



Detail, "Chinese Emigration to America—Sketch on Board the Pacific Steamship *Alaska*," *Harper's Weekly*, 20 (May 20, 1876), pp. 408-9

OWAland Museum of California, gift of anonymous donor



Few places in nineteenth-century America gathered more ethnic groups than did the western mining frontier. In the twenty-six years from James W. Marshall's discovery of gold at Sutter's mill in California in 1848 to General George A. Custer's finding gold in Dakota's Black Hills in 1874, continuous gold rushes attracted hundreds of thousands of people from all parts of the world. Their coming accelerated the region's exploitation and settlement at an unexpected speed. Among the contributors to that exploitation were the Chinese. Of all ethnic group prospectors, the Chinese were the most ubiquitous and distinguishable, often edging out other groups in what amounted to an economic contest. Their historical significance in placer mining—their ubiquity, persistence, and success—is still not wholly recognized, but the sesquicentennial of the California gold rush provides an ideal opportunity to assess and commemorate their remarkable achievements on the western mining frontier.

Marshall's accidental discovery of gold on the south fork of California's American River in early 1848 inaugurated the first gold rush to the American West, and among the very first gold rushers were several Chinese. Hearing of the news, a merchant named Chum Ming of San Francisco immediately joined the first wave of prospectors into the Sierra Nevada. Afterward, he wrote of his good fortune to friends and relatives in China. About the same time, the American brig *Eagle* arrived in San Francisco. On board were Charles V. Gillespie's three Chinese servants—two men and a woman. As soon as they heard of the gold strike, the two men deserted their master and headed for the hills. To this day, what became of them is unknown.¹

News of gold in California traveled quickly along the entire Pacific Rim, from Peru to Australia to Manila, and finally to China. Aus-

tralia received word in June 1848, and Canton learned of the discovery in October, only a few days after the news had reached the East Coast of the United States.² Americans and Europeans, not the Chinese themselves, helped spread the message across China.

No Need to Rush

The Chinese, Placer Mining, and the Western Environment

by Liping Zhu

The discovery of gold in California in 1848 attracted immigrants from almost everywhere—Europe, South America, and Asia as well as the eastern United States. Spurred by the promise of riches and a series of upheavals at home, Chinese argonauts arrived in California early on and subsequently pursued gold throughout the West well into the 1870s. In detail at left is an illustration of Chinese men traveling to San Francisco aboard the *Alaska*. The inset photograph is a daguerreotype of an unidentified Chinese man made by California photographer Isaac W. Baker, probably in the 1850s.

Foreseeing a profitable business in human cargo, captains of western vessels tried to capitalize on China's misfortunes wrought by foreign and domestic wars. Launching an intensive advertising campaign with the help of local agents, clever captains distributed placards, posters, and maps, all with what one historian called "highly colored accounts of the golden hills of California."³ Exaggerated circulars tempted adventurous and desperate alike; some Chinese sailed for America right away. It took only about six weeks to cross the Pacific Ocean from China compared to six months to traverse the American continent east to west. Thus, the shorter traveling time played to Chinese advantage.

The Chinese Mining Frontier in Nineteenth-Century West



Chinese arrivals in the United States grew in number from 325 between 1848 and 1851 to 20,000 in 1852. During the next quarter century, Chinese miners spread from California to settle in most western states. By the early 1870s, the West's 17,069 Chinese constituted more than 25 percent of all miners in the region.

In the first three years, however, most Chinese responded to the California excitement with characteristic caution. Of the tens of thousands of pioneers pouring into California, only 325 were forty-niners from China. The San Francisco Custom House received 450 more Chinese in 1850 and 2,716 in 1851. After returning home with handsome fortunes, some early Chinese adventurers convinced their countrymen of real golden hills in California. The Taiping Rebellion, which broke out in southern China in 1851 and spread destruction across half of China before being suppressed in 1864, encouraged many to flee the country. Indeed, in thirteen years of civil war, the rebellion's death toll alone came to twenty million people.

A combination of push and pull factors thus triggered a wave of Chinese immigration to America. More

than 20,000 Chinese arrived in the United States in 1852, quickly augmenting the number of Chinese in California, which reached 34,933 on the eve of the Civil War. Of these Chinese, some three-fourths lived in counties where mining was the principal occupation. Most Chinese miners missed the initial rush, but they gradually took control of California placer mining. Within a decade they possessed most of the claims in the original strike region and together constituted the single largest national group of miners. Their slow start and quick dominance in California's mines formed a distinctive pattern that would be repeated throughout the mining West.⁴

Where others led, the Chinese followed. Without participating in the series of frantic western mining stampedes, the Chinese nonetheless gradually spread

to almost every corner of the West. Their extensive placer operations reached Nevada, Oregon, and Washington in the 1850s; Idaho and Montana in the 1860s; and Arizona, Colorado, and Dakota in the 1870s. Obtaining claims either through purchase or preemption, the Chinese gradually made themselves the most prominent group in the industry. In the heyday of their mining activities in the early 1870s, 17,069 Chinese constituted more than 25 percent of all miners in the West. In some states and territories, the percentage was even higher: 58.5 percent in Idaho, for example; 61.2 percent in Oregon; and some 60 percent in California.⁵ This disproportionate representation of Chinese immigrants in western mining continued until the mid-1880s. As a result, a huge quantity of American treasure passed into the hands of Asian miners and their families. From 1855 to 1870, the Port of San Francisco alone recorded shipments of \$72,581,219 in gold and silver to China.⁶

Despite their success and widespread presence, Chinese miners in nineteenth-century America have received little scholarly attention and few in-depth studies. The lack of books and articles limits our ability to understand either Chinese placering or western mining generally. Why did these Asian latecomers, who possessed no legal or economic advantage, eventually outdo so many others in the placer industry? Contemporary writers and popular literature of the time often attributed Chinese success to a distinctive frugality and patience. Describing the situation at Auburn, Oregon, in 1861, one contemporary concluded: "The Chinese patiently panned the gulches until there was scarcely an ounce of gold in the tailings of other days."⁷

Without further study, later generations willingly accepted such casual comments as historical truth. Summarizing the reasons for Chinese mining success,

noted mining historian Rodman Paul wrote: "Having been simple peasants or laborers accustomed to a limited standard of living in their overcrowded native land, the Chinese immigrants were willing to work for much smaller returns than white miners."⁸ The statement became a standard interpretation of Chinese achievement in western mining. While true that the Chinese, who missed every major rush, often worked over the claims abandoned by whites and still made money, their success in a foreign, often unfriendly land required more than simple patience and frugality. In fact, a number of characteristics distinguished the Chinese from other groups.

Mining activity and the Chinese diaspora had been inseparable since the seventeenth century. Following in the Manila galleons that visited their country for trade in the late 1500s, Chinese ventured to Mexico and Peru in search of economic opportunity. As early as the 1600s, some immigrants joined the Indians in Zacatecas, Mexico, to mine silver. Elsewhere, the Netherlands, England, and France sought to defend their colonies in Southeast Asia against Spain and Portugal by inviting the Chinese to settle in Indochina, Malaya, Siam, Java, Sumatra, Borneo, and the Pacific islands. Gold mining joined sugar planting as a Chinese monopoly in these regions.

As early as the 1730s and 1740s, the Chinese began working in the diamond and gold mines of Southeast Asia. To defend themselves against pirates and native gangs, they traveled more often in groups than individually. These groups became the initial mining companies. As early as 1770 there were 10,000 Chinese mining gold in Southeast Asia. A few giant companies

1. Hubert Howe Bancroft, *History of California*, 7 vols. (San Francisco, 1881-1890), 7:336; *San Francisco Chronicle*, July 21, 1878.

