
The Santa Rita del Cobre, New Mexico, The Early American Period, 1846-1886

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Panoramic view of the Santa Rita basin with Romero Hill at center and Santa Rita Creek flowing left to right.
S. Paige photograph, ca. 1905, courtesy U. S. Geological Survey, Denver.

In 1862, the Director of the U.S. Census Bureau published a compilation of statistics about the United States. The director's review of the mining industry included tabulations of U. S. metal production, including copper. The mines of Michigan, scene of nearly two decades of mineral activity, led the nation in production. Second, surprisingly, were the isolated mines of the New Mexico Territory, prominent among them the Santa Rita del Cobre. These deposits, located in a 6000' high basin in the transition zone between the Chihuahua desert and the towering Mogollon Mountains, poured forth red metal that Texas and Chihuahua teamsters hauled 1000 miles to the Gulf of Mexico port of La Vaca, Texas, where ships carried it to the mineral markets of New York. According to contemporaries, the purity of the native copper of Santa Rita del Cobre exceeded that of the Michigan mines. The direc-

tor of the census' report brought scant attention, however, since it appeared at the height of the Civil War, just as Union forces overran the Southwest retaking it from Texan Confederates, and, coincidentally, causing the cessation of copper mining operations. The conflicts of war, which stopped production, would be a recurring theme in the history of the Santa Rita del Cobre.¹

Of all the U. S. territories in the nineteenth century, New Mexico was among the best known for its frontier turmoil and lawlessness – the territorial era's most famous inhabitant is the homicidal psychopath Billy the Kid, who spent three of his teen years near Santa Rita. During the Southwest's early territorial period, 1846-1886, the history of the Santa Rita del Cobre mine in southwestern New Mexico would be a complex story of contested terrain, and optimistic beginnings followed by, at best, sporadic operations. Many adventurers vied for ownership. A purported

Spanish grant confused, or offered lawyers the opportunity to confuse, the ownership issue. The story also includes the Mexican-American War; feuds among Apaches – soon to be dispossessed of their lands – and Mexicans and Anglos; Texan expansionism and grasp; battles between Confederates and Union forces; and contests between scandalous territorial economic and political factions.

Although the Santa Rita open pit still produces copper some 200 years after its discovery, the mine's mid-to-late nineteenth century history remains the stuff of legend, some of it buried in garbled chronicles written by twentieth century promoters, journalists or self-praising engineers. And much of that legend was created by the owners or promoters of mining companies during the early period for, although their trials were many, the riches were there as a lure for continued attempts to re-open the diggings on Romero Hill. The Santa Rita del Cobre amply illustrates the erratic development of mining in the Southwest.²

The Mexican-American War Era and Boundary Disputes, 1846-1854

On February 28, 1847, a clear and sunny morning, Colonel Alexander Doniphan and his Missouri volunteers charged across the Sacramento River and into a Mexican army three times the size of their own. By evening the troops had scattered the Mexicans guarding Chihuahua City and prepared to march victorious into the old colonial mining center. After receiving news of Doniphan's victory, President James K. Polk wrote in his diary: "The battle of Sacramento I consider to be one of the most decisive and brilliant achievements of the war." The fall of Chihuahua during the Mexican-American War helped seal the fate that Mexico's far north would become the future American Southwest.³

A group of Missouri merchants, Santa Fe traders, had freighted goods south along the Camino Real ahead of the Missouri volunteers, an advance column of "Manifest Destiny." Among them in Chihuahua City was Frederick Adolph Wislizenus, a thirty-eight year old German medical doctor and amateur geologist, whose chronicle of the military conquest was first printed by Congress, and later became a popular book. He observed that, "of the copper mines of the

state of Chihuahua, the most celebrated is the 'Santa Rita del Cobre'." Between 1828 and 1838, Wislizenus noted, "a French resident of Chihuahua . . . is reported and generally believed to have cleared in seven years about a half million of dollars from it . . . [the operator] soon monopolized the whole copper market of Chihuahua; and as the state at that time coined a great deal of this metal, he made a very profitable business of it; but at last the mine, which seems to be inexhaustible, had to be abandoned on account of hostile Indians, who killed some of the workmen, and attacked the trains."⁴

Wislizenus, with an eye to future treaty and boundary negotiations, added that Chihuahua City government officials were uncertain of, or claimed to not know the exact location of the mine 400 miles to the north. Perhaps it was not in Chihuahua, but in New Mexico, a region coveted by President Polk and the Missouri traders. "This question may become of importance," he concluded, "because the whole range of mountains is intersected with veins of copper and placers of gold."⁵ The 1848 treaty ending the war would place the mine within newly acquired United States territory.

Previously, in the fall of 1846, General Stephen Watts Kearny's volunteer "Army of the West," while marching through New Mexico to take California, made a brief stop at the abandoned mines along the way. His soldiers would bring further attention to the Santa Rita. On October 17, the rag tag advance column of one hundred dragoons entered the high basin where the ruins of the once prosperous Santa Rita del Cobre stood. As they strolled among the mine dumps and smelter debris, their guide and one-time Santa Rita mine employee, Christopher "Kit" Carson, recounted its legendary operations.⁶

Lt. William Emory took down the mountain man's tale: "We learned that those who worked them made fortunes; but the Apaches did not like their proximity, and one day turned out and destroyed the mining town, driving off the inhabitants. There are the remains of some twenty or thirty adobe houses, and ten or fifteen shafts sinking into the earth. The entire surface of the hill into which they are sunk is covered with iron pyrites and the red oxide of copper." Lt. Emory also described the rolling landscape, an orchard along the creek, and the flowing lush Mimbres River valley nearby. Tumbling out of the

10,000 foot high Mogollon and Black mountain ranges, the Mimbres began as a trout filled stream that spread into the flat Chihuahua desert, only to vanish into the hot sands, the scrambling ground of lizard and scorpion.⁷

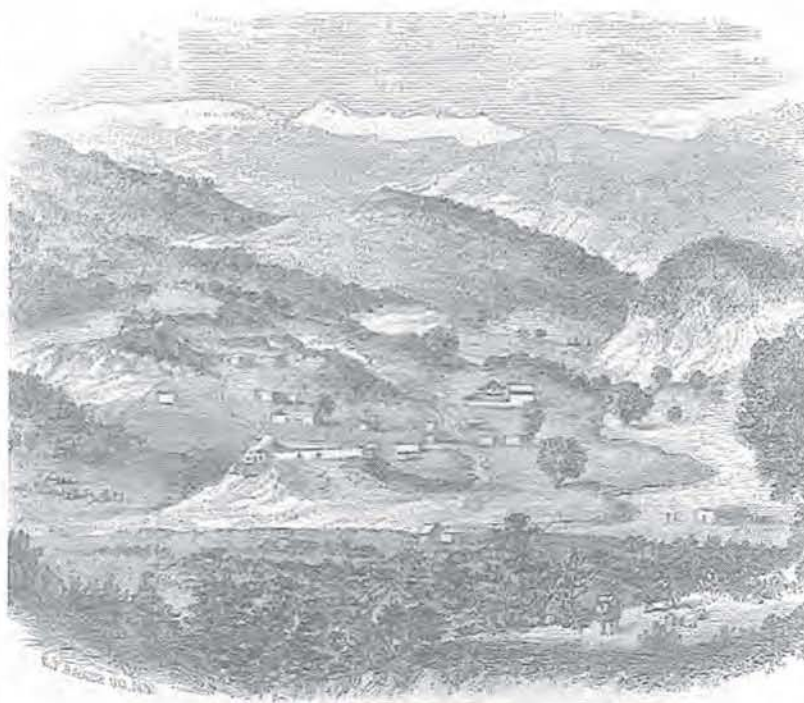
From the few accounts left by General Kearny's men it can be deduced that mining at Santa Rita had followed the Mexican tradition of the mining hacienda, similar to the somewhat self-contained iron plantations of the British colonies. A village protected by a triangular, adobe presidio or fort stood west of Santa Rita Creek at the foot of Romero Hill, site of extensive mine dumps and shafts. The main shaft, approximately sixty feet deep, was filled with water. At the base of the hill stood the ruins of a smelter where the miners had worked the high grade ores in addition to the native copper, and nearby piles of charcoal and ore suggested that the miners abandoned the works in haste. The orchard and gardens showed that they produced a few of their own goods, though freight trains from the south undoubtedly brought staples and other foodstuffs. A well worn track, the "Copper Mine Road," pointed south across the desert to Janos Presidio and on to the Chihuahua City mint.⁸

General Kearny encountered the powerful leader of the "Coppermine" band of Apaches, Mangas Coloradas, and his band near Santa Rita. He negotiated safe passage for his troops through the Apache homeland.⁹

Mangas Coloradas' *Chihenne* band, known to nineteenth century Americans as Coppermine or Mimbres Apaches, were a subgroup of the Chiricahua, one of the seven Apache linguistic groups. The estimated 3,000 Chiricahua, around 1850, subsisted on the game and natural foodstuffs of mountain ranges and deserts of today's southern New Mexico and Arizona, and south into Mexico. They did not mine copper, though they undoubtedly camped along the Santa Rita Creek and hunted its valley, gathered agave or century plants, and sought nuts from the pinon trees there. The Apache traded for goods

with Spaniards, and later Mexicans, but throughout the early nineteenth century periods of calm occasionally flared into forays and murders by both sides. Competition for resources, raids for plunder by all, and perfidious deeds were too common. Kit Carson did not trust the old chief and told General Kearny that Apache war parties were to blame for the 1838 mine closure. Other sources reveal that, in 1837, an American named John Johnson tricked chief Juan Jose into a trading rendezvous south of Santa Rita, which turned into a massacre when Johnson opened fire on the unsuspecting Apaches, killing twenty-five. "Hostiles" indeed.¹⁰

During the gold rush to California the abandoned mining hacienda became "a convenient rendezvous and jumping off point" for some 500 49ers, according to overland trail historian Patricia Etter. Past the ruins trekked the respectable and disreputable, including famed explorer John Charles Fremont, military surveyor Lt. Edward F. Beale, a shepherd named "Old" Roberts with his flock bound for California markets, and a Clarksville, Tennessee party, which stopped briefly to mine before continuing on to the gold fields. Mangas Coloradas' band parlayed with some travelers, avoided most, and, after the



John Bartlett's sketch, ca. 1851, northwest toward the triangular fort and the Santa Rita del Cobra workings. Courtesy Museum of New Mexico, Negative No. 5274.

state of Chihuahua offered a bounty for Apache scalps that encouraged murderous attacks on the tribe, began retaliatory raids into Mexico and on whomever might cross their path. Santa Rita became an unsafe place to linger.¹¹

In the midst of this frontier chaos, Francisco Elguea, Chihuahua trader and heir to the Spanish grant to the Santa Rita, tried to sell the mine. Elguea's deceased father, Don Francisco Manuel de Elguea, had been a prominent Chihuahua banker and businessman, and, according to some accounts, had acquired the grant in 1804 from Lt. Col. Jose Manuel Carrasco. Carrasco had been led to the *planchas de cobre* — sheets of copper — by an Apache five years earlier. Banker Elguea died in 1806 and the family leased the mine to a series of entrepreneurs, including a Frenchman, Stephen Courcier, and his American partner, Robert McKnight, who profited greatly from their lease. On September 11, 1849, Francisco Elguea's agent wrote the acting governor of New Mexico, Donaciano Vigil, requesting American troops be sent to end the violence around the mine. The Treaty of Guadalupe Hidalgo had guaranteed that Mexican citizens' legitimate land claims would be honored, though it lacked specific reference to mineral land grants. (The first legislature of the U. S. Territory of New Mexico would send a resolution asking that the federal Congress recognize Spain's mining code of 1783 as the mining code for the United States, thus protecting such mining grants — but Congress never seriously considered the resolution.) While Captain Enoch Steen met with Mangas Coloradas at Santa Rita to bring about a tenuous peace, Francisco Elguea offered the mine to merchant James Magoffin for 40,000 pesos.¹²

In 1849, Magoffin, a prominent trader along the Santa Fe and Chihuahua trails, settled in Texas, across the Rio Grande from El Paso del Norte, modern Ciudad Juarez, Chihuahua. He had had a long career as merchant in Mexico and in the 1820s had served as U. S. consul at Saltillo. During the war, Magoffin led the traders' wagon caravan ahead of Kearny's and Doniphan's invading army and is given much credit for negotiating the peaceful conquest of New Mexico. Later captured by Mexican troops, he spent the war in comfort, yet still a prisoner. The economic opportunities along the new border

brought the experienced international merchant to what would become El Paso, Texas. He built a grand hacienda, around which were wagon freight yards and fields. Freightier Francisco Elguea had followed the trade routes with Magoffin and probably mentioned the Santa Rita to him. In a June 1850 letter, Elguea reminded him of the fortune made by the Frenchman Stephen Courcier. Papers were prepared to lease the mine to Magoffin.¹³

Because we lack the business papers of Magoffin's wide-ranging operations, we can only sketch the pioneer merchant's investments. He held land, merchandise, freight wagons and mules, salt mines, and, most likely, a lease on the Santa Rita. In 1850, he negotiated a supply contract with the U. S. Boundary Survey commissioner John Russell Bartlett, who was a guest in Magoffin's home. The trader offered to move the surveyor's equipment and men from Indianola, on the Texas Gulf Coast, to El Paso via San Antonio. He also offered to move goods to Santa Rita, where Bartlett set up a supply depot and central headquarters for the survey during the summer of 1851. At Santa Rita, the largest cluster of buildings between the Rio Grande Valley and Tucson, Bartlett found some 50 adobe houses as well as the old three-sided presidio, which Col. Louis S. Craig, leader of the military accompaniment, refitted, naming it Cantonment Dawson.¹⁴

Magoffin's freight wagons supplied the base camp and the military post, which was maintained in the area until 1853. But it is doubtful that he operated the mine. Bartlett and other members of his party left much information about the area, including the mention of a Mr. Hayes opening an old gold mine near the Santa Rita, but does not mention anyone reopening the Santa Rita. He also mentions the conflicts with Mangas Coloradas' band, especially after members of his party sold whisky to the Apaches, and when Bartlett's New England puritanism failed him in dealing correctly with a tense situation over a Mexican girl held as an Apache captive. Such tensions would have made mining difficult. In his report published in 1854, Bartlett gave a description of the camp, and noted the abundant red copper oxide ore and masses of native copper about the Santa Rita works. He suggested that the mines could be worked "without much labor" and made to pay "if cheap

transportation could be found." He recommended forming a company to work the ores and ship the copper to world markets via Texas ports.¹⁵

A more conservative writer, Josiah D. Whitney, reviewed the literature about Santa Rita and wrote in his summary of U. S. mining: "The region of the head-waters of the Gila is spoken of by travelers as rich in copper ores, and were they nearer a market they might become of importance; at present they must be looked on as of little value."¹⁶ Magoffin probably agreed with Whitney since there is no record of his operating a mine at, or shipping copper from, Santa Rita.

