

LIFE IN THE ORO BLANCO MINING CAMPS IN 1900

**Arizona Historical Convention
41st Annual Meeting
Yuma, Arizona**

April 28, 2000

Bob Ring
520-529-8328
ringbob1@aol.com

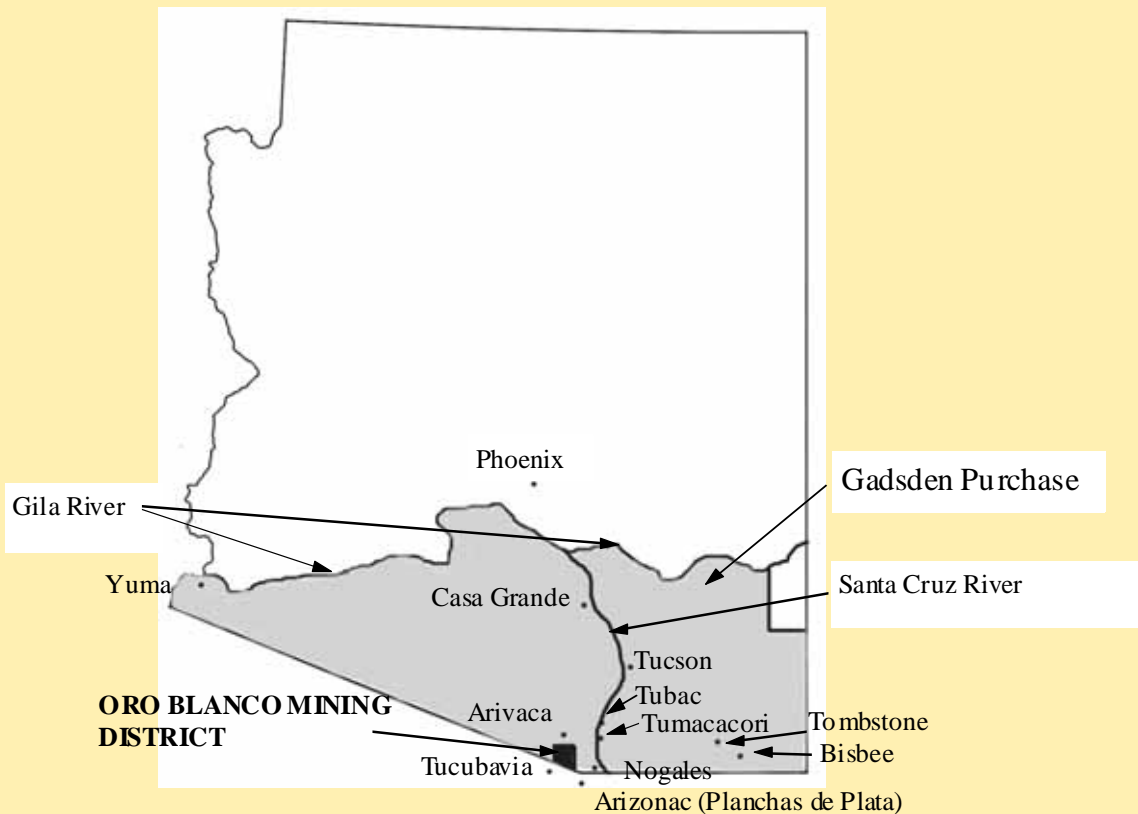
Al Ring
520-529-0910
ringal@comcast.net



LIFE IN THE ORO BLANCO MINING CAMPS IN 1900

In December 1905, the authors' grandparents, Ambrose and Grace Ring, were married in New York City and immediately moved to the south central border country of territorial Arizona. Ambrose Ring, a June 1905 Mining Engineering graduate of Columbia College, started work at the Old Glory gold mine. Ambrose and Grace left a city of over three and a half million people and the most advanced comforts of the day to come to an incredibly rough frontier mining area with a total population of a few hundred. (1) Located in the Oro Blanco Mining District, the Old Glory mine was about 75 miles of dusty dirt roads southwest of Tucson. Ambrose's and Grace's new home was only three miles from today's international border with Mexico, in what is now western Santa Cruz County. This extremely dry Oro Blanco area lies at elevations between 3600 and 4400 feet in the Oro Blanco mountains. The area was named for its characteristic white gold (oro blanco), resulting from significant amounts of silver alloyed with the gold. (2)

This paper briefly reviews the history of the Oro Blanco area, then focuses on life in the mining camps 100 years ago. The Old Glory Mine is highlighted with a combination of historical records and family photos. Changes in the area between 1900 and 2000 are also discussed.



