

2

Early History and the Struggle for Resources

Native Nations, Spain, Mexico, and the United States

The struggle for land has always been the hallmark of politics in North America. Those who control the land control the resources.

—Ward Churchill, *Struggle for the Land*

Introduction

In 1978, at the Signetics Corporation plant in Sunnyvale, California, several women employees informed the management of their concerns about noxious fumes on the shop floor. Signetics was a major Silicon Valley player and a large manufacturer of semiconductors for military, business, and consumer markets. Initially, the company maintained that these women workers, who experienced dizziness, nausea, mental confusion, and emotional problems, were suffering from what Signetics termed “assembly line hysteria.” However, after many male employees also came forward with similar concerns, the company hired an industrial design firm to investigate the fumes. Like canaries in a coal mine, the three most significantly affected employees (all women) were shifted around the plant in an effort to detect the most serious areas of concern. They became known as the “Signetics Three.” Eventually the National Institute of Occupational Safety and Health (NIOSH) conducted a study and concluded that significant occupational health problems were evident at Signetics. This finding

would not surprise any physician who was aware that Signetics used scores of toxic chemicals in the production of semiconductor chips. The company later fired the “Signetics Three” and has the dubious distinction of having polluted the earth so thoroughly that the USEPA has designated one of its properties a federal toxic Superfund site.¹

This case underscores that the region of northern California known as Silicon Valley is a site of intense ecological devastation and human exploitation. Thousands of workers and residents, mostly women, immigrants, and people of color, face exposure to hundreds of toxics on the job and in their communities every day. This is environmental injustice with a high-tech face. In this chapter we provide a historical basis for our claim that immigrants, people of color, and their labor are at the center of environmental justice conflicts in Silicon Valley. In so doing, we argue that these populations have confronted environmental injustices in the region for more than two hundred thirty years because (a) they have frequently had their land and natural resources taken from them and destroyed; (b) they have often been denied citizenship and therefore have little formal political power; and (c) they have been concentrated in enslaved, indentured, and related “free” exploitative labor markets where wages are nonexistent or very low and the risks to one’s health are substantial. By presenting evidence that immigrants and people of color have been battling environmental inequalities for centuries, we challenge the common wisdom that environmental injustice is a recent phenomenon.

Environmental justice (EJ) conflicts in Silicon Valley have been a hallmark of the region since 1769, when dominant groups controlled and degraded both natural resources (such as land, minerals, and water) and the labor of indigenous, immigrant, and other populations of color, while also imposing environmental risks on these groups. By demonstrating the historical continuity of EJ conflicts in this region, we also address the question of the origins of environmental injustice in Silicon Valley. Simply put, environmental injustice in the area can be traced to the Spanish conquest and its associated devastation of Native American

populations and Bay Area ecosystems.² Since that time, each subsequent period has built upon the previous era, and the exploitation of human labor and natural resources has remained constant.

Native American Communities

Any history of the present-day Silicon Valley region of California must begin with a consideration of First Nations. Long before the Spanish Conquest, beginning at least as early as 500 C.E., the San Francisco Bay was inhabited by an estimated fifty independent nations of the Ohlone/Costanoan people.³ The Ohlone economy was largely based on the accumulation, consumption, and trade of acorns and shellfish. In fact, these societies used meticulously carved shells as currency.⁴ Trade routes for dried and fresh shellfish, shell jewelry, Sierra obsidian, and coastal abalone shell extended throughout the San Francisco Bay Area, northward through the Sacramento and San Joaquin River valleys, and to points east.⁵ The Ohlones also used burning techniques for agriculture, specifically for planting and harvesting wild grass and seeds.⁶ This Native American nation did well as a result of the abundance of natural resources and experienced relatively few economic hardships prior to the Spanish arrival.⁷