2. George H. Tinkhan, *California Men and Events, Time 1769-1890* (Stockton, Calif., 1915), 63-65.

3. Stephen Williams, *The Chinese in the California Mines, 1848-1860* (1930; reprint, San Francisco, 1971), 21.

4. Thomas W. Chinn, H. Mark Lai, and Philip P. Choy, eds., *A History of the Chinese in California: A Syllabus* (San Francisco, 1969), 18-21; David V. DuFault, "The Chinese in the Mining Camps of California: 1848-1870," *Historical Society of Southern California Quarterly*, 41 (June 1959), 161.

5. Shih-Shan Henry Tsai, *The Chinese Experience in America* (Bloomington, Ind., 1986), 10-11; Randall E. Rohe, "After the Gold Rush: Chinese Mining in the Far West, 1850-1890," *Montana The Magazine of Western History*, 32 (Autumn 1982), 2-19; DuFault, "Chinese in the Mining Camps of California," 165.

6. Rossiter W. Raymond, *Statistics of Mines and Mining in the States and Territories West of the Rocky Mountains* (Washington, D.C., 1872), 528.

7. See Rohe, "After the Gold Rush"; Randall Rohe, "Chinese River Mining in the West," *Montana The Magazine of Western His-*

tory, 46 (Autumn 1996), 14-29; Randall Rohe, "The Chinese and Hydraulic Mining in the Far West," *The Mining History Association Annual*, 1 (1994), 73-91. For case studies on Chinese mining communities see Liping Zhu, *A Chinaman's Chance: The Chinese on the Rocky Mountain Mining Frontier* (Niwot, Colo., 1997); Darby C. Stapp, "The Historical Ethnography of a Chinese Mining Community in Idaho" (Ph.D. diss., University of Pennsylvania, 1990); and Ronald H. Limbaugh, "The Chinese of Knight's Ferry, 1850-1920: A Preliminary Study," *California History: The Magazine of the California Historical Society*, 72 (Summer 1993), 106-27; Berne Bright, "Blue Mountain Eldorados: Auburn, 1861," *Oregon Historical Quarterly*, 62 (September 1961), 236.

8. Rodman Wilson Paul, *Mining Frontier of the Far West, 1848-1880* (New York, 1963), 28-29. Said another mining historian: "a claim was regarded as breaking even when it produced an ounce of dust (fifteen dollars) a day. Anything less was 'Chinaman's diggings,' since only a frugal Oriental could make enough to eat on less than an ounce a day, gold-rush prices being what they were." Otis E. Young, Jr., *Western Mining: An Informal Account of Precious-Metals Prospecting, Placering, Lode Mining, and Milling on the American Frontier from Spanish Times to 1893* (Norman, 1970), 111.



Chinese emigrants, especially from the provinces of Guangdong, Fujian, and Guangxi (indicated on the map at left), had ventured overseas in search of opportunity for more than two centuries before the California gold rush. From Canton, Guangdong's provincial capital and only officially designated port of foreign trade, they followed the trade routes to work as miners throughout southeast Asia.

hired several thousand employees. Because European colonists preferred to contract Chinese companies in operations, mining passed into the hands of Chinese. Some companies established sophisticated business structures, each containing a board of trustees, executives, secretaries, accountants, treasurers, superintendents, foremen, and workers. In 1812, some 30,000 Chinese worked in Borneo's Sambas mining district alone. On the eve of the California gold rush at least 50,000 Chinese mined gold in Borneo. Chinese also mined gold in Malaya and Sarawak and silver in Burma and Vietnam. Because they dominated the industry in many places, Chinese controlled the local mintage until the late nineteenth century.⁹

Before the turn of the nineteenth century, millions of Chinese labored overseas, most of them hailing from Guangdong, Fujian, and Guangxi provinces. An overwhelming majority came from Guangdong. After the colonization of Macau by Portugal and the Philippines by Spain in the sixteenth century, Canton, Guangdong's provincial capital, became the only designated Chinese port for foreign trade. Thus, the Cantonese held an exclusive avenue to foreign commerce and overseas contact. Following the trade routes, they ventured throughout Southeast Asia and, over the ensuing three centuries, developed a tradition of overseas migration.

High population density and lack of economic opportunity also encouraged the Cantonese to seek better fortune abroad. By mid-nineteenth century,

Guangdong's population had reached 14 million. At 86,000 square miles, the province was nearly the size of Utah, yet was and is two-thirds hills and mountains, which meant its population was clustered. The ratio of land to population was 1.67 *mou* per person (less than a quarter of an acre). Moreover, clans rather than individuals owned a large proportion of the arable land, which exacerbated tenancy rates, while many peasants owned no land at all. Consequently, both social tradition and economic pressures sent millions of Cantonese overseas in search of self-improvement.¹⁰

Chinese emigration to North America represented only a trickle of the centuries-long diaspora along the Pacific Rim, which totaled more than one million Chinese. In 1851, soon after the stampede to California, gold was also discovered in New South Wales and Victoria, Australia. Chinese quickly embarked to Australia and within a decade numbered 38,247 there, a population they maintained for the rest of the nineteenth century. An overwhelming majority of these immigrants worked in gold mines and earned reputations as excellent miners.¹¹

To revive New Zealand's local economy, the Chamber of Commerce in Otago Province first invited Chinese to that country in 1866. In the late nineteenth century, about 15,000 Chinese ventured to New Zealand in search of gold. Everywhere they went, Chinese immigrants kept regular contact with the motherland, including a sizable return migration. According to

9. Wu Fengbing, et al., *Dongnanya Huaqiao Tongshi* (Fuzhou, China, 1993), 139-85; Li Chunhui, et al., *Meizhou Huaqiao Huaren Shi* (Beijing, 1990), 11; Victor Purcell, *The Chinese in Southeast Asia*, 2d ed. (London, 1965), 422.

10. C. Y. Choi, *Chinese Migration and Settlement in Australia* (Sydney, 1975), 5, 9-11; Sucheng Chan, *This Bitter-Sweet Soil: The Chinese in California Agriculture, 1860-1910* (Berkeley, 1986), 19.

11. Choi, *Chinese Migration and Settlement in Australia*, 18-25.

12. Neville A. Ritchie, "Form and Adaptation: Nineteenth Century Chinese Miners' Dwellings in Southern New Zealand," in Priscilla Wegars, ed., *Hidden Heritage: Historical Archaeology of the Overseas Chinese* (Amityville, N.Y., 1993), 338-41; Elmer Clarence Sandmeyer, *The Anti-Chinese Movement in California* (Urbana, Ill., 1939), 16; Chinn, Lai, and Choy, *A History of the Chinese in California*, 18.