Location of Oro Blanco Mining District in territorial Arizona.

Early History of Oro Blanco

The first inhabitants of the Oro Blanco area were Native Americans, probably the Hohokam, an agricultural people who lived in scattered villages along rivers in the Sonoran Desert of central and southern Arizona for about 1,500 years. Sometime after A.D. 1400, this culture declined and disappeared. The Hohokam were replaced by the Pima and Tohono O'odham, who possibly descended from the Hohokam, and who are still present in Arizona today. Sometime after A.D. 1200, the Apache entered the southwest and spread into northern Mexico by the 1500's. Apaches were hunters, warriors, and raiders, who caused turmoil in southeastern Arizona, including Oro Blanco, until 1886. The Yaqui, political refugees from Sonora, Mexico were also early residents of the Oro Blanco area. For nearly 400 years the Yaqui resisted Spanish and then Mexican conquest, until finally seeking asylum in southern Arizona in 1887-1927. (3)

In the 1500's, Spanish conquistadors were attracted to what became southern Arizona by the search for Cibola, a mythical province containing seven cities of silver and gold. Though the dream of Cibola was never realized, Spanish missionary expansion, from what is now western Mexico, brought the Jesuit Eusebio Kino to the Pima settlement of Tumacacori in 1691. At least one historian thinks that Father Kino entered the present day United States from Tucubavia Mexico through Sycamore Canyon and Bear Valley, in today's Oro Blanco country. (4) Father Kino established a mission at Tumacacori and a mission farm and ranch at Tubac, a few miles north.

In 1736 a big silver strike, Planchas de Plata (Sheets of Silver), was made at Arizonac, just south of the present international boundary, and just west of present day Nogales. This silver strike attracted thousands of Spaniards. Colonists began to settle around Tubac during the 1730's and Spanish prospectors probably entered the Oro Blanco region around 1740. (5)

The next 60 years saw considerable Indian troubles. In 1748, in response to repeated raids, the Spanish made a formal declaration of war against the Apache. In 1751, the Pima, upset over impressed labor conditions, revolted violently against the Spanish, but were soundly defeated in 1752 in a final battle near Arivaca. Meanwhile, continuing Apache raids forced closure of most of the areas mines in 1787, not to resume operations until 1804. (6)

The pace of historic milestones quickened in 1821 when Mexico won her independence from Spain. In 1848, discovery of gold in California brought thousands of potential prospectors through Arizona on the southern transcontinental route (Gila Trail) to California. Many of these people stopped and stayed. Also in 1848, the U.S. war with Mexico ended with the treaty of Guadalupe Hidalgo. With this treaty, the U.S. paid Mexico 15 million dollars for the part of the Arizona Territory north of the Gila River. In 1853, the Gadsden Purchase was completed. The U.S. paid Mexico 10 million dollars and annexed the balance of the Arizona Territory, south of the Gila River, containing the Oro Blanco area. (7)

In the late 1850's, the era of modern mining in Arizona began near Oro Blanco, when adventurer Charles Poston organized the Sonora Exploring and Mining Company, with headquarters in Tubac. The Heintzelman silver mine, at Cerro Colorado, a few miles north of Oro Blanco, was opened in 1857. (8)

The Civil War in 1861-65 drew soldiers away from the area's presidio's. This left the mines unprotected from the Apache, resulting in virtual abandonment of the mining camps. Interest in mining was renewed after the war, with the return of the Army, treaties with the Apache, and higher prices for silver. (9)

