

DISCOVERY AND PLACER MINING

Independence Valley

Probably the first Europeans to enter Independence Valley, the later site of the Tuscarora district, were partisans of the Hudson's Bay Company under the leadership of Peter Skene Ogden in late December, 1828. To them, the area was simply another of the intermountain basins containing potential harvests of beaver pelves. They had left Fort Nez Percés on September 22, 1828, crossed the divide into the Great Basin some 50 miles west of the Owyhee river, found the Humboldt drainage pattern and followed the natural road through Independence valley on their way to winter quarters northeast of Great Salt Lake.¹

It was the commander of a small cavalry patrol who next entered the region, realized the natural advantages of the basin and made a formal report of its potential to his superiors. This subaltern of Nevada Volunteer Infantry was William G. Seamands, who was so impressed with northeastern Nevada that he remained in the area following the Civil War and became one of the best known prospectors and elected officials. Later, in 1870, he discussed his trip into Independence valley with the editor of the *Elko Independent* and was the subject of the following article:

"On the 4th day of July 1865, W.G. Seamands, who was then in the Government service, entered this valley while in search of a gang of marauding Indians, who had committed serious depredations on the ranchers of the lower Humboldt. The unexpected beauty of the scenery that presented itself to his view, the rich soil, free from alkali, the numerous streams that meander through the bottom lands in all directions, filled with myriads of speckled trout, and the great amount of wild game that roamed in peace and quiet over the rich plateaux (sic) of grass land, together with its being the day of our national celebration, induced him to christen it Independence Valley, which name it now bears..."²

The Eden-like qualities of the valley, possibly exaggerated because of the rather barren nature of much of Nevada, were frequently praised by letters from later residents and travelers. Unfortunately, within a few years after the silver boom, the need for meat and fuel had eliminated the game herds and denuded the valley and nearby hills. Wintering in the valley was not without problems, temperatures would frequently sink below zero and stay there for inordinate amounts of time; the clear, cold weather moderated only by snowfalls that isolated the mining camp from the railroad.

It should be emphasized that the valley is not a part of the Great Basin. The creeks that rise in the surrounding mountains form the south fork of the Owyhee river, a tributary of the Snake and Columbia drainage patterns.

Between 1865, when Lt. Seamands' troop crossed Independence valley in pursuit of hostiles, and 1867 when the initial placer discovery was made, little activity was noted. The portion of Nevada north of the Humboldt river in those years was largely controlled by Indians, which precluded travel except in large, well-armed companies. There is a documented story that claims an earlier discovery of the Independence valley mineral deposits. According to this source, which appeared in the local press only once, a group of miners from Silver City, Idaho, prospected the Goose Creek area in 1864 and discovered both gold and silver. After setting up camp, they worked for several weeks without incident. Finally, the Indians (undisclosed tribe) attacked the camp and besieged the party. A messenger was sent through the lines and brought back a rescue party from Silver City; whereupon the deposits were abandoned and never reopened.³ Since the term "Goose Creek" was often used for Independence valley, it is probable that the reference is to the Tuscarora district.

The Placer Discovery of 1867

On July 19, 1867, the *Reese River Reveille* mentioned in passing that "Prospectors

¹ Gloria Griffen Cline, *Exploring the Great Basin* (Norman: University of Oklahoma Press, 1963) pp. 113-119. It is probable that trappers frequently visited the valley after 1828 in search of beaver.

² *Elko Independent*, May 11, 1870, p. 2. The quoted citation seems to be the only first person account of the naming of Independence valley.

³ *Ibid.*, March 12, 1870, p. 3.

from the headwaters of Goose Creek report themselves unsuccessful in discovering gold in either placers or quartz ledges."⁴ Thus, the first notice of the Tuscarora deposits is a disavowal of their existence. From the later documentation, it would appear that the members of the party did not reveal their discoveries until they had been able to purchase sufficient supplies for a return trip, since the announcement of a new strike always emptied the merchant's stocks and raised prices. A week later, the following notice appeared:

"The "Goose Creek Rangers" have returned. Although the party left Austin for Goose Creek, they did not get within one hundred miles of its waters. Before they had fairly prospected their discoveries, they were obliged to return hither for provisions, but they believe they have found the "richest thing" or the "biggest bilk" in the country. Gold was discovered some five day's journey from this city, sixty or 70 miles northeast of Gravelly Ford, on the Humboldt river, in a gulch which they named McCann gulch, in which there is a stream running fifteen hundred inches of water, emptying apparently into the Owyhee. They also discovered quartz ledges in the vicinity, organized the Tuscarora District, and adopted regulations, similar to those of the Reese River districts."⁵

This later reference to the discovery of the district partially explains need for provisions that caused the party to return soon after the placer deposits had been located. It does not reveal what led the group to the relatively unexplored region of the south fork of the Owyhee. Twenty-one years later, an interview with one of the original locators described the process that led to the discovery.

"In 1867 Tuscarora was discovered as a placer mining camp by Stephen and John Beard, who made up a party consisting of eight or nine persons, for the purpose of examining the mineral outlook in northeastern Nevada, then a portion of Lander county. These gentlemen were induced to make this trip of explorations from information derived from several Indians, who camped at or near where Battle Mountain is now, but often visited Austin. The party started from Austin and headed for the Humboldt Valley, arriving there about the first of July, having been attracted there by the report of a rich copper mine. They were met there by Captain Jim Johnson, an Indian, who told them he could show them better mines, pointing towards Tuscarora; but as they were unable to cross the Humboldt river at that point in consequence of the whole valley being submerged in water, they continued their march up the river to Gravelly Ford, where they managed to effect a crossing, after being exposed to a great deal of danger, and continuing their course northward for Tuscarora, arrived at what is now known as Old Tuscarora on the 11th day of July, 1867. Upon examination of the soil in several gulches, gold was discovered to exist and a number of locations were made. In the meanwhile the Beard brothers proceeded to locate a water right and build a water ditch from McCann Creek, some three miles to the diggings, which is south of Tuscarora of today..."⁶

It is certain that the placer discovery came through information supplied either to Jim Heath, a trader along the Humboldt, or Hamilton McCan who first panned "color" from the creek later given his name. The information came from local Indians, probably the Captain Jim Johnson mentioned in the foregoing Beard letter.⁷

The events that followed the initial trip by the Beards and their party in early July, 1867 were described vividly by J. Ross Browne:

"...The party returning to Austin with specimens reported their discoveries, and as is usual upon such occasions an excitement was created, and 100 or more men, well armed for defense against the Indians and prepared for prospecting, immediately proceeded to the new mining region. A large area of country has been explored, and mines found in various localities...The creek does not furnish water in sufficient quantities for extensive and

⁴ *Reese River Reveille*, July 19, 1867, unpaginated. This reference was found in the *Mining and Scientific Press*, July 27, 1867, p. 55. It was cited as information received from an exchange with the *Reveille*, but failed to provide the page number of the reference.

⁵ *Mining and Scientific Press*, August 3, 1867, p. 71. This quote was taken from the *Reese River Reveille* of July 25, 1867, no page number given.

⁶ *Tuscarora Times-Review*, February 20, 1888, p. 2. The *Times-Review* took this quotation from the *Reno Gazette*, which printed a letter from one of the Beard brothers, who still resided in Tuscarora in 1888.

⁷ One or both of the Beard brothers were members of the initial party. Angel, Myron (ed.) *Reproduction of Thompson and West's "History of Nevada,"* 1881. Berkeley, California: Howell-North, 1958, p. 395., shows that both men participated. Inconsistently, Hamilton McCan is shown as the first settler on p. 400. Stephen Beard's obituary (*Tuscarora Times-Review*, February 6, 1900, p. 3.) shows that Stephen accompanied the party and John joined him later.

None of the secondary sources cites any means of discovery other than information from the Indians. Patterson, Edna B., Ulph, Louise A., and Goodwin, Victor, *Nevada's Northeast Frontier*. Sparks, Nevada: Western Printing and Publishing Company, 1969., p. 655 says that an unnamed Indian told William Heath of a gold placer north of the Humboldt. The discovery date is shown as either July 4th or 6th. Beard's (Stephen) interview of June, 1899 with Margaret Parsons shows the 6th. Angel, *Reproduction of Thompson and West's...*, p. 400 states that the locators were directed by Indians.

Although most references to Hamilton McCan use the word "McCann" the name correctly possessed a single "n." See: *Daily Elko Independent*, December 11, 1879, p. 3.

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rapid washing, and therefore unless very rich deposits are found, it is not probable any large fortunes will be realized. It is estimated, however, from the prospects obtained, that from \$10 to \$20 a day may be made per man, for a score or more of men. Should specimens of gold-bearing quartz found be any criterion of the value of the veins at great depths, they are rich indeed..."⁸

The Beard brothers, John and Stephen, had come to California from Ohio in the 1850's. In 1859 they made the rush to Washoe and in 1865 were in Austin. They prospected in central Nevada during that year and in 1866 were led to the Newark mine by an Indian. This property was sold for \$30,000 and the brothers remained in Austin until 1867, when they became involved in the development of the Tuscarora district. Their home, constructed of adobe brick, was the first permanent structure and was located about three miles southwest of the present community. A low hill immediately above the placers was named Beard mountain in their honor.⁹

The name, Tuscarora, was selected at the organization meeting held soon after the placers were located:

"Tuscarora received its name on the 10th of July, 1867, a short time after the discovery on McCann creek. S.M. Beard Hamilton McCann, William Heath, C.M. Benson, Jacob Maderia, Charles Gardner, A.M. Berry and John Hovendon, who were camped on the creek about a quarter of a mile above the 'Old Adobes,' (later the Beard's home) held a meeting for the purpose of organizing a district. When it came to giving it a name, Charley Benson suggested that it be called after the United States gunboat Tuscarora. The suggestion met with unanimous approval, and the name was adopted. The little town that soon sprung up on the creek now known as 'Old Tuscarora,' naturally took the name of the district, and when the present town was built it usurped the title, as it corralled the Postoffice, business and most of the population of the old settlement..."¹⁰

Both placer gold and mineralized veins were evidently discovered within a short period, the veins probably during the second trip to the area in late July, 1867. By the middle of August, ore had been brought into Austin from the Beard ledge. It had been collected from the surface where choice specimens contained gold visible to the eye.¹¹

After spending a month at the diggings, prospectors began to filter back to Austin with the results of their work. The first description of conditions at the new camp well describes the primitive nature of the district and plans for future improvement.