As with many traditional cultures, Bay Area Native peoples had an economy that was tied to local natural resources and an ethic that militated against the destruction of this resource base.⁸ The Ohlone people built their homes, sweat lodges, and ceremonial structures out of organic materials that grew in the immediate vicinity, such as tree bark, brush, and earth. Thus, the “Ohlone enjoyed an abundant life... [and] the subsistence strategy that they enjoyed represented a successful adaptation to a rich but expansive environment.”⁹ The Ohlones’ subsistence environmental ethic extended beyond the use of natural resources, beyond fishing and acorn farming, and was applied to the extraction of mineral resources as well:

The most important function of Indian mines and quarries was to supply materials for the implements and tools to be used to secure subsistence ... or maintain life's necessities ... or as luxuries.... The Indians probably had no particular "mining code" as such, although one principle of Indian philosophy which ran through everything was applied to the use of mines and quarries; this principle is *the conservation of natural resources.*¹⁰

Moreover, with regard to the question of public versus private access to these natural resources, in many cases there was a communal ethic guiding early Native California communities: "there was no private, individual ownership of mine or quarry sites by the Indians. Rather these places were considered property of the group, in which everyone was allowed to share."¹¹ This communal ethic was also the norm for food collection and distribution, as evidenced during the Ohlone's fall acorn harvest.¹²

Native Americans regularly drew on mines for materials like turquoise, obsidian, and soapstone. One mine—later called the New Almaden by the Spanish, Mexicans, and Anglos—was especially popular due to its abundant supply of the bright substance cinnabar (clay containing mercury), which was used to produce red paint for body decorations.¹³ The New Almaden Mine, located in present-day Silicon Valley, later gained worldwide significance for its central role in the California Gold Rush.

Thus, Native peoples in the Bay Area sustained their societies by drawing on the region's impressive ecological wealth *and* by constructing a social system based on the equitable distribution of resources and limits on the use of that natural wealth. Natural resource conservation and a "commons" system of access to materials are two features of California Native economies that would soon be a thing of the past. On the eve of the Spanish conquest, the Ohlones were drawing their last free supplies of fresh water from the Guadalupe River near land that would later become El Pueblo de San Jose.

Native Americans had been living in what is today known as California for

roughly fifteen thousand years prior to the arrival of explorers from New Spain. The indigenous population of the state during the late eighteenth century was an estimated 310,000 people who spoke nearly a hundred distinct languages.¹⁴ Early European explorers viewed the area as a “pristine ‘wilderness’ shaped entirely by the hand of God”¹⁵ and populated by “heathens” whose proper fate would be conversion to Christianity or death. They aimed to tame this wilderness and harness its abundance for the growth of a divinely ordained New World civilization.

Sacking El Dorado: The Spanish Conquest, Mexican Independence, and Native Subjugation

The first peoples in the Americas were, in many ways, “the ultimate keystone species” whose genocide altered not only these early civilizations, but entire ecosystems throughout North America as well.¹⁶ The conquest of Native Americans went hand in hand with the domination of nature.

Spanish explorers arrived in *Alta California* (upper California) in 1769 from colonial strongholds in present-day Mexico and the southwestern United States. When they began to explore the region, they witnessed thriving native civilizations supported by a rich ecosystem. As one such explorer’s journal indicated:

There is a positive maze of very large freshwater lakes with a great deal of swamp and brush patches in this hollow; and I know not how many large running streams, and two or three very large heathen [Native] villages.... They had several tule-rush floats with oars, with which they fished in the lakes.... We came to a very full-flowing stream which it took us some trouble to cross because it had so much water, and close to this was a very big heathen village....

¹⁷

We have come across four or five villages of very fine well-behaved heathens ...

all of whom were dying for us to come to their villages and have them feed us.

We have passed through three or four of the villages and in each one they have presented us with a great many servings of [roots and nuts].¹⁸

Despite the racist and demeaning use of the term “heathen,” some of these Spanish explorers of the area were obviously impressed with both the region’s bountiful natural resources and the generosity of the Ohlone people. Both would be taken full advantage of soon thereafter.