That does not mean the area was abandoned. The U. S. Army continued to post soldiers at Cantonment Dawson, renamed Ft. Webster, near or in the old buildings at the mine, to ensure some protection for overland travelers. The troops feared the Apaches especially after their inexperienced captain caused a brief reopening of warfare. One newly arrived trooper noted in his diary, "there are 50 men here, all frightened out of their wits." No one recorded the Apaches' state. Another observer, Anna Maria Morris, whose husband later commanded the post, arrived the following year. She noted the Apache were at peace, and wrote: "the Indians were in again today. The Maj. bought me two nice baskets of the chief's daughter." Ft. Webster, despite only three years of existence, had become a hub of frontier goings on.¹⁷

Magoffin supplied these posts until an error in judgement kept him from New Mexico. Residents of Mesilla in the Rio Grande Valley north of El Paso had harvested salt from dry lakes to the east, but in 1852 Magoffin claimed that the salt was his. In January 1852, with the help of the El Paso county sheriff, he evicted the New Mexicans in a fight. The "salt war" brought charges against Magoffin, which were dropped two years later after he paid for the killed oxen of the *salineros*. By then the Santa Rita was again abandoned. Previously, as the military left Fort Webster, the Apaches burned the post, making it uninhabitable. In 1855, Indian Agent Michael Steck and Governor David Meriwether negotiated a treaty with Mangas Coloradas, providing for a large reservation within their homeland, which included the Santa Rita mine. The Coppermine or Mimbres Apaches began farming along the Mimbres River.¹⁸

Imperial Texas, 1854-1861

Texas' interest in expansion to the Rio Grande had been a factor in causing the Mexican-American War. With peace, Texas residents' imperial vision expanded to the Pacific via a proposed southern transcontinental railroad. The demand for the railroad had almost caused a renewal of hostilities between the U. S. and Mexico when the Bartlett boundary surveyors found that the 1848 treaty had flaws, which placed the initial boundary survey point far to the north and east of El Paso. Bartlett was ready to compromise, but the fiery U. S. Surveyor Andrew B. Gray would not give his required concurrence and wrote protests to Washington. Gray and other southern railroad supporters demanded the line be drawn just above El Paso; the Mexican surveyors demanded a line drawn as shown on the treaty map, though in error – which, incidentally, would have put Santa Rita in Mexico. After U. S. and Mexican military displays and marches up and down the Rio Grande and threats of another war, the U. S. took advantage of an unstable Mexico in order to buy the disputed boundary country. In 1854, the U. S. completed the Gadsden Purchase. The South's and surveyor Gray's low elevation gateway to a southern railroad route to California was secured. That year, Gray helped organize and survey the Texas Western Railroad, partially promoted by Texan Senator Thomas J. Rusk.¹⁹

Gray, who previously had been a mineral surveyor during the early copper boom at Keweenaw, Michigan, also touted the richness of the copper mines of New Mexico Territory. The strong-willed U. S. Senator Thomas Rusk, a leading proponent of the southern railroad, which coincidentally passed near the Santa Rita, also helped kill the bill to create the Mimbres Apache Indian Reservation. Agent Michael Steck, a friend to the Apache, was embarrassed and had to explain that, yes, "a copper mine Grant" of "nine square leagues" was well-known in the area. To his regret, the treaty with Mangas Coloradas creating the agreed upon reserve for the 850 Mimbres Apaches failed to pass Congress. Ambitious Texans had already sprinkled the region with agricultural land claims and with stops for an overland stage line from San Antonio to San Diego. The copper mine grant would catch the attention of speculators from

the Lone Star state.²⁰

In 1854, on the alkali-choked two thousand mile trail from south Texas to California, John James of San Antonio led thirty-eight well armed men and a thousand head of cattle west to sell to gold miners. Like other bosses he trailed his herd from water hole to water hole, especially across the Chihuahua desert. South of Santa Rita, at Ojo de Vaca – cow spring – a well known watering stop for immigrants, soldiers, Apaches, and cattle herds, he may have learned about the Santa Rita copper mine. His men could not have missed the well-worn “Copper Mine Road” from Santa Rita to Chihuahua that crossed their path, noted by every American traveler. James, a wealthy land speculator, had immigrated from Canada to Texas in 1837. As a surveyor he was able to claim some of the few springs in West Texas. He also owned the land and mineral rights to old silver mines in the Presidio Mountains of west Texas. With his brother-in-law James R. Sweet, mayor of San Antonio, he operated a mercantile and freighting business. Sweet & Co. had sold mules to the Bartlett survey in 1851. At any rate, by the late 1850s, partners John James, James Sweet, and Jean Batiste LaCoste, a self-trained engineer, had learned of the Santa Rita.²¹

LaCoste and Sweet were relative newcomers to San Antonio, Texas. The short, gentlemanly Frenchman, LaCoste – remembered today for introducing the first ice plant in San Antonio – migrated to New Orleans in 1847, then shortly thereafter arrived in San Antonio, where he entered business with Sweet. Sweet hailed from Nova Scotia. “A gentleman much liked by all,” he was also a powerful, physically imposing man, especially to those who crossed him. He once stood down a gun-man in San Antonio’s main plaza when the police failed to arrest the desperado. The firm of Sweet & Co., later Sweet & LaCoste, was part of the interconnected merchants of El Paso and San Antonio, who supplied the west Texas and New Mexico military posts and settlements.²²

Today, at this late date, it is difficult to detail the chronology of events that brought about a partnership to try to reopen the Santa Rita. Included were James, Sweet, LaCoste, Simeon Hart, his father-in-law Leonardo Siqueros, and, possibly, James Magoffin and others. Simeon Hart, flour mill owner of El Paso and major supplier to military posts along the Rio Grande, was also an agent for Sweet & Co. of

San Antonio, and a neighbor of Magoffin. During the Mexican-American war, Hart fell in love and married Jesusita Siqueros, daughter of Leonardo Siqueros, prominent merchant, farmer, and trader from Santa Cruz de Rosales, Chihuahua. Leonardo and Francisco Siqueros of the mining town of Parral, Chihuahua, would provide the mine management skills and workers. The Texas merchants provided credit, supplies, and space in their empty wagons returning from the frontier military posts.²³

During 1857-8, the Siqueros negotiated a lease from the representative of the Elguea heirs, Don Juan Ibern y Mandri. The lease would run for seven years, with no payments for the first two years but 600 pesos each year thereafter. The lease also included the responsibility of removing the Apaches from the land and, if the attacks became too overwhelming, the contract could be terminated. The agreement went into effect April 10, 1858.²⁴

In preparation for leasing the mine, Leonardo Siqueros and his son had traveled to Santa Rita in the fall of 1857. There he encountered an angry brother of Mangas Coloradas, who ordered the Mexican to leave his land. When Jose Mangas attacked Siqueros, his son fired a shot which missed its mark, killing an Apache woman. Siqueros avoided a potentially explosive clash by offering the Apaches \$400 worth of goods which, according to Indian Agent Michael Steck, “seemed to satisfy them for the present.” After gaining a tenuous treaty with the Apache and after signing the lease, Siqueros arrived late the following summer with a few Mexican miners and their families to begin operations. Pack trains carrying loads of native copper were, at first, sent directly to Chihuahua City.²⁵

Siqueros tried to hire the Apaches as laborers, but claimed they would not work. He or his son-in-law, Simeon Hart, also wrote the military, Indian agency hierarchy, and others to request protection, and more gifts and supplies for Mangas Colorado’s band. The potential for bloodshed remained high, they feared. Much to the Mexican’s relief, however, Mangas Coloradas and his band, under the guidance of agent Steck, made an earnest start to farm on Mangas Creek to the west. The band did not attack the miners, but did continue its traditional raiding into Mexico for plunder and horses. On one occasion, Siqueros intervened on behalf of some Mexican cat-

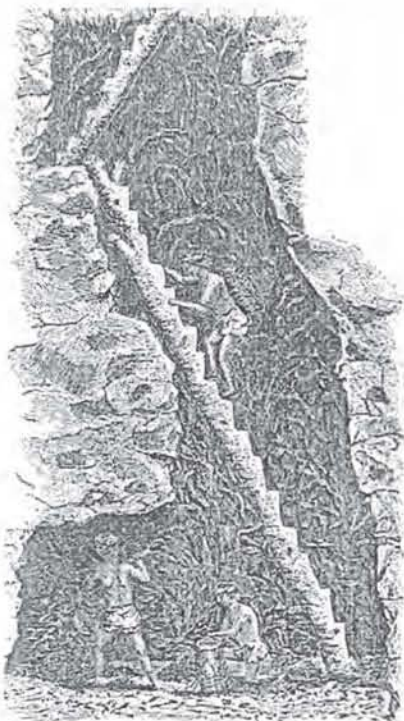
tlemen whose stock had been stolen.²⁶

By 1859 Siqueros could focus on mining. According to one report, he brought in 180 miners from Chihuahua, opened the old workings, and was operating Mexican style adobe blast furnaces to work the oxide ores. The report added he could put another 400 men to work. *Gambusinos* climbed down chicken ladders – poles with foot notches cut into them – into the shallow shafts to horizontal passageways, where they crawled with simple tools to pry the copper nuggets, stones, and boulders loose from the limestone and country rock. The native copper was sorted and cleaned, then melted into bars and shipped. They also mined the high grade oxide ores, hauling it to the surface in large deer-skin or cowhide bags. Jean Batiste LaCoste came from San Antonio, inspected the works, and co-staked a nearby claim, the San Jose, in accord with New Mexico territorial laws. A smaller operation started at the San Jose, under Mariano Varela, freighter and one-time owner of the ranch which became downtown El Paso. Sofio Henkel, German metallurgist and one-time assayer at the Chihuahua mint, opened the

Hanover mine, five miles to the northwest, which began to out produce the Santa Rita. Like Siqueros, Henkel's backers were from Texas and New Mexico.²⁷

One famed visitor to the area was Sylvester Mowry, a self-proclaimed delegate to the U. S. Congress from the proposed territory of Arizona, a political vehicle to serve the Texans, miners, and other newcomers. Mowry wrote on February 3, 1859, that "The Santa Rita del Cobre copper mine, of ancient fame, and a little to the northwest of the Mimbres, has lately been reopened by a capitalist, who has already begun to reap the reward of his enterprise. One hundred and thirty thousand pounds of this copper were sold a few months since to the Chihuahua mint for thirty-five cents per pound. A quantity has been sent to New York to be experimented on. It is claimed that the superior malleability and ductility of this copper must make the demand for it very great."²⁸

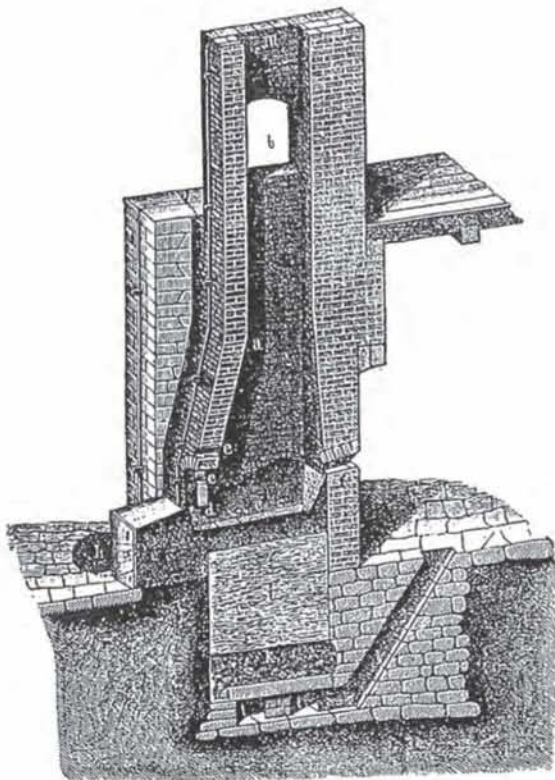
We know little about the Mexican miners at Santa Rita. The 1860 census enumerators found 155 miners, laborers, and their families, including two of



"Enslaved in the Mines," hypothetical sketch of underground mine works showing miners, ore bags, and ladders not unlike the early Santa Rita del Cobre operations. From William G. Ritch, *New Mexico Historical and Industrial* (Santa Fe, 1885)



Twentieth century miner with relics from Santa Rita's earlier workings stands on a chicken ladder holding ore bags, June 6, 1915. Courtesy Museum of New Mexico, Negative No. 5255.



German blast furnace ca. 1850 from Edward Dyer Peters, *The Principles of Copper Smelting* (New York: Hill Publishing, 1907).

Siqueros' young sons, Leonardo, age 24, and Antonio, age 19. The miners were all born in Mexico or in New Mexico. Nearby was the camp of Hanover, which contained 173 miners, laborers and their families as well as freighters and construction workers. All but Sofio Henkel of Hanover and his clerk, Frederick Kohl of Hess Cassel, were born in Mexico or New Mexico. A third camp, Dolores, at the San Jose, had a population of nineteen. Fifty year old Mariano Varela, his wife and six children, and two other families resided there. In sharp contrast to the male-dominated gold camps of the

era, Santa Rita and its neighbors housed communities of families. Nearly every household included women and many had children. An extant Santa Rita payroll sheet from April 1861 lists 93 workers paid \$547.37 for the month, "peon" wages. Other sources show that an El Paso merchant, Vicente St. Vrain of the famed frontier trading family, operated a branch store at Santa Rita, but he was not a resident.²⁹

Santa Rita reflected more an extension of the Mexican mining experience than the mining frontier of the American West. The copper industry was labor intensive with as many laborers as miners doing a variety of tasks, such as wood cutting and charcoal making, donkey or mule packing, teaming and herding, and blacksmithing. The simple shaft blast furnaces had to be constantly tended and adjusted. Experienced furnace hands and assistants were needed to draw off impurities and to cast the molten metal into molds. The blast for heat came from large bellows, powered by a steam engine, which needed tending by an experienced boilermaker. Besides the mine workers, other members of the community cultivated gardens and the orchard, hunted game, or raised stock for food. The isolated works were connected to the outside world by mule trains pulling the famed Chihuahua wagons capable of hauling 3,000 pounds or more.³⁰

Young W. W. Mills worked for St. Vrain's store



Ruins of the blast furnace built ca. 1860 by Sofio Henkle at the Hanover mine. It was similar to the works at Santa Rita. Courtesy Museum of New Mexico, Negative No. 9711.

