

# Mining History Association

## Conference Speakers

### Socorro, NM, 9-10 June 2023

#### **Friday, 8:00-8:45, Keynote Session (Chris Huggard, chair).**

Keynote Speaker: Dr. Virginia McLemore, “The Influence of Mining on a Small Town: Socorro, New Mexico”:

This presentation will discuss Socorro’s evolution from its origins as a refuge on *El Camino Real* between Santa Fe and Chihuahua, Mexico, to its development as a mining and ranching center during the nineteenth century. Socorro was briefly the center of mining in the territory, serving regional mining districts producing silver, lead, zinc, coal, limestone, fluorite, manganese, and fire clay. The New Mexico School of Mines (now New Mexico Mining and Technology) was established here in 1889. Perlite and aggregate mining continue and Socorro remains important to mining in New Mexico and the country thanks to the university and to its subdivision, the New Mexico Bureau of Geology and Mineral Resources, the state’s geological survey established in 1927.

Dr. Virginia “Ginger” McLemore is Principal Senior Economic Geologist with the New Mexico Bureau of Geology and Mineral Resources of the New Mexico Institute of Mining and Technology (New Mexico Tech) at Socorro. She holds B.S. degrees in Geology and Geophysics and an M.S. in Geology from New Mexico Tech, and her Ph.D. in Geoscience from University of Texas, El Paso. She is an adjunct professor at New Mexico Tech and has written or co-written over three hundred publications concerning the geology of New Mexico, including *Guidebook to the Socorro Area, New Mexico* (NMIMT, 1987).

#### **Friday, 9:00-10:15, Session 1: Modern Mining (Eric Clements, chair):**

Carol R. Sullivan, “Boom Town Life in Grants, New Mexico”:

Dr. Sullivan worked as an instructor at New Mexico State University in Grants during the late 1970s, when the uranium mines were in full production and then as the uranium boom faded. She will discuss some of her experiences and will include sketches that she made of the mines and the town.

Carol R. Sullivan earned her Ph.D. in anthropology from Washington University. She has taught at Syracuse University in New York, New Mexico State University, and the University of New Mexico. She has been a crisis counselor in New Mexico, and an activist in indigenous matters in the U.S., Mexico, and the Amazon. She lives in Albuquerque.

Clark Niewendorp, “Lakeview, Oregon, in the Atomic Age”:

During the uranium boom of the 1950s and 1960s, prospectors carted Geiger counters deep into remote areas of the American West, Oregon’s outback being no exception. In 1957, Lakeview Mining Company was awarded a \$2.6 million contract by the U.S. Atomic Energy Commission to build and operate a 210-tpd capacity uranium processing mill about 1.5 miles from the town of Lakeview in southeast Oregon. The mill processed about 131,355 tons of uranium ore before closing in 1960. The site has since undergone several environmental remediations and three unrelated industries now occupy the area.

Clark Niewendorp earned a B.S. in geology from Southeast Missouri State University and an M.S. from Western Michigan University. He had thirty-eight years’ experience as a geologist before retiring in 2018. He and his wife live in Oregon and for the last twenty-two years have tolerated the rain.

**Friday, 10:30-11:45, Session 2: Coal (Ginny Kilander, chair):**

Stephen Hart, “Thurber, Texas: Geologic Anomaly, Mineral Riches, Ghost Town”:

The Texas & Pacific Railway, organized in the 1850s, stalled at Dallas in 1873 because West Texas had few trees for locomotive fuel. To traverse the region, the railroad became dependent on a narrow band of coal 75 miles west of Ft. Worth. The Texas Pacific Coal Company (unrelated to the railroad), chartered in 1888, purchased a small coal mine that had been supplying the railroad. The company named that mine and camp Thurber, which became Texas' biggest coal mining district and the largest settlement between Fort Worth and El Paso. The railroad's conversion to oil in 1921 doomed Thurber; its mines closing in 1923. As a company town, most of Thurber was sold or reclaimed. Only a few derelict structures, a cemetery, and a museum remain.