The Spanish Crown charged its representatives with the task of developing a network of missions, military presidios, and settlements that could ensure Spain’s control over the entirety of California. The major military threats to this expansion were from the British and Russian settlements just north of the region, so the Spaniards aimed to be the first to claim the area. In other words, this expansion of territory north of Mexico was colonization and empire building in progress—an early exercise in globalization (see [chapter 8](#)). Within a decade’s time, several military presidios, missions, and pueblos had been put into operation. For example, El Pueblo de San Jose de Guadalupe (present-day San Jose, the “Capitol of Silicon Valley”) and the Mission Santa Clara de Asis were founded in 1777 to serve as farming outposts to supply the presidios at San Francisco and Monterey.¹⁹ As with African slaves on the East Coast at this time, Native Ohlones were converted to Christianity. They were also forced to build the mission and the pueblo out of handmade bricks and wood.²⁰

Water has played a crucial role in the history of Santa Clara County and all of California, and there have been conflicts over inadequate supply in the context of rising demand, over its centrality in major forms of production in the area, and over its contamination by different industries. The mission builders had difficult encounters with the natural environment from the very first day. El Pueblo de San Jose was built on the Guadalupe River, which flooded twice during 1777, wiping out a dam and many homes in the settlement. The flooding and droughts facing these early residents of San Jose would also make proper agricultural irrigation

and the production of corn and beans nearly impossible for the first season.²¹ Soon thereafter, however, the extraordinarily fertile soil provided such great crop yields that the Pueblo could stand on its own, and by 1781 San Jose's production was also fully supporting the presidios at San Francisco and Monterey.²² This increase in production was made possible by intensive exploitation of Native labor.

Under this emerging order, on the “frontiers of Spain’s New World empire the mission was the most important colonial institution,”²³ and the missions in the Bay Area depended heavily on Native American labor.²⁴ Thus the Ohlones played a central, albeit coerced, role in extending the Spanish empire. They labored in bondage at the Mission Santa Clara and in the Mission San Jose. Farming, bricklaying, weaving, shearing sheep, branding and slaughtering livestock, and producing lime and salt were some of the many tasks the Native folk performed. During *la matanza*—the cattle-slaughtering season—Natives would work long days producing food for the mission and tallow and hides for trade and bartering.²⁵ One European visitor to the Mission San Jose in 1792 later wrote, “They cultivate wheat, maize, peas and beans; the latter are produced in great variety, and the whole in greater abundance than their necessities require.”²⁶ The production levels had to reach a scale of “greater abundance” than required because the Mission had to supply both itself and the presidios with food. This requirement for overproduction was, from the first day, an inherently anti-ecological and labor-exploitative arrangement that was bound to lead to problems. In the meantime, Native folk faced more immediate threats.

Harsh living and working conditions, disease, and Spanish assaults on the Ohlone religion and culture were routine. For example, Franciscan friars and overseers would regularly whip and imprison Ohlones for practicing their traditional religions or for not meeting production quotas.²⁷ Even an apologist for the Spanish Catholic Church’s crimes admitted that the Franciscans “employed various forms of punishment … such as the stocks, the pillory, leg chains, extra work, imprisonment, or the lash. When flogging was resorted to, the

maximum number of blows was limited by Spanish law to twenty-five.”²⁸

As with all successive systems of exploitation in the Santa Clara Valley, gender mattered a great deal.²⁹ Women in particular were singled out for demeaning, sadistic, and cruel treatment:

Shocked by the partial nudity and what they took to be the “uninhibited native sexuality” of the Indians, the Franciscans inaugurated draconian measures to compel female neophytes [converts] to conform to the padres’ ideals of proper female decorum and behavior. Immediately following baptism, female children over the age of five and all older unmarried females were separated from their families and locked in barracks called *monjerios*. Russian explorer Otto von Kotzebue, visiting nearby Mission Santa Clara in 1824, described one such barracks housing female Costanoan [*sic*] neophytes as a building resembling a prison, without windows.³⁰

