

# Overview Of Early Mining History In New Mexico

A presentation by Robert Eveleth  
by Nancy L. Attaway

Robert Eveleth from the New Mexico Bureau of Mines and Mineral Resources presented a fascinating overview of the early mining history in our state. Bob began by stating that primitive man was the first mineral collector, as he collected chert, chalcedony, and obsidian to be shaped into arrowheads and spear points for hunting. Later, pre-historic man used turquoise, gold, silver, and copper in religious ceremonies, for spiritual enhancement, and protection from evil. Slides of woodcuts, sketches, and printed scenes from stock certificates accompanied Bob's wonderful talk as he described the historical events that led to the formation of the first commercial mining districts in New Mexico.

Before he continued, Bob remarked that, during his research of the history of mining, he found very few references to anything poetic regarding the mining of any ore, coal being the exception. Coal miners had waxed poetic about working deep in the earth while digging for coal and had preserved their stories in the printed forms of poetry and lyrics for songs. He managed to uncover one poem relating to the mining of sylvanite, however, and read it to his audience. Bob then said that all miners are optimists.

Bob related that the quest for commercial grade ore drove the Spanish from Europe to Mexico and then north from Mexico into the southwest, the area that later became the territory of New Mexico. During the 1700's and 1800's, Santa Fe served as the center of commerce between old Mexico and New Mexico Territory. Bob explained that the profound isolation of New Mexico Territory from the rest of the United States at that time, its vast and rugged terrain, and its hostile Indian population kept exploratory and survey parties from successfully exploiting its mineral wealth until after the mid-1800's. The area was generally avoided by most geologists and miners. Only a hardy few attempted any mining, and most of those lost their lives to starvation or to Indian attacks.

Bob described the early New Mexico Territory as a trackless wilderness. Anyone who wandered there traveled on foot. Those traveling on foot had time to notice the rock outcroppings, the geologic features, and the lay of the land. Bob wanted to focus on the following famous mining districts: the Lake Valley region of the Organ Mountains near Las Cruces, the Santa Rita del Cobre at Chino, the Oro Grande area also known as the Jarilla District, the Burro Mountains, Cerrillos, Tyron, and Magdalena.

At the inside corner of the bootheel of New Mexico lies an area known for the mining of sylvanite, a gold telluride mineral. Miners erected a tent town and called it Sylvanite. Old photographs depicted the town with horses and "benzene buggies", a name given to the first automobiles. The town was all gone in a matter of a few years.

Bob explained that the native American Indians treasured turquoise above all of their earthly possessions. From their religious beliefs, native Americans regarded turquoise as being a highly spiritual stone that the gods endowed with magical powers. Turquoise was traded among tribes in the regions spanning North, Central, and South America. A legend tells us that native Americans first discovered the major copper deposits of New Mexico Territory, including those at Oro Grande, Cerrillos, the Burro Mountains, and at Santa Rita del Cobre at Chino.

This legend involves a story of an Apache chief disclosing a turquoise location in 1801 or 1802 to Colonel Carrasco, an officer in the Spanish militia. This was done in return for a favor done by the colonel to the tribe. The location became the famous Chino Copper Mine. This particular colonel was reputed to have mining experience from working deposits in Europe, as well as in Mexico. He may have known of this disclosed deposit in New Mexico as early as 1775, as Samuel F. Emmons and Waldemar Lindgren had written reports of copper in the Colorado Plateau. The native American Indians came to hate the Spanish because of their harsh treatment from the Spanish, who enslaved the Indians as workers in the silver mines in Mexico. Bob held doubts about this legend.

Bob showed slides depicting the varieties of turquoise found in New Mexico. The turquoise from the Santa Rita del Cobre region at Chino exhibits an intense blue hue with distinctive pyrite mineral inclusions. The turquoise from Oro Grande is a light shade of bluish green with a characteristic spiderweb pattern from the jarosite. The turquoise from Tyrone occurs in thick veins in the host rock.

Bob said that the Spanish wore out their welcome at Chino and soon had to erect an adobe fort with walls twenty feet thick to ward off hostile Indians. The miners at Chino were dependent upon supplies arriving from Mexico for their continued survival. However, Indians easily overtook these supplies carried by two-wheeled carts through the treacherous Chihuahuas Mountains of Mexico.

Bob explained that the axles on the two-wheeled carts that ferried supplies required constant lubrication in the desert environment of New Mexico Territory. When the axles needed greasing, cows were milked on the spot, and butter was churned from the milk and used for axle grease. The constant raiding of supplies by the Indians eventually forced the miners to abandon the mining camp at Chino. The hostile Indians killed many of the surviving miners.

Meanwhile, Santa Fe and Las Cruces were both experiencing a gold rush. A large placer deposit was discovered in the Ortiz Mountains south of Santa Fe. In 1820, Santa Fe was an established trading post, and the Pueblo Indian tribes were placid instead of hostile and willing to co-exist with the miners. Mining the Ortiz lode proved less problematic than what had been the situation at Chino. North of Las Cruces, a significant ore body was unearthed at Mesilla. Prospectors found "floats", pieces of an ore body that had been carried from the source. They located a massive shear zone rich in silver and lead that required machinery to extract and financing to operate.