"T.S. Brown arrived in town yesterday from McCann gulch with three to four ounces of rather coarse gold, which we saw this morning. The gold was dug from the hillside below the Beard ledge. The dirt was carried about one hundred yards to the gulch, and washed in three lengths of sluice box, by which means two men obtained three and a half ounces of gold in two days. There was but a slight amount of water, with little fall, and they were obliged to shovel away the tailings at short intervals. They washed some of the tailings in a cradle for two hours and obtained \$6.25 in gold...We are informed that water may be brought from a large stream, called Independence river, by a few miles of ditch."¹²

Although the Beards were at least discussing the possibility of digging a ditch to carry water to the placers in 1867, the construction was not initiated until mid-summer or later in 1868.

"J.W. Beard, who has just arrived from Tuscarora district, gives the following: Some prospecting was going on in the district, and new paying ground had been discovered; but at present the miners are not washing for lack of water. The Beard brothers have the fullest confidence that a number of gulches and ravines in the district will pay \$5 to \$10, and even \$20 to the hand; and they are engaged in the enterprise of bringing the water from McCann gulch to the principal gulches where gold occurs..."¹³

By the end of October, 1868, the ditch had been dug by three men and carried water from McCann creek to Gardiner gulch, the best paying area, a distance of about a mile

⁸ J. Ross Browne, *Mineral Resources of the States and Territories West of the Rocky Mountains for 1867* (Washington: Government Printing Office, 1868), pp. 429-430.

⁹ *Tuscarora Times-Review*, February 6, 1900, p. 3. Patterson, *Nevada's Northeast Frontier*, p. 654.

¹⁰ *Ibid.*, September 21, 1883, p. 3. There was a central Nevada mining district that had already been named Tuscarora. Evidently there was no anticipated difficulty in the duplication among the founders of the camp.

The reference to a distinction in later years between "Old" and "New" Tuscarora came from a shift in the mining area. As shown, the placer district was along McCann creek. In the early 1870's, silver was found northeast of "Old" Tuscarora at the site of the present community. As silver assumed importance, the placer area was abandoned by the majority of the miners.

The Tuscarora portion of the Iroquois Nation sided with the colonies during the Revolutionary war. See: Francis S. Philbrick, *The Rise of the West* (New York: Harper & Row, Publishers, 1965), p. 56.

¹¹ *Mining and Scientific Press*, August 31, 1867, p. 135, quoting the *Reese River Reveille*, August 19, 1867.

¹² *Ibid.*, September 7, 1867, p. 151, quoting the *Reese River Reveille*, August 30, 1867. Dust was a mixture of gold and silver worth...

and a half.¹⁴ Thereafter, the Beards would act as watermasters for the placer mining activities until the district ceased placering after 1900. The business was seasonal, primarily during the spring months when runoff from the melting snows of higher elevations fed the creeks. Depending on the year, water would fail at any time from July to October. Placering had to be conducted during those few months when conditions were favorable. The winter months could not be utilized as the low temperatures prevented water from assuming other than a solid state. Generally, placer miners would begin to stack large dumps of placer gravel near the ditches in the early spring, then wait for the creek to thaw and the flows begin. They would work several shifts a day as long as water lasted and then shut down until the following February or March.¹⁵

Very little more than surface prospecting had been done on the gold veins of the district in 1867. In 1868, the Beards took the lead in bringing milling facilities to Tuscarora by importing a five-stamp crusher and placing it on the Beard ledge. Assays of the ore showed from \$50 to \$100 in gold per ton, which should work easily since the quartz was not contaminated with any other mineral. In the summer of 1868, over 50 tons of rock had been removed from the ledge and stacked near the mill, which was still being set up for its first run.¹⁶

The activities of the Beards and the early pioneers of the Tuscarora were never crowned with financial success. The placer miners were the first to feel the pinch. Less than a year after the discovery of the district, the following report was circulated in the Austin press:

"John Higgins, who recently returned to this city from McCann creek, Tuscarora district, in the Goose Creek country, does not give a very favorable account of the yield of the placer mines there. After sluicing for a week he found his earnings to be less than a dollar a day, and he concluded it would not pay to continue the business. But the gold bearing quartz ledges are still believed to be profitable..."¹⁷

A combination of hard work and slim wages caused many of the miners to abandon the district for better paying areas. Many joined the White Pine excitement or drifted into Eureka. Attempts to work the mill were unsuccessful as well; besides the normal problems to be encountered in setting up a stamp mill, at one point a gigantic swarm of grasshoppers infested Independence valley and crushed bodies of the insects filled the batter box and sluices to the degree that gold was impossible to separate.

Chinese Mining

The spring of 1869 dawned upon an almost deserted mining district. The Beards and a few others remained, but Tuscarora had been forgotten by men who were constantly occupied with the most recent boom camp. That same spring saw the completion of the Pacific railroad and the discharge of thousands of Chinese laborers in Nevada, California and Utah.

According to Mrs. Patterson,¹⁸ the Beard brothers brought a party of Chinese to Tuscarora and interested them in the placers. This connection may be tenuous since Stephen Beard's interview with the *Tuscarora Times-Review* and his obituary fail to mention this possible contribution to the district.

¹⁴ *Ibid.*, October 31, 1868, p. 279, quoting the *Reese River Reveille*, October 20, 1868.

¹⁵ Most secondary sources contain references to the early period of placer mining. After 1876, silver preoccupies the attention of the local newspapers so that placering is given only slight coverage. Mills, Lester W. *A Sagebrush Saga*. Springville, Utah: Art City Publishing Company, 1956., pp. 65-68., is probably the best account of placering. There was a lineal relationship between the snowfall and the amount of production during the following spring and summer months. The auriferous gravels had to be worked by water and the quantity of water determined how many cubic yards could be washed.

¹⁶ *Mining and Scientific Press*, October 31, 1868, p. 279, quoting *Reese River Reveille*, October 20, 1868. There is also a reference to the mill in Patterson, *Nevada's Northeast Frontier*, p. 657. The ability to purchase an expensive piece of equipment, pay the freight to transport it through open country, hire men to open a mine, then finance the construction of a placer ditch confirms the citation that reports the sale of the Newark mine by the Beards for \$30,000.

¹⁷ *Ibid.*, April 25, 1868, p. 263, quoting *Reese River Reveille*, April 15, 1868.

¹⁸ Patterson, *Nevada's Northeast Frontier*, p. 656.

Regardless of the circumstances, Chinese ex-railroad employees became lessees and owners of the majority of Tuscarora placer deposits in 1869. The transactions were handled by due process and were legal assumption of the discovery rights of the original owners. The Chinese organized into companies to prosecute the work and completed many needed improvements to water supplies and access roads prior to setting about placering in a high-volume method. The first notice of this activity was in September, 1869:

"The placer mines in Independence Valley, near the northern end of the state, have been sold to a company of Chinese who are now building a road from Carlin. The mines are extensive, but do not pay large wages, and hence have been generally abandoned by white men who were not willing to incur the cost of introducing water for working them. The Chinese are to cut a ditch and introduce water when it is thought they will make fair wages. There are about fifty of them, we are informed." ¹⁹

Until the discharge of the Chinese workmen in the early summer of 1869, there had been little printed evidence of discrimination or antagonism toward the Chinese in eastern Nevada. But by August, it was clear that the Celestials were considered a threat:

"Nearly every freight train from up the railroad brings down large numbers of Chinamen and their traps. We are told that the railroad company are reducing their force of workmen. California will have all the pigtail labor she wants, perhaps more than she can employ and at the same time keep her white population." ²⁰

By April, 1870 Elko newspaper issues contained numerous small references to the Chinese placer mining at Tuscarora. ²¹ The amounts of gold produced were large, and it was understood that even though several thousand dollars were spent in Elko for supplies by agents of the Chinese, the majority of the production was being sent to Asia. When the Chinese were employed by the Central Pacific for \$1.10 per man, per day, it was said that they spent the 10¢ on rice and sent the \$1 home to China. This concern over the flow of capital out of the country was to recur as an issue during the anti-Chinese legislation of the 1880's.

The following quotes describe the situation in Tuscarora during those early years when the Chinese dominated the district:

¹⁹ *Mining and Scientific Press*, September 11, 1869, p. 167.

²⁰ *Elko Independent*, August 7, 1869, p. 3.

²¹ *ibid.*, April 23, 1870, p. 2.