By the 1880's, there was significant mining activity in southeastern Arizona. Silver was discovered in Tombstone in 1877. By 1882, Tombstone was the largest city between San Antonio and San Francisco, with a population of 15,000. Exhaustion of the rich silver ore, and seeping of underground water into the mine shafts, caused a decline. By 1901, there were fewer than 1000 people in Tombstone. (10) Also in 1877, copper was discovered in Bisbee. By 1900 Brewery Gulch and most of the hillsides were crowded with buildings that housed 6,000 people. (11) Tucson was founded as a Spanish presidio in 1775 and was Territorial capital from 1867 to 1877. By 1869 the Southern Overland U.S. Mail connected Tucson with the east. In the early 1880's, the Southern Pacific Railroad completed a southern transcontinental route through Tucson that serviced mining operations in southern Arizona. (12) Tucson grew with the booms in Tombstone and Bisbee, reaching a population of over 7500 by 1900. (13)

Oro Blanco Mining District: 1873-1910

Ruins of old mining activity in the Oro Blanco area suggest that mines were first worked in the Spanish and Mexican periods. (14) American mining began in 1873 by Leatherwood, Hopkins, Hewitt, and Marsh of Tucson. That first mine was the Oro Blanco. (15) Other mines were located or rediscovered soon afterwards.

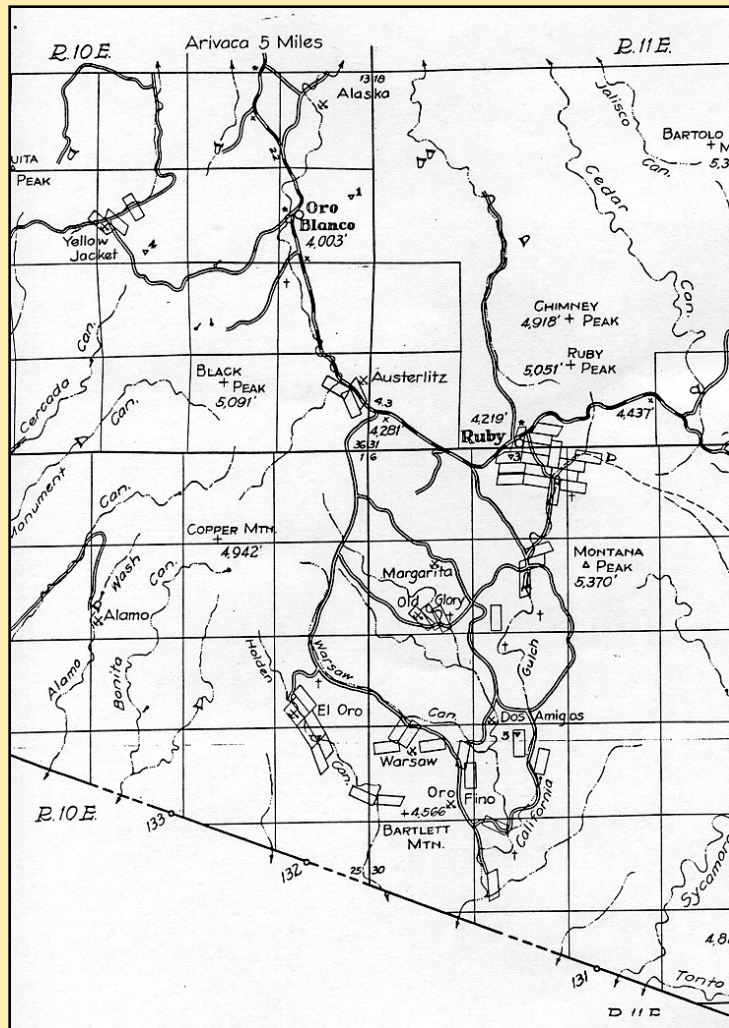
After the completion of the Southern Pacific Railroad into Casa Grande from Yuma and California in 1876, several mills were built at the Oro Blanco mines to process the raw ore. The first mill was the Ostrich Mill, completed in 1880. The Warsaw mill was built in 1882. Such small mills built during the early 1880's could operate only when water was available. In some cases, dams were constructed to trap flood waters in the creeks above the mills. (16)

In an 1880 article in Tucson's *Daily Arizona Citizen*, a writer, sounding like an early real estate salesman, argues for searching out gold in "our own territory," rather than "rushing off to Sonora." (17)

"I have recently returned from a careful visit to Oro Blanco and conversed while there with old miners, experienced prospectors and mineralogists, and it is amazing to learn the amount of good claims that lie open for the inspection of capitalists and companies. In such a district companies can purchase with ease and at reasonable figure, while in a few months, when the "boom" reaches there, all claims will be held at exorbitant prices."

