



VERMONT ARCHAEOLOGICAL SOCIETY

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The Vermont Archaeological Society Electronic Newsletter

Farewell and Welcome

Greetings!

For those who do not already know, the archaeological community in Vermont is seeing some major changes.

FROM COPPERAS TO CLEANUP THE HISTORY OF VERMONT'S ELIZABETH COPPER MINE



State Archaeologist Giovanna Peebles retired on June 30th and David Lacy, Forest Service Archaeologist, retired as of July 25th. This is a loss in institutional memory that will be hard to replace.

However, things move on. Francis "Jess" Robinson IV will take over from Giovanna as Vermont's State Archaeologist. Jess is a Past President of the VAS and we expect to continue the good relations between the state and the VAS.

BOOK REVIEW

The Forest Service has yet to hire a successor to Dave Lacy. When they do, we will let you know.

From Copperas to Cleanup: The History of Vermont's Elizabeth Copper Mine, by Matthew A. Kierstead. Milestone Heritage Consulting, Beacon, NY, 2014, ii+61pp, 109 photos, 3 maps, biblio, 8½ H x 11 W. \$15.00 (soft cover).

Both Giovanna and Dave expect to stay active in Vermont archaeology, so you haven't seen the last of them!

When two observant men noticed rusty stains in the snow while tapping sugar maples in the spring of 1793, it triggered a series of events that lasted into the middle of the 20th century, and to some degree, is still continuing as this review is being written. The place was a nondescript hill - soon to be called Copperas Hill - in southeastern Strafford, Vermont. The Revolutionary War

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had ended with the Treaty of Paris a scant 10 years before, and while the loser, Great Britain, was in the opening throes of another revolution, the Industrial Revolution, industrial technology in South Strafford was still a generation away.

South Strafford lies near the southeast corner of the town of Strafford, Orange County, Vermont, about 9 straight-line miles northwest of downtown White River Junction (twice that via best road). The copperas and copper mining areas are about 2 miles south-easterly up Mine Road from South Strafford. Some of the early mining property extended eastward into Thetford and southward into Sharon and Norwich in Windsor County. No railroad ever connected to the mining area, but a good road (today's Route 132) provided easy access to a railroad depot at nearby Pompanoosuc Station along the Connecticut River. Thus it was that a viable sulfide ore deposit was discovered and exploited, giving birth to a major copperas and copper industry in this quiet, remote corner of Vermont.

Industrial Historian Matt Kierstead has done a magnificent job in writing this well organized and understandable short book. In the first of the book's three major sections, he introduces contextual geology and historical information needed by readers to appreciate the complex individual technologies that resulted in the production of copperas and copper in the world, the Western Hemisphere, the US in general, and specifically at Strafford.

The middle section, comprising half of the book, describes where the ores were found at Strafford, the various technologies employed to extract and refine them, and how the end products of these processes at Strafford were used in an increasingly technology-driven 19th century America. It also describes who the investors with deep pockets were, their motivations for being in the copper business, the ups and downs of international trading and national economic challenges, and the series of various chemical and mining company responses and local mining technological improvements. When Strafford's copperas era ended in 1882, mainly due to its obsolete technology and new copperas sources, it was the largest and longest-operating copperas manufacturer of its kind in the U.S.

Copper mining and smelting at Strafford, which began in 1829 at Furnace Flat, went through its own roller-coaster challenges, successes, and disappointments. Although having two World Wars plus the Korean War to benefit its bottom line, copper production also succumbed, in 1958. Vastly overshadowing its smaller sister's copperas business, employment reached a high of 220 workers with an annual payroll of over \$1 million. It was the country's 19th-largest copper producer in 1953 (final year of the Korean War), mined from about 5 miles of tunnels that are estimated to have provided enough ore to have made over 100 million pounds of copper (50,000 tons).

All that mining and extraction processes produced another end product: industrial waste. How that aspect of the industry was attended to and resolved is the subject of the last section of (and the main reason for) the book. In 2001 the U.S. Environmental Protection Agency designated the mining sites one of the largest Superfund sites in New England. Cleanup was

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completed in 2013. As the land was being reclaimed, the archeological survey of the site documented the remaining surface and accessible subsurface features, as described and illustrated in the book.

Over 100 photographs, maps, and sketches grace the book's pages, from Daguerreotypes to halftones to modern color prints (all captioned) that accompany the text - the next best thing to having been there. Four full-page Historic American Engineering Record drawings of the Elizabeth Mine area produced in 2003 depict the mining areas from various viewpoints, including an oblique translucent view of the subsurface mining workings, and an ore processing flow chart.

The author's writing style is crisp and concise: no excessive or repetitive discussions; every word counts. Two pages list sources consulted (no footnotes or in-text references). Slick, shiny no-expense-spared heavy gauge paper and a printed spine all for \$15.00 postage paid in the continental U.S. Make checks payable to Milestone Heritage Consulting at 156 Western Ave., Marlboro NY 12542. See www.milestoneheritage.com for further information about the book and author.

- Submitted by Victor Rolando

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