

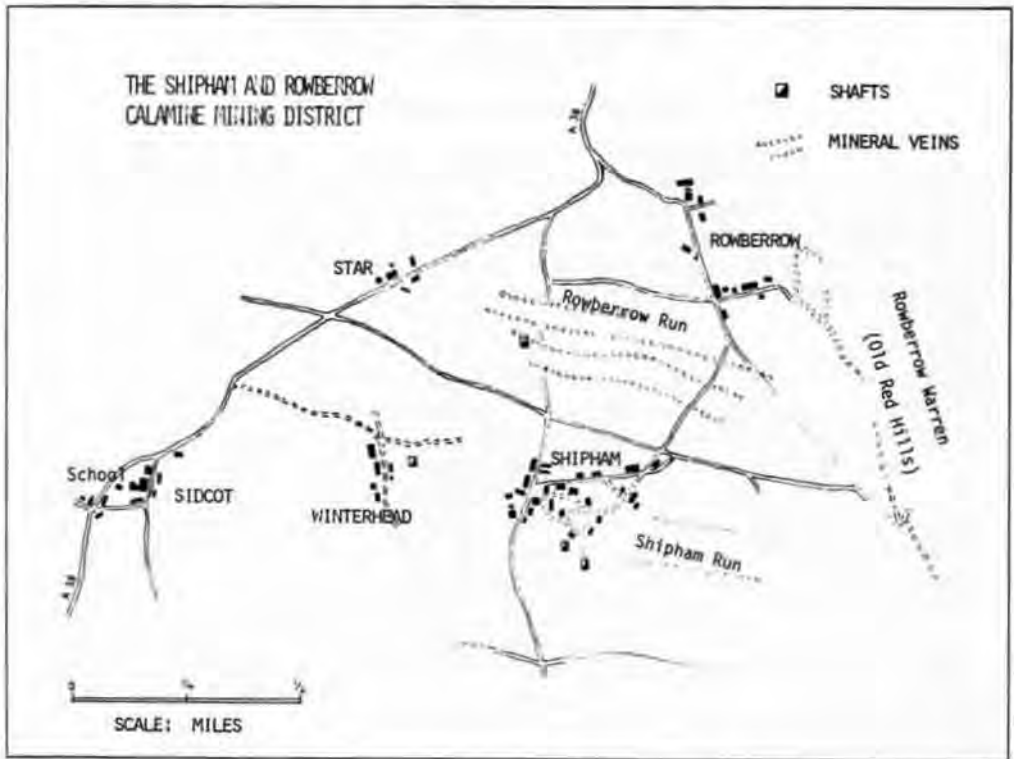
AN ACCOUNT OF MENDIP CALAMINE MINING IN THE EARLY 1870s

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The decline of the calamine mining industry in the western Mendip villages of Shipham and Rowberrow is an aspect of Somerset history which has not been well documented. One possible factor is that the discovery and development of new mineral deposits provides a more exciting tale for the historian to recount than that of the lingering death of a mining field. A more serious problem in this particular instance has been a basic dearth of evidence on the period from around 1800 until the 1870s, during which the calamine industry faded and vanished from the western Mendip landscape. This lack of evidence limited J. W. Gough to a brief and fragmentary account of this subject in his classic work on the Mendip mining industries, first published nearly half a century ago.¹ According to Gough, in the last decade of the 18th century there was still considerable activity in the vicinity of Shipham and Rowberrow, with a multitude of shallow pits producing the carbonate of zinc for use in the nearby Bristol brass industry.² The combined populations of the two villages, numbering about 680, were all miners and 'constantly employed in raising the *lapis calaminaris*'.³ By 1830, however, the workings seem to have encountered the twin problems of poorer deposits and increasing water at depths of up to 200 feet from surface, and at that time an observer noted two men sinking a pit near Shipham Church in the sense that this was an unusual sight. Thereafter the evidence becomes scarcer and we only obtain an occasional glimpse of the fate of the mining population and their excavations. 'By 1853,' Gough notes, 'all operations had ceased.' Before leaving the subject he comments that some prospecting was undertaken as late as 1869 in the hope of locating economic zinc deposits, a couple of shafts being sunk to the west of Shipham, but without success. As a footnote he adds, 'I have been told on hearsay evidence, that this was undertaken by a member of the Vivian family, of Swansea, but confirmation is lacking.'⁵