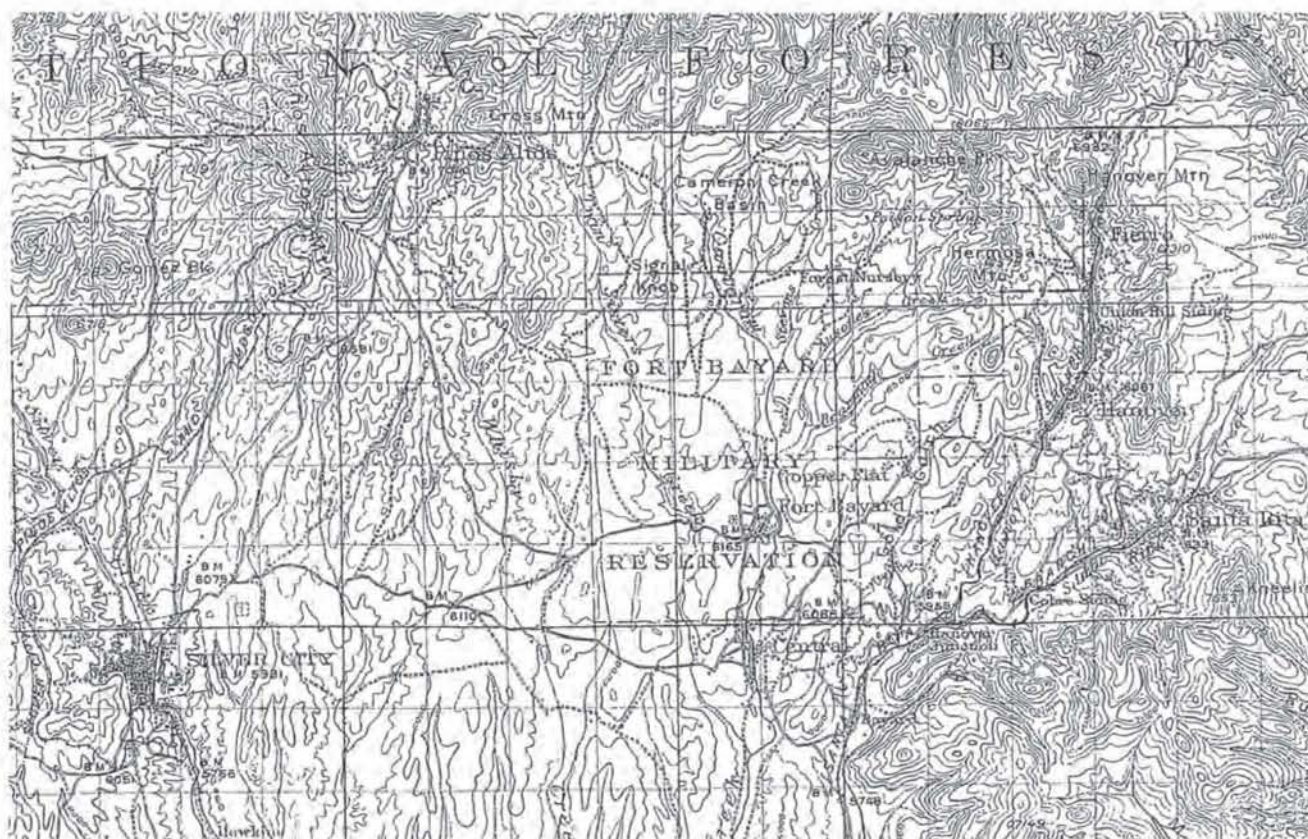
in El Paso and Santa Rita. His is the only reminiscent account about the mine around 1860. He writes:

When I returned to El Paso . . . [I] was employed in the same capacity by St. Vrain & Co. merchants. This firm had a branch store at the Santa Rita copper mines . . . I made two journeys to and from that place, the first time on horseback and alone. There was no habitation between La Mesilla and Santa Rita, . . . The second journey I made as wagonmaster of our train laden with merchandise for the Santa Rita store, and brought back a load of copper, which we sent by wagons to Port La Vaca, eight hundred miles, and thence to New York by Gulf and sea.³¹

The mine's product, poured into 150-pound bars, was hauled to the Rio Grande where freight wagons carried the copper bars the rest of the journey via San Antonio to the Texas port of La Vaca on Ma-

tagorda Bay for placement on schooners bound for world markets. The rich ores and the coupling of the Spanish mining tradition with German metallurgy made the district one of the most productive in the U. S. in 1860, as previously mentioned.³² Shipping costs, however, were at 12-15 cents per pound. And the work had dangers. Mills' own brother was killed when Apaches attacked his party south of Santa Rita.³³

The high cost of freight and the loss of human life took a toll on the Siqueros operation. Colonel Benjamin L. E. Bonneville, who with Indian Agent Michael Steck visited the mine in 1859, noted that the Apache and Chihuahuans were "enemies of old standing." He expected conflicts, sooner or later. In May 1860, Apaches attacked a wagon train bound for Santa Rita and killed five Mexicans. Other raids followed. At the same time, prospectors working in the area made the Southwest's first major Anglo-American gold strike at Pinos Altos, 15 miles to the northwest. A reported one thousand miners rushed in and, by increasing the competition for game and



The Santa Rita-Pinos Altos-Silver City, New Mexico region. *Silver City Quadrangle, U. S. Geological Survey, 1916.*

other food, expanded hostilities between the whites and Apache.³⁴ The record is sketchy, but by mid-1860 Siqueros was heavily in debt to his San Antonio creditors, who foreclosed on his operation. The renewed warfare may have also been a factor in their decision to quit the operation. LaCoste in Chihuahua City negotiated with the owner's representative to take over, then rushed to Santa Rita while James Sweet began managing affairs from San Antonio.³⁵

Texan interest in the Santa Rita area and southern New Mexico had increased. Migration to the area was sparked by the development of the Butterfield Overland stage line, the opening of the mines, the expansion of farming in the Mesilla Valley, and by promotional writings. The editor of the *San Antonio Herald*, for example, on January 18, 1860, noted the arrival of a Mesilla merchant and wrote: "every day reports of the discovery of new silver and copper mines of the richest quality, yielding immense profits . . . almost induces us to abandon our sanctum and wend our way thither." The *Mesilla Miner*, later the *Mesilla Times*, began publication in 1860, chronicling the movements of people, goods, and copper. Texans founded the town of Birchville at the Pinos Altos diggings and platted Mowry City on the fertile Mimbres River, a nascent supply point on the overland trail south of the mines.³⁶

On November 3, 1860, the San Antonio newspaper announced that Sweet & LaCoste had received another twelve tons of Santa Rita copper aboard the wagon trains of Jose de la Luz Mantiz and Jose Maria Urañe. But the receipt of copper shipments was no indication of prosperity. On February 20, 1861, Sweet & LaCoste's manager at the mine, Mariano Varela, wrote of problems. Winter storms and difficulty in smelting ores had cut production nearly in half, but he still hoped to ship 10,000 to 15,000 pounds of copper per month. Two weeks later, on March 3, Varela appealed for help from Ramon Ortiz in El Paso. The miners were nearly out of flour, beans, and corn. "But the most we need is powder," he added. He complained to Ortiz about the partners' failure to send him needed mules and other supplies, and were more worried about debts than keeping the operation going. "But what am I going to do?" he wrote, "At the end I will have nothing, it would be better for me to stay home without any physical or moral worries. I wish you the best in the

company of your family, whom I send my regards."³⁷

The letters of James R. Sweet to LaCoste indicate a more worrisome period for the operation. Just as the partners began investing heavily in improvements at Santa Rita, Abraham Lincoln was elected president. Impending war news was mixed in with James Sweet's letters. He complained of Varela's mounting debts, especially the use of the firm's money to pay off old bills incurred by others. In response to Varela's pleas, he sent fifteen wagonloads of goods from San Antonio to the mines in hopes that the wagons would return full — "I hope the working of the mines will so progress that no chance for want of copper will be lost in sending down [the wagons]." Fearful of getting further in debt Sweet wrote, "if we do not succeed the fault will not be ours, the present state of things no one could have foreseen." He added, "the frontier is breaking up and taking all things into consideration we are in a sad state." In March, Texas seceded from the Union.³⁸

The Confederacy imposed a 25% tariff on goods sent to the north, which closed their New York market for copper. In April, while Confederate volunteers captured the Union troops in San Antonio, Sweet was still fighting with Siqueros over past debts and sought arbitration. He wondered how LaCoste had done with their lease of the mine; he was worried about lack of fiscal restraint on manager Varela's part; and he prayed for another shipment of copper to reduce their debts. Instead, only 11,000 pounds arrived, which Sweet noted, "had need be silver to get our advances out of the mine." As war hit Virginia, Sweet went east in July as courier for Texas Confederates and to retrieve his daughter from school. In his absence, he sent Alexander Brand, a twenty-nine year old Frenchman, surveyor and physician, to the mines to manage more closely Santa Rita affairs.³⁹

The Civil War and Aftermath, 1861-1870

Alexander Brand arrived in New Mexico to begin operations just as the Mesilla Valley became the advanced outpost of the Rebels in the newly declared Confederate Territory of Arizona, which included the southern portion of present New Mexico and Arizona. LaCoste met Brand at Santa Rita, after completing negotiations with the Chihuahuans. Brand



General James H. Carleton, co-claimant of the Santa Rita, 1866. Courtesy Museum of New Mexico, Negative No. 22938.

would later reminisce that when he arrived the partners employed 120 miners at the mines and smelter, but were hampered by losses to the invading Confederates, who commandeered supplies bound for Santa Rita.⁴⁰ The local press praised the operation; the *Messilla Times* editor wrote on January 1, 1862: "a large train left this place last week, with provisions for the Copper Mines of Santa Rita. We are pleased to see that these mines are kept going in spite of war evils and continually occurring Indian depredations."

Later in the spring of 1862, the mine shipped copper via Mexico to the mouth of the Rio Grande, where LaCoste had become a broker of Confederate cotton and other contraband bound for Britain. The lack of supplies, powder and charcoal for smelting would bring the operation to a standstill. Confounding Brand, again, was an increasing boldness by Apache raiding parties.⁴¹

The Confederates organized volunteers, the "Arizona Guards," to protect settlements in the Pinos

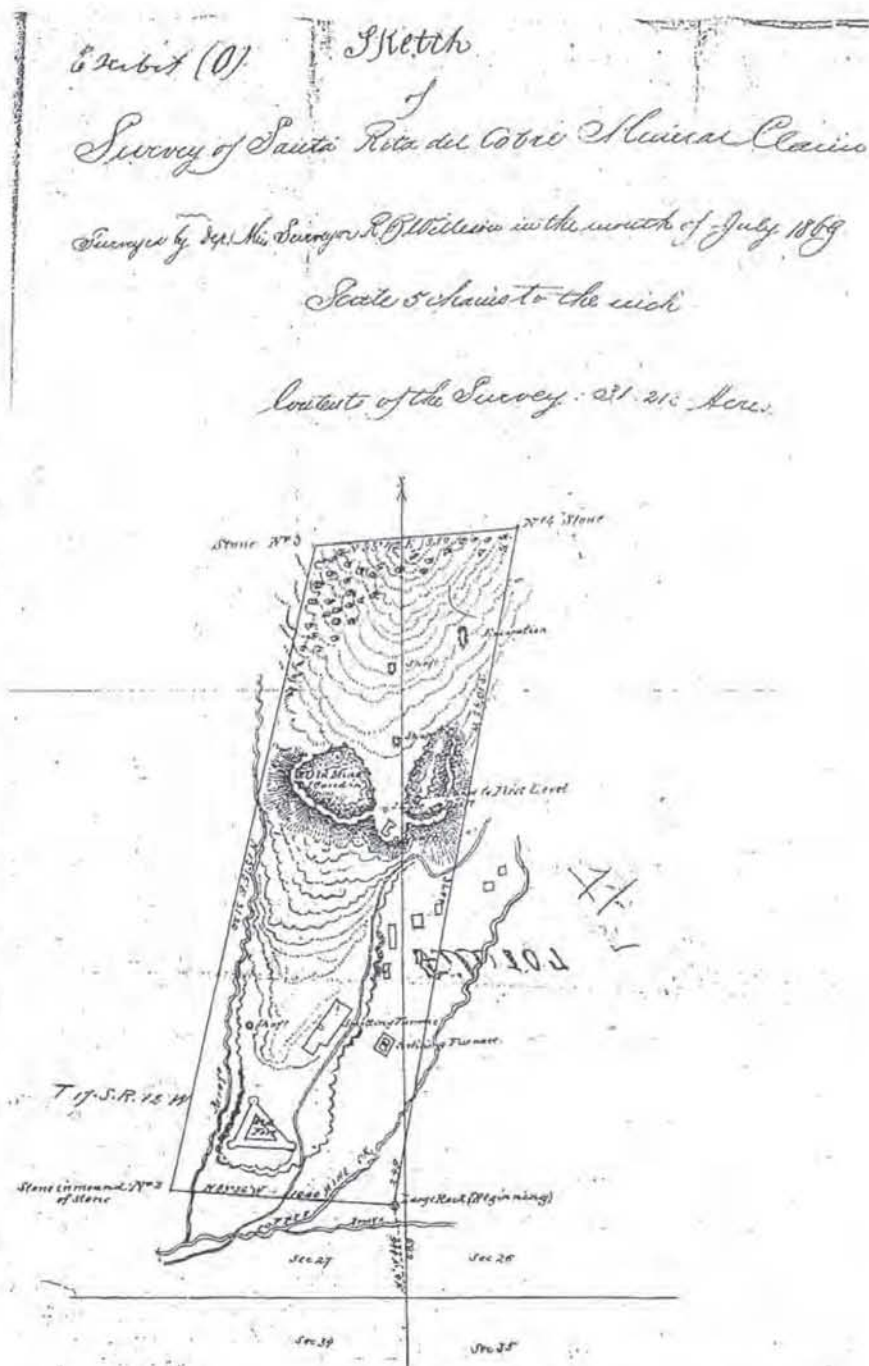
Altos-Santa Rita area. But this soon collapsed as Union forces re-captured New Mexico from the north and west. The rapid rise and fall of the Confederacy in New Mexico had an immediate impact on the work at Santa Rita. After the March 1862 defeat of General Henry H. Sibley at Glorieta Pass above Santa Fe, the Rebels beat a retreat back to Texas. Brand and others from southern New Mexico escaped with them. He closed the mine May 10, 1862, ten days before General James H. Carleton and his 2,350 soldiers of the California Column took Tucson. When Carleton's troops reached the Rio Grande valley, they confiscated copper bars, mine supplies, and even a boiler and steam engine at the mines. The firm of Sweet & Lacoste later claimed to have lost 300,000 pounds of copper as well as provisions worth \$70,084 to the war. During the remainder of the war LaCoste lived in Matamoras and shipped confederate cotton via Mexican ports. Brand remained in Texas, and James Sweet joined the Confederacy as a colonel serving along the lower Rio Grande.⁴²

The Santa Rita once again became the domain of Mangas Coloradas and his people. In 1861, he joined with his son-in-law Cochise, who had been tricked by soldiers into a meeting at Apache Pass that almost cost him his life. In response, according to one report, he "threatened the extermination of all whites in the limits of his range." On September 27, 1861, the Chiricahua chiefs attacked Pinos Altos, followed by attacks on the supply trains of Santa Rita. They attacked overland immigrants and the stage stations and coaches. On July 15, 1862, they bravely confronted the California Volunteers at Apache Pass, Arizona. The attack wrought General James Carleton's animosity. Six months later, in an act of treachery, his troops tempted Mangas Coloradas into council, arrested him, and then shot him while he was allegedly trying to escape. The conflict between the North and South became one pitting the California Volunteers against the Indians of New Mexico.⁴³

Few adventurers visited Santa Rita during the war. In October 1864, two experienced geologists made the first professional inspection of Pinos Altos and Santa Rita, which they found abandoned and desolate. Richard E. Owen, professor at Indiana State University, and E. T. Cox, his assistant, pub-

lished an account titled Report on the *Mines of New Mexico*. Protected by Union troops, they inspected the Santa Rita, which, they observed, had "large quantities of Native copper, as pure as that of Lake Superior." Another nearly contemporary visitor described the smelter: "We found works of considerable magnitude; I counted twelve bellows, in a kind of hall, that must have been sixty feet high, but the rafters and beams overhead had rotted and the weight of the mud . . . had borne down the roof, and half covered an enormous wheel, some forty feet in diameter. Every thing about this wheel that was not wood was copper." Owen and Cox observed piles of ore and the furnaces ready for work, but, giving the standard tale of the day, "the workmen were driven off by the repeated murderous attacks of the Apache." Nothing was mentioned of the California Column's removal of a steam boiler, machinery or other destructive actions.⁴⁴

Owen and Cox's report arrived in the hands of New Mexicans just as the war was coming to an end. The mid-1860s was a time of rampant mine speculation in the Rocky Mountain territories, and General Carleton and territorial officials maneuvered to take advantage of eager Eastern investors as well as the absence of the Texans. In the summer of 1866, under the protection of troops at recently established Fort Bayard, five miles due west from the mine, Carleton with Robert Mitchell, the new governor and a former Union general, John Pratt, new U. S. Marshall, chief quartermaster Captain Herbert Enos, Carleton's Inspector General Nelson Davis, territorial Attorney General Charles Clever, and others "discovered" the Santa Rita mine. They filed mining claims to the



1869 plat map of the Santa Rita Mining Association's claim. Courtesy Santa Rita grant file, New Mexico State Library and Archives, Santa Fe.

