

AN EARLY REFERENCE TO FREESTONE MINING AT BATH

by

D. T. DONOVAN

ABSTRACT

Although Bath Stone had been used since Roman times, underground mining for it is only known much later. A hitherto unnoticed early reference to this, by Borch (1680), is reproduced here. Other early accounts are also mentioned.

In July 1663 the Danish scholar Oluf Borch visited Bath and Wookey Hole, both then in Somerset (Shaw, 1987). His book of 1680 includes (p. 186) the passage:

In Anglia ergo ad Bathonium oppidum thermis Bladudianis celebre, in monte vicino spelunca se aperit, ab incolis loci ad saxa aedifitiorum excauata, in qua aqua pede[te]ntim defluens in marmor subflau[um] concreta cernitur.

which may be translated:

In England, therefore, near the town of Bath, famous for Bladud's hot springs, a cave opens up on a nearby hill, hollowed out by those who live in the place for stone for buildings, in which [cave] the water, flowing down drop by drop, is seen to solidify into a yellowish marble.

A posthumous French edition (Borch, 1757, p. 342) has a similar passage, omitting the reference to Bladud but adding that the hill 'a fourni la plupart des pierres dont la ville est batie' (has provided most of the stone of which the town [of Bath] is built).

Dr Shaw points out to me that Borch did not refer to the stone mines in the account of his travels published in 1667, and that he may have visited the area again after 1667. There is no evidence for a second visit, and it is more likely that Borch mentioned the mine in his 1680 book because that work was specifically about the formation of stone, to which the 'yellow marble' or stalagmite, observed in the process of formation, was directly relevant. This question is discussed further in Dr Shaw's paper in this number of *Proceedings*.

This may be the earliest reference to mining of Bath Stone in the Bath area, as distinct from opencast quarrying. Bath Stone was used from Roman times onwards, but we do not know anything about the quarries. Leland visited the area in 1542 and tells us that, after crossing the Midford Brook by a bridge at Monkton Combe, he went 'to Bath 2. good miles al by mountayne ground and quarre' (Leland, 1907, p. 139). This was the road across Combe Down, not the present main road (A 36) along the valley. Leland does not describe the quarries. Glanvill (1669, p. 978) merely remarks that 'The Hills [around Bath] for the most part afford a Free-stone'. William Camden and Michael Drayton do not appear to make any reference to the stone quarries.

The next reference, after Borch, that I have found to mining is by the Bath architect John Wood (1749, p. 424) who writes of the 'Antient Free Stone Quarries' that 'Those Quarries were subterraneous caverns from time to time dug in the Brow of the Mountain' and on page 425 that 'Accidents frequently happening in the Old Subterraneous Quarries, Mr. Allen began to dig for Stone in a new Quarry, open from the Top'.

Price (1984, p. 13, 38) tells us that Ralph Allen about 1727 purchased Firs Quarry on Combe Down, which was in fact a 'subterraneous' quarry, and that it continued to be worked into the nineteenth century. She identifies (op. cit. p. 14) the open quarry started by Allen as Byfield Quarry, opened in 1739-40, and gives the locations of the quarries. Neither mines nor open quarries were mentioned in the shorter first edition of Wood's book (Wood, 1742, 1743).

Dr Richard Pococke visited the 'quarries to the south-east [of Bath]' in 1750 (Pococke, 1888, p. 157). These are likely to have been the Combe Down quarries and he notes that there were several of them. He appears to be referring to opencast quarries and makes no mention of mines. He gives a geological section showing that about 12 feet of freestone (Bath Stone) was worked beneath 18 feet of overburden.

I am indebted to Dr T. R. Shaw for the reference to Borch, and to Mr Robert Ireland for translating the Latin.

REFERENCES

- BORCH, O. 1667. *Observationes variae curiosae in itinere Anglico; epistola XCII* (dated 10 August 1663) to Thomas Bartholinus. In: BARTHOLINUS, T. *Epistolarum medicinalium, centuria IV variis observationibus curiosis & utilibus reserta*. Copenhagen, Haubold, 516-540.
- BORCH, O. 1680. De generatione lapidum in macro & microcosmo. In: BARTHOLINUS, T. *Acta medica e philosophica Hafniensia*, 5 [for] 1677-1699, 184-196.
- BORCH, O. 1757. Sur la formation des pierres dans la terre & dans les corps des animaux. *Collection Académique, partie étrangère*. 4, 341-348.
- GLANVILL, J. 1669. Observations concerning the Bath-Springs. *Phil. Trans.* 4 (49), 977-982.
- LELAND, J. 1907. *The itinerary of John Leland in or about the years 1535-1543*. ed. L. T. Smith. London, Bell.
- POCOCKE, R. 1888. *The travels through England of Dr. Richard Pococke, successively Bishop of Meath and of Ossory during 1750, 1751, and later years*. Ed. J. J. Cartwright. 1 [Camden Society, New Series, 42.]
- PRICE, [E. A.] 1984. *Bath freestone workings*. Radstock, The Resurgence Press.
- SHAW, T. R. 1987. Oluf Borch at Wookey Hole in 1663 and his ideas on speleothem formation. *Proc. Univ. Bristol Spelaeol. Soc.* 18 (1), 65-71.
- WOOD, J. [The Elder] 1742, 1743. *An essay towards a description of the City of Bath*. Bath, W. Frederick. (a copy of this work is in the Bath Reference Library)
- WOOD, J. [The Elder] 1749. *An essay towards a description of Bath . . .* 2nd edn. corrected and enlarged. London. C. Hitch, and Bath. J. Leake. 2 vol. (re-issued in 1765 with new title pages.)

Prof. D. T. DONOVAN, Dept. of Geology, University of Bristol,
Queens Road, Bristol BS8 1RJ, U.K.