

Lamb Leer in the 17th Century

By

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In this paper the many erroneous references to Beaumont's description of Lamb Leer are reviewed and the correct locations of his principal paper are given. The date of discovery of the cave is discussed and a previously unnoticed account is quoted which shows that this occurred not later than 1676.

Ever since its discovery, the early history of Lamb Leer has been obscured by the many incorrect references made to the classic description by John Beaumont (1681). Dr. Edmund Gibson (1695) gives "Philosoph. Transact. 1681. Num. 2." in his edition of Camden's *Britannia*. Boyd Dawkins (1874) refers to "Phil. Trans. 1680, p. 1." and Anon. (1882) gives his source as "*Philosophical Transactions* (vol. 2, p. 369)" [1666]. Balch (1914) cites "*Phil. Trans. abr.*, Vol. II, 1681." and Duck (1938) quotes "*Philosophical Transactions for the year 1681*". Balch (1913) states that the paper is to be found in "'Philosophical Transactions and Collections', for the year 1700", but later (Balch, 1937) he gives "*Philosophical Transactions of 1700*". Warwick (1953) writes "Beaumont, 1700" in his text but judiciously omits all reference to it in the bibliography. Murrell (1954) gives references to "Proc. R. Soc. for 1681 p. 1-5" and "Phil. Trans. to the year 1770, p. 368", though the second of these is almost certainly a printing error.

Some of these references are non-existent; that is to say the combination of volume, year and page does not occur at all. In other cases the reference can be located as described but it bears no relation to Beaumont's account. Murrell (1954) has drawn attention to this confusion, but he was unable to resolve it as he could not trace Beaumont's paper.

Beaumont's account does not appear in the *Philosophical Transactions* at all, but in No. 2 of the *Philosophical Collections* (1681), pp. 1-7 (pp. 4-5 on Lamb Leer). The *Philosophical Collections* were similar in form and content to the *Transactions* but they appeared during a short break in the publication of the latter from 1679 to 1682. There were seven issues in all, edited by Robert Hooke. Although the *Philosophical Collections* are a distinct series they are sometimes bound in with the volumes of *Transactions*. This is the case in one of the two sets in the British Museum, the one in the King's Library, and copies of Beaumont's paper may be found there after the end of Vol. 12 (for 1678) and also before Vol. 13 (for 1683). The full title of the

paper is "*A Letter of Mr. John Beaumont Jun. giving an account of Ookey-hole, and severall other Subterraneous Grottoes and Caverns in Mendipp-hills in Somersetshire, &c.*" The part describing Lamb Leer is as follows:

[p.3] The two Caverns before mention'd [Wookey and Cheddar] have no communication with Mines, but now to speak of such as are found amongst Mines; we generally observe, that wheresoever Mines of *Lead*-[p.4] *Ore* are, there are Caverns belonging to them which are of a various nature and Situation. *Agricola* in his second Book *de Re Metallica* mentions this *vena Cavernosa*, and puts it amongst the ill signs for *Ore*, which we find to be true for the most part with us; As to the Situation of these Caverns, sometimes they run side by side with the Veins of *Ore*, only parted by the stone which parts the Rocks, sometimes they contain a Vein of *Ore* within them, sometimes they cross the courses where the Veins of *Ore* lie, sometimes they terminate the Courses, cutting off the Veins of *Ore* as they run in length.