Tuscarora, date unknown, taken from 75 M.H. Photograph from Stanley Dehon

"Charley Drumm came in from his ranch in Independence valley this week. He reports quite a population at Tuscarora, consisting of about 125 Chinamen and twenty to thirty whites. There is one American store and one China store at Tuscarora. The water having dried up, the Chinese are packing dirt to water, and some of them are making considerable money. One China company has taken out since water disappeared on the claims, \$5,000, from dirt packed on their bamboo sticks. Most of the claims are owned by the Chinese, having been purchased from time to time from the original white locaters. These claims pay well, from \$5 to \$10 to \$20 per day, during the rainy season. Mr. Drumm says one nugget of 25 ounces was found last Spring—another of 15 ounces, and several pieces of four to five ounces. The Chinese are constantly accumulating in the valley, and probably next Winter there will be not less than 500 of them. It is very liberal on the part of Uncle Sam to furnish these placers to the Chinese free of charge, while half of the white people of Nevada are too poor to buy a poll tax receipt to get to the polls." ²²

"The Tuscarora placer mines are on the southward slope of hills of rhyolite, facing Independence valley, and are fifty-six miles by road, north from Darlin Station. The dirt is derived from subjacent rock, and covers it to but a small depth in the gulches—five to ten feet. The gold has the same origin and can be obtained in small quantity from the parent rock. Some spots showed so much as to induce the erection of a ten stamp mill; but the amount extracted was not remunerative, and the mill is idle; there are no veins. The dirt is washed in sluices, water brought two to six miles, the supply availing but three or four months. The gold is combined with silver, brings \$12 to \$13 per ounce. The diggings occupy a belt half-mile by two miles. Most of the miners are Chinese, working in companies. Population about 125. There is no timber convenient." ²³

The conditions described above continued largely unchanged until the discovery of the silver bonanzas in 1875. Despite the half-suggestions of the local press that the Chinese should be replaced by white miners, none of the residents of Elko county wanted to exchange his usually comfortable situation for the undenied hard work and uncertain benefits of placer mining.

Even during the boom period that followed 1875, the Chinese were left in almost unchallenged possession of the placers. The one documented instance of forcible preemption was similar to events that were common in many western mining districts; a trio of prospectors brought to Tuscarora by the boom decided to "jump" the placer claim of a Chinese miner. At gunpoint they ran the Oriental off into the sagebrush and set themselves to defend their newly acquired property against possible counterattack.

The method used to evict the interlopers was unusual; they had their water cut off. The Beard brothers heard of the incident and closed off the ditch leading to the placer ground involved. Without water to wash the gravel the claim was useless. The "jumpers" departed as quietly as they arrived. ²⁴

Placering continued every spring, but with fewer and fewer men involved. The last notice printed in the *Tuscarora Times-Review* was in March, 1898. Chinese continued to reside in Tuscarora, and it is supposed, continued to work the alluvial slopes. The ditches were reportedly abandoned in 1900, the year of Stephen M. Beard's death. The last Chinese miner died in 1927. In 1934, boys playing near his home uncovered a cache of dust and nuggets valued at \$1200. ²⁵

During the Depression years men returned to the placers for a source of income. Hand methods were used and the miners had to find virgin areas overlooked by the Chinese. Several engineering studies were undertaken to determine if dredges could be employed, however, no large-scale work was done. ²⁶

²² *ibid.*, October 23, 1870, p. 3.

²³ George M. Wheeler, *Preliminary Report of Explorations in Nevada and Arizona*, Senate Executive Document Number 65, 42nd Congress, 2nd Session, 1872, p. 28.

²⁴ *Independent*, April 15, 1877, p. 3.

²⁵ William O. Vanderburg, *Placer Mining in Nevada* University of Nevada Bulletin, Vol. XXX, No. 4, (Reno: University of Nevada Press, 1936), p. 77.

²⁶ *ibid.*, pp. 78-79.

LODE MINING

The Discovery of Silver

W.O. Weed is credited with the discovery of silver-bearing ore on Mt. Blitzen, about 2.5 miles northeast of Old Tuscarora, in 1871.²⁷ Weed was evidently prospecting for gold placers on the alluvial fans that make the slopes of the low hill, when he encountered a few pieces of "float" rock that appeared to contain silver. He dug several trenches and prospect pits before finally uncovering the vein later named the Young America. The discovery was not particularly epochal since the ore was spotty and the amount of high-grade rock difficult to determine.

The future site of the Tuscarora silver boom is about as unlikely a spot for mining as can be imagined. The professional press commented on it as follows:

"The district lies on a rising slope from Independence valley, and could be driven over with a team at nearly all points. It has more the appearance of prairie land, and a miner would as soon look over a plowed field for croppings, as to look over the district for them. And it is owing to their absence that the district has been simply known as a placer gold camp."²⁸

In many places, the veins that were later to produce \$10 million in silver were covered with 40 feet of gravel. No outcropping hinted of the deposits that laid beneath the smooth surface. Accordingly, new techniques had to be developed to prospect the area by secondary means.

Until 1875, the existence of silver north of the placer ground excited few of the miners then resident in Old Tuscarora. They continued to return in the early spring and leave again when the water supply failed. The Chinese remained all year, since it was almost impossible for them to obtain jobs in other mining camps. At best, 300 persons occupied the district during the placer season. The manuscript census figures for Tuscarora in 1870 show only 119 residents; 15 whites and 104 Chinese. Only one woman was registered, the wife of a Chinese merchant. Most of the Chinese were in their middle or late teens with the majority shown as "miners." There was evidently some dispute about the location of the district, since it is shown as a part of Lander County, rather than Elko.²⁹

Development of the Young America claim proceeded slowly. Weed had to work alone and was forced to placer mining as a means of financing his work on the silver property. In 1872, he had only reached a depth of 75 feet in the Young America discovery shaft. The silver vein was thin, but promising. Each year, Weed worked the prospect during those periods when finances and weather permitted. The vein improved as Weed alternatively sank the shaft deeper and drifted horizontally at the 50 foot level.

In July, 1875 Colonel W.R. De Frees visited Tuscarora on his way from Elko to Cornucopia. As a part of the local sights, he visited the Young America then decided to walk along the slopes of Mt. Blitzen before returning to the hotel. About 1,000 feet east, De Frees noticed more silver "float." The Colonel interrupted his trip to Cornucopia and spent several weeks in prospecting Mt. Blitzen. The loose ore was followed up-hill to its highest occurrence, then trenches and shafts were dug to bedrock in an attempt to locate the source. The vein uncovered was far richer than the Young America, which prompted De Frees to hire additional men and plan to both explore the vein underground and purchase a small stamp mill that had been worked fitfully at the Young America.³⁰ Although no allusion was made in the newspapers or mining press, it seems

²⁷ Francis Church Lincoln, *Mining Districts and Mineral Resources of Nevada* (Reno: Nevada Newsletter Publishing Company, 1923), p. 58. The same details can be found in H.R. Whitehill, *Biennial Report of the State Mineralogist for the Years 1875 and 1876* (Carson City: State Printer's Office, 1877), pp. 17-19. The latter reference is more descriptive.

²⁸ *Mining and Scientific Press*, November 4, 1876, p. 298.

²⁹ U.S., Bureau of the Census, *Ninth Census of the United States: 1870. Manuscript Census, Schedule 1, Lander County, Nevada; Inhabitants in Tuscarora, Independence Valley*. Recorded by D.B. Shotwell, Assistant Marshal, Carlin, Elko County, p. 1.

³⁰ *Daily Elko Independent*, October 23, 1876, p. 3. The ore from the vein was unusual and thought to be worthless. De Frees placed some of the ore in the mill.

possible that the mill was the five-stamper brought into the district in 1868 by the Beards.

The presence of a new silver property did not disturb Old Tuscarora unduly. A few prospectors checked out the operation and looked over Mt. Blitzen, but no rush to the district came. Most miners' attention was focused on the Cornucopia excitement and silver could not compete with the more traditional gold discoveries in Elko county. In 1876, the district was described as:

"There are at present about 60 white men in the camp and about the same number of Chinamen. The town consists of about 20 houses, two hotels, two stores, one lodging house, one blacksmith shop, one barber shop, one butcher shop, and three or four saloons...It is a very poor place for men to come to in search of employment, there being too many here at present for what work there is to be done; but if a man wants to prospect this is as good a place as any in the State..."³¹

Shipping of silver bullion began in 1876. The Young America had six men employed and 400 tons of \$100 ore were next to the site selected for a ten-stamp mill. Colonel De Frees was producing about three tons of \$250 ore daily and crushing it in the small mill purchased earlier from the Young America.

The Grand Prize Bonanza

In early July, 1876, a three-foot wide vein of extremely rich silver ore was found in the bedrock exposed by a prospect pit on Mt. Blitzen. Specimens quickly circulated among the mining fraternity in Elko county and a small rush for Tuscarora began. Two weeks later, the mining periodicals picked up the story:

"A rich strike is reported in this mine (the Grand Prize), which is situated on the Virginia ground, an old location made in May, 1875. But we understand that no litigation is likely to grow out of that fact, owing to the existence of a spirit of compromise among the respective claimants. Some eighteen or twenty tons of rich ore from the new bonanza have been forwarded to the Leopard mill at Cornucopia for reduction, but the result of the workings has not yet been made public."³²

This news brought miners into Tuscarora from all parts of the west.

Two days before the above notice was printed, a San Francisco mining promoter, George W. Grayson, purchased the Grand Prize mine from its owners.³³ For a consideration of \$50,000 and stock in the new company to be incorporated, the five original locators transferred the claim. They had realized \$25,000 from the first 100 tons of ore that was processed at Cornucopia in addition to the sales price.³⁴ In contrast to the low average quality of Tuscarora ores, the Leopard mill paid \$334 per ton for the first 100 tons shipped from the Grand Prize.³⁵

Beginning in August, 1876 Tuscarora initiated a boom that lasted for five years, and continued with peak-and-valley cycles for another two decades. The parallels between the Comstock and Tuscarora are many; both were silver camps, indulged in costly litigation and lived from assessments in the declining years of productivity. Almost from the very day that the sale of the Grand Prize was announced, businesses in Elko began to establish branch offices in Tuscarora. Heretofore, Elko had been the unchallenged metropolis of the county; now she was to take second place for 20 years.

