

The Discovery of Gold in California

by Donald C. Cutter

The following historical account of the discovery of gold in California has been slightly amended and updated from the original: Cutter, Donald C., 1948, The Discovery of Gold in California, [in] Geologic Guidebook Along Highway 49 – Sierran Gold Belt – The Mother Lode Country: California Division of Mines Bulletin 141, p.13-17. The original article was written in celebration of The Centennial of the Discovery of Gold in California, 1848 - 1948. The article was well researched and remains a classic account of those early events associated with the gold discovery and mining in California.

When James Wilson Marshall found gold in the tailrace of Sutter's mill on January 24, 1848, he was not the first to come across this much sought mineral in California. As early as 1816, there were reports of gold in the Spanish province of California. Reports and rumors of gold persisted, but it was not until 1842 that there was a real gold rush in the future Golden State. Either late in 1841 or early in 1842, Francisco Lopez, majordomo of the San Fernando Rancho, and a companion were in search of some stray cattle in the mountains near the ranch. Becoming tired they dismounted to rest in San Feliciano Canyon. Here Lopez whipped out his knife to dig some wild onions to eat, and in the earth clinging to them he found particles of what appeared to him to be gold. Using his knife he continued to mine in the vicinity and found additional alluvial gold deposits.

Following this gold find came the first rush in California history. Californians left the monotony of daily life and went to this canyon located 35 miles northeast of the Pueblo of Los Angeles. Although they used the crudest of methods and were without nearby water to pan their gold, some of the miners succeeded in making their operations profitable.

The first gold-seekers at the Los Angeles placer were the local residents, but within the year men of greater mining experience were imported from the State of Sonora, Mexico. These miners introduced into California the method that became known as dry washing to extract the gold. As a method of mining it was simple, crude and inefficient, but it had the advantage of being inexpensive. After the pay dirt was dug, it was sun dried on a large canvas and then pulverized into dust. The next operation was to throw the dirt by the panful into the air in order to allow the wind to blow away the lighter elements and to let the gold dust fall back into the pan. Thus the old agricultural procedure of winnowing was the first method used extensively in California mining; for not only was it used in the Los Angeles area, but also it was introduced by many of these same Sonorans into the mines of the Sierra Nevada after 1848.

One wonders why this gold find was not more generally known, especially since the estimates of the productiveness of the placers were considerable. William Heath Davis, an early pioneer, estimated that \$80,000 to \$100,000 in gold was taken from the mines in the first two years. Don Abel Stearns, a resident of Los Angeles, guessed that \$6,000 to \$8,000 a year was extracted prior

to 1847. Hubert Howe Bancroft, the historian of California, stated that by December 1843, 2000 ounces had been taken, valued at \$38,000. These, however, are merely estimates of production.

As a matter of written record, the first California gold dust sent to a United States Mint belonged to the aforementioned Don Abel Stearns. On July 8, 1843, his package of 1,834 ounces of placer gold was deposited in the Philadelphia mint by Alfred Robinson. The gold had been transported around the Horn of South America and at the mint brought somewhat over \$19 an ounce. It cannot be said that the United States Government was not officially informed of the existence of gold in California, for Thomas O. Larkin as vice consul at Monterey notified Secretary of State James Buchanan of the fact in an official communication of March 1846.

In view of these circumstances, what were the reasons for the lack of publicity of this early uncovering of gold? Doubtless they are a combination of the following: the small amount of gold was soon exhausted; inadequate mining processes and difficulty of extraction made gold mining economically profitable in the long run only to those with previous mining experience; the Mexicans had inherited the Spanish ideas of mercantilism in pursuit of which policy trade and communication with foreign nations were discouraged and consequently the possibility of publicity was lessened; and in general, the Mexican authorities were not favorably inclined to increased immigration into California – after all, California still belonged to Mexico.

It is obvious that James Marshall was not the first to find gold in California. Nevertheless it was this New Jersey carpenter, in the employ of John Sutter, who made the effective discovery which electrified the world, altered the course of western history, greatly accelerated the development of California, and had national and international ramifications.