Ohlone women in the missions also experienced a significant decline in gender status. Women’s status was lower in the missions than in traditional Ohlone communities for two reasons. First, unlike Ohlone social structures, the mission hierarchy of power was entirely male-dominated, supported by the Bible and other Christian teachings. Therefore, once they entered the missions, Native women were offered no opportunities to assume leadership positions comparable to the chieftainships, shamans, and other powerful ritual roles available in Native communities. “Divorce was denied them, and their role degenerated into producing children, and performing manual labor for the colonists.”³¹ Throughout their nearly seventy-year reign in the region, the Franciscans never appointed a single devout Ohlone convert to the status of nun. The second reason for women’s decline in status was the rampant sexual assault by soldiers and padres, which violated, dehumanized, and demoralized many women in the missions.³² As a result of higher mortality, the Native female population at the missions declined precipitously during the 1820s and 1830s.³³ Women were therefore forced into distinct roles for labor, daily behavior, and punishment in

the social structure of the missions.

It is important to recognize that the Franciscan missionaries were not only doing their religious duty by converting the local Native Americans to Catholicism; they were also “pragmatic agents of Spanish colonial policy … who saw no inconsistency in the evangelization and exploitation of Indian converts to further colonial policy objectives.”³⁴ And while the Ohlone were not driven to extinction, this campaign of terror amounted to genocide by any definition.³⁵

Resistance

As with enslaved Native and African communities on the Atlantic coast, the Ohlones chose resistance over subjugation. These resistance efforts took a variety of forms. For example, Ohlone women in the missions were often attacked and made to perform demeaning acts for the Franciscans. As a result of this treatment and because of routine gang rapes by soldiers and frequent sexual assaults by the padres, many women committed infanticide or had abortions—both of which the Catholic Church had outlawed.

Desertion and outright rebellion were also very common in the Alta California missions. Natives were becoming quite skilled at resisting “recruitment” to the missions, which resulted in a drop in the number of neophytes the Franciscans could hold in bondage. During the spring and summer of 1795, in the wake of a major typhus epidemic, well over three hundred Ohlones and other Native persons abandoned Mission San Francisco.³⁶ Between 1811 and 1815, continual raids coordinated by fugitives from the missions with Natives from the Central Valley depleted the horse herd at Mission San Jose from 11,500 to just 280.³⁷ This had a major impact on the mission’s ability to herd and slaughter cattle for the presidios and for its own residents. In the 1820s, natives like Pomponio (at Mission Dolores), the celebrated Estanislao (at Mission San Jose), and Cipriano (whose traditional name was Huhuyat, from Mission Santa Clara) led indigenous guerrilla armies and combined forces of runaway neophytes and free natives to

assert their right to return to their traditional ways and defend themselves against military attacks by the Spaniards.³⁸ Estanislao openly defied Padre Duran of Mission San Jose with a letter that read, “We are rising in revolt.... We have no fear of the soldiers, for even now, they are very few, mere boys, and not even sharp shooters.”³⁹ In 1828, Cipriano (Huhuyat) and Estanislao collaborated to lead massive runaway campaigns from missions at Santa Clara and San Jose. The Californio (Spanish-born elite) authorities launched a military campaign that ultimately crushed the rebellion but had a devastating impact on the missions’ ability to survive. Throughout the 1830s, Yoscolo, an Ohlone man, raided cattle at the Mission Santa Clara and even killed Christianized Natives and others who tried to stop him. Finally, Yoscolo “led a rebellion, stealing two hundred women and several hundred head of cattle, and raiding the mission stores at will until he was caught in 1839. His head was nailed to a post near the church door as an object lesson.”⁴⁰ The fact that men and women who were longtime missionary “residents” led most of these rebellions, undermined the moral position of the Franciscans, and challenged any claim that the dissent was being created by outsiders.⁴¹