A chance discovery, whilst researching in the Pendarves-Vivian papers in Cornwall County Record Office, Truro, now enables us to fill in this gap and to reveal a little more of the closing stages of this Somerset industry. The Pendarves-Vivian papers include a 54-volume set of manuscript diaries, kept by Sir Arthur Pendarves Vivian during the period 1869-1914. Sir Arthur had a keen interest in mining and metallurgical affairs, and, as a member of the great Swansea copper smelting family of Vivian and Sons, his diaries frequently contain references to visits to mines and smelting works.⁶ On Tuesday 10th May 1870, Vivian was in Somerset and visited the calamine district around Shipham and Rowberrow. His account,⁷ which is here reproduced in its entirety, is apparently unknown and receives no mention in Gough or any of the other published work on the Mendip mining industries. It is interesting in that it shows us that there was continued sporadic mining activity in the vicinity perhaps throughout the 1850s and 60s, with Cornish miners and others searching for lead and zinc. There is also an indication that while there certainly was an attempt at mining in progress during 1870, the Vivian family did not seem to have any direct connection with it; at least Sir Arthur did not claim any involvement. This possibly resolves Gough's query.

The diary entry commences: 'Tues. 10th. May 1870. "Calamine deposit in the Mendips, Somersetshire:" Left Paddington on 9.15am express with H. L. H. and Ewan Richards to visit this district near Shipham and Roboburrow [*sic*]. Branched off the Bristol and Exeter main line at Yatton, up the Cheddar Valley Rly. to Winscombe Station, 8 miles from Yatton, and about the same to drive from Weston-super-Mare. The calamine seems to be deposited in the lodes the *hades*⁸ of which is N. and S. (there



are also smaller cross lodes) in Dolomite deposited in a trough between hills of the Old Red Sandstone. There are two main runs, the one called the Shipham Run, from the village of near which it has been much worked, and the other the Romberrow Run. These two runs consist of lodes varying in size, running parallel to each other. The Shipham run contains about a dozen runs and the two are separated from each other by 100 yards or so. The dolomite deposit commences about $\frac{1}{2}$ mile above the village of Shipham and runs down into the valley until it comes against the Old Red Hills. It is as it were the eastern courses of the Mendips. The Old People⁹ worked the calamine extensively up to nearly 25 yrs. ago and produced a very rich sample of nearly 65 or 70% almost pure oxide of zink which was then used extensively for brass making at the Keynsham works (Harford and Co.)¹⁰ where brass was made by cementation, the metallic spelter¹¹ being scarcely at all produced. The old miners I have no doubt worked out the finest calamine to the *waterlevel* which varies from 15 fathoms from the surface up at Shipham to 50 fathoms further down the valley near the Quakers' school at [blank]¹² where a well has been sunk to that depth without finding water, and all the time through the dolomite. It is of course a question as to the depth of the Dolomite Deposit but if it proves thick I have but little doubt that all below the water level is untouched (except perhaps 2 or 3 fathoms in depth which handpumps could deal with). There is but one sign of any steam power being used for pumping and that is a small stack near the village of Shipham.¹³ It was evidently a system of very primitive mining, sort of tribute work.¹⁴ Any miner was allowed to dig a shaft up to his middle on any lode, and was then allowed as his taking all the ground found in this distance to which he could throw a pick. In consequence of this the ground around Shipham is covered with small holes, I suppose to the depth of the water level. They got about £7 per ton in those days for their best calamine, not far from the price