But the higher grade ore was nearly exhausted by the end of 1886 and most of the mines were closed. Only intermittent mining was done until 1893 when the U.S. stopped coining silver, and gold mining was again stimulated. In 1901, William Blake, then Professor of Geology and Mining, and Director of the School of Mines at the University of Arizona in Tucson, wrote of the Oro Blanco district (18):

"In almost every ravine or gulch gold can be found by panning, and even on the hillsides and on the surface generally, especially where the soil is reddened by decomposed pyrite, gold can be obtained by dry washing. The returns are small, but the miners manage to get their living, especially when they can get water. Not only gold, but silver, lead, copper and iron ores are found in different portions. Gold is, however, the most generally diffused metal . . ."



Principal mines of the Oro Blanco Mining District.

In 1893, several of the old mines reopened and new mills were erected. The most successful of the mines were the Austerlitz, Montana (later to be known as Ruby), Old Glory, and the Yellow Jacket. Within a decade these new booms had lapsed. Activity revived again in 1903 when eastern companies organized to operate the mines and built new mills. From 1903 to 1910, the Oro Blanco mines were operated intermittently due to water shortages, a most serious disadvantage of the district. (19)

Between 1873-1910, over 500 different names for mines, mining companies, or mining groups were documented in the Oro Blanco Mining District. Many mines were abandoned and then reopened later, some several times, and often with a different name. Sometimes a particular mine would go bankrupt and reopen later under a different name. Also, some mines were glowingly promoted in the press, beyond actual results achieved. This often resulted in a quick sale and subsequent name change. Some of the more colorful names for mines of the period include Alamo, Albatross, Bee Hive, Black Mask, Bye and Bye, Cow Puncher, Don Juan, Lucky Shot, Merry Widow, Monster, Purple Cow, Rough and Ready, Sidewinder, and Tom Sawyer. Two small towns, Oro Blanco and Ruby, emerged to support mining operations in the ten mile square Oro Blanco Mining District. (20)

Total gold production from the relatively low-grade gold ores in the Oro Blanco Mining District (through 1949) is estimated to be 126,500 oz. (21) This represents only about one percent of the total gold production in the state of Arizona. (22)

Old Glory Mine

The Old Glory is an example of a mine with several previous names. The mine that would eventually be named Old Glory was first recorded in the 1880's, and named the Esperanza. It was abandoned and subsequently called the Diana. The Diana mine was also abandoned, then reopened and called the La Francisca. Finally on April 11, 1894, the Old Glory Mining and Milling Company was recorded. (23)



Arizona Historical
Society, Buehman
Collection #B89313,
#B89317, #B89321

Old Glory Mine: entrance -- mill -- dam/reservoir ----around 1900.

The Old Glory was located at an altitude of 4300 feet on “one full mine claim” with dimensions of 1500 feet by 600 feet, the maximum a person could claim according the Mining law of 1872. The claim included one mill site and one water reservoir site. (24)