Steve Hart is a geological engineer educated at the Colorado School of Mines and Texas A&M. He has worked for the U.S. Geological Survey and the Colorado Department of Natural Resources. His work as a State reviewer of Mined Land Reclamation and Radioactive Source Material permit applications led to his consulting on radioactive waste cleanup projects, Superfund lead-zinc-silver smelter remediation projects, and coal mine subsidence mapping. He was an adjunct professor at the Colorado School of Mines from 1995 through 2001.

David Ware, “Mining the Tax Code: ‘Clean Coal’'s Collapse in Arkansas”:

In 2004, a mysterious benefit dubbed “the refined coal tax credit” was added to the U.S. tax code by the American Jobs Creation Act of 2004. The credit required that “refined coal”—coal chemically treated to reduce pollutants—be produced by the tax-credit seeker at a production facility during the ten-year period after the facility's start-up, and that the refined coal be sold by the credit seeker to an unrelated person. In the summer of 2010, one Steven K. Parks of Little Rock, Arkansas, formed “Global Coal, LLC,” and served as its CEO, president, and manager. A little more than five years later, Parks was sentenced to twenty-seven months' imprisonment following his admission of wire fraud associated with the sale of refined coal tax credits. This paper will be an attempt to sort out the facts of this episode of creative mining-related endeavor which produced the promise of tax credits without, apparently, producing any coal.

David Ware of Little Rock, Arkansas, is the State Historian of Arkansas and the director of the Arkansas State Archives. He was formerly the Historian of the Arkansas State Capitol, taught American and Western U.S. History at Arkansas Tech University and Wichita State University and spent several years in the oil patch.

Devlon Shaver, “A History of Coal Mining in New Mexico”:

Coal mining has had a vital part in the industrial and economic advancement of New Mexico. While not as rich in coal reserves as some other states, just over 10 percent of New Mexico is underlain by coal resources. Exploitation of New Mexico's coal fields has taken place since the mid-nineteenth century, with the largest operations being in the rich Raton and San Juan coal basins. From the first major mine at the Carthage coal field, to the largest modern mine in the San Juan Basin, coal has played a vital part in the growth and history of New Mexico.

Devlon R. Shaver, a graduate student in the New Mexico Tech mineral engineering program, is researching critical minerals in coal elements. He graduated from the University of New Mexico with double bachelor's degrees in Earth and Planetary Science and in History. He has an avid interest in history, is seeking a master's degree in Mineral Engineering, and intends to enter the geological or mining industries.

**Friday, 1:15-2:05, Session 3: Women in Mining (Silvia Pettem, chair):**

Jane Bardal, “Mrs. Captain Jack, Mining Queen of the Rockies”:

The enduring image of the prospector symbolizes the hope of striking it rich. While many prospectors willingly sold their claims to larger mining enterprises that had the capital to develop the mine, others were coerced into selling their properties and received little compensation. Ellen E. Jack's story provides an example of how a prospector struggled to make a profit with her mine, and of the mechanisms for how wealth was

transferred from individual to corporate ownership. She had a hard time gaining much wealth from her most valuable mine, the Black Queen in Gunnison County, Colorado. She battled lawyers, judges, sheriffs, and capitalists, each of whom played a part in trying to wrestle the mine from her. She fended them off for a while before selling the Black Queen and parleying her adventures as the “Mining Queen of the Rockies” into running a tourist shop near Colorado Springs.

Pursuing her interests in the mining histories of Colorado and New Mexico, Jane Bardal has researched the life of Ellen Jack and published *Southwestern New Mexico Mining Towns* (Arcadia Publishing, 2011) and “Oral Histories from the Grants Uranium District, New Mexico” (*Mining History Journal*, 2017).

Robert Spude, “‘Best Analyst in the United States’: Women Assayers in the American Mining West, 1880-1920”:

The story of women in science rarely includes those in the mining industry. In reviewing the pioneer women in assaying, we can provide a glimpse of what brought them to the industry, how they operated their mining camp businesses in the predominantly male mining world, and see the slow growth of the number of women in chemical analysis and assaying. Most women appear to have learned the job as apprentices or from their fathers or husbands, while others were educated in chemistry at universities. By 1920, women were working in major smelting firm assay labs, were partners in urban assay shops, and one, Anna Martin, was Assayer in Charge of the mint at Carson City, Nevada. Few in number, women assayers deserve more recognition in what has traditionally been viewed as a man’s place in the Western mining world.