Santa Rita in June 1866, a greedy act by the governor, general, and the rest of the party of influential men, the military and civil government hierarchy of the territory. They ignored the efforts of Sweet & LaCoste and the earlier Spanish and Mexican claims.⁴⁵

Governor Mitchell, General Carleton and their Santa Fe partners were the leaders of the strong Unionist political faction that controlled the territory and symbolized the continuation of the war, if not in violence at least through patronage and spoils. They formed the Santa Rita Mining Association to reap more benefits. In autumn, the governor left for the east on official business as well as to promote the Santa Rita and Pinos Altos mines. Over the winter 1866-7, from November to March, the partners hired a handful of miners to reside at Santa Rita, repair a house, and open the mine, all under the watchful protection of troops at Ft. Bayard.⁴⁶

Meanwhile, Alexander Brand arrived back on the scene. Trying to rebuild his fortunes after the war, James R. Sweet gave Brand a power of attorney to reopen the mines and manage his other interests at El Paso and in Arizona. He reclaimed the mine. San Antonio papers noted the revival of the district in anticipation of the Texas Pacific Railroad. Sweet chaired a railroad meeting, reviving hopes for westward expansion. At the mine, in a confrontation in January 1867, Brand evicted the few workers sent by the Santa Rita Mining Association. He also restaked the nearby San Jose mine for Sweet and himself, using as a witness a young lawyer named Thomas Catron, a former confederate, and soon to rise politician.⁴⁷

The miners of the region, especially in the Central (Santa Rita) and Pinos Altos districts, including Brand, did not appreciate the maneuvers of outsiders like governor Mitchell and his entourage. Taking the initiative, local miners established their own mining codes, passing the Pinos Altos mining district laws in November 1866, based on the California codes. They declared themselves: "Resolved that the Territorial Legislature not being acquainted with all our necessities in the District passed mining laws for the county that are wholly impracticable here; requiring every person holding a claim to go a distance of one hundred and twenty miles to La Mesilla, through a hostile country to have his claim recorded." With other Southern sympathizers Brand helped organize Grant County with its seat at the new town of Central City, five miles from Santa Rita. Brand became first county clerk, keeper of the land records for Santa Rita and elsewhere. Grant County residents would continue to protest Santa Fe control, even threaten-

ing to secede from New Mexico and join the new territory of Arizona, organized in 1863 out of the western half of New Mexico Territory.⁴⁸

In 1869, Brand formed a partnership with miner James Fresh, who became superintendent, and hired two dozen miners. The gambusinos or miners of Santa Rita worked on their own as sublessees of certain parts of the mine. James Fresh described the work: "The men worked in the simplest way, picking the rock to pieces in the mine, and carrying it on their backs up the almost perpendicular ladders. They were obliged, for one cent per pound of the ore they produced, to bring it to the surface of the ground, as well as remove all refuse rock from the mine, and dump it at places designated. Two men usually worked in company, one to excavate the rock and one to carry it out. The two would take out an average of 300 lbs. per day. Some men, especially Americans, would take out 1,000 or 1,500 pounds; others not more than 50." Fresh added that they worked no ore containing less than 500 copper. The miners used deerskin bags capable of carrying 150 pounds, and the ladders were made from logs with notches for foot and hand holds. The furnace and primitive refinery were re-used and copper flowed once again. Brand had one Mexican blast furnace operating by July, pouring out "five hundred pounds of regulus per day."⁴⁹

They shipped unrefined copper bars by freight wagon to the nearest railroad, the Kansas Pacific, some 700 miles away in the Colorado prairie building west toward Denver. But the same old problems badgered Brand: high freight costs and Apache raids. On May 18, 1869, the *Santa Fe Weekly New Mexican* carried a report that the Apaches attacked the camp. One Mexican worker "was killed within a hundred yards of the house, where he was herding the four or five horses." Brand "mustered his force" and repelled the attackers, but only after they had stolen all the stock. A few years later Brand would cite the high costs of hauling copper to market, and the loss of stock to Apaches as the reasons why Sweet & LaCoste gave the order to shut down the mine. He claimed they walked away from an investment of \$300,000.⁵⁰

A review of records in the U. S. Surveyor General's file for the Santa Rita del Cobre grant suggests that it was not just economic factors that caused the

Texans to close down. The file shows that previously, on April 18, 1867, Governor Mitchell, General Carleton, and their partners filed for a mineral land patent – the method for acquiring fee title – to the Santa Rita under the Federal 1866 mining law. When Brand learned of this maneuver, he notified James R. Sweet, who filed a protest to the patent application. The Texans began a legal feud with the Santa Rita Mining Association – Mitchell, Carleton, and partners. Shifts in power in the territorial capital brought about the downfall of Carleton and Mitchell; the carpet-bag governor had proved ineffective due to fights with local politicians and the removal of General Carleton as military commander in Santa Fe weakened both. However, they were ably replaced by U. S. Marshall Pratt and territorial Attorney General Stephen Elkins as the driving forces behind the Santa Rita Mining Association. Pratt and Elkins ensured that digging of a twenty foot shaft, repairing a building as residence and other requirements of the Federal Mining Law of 1866 were met, including a government survey as initial step for patenting and receiving title to the land. In July 1869, mineral surveyor R. B. Willison arrived to survey the Santa Rita claim for the Santa Feans. The surveyor compiled a dossier of information, retained in the grant file. Willison reported that the association had made improvements in compliance with the law, but also pointed out the substantial operation of Alexander Brand on the same ground. He also noted a pre-existing Spanish mineral grant.⁵¹

M. H. MacWillie, a Chihuahua City lawyer, had also filed a protest of the Santa Rita Mining Association's petition for a patent to the land, claiming that he represented the owners of a Spanish grant to the Santa Rita del Cobre. MacWillie recounted the discovery by Lt. Col. Jose Manuel Carrasco and the transfer to merchant Don Francisco Manuel de Elguea, whose widow now resided in Spain. In April 1868, Maria Antonia Elguea y Medina of Bilbao, Spain, gave MacWillie the power to "demand the titles to the Santa Rita del Cobre mines of Santiago [James] Magoffin or of any other person that may have same in their possession." The record is silent on how much pleasure MacWillie, the ex-confederate official of Arizona Territory, C. S. A., got from protesting the claim of General James H. Carleton, et. al.⁵²

Given the conflicting and confusing evidence – Sweet's, the Santa Rita Mining Association's, and MacWillie's – the case was carefully reviewed by the U. S. Land Commissioner, Joseph S. Wilson. On April 22, 1870 he issued his opinion. The petitioners for patent represented by Marshall Pratt and attorney Elkins were chastised by Wilson, who saw through their bogus claim. They had claimed a new location, but, wrote Wilson, the old mine "has been operated for many years: one that has been referred to on account of the richness of its ores by nearly every writer on New Mexico for the last fifty years – a mine furnishing copper of such great purity that notwithstanding its out of the way locality Dr. Wislizenus reports that a Frenchman from 1828 to, 1835 [sic] cleared half a million dollars by working it . . . The Santa Rita del Cobre is therefore of the kind of property which in the 7th section of the territorial mining act of January 18, 1865 is classed as 'mine and mineral ground heretofore occupied in this territory' and is subject to relocation only after mining has ceased to be prosecuted for a period of ten years or more." The mine could not be relocated nor, for that matter, could a patent be given to the Santa Rita Mining Association. And, Wilson added, "Sweet and LaCoste, occupied under a lease from the widow of de Alguea [Elguea], which only expired in 1865 and consequently are as little qualified to relocate the mine as the applicants." MacWillie had won the case for the heirs.⁵³

On August 29, 1870, James R. Sweet, after a decade or more of frustration, signed an agreement whereby he received \$1 for giving "peaceable and immediate surrender to said MacWillie [representative of the heirs] by the said Sweet of the Santa Rita copper mine." Sweet retained a minor interest as part of his quit claim deed, which he soon sold. Alexander Brand and James Fresh abandoned the camp and moved to the new boomtown of Silver City. The Texans had retreated for the last time.⁵⁴

Coloradans and the Rocky Mountain Mining Frontier, 1870-1880

MacWillie and his associates, Benjamin F. Williams and William Pierson of El Paso, needed to find proof of the original grant – some people doubted it had ever existed. The trio faced setbacks. On Decem-

ber 7, 1870, B. F. Williams was shot and killed in the streets of El Paso, the result of a political feud. Then, Maria Antonia Elguea y Medina y Guero, Don Francisco Elguea's widow, died without forwarding a copy of the grant. On March 20, 1872, MacWillie filed a record of the claim in the Grant County court house, but without a true copy of the original grant papers. U. S. Mineral Commissioner Rossiter Raymond, though incorrectly naming MacWillie "Willey" in his report for 1872, observed "Mr. Willey, a lawyer, claims to have searched out this old title, and to have bought the mine of the heirs of the Spanish lady. He is making efforts to obtain a United States title, and is said to intend working the mine."⁵⁵

In the midst of filings and legal work, MacWillie was overrun by new contestants. With the 1870-71 rush to the silver strike at Silver City, 15 miles due west of Santa Rita, veteran Rocky Mountain miners entered the region. Several men decided that the Santa Rita claim was invalid – MacWillie's failure to file a copy of the grant papers spurred the questioning – and began staking claims under the Federal Mining Law of 1872. Among the stakers was James Fresh, Brand's former superintendent, who named his claim the Chino, a Spanish mineralogical term for the iron pyrites common here. James Fresh with a new partner, Washingtonian John Magruder, began mining again less than a mile from the Santa Rita, within the purported Elguea grant. Other miners soon followed. Ringleader of the new claimants was attorney Henry O'Neil. He caused a rush to stake claims in October 1872, which may have been a result of the opening of the District Court session at Silver City and its issuance of numerous gratis, bar room legal opinions. The publication in the local newspaper of the mining law of 1872 probably helped spark the stampede as well. Whatever the cause, the Santa Rita valley was staked from one end to the other.⁵⁶

During this crisis, the Chihuahua agent for the Elguea heirs, Jose M. Horcasitas y Campos, removed MacWillie and sought assistance elsewhere. He turned to John S. Watts, the best land grant lawyer in Santa Fe. During the 1850s, MacWillie and Watts had both served as attorneys in New Mexico and, oddly, in the 1860s both men served as delegates to Congress for parts of New Mexico, but Watts served

in the Union Congress while MacWillie served in the Confederate one. More importantly, Watts had successfully won several major land grant cases. On November 18, 1872, he submitted a well prepared statement of the Elguea heirs' claim. The heirs were Jose Guero of Bilbao, son of Maria Antonia Elguea y Medina y Guero by her second marriage with Pablo Guero, deceased, and Dolores Elguea of Chihuahua, the "Spanish lady's" granddaughter. Dolores was the illegitimate daughter of trader and freighter Francisco Elguea, also deceased; she had been raised by Edward Macmanus of Chihuahua City. They petitioned for the confirmation of their grant of four square leagues, approximately six miles by six miles of mineralized land.⁵⁷

Judge Watts also informed the local miners that they had no right to the land. He wrote articles for the press and threatened lawsuits. After explaining the merits of the heirs' grant in the *Santa Fe Union*, he declared that "it is impossible for our government to grant a title to any others than the old Spanish claimants." The grant would be proved valid. However, the editor of the Las Cruces *The Borderer* gave the local view: "a perfect hegira took place in the direction of the Santa Rita. The best portion of these valuable copper deposits has now been located by various parties and although a lawsuit may result, there is not much question of the superiority of the last locators."⁵⁸

Into this tangle of affairs came Martin B. "Matt" Hayes, a man familiar with the machinations of the Rocky Mountain mining frontier. Hayes, a New Yorker and Midwest businessman, went west during the Colorado gold rush. There he helped form the Gregory Consolidated Mining Company of Central City, one of the most productive of the 1860s. He also managed the nearby James E. Lyon & Co. smelter, the first in Colorado. He joined Jerome Chaffee and David Moffat, bankers and wealthy mining men, in speculative silver mining ventures at Georgetown, Colorado. In late 1872, his partners, aware that the Denver & Rio Grande Railroad planned to extend its line into Mexico, sent Hayes south to look for a copper mine.⁵⁹

At Santa Fe, Hayes met Stephen B. Elkins. Elkins, Jerome Chaffee, Marshall John Pratt of the Santa Rita Mining Association, and others had just negotiated the sale of the gigantic Maxwell land



Senator Jerome B. Chaffee, mining man and friend of the Santa Fe Ring helped gain title for the Colorado crowd. Courtesy Western History Department, Denver Public Library.

grant, from which they reaped a fortune. An ally of Judge Watts, Stephen B. "Smooth Steve" Elkins became the attorney for the Santa Rita Mining Association and carried on their case. His cohort and longtime partner was Thomas Catron, the ex-confederate and agent at the Mesilla land office who witnessed Alexander Brand's claims in the Santa Rita district in 1867. Catron also staked claims for himself, some of which led to his acquisition of the productive Hanover mine. He was well informed about the Santa Rita region. Watts, Elkins, Catron, and Pratt were major players in the powerful political faction known as the "Santa Fe Ring." The fat file of Santa Rita mine claims and counter claims in the U. S. Surveyor General's record became strangely silent after the Ring became involved – "case dismissed without prejudice," reads the April 15, 1873, land office decision. Obviously, a deal had been cut. Matt Hayes had become the owner of the Santa Rita. He

recorded the transfer of the Elguea grant at the Grant County Courthouse in Silver City on November 10, 1873. Simultaneously, the mining ground was staked under U. S. law, just in case problems might arise.⁶⁰