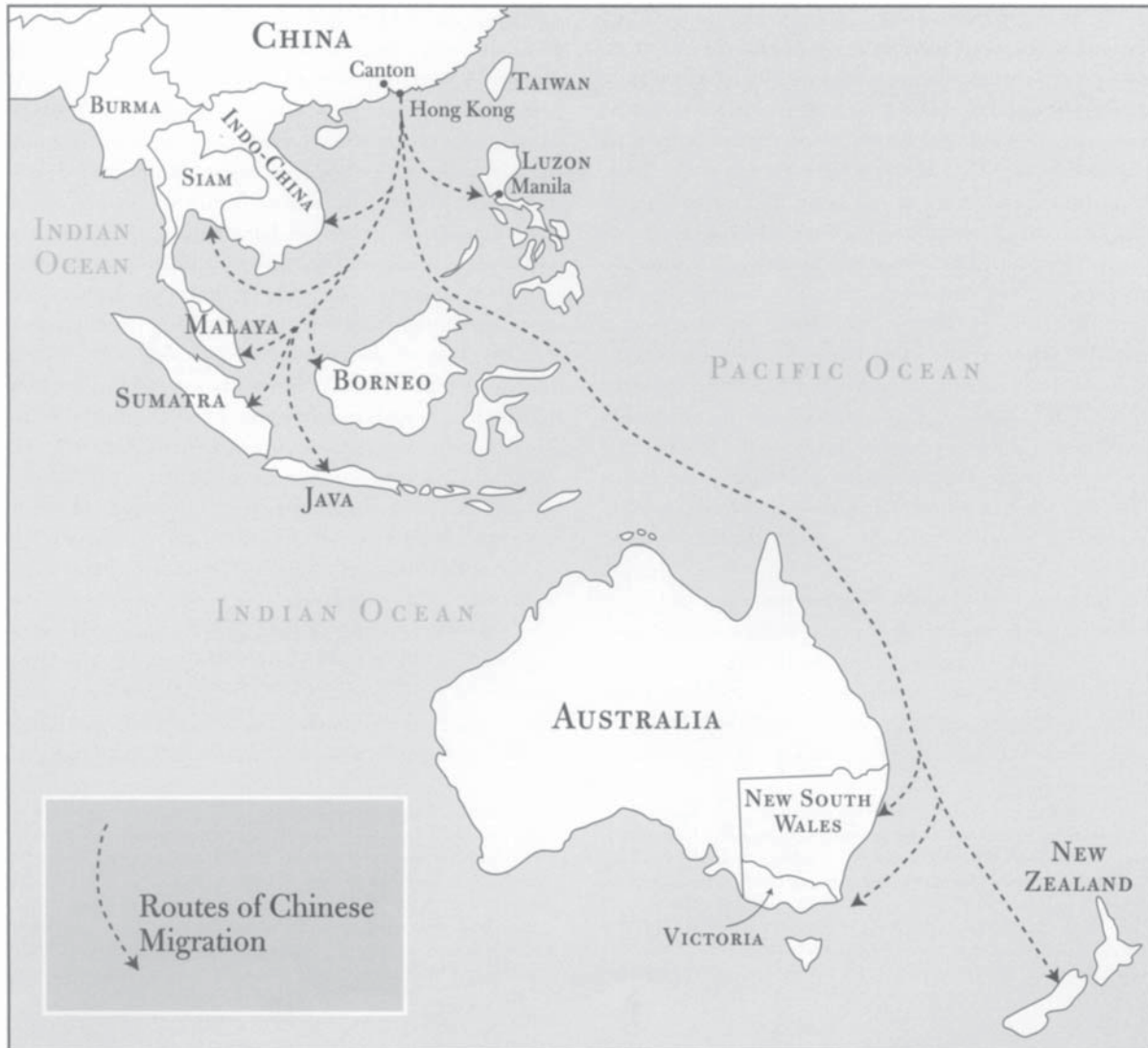
United States Customs Office records, in some years more Chinese left the United States than entered the country. Between 1848 and 1882 government officials documented the entry of more than 300,000 Chinese into the country, over half of whom returned home.¹²

Most Chinese immigrants to Southeast Asia, Australia, and America came from the same districts (Sanyi, Siyi, and Zhongshan) of Guangdong Province. How many Chinese prospectors in America had previous training from other countries is unknown, but collectively the Cantonese had acquired considerable knowledge of precious metal mining. While “Cousin Jack” was the name specifically used to describe Cornish immigrants who had gained fame as excellent miners at home prior to immigrating to America, “China John” referred to all Chinese immigrants, many of whom had developed their mining prowess in Southeast Asia.

The nature of western placer mining appealed to

Chinese economic and cultural circumstance. All placer gold originates in igneous rock. Erosion over thousands of years gradually separates the gold from the rock and sends it into streams and rivers. Reduced in size by the grinding action of debris in flowing water, gold in small particles mixes with sand and gravel and eventually settles into riverbeds. These surface deposits of gold, found either in ancient or modern streambeds, are known as placer gold, and their extraction is called placer mining. Because it was easier to gather gold from shallow streams than deep shafts, early western prospectors, including the Chinese, labored almost exclusively at placer sites. As Rossiter W. Raymond, United States commissioner of mining statistics, reported in the early 1870s, “Since most of the Chinese in the United States are engaged in placer-mining on their own account, it is evident that they are well adapted for success in that branch.”¹³

From the 1600s through the 1800s, Chinese people migrated to Southeast Asia and the Pacific Islands to plant sugar and mine gold and silver. Then, on the heels of the stampede to California in 1848 and after, gold discoveries in New South Wales and Victoria, Australia, and in New Zealand drew even more Chinese away from their homeland.



Most Chinese miners in the United States engaged in placer mining that required little capital outlay for equipment. At right, two Chinese miners are shown in an undated photograph at Horseshoe Bend, near Freedom, Idaho, employing rockers, placer mining devices used to separate gold from gravel.



Idaho State Historical Society, Boise

Placer mining represented the first phase of western mining. It required less financial investment in equipment and more cooperative activity in operation. As an observer said at the time: “the only capital required is muscle and honest purpose.”¹⁴ Such characteristics favored the poor Chinese peasants, who had little money to invest in expensive claims, yet possessed a strong will to extract gold.

By their nature, surface placers do not last. When they play out, lode mining (also known as quartz or hard-rock mining) often becomes dominant. Hard-rock mining, with its deep diggings, demands large capital and sophisticated machinery, which most individual Chinese in the nineteenth-century West did not have. In addition, lode mining required different skills and special training, including the ability to study various rocks. The transition from predominantly placer to lode operations came during the 1880s, a critical time for the Chinese. The Chinese Exclusion Act was passed in 1882, at about the same time several violent anti-Chinese riots erupted across the West. Coming together as they did, these events made Chinese immigrants uncertain about their future in this country. Even the few relatively wealthy Chinese grew unwilling to invest in hard-rock mines. Ultimately, industrial mining pushed many individual miners, including the Chinese, out of the business.

In placer mining, however, cooperation, not individualism, was the key to success. It took several persons to operate a cradle, for example, and thus forced together people who might have preferred to work alone. Such economic alliances constituted the first gold companies. When mining became more sophisticated,

dam and ditch construction demanded more labor and joint effort. Because one group’s water project might flood a neighboring property or divert all the water of another, fierce competition forced miners to band together to compete effectively for gold.¹⁵

For sheer cohesion, the Chinese outdistanced other groups. They always migrated, worked, and returned home in groups. Compared to that of other ethnic groups, Chinese immigration to the American West was the best organized. Their clan associations, usually known as the Chinese Six Companies, kept a complete record of all Chinese immigrants in the United States throughout the nineteenth century. Moreover, the transfer of kinship to America made the Chinese more competitive. Imbued with strong family values and social traditions, members of the same family, village, or district often ventured together and depended on each other for protection and aid.¹⁶ In mining camps, twelve to fifteen people might form a company, pooling their resources, wisdom, and muscle in search of gold. Even in hostile places, the Chinese thrived without the help of others.¹⁷ A marriage between business partners and social kinship significantly strengthened Chinese power in economic competition because few other ethnic groups shared their kind of personal bonding. The clanish culture and cooperative tradition of Asia, strange to many European immigrants, provided a team spirit essential in placer mining.