For years John Sutter (John Augustus Sutter, 1803-1880), grantee and almost feudal baron of a large Mexican grant in the vicinity of present day Sacramento, desired to provide a supply of lumber for his own use and for sale. Consequently he provided for the establishment of two mills, a sawmill at Coloma and a gristmill at Natoma. The latter mill was to use the products of the former in its construction. In August 1847, Sutter signed a contract with Marshall (James Wilson Marshall, 1810-1885) which provided that Marshall should erect and operate the mill and that Sutter should supply the labor, tools, supplies, and equipment. After they had determined the location for the proposed mill on the South Fork of the American River (American River), in a small valley which was later to be called Coloma (Coloma Gold District), they built two cabins, one to house the workers and the other the boss – Marshall.

John A. Sutter James W. Marshall

The work of construction of the mill advanced quite rapidly after its commencement in September. Laborers, Indians, Mormons, and others were employed and the work on the mill was almost finished by January of the following year (1848). This early completion was due in considerable measure to the industry and abilities of the Mormon workers who had been recently discharged from the Mormon Battalion.

The story of this group of soldiers and their part in the discovery of gold in California is of considerable interest. The Battalion, about 500 strong, volunteered for service in the United States Army for the Mexican War. Besides desiring to aid their country, the men enlisted in order to become the advanced guard of the Mormon westward migration. The termination of their one year enlistments found a considerable portion of the original group in southern California, after having opened a wagon road to the West. Some of the group, about 81 in number, re-enlisted for an additional year of service. The remainder, some 240, were released after exemplary service. By this time the Battalion had been informed that the new headquarters for the faith was to be in Utah, and they began to head for that destination.

The soldiers were not, however, the only Mormons in the Golden State at the time, for on July 31, 1846, a group of homeseekers had arrived aboard the sailing ship Brooklyn led by Sam Brannan (Samuel Brannan, 1819-1889) as presiding elder. Late in 1847, this same Brannan met the homeward bound group of ex-soldiers at Tahoe Basin. There he urged the men to remain in California until the following spring since it was already September. Brannan's entreaties were of no avail, but a bundle of letters and an epistle from Brigham Young (Brigham Young, 1801-1877), which arrived the following day, changed the minds of many. In the epistle they were advised by their leader to remain in California until they had outfitted themselves, unless their presence in Utah was essential. Thereupon most of the group turned back and sought employment in California.

Samuel Brannan Brigham Young

About 40 of the young ex-soldiers found work with John Sutter, some being sent to Natoma, some to Coloma, and others remaining to work at Sutter's Fort in New Helvetia [Sacramento]. Probably about nine of the Mormons were assigned to Marshall at Coloma, this group entering into a contract with Sutter whereby they agreed to remain in his employ until the completion of work on Sutter's Sawmill. One of the Mormons, Henry William Bigler [1815-1900], kept a diary from which historians have drawn heavily in determining the details of the [gold] discovery and the actual date thereof as January 24, 1848.

In spite of the discovery of gold the Mormons completed the provisions of their contract with Sutter and engaged in mining only when they were off duty at the mill. By March 11th, the work on the sawmill was finished and it was in operation. Presently the Mormons terminated their contract with Sutter, were paid off at \$1.50 per day for work at the mill, and set about digging gold on a full time basis at Mormon Island near the confluence of the South and Main Forks of the American River. Here many of the Mormons joined in the enterprise, working the area until June of the same year, at which time the members of the Battalion decided to leave for the home in Utah which they had not yet seen. In July, forty-five of them united and left the easy money of California for the alkaline plains of Salt Lake Valley, because of their attachment to their faith. This marked the first return of miners from the gold fields, and was a preview of the role that California would play in the filling in of the West.

Just as the date of the discovery has been a subject of discussion, the accounts of the events leading up to Marshall's find and his actions thereafter conflict in different narratives. The main facts, however, are in accord. The sawmill constructed by Marshall was operated by diverting the water of the river through a headrace into the forebay of the mill, whence it was directed to the waterwheel, flowed under the length of the mill and escaped back into the river through the tailrace. It was determined by test in December 1847 that the mill foundation had been set too low; therefore the water did not escape sufficiently into the tailrace. This necessitated the deepening and widening of the race to expedite the run-off of the water.

Leaving the mill in the same month, Marshall ordered that this work should be accomplished in his absence. Upon his return to the mill, Marshall found that his orders had been carried out, but the race was still not sufficiently deep. Additional excavation was done during the daytime, and at night the gates of the forebay were opened and the running water assisted the work by clearing away the loose dirt. Boulders were blasted out and the decomposed granite was being dug out manually by both the Indian laborers and the Mormons.