The newspapers of northeastern Nevada carried a constant stream of notices of Tuscarora's growth. A tremendous building cycle absorbed all the lumber of materials that could be delivered from the Central Pacific by teamsters. The first wedding on August 20th was duly noted: "The bride looked charming and the bridegroom was serene as if he was owner of all the Tuscarora Grand Prize."³⁶ The usual violence was in evi-

³¹ *Mining and Scientific Press*, March 18, 1876, p. 190, quoting the *Godt Hill News*. This quotation is cited to show the relative unconcern with silver in northeastern Nevada. Despite the presence of two silver lode properties, gold was still the primary concern.

³² *Engineering and Mining Journal*, July 29, 1876, p. 77.

³³ *Daily Elko Independent*, July 27, 1876, p. 3.

³⁴ *Ibid.*, August 1, 1876, p. 3.

³⁵ *Mining and Scientific Press*, November 25, 1876, p. 356, quoting the *Silver State* of November 15th.

dence as shootings, cuttings and claim-jumping occupied a prominent place in the press.

After a brief flurry of mining activity by individuals or small companies, production came chiefly from less than a dozen properties. These will be discussed in a chronological manner, and the section will be closed by a study of official production vs. unofficial figures followed by comments on the bullion tax question.

The Grand Prize Mining Company

After sinking through 40 feet of overburden, prospectors struck the top of the Grand Prize ore chimney in July, 1876. Sale of the property in the latter part of the month was followed by incorporation for \$10 million in September. For the next five years the Grand Prize was to be the bellwether of Tuscarora's fortunes.

The guiding spirit behind the Grand Prize and other incorporated mines within the district was George W. Grayson, a San Francisco mining promoter. Interested in the mines as vehicles for manipulations on the Pacific Stock Exchange, Grayson left the local direction of work to resident managers.

By September, 1876, a simple hoisting frame had been erected and ore shipments initiated. The first shipments went to a mill in Winnemucca and continued in that practice until the following February, when the Windsor mill was completed. The first shipments went to a mill in Winnemucca and continued in that practice until the following February, when the Windsor mill was completed. The first shipment of silver bullion from the Grand Prize was received by Wells, Fargo & Company in Elko on March 3, 1877.³⁷ Thereafter, shipments were carried regularly by stage to Elko every other day. For the first 18 months, the Grand Prize produced \$2,500 per day of milling.

Facilities above ground were well designed and equipped. The Windsor mill had a 20-stamp battery and Washoe amalgamation separators. It had been purchased while under construction from the Windsor Mining Company and utilized by the Grand Prize management.³⁸ Roasters were built after tests showed that ore could not be worked when wet. At the same time, an assay office and business building were added. All hoisting equipment was steam-powered, the boilers fired with sagebrush.

The underground workings were opened with a double-compartment shaft. This shaft ultimately reached a depth of 850 feet until the volume of water forced company management to stop deep exploration. Water was the greatest single problem to lode mining in the Tuscarora district. The Grand Prize was dewatered by a series of more and more expensive pumps. Cornish pumps as well as steam and gasoline driven units were all used at some time during the operation. In December, 1877, a three-compartment shaft was begun; two compartments for hoisting and a third for pumping equipment alone. It was the largest hoisting works in eastern Nevada.³⁹

The ore body originally opened was chloride in nature and above the water table. At 150 feet the ores changed to massive sulphides and the water table was reached. Values ran \$300 plus in the chlorides and \$175 below the water table. The exploration of the ore body produced enough rock to feed the mill and pay dividends.

In its first year of operation, the Grand Prize produced \$1.39 million, financed the building of two mills, sank a double and treble-compartment shaft and paid \$400,000 in dividends without levying an assessment.⁴⁰

The stoping methods used were simple. Drifts were opened every 100 feet in depth along the hoisting shafts. Miners then followed the ore, removing the rock as they progressed. The 100 foot level was first completely cleaned and then worked commenced on the 200 foot level; the open stopes were supported by stulls. By December, 1878 the original ore body had been completely worked out to the 500 foot level.

While sinking below the 500 foot level, miners blasted into an aquifer carrying much more water than had been previously encountered.⁴¹ The usual practice was to sink a

³⁷ Ibid., March 6, 1877, p. 3.

³⁸ Ibid., p. 2.

³⁹ Ibid., December 7, 1877, p. 2.

⁴⁰ Ibid., December 24, 1878, p. 3.

⁴¹ Tuscarora Times-Review, December 31, 1878, p. 3.

hundred feet deeper into the ore body, then set pumps and drain the area. A few days pumping would generally suffice to bring the water under control. Below 500 feet, this system would not succeed; pumping capacity then available in the mine would hold the water level at 500 feet, but could not lower it. Since assays of the ore at 500 feet were over \$150 per ton, management decided to invest in heavier pumping gear. This decision meant excessive capital expenditure that never enabled the company to exploit the deeper ore reserves.

By 1880, the treasury surplus built up from the earlier shallow production had been expended in futile attempts to handle the water problem. Some ore from the 600 and 700 foot levels had been removed, but not enough to even meet the pumping cost. After 1882, the lower levels were abandoned and exploration for new stopes limited to the veins above 500 feet. Exploration continued until 1890 with little result. The work done in the 1880's was funded by assessments. The last assessment printed in the local press was the 24th, January 3, 1890. During the decade of the 1880's, Grand Prize shareholders paid about \$9 per share in assessments, far more than the worth of the stock as listed on the Pacific Stock Exchange. Dan De Quille properly described the assessment racket:

"Some Comstock small boys were playing at mining a day or two ago, got their shaft down all right and their hoisting works in good running order, when there was some question as to what should next be done. Finally, one little fellow brightened up and said: 'I'll tell yer what to do Tommy.' 'Well, what?' 'Why you level an assessment and I'll swear.'" ⁴²

In 1885, even the *Tuscarora Times-Review* was alienated from the management of the Grand Prize and comments on the management appeared in its pages.⁴³ For a local paper to criticize the development of the leading mining property of the district, is a certain sign of internal problems. In this case, two motives moved the *Times-Review* to open the subject for public comment: the continual assessments upon owners of Grand Prize stock and the superintendent's policy of forcing his men to trade at one particular general store.

Many local residents held shares of Grand Prize stock. During the palmy days of the late 1870's, dividends were quite frequent and later announcements from the company management stressed the possibility of finding another ore body similar to that originally worked. For a few years assessments were paid without vocal complaint. However, the continual underground work without success eventually prompted the question that management continued to explore the veins as a means of retaining their jobs and salaries. A continual controversy raged over this possibility.

Eventually, a charge was made that the superintendent would not hire a man unless he traded at Brown's Mercantile. Describing the situation that had developed since John E. Dixon had become superintendent, the *Times-Review* said:

⁴² Ibid., January 26, 1886, p. 3, quoting the *Carson Free Lance*.

⁴³ Ibid., March 23, 1885, p. 3. This notice consisted of a letter from management stating various reasons why the mine was idle and giving elaborate plans for the future.



Tuscarora, circa 1880. Photograph from Mrs. John Patterson.

"At that time employees were under no restriction as to the dispensing of their wages, and every person in the employ of that company was permitted to exercise that freedom which every man, whatever his occupation, deems his prerogative, and the dry goods men, the clothier, the groceryman, the restaurants, the saloons and all other branches of business received their share of patronage, and Tuscarora was considered one of the liveliest towns in the State..."

Under the old regime when a miner applied for employment it was not considered necessary to thumb the store ledger to ascertain how deeply the applicant was indebted to "our firm."⁴⁴

It happened that the information exposing the mine's policy came from Mr. A. Primeaux, a rival merchant. Cards appeared in the *Times-Review* from all concerned parties. On balance, Primeaux' charges were supported. The reasons given by the superintendent were very thin, and he could not defend the practice of giving Grand Prize business exclusively to the Brown Store, without competitive bid. That fact alone brought the shareholders' wrath down upon his head.⁴⁵

In 1886, a change in policy suspended all underground work and opened the mine to lessees. This stage in a mine's history is usually indicative of the lack of further optimism by management. Their investigation of the underground structure had convinced them that no further ore bodies existed. In this case, it was about six years late, at least so far as the shareholders were concerned. The next year, a contract was given to G.W. Phillips to work the Grand Prize dumps with a jig separator on a royalty basis.

The Grand Prize mills had frequently worked ore of other companies. This source of revenue was continued, and, in 1889, a concentrator mill was erected on the foundation of the original Windsor plant. Low-grade ore was stripped from the upper levels of the mine and worked there, as was custom ore from the Nevada Queen and other local mines. Underground work was terminated in 1890 and thereafter the concentrator worked as often as other companies offered lease proposals.

In 1895, the mainshaft was reported to have caved, leaving a large surface depression.⁴⁶ The headframe and other surface facilities were removed in the same year and shipped to G.W. Grayson's mine near Baker City, Oregon. During 1900, the old millsite was worked over with sluices and then abandoned.⁴⁷ The Grand Prize, largest producer in the district, was left to the elements.

The Navajo and Independence Mining Companies

There is a large gap in relative importance between the Grand Prize and the other mining operations in the district. In this second category of companies, the Navajo-Independence was probably the leader. The major reason for this dominance was the Independence mill, which was probably the best facility for ore reduction in Tuscarora; certainly, it handled the highest tonnage. It was a custom mill and handled ore for most of the mines in the district through most of the 1880's, until the concentrator-cyanide processes prompted the construction of a new series of individual plants. Owned jointly between the Navajo and Independence firms, the mill was the major source of income for the Independence Company, whose mine never produced much more than assessments, while the Navajo was a major ore source.

The Navajo vein was discovered in those first boom weeks following the bonanza find in the Grand Prize prospect.⁴⁸ Through 1877, over \$200,000 in dividends reportedly were distributed. However, in 1878, the sudden end of the initial ore body caused a bitter proxy fight which was won by Grayson and his group of majority stockholders. By February, 1879 the first assessment was needed in order to continue underground development.⁴⁹

Assessments were repeatedly levied between 1879 and 1882. In that year, a second

⁴⁴ *Ibid.*, August 24, 1885, p. 3.