The first challenge to the Chinese, as to anyone living in a foreign land, was to remain healthy. The Chinese fared well by adjusting to frontier conditions, and their eating habits contributed to a better physical condition. Intense physical labor in mining camps required

13. The word “placer” in Spanish means content, satisfied, or pleased. Charles Howard Shinn, *Mining Camps: A Study in American Frontier Government* (New York, 1948), 7; Rodman W. Paul, *California Gold: The Beginning of Mining in the Far West* (Lincoln, 1947), 40-41; Raymond, *Statistics of Mines and Mining*, 3.

14. Malcolm J. Rohrbough, *Days of Gold: The California Gold Rush and the American Nation* (Berkeley, Calif., 1997), 17.

15. *Ibid.*, 14, 188.

16. Guther Barth, *Bitter Strength: A History of the Chinese in the United States, 1850-1870* (Cambridge, Mass., 1964), 77-80.

17. Ralph Mann, *After the Gold Rush: Society in Grass Valley and Nevada City, California, 1849-1870* (Stanford, Calif., 1982), 53-56.

18. Fresh meat spoiled quickly if not kept at 40 degrees or below. A supply system was therefore essential for obtaining fresh meat daily. The Chinese in Idaho had their own meat markets in all major min-

that everyone have a hearty, high-protein diet. Because of limited meat supplies in China, Chinese people for centuries had learned to rely on fish and beans (poor man's "meats") for sufficient protein. An abundance of cattle in the American West often made beef one of the cheapest foods in mining camps. Taking advantage of this natural gift, Chinese settlers embraced beef with great enthusiasm. Meanwhile, pigs and chickens from backyard pens and ranches provided the community with additional fare, and some Chinese drove Washington hogs and Oregon cattle to Idaho mines. As a result, Chinese miners consumed an unusually large amount of meat per capita—on average, one pound daily per person—which gave them greater physical strength. This compared to Euramerican consumption of between a half and one pound of meat per capita per day.¹⁸

Combined with their high-protein diet, the Chinese ate a lot of vitamin-rich vegetables. Altogether, they consumed a healthy combination of rice, bread, beef, pork, chicken, cabbage, potatoes, beans, onions, squash, carrots, beets, turnips, tomatoes, melons, cucumbers, sugar, and tea. It was a balanced menu that contrasted sharply with the eating habits of most white miners, who ate a monotonous diet of bread, bacon, butter, beans, beef, sugar, coffee, and dried fruits. At first, white miners often puzzled over the Chinese habit of eating "green gourds and green pumpkins and green squash," which they discovered helped the Chinese avoid scurvy. Lacking the vitamin nutrition of fresh vegetables, early white miners were susceptible to scurvy—cases were frequently reported—and they tried to avoid vitamin C deficiencies by eating green onions and potatoes soaked in vinegar or lime juice.¹⁹

Fresh vegetables constituted the dearest of commodities in early mining camps. Despite high prices the Chinese considered them an important part of their diet and solved the problem of scarcity by growing their own. By the early 1850s Chinese gardens had sprung

up near every mining or urban center, providing the local community with fresh vegetables. The Virginia City, Nevada, *Territorial Enterprise* reflected a situation typical of most mining camps when it reported that "every patch of ground cultivated by them [Chinese] is a model of neatness, and they pay such strict attention to the rotation of crops that something is constructively growing in every bed and plot."²⁰

Although Chinese peasants knew how to grow vegetables, natural barriers in the American West posed challenges to agriculture. In the Sierra Nevada foothills and the Sacramento Valley, for example, Chinese gardeners had to learn to grow crops in a land of summer drought and moderate winter rains, while in the northern Rocky Mountains they had to overcome the short June-to-early-September growing season. Guangdong Province, China, in contrast, had a twelve-month growing season and plenty of moisture. Nevertheless, the Chinese adjusted to each new environment accordingly. Using terraced gardens, effective manure, copious irrigation, and careful tending, they harvested vegetables under California's semiarid conditions and raised six crops in Idaho's short season. On the mining frontier, the Chinese earned a reputation as "the most thorough gardeners in the world." Indeed, the term "Chinese garden" became synonymous with freshness and quality. The "Green Gold" that Sucheng Chan identified as vegetable gardening gave Chinese miners extra financial power as well as greater physical strength.²¹

Proper medical care also sustained Chinese health. Although willing to call on American doctors in emergencies, Chinese miners generally depended on their own physicians for medical care. Traditional Chinese medical practice, based on use of herbal medicines derived from plant, mineral, and animal substances, was far more effective in dealing with chronic disease. Prior

From Lani Ah Tye Farkas, *Bury My Bones in America* (1998), p. 47



Anti-Chinese sentiments, portrayed above in a Working Men's Party illustration, often ran strong in the United States during the late nineteenth century. Uncertain about their future in the West, Chinese miners were reluctant to commit the capital investment necessary for entering gold mining's second phase, that of lode or hard-rock mining.

ing camps. *Boise Idaho Tri-Weekly Statesman*, October 12, 1875; *Boise Capital Chronicle*, September 11, 1869; Julia G. Longenecker and Darby C. Stapp, "The Study of Faunal Remains from an Overseas Chinese Mining Camp in Northern Idaho," in Wegars, *Hidden Heritage*, 103.

19. Joseph R. Conlin, *Bacon, Beans and Galatines: Food and Foodways on the Western Mining Frontier* (Reno, 1986), 186-95; C. J.

Brosnan, *History of the State of Idaho* (New York, 1918), 104-5; William J. McConnell, *Early History of Idaho* (Caldwell, Idaho, 1913), 121-24; DuFault, "Chinese in the Mining Camps of California," 158.

20. Russell M. Magnaghi, "Virginia City's Chinese Community, 1860-1880," *Nevada Historical Society Quarterly*, 24 (Summer 1981), 135.

21. Chan, *This Bittersweet Soil*, 79-106; *Boise Idaho Tri-Weekly Statesman*, June 5, 1869; Idaho City, *Idaho World*, August 18, 1885.



Chinese miners benefited from the superior diet and health care that traditions of gardening and herbal medicine provided them. Legacies of these practices lingered in the West into the 1890s and beyond. At left, for example, two unidentified boys pause in the doorway of the office of Dr. Huie Pock, a Butte, Montana, physician and surgeon. Below an unidentified vegetable gardener poses at the Ming residence in Helena, Montana, in 1890.