Bob Spude, a past president of the Mining History Association, has published on mining technology in the American West. He holds B.A. and M.A. degrees from Arizona State University and a Ph.D. from the University of Illinois at Urbana-Champaign. He retired in 2013, after thirty-five years with the National Park Service as historian and manager.

#### **Friday, 2:15-3:30, Session 4: Mining and the Arts (Jane Bardal, chair):**

Ginny Kilander, “Excerpts from *Solo Safari to South Africa*, featuring 1950s Gold and Diamond Mining Travelogues, by Mildred Stead Capron”:

In the early 1950s, U.S. filmmaker Mildred Stead Capron traveled solo for nearly ten months and twenty-four thousand miles throughout South Africa, while documenting scenery, people, culture, animals, and gold and diamond mining for a travelogue and for her film *Solo Safari to South Africa*. Capron was reportedly the first woman ever permitted into the eight-thousand-foot shaft of the Western Reefs Gold Mine in Johannesburg, and the first filmmaker ever permitted to document diamond mining at the Kimberley Mine. This presentation will highlight Capron’s archival materials related to the South African mining operations that she documented, and will draw from production files, publicity for her lecture series based on the films, and slides, raw film footage, and edited films.

Ginny Kilander is Manager of Reference Services at the American Heritage Center, University of Wyoming. She is also the archivist responsible for overseeing acquisition of economic geology collections and is manager of the Center’s Anaconda Geological Documents Collection. She earned a B.A. in Anthropology and Folklore from Indiana University and an M.A. in American Studies from the University of Wyoming.

Brian Leech, “Like a Canary in a Coal Mine: How a Mine Safety Technique Became a Popular Metaphor”:

Mining has long endangered humans who worked underground. One miners’ safety practice involved the use of small, warm-blooded animals, particularly birds, to detect carbon monoxide. In the United States, this practice largely ended by the mid-twentieth century, but it lives an extended life as a metaphor. The phrase “canary in a coal mine” continues as a common idiom to suggest impending disaster. Its continued use has encouraged the inclusion of birds and other small animals as a plot device in television shows and movies. Although comics and cartoons tend to use the trope in situations closely connected to mining or the underground, some movies have used birds in the horror and science fiction genres.

Brian Leech is Associate Professor and Chair of the Department of History at Augustana College in Rock Island, Illinois. His book *The City That Ate Itself: Butte, Montana, and Its Expanding Berkeley Pit* (Univ. of Nevada Press, 2018) won the Clark C. Spence Prize for the best book in mining history from the Mining History Association. He is working on a book about the portrayal of mining in American popular culture.

Richard Francaviglia, “*Green Fire: The Cinematic Depiction of Early Twentieth Century Colombian Emerald Mining*”:

Based on the popular 1942 book *Green Fire* by mining engineer Peter W Rainier, a movie with the same name was released in 1954. In a sense, Rainier's factual written saga depicting his search for emeralds in Colombia in the 1930s confirms that prospecting for mineral wealth is part of the venerable process of geographical exploration and discovery. For filmmakers in the 1950s, stories featuring an explorer in search of treasure—especially in distant or exotic locales—were irresistible. As is often the case, the movie version differed in many ways from Rainier's account. By comparing excerpts from the book with scenes from the "adventure" film, this presentation will show how mining history is simplified and romanticized on screen.

Historical geographer Richard Francaviglia has a long-standing interest in how places develop through time and how they are depicted in popular culture such as novels and films. He has written widely on this subject, most notably in *Hard Places: Reading the Landscape of America's Historic Mining Districts* (1991) and *Cinematic Journeys in Latin America: Geography Through the Lens of Exploration and Discovery Films* (in press, 2023). He is Professor Emeritus of the University of Texas, Arlington, and an Associated Scholar at Willamette University in Salem, Oregon.