Our Miners in digging dayly meet with these Caverns, which are of different widenesses, some of them being very large; but the most considerable Vault I have known on *Mendipp* hills is on the most Northerly part of them, in a hill call'd *Lamb*, lying above the Parish of *Harptry*; much *Ore* has formerly been raised on this hill, and being told some years since that a very great Vault was there discovered, I took six Miners with me, and went to see it; First we descended a perpendicular shaft about ten Fathom, then we came into a leading Vault which extends itself in length about 40 Fathom, it runs not upon a level but descending, so that when you come to the end of it you are 23 Fathom deep by a perpendicular line: The floor of it is full of loose Rocks, its roof is firmly Vaulted with Lime-stone Rocks, having flowers of all Colours hanging from them, which present a most beautiful object to the Eye, being always kept moist by the distilling waters. In some parts the roof is about five Fathom in height, in others so low that a man has much ado to pass by creeping: the wideness of it for the most part is about three Fathom. This Cavern crosses many veins of *Ore* in its running, and much *Ore* has been thence raised. About the middle of this Cavern, on the East side, lies a narrow passage into another Cavern, which runs betwixt 40 and 50 Fathom in length. At the end of the first Cavern a vast Cavern opens itself, so that by the light of our Candles we could not fully discern the roof, floor, nor sides of it: I encouraged the Miners by offer of a double Salary to any that would go down in to it, they all refusing, [p.5] I fastened a cord about me, and ordered them to let me down gently after the Rocks, but being down about two Fathom I found the Rocks to bear away from me, so that I could touch nothing to guide my self by, and the rope began to turn round very fast, whereupon I ordered the Miners to let me down as quick as they could, and upon the descent of 12 Fathom I came to the bottom, where untying my cord I went about to search the Cavern, as for what Earths and Stones I found in it, I refer you to the *Philos. Transact.* n. 127. p. 735 & 736. This Cavern is about 60 Fathom in the circumference, above 20 Fathom in height, and about 15 in length, it runs along after the Rakes, and not crossing them as the leading Vault does. At the breast of this Cavern, which terminates it to the West, I discovered some good *Lead-Ore*, and all other kindly sorts of Earth and Stones which usually lie with it, upon which Encouragement I since got a Ladder of Ropes to be made for an easy descent into this great Cavern, and caused Miners to sink ten Fathom deep in the bottom of it, just before this breast, and we had always some leading or *Ore* in our working, but finding often little Caverns in our work, which are not so kindly for one as firm ground, we at length desisted. I caused the Miners also to drive forward in the breast, and after they had driven about ten Fathom they happened into another Cavern, whose roof is about eight Fathom, and in some parts ten or twelve in height, and runs in length about 100 Fathom.

I have been in many other Caverns upon *Mendipp* hills, but I think it needless to describe more of them, your desire being only to be satisfied concerning the nature and frequency of Caverns on these hills, which I conceive to be sufficiently intimated by what is said.

The frequency of Caverns on those hills may be easily guest at, by the frequency of swallow-pits which occur there in all parts, and are made by the falling in of the roofs of Caverns; some of these pits being of a large extent and very deep, and sometimes our Miners sinking in the bottom of these swallows, have found Oakes fifteen Fathom deep in the Earth.

John Lowthorp (1705) has given a fairly full abridgement of Beaumont's account in his *The Philosophical Transactions, and Collections, To the End of the Year 1700. Abridg'd . . .*, Vol. II, pp. 369-370. There are at least four editions of this work, which appeared in 1705, 1716, 1722 and 1731, and minor differences in phrasing and spelling occur between them. The extracts from Beaumont's description reprinted in the literature are taken variously from the original paper and from the abridgement. The accounts reprinted by Gough (1930), Duck (1938) and Coysh *et al.* (1954) are quoted from the original paper of 1681, while those in Bowen [*c.* 1750], Martin (1759), Anon. (1769), McMurtrie (1880), Balch (1913), Balch (1937) and Murrell (1954) come from the abridgement. Martin misquotes the depth of the entrance shaft as '70 Fathoms' and it is probably this which has led to similar mistakes in Collinson's (1791) and Cruttwell's (1801) accounts. Polehampton and Good (1821) include a shortened form of the abridgement. Phelps (1836) gives a modified version. Beaumont himself states elsewhere (Beaumont, 1724) that he had intended to publish a natural history of Somerset. This paper in the *Philosophical Collections* is a specimen of it but the natural history was never completed.

Gough (1930) gives his source correctly as "Phil. Collns., no. 2 (at the beginning of *Phil. Trans.*, vol. xiii) (1681)". How is it then that other writers, both before Gough and after, have come to cite the imaginary references they have? It would appear that two distinct mistakes were made initially and these have been perpetuated by uncritical copying ever since. McMurtrie (1880) cites "*The Philosophical Transactions and Collections to the end of the year 1700* (p. 369)" (with no mention that this is the abridgement), and this was evidently copied by Balch (1913), who mistook 1700 for the year of Beaumont's paper and gave his reference as "'Philosophical Transactions and Collections' for the year 1700". Anon. (1882) writes "*Philosophical Transactions* (vol. 2, p. 369)" but it is evident from the page number that he is in fact referring to the abridgement. Gibson (1695) seems to have been the first simply to confuse "*Philosophical Collections* 1681" with "*Philosoph. Transact.* 1681 . . .".