Both photos MHS Photograph Archives, Helena



to the scientific and pharmaceutical revolutions of the twentieth century, Euramerican medicine shared strong similarity with Chinese medicine in its use of herbs in drugs. But Chinese medicine was more sophisticated. The Chinese, for example, had used molds to cure infection long before the invention of penicillin, and thus saved many lives, particularly in mining areas where injuries and traumas occurred almost daily. Similarly, a compound of whiskey and opium was used to relieve influenza and diarrhea, and Chinese physicians discovered how to use common baking soda to treat a skin infection caused by poison ivy.²²

The Chinese commercial network regularly distributed imported herbal medicines to distant communities, and every major mining camp had at least one or two resident Chinese doctors, who practiced their native medicine in town and traveled to remote areas to do so as well. Nevada's Hop Lock and Idaho's Ah Fong were local legends who treated various ailments "without the use of poisonous medicines." Hop Lock's newspaper advertisement even boasted that he could "cure all diseases on this coast." Their success with herbal medicines as well as acupuncture convinced many

whites to visit Chinese doctors in search of necessary, not alternative, medical treatment.²³

Together, advanced medical care and a balanced diet contributed to better health and lower mortality rates among the Chinese. Available census data show much lower mortality rates for the Chinese than among whites in almost all western states and territories. In both 1870 and 1880, Chinese mortality rates were only half those for whites in such major mining states and territories as California, Idaho, Montana, and Nevada. Far more Chinese deaths resulted from accidents or violence than disease, and in 1880, no Chinese deaths at all were reported in Colorado, New Mexico, or Utah, all of which had sizable Chinese populations. Often accused of possessing unsanitary habits and spreading deadly diseases, Chinese in the American West were, on the contrary, much more likely to survive than their white counterparts because of healthier life-styles.²⁴

22. Paul D. Buell and Christopher Muench, "A Chinese Apothecary in Frontier Idaho," *Annals of the Chinese Historical Society of the Pacific Northwest*, 1 (1983), 42-46; Christopher Muench, "One Hundred Years of Medicine: The Ah-Fong Physicians of Idaho," in Henry G. Schwarz, ed., *Chinese Medicine on the Golden Mountain: An Interpretive Guide* (Seattle, Wash., 1984), 51-78; M. Alfreda Elsensohn, *Idaho Chinese Lore* (Cottonwood, Idaho, 1979), 70-71, 80.

23. Magnaghi, "Virginia City's Chinese Community," 137; Muench, "One Hundred Years of Medicine," 51-78.

24. Bureau of the Census, *Ninth Census of the United States, 1870*, vol. 2, *Vital Statistics* (Washington, D.C., 1872), 15; Bureau of the Census, *Tenth Census of the United States*, vol. 1, *Population* (Washington, D.C., 1880), 378-79; and *ibid.*, vol. 11, *Mortality and Vital Statistics*, 16-28. No information about Chinese mortality rates is available in the 1860 census.

25. Joseph Needham, *Science and Civilization in China*, vol. 4, pt. 3 (London, 1971), 212; Donald Worster, *Rivers of Empire: Water, Aridity, and the Growth of the American West* (New York, 1985), 45.

26. Jeffrey M. LaLande, "Sojourners in Search of Gold: Hydraulic Mining Techniques of the Chinese on the Oregon Frontier," *Industrial Archaeology*, 11 (Spring 1985), 40-42; Melvin D. Wikoff, "Chinese in Idaho County Gold Field: 1864-1933" (master's thesis, Texas A&I University, Kingsville, 1972), 34-37; Nancy Koehler Feichter, "The Chinese in the Inland Empire during the Nineteenth Century," (master's thesis, State College of Washington, Pullman, 1959), 21-22.

27. Rohe, "Chinese River Mining," 17; Raymond, *Statistics of Mines and Mining*, 480.

28. Loren B. Chan, "The Chinese in Nevada: An Historical Survey, 1856-1970," *Nevada Historical Society Quarterly*, 25 (Winter 1982), 266.

As good as the Chinese were at surviving in a foreign environment, their most exquisite placer mining skills were in aquatic management. For thousands of years China made herself known as a hydraulic society by constructing great water projects. People in China's arid north constantly strived to get water onto the land even as people in south China battled seasonal floods. "The Chinese people," declares British historian Joseph Needham, "have been outstanding among the nations of the world in their control and use of water." Most of the Chinese came to America from the southeast coast, a tropical area where rice terraces dominated the landscape. Rice growing required water on and off the land at specific times. Thus, Cantonese peasants had acquired a great deal of knowledge about collecting and diverting water before migrating to the New World. As another historian put it, "Water became in China the profoundest symbol for understanding nature, human affairs, and the right principles for governing both." In the American West, Chinese immigrants ingeniously converted their agricultural aquatic knowledge and methods to mining.²⁵

Chinese sophistication and effectiveness in extracting gold have impressed both contemporary rivals and modern observers. Along rivers and streams, Chinese miners discovered "hot spots" of gold deposits by reading the flow of the eddies. Because many gold deposits in ancient alluvial channels were located on "high terraces" above what was then the current water course, miners had to either pump water to higher ground or truck "pay dirt" down to the stream. Chinese miners introduced the Chinese pump, a wooden trough with a

chain-pallet system for draining and irrigating rice fields, which could deliver large quantities of water to sluices on higher ground. The Chinese pump soon became a popular device in western mining. At other times, the Chinese simply used wheelbarrows to carry gold-bearing soil down to the river banks, but they never wasted water. Indeed, they knew how to conserve one natural resource to exploit another. In Stevens County, Washington, for example, Chinese miners collected precious water from farmers' waste ditches and conveyed it to their claims.²⁶

Numerous contemporary observers noted how Chinese mining sites were usually well organized. Stones and boulders were neatly stacked, and operations were systematic and tidy in appearance. As one observer noted, "The Chinese excelled at saving gold, especially fine gold, under difficult conditions." Chinese miners sometimes installed an iron grate in the sluice to catch round boulders suitable for pavement, thus turning waste material into extra profit.²⁷ Contemporary Americans well acknowledged this Chinese talent, and often hired Chinese to work on water projects in many mining areas. In 1856, John Reese, a Latter-day Saint who planned to erect a settlement in Nevada, recruited about fifty Chinese from California to build a ditch to bring water from the Carson River to Gold Canyon, thus initiating Chinese entry to the territory.²⁸ Even Mormons, with their reputation for developing superb irrigation systems, admired Chinese skill in water management.

Randall Rohe's study of Chinese river mining

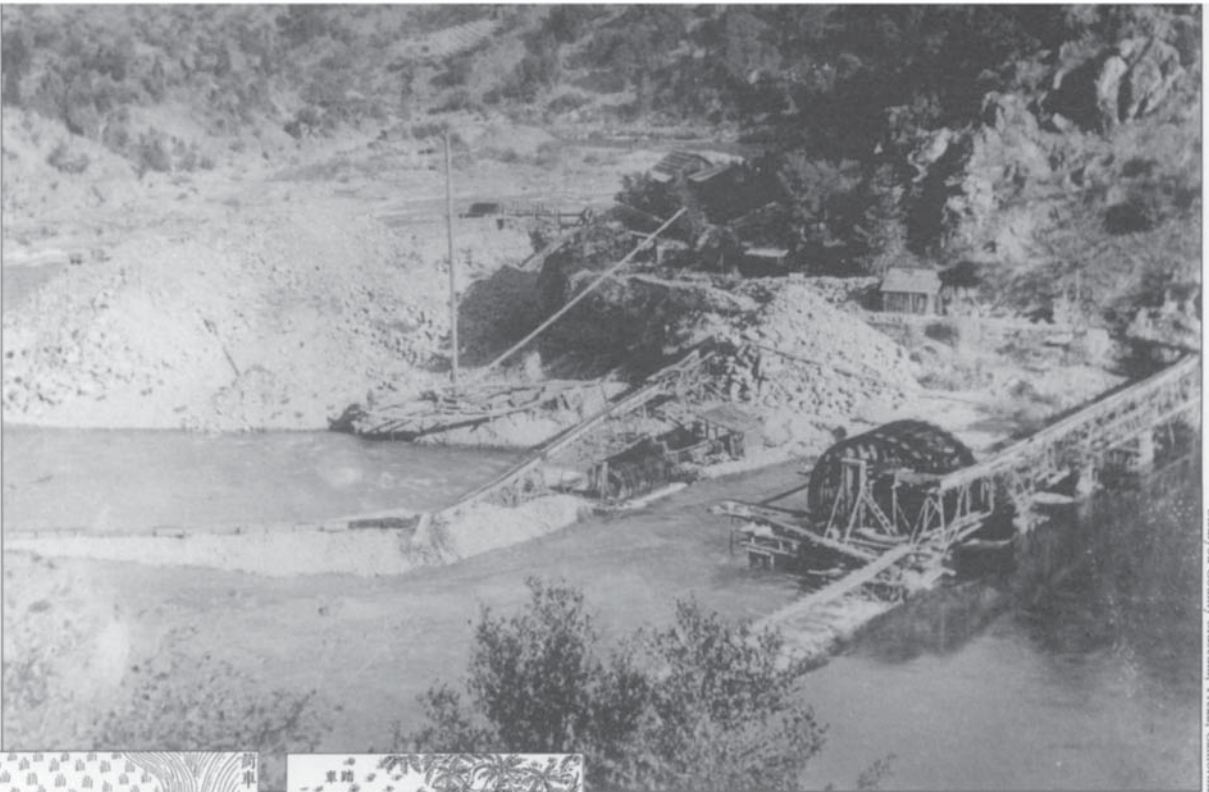
Better medical care and a more balanced diet contributed to a greater life expectancy among Chinese in the American West, reflected in the table at right.