#### **Friday, 3:45-5:00, Session 5: Cemeteries (Catherine Spude, chair):**

Mike Kaas and Mark Connar, “The Colesville Cemetery in the Friedensville, Pennsylvania, Mining District”:

The village of Colesville is located four miles south of Bethlehem, at the Friedensville Zinc Mining District. During the mid-to-late 1800s, Colesville was home to many Cornish and other immigrants. A Methodist chapel was established on land donated by Lehigh Zinc Company, and a small cemetery located near the chapel. After mining stopped, this cemetery became derelict and graves were forgotten. It has been rediscovered recently, and work is underway to learn who was buried there and their connections to the area's mining history. This presentation is a report on the work in progress.

Michael Kaas is a retired mining engineer with a B.S. in Mining Engineering from Penn State and an M.S. in Mineral Engineering from the University of Minnesota. His lifelong interest in mining history includes researching eastern mines and plants that were part of the Civil War, including those in the Friedensville district. He is the author of several technical and mining history papers, a member and past director of the Society for Mining, Metallurgy, and Exploration, a member of the board of the National Mining Hall of Fame, and has been a docent at the Smithsonian's Hall of Geology, Gems, and Minerals for over twenty years.

Mark Connar is a retired businessman with an A.B. in Anthropology and International Relations from Brown University and an M.B.A. from Lehigh University. He has had a life-long interest in historical and industrial archeology, is a member of numerous museums and heritage societies, and has extensively researched the Friedensville zinc mines, particularly the landmark President Pumping Engine. In 2022, Mark was named a Cornish Bard by the Gorsedh Kernow, the U.K.'s preeminent Cornish heritage society, in recognition of his promotion of Cornish cultural identity in America.

Silvia Pettem, “Gone but Not Forgotten: The Caribou Cemetery Restoration Project”:

Caribou, at nearly 10,000 feet elevation in western Boulder County, was the site of Colorado's first major silver strike. The town boomed in the 1870s and is long gone, but its history lives on with the remains of those buried in the Caribou Cemetery—now quiet and sadly neglected. A small group of area residents are working to preserve the site, identify the graves, and return dignity and respect to the cemetery's men, women,

and children. Now in "phase 1," members of the Friends of Caribou Cemetery are collecting photos, maps, and documents, ordering fencing materials, writing interpretive signs, and informing possible donors. During "phase 2," this summer, they will try to identify as many of the approximately forty gravesites as possible. The group's website, [cariboucemetery.com](http://cariboucemetery.com), will follow their progress. The miners and their families, including those far from their homes in Cornwall, are not forgotten.

Silvia Pettem, an active member of the association, is an author, newspaper columnist, longtime Boulder County resident, and the 2021 recipient of MHA's Rodman Paul Award for her contributions to mining history.

Eric Clements, "Looking for Laura: A Mining Camp Mystery":

In the Sunnyside Cemetery at Victor, Colorado, lies a gravesite with a tombstone inscribed: "Laura 1882-1902". Who was Laura and how came she to Sunnyside Cemetery? Perhaps investigation could reveal something of Laura as a person, of Laura as a type of person who lived in the Cripple Creek district during its boom years, and might illustrate some of the methods (and mistakes) involved in doing such historical research.

Eric Clements, a history professor at Southeast Missouri State University, has been a member of the association since its earliest years and has edited its *Mining History Journal* since 2001.

### **Friday, 6:30-9:00, The Awards Banquet (Chris Huggard, M.C.):**

Speaker: Rick Hendricks, "A Glimpse of Mining History in Spanish and Mexican New Mexico: No, Really":

Although the story of the search metals in the New Mexico is largely absent from histories of the colony, this address will try to persuade skeptics that serious efforts to exploit mineral resources occurred in Spanish colonial and Mexican New Mexico. Explorers expanding the Spanish dominion out of central Mexico prospected for precious metals as they went north and made important finds, such as the very significant strikes at Zacatecas and Sombrerete. Spanish expeditions, beginning with Vázquez de Coronado's incursions of the 1540s, anticipated further bonanzas in the far north. Ample archaeological evidence exists of metal production in seventeenth-century New Mexico before the Pueblo Revolt of 1680. In the eighteenth century, the greater El Paso del Norte and Organ Mountains saw serious mining efforts. More widely known are the copper mines in southwestern New Mexico, at Santa Rita del Cobre, where the most active production dates from the early nineteenth century and continued through the Mexican period and beyond.