A fragmentary record from the National Bank of Santa Fe suggests that the bank's president, Stephen B. Elkins, and the Santa Fe Ring brought the various factions together. Elkins, through Francisco Macmanus of Chihuahua, helped transfer the claim of the Elguea heirs to Hayes for a \$15,000 promissory note, payable upon receipt of title. The Santa Rita Mining Association claim drops from the scene, probably through some arrangement brought about by Elkins for Hayes. William Pierson, Williams & MacWillie's old associate, aided Hayes by preparing a dossier history. The O'Neil claims of 1872, either through intimidation by Judge Watts or the appearance of Pierson at the mines, were not pressed. Their case was weakened, anyway, by the land office's 1873 dismissal of attorney Elkins' Santa Rita Mining Association case in favor of the grant holders. By the end of 1873, Hayes held the mine. Returning to Denver he met with Chaffee and Moffat, and formed a partnership to rework the Santa Rita with the latter to advance operating funds.⁶¹

When Hayes arrived in the Santa Rita valley in 1874 he found conditions far different than what Brand had left only four years before. Silver City had become a respectable village and county seat, with merchants and other suppliers readily able to fill his needs for flour, corn, and beans. The Apaches, after years of assault by the military, were pressed into acceptance of the "peace policy" of President U. S. Grant, which had them removed to a reservation. Though occasional attacks and guerrilla warfare in the surrounding countryside would continue, the Santa Rita valley had seen its last raid. Hayes found railroads still were far from New Mexico's borders and, thus, transportation remained costly, but the Denver & Rio Grande was building south from Pueblo, 500 miles distant.⁶²

Hayes took charge of the operation himself. He brought miners from Denver, opened new veins on Romero Hill and sunk a 248-foot shaft to extract the layers of copper ores. The *Silver City Mining Life* reported the mines were being "reopened in a solid Colorado-like way." Hayes directed the construction of a new smelter, abandoning the old Mexican-style

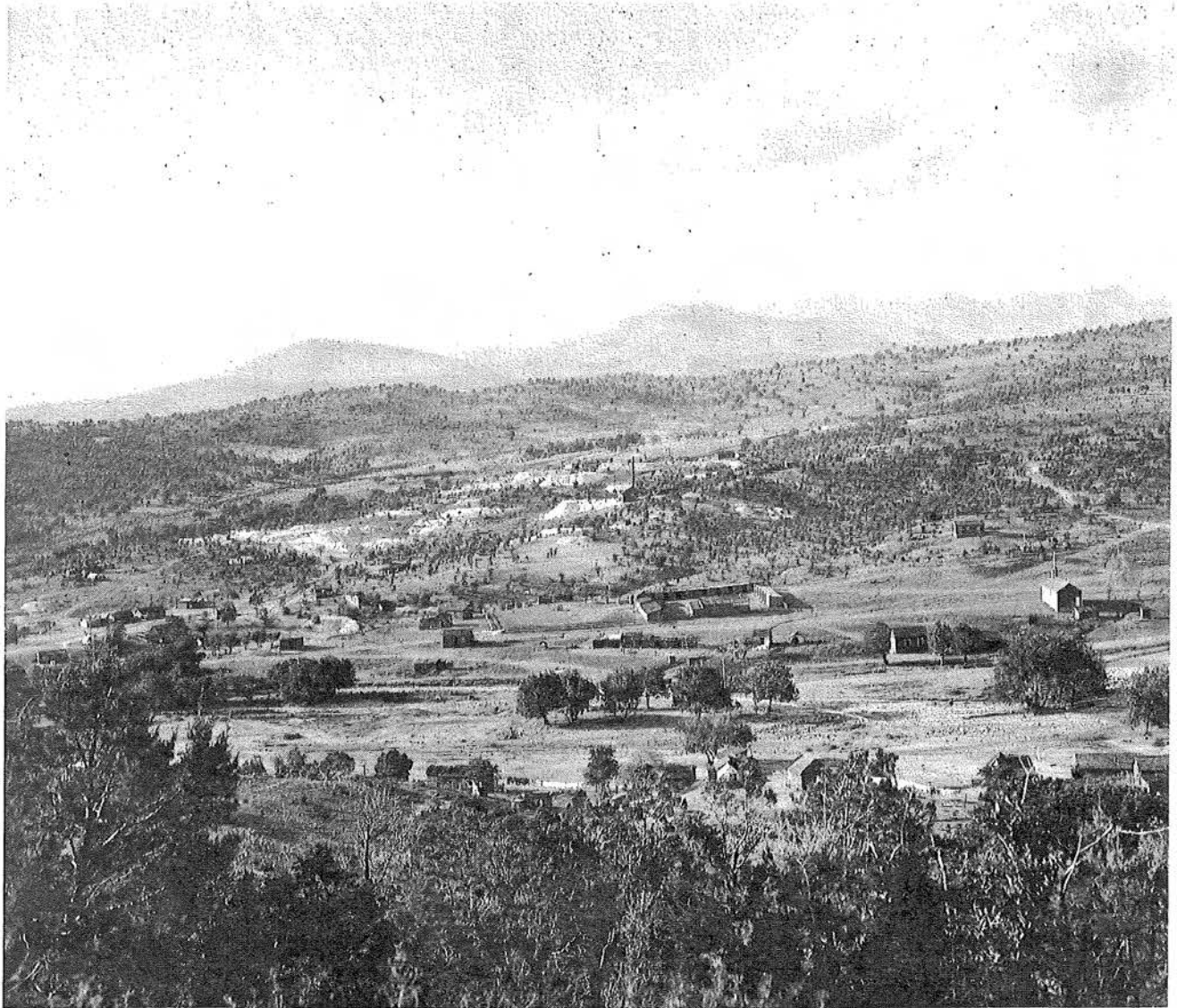


An early twentieth century view of the Santa Rita works show the smelter of Matt Hayes at center with high smokestack. To the left are the old long adobe headquarters and home of William Pierson and directly on the slope below is the lone tower remaining from the triangular fort. The view is taken from the same vantage point as Bartlett's 1851 sketch. L. C. Graton photograph ca. 1905, courtesy U. S. Geological Survey, Denver.

adobe shaft furnace for one designed after the reverberatories of the great copper works at Swansea, Wales, and like the one he previously managed at Black Hawk, Colorado. The smelter poured its first copper in the spring of 1875 and Hayes shipped metal out to the Rio Grande, then north up the well traveled trail to over Raton Pass and to Colorado railheads. The copper matte then went by train to the Baltimore Copper Works in Maryland.⁶³

Near the Santa Rita a small community arose, with a halfway house and restaurant to serve travelers and the nearby mines. Merchant B. Rosenthal

opened the old Hanover mine and had a smelter pouring forth the red metal by late 1875. James Fresh, Brand's old partner, with James Magruder, who had "a little money from his mother," opened the old San Jose and a group of claims adjacent to the Santa Rita, named the Chino, Guadalupe, and Yosemite. They built their own smelter and were shipping by summer 1874 too – the first wagon train hauled 40,000 pounds of copper to the railhead. Between June 1875 and June 1876 they produced 208,000 pounds of copper, a respectable amount for such an isolated operation. Their Mimbres Mining



Chino-Yosemite-Guadalupe mines, site of James Fresh and John Magruder's operation in the Santa Rita Basin. L. C. Graton, ca. 1905, courtesy U. S. Geological Survey, Denver.

& Reduction Company became one of the major producers in the county, with mines in the Santa Rita and Georgetown districts and a smelter on the Mimbres River. At the same time, they gained as partners the Hendricks family of New York, long-time copper refiners and manufacturers.⁶⁴

During 1875, Hayes and his partners produced approximately 1,000,000 pounds of copper, all of it shipped east at six to twelve cents per pound. Copper sold for over twenty cents a pound, then the market price dropped, which caused Hayes and partners' hopes for profits to disappear. They decided to close the Santa Rita to await a market price rise and the

arrival of the long anticipated southern transcontinental railroad. Returning to Denver, Hayes continued to manage his New Mexico properties from afar.⁶⁵

William Pierson remained at the mines, its sole resident among the silent heaps of tailings. Visitors might visit and note the scenery more than the quiet mines. He occasionally rented out an adobe house, but maintained possessory claim to the Santa Rita. A Kansas family moved in, with Pierson's permission, their eligible daughter becoming an attraction. Theora Ailman later reminisced, "we made ourselves as comfortable as possible . . . got a very good

house." "Just then," she added, "there was only a caretaker there. He was glad to rent us a house for the company. After we lived there for a year, I was married [to a local miner]." Another renter, a Mrs. Robert Carter, had "Judge" Pierson arrested under undisclosed charges. He was acquitted, but Mrs. Carter provided the district with a scandal when she was arrested for poisoning her husband.⁶⁶

While Pierson and renters maintained a presence for Hayes at the mines, Hayes became concerned about the validity of his title as well. Rights to the Santa Rita grant were indeed transferred from the Elguea heirs to him, but he still lacked a copy of the original Spanish grant. (He undoubtedly wondered if such a document existed.) In the summer of 1877 he ventured to the archives in Spain, again, seeking a copy of the grant. He failed in his search. Upon his return, one local news editor observed that the grant was pure myth.⁶⁷

At the same time, Hayes slowly acquired the last contested, adjacent mining claims. In 1879, he sold the Dunderberg mine in Colorado's Georgetown district for a reported \$600,000. This gave him cash to push for the consolidation of all the potential copper ground around the Santa Rita. He bought out Magruder and Fresh's operation at Chino, Guadalupe and Yosemite. Hayes, Moffat, and Chaffee, now a U. S. Senator, hedged their bets. Pierson was directed to pay for U. S. mineral surveys of the mining claims as another step in the patent process under the 1872 mining law, again, just in case the grant proved invalid. On May 5, 1883, the Secretary of Interior conveyed title to some sixty claims totalling 1200 acres; the Santa Rita del Cobre was now in private hands.⁶⁸

Hayes also hired a Washington, D. C., lawyer to re-open the Spanish grant case file. He took an odd tack, asking the government if they had proof of a Spanish grant for the Santa Rita. They did not. Indeed, the land commissioner stated that land title to a Spanish mineral grant could not be conveyed since under the Spanish Mining Code of 1783 fee title was never granted by the crown, only rights for working and use. The Santa Rita del Cobre grant, if it ever existed, never conveyed title to the mine to Don Francisco Elguea. It only gave him the right to work and profit from the mine. Nevertheless, Hayes paid off the \$15,000 promissory note to the Elguea heirs, thus eliminating the possibility of any embarrassing

future land commission reversals. Of course, no one paid the Apaches.⁶⁹

Hayes and his partners, Moffat and Chaffee, had learned early that the real money in frontier mining came not from working the mines, but from selling them. The end of the 1870s brought a new surge in investments in Western mines. The long anticipated rush to the Southwest was underway. Also, the burdens of high transportation costs declined as the Southern Pacific began building across Arizona in 1879, and the Boston-financed Atchison, Topeka & Santa Fe pushed into New Mexico the same year. On March 8, 1881, the two lines met at Deming, thirty-five miles south of Santa Rita. A month later, Moffat, Chaffee, and Hayes unloaded their Santa Rita interests for \$350,000.⁷⁰



Joel Parker Whitney, sportsman and Santa Rita promoter, in later years. Courtesy Western History Department, Denver Public Library.