Mortality Rates of Whites and Chinese in the West

STATE & TERRITORY	1870		1880	
	WHITE	CHINESE	WHITE	CHINESE
Arizona	2.6%	0%	0.8%	0.06%
California	1.68%	0.83%	1.36%	1.02%
Colorado	0.86%	0%	1.31%	0%
Dakota	0.64%	*	0.94%	1.68%
Idaho	0.33%	0.16%	1.05%	0.41%
Montana	0.81%	0.41%	0.84%	0.06%
Nevada	1.51%	0.7%	1.27%	0.39%
New Mexico	1.28%	*	2.2%	0%
Oregon	0.69%	0.24%	1.09%	0.24%
Utah	1.03%	0%	1.69%	0%
Washington	0.9%	1.28%	1.05%	0.06%
Wyoming	0.73%	0%	0.94%	.44%

* No Chinese in the area

(Drawings, below and on pages 53 and 54, are from Joseph Needham, *Science and Civilization in China*.)



Siskiyou County Museum, Yreka, California



The Chinese brought centuries of experience in water management to bear in placer mining efforts like the Siskiyou County, California, river-mining operation shown above, circa 1890. Chinese miners in the American West employed principles and machinery comparable to those used elsewhere long before, as indicated in such seventeenth-century illustrations as the Chinese waterwheel (far left, from *Nong Zheng Quan Shu* [*Complete Treatise on Agriculture*]) and a Chinese pump (near left, from *Tian Gong Kai Wu* [*Exploitation of the Works of Nature*]). In both instances, water was raised from rivers, collected, and transferred to flumes for irrigating fields.

captures the essence of their water management.²⁹ California's distinctive annual summer drought prevented prospectors from tapping the region's rich gold deposits. River mining provided the answer. To nineteenth-century standards, river mining was usually a huge operation, requiring the construction of a system of dams, flumes, canals, tunnels, derricks, and pumps. Riverbeds had to be drained each season. A big site could cover an entire valley or basin for many miles. Chinese waterwheels turned pumps to either drain the sites efficiently or lift water to higher ground quickly. Water-powered derricks could hoist rocks weighing more than twenty tons. When Euramerican companies sustained heavy losses in the early years due to uncooperative weather, Chinese miners realized greater success because of their superior water projects. A *State Journal* correspondent from Weaverville, California, said of the Chinese-built flumes "in point of workmanship, durability and fitness for the purpose intended, [they are] better than any ever before placed in the river." Another writer praised the Chinese wa-

ter project near Orleans Bar for exhibiting "great ingenuity as well as labor and strength."³⁰

By the mid-1850s the Chinese dominated California river mining, and by the 1880s they achieved perfection. Some of their successes were astonishing. Mining near Honolulu on the Klamath River, a group of twelve to eighteen Chinese were said to have extracted \$5,000 to \$10,000 worth of gold a day, and a total of \$140,000 in 1890–1891. Masterful in aquatic technology and adept at river mining, the Chinese often succeeded where others failed.³¹

Many western mining areas depended on the presence of Chinese miners and their exclusive skills for their longevity. No place illustrates this better than the 200-square-mile area known as Boise Basin, Idaho. After the discovery of gold there in 1862 and the stampede in 1863, the population of Boise Basin, located forty miles northeast of Boise, exploded to 14,910 on nine thousand claims. Bannock (later Idaho City) with 6,275 residents surpassed Portland to become the largest city in the Pacific Northwest.³² From the beginning



California State Library, Sacramento

A Chinese miner (above, left) lifts auriferous gravel to the surface with a windlass at the Lava Beds near Oroville, California, mirroring the efforts of ancestors depicted in the drawing of a man using a windlass to lift a water bucket (right, from *Tian Gong Kai Wu* [*Exploitation of the Works of Nature*]), a method employed as early as the Han Dynasty (206 B.C.–220 A.D.).



of the rush, Boise Basin struggled to meet the population's demand for water. A contemporary reporter thought the local water supply could accommodate only four thousand miners, allowing for only ten weeks of mining each year.

By 1864, only the second season of mining, the flight of white miners had begun, and the bust, often endemic to such places, seemed close at hand. Hoping to revive the local economy, Boise County civic leaders sent an agent to California to recruit Chinese. From 1865 to 1869, the depletion of the white population combined with the influx of Chinese immigrants resulted in an unusual demographic shift. In 1870, of Boise Basin's 3,528 residents, 1,740, 49 percent of the population, were Chinese. Ninety-two percent of them worked on mining claims, compared to about 60 percent of the white populace. The presence of Chinese had created a new mining boom, one that lasted for three decades.³³

Because they missed the initial rush of 1862–1863 and found little “free ground,” early Chinese pioneers to Boise Basin had to purchase mining claims from white owners, who worked out the initial gold, sold

the claim, and left for new diggings. Often presenting themselves at the right place at the right time, Chinese miners took advantage of low prices. More important was the Chinese buyers' insistence on acquiring water rights with their mining claims. Most transactions specified water rights. An 1872 deed recorded that Wang Yet, Ah Lang, Wan Hay & Co. paid John Carrol and James Norton \$1,800 for “four ditches and water rights taking all of the water of Sugar Creek and tributaries, on northwest side of Grimes Creek with two reservoirs.”³⁴ The Chinese soon demonstrated their expertise in constructing water ditches, flumes, and reservoirs in the basin, and built several hundred miles of water ditches and flumes during their years in the basin.

Because they had good water systems, the Chinese companies could begin mining earlier in the season. In early April 1874, for example, when others still awaited the spring runoff, the *Silver City, Idaho, Owyhee Avalanche* reported enviously, “the Buena Vista

29. Rohe, “Chinese River Mining,” 14–29.

30. *Ibid.*, 22.

31. Rohe, “Chinese River Mining,” 14–29.

32. Hubert H. Bancroft, *Bancroft Scraps*, vol. 111, pp. 31–32, *Idaho Miscellany*, Bancroft Library, University of California, Berkeley; “First Census Report of the Marshal of Idaho Territory, 1863,” *Territorial Papers*, Idaho State Historical Society, Boise.

33. *Silver City, Idaho, Owyhee Avalanche*, May 26, 1866; Idaho City, *Idaho World*, January 13, 1866; Bureau of the Census, *Ninth Census of the United States*, vol. 1, *Population* (Washington, D.C., 1872), 23, 107.