⁴⁵ *Ibid.*, September 2, 1885, p. 3. Superintendent Dixon and Mr. Brown met with the editor and claimed that no partnership between them existed, nor was the store kicking back half the profits to Dixon as was rumored. This brief clash offered one of the few opportunities to see how business was transacted between "insiders."

⁴⁶ *Ibid.*, September 7, 1895, p. 2.

⁴⁷ *Ibid.*, March 29, 1900, p. 3.

⁴⁸ *Daily Elko Independent*, August 26, 1875, p. 3.

⁴⁹ *Ibid.*, February 10, 1879, p. 2.

large ore body was located that yielded an average value above \$150 per ton. A dividend of 25¢ caused the price of common stock to rise from 5½¢ to 6¼¢.⁵⁰ The ore was run through the Independence mill from July, 1882, until June, 1883, and totaled \$818,866.42 during that period.⁵¹ Prospecting continued underground during 1884 and 1885.

The Navajo Company is an excellent example of the techniques employed by management to sway shareholders. For instance, on January 8, 1886 the *Times-Review* carried a notice that the Navajo had paid \$325,000 in dividends during the operation of the mine. Four days later, the 14th assessment was announced to the shareholders, who presumably had been properly impressed with the production history of their company, and perhaps a bit more inclined to contribute another 30¢ per share for exploration. These rather blatant appeals to cupidity or greed were the normal order of business with the investing public.

Although a full crew was employed underground until the mine closed in 1895, production of any consequence came only in the years 1888 and 1889. The Navajo mill was converted to a concentrator and worked over its own dump to recover the silver that had passed through the original working. The last notice given the Navajo mine came in 1898, when the *Times-Review* noted that the abandoned hoist and headframe had burned.

The Independence mine was preceded by construction of the mill of the same name. The mill was accepted from its construction contractor in November, 1877, and opening of the mine proceeded thereafter.⁵² The ore body was shallow, extending to only 175 feet below the surface, but about three feet thick with high-grade silver predominating throughout. The length of the original ore body was over 800 feet.⁵³ On May 20, the Independence began shipments of bullion to Elko and continued to reduce the original bonanza deposit for almost two years.

Company management made the same mistake at the Independence mine that was to plague the Grand Prize; they attempted to follow the ore below 500 feet. By January, 1881 they had sunk below that depth and were attempting to stope out the ore found between 500 and 600 feet. Eight assessments were levied to pay for the labor and equipment costs involved with the same results; those workings below 500 feet were abandoned in 1881 and exploration directed to the shallower depths. Luckily, at least for the shareholders, a second ore body was located at 300 feet that provided enough income to push underground exploration without additional assessment. However, by 1884, this source of income was worked out and assessment followed assessment with clock-like regularity.

In 1885, the mill was shut down when the workers refused to take a pay cut to \$3 per day.⁵⁴ The mine closed shortly thereafter. In 1897, a contract was given to work over the old dump with a jig plant. No further activity was noted on the property.

The De Frees Mining Company

As has been stated earlier, in July, 1875, a second silver strike was made by W.R. De Frees. By September of that year, he had 60 tons of \$100 rock on the dump and was incorporating the property for \$5 million in San Francisco.⁵⁵ The first ore was worked at the Young America mill on the east side of Independence valley, where a permanent stream provided power via a mill wheel.

De Frees lost no time in expending corporate funds on equipment. A large crew was hired and put to work in exploring the underground vein network. The De Frees mine never had the ore values found in the Grand Prize or other properties, but its location in the middle of the other mines led management to believe that they too would strike a

⁵⁰ *Tuscarora Times-Review*, November 14, 1882, p. 3.

⁵¹ *Ibid.*, June 16, 1883, p. 3.

⁵² *Daily Elko Independent*, November 7, 1887, p. 3.

⁵³ *Ibid.*, May 13, 1879, p. 2.

⁵⁴ *Tuscarora Daily Times-Review*, March 13, 1885, p. 3.

⁵⁵ *Daily Elko Independent*, September 26, 1875, p. 2.

bonanza by exploring the veins of their property. Unhappily, this statistical approach was not successful.

In July, 1876, the month when other discoveries were being made almost daily, the De Frees Company was involved in a lawsuit over ownership of the claim and building a new mill near the Young America mill referred to above. It was a water-powered 20-stamp facility. A spring provided the motive power for the mill. Assessment number one was also levied in July.

While all the construction and exploration proceeded, the shareholders became mutinous. In June 1879, a series of meetings were held in San Francisco to oust the incumbent directors, with no results. At the same time, it was discovered that the secretary of the board of directors had been arrested on three counts of embezzlement.⁵⁶ The result was a sheriff's sale of the company assets on November 17, 1879.

The Young America Mining Company

This property was the first silver discovery in the district. It was purchased by San Francisco mining promoters in August, 1875, and incorporated. Soon thereafter, a mill was constructed on the east side of Independence valley on a permanent watercourse.

From the first, the company was faced with financial problems. Three months after incorporation, the first assessment was levied. The amount of water in the stream feeding the mill was inadequate for power and a costly steam conversion had to be made. The mine employees were frequently unpaid for months at a time. During the winter of 1875-1876, the mine was closed.

In the spring of 1876, the first steam hoisting works in the district was erected on the Young America. Without an adequate underground exploration program, the directors of the company committed most of their available funds to surface improvements. The Young America property resembled the De Frees in many respects; it had a promising "show" of ore, but investigation disclosed no deposits of a potentially profitable nature. In May, 1878, it went on the block at a sheriff's sale, after the shareholders refused additional assessment.

⁵⁶ Ibid., June 13, 1879, p. 3.



Tuscarora, circa 1885. Photograph from Mr. and Mrs. Mel Steninger.

The Second Period of Activity

Generally, the properties that produced the greatest amounts of bullion in one period were superseded by other firms in the next. Beginning in 1887 and ending in 1895, the district began a second growth cycle that created new bonanzas, resuscitated earlier companies and added a high percentage of gold to the silver production of the 1870's.

In late 1885, prospecting of the area a quarter-mile northwest of the principal mines disclosed a promising group of veins along what was named "Squabble Gulch."⁵⁷ The title came from the argumentative propensities of the claim holders. The veins were not parallel, but crossed at high angles, providing a number of litigations between the owners. The majority of the properties were acquired in 1886 and 1887 by G.W. Grayson and his group of capitalists.

The property that was incorporated to control this group of claims was entitled the Nevada Queen. Surface construction of a hoist house and headframe took much of 1886, but ore began to be raised to the surface on November 12, 1886.⁵⁸ Grayson had learned that deeper mining was impracticable by this time and sank the mainshaft until the higher-volume water strata was reached, then limited development of the mine to those areas above 350 feet. Underground prospecting occupied the first half of 1887. The first bullion shipped from the mine is reported in the *Times-Review* issue of November 16, 1887.

Ore from the Nevada Queen was especially high-grade, averaging over \$250 per ton. The vein was composed of a narrow stringer of high-grade and a wide thickness of \$25 rock. Fortunately, the development of the jig concentrator provided a means of working this grade of ore at a profit. Blocking out large tonnages of this low-grade rock convinced the directors that a concentrating plant would be advantageous and provide another source of profit. Combining with the North Belle Isle mine, they initiated construction in June, 1888 and had the plant tested for acceptance in October. The plant was designed to handle 100 tons a day and worked the existing dumps as well as the low-grade ore previously ignored in the mines. In 1889, the Grand Prize built a concentrator on the site of its earlier mill, after tests of ore in the Nevada Queen concentrator showed that the separation was efficient.

1889 was the peak year for the Nevada Queen. Thereafter, the mine subsisted on assessments and explored underground through 1892. The mine closed between 1892 and 1895.

The Belle Isle and Northern Belle Isle Companies

These properties had been located during the first period of activity, but exploration did not disclose large amounts of ore until later years. Before 1886, the North Belle Isle distributed some dividends, while the Belle Isle worked from assessments. Management avoided the mistakes of other companies and limited exploration to the shallower depths. This policy paid off for the North Belle Isle in 1887 when a bonanza deposit was found on the 150 foot level with an average value of \$200.⁵⁹ Stopping began immediately and bullion shipments commenced soon thereafter. On March 7, 1888, the largest shipment ever made in the camp came from the North Belle Isle (\$102,000).⁶⁰ Six dividends of 50¢ were paid in 1888. The amount of low-grade rock caused directors to purchase their own concentrating plant.

Production continued from both properties until 1893. In that year the following assessments were recorded: Belle Isle, 18th assessment of 10¢ per share; and North Belle Isle, 23rd assessment of 10¢. After 1888, costs always exceeded shipping returns.

⁵⁷ *Tuscarora Daily Times-Review*, January 6, 1886, p. 3. The local deputy frequently had to padlock companies in "Squabble Gulch." Often ore sacked for shipment would be impounded until underground surveys proved that none of the mines were stopping from other claims.

⁵⁸ Ibid., January 12, 1887, p. 3.

⁵⁹ Ibid., June 23, 1887, p. 3. Superintendent's report for 1887.