Thus, despite being subjected to incredible assaults on their humanity, culture, religion, physical and psychological health, and environment, many Ohlones rejected and resisted this campaign at every level. However, this struggle took its toll, and the Ohlone population in northern California declined from 11,000 to just 2,000 by 1830.⁴²

Still, the amount of energy and resources the Spaniards expended in the effort to control the Native resistance compromised the sustainability of the missions. The Crown soon granted land rights to colonists around the Bay Area, and those colonists took up ranching and cattle raising. This new economy grew quickly, and the trade in hides, meat, and tallow extended to the East Coast and South America.⁴³

After Mexico gained its independence from Spain in 1821, ranching remained the mainstay of the California economy. Those Native Americans still enslaved

at the missions were released and allowed to work as day labor on the ranches or as domestic and agricultural workers.⁴⁴ The social hierarchy that emerged was based on race and national origin, with Spanish-born elites (Californios) on top, Mexicanos in the middle, and Ohlones at the bottom.⁴⁵ This hierarchy corresponded to one's position in the local labor market and one's political power, with Spanish elites holding all formal political authority while reaping the profits from the local economies, and Native Americans working the most dangerous, unhealthy jobs and having no political rights or citizenship status.

Ecological Disruptions

In addition to the enslavement and exploitation of Native peoples, the Spaniards, Mexicans, and other European newcomers were actively taking and destroying land and various other resources from Native Americans around the Bay Area. Major ecological changes resulted. The Spaniards and Mexicans brought extensive open-range livestock grazing to California and introduced new, less productive grasses of Mediterranean origin, resulting in major damage to the native grasslands.⁴⁶ The area's ecological disruptions were linked directly to Native subjugation at the missions because when the resource base was nearly exhausted, some Ohlones, out of desperation, sought out the Franciscans for assistance.⁴⁷ The consequences were devastating for both the land and people: “[a]s agricultural laborers, missionized Indians were largely separated from the seasonal rhythms of their own food production practices, while the growth of mission farms and rangeland for cattle initiated an environmental transformation of the Bay Area and the entire coast that destroyed much of the resource base of the indigenous economy.”⁴⁸

One report found that even the padres at the missions in San Jose and Santa Clara “complained to their superiors in Mexico that the pueblo was taking too much water from the Guadalupe [river], cutting down too many trees for dams and houses and fences, and depriving the neophytes of the venerable oaks on

which they depended for food [acorns].”⁴⁹

But the missions and pueblos do not deserve all the blame. Anglo-American explorers and newcomers from Europe hunted sea otter, beaver, grizzly bear, pronghorn and tule elk, and several species of whale to near extinction by the mid-nineteenth century. The causes of this overkill shifted from an initial subsistence orientation to sport and international commerce.⁵⁰ By the 1820s, Russian explorers were exporting precious ancient redwood timber to Hawaii and elsewhere, resulting in the destruction of many old-growth forests.⁵¹ The privatization of resources was occurring at a rapid pace. In 1847, for example, developers and private citizens exerted pressure on the City Council of San Jose to make available several thousand acres for private ownership.

Thus environmental devastation and the control, exploitation, and genocide of Native peoples were intimately bound together as the underside of the vaunted European expansion to the New World. While the destruction of flora, fauna, and landscape disturbed the Native economy, way of life, and diet, it was disease and psychological and military assaults that were responsible for the lion’s share of the havoc these populations faced.⁵² If environmental racism is the unequal burden of ecological hazards imposed on people of color and their surroundings, then the European conquest was the continental embodiment of this process. This was only the beginning, however, and many more groups—especially immigrants and people of color—would be swept into California’s emerging multiracial society, fueled by profit, social oppression, and a reliance on a finite and fragile natural resource base.