On the morning of January 24th, when Marshall was making one of his frequent inspections of the tailrace, something glittering caught his eye. There, resting in a shallow depth of water, was a yellow flake of what appeared to be metal. Testing its malleability, he came hopeful. He picked up some more flakes, placed them in the crown of his hat, and made his way to where the men were working. The Mormons shared Marshall's interest and several elementary tests were made, by which the group could not disprove the possibility that the metal was gold.

Work on the mill was halted temporarily while all went to the tailrace to pick up these available flakes of metal. Use of the fingers alone was found to be exceedingly difficult, but the assistance of a knife in gathering gold was discovered to be efficient. Thus the knife was the first implement used in mining at Coloma as well as at the Los Angeles placers. By this knife method several ounces of gold were collected. Further tests were given the metal, all of which were favorable; but in order to make certain, Marshall decided to depart for Sutter's Fort for a conference with his partner-boss. More scientific tests were applied there, proving beyond a reasonable doubt the authenticity of the find.

Sutter's Fort Sutter's Sawmill

The plans of Sutter and Marshall to keep the discovery quiet came to naught, for the secret of gold could not be kept. The ex-soldiers at the Coloma mill site confided the secret to their associates at Natoma. Charles Bennett, sent by Sutter to Monterey to secure a grant of the Coloma area from Governor Mason, could not restrain himself from showing the gold in Benicia and San Francisco. [Richard Barnes Mason, 1797-1850, was a military governor of California before it became a state, from May 31, 1847 until April 13, 1849.]

Upon hearing of gold, Sam Brannan, the Mormon elder, could not curb his curiosity and visited Sacramento. Upon his return to San Francisco he did not hesitate to proclaim the discovery. Even Sutter, who most wanted the secret maintained, confided the news to General Vallejo (Mariano Guadalupe Vallejo, 1808-1890). The first published announcement of the discovery of gold was

made on March 15, 1848, in the San Francisco weekly newspaper *The Californian*, and no longer could the discovery be withheld from the whole world.

While in San Francisco, Sutter's agent, Charles Bennett, sought the advice of an ex-Georgia miner, Issac Humphrey, and showed him the gold. The miner lost very little time in getting to the location of the discovery and became the first of many professional miners in the gold fields. Among other things he is credited with having introduced machinery [into the gold fields] when, on March 9, 1848, two days after his arrival, he made use of the rocker for the first time in California.

Humphrey had the distinction of being the first professional only by the space of a few days, for a French Canadian backwoodsman soon arrived who had had previous mining experience in Sonora. He was Jean Baptiste Ruelle, called by all simply Baptiste. He and Humphrey were a great help to many greenhorns, who were arriving in increasing numbers. These mining men, augmented by the arrival of some Sonorans from the Los Angeles placers, were the authorities on gold mining, the Sonoran miners being the vanguard of thousands of foreigners to be lured by California's wealth.

The crude method of pen-knife and butcher-knife mining soon gave way to more adequate methods of placer mining. The batea, or dish shaped Indian basket, the iron gold pan, and the cradle, which were used to expedite the process of separation of gold and sediment, were soon in evidence. The cradle (or rocker as it was often called) proved to be inefficient because of the loss of many of the small particles, and was soon improved. The new development was the long tom, an elongated, non-rocking cradle in which transverse cleats arrested these small gold particles. Soon, however, the long tom was superseded by sluices of various types.

Booming or gouging was the next innovation in mining technique. This consisted of merely letting water do the work of clearing away the sediment. A dam was built, and the water diverted through the area which was being mined; the water carried the lighter elements downstream, leaving the gold-bearing ore easily accessible to be worked by one of the other methods of placer mining. The success of this procedure soon brought about the introduction of hydraulic mining – the use of water under pressure. It is claimed that water was used in this manner at Yankee Jim's in 1852. Perhaps more definite is the assertion that in the same year Anthony Cabot used the hydraulic method without a nozzle at Buckeye Hill, near Nevada City. Hydraulic mining seems to have been a California innovation, and was first employed, complete with the nozzle which is generally associated with this type of mining, in 1853.