Rick Hendricks is the state records administrator of New Mexico and a former state historian. He has published articles on mining history in Santa Rita del Cobre and in the greater El Paso-Organ Mountains region, and presented papers at mining history conferences in the Southwest and Mexico. His most recent book, co-authored with Malcolm Ebricht, is *Pablo Abeita: The Life and Times of a Native Statesman of Isleta Pueblo, 1871-1940* (U. of N.M. Press, 2023).

### **Saturday, 9:00-10:15, Session 6: The Eclectic Session (Mike Kaas, chair):**

William Culver, "The First Electrolytic Copper Refinery in the U.S.A.: Nomination for the Pennsylvania Historical Marker Program":

This presentation lays out the substance of the site's nomination made to the Pennsylvania State Historic Preservation Office. The purpose of the nomination is to have a plaque placed in Phoenixville, Pennsylvania, in the neighborhood of the old Chemical Copper Company. This nomination originates from a paper the presenter co-authored: "The First Electrolytic Copper Refinery in the U.S.A. at the Chemical Copper Company, Phoenixville, Pennsylvania—History Revisited." The authors contend that the company's electrolytic copper refinery was the first such plant in the United States, if not in the Western Hemisphere. They believe that the evidence assembled justifies recognizing the refinery's primacy status and thus support placing the marker near the site in Phoenixville, near Philadelphia.

Bill Culver retired in 2007 from teaching Political Science and Latin American Studies at the State University of New York, Plattsburgh. His most recent research concentrates on copper mining history and his publications include works on Chilean mining history and the current national legislatures of Chile, Peru, Bolivia, and Argentina.

Virginia McLemore, “Mining History of the Steeple Rock District, Grant County, New Mexico”:

The Steeple Rock District is located in the Summit Mountains in southwestern New Mexico and southeastern Arizona. Exploration began about 1860, but production was not reported until 1880. An estimated \$10 million worth of metals were produced from the district in New Mexico between 1880 and 1993, including significant quantities of gold, silver, copper, lead, zinc, fluorspar, and manganese. The first mining claims were filed in January 1881, and by 1897, most of the mines in the district were located and operating. The federal government closed all gold-silver mines during World War II, and only base-metal mines were allowed to operate. Production and exploration in the district between 1947 and 1980 were minor. Exploration intensified in the 1980s and 1990s, but not much production has occurred. Today, several mines are being examined for possible reopening.

Please see Dr. McLemore’s biography in the Keynote Session.

Ed Raines, “Scamming Their Way from the Comstock to Lake Valley, New Mexico, by Way of Leadville”:

Most mining districts throughout the world have had their share of frauds, scams, and poor business practices. While the Comstock Lode was certainly not the first American district to suffer scams, a particular form of mining stock fraud seems to have originated there. Several Comstock fraudsters bilked their way to riches, only to move east to Leadville, Colorado, and then to Lake Valley, New Mexico. Such individuals gave mining investors a bad reputation, but the industry needed the promotion and finance that such people and their contemporaries contributed. The record is a mixed one, but that was as much the fault of overenthusiastic, naive, and greedy investors as it was of unprincipled and unscrupulous speculators. Without promotion and financial support, mining would not have developed at the pace and to the extent that it did during those years.

Geologist, mineralogist, and mining historian Ed Raines is Collections Manager for the Colorado School of Mines’ Museum of Earth Science. He is a long-time member and past president of the association, presents “Ed Talks” on Colorado mining subjects, and is the author of *Historic Photos of Colorado Mining* (2012).

