

Roger Burt, with Raymond Burnley, Michael Gill, and Alasdair Neill. *Mining in Cornwall and Devon: Mines and Men*. Exeter: University of Exeter Press, 2014; 271 pp., 15 b&w photos, 49 tabs., 4 append., notes, bib., ind., interactive CD, paper, \$45. ISBN: 9780859898898

Mining in Cornwall and Devon gathers together a wealth of material that bears upon the mining industry of England's South West. It is the latest statement from a collective research initiative at the University of Exeter that began in the 1970s, back in the Lost World of mainframes and dot-matrix printers.

At its heart is a set of statistical data that has been painstakingly put together from a range of sources, most notably the *Mineral Statistics of the United Kingdom*, an official compilation that was published annually from the end of the 1840s. The material gleaned from the *Mineral Statistics* is bolstered by data from several unofficial series, most notably the annual accounts of the Duchy of Cornwall, the region's largest mineral proprietor. Many pages of *Mining in Cornwall and Devon* are devoted to summary tables; the full data set is made available on an accompanying CD.

The authors are candid about the scope of their book: "This volume does not provide a definitive history of modern mining in South West England." Indeed, it does not. There is nothing much on the labour force (other than some aggregate figures on employment), very little about the technology of mining (even though this volume covers an era in which Cornish mining exerted a global technological influence), and relatively little on the marketing of ores (beyond a discussion of the "ticketing" arrangements through which copper ores were sold to the smelters of Swansea). This is also a study restricted to the nineteenth century and the early decades of the twentieth, although mining in the region stretches back much further. *Mining in Cornwall and Devon* is not then a "definitive history"; however, as its authors rightly claim, it does furnish "much of the basic

data necessary for that project should it ever be attempted" (171).

When a fully fleshed history of mining in Cornwall and Devon is written, it will rest not just upon the quantitative riches assembled here; it will surely draw upon the authoritative discussion of the peculiarities of the English South West's mineral districts that makes up the first section of the volume under review. As this makes clear, the key factor has been the south-western peninsula's lavish mineralization.

Historically, copper and tin have been predominant. They accounted for 88 per cent of the total value of minerals raised between 1848 and 1920. However, Cornwall and Devon have been endowed with a variety of other minerals whose extraction could cross-subsidise the mining of others. Arsenic, a by-product of copper and tin mining, was important in this respect. The income generated by arsenic proved critical for many mines hit by the collapse of copper prices in the 1860s or the later stagnation in tin. Arsenic was the most conspicuous of the secondary products, but it headed an extensive list: lead, silver, iron, zinc, manganese, barytes, fluorspar, and even collectors' items like wolfram, bismuth, and uranium.

Given such abundant resources, Burt, et al., foresee at some future point a revival of Cornish mining, which seemed to expire for good in the closing years of the twentieth century. The continued growth in the global economy in the decades to come will increase demand for niche products and the increased sophistication of mining technology will facilitate their extraction.

This book presents an expanded, elaborated, and refined update on earlier publications from the same team. Some may question whether a CD is the best medium for carrying the data. It has to be recognised that making the material available online would require significant initial investment and ongoing maintenance costs, but a dedicated website would surely have been preferable.

The hard labour that has gone into the assembly of the data is much to be admired, so too the expertise with which it has been handled. That said, commentary on the data is restrained and there is very little, if any, historiographical discussion. This is a provisional piece of work, after all; a staging post to a fuller history. There are, nonetheless, valuable pointers towards future research questions. The authors invite more prosopographical work on engineers and managers, for example.

When Burt, et al., allow themselves more personal reflection their tone is sombre. What, they ask, did the Duchy of Cornwall and other landowners contribute to the South West? Their answer: “not very much. By and large, the profits, royalties and taxes on mining went to London and the locals were left with a few temporary jobs and some large holes in the ground” (159). On these grounds they are hesitant about recommending mining as a vehicle for economic advancement in developing countries.

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John Woodland. *Money Pits: British Mining Companies in the Californian and Australian Gold Rushes of the 1850s*. Burlington, VT: Ashgate Publishing Co., 2014; 295 pp., 35 b&w illus., 3 tabs., 4 maps, notes, 5 append., bib., ind., cloth, \$125. ISBN: 9781472442796

This book, according to the author, details the “heady days of British stock market speculation during the California and Australian gold rushes of the late 1840s and early 1850s” (xi). John Woodland, a geologist who returned to school for a Ph.D. in history, has completed a vast amount of original research across the globe in his worthy condensation and interpretation of this overlooked phase of mining history.

The author sees the story as two fold, one part in English board rooms and promoters’ of-

fices and the other far overseas in the goldfields of California and Australia. First, in England, he provides several chapters on key topics: company formation—joint stock, cost book, or incorporated by Royal charter—and capitalization, promoters and mining experts, and mining methods and government policies. He uses the contemporary term “gold bubble” to define the rapid expansion in speculation, or mania, after news of the gold discoveries reached Europe. Nearly 120 companies capitalized at £15 million were organized, 1849-53, before the collapse.

This reviewer enjoyed provocative pages on such topics as promoters and frauds—one convicted and sentenced to “seven years transport beyond the seas” (11); incompetent and aristocratic board members; the hiring of miners, mostly Cornish, to be sent to distant goldfields, who then quickly abandoned the company to dig their own gold; and the mining experts, mostly incompetent, except a few like John Taylor and Sons. Renowned promoter John Diston Powles and a few other adventurers are highlighted. A chapter on shareholder activists, such as Haim Guedalla, exposes the sheer hopelessness of forming companies to operate in lands thousands of miles away. Another major cause for failure was the absence of an understanding of hard rock gold or vein mining, detailed here.

A major part of the book looks at the companies that were organized to operate in California and Australia. In California, of the some forty-eight companies organized, not surprisingly, only nine raised enough capital to send workers to the distant goldfields. Distance, communications problems, lack of proper equipment, and lackluster managers brought all these to failure. Many of these companies were associated with John C. Fremont and his questionable promotions of his Mariposa grant, a failure from the outset. The Agua Fria Gold Mining Company, for example, transferred its efforts to Grass Valley, but weather and poor machinery caused delays and problems that finally bankrupted the concern. Manager