34. Deed Book, vol. 13, p. 195, Boise County Auditor's and Recorder's Office, Idaho City, Idaho. Similar cases can be found in deeds, mining sale books, records of mining claim transfers, and mortgage records in the county office.

Chinese and Anglo miners stand together beside a huge water flume near Idaho City, Idaho (right, 1880s), posed with another link to an ancient Chinese means of moving water, illustrated (below) in an eighteenth-century drawing from *Tu Shu Ji Cheng* (*Imperial Encyclopedia*).



Idaho City Historical Society Foundation

Bar Company have got water through a portion of their ditches this week, and some companies of Chinese on the Bar have commenced work.”³⁵ Careful management of limited water resources enabled the Chinese to extend the

mining season and thus enhance their profits. Chinese miners commonly mined from early April to late October, and in 1877 a Chinese company reportedly started washing in mid-February.³⁶

With unique methods and water skills, the Chinese often made significant profits from claims no longer attractive to others. In 1876, the *Idaho World* reported that “a party of Chinamen, mining on North Elk, a short distance above town, the other day cleaned up six thousand dollars, after a run of only twenty-four days.” The same year, the *Idaho Statesman* reported that on Ophir Creek, “a large Chinese company own a claim for which they paid \$8,000 three years ago. The same property could not now be bought for \$20,000.”³⁷ How did a mining claim *increase* its value after two years of extensive extraction? The answer was that the claim’s Chinese owners had brought water to the property, thus making it possible to gather more gold from it. Because of their skills in aquatic management, the Chinese often turned dry claims into rich grounds. In 1863, with

a population of 14,910 and no Chinese miners, Boise Basin yielded 150,000 ounces of gold, an average of 10 ounces per person. By 1870, when the Chinese dominated basin placer mining, 3,528 residents produced 135,000 ounces of gold, or about 38.3 ounces per person. Such statistics underscore Chinese efficiency.

Unlike many western boom-and-bust camps that survived only a few seasons, Boise Basin continued as a gold mining center for nearly one hundred years—to the middle of the twentieth century. The Chinese stayed for several decades but left in the early 1900s. The shift from placer to lode mining, the second phase of gold production, began in the 1880s and had direct effects on the local Chinese. As noted, lode mining required substantial capital for heavy equipment and stamp mills, but it did not depend on large supplies of water nor on Chinese aquatic expertise. Moreover, rock shafts were more expensive than water ditches, and as large corporations invaded the basin, industrial mining forced individual miners out of business.³⁸

Faced with this transition, the Chinese had to decide whether to invest in lode mining. Most of those not wanting to stay in the United States permanently left the area quietly, some later settling in such urban areas as Boise, Seattle, and San Francisco. By 1910 only a handful of Chinese elders still mined along basin

35. Silver City, Idaho, *Owyhee Avalanche*, April 19, 1874.

36. Idaho City, *Idaho World*, February 27, 1877.

37. *Ibid.*, June 6, 1876; Boise *Idaho Statesman*, August 10, 1876.

38. Records of articles of incorporation at Boise County Auditor’s and Recorder’s Office show that many eastern and European companies with capital as much as \$5,000,000 were taking over mining operations in the area. Whites and Chinese alike began to leave the basin. Idaho City, *Idaho World*, September 3, 1897.

39. Information comes mainly from historical photographs, contemporary drawings, and existing structures. Historical photographs at the Idaho State Historical Society and Boise Basin Museum pro-

vide descriptive pictures of buildings in such mining towns as Idaho City, Placerville, Centerville, Pioneer City, and Silver City. Business deeds and personal writings also tell of frontier dwellings in Idaho City, Idaho. See *Idaho City Historic District Plan and Design Guide* (Idaho City, Idaho, 1985), 1-50.

40. David A. Sisson, “Archaeological Evidence of Chinese Use along the Lower Salmon River, Idaho,” in Wegars, *Hidden Heritage*, 33-60; Magnaghi, “Virginia City’s Chinese Community,” 132.

41. Boise *Idaho Statesman*, October 11, 1881; Idaho City, *Idaho World*, July 23, 1886; Magnaghi, “Virginia City’s Chinese Community,” 134.

42. Boise *Tri-Weekly News*, December 10, 1870.

streams, but their presence lengthened the life span of placer mining in Boise Basin.

Although most Chinese did not embrace lode mining, they were highly adaptive in other ways, including dwelling construction in frontier environments, a skill that provided them an advantage. The diversity of Chinese habitations at various mining areas indicated their flexibility. Abundance of timber in the Rocky Mountains and Sierra Nevadas offered the Chinese a natural gift they were not accustomed to in the overcrowded motherland. In China timber was scarce, but in timber-rich southwestern Idaho the Chinese built log cabins and saltbox structures that were wholly unfamiliar to them previously. No Oriental-style structure such as rice- or hay-stalk shanties ever appears to have been built in any of the region's mining camps.³⁹

In timber-scarce areas such as the lower Salmon River in central Idaho, the Chinese built shelters in a variety of ways to meet their needs. Because most of the canyon region was covered by grass and basalt, rock shelters were popular. Rock walls were often built above a rectangular pit, and dirt piled against the outside of the walls for support and insulation. If basalt was not available, the Chinese simply constructed mud houses or dugouts. Techniques associated with earth construction, common in many parts of China due to the scarcity of timber, greatly enhanced the Chinese pioneers' chance of surviving in treeless areas. Built to last, some of the rock shelters and mud houses were reoccupied by white residents as late as the twentieth century. Archaeological studies show a variety of Chinese dwellings in the nineteenth-century American West. In the Southwest, they preferred to live in either adobe houses or dugouts. In Virginia City, Nevada, where in early

years the price of brick and wood was exorbitant, the Chinese filled oil cans with stones and dirt and stacked them up as walls, creating buildings that were both fireproof and bulletproof. Some Chinese simply dug caves into the hillsides for new homes.⁴⁰

In addition to mining, the Chinese exploited other natural resources by logging, fishing, and hunting and thus further maximized economic gains. In forested areas during the idle season of mining—the cold of winter or the dry summers—many Chinese cut trees to provide the local community with firewood or building material. In fall 1881, for example, the *Idaho Statesman* reported that a group of Chinese near Silverman's ranch “had cleaned up their sluices for the season and were now engaged in chopping a thousand cords of wood for parties in Boise. It will be floated down and caught in a boom at the city whenever the streams begin to rise.” In another instance, twenty Chinese were observed trying to float four thousand cords of timber from Boise Basin to Boise City, a distance of forty miles. During winter the Chinese in Virginia City, Nevada, dominated the wood retail business after displacing Paiute Indian woodcutters.⁴¹

Winter hunting also could help offset the cost of living. In late 1870, while many whites were leaving Loon Creek in northeastern Idaho for the winter, seventy-five Chinese and a few others went into the nearby mountains and hunted mountain sheep for fresh meat. One traveler saw “750 pounds of the meat brought into town by one party.”⁴² In the Warren Mining District in central Idaho and along the Salmon River and its tributaries, the Chinese fished extensively, often catching salmon, steelhead, trout, and whitefish, and supplying the local community and themselves with

To survive on the mining frontier, Chinese adapted all types of materials in constructing their dwellings. Below, Chinese miners pause outside two such structures, an earth house and a saltbox house, which stand side by side at De Lamar, Idaho (no date).