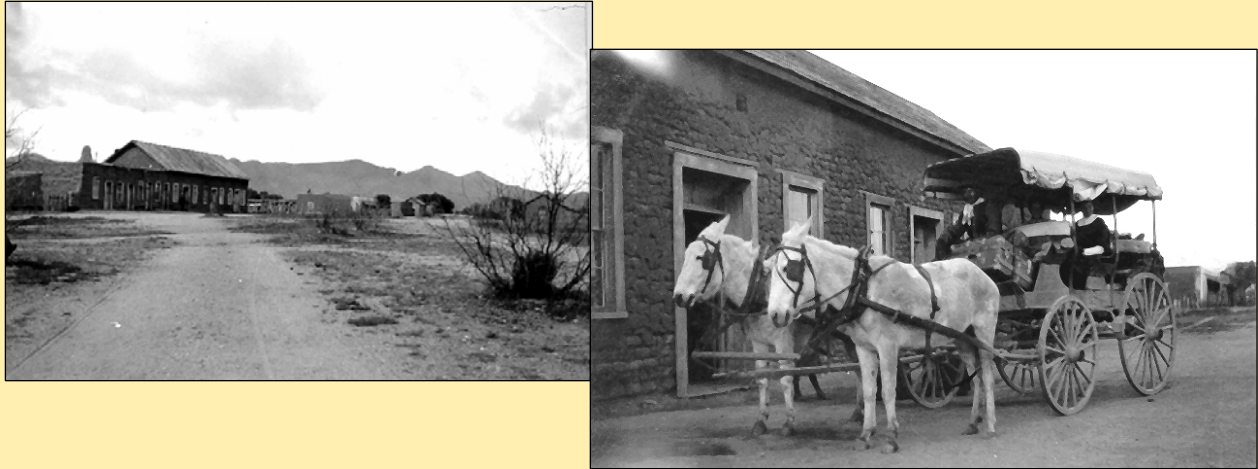
A 1900 report stated that there “are newly built houses, one large adobe general office building, one frame building for mill men, one frame building for assay, retorting and melting, with full equipment. Large frame store and boarding house. Two blacksmith shops, four cottages.” There was a thirty-stamp mill in a very substantial 40 foot by 80 foot frame building. Mining developments included several open cuts and about 500 feet of underground workings, mostly tunnels. There was a double-track steel rail inclined tram, 850 feet in length, leading downhill from the mining area to the ore bins and automatic ore feeders in the top of the mill. The tram was operated by gravity and controlled by an automatic pulley. The power house was a stone structure. Machinery included two rock crushers. Wood was brought in on burros to power a steam engine which ran the crushers. (25)

Blocking the gulch above the mill, was a dam built of stone and hydraulic cement. The dam was 20 feet thick, 38 feet high, and 125 feet long, forming a storage reservoir 1500 feet long, with a capacity of 12,000,000 gallons of water. The local water shed and drainage were such that one rain of a few hours duration would fill the reservoir. The water flowed through steel pipes down to the mill. (26)

At peak activity, the Old Glory treated 35-40 tons or ore daily, the largest operation in the district. (27)

Life in the Mining Camps

Travel to the Oro Blanco mining camps at the turn of the 20th century was both challenging and difficult. Tucson was a stop on the transcontinental railroad. But it wasn't until 1910 that a north-south rail line was completed from Tucson to Nogales, bringing the railroad within 35 miles of Old Glory at Arivaca Junction. (28)



Ambrose Ring's pictures of Arivaca stage depot and stagecoach on 1905 trip to Old Glory mine.

So in the early 1900's, to get from Tucson to the mines of Oro Blanco, you had to travel by stagecoach over 75 miles of rough dirt roads. Three days a week a stagecoach left Tucson for the Old Glory mine. The stage departed at 6:00 a.m., traveled south to Arivaca Junction, and then west to reach Arivaca by 2:00 p.m. The Old Glory mine was two additional hours to the south. Seven changes of horses or mules were required to keep up a gallop or fast trot pace. (29)

When Ambrose and Grace Ring, each only 22 years old, arrived by stagecoach at the Old Glory mine in December 1905, they found a rough mining camp with a population of only 50 people. (30) Mail was delivered to Old Glory three times a week on the same stagecoach that carried people. A post office had been active at Old Glory since 1895. (31) By 1899, there were schools at the Yellow Jacket and Warsaw mining camps, plus a school in the town of Oro Blanco. (32)

Ambrose and Grace lived in a rustic wooden bungalow that Ambrose called the "shack," on the side of a hill at the Warsaw camp, about 3/4 of a mile from the Old Glory mine. There was a general merchandise store, just below their bungalow, across a dirt road. Looking directly off the porch of their bungalow to the northeast, they looked over the store and across Warsaw Canyon, with Montana Peak dominating the horizon.



Ambrose and Grace Ring's "shack," high on the hill at Warsaw Camp, 1906.

Housing for engineers and miners ranged from tents, to wooden bungalows, to a few adobe houses. In 1903, William P. Blake described the Oro Blanco house of well known miner, freighter and Indian fighter, John (Yank) Bartlett, "His is a fine adobe house and offers terraces well designed and furnished with somewhat costly furniture." (33)

Roads in the mining area were reasonably good. The stagecoach route from Tucson had been used since the 1880's. By 1894 there was a fine wagon road from Nogales to Old Glory. (34) For shorter, local trips, for example between mines, burros were often used.