The idea of dredging gold was common, but early attempts resulted in failure. Characteristic is the example of an operation on the Yuba River in 1853 in which the dredge sank almost immediately. Despite many subsequent dredging endeavors, it was not until 1898 that the first real success was achieved. This was accomplished with a bucket elevator dredge used on the Feather River near Oroville.

The easily worked alluvial deposits of gold extracted by the early miners made mining look simple, and this fact, added to the many stories of fabulous wealth, lured thousands of men to the gold fields of California. Nevertheless, the discovery of new placers did not wait their coming. Not long after Marshall's discovery, John Bidwell (John Bidwell, 1819-1900), grantee of Rancho Chico, visited the Coloma site. Returning home to his rancho, he found gold at what became known as Bidwell's Bar on the Feather River.

Pearson B. Reading also visited the discovery site, became convinced that there were similar indications on his land, and on his return to his home found some deposits on Clear Creek which he worked with Indian labor. Success on Clear Creek led Reading to further finds on Trinity River, just as success on the Feather River stimulated discoveries on the Yuba. Before the end of 1848, finds of gold had become numerous and the gold area extended from the Tuolumne [River] on the south to the Trinity [River] on the north. Men of mining experience sought the source vein or veins from which the alluvial deposits originated. The first such vein, which was of gold quartz, was discovered on Colonel John C. Fremont's Mariposa grant (John Charles Fremont, 1813-1890) in August 1849. It was probably not until 1850 or 1851, that the term Mother Lode was first applied. At that time it was used to designate a vein worked at Nashville, twelve miles south of Placerville.

In the years following '48 and '49, more and more areas were opened and worked, and the gold production of California was immense. The significance of these discoveries, of the resulting gold rushes, and of the partial abandonment of the area is enormous. Thousands of men came by wagon, by ship, and even by foot to become rich in the Golden State. Most of them desired to return home after striking it rich. Some did, but many remained in California to populate the new American acquisition.

Gen. Mariano G. Vallejo Maj. John C. Fremont

As a result of the gold rush, California became a state without going through the usual territorial status, since its population was sufficient for its entry into the Union on equal terms with the other states. The nature of prospecting made exploration of the state complete and rapid, most portions being inspected in the hope of finding gold. The results of the influx of forty-niners caused the State to go through a turbulent, and oftentimes lawless, period of growing pains, but a period from which it emerged as the most important western state.

The California gold rush stimulated gold strikes in all parts of the world. Marshall's discovery was the direct stimulus for the important New South Wales find of 1851 and the resulting rush. In the general search for gold, a strike was made on the Fraser River in western Canada. This rush drew many fortune hunters. In 1859-60 the silver bonanza of the Comstock Lode [Nevada] was made by prospectors seeking gold. Additional gold fields were discovered in Colorado in 1859, and many of the miners were Californians.

These gold rushes and subsequent strikes drew men away from California in considerable numbers, but began the process of filling the gaps of settlement between the middle and far West. Thus the discovery of gold not only hastened the development of one state, but also that of the whole West, either directly or indirectly.

The economic consequences and significance of the discovery of gold are equally great but harder to determine. Increased production in the United States, followed by increased foreign production resulting from the California gold rush, caused an increase of money in circulation. By 1865 in California alone \$750,000,000 in gold had been mined, and this figure is considered a conservative estimate. In spite of the heavy increase of circulating gold, the much-feared serious inflation, which was predicted by economists, failed to materialize. True, in California, at the source of gold and where commodities were scarce, initial inflation was tremendous; but world inflation as a result of the California gold rush and its successors, was slight. Estimates of inflation range from 5 percent to 15 percent. This low figure is explained by an existing world scarcity of money caused in part by increasing world population.

There were other important consequences, if not always fortunate ones, as a result of the gold rush. It opened the era of modern mining; it hastened the colonization of the West and the suppression and partial elimination of the Indian; it accelerated the expansion of the agricultural frontier by the need for a food supply in the gold area; and it expedited the linking of East and West.

The California rush has the distinction of being the first modern international gold rush, since all previous gold rushes in modern times were exclusive, under the theory of mercantilism. Since subsequent rushes were, for the most part, international in character, a fresh distribution of population was produced not only in the United States but also in many portions of the world. This redistribution of population, with its resulting problems, together with the general increase of money [that was] put into circulation, is the primary significance to the world of Marshall's fortuitous discovery in an indistinct river that had etched its course down the western flanks of the Sierra Nevada in California.

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