However, hopes for new discoveries kept the shareholders contributing. The following notice shows why assessments were consumed so quickly in the mining business:

"The Silver Hill mine on the Comstock employs two miners at \$4 per day each, says the Carson Appeal. It takes the following officers to run these miners and manage the mine:

Superintendent	per month	\$100
Foreman	"	150
Accountant	"	75
Timekeeper	"	75
Watchman	"	100
Shift Boss	per day,	5
President	per month,	150
Secretary	"	150

The above is simply published to show why some mines are always levying assessments." ⁶¹

The Commonwealth and North Commonwealth Companies

"The Commonwealth, another of the Tuscarora group (Grayson) is being placed in position for active working. The ledge is a continuation of that found in the Nevada Queen and the North Belle Isle, and lies to the north of the Nevada Queen, and is held under a United States Patent. Work will be prosecuted through the Nevada Queen by way of the north gangway...Seams of ore lately found in this drift assayed several hundred dollars...Work has heretofore been carried on from the surface, and ore sent to Salt Lake for reduction assayed \$700 per ton. It is the intention of the owners to list the stock upon the market about June 1st." ⁶²

The Commonwealth and North Commonwealth mines, with the Nevada Queen, were the remaining properties formed to work the deposits of "Squabble Gulch." Despite creditable production, they were manipulated by insiders and never paid dividends. Quite high assays are recorded in the local newspapers. During the years 1888 and 1889, high-grade rock was work exclusively, then a concentrator was built to handle the lower-grade material. By 1890, production dropped off and the dreary list of assessments alone supported further work. By 1895, these properties were idle.

Prompted by the strikes of high-grade silver in the late 1880's, the Grayson organization decided to build a new mill that could take advantage of the increased tonnages produced by independent miners. It was designed as efficiently as possible to give the best return that could be expected. In this guise, it was to be preferred by lessees over the older Navajo-Independence mill that was wasteful and almost worn out.

The construction was funded by the Nevada Queen, Commonwealth and North Belle Isle, all Grayson enterprises. By February, 1889 the mill was finished and at work on custom ore.⁶³ It worked almost continuously until 1893, when the plummeting price of silver shut down most work in the district. The usefulness of the mill to Grayson could be seen in the price charged for reduction. At a time when the low-grade ores were averaging from \$20 to \$30 per ton, milling was set at \$25 per ton.⁶⁴ Through this means, the mill was a consistent money-maker, since reduction costs were below \$5 per ton, while the mines built up deficits. This arrangement enabled Grayson to avoid the bullion tax and concentrate profits in the mill, where it could be split among the owners, not the investing public.⁶⁵ The mill was razed in 1900.⁶⁶

The Final Period of Production

In 1895, recorded production from the Tuscarora district fell to \$41,000 plus, the low-

⁶¹Tuscarora Times Review, April 14, 1893, p. 2, quoting the Carson Appeal.

⁶²Tuscarora Daily Times-Review, May 24, 1887, p. 3, quoting the Alta California.

⁶³Tuscarora Times-Review, February 13, 1889, p. 3.

⁶⁴Ibid., September 20, 1890, p. 3.

⁶⁵Report of the State (Nevada) Controller for 1900, found in Appendix to the Legislative Journal, 20th Session (Carson City: State Printer's Office, 1901), p. 3. "...The tax (bullion) has been evaded by some companies by one the same party owning the mine and the mill, and leasing the mill to a 3rd party, charging a large sum for the lease and paying an exorbitant price for the milling."

⁶⁶Tuscarora Times-Review, September 13, 1900, p. 3. Much of the useable equipment at Tuscarora and other idle camps was purchased and moved to the new camps springing up in central Nevada and other states.

est figure since the original discovery of bonanza silver deposits in 1876.⁶⁷ Locally, the drop in activity was laid to the national silver issue. Attitudes can be well summarized in the following apocryphal story:

"Do you see that peak yonder?" said an old miner, pointing to one of the highest points in the mountains south of town. "Well, sir, on that peak I intend to build a bonfire, fire a glorious salute, and hoist the stars and stripes, and I hope every mountain top in Nevada will be illuminated the same way." When a Record man asked the reason for these joyful doings, and when they would take place, the old responded: "John Sherman, d--- him, is the cause, and the news of his death will be the time for the glorification."⁶⁸ (Ed. note: John Sherman, U.S. Senator from Ohio, sponsored the Silver Purchase Act of 1890 limiting purchase and coinage of silver.)

The third period of activity in Tuscarora was precipitated by the gradual realization that an exploitable deposit of low-grade gold ore was situated in the midst of the old silver stopes. The third revitalization of the district was a one-company operation, centering on the Dexter mine.

The Dexter had been located in the early 1880's and worked sporadically by local miners on lease arrangements from the owners. Ownership passed through several hands, during the 1880's and 1890's, mainly among the Tuscarora merchants who received the property in payment for materials or provisions. Gold was never thought to be potentially profitable and the property received little notice in the Times-Review.

In 1891, small articles concerning shipments of gold ore to Utah smelters appeared in the midst of news on the silver properties.⁶⁹ Then, some Dexter rock was worked in a Kinkead mill powered by a flume on the eastern side of the valley, resulting in a steady series of shipments to Elko through 1893. The mine was operated by local individuals and at least four dividends of 25¢ per share were paid.⁷⁰ Evidently, the work was done under lease since operations ceased in November, 1893 and nothing further was heard from the columns of the Times-Review until 1897.

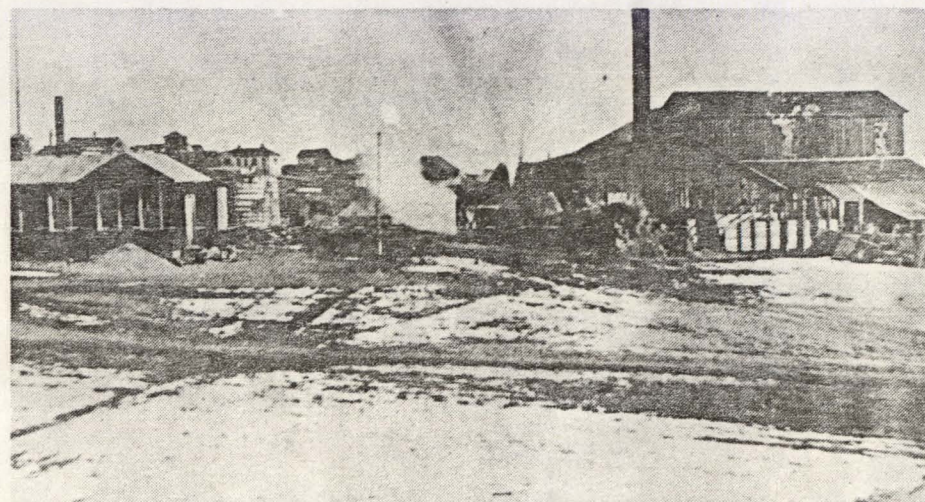
During the four year interim, Salt Lake City mining promoters purchased the Dexter, incorporated, and began to work the existing dumps with a small cyanide mill. Cyanide

⁶⁷Bertrand F. Couch and Jay A. Carpenter, Nevada's Metal and Mineral Production University of Nevada Bulletin, Vol. XXXVII, No. 4, (Reno: University of Nevada Press, 1943), p. 44.

⁶⁸Tuscarora Times-Review, December 8, 1892, p. 3, quoting Pioche Record.

⁶⁹Ibid., June 5, 1891, p. 3.

⁷⁰Ibid., July 8, 1893, p. 3.



Dexter Mine Assay Office (left) and Dexter Mill, Tuscarora. Photograph from Stanley Baker

was first tried in Tuscarora in 1893 and worked satisfactorily on the tailings from the older mills. The first company to use cyanide contemplated hiring Chinese labor. The local miner's union graphically informed the owners what could happen if the scheme was carried out, and the plans were changed.⁷¹ On September 18, 1897, a headline article in the *Times-Review* announced that the Dexter would be equipped with a 40-stamp mill, the largest ever constructed in the district, and a large operation initiated by the Salt Lake-controlled Dexter Company.

On February 1, 1898, the mill started and continued in production until mid-1903. A unique feature of the Dexter milling plant was its reliance on electricity for power. Two generator plants were built on the far side of Independence valley where streams left the mountains. The water was impounded and fed through Pelton wheels which turned generators. The power was carried by highline to the mill.⁷² Electricity was considered to be cheaper than sagebrush. The concept had periodic limitations since the flow from the streams was insufficient to work more than ten of the stamps.

Production from the Dexter never reached the rate that company officials expected. The seasonal lack of power and optimistic valuations on the average worth of the ore body were two factors in the lack of progress. In 1899, it was discovered that the company manager, and some members of the board of directors, had loaned the company the money to construct the mill and were collecting 12% per annum on the loan. This high interest rate absorbed all the profits and left nothing for the other shareholders.⁷³

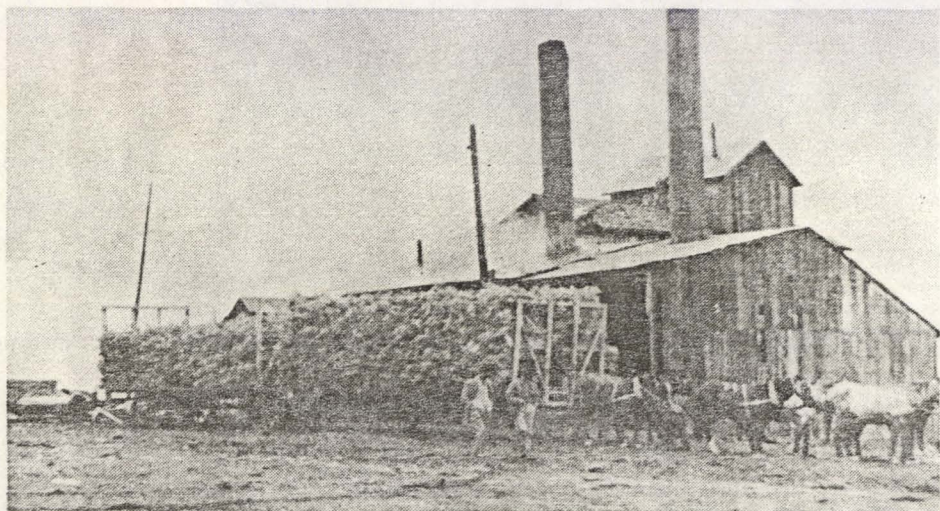
The mine continued to produce for another three years, but employment dropped and the town of Tuscarora dwindled to only a couple of hundred residents, chiefly employed on nearby ranches.