Stores were crucial to the lives of the mining population. Everything from food, to general merchandise, to mining equipment was sold. In addition to the store at Warsaw, there were stores at Old Glory and Oro Blanco, and a meat market at Montana Camp. The Jenkins store, at the road fork between Montana Camp and Old Glory, sold hay, grain, and good red liquor, "refreshment for both man and beast." (35)

From the 1880's to the 1920's, many mining camp stores used trade tokens instead of cash. These tokens, only good for store goods, allowed commerce without the need of a large amount of cash to be on hand. This decreased the chance of robbery, a real concern in that border area in those days. A dozen camps used tokens. Others used cardboard tickets, coupon booklets, or paper scrip. (36)



Grace Ring at Warsaw store, 1906, plus typical trade tokens of the day.

The mining camps were a true melting pot of humanity. Anglos, who ran the mines were relatively few in number. Most of the underground mining was done by Mexicans. This was in stark contrast to other mining areas in Arizona, where most of the mining was done by Welshmen or Cornishmen, who would have nothing to do with Mexicans. (37) A few Chinese worked as cooks or housekeepers and a group of Japanese grew vegetables to sell to the mining camps.

And in those days before all Indians were confined to reservations, there were plenty of Yaqui and Papago (later Tohono O'odham). William Blake's diary mentions a Yaqui who made fine saddles and bridles. (38) The last Apache raid in the area occurred in 1886. Geronimo's band attacked Yank Bartlett's ranch in Bear Valley, a few miles east of Old Glory. Bartlett survived the Indian attack, but was killed in a wagon accident near Oro Blanco in 1905. (39)

There is historical evidence of active social life in the mining camps. A newspaper described an 1891 Christmas party at Oro Blanco, with 100 people attending from Arivaca and the nearby mining camps. The party included supper and dancing, and lasted all night. (40) Arizona Historical Society photographs document well-attended picnics held in the 1890's, with people from Arivaca and the Oro Blanco district.

Ambrose and Grace left the Oro Blanco area in April of 1906. They moved to Butte, Montana, where Ambrose began another of many jobs he would hold in the western mining industry during the next 43 years. In 1949, Ambrose retired as the Manager, Southwestern Division of Mining, for ASARCO in Tucson.



Grace Ring "Looking into Mexico," Ambrose Ring in a reflective moment, 1906.

The Last 100 Years

In 1908 the Coronado National Forest, including most of the Oro Blanco Mining District, was established by proclamation by president Theodore Roosevelt. The area had limited timber resources; the primary objective was to protect the watershed and provide range and land management. (41)

Arizona became the 48th U.S. state in 1912, after many years of debate that started with the first Constitutional Convention in 1891. Increasing copper mining, irrigated farming, and ranching prospects appear to have been persuasive factors. (42)

Between 1916-1921, the U.S. Army maintained a presence in the Arizona border country with a camp in Arivaca. Initially there to protect the area from Pancho Villa during the Mexican Revolution, the Army remained to patrol the Mexican border during the first World War. On January 26-27, 1917 a number of cowboys from Arivaca and a National Guard Cavalry unit from Utah were involved in a skirmish with Mexican soldiers in Warsaw gulch, five miles south of Ruby, right on the international border. This so called "Battle of Ruby" was started when the Mexicans, driving cattle south across the border fired on the Americans. After a couple of days, the Mexicans, retreated; there were no casualties reported on either side. (43) On January 9, 1918, a 10th Cavalry unit was attacked by a band of Yaqui's. The Yaqui's had mistaken the black soldiers of the 10th Cavalry for Mexican soldiers, with whom the Yaqui's had been feuding for years. The U.S. soldiers quickly prevailed with no loss of life. This was "the last Indian battle in Arizona." (44)

Because of its proximity to the international border and considerable distance from protection by the law, the Oro Blanco area was ripe for mayhem, robberies, and murder. In 1914, Jasper Scrivner was shot and killed by bandits at the Oro Blanco mine store. (45) The Frasier brothers, Alexander and Jack, were shot and killed in a robbery at the Ruby store in 1920. Later, in 1921, Mr. and Mrs. Frank Pearson were killed in a robbery at this same Ruby store. (46) The "take" from these crimes was only a few hundred dollars each, but each crime was reported and romanticized endlessly in newspapers and periodicals.