Hugh Stevenson, owner of a mercantile store in El Paso, offered the required financing and became partners with the miners to grubstake Mesilla. Indians raided the camp and drove the other miners away, but Hugh Stevenson remained and claimed control. The first description of the mineral specimens from Mesilla was written by General Pope and the French mineralogist, Galena in the 1850's.

In 1847, Lieutenant Emory led a scouting and surveying party to the southwestern territory that was slated to become a part of the United States. In his report, he mentioned that he visited the copper mines at Santa Rita. The ore there contained 75% copper. Huge sheets of native copper crusted with cuprite crystals were shipped from the Santa Rita mine. Colonel Zebulun Pike had organized and documented shipments of 20,000 mule loads per year from the Santa Rita mine to the mint in Chihuahua, Mexico.

Sophio Hinkle, a metallurgist from the Freiburg Academy in Germany, surmised that there should be more than one copper mine at Santa Rita. He soon located the Hanover Mine at the base of a cone-shaped mountain and erected a smelter on the spot. The Hanover Mine became immediately famous for its massive blocks of native copper and its outcrops of cuprite, and it outpaced the production from the mine at Santa Rita for few years. The Hanover Mine was even mentioned in U.S. government publications, an unusual occurrence for that time. The Hanover Mine was also famous for its tree-like forms (arborescent) and botryoidal forms of malachite and azurite. Miners leached copper with sulfuric acid to dissolve the copper from the ore and precipitate the copper back out of the solution. All of the known mineral specimens from the Hanover Mine pre-date the turn of the century (1900), before the leaching method was used, as the rest had been dissolved.

In 1856, a rich placer deposit was discovered at Pinos Altos near Bear Creek, northwest of Silver City. It was so rich in gold that miners made \$40 to \$50 per day just panning gold. Within three months of its discovery, one thousand prospectors had come to live and work there. The mine at Bear Creek became the first corporate mining company to form in New Mexico. Miners at Bear Creek used rockers, sluice boxes, and "long toms" along with their gold pans to separate gold from the rock. Gold-bearing ore was crushed in mills (arraste) and also extracted from retorts. In retorts, mercury captures the gold, and the gold is left after the mercury is boiled to a vapor. This process was done with a minimum of expenditure, but it killed the brain cells of any miner who breathed the mercury fumes. The mill at Bear Creek closed three years after it opened.

Miners ventured downstream to the San Vicente Creek Arroyo, where Silver City lies today, and found a rich silver deposit. There, at Chloride Flat, miners found horn silver, silver chloride. They named the mine, the Legal Tender, and this silver mine burrowed anywhere from 50 to 200 feet below the surface. Martin Beaman, a miner

who had a sawmill and experience using a steam engine, established the ore mill. The first miner of Silver City, he had purchased the equipment used at Bear Creek for scrap. The Legal Tender mine produced \$2 million in two years with its high grade silver ore. In 1894, the market for silver suffered a devastating crash, and silver fell from one dollar per ounce to thirty-nine cents per ounce.

The Lake Valley area contained the largest silver deposit in New Mexico. The interface between the dolomite and the shale had seen a chemical reaction that enabled the formation of a rich silver deposit. The surface ore there was so rich that one ton could contain 30, 40, or even up to 50 ounces of silver. Prior to 1894, the mine at Lake Valley produced \$3 million in silver.

Two cowboys named Lufkin and Watson, along with a man named Miller, brokered the Lake Valley mine to investors in New York and Philadelphia in 1882. They sold \$300,000 in investments and used the money to further develop the area. They wanted to tunnel in a western direction and dug down thirty feet. They extracted ore that produced 70 ounces of silver per ton. Another shaft was sunk between the Lake Valley claim and an adjacent claim, and it opened into a cave that contained spectacular mineral formations, including a four-foot seam of silver chloride. The room was later named the Bridal Chamber. This rich ore deposit produced 16,000 ounces per ton. What was originally organized as a scam in the beginning thus became an awesome business proposition that sold two and one half million ounces of silver and made its investors rich.

At Las Cruces, William Skidmore staked the Stevenson-Bennett property. The claimed outcrop became the Bennett lode, mined by the Stevenson-Bennett Mining Company. A shaft revealed a spectacular chamber filled with veins of calcite, calcite stalactites, and aragonite trees. The cave was sketched and photographed. The Bennett vein varied from twenty to thirty-five feet wide. Besides silver, miners unearthed world-class wulfenite and cerussite crystals. Mineral dealers competed keenly for these specimens, and Bob related several stories of mineral dealers trying to outbid one another. Silver was mined while more of these marvelous mineral specimens were carefully extracted.

After briefly mentioning the Magdalena mine and its wonderful zinc carbonates, Bob stated that archiving mineral specimens preserves our rich mining history. Saving minerals brings it all to life. A story lies within every stone, and Bob Eveleth masterfully told many wonderful tales that helped us re-live those remarkable times.