The failure of the Dexter mine in 1903 was the end of active mining in the district. Occasional exploration by mining concerns was done in recent decades, but results have not been promising enough to re-open any properties. The recent increase in silver prices might cause interest in the future, when the costs of exploration below 500 feet could be justified.

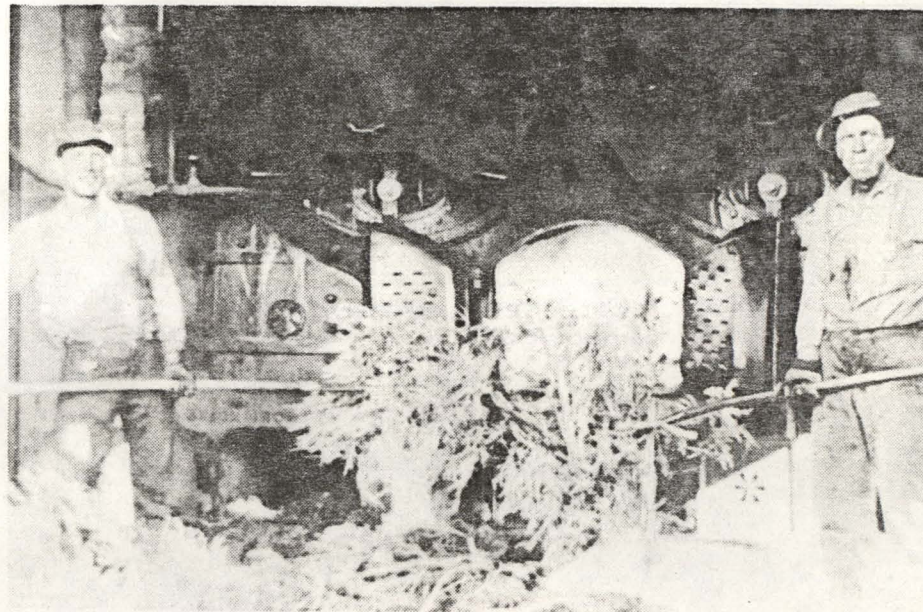
⁷¹*Ibid.*, June 13, 1893, p. 3.

⁷²*Ibid.*, September 28, 1897, p. 3.

⁷³*Ibid.*, November 28, 1899, p. 3.



Load of sagebrush at the Dexter Mill, Tuscarora. Photograph from Stanley Paher.



Sagebrush burners in a Tuscarora mill. Photograph from Stanley Paher.

The Gross Production Question

Estimates of gross production from the Tuscarora mining district range from \$9 plus million to \$45 million.⁷⁴ The standard reference work in this area shows \$9.4 million and is based on the local County Assessor records.⁷⁵ This figure is believed to be 25-30% low.

The question of accurate reporting of the State's mineral production is not new. The existence of a bullion, a severance, tax led to some elaborate methods of tax evasion in the 1870's and later. These methods will be the subject of the next topic. Here, the relative accuracy of the various records maintained by county and other officials will be examined.

In 1890, the State Surveyor General's office attempted to come to grips with the question. They tabulated three different sources for production statistics and found a significant difference in the results; the official figures maintained by the County Assessors were about 15% lower than the amounts of bullion accepted by Wells, Fargo & Company, or estimates by the State Mineralogist.⁷⁶ The reason for the Assessor's records to continually lag behind other estimates of production is obvious; the lower the figure reported to the Assessor, the lower the ultimate bullion tax.

There is evidence of considerable controversy between the State Assessor and other officers and the individual County Assessors. While not commenting directly on the question of the accuracy of county production figures, the following quotation certainly aptly describes the problems of gathering reports that were required by law:

"...The difficulty of obtaining correct reports from County Assessors has always been one of the sorest afflictions of the Surveyor General. The hair of my respected predecessor turned gray while battling for the desired statistics; the present incumbent has already become bald from wrestling with the same subject, and now

⁷⁴Couch and Carpenter, *Nevada's Metal...*, pp. 43-44, shows the \$9 million figure. Lincoln, *Mining Districts...*, p. 58, estimates from \$25 to \$45 million.

⁷⁵Couch and Carpenter, *Nevada's Metal...*, pp. 43-44. The authors of this work, in their separate prefaces to the volume, infer that if they err, it is in the direction of minimum production, rather than the maximum.

⁷⁶Report of the Surveyor General and State Land Register for the Years 1889 and 1890, found in Appendix to the

declares in favor of a "stronger government," as applied to County Assessors."

"There are fourteen assessors, and their reports show just fourteen degrees of competency; from utter stupidity to admirable ability..."⁷⁷

Why should public officials in the counties be hesitant to fulfill their statutory requirements? One answer would be hesitancy to provide figures which could be checked against express company shipments. An assessor who was being bribed to accept low production figures from mining companies would resist publication of the figures from which the bullion tax was derived. While this cannot support the charge of collusion in itself, it is a part of a larger group of findings that prompt the question of the assessor's perhaps improper relations with Nevada mining companies.

Another instance of the inconstancy in assessor's reports is found in the Elko County Assessor's report for 1890. In this submission, the Assessor states in the text that Tuscarora produced over \$1 million during the year. When the official figures (which would be used to compute taxes) appeared on the following page, the amount was only \$565,000.⁷⁸

Another significant coincidence is the complete lack of any question by the Elko County Assessor of the figures submitted to his office by the mining companies. Nowhere in the newspapers of the county during the period from 1867 to 1902 could a single instance of a court action against a mining firm for falsification of records be found.

As a means of checking the official figures against reported production, a list of shipments was kept during newspaper research. The following table shows the comparison of production figures during years when complete returns could be obtained:

Year	Assessor's Figure	Reported Shipments
1878	\$1,107,797	\$1,212,336
1881	156,000	422,000
1882	350,000	544,000
1883	486,000	662,000
1885	178,000	333,000
1887	183,000	285,000
1888	565,000	690,000

In addition, all shipments to the Carlin smelter, Salt Lake City smelter, or placer production are not included in the figures in the third column. These amounts are believed to be significant since reworking of old tailings became widespread in the 1890's. Most of the concentrates were shipped out of the district for refining, rather than run through the local mills.

Another significant bullion source was placer mining. Couch and Carpenter began to record Tuscarora production in 1875, eight years after the discovery of the district. Much of this gold was shipped out of the state by the Chinese. The writer doubts if any placer production is credited to Tuscarora, while many years, as late as the 1880's, were banner years for the placering. The *Times-Review* estimated that \$30,000 was recovered in 1885.⁷⁹

Individually, the foregoing arguments could be treated as insignificant exceptions. However the number of consistency of the statistics found in contemporary documents supports the case for gross production achieving a total of \$12-\$15 million, rather than the \$10-\$11 million generally cited in Couch and Carpenter and the Nevada Bureau of Mines publications on Tuscarora and Elko County. The error in relying on Couch and Carpenter derives from the County Assessor's figures which (1) are proven low, and (2), were purposely low to enable the mining firms to avoid taxation.

The Bullion Tax

Implied collusion between Tuscarora mining companies and the Elko County Assessor came as a result of the State Bullion Tax and County property levies. It was in the interest of the corporations to avoid as much of the tax load as possible.

Until the late 1880's, mines in the district did not work ore of less than \$100 valuation. The early bonanzas were consistently above \$200. A careful practice by the mining companies to lower the tax rate was to raise the numbers of tons produced so that the valuation per ton would fall into a lower category. During the late 1870's, when ore values were at their highest, values reported were always below \$100 per ton, which qualified them for a lower valuation. At the same time, local newspapers were printing articles reporting the average assay of rock being worked in Tuscarora mills as \$150-\$300 per ton. Had the assessor wanted to prove fraud on the part of the mining companies, ample evidence existed.

The revision of the bullion tax in 1885 permitted all expenses to be deducted from the value of ore, before calculating the tax. Afterwards, mining companies used every device for increasing "paper" costs. First, the taxable profits from mining almost disappeared. The tax paid per ton plummeted and never recovered. Second, even though production had several periods of resurgence in the 1880's and 1890's, methods were found to keep taxation to a farcial level.

The revision of the bullion tax was sponsored by mining interests for obvious reasons. The electorate was fully aware of the legislation and realized that the decrease in corporate taxes would be transferred to residents. However, the condition of the state required that any possible inducement be provided to the mining industry in an effort to stimulate activity.⁸⁰ The law of 1885 is an excellent example of the complete control that out-of-state capital exercised in Nevada politics, economics and industry.

The "paper" costs that formally brought the costs of mining in Tuscarora above the receipts for bullion in the market were common to techniques employed in other parts of the state. Primarily, the costs were accumulated in payroll padding and excessive mill expenses. The company directors would make a contact with a mill to work their ore at an inflated figure. The mill would be wholly-owned property of certain of the directors, who either kept the profits themselves, or agreed to kick-back a proper portion to the mining company.⁸¹

These open means of defrauding the state show the collusion between the mining industry and the county assessor. Average costs of milling ore in the western United States at the time were \$3-\$5 per ton. A contract for \$25 or \$50 per ton was impossibly poor management, yet neither the assessor nor the shareholders vocally objected. There was never a case brought before the courts by the Elko County Assessor in which tax fraud on the part of an individual mining company was claimed. This collusion was practiced at a time when local newspapers regularly printed information that any competent assessor could have compiled as evidence of fraud.

⁸⁰ *Tuscarora Daily Times-Review*, January 8, 1886, p. 3. "The amount received by the State last year on account of the net proceeds of mines was \$9,968.82. The new law passed by the last Legislature almost wipes out of existence this source of revenue."

⁸¹ *Report of the State Controller...*, 20th Session, 1901, p. 6.