The Gold Rush and Mining Economies, 1848–1880s

Like Silicon Valley a century and a half later, the Gold Rush was as much legend as reality. The prospect of riches and wealth beyond imagining lured thousands of immigrants to California during and after 1848, which rapidly transformed the Golden State into the most ethnically diverse state in the nation. The January

1848 “discovery” of gold by James Marshall sparked stories of California’s “streams paved with gold” in newspapers all across the nation. One miner, Jasper S. Hill, wrote to his parents in January 1850, “This country is no doubt a great place to give a young man a fair start in the world as he can make money quite fast by being industrious & economical … in the Eldorado of the West.”⁵³ Rumors, personal letters, and news reports told of gold lying about the countryside and underscored that the harvesting of this bounty would be the realization of the American Dream. Not only was the age-old promise of “the good life” (if one only worked hard at it) appearing in the popular press, but a more interesting notion was being put forth: that the Gold Rush was becoming a great equalizer of class relations in California. There were reports that servants were becoming masters and entire lower classes were “disappearing” as people struck it rich en masse.⁵⁴ Over the next twenty years, 300,000 whites—90 percent of them men—poured into California to pursue their dreams.

But the work of gold mining was hard, dangerous, and financially risky, and when corporations eventually took over the fields, wage labor saw steeply declining returns. The fall in wages was often dramatic, from twenty dollars per day in 1848 to sixteen dollars per day in 1850.⁵⁵ With regard to physical injuries in mining work, blisters on the hands and feet were common, as were sprained ankles and knees, crushed fingers, and “the almost universal back ache” from digging, lifting, and carrying upwards of eight hundred buckets per day (191). In addition to the myriad accidents and injuries that were a routine part of mining work, sickness was also quite widespread (186). One miner wrote of the labor involved in mining, “it would kill me, it is the hardest work that ever a man tryd to do” (190). “Mining is … an occupation which very much endangers health,” wrote another gold seeker (138). Another miner told his family about coworkers who often exploited their bodies to the point of “prostration and sickness” (327).

If the work was difficult for these Anglo-Americans and European immigrants, times were even harder for workers of color during the Gold Rush. They faced racism that relegated them to the harshest, most undesirable and

dangerous jobs. Adding to their woes, people of color were frequently mobbed, beaten, killed, overtaxed, and even banned by miners and the state government. The environmental injustices they experienced in the workplace of the gold fields were occurring simultaneously with the catastrophic impact of the Gold Rush on California's ecosystem.

The Importance of Santa Clara County to California's Gold Rush

While the majority of mining took place further north, Santa Clara Valley (where Silicon Valley is today) played a central role in the California Gold Rush. At the time, San Francisco and San Jose were the two largest cities in the state. As the Gold Rush grew in its importance to the state economy, national and multinational corporations became involved. The first such mining corporation to form during the 1850s was the California State Mining & Smelting Company, based in Santa Clara County.⁵⁶ More importantly, the discovery of the Western Hemisphere's largest quicksilver (mercury) mine, just twelve miles south of San Jose, actually made the Gold Rush possible in California and facilitated gold and silver mining throughout the Americas.⁵⁷ In 1845, Captain Andres Castillero, a young Mexican cavalry officer, was awed to discover that the cinnabar clay at a famous vermillion cave in the area contained quicksilver. Quickly filing a claim on the property, he named it the New Almaden Mine.⁵⁸

Quicksilver was an essential element in the process of extracting gold and silver from raw ore during this era. By using quicksilver, miners were able to amalgamate finer gold particles, "flour gold," or dust that otherwise got washed away. This was an ancient technique introduced in Mexico by the Spaniards during the sixteenth century, and brought to California by Mexican and Russian miners in the nineteenth century.⁵⁹