now. A man of the name of Rickard,¹⁵ a native of Redruth, has been employed for the last few months down here prospecting and obtaining the permission of landowners to work the ore. He secured the greater portion of immediately likely ground at 1/15th due.¹⁶ He was employed before on the calamine mines of Sardinia where H. W. G.¹⁷ met him and thought very well of him. I think he promises very well. He is now to open out the Robburrow Shaft which was sunk some years ago by some Cornishmen for lead to the depth of 40 fms., and to open out three shafts on the Shipham run, one just above the village, the 2nd. about ¼ mile below, and the 3rd. about 200 yds. below this, all in a line on the trough. Returned two hours later, mail H. W. G. and C. R. . . . sleeping at Bristol.¹

This short account helps us to piece together just one part of the story of mining in the Mendip Hills, but a great deal of painstaking research is required before we can attempt to answer some of the questions unavoidably left open by Gough. One area in which progress can be made is through the application of the relatively young discipline of industrial archaeology, and it is encouraging to see some work already being done in this direction.¹⁸ Gough's work was a comprehensive survey of a wide range of documentary evidence. What we must hope for now is that further fragments of written evidence will fall into place, as in the present instance, and that excavations in the field, an area which Gough avoided by and large, will be employed in order to facilitate a fundamental reassessment of the development and decline of the Mendip mining industries.

1. *The Mines of Mendip* (Oxford 1930, re-printed David and Charles 1967). This book contains (pp.206-32) the fullest available account of Mendip calamine production and its role in the Bristol brass industry.
2. A recent study of this industry, including some reference to Mendip calamine production, is J. Day, *Bristol Brass: the History of the Industry* (David & Charles 1973).
3. Gough, p. 225.
4. *ibid.*, p. 226.
5. *ibid.*, p. 227.
6. Sir Arthur Pendarves Vivian (1834-1926) was M.P. for West Cornwall 1868-85. Third son of J. H. Vivian, founder of the largest Swansea copper smelting company in the 19th century, Arthur Vivian was educated at Eton, the Freiburg Mining Academy, and Trinity, Cambridge.
7. Pendarves-Vivian Papers, C.R.O., Truro: DD.PV. 17/2.
8. The mining term 'hade' refers to the direction and degree of dip in a lode, or mineral body.
9. A term used, particularly in Cornwall, to denote bygone generations of miners; often used in the form 'the Old Men'.
10. Harford and Co. was one of the leading local brass manufacturers; see Day, *Bristol Brass*, pp. 110-16, 136-71.
11. An antiquated term, used in Britain until 1914, to denote metallic zinc.
12. This obviously refers to Sidcot School.
13. It is unclear here whether or not Vivian is mistakenly identifying the Shipham zinc oven (which still stands) as part of the steam pumping which seems to have been adopted in the closing years of the industry. Gough (p. 226) notes that steam was employed in Shipham, perhaps in the 1830s or 1840s, but mainly for winding and was supplied only from old locomotives adapted as stationary engines.
14. Tribute work was a system of employment, originating in the Cornish tin and copper mines, whereby miners worked not for a fixed wage but for a previously agreed proportion of the value of the ores raised. It was a device commonly employed in declining mining areas to cut down on costs.
15. Apart from working in Sardinian lead mines (see above) there is a possibility that this Cornishman was the same Captain Henry Rickard who was mine agent at Hennock lead mine, near Chudleigh, Devon between 1853 and 1855, and at New Wheal Martha copper mine, Stoke Climsland, Cornwall between 1858 and the mid 1860s. See, C. J. Schmitz, *The Teign Valley Lead Mines* (Sheffield 1973), pp. 40, 52.
16. The due was the proportion of the value of ores raised which was paid as a royalty to the owner of the mineral rights.
17. H. W. G. appears frequently in the Vivian Diaries, and seems to have been an agent of the Hafod copper works, one of the Vivian operations in South Wales.
18. See, for example, C. Richards, 'Singing River Mine: a Calamine Working at Shipham'. *Bristol Industrial Archaeology Society Journal*, IV (1971), pp. 7-9.