### **Saturday, 10:30-11:45, Session 7: The Magdalena Mining District (William Culver, chair):**

Jack Waldron, “A Short History and Geological and Mining Review of the Magdalena Mining District, New Mexico”:

One of the earliest mining districts in New Mexico was the Magdalena Mining District, twenty-eight miles west of Socorro. Silver was initially discovered in the area in 1863, the first official claim staked in 1866, and lead and zinc were also recovered from the district. A blue-green smithsonite (zinc carbonate), known as Kelly smithsonite, has only been found in this district. The district’s ores were smelted in Socorro, Magdalena, and at smelters further afield. Mining was entirely underground, with access via both adit and shaft. The district produced, on and off, until June 1949, with high output during both world wars.

Jack Waldron has been interested in mining and its history since his formative years in the old mining town of Julian, California. He graduated from the New Mexico Institute of Mines and Technology in 1982 with an M.S. in Metallurgy. During his time in Socorro, he wandered the hills, visited old mine sites, collected minerals, and did undergraduate research on Socorro’s Graphic Smelter. He spent most of his career in mining and related industries, finding time to visit old mining camps in Arizona, Montana, South Dakota, and Nevada.

Harley Kozushko, “Working at the Waldo Mine, Magdalena, NM, 1999-2004”:

Born and raised in Socorro, and with a passion for mining history, Harley Kozushko worked at the Waldo Mine, near Magdalena, New Mexico, from 1999 to 2004. His father became caretaker of the mine, and

volunteers helped to restore it to become a rescue-training mine. Rescue teams from all over the country trained at the mine. Working there, he experienced the environment within the mine, and learned about mining and Southwestern mining history. He saw the marks left on the wall from calcium carbide lamps that detail the culture of the Hispanic miners in the area, learned of their interest in boxing, their support for Poncho Villa, their ability to create huge open stopes and mine the mountain, and their workmanship, especially in the underground machine shop. In 2003 he photographed the mine extensively, and will share some of those pictures and some of his experiences of working in those mountains.

Catherine Holder Spude, “Introduction to the Mine and Townsite at Kelly, New Mexico”:

On Sunday June 11, the MHA will tour the Kelly Mine and townsite. This discussion will serve as an introduction to the history of Kelly and its ruins. A valuable way to familiarize oneself with the history of a ghost town is to visit its cemetery. The names and dates on the headstones, combined with newspaper and genealogical research, inform a historian about who lived in a community and when. The biographies of people interred in a mining town cemetery illustrate the town’s ethnic, religious, and economic diversity. A discussion of the people buried in the Kelly, New Mexico, cemetery provides an excellent example.

Catherine Holder Spude earned a Ph.D. from the University of Colorado, Boulder and worked for the National Park Service as an archaeologist for thirty years. Since her retirement in 2005, she has published five books on the social history of Alaska mining camps. She has long been interested in using her archaeological and historical research skills to understand the Kelly ghost town.

### **Saturday, 12:00-1:30, The Presidential Luncheon:**

Dana Bennett, “‘The Constant Battle of the Mine Operators for Protection of the Industry’ in the Twentieth Century: The Case of the Nevada Mining Association”:

The Nevada Mine Operators’ Association was organized in 1913 and re-organized as the Nevada Mining Association in 1953. During that 110-year period, the organization’s activities changed in response to changes within Nevada’s mining industry as the state morphed from predominantly silver mining to industrial mineral production to one of the world’s largest gold jurisdictions. One of the association’s most consistent activities across that span of time has been to advocate for the mining industry, especially in legislative and regulatory efforts. With the 1915 employment of former assemblyman Henry Macon Rives as its leader and spokesperson, the Association began developing political influence that shaped the regulation of mining in Nevada throughout the twentieth century. This presentation will explore the Nevada Mining Association’s development as one of the state’s most significant trade associations and the influential career of Rives, who led the Association from 1915 until his death in 1952.

Dana Bennett was president of the Nevada Mining Association from 2014 to 2020, the first woman ever appointed to that role. She was recently re-appointed to serve as interim president. After a thirty-year career in Nevada’s public policy arena, she retired with her husband to the historic mining town of Midas, Nevada. She holds a Ph.D. in history from Arizona State University and will serve as the Mining History Association’s president until the 2024 conference.