"Spanish Town" (the segregated Mexican quarters) quickly developed around the New Almaden mine, and by 1850 it was running at full production, employing

nearly two thousand mostly Mexican workers. Although many Mexican miners were skilled (having previously worked claims in the state of Sonora), Cornish immigrant miners had more experience at deep shaft mining and were brought into New Almaden to do this type of work after the surface deposits had become exhausted. Most of the time, however, Mexicans, Chinese, and Native Americans (children included) would be used for the most dangerous mining work. These are only some of the many examples of the racial division of labor that occurred, wherein different ethnic groups were used to work jobs with varying degrees of risk, thus sustaining a wage and task hierarchy that depressed all groups' wages and generally preempted any collective solidarity.⁶⁰

The racial division of labor and of everyday activities had real consequences for different racial and ethnic groups. In the New Almaden mine, Anglo-American and European workers were employed in the less taxing occupation of “reduction” (extracting quicksilver from ore) and were paid \$5–\$7 per day. In contrast, Chinese and Mexican workers were employed in the much heavier and less desirable occupation of “ore-carrier,” and were paid \$2–\$3 per day.⁶¹

Starting in the pit of the mine, the ore-carriers would fill a large sack or pannier made of hide with two hundred pounds of ore and then ascend the *escalera* (the ladder-like circular path) to the surface. Open at the top, the pannier was flung over the shoulder and supported by a strap that passed over the shoulders and around the forehead. Ore-carriers made from twenty to thirty trips a day up the *escalera*, for all the ore was carried to the surface by hand. The *escalera* was narrow, slippery, and lighted only by a few flickering torches. Visitors told of seeing the *tanateros* (ore-carriers), dressed in pantaloons rolled tight above the knees, and calico shirts, hurrying up the *escalera* with “straining nerves and quivering muscles.”⁶²

At various times, Native Americans, particularly children, were also employed in the quicksilver mine, as they were perhaps the most expendable and least valued human beings in the state of California.⁶³ In addition to the harsh racial division of labor and wages, the living quarters, churches, schools,

hospitals, and benevolent societies around the New Almaden mine were also segregated by race.⁶⁴

Moreover, quicksilver mining exposed workers to mercury, a toxic substance that can cause a range of fatal illnesses.⁶⁵ This was an early form of chemical exposure in an area of California that would not become infamous for the prevalence of toxic work until one hundred thirty years later, when Silicon Valley's electronics firms introduced new forms of hazards during their very own "Gold Rush."

San Jose and Santa Clara County Face Early Environmental Challenges

The 1848 annexation of California by the United States brought about a change in the ownership of the mines (from Mexican to U.S. and British owners) and all common lands (*ejidos*) in El Pueblo de San Jose were sold off to private landholders. At the time, the Valley's economy was largely based on ranching, with the main exports being wheat, tallow, hides, and quicksilver.⁶⁶ Santa Clara Valley was becoming a major economic center in the region, but it had a few setbacks, such as the floods of 1849, which made a virtual lake out of the transportation route between San Jose and its major port at Alviso.⁶⁷ This was yet another example of how water played a role in the Valley's trials and triumphs.

In 1850, El Pueblo de San Jose became the City of San Jose. California achieved statehood that September, and San Jose was soon named the capitol. Within the first two years, the city council was compelled to address environmental concerns:

Although water was plentiful, surface contamination was a serious problem.

Water was supplied by the Mexican-period water ditch (*acequia*) that ran west of Market Street, parallel to the Guadalupe River, and by shallow wells, six to

10 feet deep. The water ditch had accumulated trash and garbage, and several ordinances were passed to regulate its use. Following the Mexican procedure, a ditch overseer was appointed, and adjacent property owners were made responsible for the ditch and maintenance of its banks. It became a misdemeanor to throw filth into the ditch, to wash clothing in it, or to impede the passage of water.⁶⁸