New Mexico Copper and
Boston Dollars, 1880-1886

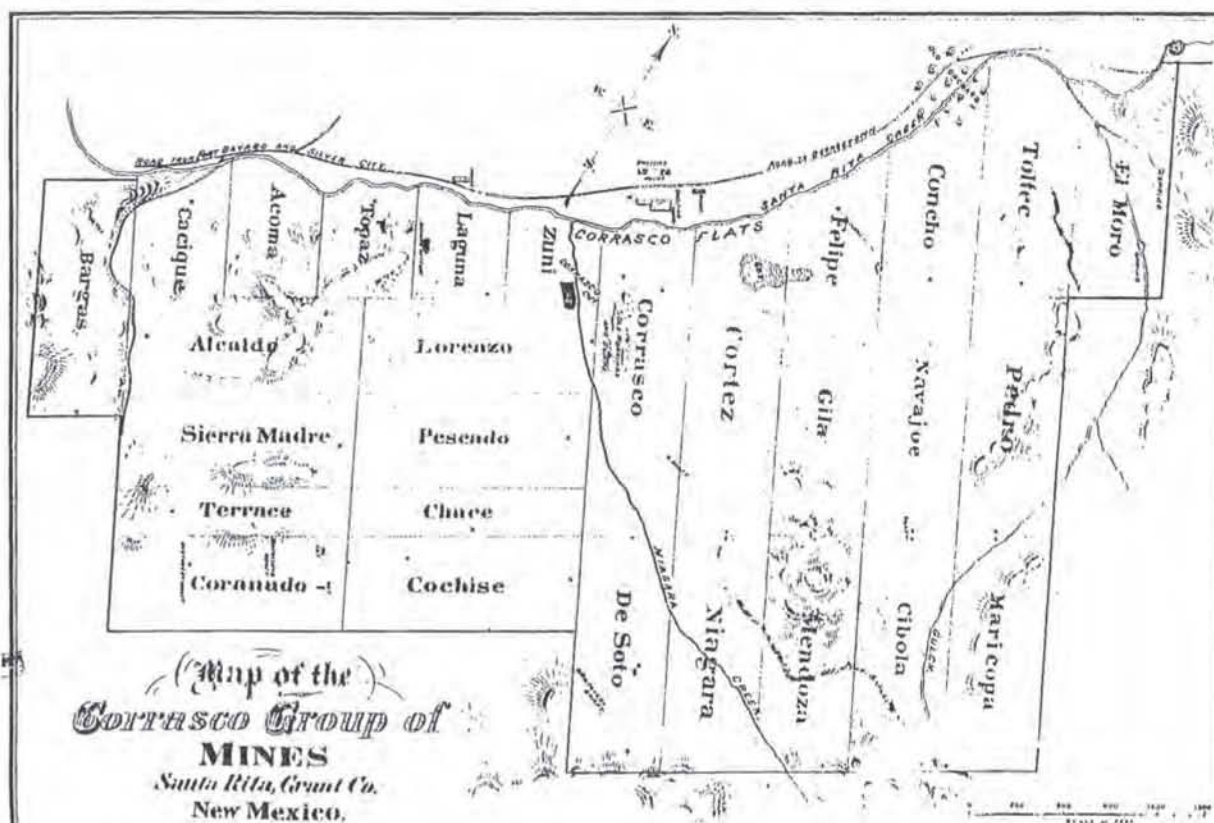
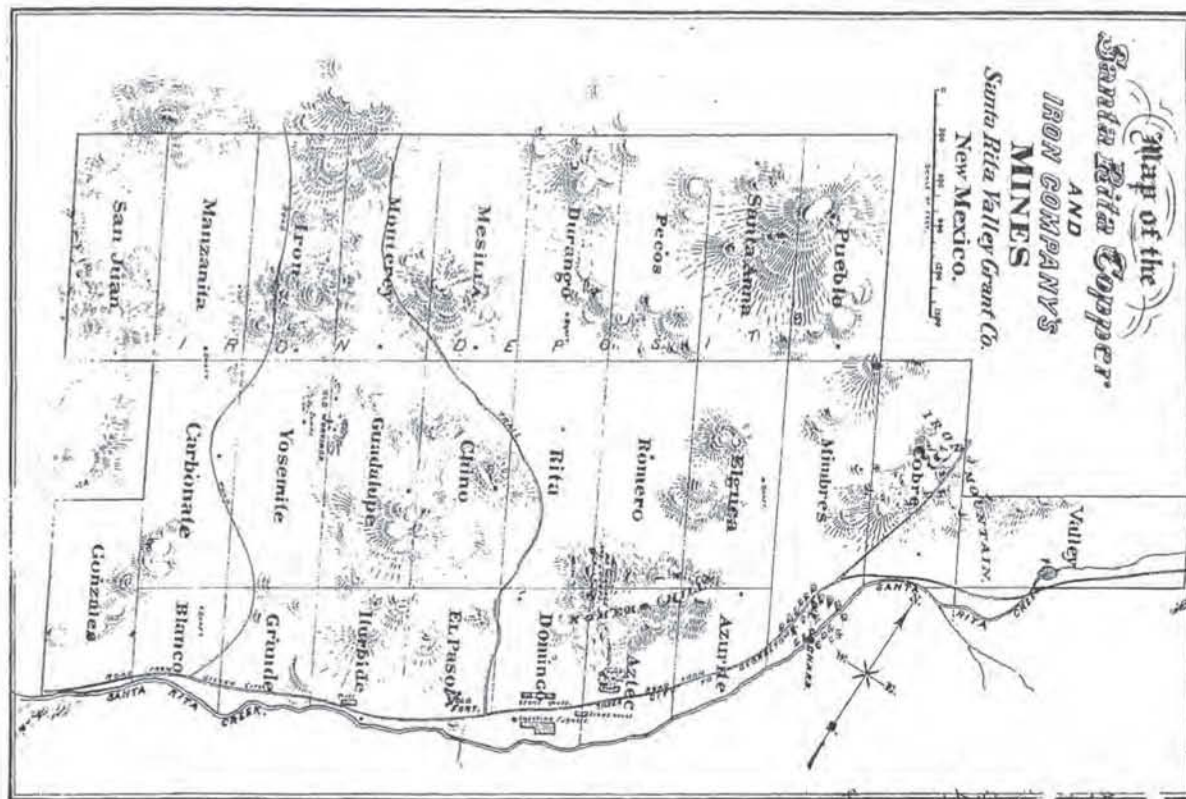
During 1879-1880, Victorio, heir to Mangas Coloradas and a great war chief of the Mimbres Apache, escaped from the San Carlos reservation and headed with his band for their homeland in southwest New Mexico. After years of enduring miserable living conditions and poor rations, the Apaches sought freedom and a restoration of old ways, but the newcomers had taken the best lands. The resulting warfare spread fear, while ranch hands, miners, soldiers, and Indians died. Ironically, as the starving Apache scoured the landscape, there arrived on the scene a self-absorbed Bostonian on an outing for sport and game. Having heard "glowing accounts of antelope, deer, wild turkeys and bear," Joel Parker Whitney later wrote, he took passage on the Santa Fe railroad to the end of its track, and then headed into the mountain range west of the Rio Grande. With an arsenal of "repeating rifles and side arms," he feasted on wild game. Soon, however, the hunting party encountered two stragglers from Victorio's band and beat a hasty, terrified retreat. Whitney, member of a prominent Boston family, had arrived in the Southwest. He would be the next major character in Santa Rita's checkered history. The Mimbres Apaches, however, would soon disappear from the area – Victorio's biographer would write, "of all the Apaches, the Mimbres perhaps suffered the most from the arrival of white settlers in their homeland."⁷¹

Whitney was born in New England and raised not far from the California gold fields. As a young man he returned East to enter the business world of Boston, but the lure of the West was strong and, like Hayes before him, Whitney followed the rush to Colorado. In the 1860's he funneled investments from Boston men into Colorado mines, beginning his career as promoter. He invested in California sheep pastures, vineyards and orange groves before turning back to mining in 1879, during the Leadville, Colorado, boom. Whitney incorporated a half-dozen companies, promoted them in the East, and made handsome commissions. By 1880, he reportedly a millionaire, ready to invest his and his Boston friends' surplus capital in Western enterprises. A trip to New Mexico for sport and investigation land him at Santa Rita.⁷²

Hayes had met Whitney in New York and suggested the side trip. Whitney had already had business dealings with the Chaffee-Moffat crowd in Leadville. In March 1880, Whitney organized the Bonanza Development Company to act as an umbrella company for investments in mines at Leadville, Aspen, and the Gunnison Country, Colorado, as well as the 415,000 acre Estancia land grant east of Albuquerque, and other purchases, including the Santa Rita. In 1881, he went to Santa Rita via Deming, noting in his reminiscence the fine hunting opportunities nearby. Captain John Slawson, an experienced mining man from the Michigan copper country, went along. Slawson praised the property, which Whitney acquired from Hayes, Moffat, and Chaffee. In a letter to the *Boston Commercial Bulletin* dated April 17, 1881, Whitney wrote "these copper mines will probably eclipse any upon this continent except the Calumet & Hecla [of Michigan], and may even rival these famous mines." He organized an operating company – the Santa Rita Iron & Copper Company, capitalized at \$5,000,000 – and quickly raised \$250,000 in working funds from gullible Bostonians.⁷³

Whitney spent the winter of 1881-2 at Santa Rita. He hired miners and superintendents from the Keweenaw copper country of Michigan, also under the control of Boston investors. Captain John Slawson, one-time superintendent of the Cliff mine, Michigan, and a group of Cornish miners began by reopening the Romero Hill workings. A new 500-foot double compartment shaft, with steam hoist, cages, and all the latest equipment was installed, which replaced the old Mexican system of "chicken ladders." Slawson also introduced the classic Cornish-style 40 stamp mill and jigs to concentrate the ore prior to working in the new smelter. Cornwall, England, was the greatest of early nineteenth century copper regions and its miners and technologies were introduced around the world, including the Michigan copper country and now the Santa Rita del Cobre of New Mexico. A visitor reviewing the progress wrote in *The Mining Record* on December 24, 1881, that "Father Time, prestolike, has wrought his changes here in the land of the Aztec ruins and relics."⁷⁴

Newspaper editorials of the period praised the industry at Santa Rita. Whitney's mill was considered



Maps of the claims held by J. P. Whitney's companies, the Santa Rita Copper & Iron Company and the Bonanza Development Company. Note indications of old workings. Whitney Collection, American Heritage Center, University of Wyoming.



J. P. Whitney's mine hoist house and concentration mill more adapted to Michigan conditions than the Santa Rita. Hayes' smelter with tall stack sits idle below the mine. ca. 1880s. Rev. R. E. Pierce photographer, Courtesy Museum of New Mexico, Negative No. 93771 .

the best – it was the first copper concentrator in the Southwest – and his smelter the model of its kind. The railroads had brought cheaper supplies and equipment, as well as coal for the hotter blast furnaces. A small community named Santa Rita (which received a post office in 1881) arose around the mine and mill to serve the 400 miners. The camp included three saloons, two mercantiles, and a stage line. Unlike the earlier operations, Parker, New Mexico – Whitney's name for the camp – was an industrial island connected by a steel rail umbilical chord to Eastern markets and suppliers. Whitney also joined with Boston backers of the Santa Fe to build the Deming, Silver City, and Pacific Railroad in 1882-3, a narrow-gauge line running from Deming on the transcontinental railroad, forty-five miles to Silver City. When it was completed on May 12, 1883, Whitney announced that his backers would build on to the west, with branches to all the prominent mines of the area, including Santa Rita. The Boston *Herald* appraised the new line to Silver City and Whitney's mine: 100 tons of copper worth \$36,000 was

shipped each month to the Detroit & Lake Superior mill in Michigan, and it would soon be doubled. The Santa Rita was "making good its early promise."⁷⁵

Hints of trouble soon appeared. Construction of the railroad branch to Santa Rita was postponed. Production did not meet expectations. Theodore Schwarz, a graduate of the Massachusetts Institute of Technology with experience in copper milling, was hired in the early summer of 1882. He declared the 40-stamp mill a waste of capital and renovated it with new machinery: rolls for crushing the ore, and Evans slime tables and Collom jigs to concentrate it – all the latest of Michigan copper country technology. The new smelter still failed to meet expectations and was shut down. Concentrate from the mill would be shipped direct to Detroit for smelting and refining. Whitney's staff discovered that their ore was an odd mix of complex sulphides and carbonates, not just native copper like in the Michigan mines. A later mining engineer, looking over old assay returns, observed that they made "interesting reading, in that

they illustrate the struggles to obtain metallurgical efficiency not only in the mill but also in the smelter." This mixture of ores would take all the metallurgical skill of the day – not just imitation of Cornwall or Keweenaw practices – plus some major capital investment in rail line and plant to produce effective economies of scale. By March 1883, \$400,000 had already been sunk into the mines, physical plant, and operation for a return of a reported 2,000,000 pounds of copper – a respectable amount but still not enough to make a profit, let alone break even.⁷⁶

Before the engineers finished installing new water jacket furnaces and revamping the smelter, Whitney wired from New York to shut down the Santa Rita. He had reportedly begun serious negotiations with British investors for the sale of the mine. He planned to float the company in Britain and sell stock in order to fund the railroad branch and new smelter. British investors had bought the Clifton copper mines in Arizona for \$1,200,000 in 1882 and were negotiating for copper mines in the Burro Mountains to the southwest. As in the past, the old promoter published a glowing pamphlet about the "Native Copper Mines of Santa Rita" and prepared to unload the mine to the British for \$6,000,000. A tour of New Mexico with several prospective British investors soon followed.⁷⁷

Unfortunately, 1883 was the beginning of the end for the Southwest's first copper boom. Its collapse resulted from a drop in copper market prices and overspeculation on marginal claims. By 1884, operations near the Santa Rita ground to a halt: the Hanover, the San Jose, and the Ivanhoe all ceased production, leaving many investors including John Magruder nearly bankrupt. The London *Times* editorialized about the deluge of copper and the plunge in the copper market, which sent a negative message to cautious British investors. Whitney's anticipated sale never occurred. Even his Boston backers, many of whom had seen other investors make fortunes by investing in the rich Michigan mines, balked at pouring more funds into the Santa Rita.⁷⁸

Whitney also suffered a personal loss at this time. As owner of the Estancia grant, he had hoped to create a stock-raising empire east of Albuquerque, and sent his brother James to manage the operation. In August 1883, however, a feud erupted between His-

panics on the land and the newcomers. A shoot-out at Estancia Springs left two men dead, and James, seriously wounded, was whisked away to dodge murder charges. He was later acquitted, though disfigured for life. At about the same time, Captain Slawson, who had become a scout for new copper properties, was killed by Apaches while inspecting a distant prospect. Geronimo and his band were breaking for freedom from reservation life, and bringing the last Indian-white warfare to the Southwest. On October 22, 1886, the Apache wars ended when Geronimo's captured band was sent to a prisoner of war camp in Florida.⁷⁹

By then Whitney had neither the capital nor the desire to continue operating. Mining engineer Arthur Wendt visited the mine and reported in May 1886, "At present, the Santa Rita mines are entirely idle; and unless developments in depth on the iron-ore outcrop should expose a richer and different character of ore from that treated in the stamp-mill, the property is likely to remain idle for a considerable time, at least until the end of the present era of low-priced copper."⁸⁰

The operation remained mostly idle for nearly a decade and a half, with an occasional lessee. In 1897, Whitney was able to interest the estate of George Hearst in leasing the property. Finally, late in 1898, a branch railroad was extended to the mine. In 1899, when the Standard Oil crowd – William Rockefeller, Henry H. Rogers, Thomas Lawson and others – formed the Amalgamated Copper Company to acquire all the major copper mines of the United States, they purchased the Santa Rita from J. Parker Whitney. The Santa Rita Mining Company, a subsidiary, began production on a larger scale, but the elevation of the property to a world class producer came only after the introduction of open pit mining techniques. By 1912, a group of young mining men had transformed the Santa Rita, renamed the Chino Copper Company, into one of the ten phenomenally profitable porphyry copper mines of the greater Southwest – on lands ceded by Mexico after the conquests of General Kearny, Colonel Doniphan, Surveyor Gray and others. These mines outproduced the earlier Michigan, Appalachian and all other copper regions. Whitney did not share in this success though he may have read about it in his San Francisco newspaper. He had recouped a fortune promot-

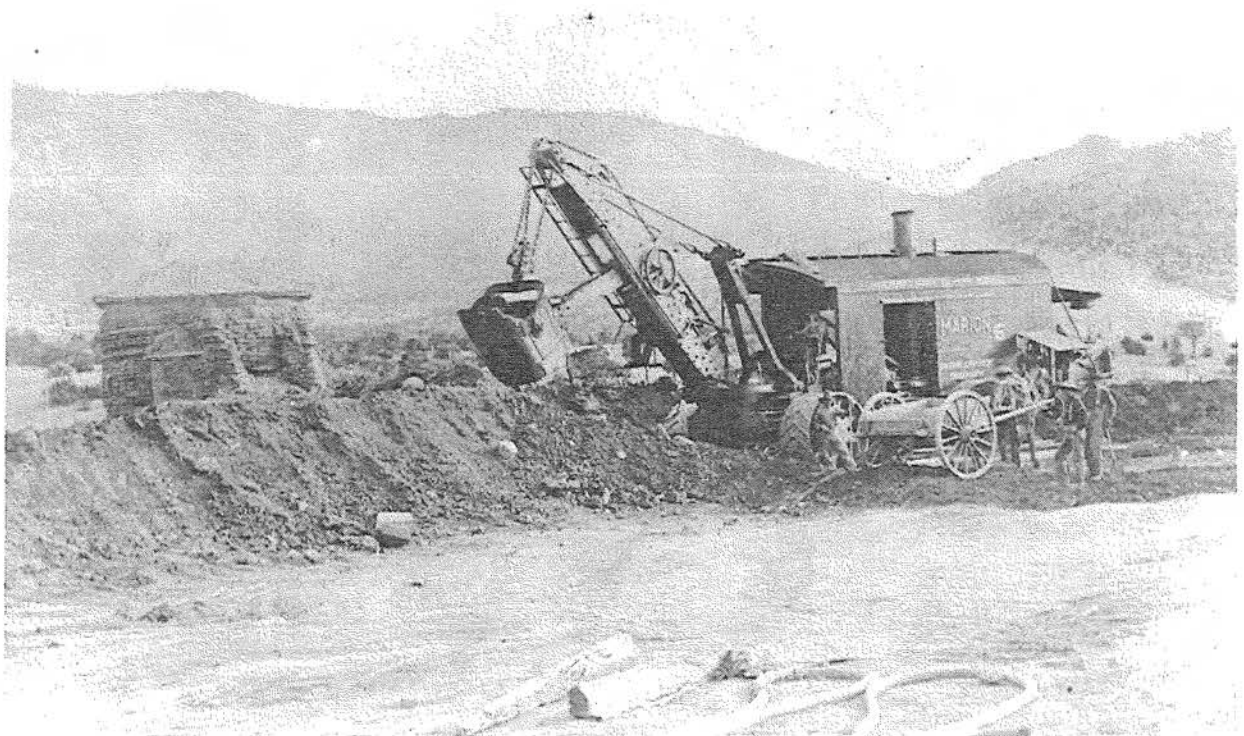
ing mines during the Cripple Creek boom of the 1890s. His other investments, like the Estancia ranch, which proved to be a fraudulent land grant, failed him. He died in Monterey, California on January 17, 1913.⁸¹

Matt Hayes died nearly penniless on November 8, 1899, in Denver, having invested in another land grant, the Alamillo grant near Socorro, New Mexico, that proved invalid.⁸² Sweet and LaCoste ended their days as revered pioneer San Antonio businessmen, dying in 1880 and 1887 respectively.⁸³ General Carleton also died in San Antonio, in 1873, watchful of his ex-Confederate neighbors.⁸⁴ Brand and Fresh roamed about the territory, headed to Mexico and South America to work copper mines. In 1890, Brand returned to Silver City, but disappears from the record thereafter.⁸⁵ The Siqueros family remained prominent in Chihuahua and along the border, and a grandson of Leonardo became editor for the *El Paso Times*.⁸⁶ None of them profited greatly from the Santa Rita.