The date of the discovery of Lamb Leer would be of extreme interest, for it is likely that at that time this was the deepest explored cave in the whole world. Beaumont (1681) implies that his visit took place soon after the discovery of the cave by miners: ". . . being told some years since that a very great Vault was there discovered, I took six Miners with me, and went to see it;". McMurtrie (1880) speaks of "Mr. Beaumont, who is said to have visited the caves about the year 1660", but he gives no evidence and this date is probably his interpretation of Beaumont's "some years since".

Beaumont's visit is known to have occurred before June 17th, 1676, for he described the Great Chamber in a letter of that date (Beaumont, 1676).

This letter, in No. 129 of the *Philosophical Transactions*, contains the passage reprinted below. Not only is this consistent with his later description but he refers to it in his 1681 paper (p. 5). His reference is in fact to "the *Philos. Transact.* n. 127. p. 735. & 736.", but the pages he cites do not occur at all in no. 127, so this must be a misprint for 129.

There are on *Mendip-hills*, and generally where Mines are, subterraneous Vaults or Grotto's, whereof *some*, which are pretty deep, and admit not air too freely, and have other conditions requir'd, are said by our Miners to be quick, having often oar in them, and still lively colour'd Earths, with some moisture and lively Spars: *Others*, admitting air two or three ways, and having in them black and moist rocks, and dry and rotten shelly Stones, dark Earths, barren Sands, and the like, being said to be dead. I have often search'd both, and in some of the former, particularly in one of them, which is 35 fathom deep by a perpendicular Line (though the oblique descent of it makes it above 50 fathoms to those that go into it,) I discover'd this process of nature in the formation of Spar: There are in the bottom of this Grotto some beds of Clay, and others of a Liver-colour'd earth, which I take to be as good a *Bole** as any now in use; it is insipid to the taste, but smells well, especially when dry'd; for, as it lies, it is moist and like paste, made so partly by the distilling waters, and partly by a steam incumbent on the place raised from those waters by the Mineral ferments. This Earth and Clay there shoots up every where in spires in all proportions in height, from the first buddings out of it, till it comes almost as high as a mans finger; the biggest of them being in thickness about an inch diameter: These spires are all rul'd up with irregular ridges and furrows, and some sooner, some later begin on the top to be congeal'd into Spar, and so, gathering a crust downward by degrees, are all at last turn'd into an absolute white Spar, with some *Diaphaneity*. I discover'd the same Earth in some places there growing spherical, which whilst it is Earth, it is still sticking to its bed; but afterwards, as it comes to be crusted over, and at last to be turn'd into Spar like the other, it grows clear off from its root, as fruit falls from the tree when ripe. I have by me of these Spherical stones, from the bigness of an ordinary Bullet to that of a great Pins-head, some turning to Spar sooner than others: I found some quite grown off, some half grown, some white Spar outwardly and raw Earth in the middle, so that the process was as plain to me as I could wish. I saw the same Earth in some places there growing in an exact oval form, and turning into Spar not oval, but rais'd on both sides with an edge round it like an Apricock-stone: And as these spherical and oval stones are most exact in their figure; so, notwithstanding the Rector† fails in this Vault to give a true sexangular figure to those which I said shoot up pyramidally; yet there is a certain place on these hills, where the Spars grow all sexangular, both points of them terminating into a pyramidal figure, sexangular likewise, as the veins of Crystal, found in *Italy*, produc'd by a coagulation of Dew; these with us probably having the same rise, lying also on the surface of the earth.

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* Bole: a clay-like earth, used medicinally. Beaumont was a surgeon as well as a geologist. (T. R. S.)

† Rector: not in *O.E.D.*, but evidently an instrument for measuring angles. (T. R. S.)

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