⁷⁷ *Report of the Surveyor General and State Land Register of the State of Nevada for the Years 1879 and 1880*, found in Appendix to the Legislative Journal, 10th Session (Carson City: State Printer's Office, 1881), p. 28.

⁷⁸ *Report of the Surveyor General for the Years 1887 and 1888*, found in Appendix to the Legislative Journal, 14th Session (Carson City: State Printer's Office, 1889), pp. 99-100.

⁷⁹ *Tuscarora Daily Times-Review*, May 19, 1885, p. 3. This figure is probably low, since the placer assays were

The best designed hall for social events was Plunkett's Hall, remodeled in 1897 so that the floor could be either tilted for a state presentation or leveled for a ball. The design was unique and contributed to the enjoyment of Tuscarorans for better than a decade.

CONCLUSION

Despite a few unique developments, primarily of inconsequential nature, Tuscarora remains a small camp that would have been grudgingly noticed during the peak of the Comstock period. Only the paucity of mining activity in Nevada during the 1880-1900 depression led to its eminence. Another conclusion derived from this study is the concern in peripheral areas with any state-wide topic or development. One can argue convincingly that these areas were just as interested, even if just as powerless, as the residents of Carson City-Reno-Virginia City.

This concern did not prevent Elko County from being as utterly controlled by the Bank/Bonanza Firm/Central Pacific group as any other part of the state. Nevada seems small enough for virtually the entire electorate to be either bought or intimidated by the interests mentioned in the preceding sentence.

The control of Nevada politics and economics by out-of-state capital has been studied and generally limited to those groups operating in the Comstock district. The Grayson interests so important to Tuscarora appear to be outside the personalities that supposedly ruled Nevada. Perhaps there were more influences at work in the state than are generally given credence. Individual studies of outlying areas may add some diversity to the dominant power structure ascribed to Nevada. Continued research in Tuscarora and other camps in eastern and southern Nevada should reveal these other economic factors and their connection, or isolation, from the accepted Nevada hierarchy. Salt Lake City risk capital was dominant in southern Nevada and was active in Tuscarora. Perhaps Nevada was an economic dependency of not only California, but also Utah. The goal for historians is now to draw the dividing line between the relative spheres of influence.

BIBLIOGRAPHICAL ESSAY

Tuscarora resembles most of the marginally important mining districts in Nevada; there exists one or more definitive papers in the professional mining field appropriate to the camp and a variety of brief surveys in the general state histories. The information that formed the basis for the preceding pages came from primary sources. This was not through choice so much as through necessity; there had been no earlier professional digestion of the basic data into a competent secondary compilation. As a result, the bulk of the writer's research time was expended in the *Tuscarora Times-Review* and the *Daily Elko Independent*. For that reason most of the footnote references to support statements made in the text come from those newspapers.

Accounts of the early placer discoveries in 1867-1870 came primarily from the *Reese River Reveille*, however these were collected from the *Mining and Scientific Press* which edited the *Reveille's* reports and added some letters from contributors who wrote directly to the San Francisco weekly. After 1869, when the best placer ground had been skimmed and then sold to Chinese miners, the district is reported in only local newspapers. The *Daily Elko Independent* paid attention to events in Tuscarora at the few times when bullion was brought down from the camp and traded for goods in Elko. The professional press ignored the Chinese.

The *Tuscarora Times-Review* is available for research from 1878 until 1903. Most of the issues are complete, however the 1880 volume of both the *Times-Review* and the *Daily Elko Independent* is missing. Events for that year had to be approximated from later issues of the local newspapers and the County Assessor's reports. The quarter-century of activity at Tuscarora had been discussed in later historical surveys by brief paragraphs, with the exception of Edna B. Patterson, Louise A. Ulph, and Victor Goodwin, *Nevada's Northeast Frontier* (Sparks, 1969).

The other general histories either ignore the camp or include it as a footnote, as in Hubert Howe Bancroft, *History of Nevada: Colorado and Wyoming, 540-1888* (San Francisco, 1890); Myron Angel (ed.), *Reproduction of Thompson and Martin's "History of*

confused the chronology and was not resolved by subsequent editing. The latest of these subscription works, Anon., *Nevada, the Silver State* (Carson City, 1970), contains an article on Tuscarora that only repeats the commonly accepted misconceptions about the camp and adds a few new distortions.

The Nevada Bureau of Mines publications provide adequate description of the geology and mineral deposits of the district. The authors, with the exception of Nolan, are content to repeat the comments of earlier students of the camp's development and usually do not include the most recent work. Thomas B. Nolan, *The Tuscarora Mining District, Elko County, Nevada* (Carson City, 1936), is the best of the mining studies, although a more recent study of Elko County has the advantage of covering the inactive period between 1936 and the late 1960's.

The *Mining and Scientific Press* and *Engineering and Mining Journal* contain little on Tuscarora after the silver discovery. These sources are usually superb depositories of Nevada materials, but in the case of Tuscarora very little information could be located. During the 20 year depression, Nevada seemed to be ignored by the mining fraternity, which moved into the Northwest or Southwest.

The *Tuscarora Times-Review* contributed most of the data collected during research. A daily for most of its life, the *Times-Review* filled its columns with the sort of detail useful to the historian. The advantages of a daily publication are measurably higher than the more customary weekly. Tuscarora can be interpreted easier since confirming information in daily issues exists *ad nauseum*. Editors of weekly publications have a tendency to make statements in one issue that are supposedly to be amplified in the next, but either forget in the interim or cannot find the open space. The *Daily Elko Independent*, only 50 miles away, kept its readers informed of events at the mining camp. A spirit of competition between the two communities made each editor anxious to correct mistakes in the opposing paper. These printed conflicts assist the researcher. The Manuscript Census for 1880 is another check on the population figures claimed by Tuscarora by its newspaper.

BIBLIOGRAPHY

Public Documents

Browne, J. Ross. *Mineral Resources of the States and Territories West of the Rocky Mountains for 1867*. Washington, D.C.: Government Printing Office, 1868.

Couch, Bertrand F., and Carpenter, Jay A. *Nevada's Metal and Mineral Production*. ("University of Nevada Bulletin," Vol. XXXVII, No. 7.) Carson City, Nevada: State Printer's Office, 1943.

Granger, A.E., Bell, M.M., Simmons, G.C., and Lee, Florence. *Geology and Mineral Resources of Elko County, Nevada*. ("Nevada Bureau of Mines Bulletin 54.") Carson City, Nevada: State Printer's Office, 1957.

Nolan, Thomas B. *The Tuscarora Mining District, Elko County, Nevada*. ("Nevada Bureau of Mines Bulletin 30.") Carson City, Nevada: State Printer's Office, 1936.

Raymond, R.W. *Report on the Mineral Resources and Mining Districts of the United States West of the Rocky Mountains*. Annual Reports 1869-1877.

Report of the Nevada State Controller for 1900 and 1901.

Reports of the Nevada State Mineralogist, 1871-1872, 1875-1876, 1877-1878.

Reports of the Nevada State Surveyor-General, 1879-1880, 1887-1888, 1889-1890.

Vanderburg, William O. *Placer Mining in Nevada*. ("University of Nevada Bulletin," Vol. XXX, No. 4.) Carson City, Nevada: State Printer's Office, 1936.

U.S. Bureau of the Census. *Ninth Census of the United States: 1870. Manuscript Census Rolls, (Microfilm)*.

U.S. Bureau of the Census. *Tenth Census of the United States: 1880. Manuscript Census Rolls, (Microfilm)*.

U.S. Bureau of the Census. *Eleventh Census of the United States: 1890. Report on Population of the United States*.

Wheeler, George M. *Preliminary Report on Explorations in Nevada and Arizona*. (42nd Congress, 2nd Session.; Sen. Exec. Doc. 65.) Washington, D.C.: Government Printing Office, 1872.

Books

Angel, Myron (ed.) *Reproduction of Thompson and West's "History of Nevada," 1881*. Berkeley, California: Howell-North, 1958.

Anon. *Nevada, the Silver State*. Carson City, Nevada: Western States Historical Publishers, Inc., 1970.

Bancroft, Hubert Howe. *History of Nevada: Colorado and Wyoming, 1540-1888*. Vol. XXV of *The Works of Hubert Howe Bancroft*. San Francisco: The History Company, 1890.

Cline, Gloria Griffin. *Exploring the Great Basin*. Norman, Oklahoma: University of Oklahoma Press, 1963.

Lincoln, Francis Church. *Mining Districts and Mineral Resources of Nevada*. Reno: Nevada Newspaper Publishing Company, 1923.

Mills, Lester W. *A Sagebrush Saga*. Springville, Utah: Art City Publishing Company, 1956.

Patterson, Edna B., Ulph, Louise A., and Goodwin, Victor. *Nevada's Northeast Frontier*. Sparks, Nevada: Western Printing & Publishing Company, 1969.

Philbrick, Francis S. *The Rise of the West*. New York: Harper & Row, Publishers, 1965.

Stuart, E.E. *Nevada's Mineral Resources*. Carson City, Nevada: State Printer's Office, 1909.

Weed, W.H. (ed.) *The Mines Handbook*. Tuckahoe: no printer noted, 1922.

Articles and Periodicals

Daily Elko Independent. 1869-1881.

Engineering and Mining Journal. 1866-1902.

Mining and Scientific Press. 1867-1902.

Reese River Reveille. Austin, Nevada, 1867-1881.

Tuscarora (Daily) Times-Review. 1878-1903.

Unpublished Material

Bedunnah, Gary P. "A History of the Chinese in Nevada: 1855-1904." Unpublished MA Thesis, Department of History, University of Nevada-Reno, 1966.

Smith, Alfred Meritt. "Resources Report: Elko County, Nevada." The Office of George W. Malone, U.S. Senate, 1952.

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