The mines of the Oro Blanco Mining District had always been on-again, off- again propositions. The Old Glory mine was worked sporadically until the 1930's. (47) All that remains today are the ruins of a stone mill, built in the 1930's. Similar fates befell the other mines of the district. All are now abandoned. The entire Oro Blanco area has been cleared of mining buildings and equipment. Mine shafts were sealed. This was done for "safety" reasons and to discourage settlement by transients.

The Montana Camp, renamed Ruby in 1912, after the postmaster's wife, has lasted the longest of the Oro Blanco mining towns. With a peak population of 2000 people, Ruby turned to lead and zinc mining in the early 1900's, and was worked until 1940. Today, Ruby is owned privately and is fenced and guarded. About a dozen buildings remain. This well preserved ghost town can be seen by the public only on scheduled tours. (48)

Today the population of the Oro Blanco area is sparse. Cattle ranching has persisted from the Spanish days. There is no mining. The lush, tall grass lands, that were "mined" for hay for the mining animals, have been replaced by Mesquite trees. Most of the current residents of the former Oro Blanco Mining District live in shacks or trailers, having chosen a life away from civilization.

Unfortunately, this now open country, so near the international border with Mexico, has become a primary U.S. entry corridor for illegal aliens and drugs. The roads that served the miners so well, are still unpaved and not well maintained. The alien and drug problems, along with the road conditions, have discouraged visitors to the area.

On a brighter note, the U.S. Forest Service is now devoting new energy to understanding and preserving the history of Oro Blanco mining. There are plans to better maintain the main roads into the area. However, little remains today to remind us of the tremendously difficult mining efforts and personal sacrifices of the miners and their families, during Arizona's territorial years in Oro Blanco.

Notes

1. *Abstract of Twelfth Census of the United States, 1900* (New York: Arno Press, 1976), p.101.
2. Edgar B. Heymun, "Oro Blanco Mining District, Arizona," *International California Mining Journal* (May, 1998).
3. Tom Bahti and Mark Bahti, *Southwestern Indian Tribes, rev. ed.* (Las Vegas, Nevada: ICC Publications, 1997), pp. 3, 50, 62.
4. Herbert Eugene Bolton, *Kino's Historical Memoir of Primeria Alta*, Translation of A Contemporary Account of the Beginnings of California, Sonora, and Arizona by Father Eusebio Francisco Kino, S.J., 1683-1711 (Berkeley and Los Angeles: University of California Press, 1948), p. 119.
5. John P. Wilson, *Islands in the Desert - A History of the Uplands of Southeastern Arizona* (Albuquerque, NM: University of New Mexico Press, 1995), p. 42.
6. Wilson, *Islands in the Desert*, pp. xcix, 47, 48, 59.
7. Odi B. Faulk, *Arizona, A Short History* (Norman, Oklahoma: University of Oklahoma Press, 1970), pp. 47, 65, 74-77.
8. Wilson, *Islands in the Desert*, p. 138.
9. Faulk, *Arizona, A Short History*, pp. 98-100.
10. Faulk, *Arizona, A Short History*, pp. 147-149.
11. Carlos A. Schwantes, ed., *Bisbee - Urban Outpost on the Frontier* (Tucson, Arizona: University of Arizona Press, 1992), p. 57.
12. Howard R. Lamar, ed., *The New Encyclopedia of the American West* (New Haven, Connecticut: Yale University Press, 1998), p. 1129.
13. *Abstract of Twelfth Census of the United States, 1900*, p. 136.
14. Wilson, *Islands in the Desert*, p. 140.
15. James Brand Tenney, *History of Mining in Arizona*, Special Collections Division of University of Arizona Library (Tucson: 1927-1929), p. 321.
16. Tenney, *History of Mining in Arizona*, pp. 321, 322.
17. *Daily Arizona Citizen*, "Our Own Mines," (Tucson, October 11, 1880).
18. William P. Blake, *Sketch of the Mineral Wealth of the Region Adjacent to the Santa Cruz Valley, Arizona* (Tucson, University of Arizona, 1901), p. 14.
19. Tenney, *History of Mining in Arizona*, pp. 322, 323.
20. Stanton B. Keith, "Index of Mining Properties in Santa Cruz County, Arizona," *The Arizona Bureau of Mines Bulletin 191* (Tucson, University of Arizona, 1975), pp. 61-71.
21. Keith, "Index of Mining Properties in Santa Cruz County, Arizona," p. 17.
22. Maureen G. Johnson, *Placer Gold Deposits of Arizona*, Geological Survey Bulletin 1355 (Reprinted by Gem Guides Book Company, 1987), p. 88.
23. Location Notices, Mining Records, Pima County Records Office.
24. Old Glory File, 1900, Arizona Geological Survey.
25. Old Glory File, 1900.
26. Old Glory File, 1900.
27. Blake, *Sketch of the Mineral Wealth of the Region Adjacent to the Santa Cruz Valley, Arizona*.
28. David F. Myrick, *Railroads of Arizona, Vol. 1, The Southern Roads* (San Diego, CA: Howell-North Books, 1975), p. 318.
29. Phil M. Clarke, Account of His Moving to Arivaca Area in 1906, Arizona Historical Society Biography File
30. *Arizona State Business Directory, 1905-1906* (Denver, Co: The Gazetteer Publishing Co., 1905), p. 300.
31. Alan H. Patera and John S. Gallagher, *Arizona Post Offices* (Lake Grove, OR: 1988), p. 188.

