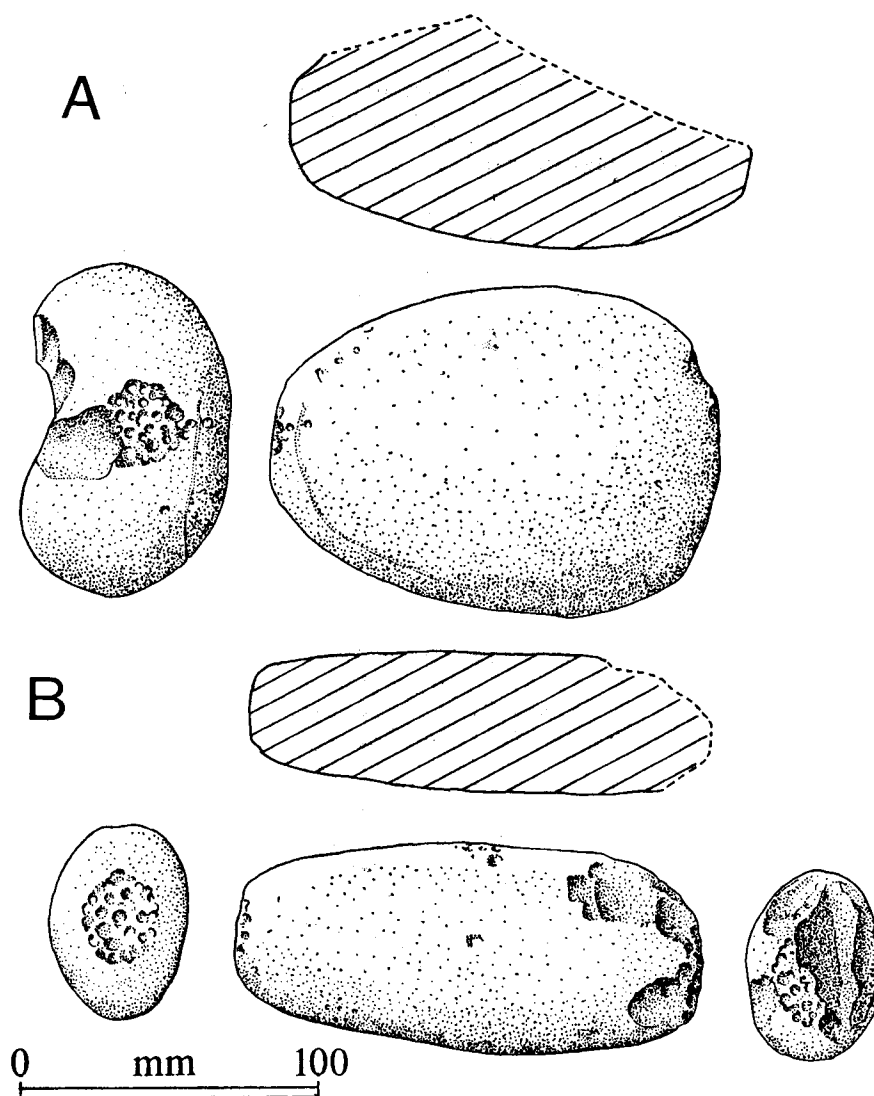
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