The report of the 1860 census stated that the

Santa Rita del Cobre and the mines of New Mexico produced \$400,000 worth of copper that year, a respectable amount for the time, which suggested a great future. Individuals who saw the native copper and red oxides of Romero Hill in the attractive high basin universally envisioned a flourishing mine and camp. Instead, the series of operators over the last half of the nineteenth century experienced setbacks and, ultimately, failure.

Many factors impeded the realization of the rosy future anticipated by the 1860 statistics. Saddest but least surprising given the American frontier experience, was the failure to reach an accommodation between the newcomers and the Apaches. Violent conflict would continue longer here than at any other Western mining region. The miners and their families who lived at Santa Rita and worked first for Leonardo Siqueros, James Sweet and Jean Baptist LaCoste, and later for Alexander Brand and James Fresh, would pay for the continued violence, but not as dearly as the Mimbres Apaches. The story of the Confederate and Union conflict in the West, espe-



Steam shovel work at the beginning of open-pit mining, ca. 1915. One of the towers of the triangular fort stands at left. Courtesy Museum of New Mexico, negative No. 43202.

cially its impact on territorial economic life, has yet to be told. The Santa Rita experience, especially the inexcusable, intended property theft by Union officers and Yankee territorial officials, especially General Carleton and Governor Mitchell, reveals a wartime and post-war society of the lowest moral character.

Their push to acquire the mine, under the protection of the military, had the surprising twist of bringing forth the heirs of the Spanish grantee. American land law eventually failed to validate their claim, not because it lacked legitimacy but because the evolution of American mining law at mid-nineteenth century did not fully accommodate the traditions of and legal foundations of the Spanish mining code – the 1850s-60s “possessory” rights of Chihuahua grant holders of a New Mexico mine were ignored, while “possessory” rights of influential American miners from Colorado were expanded under the 1866 and 1872 laws to allow for title transfer. During the years under study, legal opinions might have gone the

other way had it not been for the California, Colorado, and Nevada hard rock mining experience. In the end, unfortunately, the Mexican heirs received a pittance compared to that received by the Coloradans and their allies in the Santa Fe Ring: Senator Stephen B. Elkins, Senator Jerome B. Chaffee, banker David H. Moffat, Jr., and manager Martin “Matt” Hayes. Did the Mexicans sell out so cheap for fear they would never profit at all? Did the Americans sell the Santa Rita for twenty times what they paid for it because of their business savvy – or perhaps skullduggeries?

Joel Parker Whitney’s half-cocked effort showed that he was an inexperienced, impractical, overweening visionary, not a mine manager, and the Santa Rita’s reputation suffered because of it. In this, the Santa Rita was not unique among some of the great mines of the West. The problem of how to reduce the complex ores – once the native copper, rich oxides, and surface sulphides diminished – should have



Santa Rita del Cobre today, one of the Southwestern open-pit copper mines. Courtesy Phelps Dodge Mining Company.

been solved before building a mill, a smelter, new hoists, and a railroad that did not even reach the mine. The twentieth century era of steam shovel, open pit economies of scale and the introduction of

successful gravity concentration, and later flotation, proved the deposit valuable beyond any of the nineteenth century promoters' dreams. But that, as they say, is another story.

Notes

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3. Joseph G. Dawson, III, *Doniphan's Epic March, the 1st Missouri Volunteers in the Mexican War* (Lawrence: University Press of Kansas, 1999), pp. 142-162.
4. Frederick A. Wislizenus, *Memoir of a Tour to Northern Mexico, Connected with Col. Doniphan's Expedition, in 1846 and 1847* (Glorieta, New Mexico: Rio Grande Press, 1969 reprint of 1848 ed.), p. 57; Cobre is Spanish for copper while Santa Rita (1381-1457) "was an Italian nun to whom many supernatural events have been attributed," the patron saint of stray members of a flock, see Robert Julyan, *The Place Names of New Mexico* (Albuquerque: University of New Mexico Press, 1996), p. 326.
5. Wislizenus, *Tour*, p. 58; James Joseph Webb, *Adventures in Santa Fe Trade 1844-1847*, Ralph P. Bieber, ed. (Lincoln: University of Nebraska Press, 1995 reprint 1931 ed.), Wislizenus biography p. 196, footnote 224.
6. K. Jack Bauer, *The Mexican War, 1846-1848* (Lincoln: University of Nebraska Press, 1974), passim; Harvey Lewis Carter, "Dear Old Kit," *The Historical Christopher Carson* (Norman: University of Oklahoma Press, 1968), pp. 42-3, 112-114.
7. Ross Calvin, ed., *Lieutenant Emory Reports: A Reprint of Lieutenant W. H. Emory's Notes of a Military Reconnaissance* (Albuquerque: University of New Mexico, 1951 reprint of 1848 ed.), pp. 97-9.
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 25. Sweeney, *Manas Coloradas*, pp. 360-72; Thrapp, *Victorio*, p. 62, 65-6; S. Hart to Dear Sir, December 17, 1858, December 20, 1858, and Sylvester Mowry to Sir, January 7, 1859, Letters Received, Office of Indian Affairs, New Mexico Superintendency, National Archives Microcopy M-234, microfilm roll 549, New Mexico Archives and Record Center, Santa Fe.
 26. Sweeney, *Mangas Coloradas*, p. 365; L. Siqueros, January 18, 1860, certification, Michael Steck collection, University of New Mexico.
 27. Henry P. Walker, ed., "Colonel Bonneville's Report, the District of New Mexico in 1859" *Arizona and the West* v. 20 #4, (Winter 1980), pp. 343-62; O. W. Williams, *Pioneer Surveyor, Frontier Lawyer, the Personal Narrative of O. W. Williams, 1877-1902* S. D. Myers, ed. (El Paso: Texas Western Press, 1968), p. 111; Deed Book B, Dona Ana County, Las Cruces serves as a directory of visitors during the period since many staked claims; Henkel's July 2, 1859, Book B, p. 353-4, and partnerships and mortgages on July 12, 1859 p. 472, and August 9, 1860, pp. 545-6; Barela, Ramon Ortiz, J. Batiste LaCoste, and Alejandro Daguere filed on the San Jose October 6, 1859, Book B. pp. 366-7; J. J. Bowden, *The Ponce de Leon Land Grant* (El Paso: Texas Western Press), pp. 7-8; L. Boyd Finch, *A Southwestern Land Scam, the 1859 Report of the Mowry City Association* (Tucson, 1990), p. 34 reprints the report with optimistic mine descriptions.
 28. Sylvester Mowry, *Arizona and Sonora: The Geography, History, and Resources of the Silver Region of North America* (1864), p. 24.
 29. Enumeration Sheets for Santa Rita, Hanover, and Dolores, Dona Ana County, New Mexico, 1860, in Eighth Census, Microfilm copies at New Mexico State Library, Santa Fe; April, 1861 payroll sheet, untitled, J. B. LaCoste collection, Center for American History, University of Texas, Austin.
 30. Though no complete description of Santa Rita operations exist, this composite is based on *ibid.*, Elinore M. Barrett, *The Mexican Colonial Copper Industry* (Albuquerque: University of New Mexico Press, 1987), Edward Dyer Peters, *The Principles of Copper Smelting* (New York: Hill Publishing Company, 1907), pp. 147-8, and Fayette Jones, *New Mexico Mines and Minerals* (1905), p. 41, who adds that a reverberatory furnace was used to refine the metal and reproduces a photograph of the 1850s smelter at Hanover, one similar to Santa Rita's.
 31. W. W. Mills, *Forty Years at El Paso, 1858-1898* (El Paso: Carl Hertzog, 1962), pp. 2-3.
 32. R. E. Owen and E. T. Cox, Report on the Mines of New Mexico (Washington, D.C., 1865); Williams, *Personal Narrative*, pp. 109-11; MacWillie and Williams letter, and R. B. Willison, survey notes, Santa Rita grant file 107.
 33. Mills, *El Paso*, p. 53.
 34. Walker, ed., "Bonneville Report," p. 355; Sweeney, *Mangas Colorado*, p. 389.
 35. *San Antonio Ledger*, November 3, 1860; James R. Sweet to Dear Sir, April 8, 30, 1861, J. B. LaCoste collection, American History Center, University of Texas, Austin.
 36. Benjamin Sacks, *Be It Enacted, The Creation of the Territory of Arizona* (Phoenix: Arizona Historical Foundation, 1964), passim; L. Boyd Finch, *Confederate Pathway to the Pacific, Major Sherod Hunter and Arizona Territory*, C. S. A. (Tucson: Arizona Historical Society, 1996), passim; Finch, *Mowry City*, passim; Martin Hardwick Hall, "The

- Mesilla Times*, A Journal of Confederate Arizona," *Arizona and the West* vol 5, no. 4 (Winter 1963), pp. 337-351; stories on Santa Rita or copper shipments are in various issues *Mesilla Times*, 1860-1862.
37. Mariano Varela to D. Juan Bautista Lacoste [LaCoste], February 20, 1861, and Mariano Varela to Ramon Ortiz, March 3, 1861, J. B. LaCoste collection, translated by Rina Ortiz, Mexico City.
 38. James R. Sweet to Dear Sir [LaCoste], March 16, 1861, LaCoste collection.
 39. James R. Sweet to Dear Sir [LaCoste], March 18, 25, April 1, 8, 13, 30, May 16, 21, 26, June 11, 19, 1861, July 1, 3, 1861, LaCoste collection, quote from May 26; H. B. Adams to J. B. Lacoste, July 13, 1861, LaCoste collection; Brig. General Earl Van Dorn, San Antonio, to L. P. Walker, Secretary of War, Richmond, August 10, 1861, *War of the Rebellion* (Washington: G. P. O., 1880-1901) Series 1, vol. 4, p. 97.
 40. *Mining Life* (Silver City), July 16, 1873.
 41. Brand deposition, Santa Rita grant file 107; Brand reminiscence in Silver City *Mining Life* July 16, 1873; Dan L. Thrapp, *Victorio and the Mimbres Apache* (Norman: University of Oklahoma Press, 1974), pp. 75-6; Finch, *Confederate Pathway*, pp. 82-3; Daniel Ellis Conner, *Joseph Reddeford Walker and the Arizona Adventure*, Donald J. Berthrong and Odessa Davenport, eds. (Norman: University of Oklahoma Press, 1956), p. 54; James W. Taylor, *Gold Mines East of the Rocky Mountains*, House Ex. Doc. 92, 39th Congress, 2d Session, 1867, pp. 3-4.
 42. *Mining Life* (Silver City) July 16, 1873; *Silver City Tribune*, September 6, 1873; Finch, *Confederate Pathway*, passim; Calvin P. Horn and William S. Wallace, *Union Army Operations in the Southwest, Final Victory from the Official Records* (Albuquerque: Horn & Wallace, 1961); Allen, "Pinos Altos," p. 304; Thrapp, *Victorio*, pp. 79-81; Brand deposition, Santa Rita grant file 107; Brig. Genl. Joseph R. West to Capt. Benj. C. Cutler, December 26, 1862, and Brig. Genl. Joseph R. West to Major David Ferguson, December 28, 1862, Records U. S. Army Command, Department of Pacific Records, Record Group 98, National Archives and Record Center microfilm copies in Benjamin Sacks collection, Arizona Historical Foundation, Arizona State University Library, Tempe discusses confiscated property.
 43. Sweeney, *Mangas Coloradas*, pp. 412-3, 424-6, 463.
 44. Richard E. Owen and E. T. Cox, *Report on the Mines of New Mexico* (Washington, D. C.: Gideon & Pearson, 1865), pp. 20-1, quote p. 45; Josephine Clifford, "An Officer's Wife in New Mexico," *Overland Monthly* vol IV, no. 2 (1870), pp. 152-160, quote p. 160; the *Santa Fe Weekly Gazette*, November 12, 1864 printed a letter from Owen about Santa Rita.
 45. Aurora Hunt, *Major General James Henry Carleton, 1814-1873, Western Frontier Dragoon* (Glendale, California: Arthur H. Clark, 1958), passim; Darlis A. Miller, *The California Column in New Mexico* (Albuquerque: University of New Mexico Press, 1982), pp. 46-7; *Alta California* (San Francisco), December 24, 1863; *Keleher, Turmoil*, pp. 346, 481; Larry D. Ball, *The United States Marshals of New Mexico and Arizona Territories, 1846-1912* (Albuquerque: University of New Mexico Press, 1978), p. 59; Homer Milford, "Santa Rita Mine Legal History 1865-1883," unpublished ms. in author's possession; Mining Location Record Book 2, pp. 28, 57, 134-9, 172, 190, 203-7, 369, Dona Ana County Court House, Las Cruces records the activities of the Carleton and party claims of August-October, 1866.
 46. Keleher, *Turmoil*, p. 481; Thrapp, *Victorio*, pp. 94-8; John Pratt, secretary Santa Rita Mining Association, application of patent over protest of J. R. Sweet, in Jos. S. Wilson, commissioner, to U. S. Land Office, April 22, 1870, and Jos. S. Wilson, commissioner, to U. S. Land Office, December 22, 1869, Santa Rita grant file 107.
 47. Brand deposition, Santa Rita grant file 107; Mining Location Record Book 2, pp. 364, Dona Ana County Court House, Las Cruces and Grant County Book of Deeds 1, pp. 363-4, Grant County Court House, Silver City — the Dona Ana County location book lists Brand as witness while the Grant County record has him listed as an owner; *Santa Fe Weekly Gazette* January 5, 1867 quotes the San Antonio Herald; Victor Westphall, *Thomas Benton Catron and His Era* (Tucson: University of Arizona, 1973), pp. 27-9.
 48. *Santa Fe Weekly Gazette* December 8, 1866 reprinted the Pinos Altos district miners' code.
 49. Rossiter W. Raymond, *Statistics of Mines and Mining in the States and Territories West of the Rocky Mountains* (Washington, D. C.: Government Printing Office, 1874), p. 337; James W. Taylor, *Mineral Resources East of the Rocky Mountains*, House Ex. Doc. No. 273, 40th Congress, 2d Session, 1868, p. 6; *The Daily New Mexican* (Santa Fe) January 29, 1877 details the use of the same technology nearby.
 50. Raymond, *Mineral Resources*, 1874, p. 338; H. B. Ailman, *Pioneering in Territorial Silver City, H. B. Ailman's Recollections of Silver City and the Southwest, 1871-1892*, Helen J. Lundwall, ed. (Albuquerque: University of New Mexico Press, 1983), pp. 44, 155; Thrapp, *Victorio*, p. 95; *Mining Life* (Silver City), July 19, 1873.
 51. *The New Mexican* (Santa Fe) October 27, 1866, July 6, 1867; Brand deposition, Wilson letter, April 22, 1870, Willison survey notes, and Protest of J. R. Sweet, June 30, 1867, Santa Rita grant file 107; *Santa Fe Weekly Gazette*, June 27, 1867; Miller, *California Column*, p. 47; William A. Bell, *New Tracks in North America* (London: Chapman and Hall, 1870), pp. 258-9 reprints Carleton's visit and descriptions; the tragedies of the governor Mitchell era are evinced in Gary L. Roberts, *Death Comes for the Chief Justice, the Slough-Rynerson Quarrel and Political Violence in New Mexico* (Niwot: University Press of Colorado, 1990) and Calvin Horn, *New Mexico's Troubled Years, the Story of the early Territorial Governors* (Albuquerque: Horn &