32. Fred Noon, Arivaca Yesteryears, *The Connection* (Arivaca, September, 1986).
33. William P. Blake Diary, V. 278, #129, August 20, 1903 to September 9, 1903, Arizona Historical Society, MS0078.
34. Old Glory File, 1900.
35. *Oasis* (Nogales, March 16, 1895).
36. J. Michael Canty, Michael N. Greeley, ed., *History of Mining in Arizona, Vol. II*, (Tucson, Arizona: Mining Club of the Southwest Foundation, 1991), pp. 141-162.
37. Alden Hayes, *A Portal to Paradise* (Tucson, Arizona: The University of Arizona Press, 1999), p. 245.
38. Blake, Diary.
39. *Arizona Daily Star*, (Tucson, May 17, 1905).
40. *Weekly Arizona Enterprise*, (Florence, January 3, 1891).
41. Wilson, *Islands in the Desert*, pp. 203, 218.
42. Faulk, *Arizona, A Short History*, pp. 188, 189, 197-202.
43. Wilson, *Islands in the Desert*, pp. 230, 231.
44. "The Military in Arivaca: The Tenth Calvary," Arivaca Yesteryears, *The Connection* (Arivaca, March, 1998), pp. 1, 2.
45. Mary Noon Kasulaitis, Arivaca Yesterdays, *The Connection* (Arivaca, October, 1999), pp. 2, 3.
46. Rosco G. Wilson, "Arizona Days and Ways Magazine," *The Arizona Republic*, (Phoenix, March 25, 1956).
47. Mary Noon Kasulaitis, "Old Glory Mine," Arivaca Yesteryears, *The Connection* (Arivaca, September, 1997), pp. 1, 2.
48. W. J. Way, *Ghosts and Ghost Towns* (Tucson, Arizona: Livingston Press, 1966), pp. 34, 35.

Acknowledgments

The authors wish to thank a few people, who by their enthusiastic support, helped make this paper possible and a joy to prepare:

Mary Bingham, head of the Tubac Historical Society library. We couldn't have found a more responsive and enthusiastic supporter!

Bruce Dinges, Editor-in-Chief of *The Journal of Arizona History*. Bruce's early encouragement to first-time historical paper authors got the ball rolling.

Mary Farrell, archaeologist for the Coronado National Forest. Mary and Craig Wallace literally opened their files to us and let us camp out for days in their offices doing research.

Mary Noon Kasulaitis, writer for the "Arivaca Yesterdays" section of Arivaca's *The Connection*. Mary's willingness to share her resources and to point us in the right direction is appreciated.

Robert Lenon, historian and map maker. We thank Mr. Lenon for his extraordinary map of the Oro Blanco Mining District.

Lloyd Sebring, member of the Hazardous Abandoned Mine Finders. Lloyd shared his knowledge and remarkable memory of his group's research and cataloging of the old mines and the local environment.

Mark South, a ranger with the Coronado National Forest - Nogales. Mark spent an entire day with us, bouncing along the dirt roads of the Oro Blanco Mining District, showing us all the old mines and sharing his knowledge of the area.