Idaho State Historical Society, Boise

freshwater fish. In a more efficient and destructive fishing method, the Chinese often set off explosives in streams or ponds. Once, “a Chinese had both hands blown off, trying to kill salmon with giant powder at Camas on the South Fork of the Salmon River.”⁴³ As in placer mining, the Chinese searched every gulch and hill for their economic improvement. Exploitation of local resources maximized profits for energetic miners and helped marginal prospectors survive in an otherwise unstable industry.

The more adaptable the Chinese were to their environment, the more efficient Chinese placer mining was, but it also heightened environmental destruction. Placer mining typically caused violent reconfiguration of the landscape, including large-scale deforestation and soil erosion. In Tuscarora, Nevada, where timber was scarce, the Chinese cut sagebrush on the desert and hauled it by wagon to the local mines. By 1881, the Tuscarora area, scoured fifteen to twenty miles distant for fuel wood, was cleared of sagebrush completely.⁴⁴

Hydraulic and river mining, the more intense techniques of placer mining, literally moved hills and rivers. After operations ceased, waste tailings covered huge areas, and revegetation took years. In 1897, after more than three decades of heavy mining, the United States Geological Survey team documented the environmental impact of mining in Boise Basin. The Mores Creek, it said, “is filled with coarse gravel, largely made up of tailings brought down from the Idaho [Boise] Basin by the winter freshets. The maximum depth of these tailings is 20 feet. The gravels in the present stream have been and are still extensively washed, mostly by Chinese using the ordinary appliances for river mining—dams, Chinese pumps, and derricks.”⁴⁵ In 1906, J. P. Hutchins, a mining consultant and engineer, said land in the West had already been ruined by previous mining, mostly by Chinese. Its racist overtone notwithstanding, the statement contains truth.⁴⁶ Even today, the numerous, large-scale tailings remain visible scars on the western landscape.

The story of nineteenth-century western mining has justifiably increased our interest in the relationship among the Chinese settler, placer mining, and western environment. Chinese society has traditionally been viewed as subscribing to the harmony of mankind and nature. The Chinese spent more than two thousand years pursuing such a harmony and developed a consciousness of nature’s beauty much earlier than Europeans. Even with a strong appreciation of natural beauty, however, Chinese miners in the West could not resist the temptation of economic gain and personal profit. In nineteenth-century America, Chinese immigrants in the remote wilderness and under harsh conditions made persistent efforts to survive in a strange land and to increase personal wealth. Their ability to adapt quickly to local conditions and live efficiently off the land became an invaluable asset in competing with others for survival. As historian Xi Wang notes, “Unlike European immigrants, who migrated to America not only to pursue their fortunes but also for religious freedom, cultural identity, and political refuge, the Chinese came to the United States for the single purpose of seeking better economic opportunities.”⁴⁷ Assuming their stay in a foreign country was temporary, they worried little about the future of the place and mercilessly exploited the West’s natural resources. The Chinese proved extremely successful at it. Hardly the pitiful victims depicted so often, they acted as destroyers, exploiters, and conquerors of the American West much like Anglos and other miners.

Western mining provides a useful means for considering Chinese relations with the American environment. The Chinese are acknowledged for helping change the western landscape. They are congratulated for making positive or at least nonnegative contributions such as reclamation of a million acres in California and the introduction of plant species to America. In fact, hundreds of thousands of Asian immigrants also helped deface the western landscape. Their particular skills in mining allowed them to maximize exploitation. As historian Patricia Nelson Limerick asked: “If environmental history has now redefined much of this rearranging of the American landscape as disruption and injury, how do we appraise the Chinese ‘contribution’

43. Hailey, Idaho, *Wood River News*, September 7, 1881; Fern Coble Trull, “The History of the Chinese in Idaho from 1864 to 1910” (master’s thesis, University of Oregon, Eugene, 1946), 147-48.

44. Chan, “Chinese in Nevada,” 280.

45. Grimes and Mores creeks are the primary Boise Basin drainages. Charles D. Walcott, *Eighteenth Annual Report of the United States Geological Survey to the Secretary of the Interior, 1896-1897*, pt. 3, *Economic Geology* (Washington, D.C., 1898), 658.

46. Duane A. Smith, *Mining America: The Industry and the Environment, 1800-1980* (Niwot, Colo., 1987), 92.

47. On traditional Chinese ideas of nature, see Wenhui Hou, “Reflections on Chinese Traditional Ideas of Nature,” *Environmental History*, 2 (October 1997), 482-93; Xi Wang, “The Chinese in Denver: A Demographic Perspective, 1870-1885,” in *Essays and Monographs in Colorado History* (Denver, Colo., 1991), 48.

48. Patricia Nelson Limerick, “Disorientation and Reorientation: The American Landscape Discovered from the West,” *Journal of American History*, 79 (December 1992), 1,032-33.

49. Raymond, *Statistics of Mines and Mining*, 207, 528; Chan, “Chinese in Nevada,” 279.

50. Liping Zhu, *A Chinaman’s Chance*, 110; Rohe, “Chinese River Mining,” 19.



SACRAMENTO BEE ANTI-HYDRAULIC CARTOON

The more adaptable the Chinese were to their environment, the more efficient was their placer mining—and often times the more environmentally destructive. Placer methods included hydraulic mining. Such methods, decried in the *Sacramento Bee* cartoon above (no date), underscored how greater understanding of the environment could lead to greater exploitation and damage.

to that disruption?”⁴⁸ Certainly, further investigation is needed, but the historical irony is that people with a strong environmental consciousness can sometimes cause greater environmental damage. For the Chinese at least, greater efficiency meant greater destruction.

As a story of economic mobility and self-improvement, the Chinese experience on the western mining frontier was a success. To be sure, the Chinese had many disadvantages. They possessed little starting capital, they had staked no initial claims, they faced legal discrimination, and they encountered racial violence. But these disadvantages were often compensated for by advantages, including mining experience, cooperative culture, a healthy life-style, skill at aquatic management, and environmental adaptability, all of which ensured Chinese competitiveness in the American West. In 1870, several Chinese companies in Montana were listed among the territory’s most profitable. For six months Chang-Ling Company with seven persons cleared \$13,000 in gold. According to one 1871 account, Chinese miners took out \$500,000 in gold from the Tuscarora region in Nevada. Between 1855 and 1870 more than 10 percent of the gold and silver exports through the Port of San Francisco went to China, an amount (\$72,581,219) equivalent to more than \$1 billion today.⁴⁹

Because of their collective success in placer mining, some Chinese became rags-to-riches legends. For

example, after four decades of hard work, Loke Kee of Boise Basin accumulated a fortune estimated between \$60,000 and \$90,000. Many people, including whites, envied his personal wealth. In fall 1857 a Chinese merchant without hesitation offered \$200,000 for a mining claim near Oroville, California. The *Sacramento Union* claimed, “Some of these Chinamen are immensely wealthy and are very fond of making big speculations, but generally wait to see a pretty ‘dead thing’ before investing their money.”⁵⁰ Although the Chinese missed all the major gold rushes and excitements, they eventually had a monopoly in placer mining and enjoyed success in the American West. It is a phenomenon worthy of further investigation. The relationship of the Chinese to western mining contains hidden treasures, but at present no phrase depicts the theme of this great but little acclaimed frontier drama more properly than does “no need to rush.”

LIPING ZHU is assistant professor of history, Eastern Washington University, Cheney, and a member of the editorial board for the *Western Historical Quarterly*. A previous contributor to this magazine, he is author of *A Chinaman’s Chance: The Chinese on the Rocky Mountain Mining Frontier* (1997), which was named a 1998 *Choice* Outstanding Academic Book of the Year. He is currently working on a history of the Chinese in the Black Hills.