- Wallace, 1963), pp. 115-134.
52. MacWillie and Williams letter March 21, 1870, Juan Hern y Mandri testimony 1868, and Willison survey notes, Santa Rita grant file 107; the reference to Magoffin may suggest he had leased the mine but, as stated earlier, never operated it – at any rate, he died September 27, 1868 in San Antonio, see Tyler, *New Handbook of Texas*, v. 3, p. 864.
 53. Joseph S. Wilson opinion, April 22, 1870, Santa Rita grant file 107.
 54. Book of Deeds 1, p. 165, Grant County Court House, Silver City; Brand deposition, Santa Rita grant file 107; Brand and Fresh are enumerated in the 1870 census at Silver City.
 55. MacWillie and Williams letter March 21, 1870, and undated clipping ca. 1873, Santa Rita grant file 107; Mills, *Forty Years*, pp. 145-8; J. Morgan Broadus, *The Legal Heritage of El Paso* (El Paso: Texas Western College Press, 1963), pp. 71, 89-90, 93-97, 103-4, 117-8, 168, 226, 228; Book 1 of Deeds, pp. 86-92, Grant County Court House, Silver City; Raymond, *Mines and Mining*, 1873, p. 338.
 56. Book 1 of Deeds, pp. 125, 68-9, Grant County Court House, Silver City; *The Borderer* (Las Cruces) July 17, 24, August 14, November 30, 1872; Chino has often been translated as Chinese, which is not historically accurate, Homer Milford to author February 21, 2000 — there are no references to Chinese in the area at this early date. It is uncertain when Chinese labor arrived in Grant County, but, after Silver City merchant Henry Lesinsky introduced Chinese labor to his nearby mines at Clifton, Arizona Territory, the editor of the *Arizona Weekly Star* proclaimed July 17, 1879, that “let it be remembered as a matter of Arizona history that the first importation of Chinese cheap slave labor into Arizona was made by one H. Lesinsky.”
 57. Undated clipping ca. 1873 and John S. Watts, Santa Fe, to James K. Proudfit, U. S. Surveyor General, November 18, 1872, Santa Rita grant file 107; biographical material on Watts as well as land grant discussions are in David Remley, *Bell Ranch, Cattle Ranching in the Southwest, 1824-1947* (Albuquerque: University of New Mexico Press, 1993), pp. 33-52.
 58. *The Borderer* (Las Cruces), December 21, 1872 quotes the *Union*, December 28, 1872; John S. Watts petition, November 18, 1872, Santa Rita grant file 107.
 59. *The Denver Times*, November 9, 1899, 4:4; Ovando J. Hollister, *The Mines of Colorado* (Springfield, Mass.: Samuel Bowles & Co., 1867), pp. 149, 357; Bayard Taylor, *Colorado: A Summer Trip* (Niwt: University Press of Colorado, 1989 reprint 1867 ed.), p. 63; Howard Roberts Lamar, *The Far Southwest, 1846-1912, A Territorial History* (New Haven, Conn.: Yale University Press, 1966), pp. 275-7.
 60. The classic study of the Santa Fe ring is Lamar's *The Far Southwest*; on Catron and Elkins see Westphall, *Catron*, pp. 67, 100, passim; Decision of U. S. Surveyor General, April 15, 1873, Santa Rita grant file 107.
 61. John Watts to U. S. Surveyor General James K. Proudfit, November 28, 1872, Santa Rita grant file 107; M. B. Hayes, New York, to Henry M. Atkinson, Surveyor General of New Mexico, December 26, 1882, and Power of Attorney from Donna Josefa Elguea of Victorio, Spain, Don Jose Guerra of Bilbao, Spain and Dolores Elguea of Chihuahua to Francisco Macmanus, April 17, 1872, copy in U. S. Surveyor General Records, Reel 31, file 194 (Santa Rita copper mine), Microfilm in Bureau of Land Management State Office, Santa Fe; Promissory Note from S. B. Elkins, President, First National Bank of Santa Fe, to Martin B. Hayes, Sept 29, 1873, transferred to Francisco Macmanus, October 28, 1873 in collections of Homer Milford, Albuquerque; William M. Pierson, U. S. Vice-Consul, Paso del Norte, Chihuahua, Mexico to William Hunter, 2d Assistant Secretary of State, Washington, D. C., December 6, 1873 printed in *The Santa Rita Native Copper Mines* (Boston: Alfred Mudge & Son, [1883]), pp. 31-33, copy at Huntington Library, San Marino, California.
 62. Ailman, *Silver City*, passim; Thrapp, *Victorio*, pp. 144-9; Raymond, *Mineral Resources*, 1874, pp. 336-9; When incorporated the Denver & Rio Grande included a branch to Santa Rita.
 63. Sully, “Santa Rita,” pp. 139; *Mining Life* (Silver City) February 7, March 23, May 16, 1874, January 23, 1875; *Silver City Herald* September 26, 1875, October 24, 1875, September 30, 1876; “Matt B. Hayes” notes, courtesy Susan Berry, Silver City Museum, Silver City.
 64. *Tribune* (Silver City) September 6, 1873; *Mining Life* (Silver City) November 8, 1873, August 1, August 8, October 31, 1874; *Herald* (Silver City) January 30, October 17, December 12, 1875, August 9, 1876, May 19, February 17, 1877; Maxwell Whiteman, *Copper for America, the Hendricks Family and a National Industry, 1755-1939* (New Brunswick, New Jersey: Rutgers University Press, 1971), pp. 214-5, 292.
 65. *Herald* (Silver City) August 4, 1877.
 66. Mrs. Orsemus Bronson Boyd [Frances Anne Mullen Boyd] *Cavalry Life in Tent and Field* Darlis A. Miller, intro. (Lincoln: University of Nebraska Press, 1982 reprint 1894 ed.), p. 233; Ailman, *Silver City*, p. 111; Mrs. Robert Carr notes courtesy Susan Berry, Silver City Museum, Silver City.
 67. *Silver City Herald* August 4, 1877, December 18, 1880; *The Daily New Mexican* (Santa Fe), February 10, 1877; Ailman, *Silver City*, pp. 47, 56, 111.
 68. *Ibid.*; Hayes letter December 26, 1882, Santa Rita grant file 194.
 69. U. S. Surveyor General to M. B. Hayes, March 3, 1883, U. S. Surveyor General Records, and W. W. Wilshire, Washington, D. C. to H. M. Atkinson, Surveyor General, February 26, 1883, Santa Rita grant file 194.
 70. Steven F. Mehls, “Success on the Mining Frontier: David H. Moffat and Eben Smith -- A Case Study,” *Essays and*

- Monographs in Colorado History* v. 1 (1983), pp.91-106; David F. Myrick, *New Mexico's Railroads, A Historical Survey* (Albuquerque: University of New Mexico Press, 1990), pp. 185-195; Robert L. Spude, "Mineral Frontier in Transition: Copper Mining in Arizona, 1880-1885," *New Mexico Historical Review*, vol 51, no. 1 (1976) 19-34; Mining Deeds Book 7, pp. 250-4, Grant County Court House, Silver City.
71. On October 15, 1880, Victorio and his band were massacred by Mexican troops at Tres Castillas, Chihuahua, see Thrapp, *Victorio*, passim; J. Parker Whitney, *Reminiscences of a Sportsman* (New York: Forest and Stream, 1906), pp. 363-7.
 72. Richard A. Miller, *Fortune Built by Gun, the Joel Parker Whitney Story* (Walnut Grove, California: Mansion Publishing Co., 1969), passim; Joseph E. King, *A Mine to make a Mine, Financing the Colorado Mining Industry, 1859-1902* (College Station: Texas A & M University, 1977), pp. 29-31, 35, 60-1; Undated clippings, obituary, Scrapbook, Box 11, Joel P. and John Parker Whitney Collection, University of Wyoming, hereinafter Whitney collection.
 73. Whitney, *Sportsman*, pp. 382-4; *Bonanza Development Company*, Report of the General Manager, September 1881, p. 15, copy in Western History collections, Denver Public Library; *Bonanza Development Company*, prospectus, 1881, copy in Whitney Collection, University of Wyoming; The operating company worked only half the claims, the Carrasco group being retained by Whitney's Bonanza Development Company, see *The Santa Rita Copper and Iron Company of New Mexico*, prospectus, 1881, copy at Southwest Museum, Los Angeles; Horatio C. Burchard, *Report of the Director of the Mint Upon the Statistics of the Production of the Precious Metals in the United States* (Washington, D. C.: G. P. O., 1882), pp. 351-2; Denver Times November 9, 1899, 4:4; Deed of Conveyance, M. B. Hayes to J. P. Whitney, Santa Rita interest, April 27, 1881, recorded August 18, 1881, Book of Deeds 7, pp. 250-1; Whitney noted "the whole subscription was completed March 4, 1881" on a call for 100,000 shares Bonanza Development Company at \$2.50 per share, Printed call dated February 1880, Boston, scrapbooks, Whitney collection.
 74. Undated clippings, Scrapbook, Box 11, Whitney collection; *New Southwest* (Silver City) November 5, 1881, January 7, 14, 28, March 4, 25, April 8, 15, 24, June 17, October 14, 1882; Burchard, *Director of the Mint Report*, 1881, p. 353, 1882, pp. 351-2, 1883, pp. 582; William G. Ritch, *Aztlán, the History, Resources and Attractions of New Mexico* (Boston: D. Lothrop & Co., 1885), p. 119; *New Mexican Mining News* (Santa Fe), November 21, 1881; on Cornwall see D. B. Barton, *A History of Copper Mining in Cornwall and Devon* (Truro, Cornwall, U. K., 1968).
 75. Ibid.; Myrick, *Railroads of New Mexico*, pp. 191-2; *The New Southwest* (Silver City) August 5, 1882; *Herald* quoted in *Silver City Enterprise* March 1, 1883.
 76. *New Southwest* (Silver City), November 5, 1881, April 8, 24, October 28, 1882; *Southwest Sentinel* (Silver City), September 23, 1883; *Enterprise* (Silver City) March 24, 1883; Rickard, *American Mining*, p. 256; Sully, *Santa Rita*, p. 141; A. C. Spencer and Sidney Paige, *Geology of the Santa Rita Mining Area, New Mexico*, U. S. Geological Survey Bulletin 859 (Washington, D. C.: Government Printing Office, 1935).
 77. *Silver City Southwest Sentinel* April 11, 18, May 2, 9, 1883; Mining & Scientific Press January 24, 1885; undated clippings, Scrapbooks, Box 11, Whitney collection; *The Santa Rita Native Copper Mines* (Boston: Alfred Mudge & Son, [1883]), copy at Huntington Library, San Marino, California.
 78. Spude, "Mineral Frontier," pp. 30-4; Other operations in the area are mentioned in the *Silver City Sentinel* 1883-5; *Engineering & Mining Journal* October 17, 1885, quoting the *Times*; Clark C. Spence, *British Investments and the American Mining Frontier, 1860-1901* (Ithaca, New York: Cornell University Press, 1958), pp.117, passim.
 79. Miller, *Whitney*, pp. 138-145; Whitney, *Sportsman*, pp. 365-9; Angie Debo, *Geronimo, the Man, His Time, His Place* (Norman: University of Oklahoma Press, 1976), passim.
 80. Arthur F. Wendt, "The Copper Ores of the Southwest," *Transactions of the American Institute of Mining Engineers* (New York, 1887), pp. 25-77.
 81. Christopher J. Huggard, "Copper Mining in Grant County, 1900-1945," in Judith Boyce DeMark, *Essays in 20th Century New Mexico History* (Albuquerque: University of New Mexico Press, 1994), pp. 43-61; Christopher J. Huggard, "Environmental and Economic Change in the Twentieth Century West: The History of the Copper Industry in New Mexico," Ph.D Dissertation, University of New Mexico, 1994, pp. 45-8; Scrapbooks, Whitney Collection; Rickard, "Chino Enterprise - I," pp. 758-9; T. A. Rickard, "The Chino Enterprise - II," *Engineering and Mining Journal Press*, November 10, 1923, pp. 803-10; Horace J. Stevens, *The Copper Handbook* v. 5 (Houghton, Michigan, 1905), p.713; A. B. Parsons, *The Porphyry Cop-pers* (New York: American Institute of Mining and Metallurgical Engineers, 1933), pp. 204-225; Ira B. Joralemon, *Copper* (San Francisco: Howell-North, 1973), pp. 201-2.
 82. *Denver Times*, November 9, 1899, 4:4.
 83. Tyler, *New Handbook of Texas*, v. 3, p. 1187, v. 6, p. 172.
 84. Hunt, *Carleton*, pp. 235-6.
 85. Alexander Brand file, Silver City Museum, Silver City, New Mexico.
 86. C. L. Sonnichsen, *Pass of the North, Four Centuries on the Rio Grande* (El Paso: Texas Western Press, 1968), pp. 122-3.