Acequia technology and the associated social-legal traditions to protect it were borrowed from Mexico. Predictably, however, the adoption of the *acequia* practices was soon trumped by the founding of the San Jose Water Company, which was established in 1852 and shortly obtained the exclusive right to sell water to city residents.⁶⁹ Thus, in a pattern reminiscent of when the Spaniards took Ohlone land and natural resources and privatized them, Anglo-Americans carried on this tradition a century later with water, land, minerals, and livestock. Water more than anything else was both the lifeblood and the Achilles heel of the Santa Clara Valley and California economies.⁷⁰

Social Hierarchies on the Frontier: Mexicans and African Americans

In 1850, California's gold fields were still considered “undeveloped” or “frontier” territory, attracting fortune seekers without families. That was one reason women accounted for less than one-tenth of the state's population and were only 3 percent of the population in mining counties. The absence of women forced men to learn a wide range of domestic skills in order to survive.⁷¹ The women who were in the gold rush counties, however, also broadened their occupational skills within and beyond the domestic sphere, including the job of schoolteacher, baker, shopkeeper, boarding-house operator, and of course, gold miner.⁷²

With the Treaty of Guadalupe Hidalgo ending the U.S.-Mexican War in 1848,

the United States annexed all of California and most of the southwest. This was a “land grab” on a colossal scale. In one of many efforts, business and white working class interests succeeded in passing the Land Law of 1851, which made all Spanish and Mexican land grants subject to review and rejection.⁷³ This law quickly opened the door to a flood of legal challenges, the dismantling of the Californio ranching economy, and the transfer of massive landholdings to whites. Just eight years after the United States signed the treaty with Mexico, the majority of land guaranteed to Californios had been taken.⁷⁴ The fertile land of northern California had switched hands first from the indigenous Ohlones to Spain, then from Spain to Mexico, and then from Mexico to the United States.

This era saw the creation of a new racial hierarchy, with Mexicans (who were eventually allowed citizenship rights) just below whites; next came African Americans, then Asians, and then Native Americans.⁷⁵ Whites allowed Mexicans a relatively elevated status because most of them were Catholic (a European-based religion), because they were Spanish-speaking (a European language), and because, as *mestizos*, they had physical features and bloodlines that were part European.⁷⁶ Thus, they were closest to Anglo and other European immigrants in appearance, language, and culture.

The U.S. annexation of California displaced many local Mexicans out of ranching and pushed them into mining. Other Mexicans (and Native Americans) went to the mines when their employers—owners of large land grants in the interior valleys—brought them to work the claims.⁷⁷ Still others, who moved northward to the gold mines during 1849 and afterward from “Old Mexico,” were like many Chinese miners in that they were experienced excavators (from the state of Sonora). This expertise was both a curse and a blessing in that, while they were more efficient at extracting gold, their mining acumen gave them an advantage white miners would soon come to resent. Mexican miners were essential to the success of many gold mining companies. The Morgan Hill mine in Calaveras County was originally worked by Mexicans and eventually yielded more than two million dollars in gold.⁷⁸ Mexicans taught Anglos the techniques

required for placer mining and quartz mining.⁷⁹ After Mexicans had imparted their skills they were viewed as impediments to the success of white miners, so as early as 1850 there were systematic attempts to remove Mexican miners by “rounding them up,” imposing fines to be paid in gold, and launching violent attacks against them.⁸⁰

African Americans, although mostly enslaved at the time, were next in the social order because they spoke English, practiced Christianity, and had assimilated many European cultural patterns. Despite efforts to exclude them, African Americans, both free and enslaved, were present in California during the Gold Rush as well. Many worked the mines as slaves, while others who were instrumental in working high-yield claims for their masters were able to purchase their freedom. The white resentment against African Americans was considerable, and they were easy targets for lynching, robbery, and mob violence. The estimated 1,500 African Americans who worked the gold fields often did so at their peril. They labored in places that were given names like Negro Hill, Negro Bar, and Negro Flat—few of which were ever documented on official maps.⁸¹

Very few African Americans settled in Santa Clara County or San Jose at the time. Those who were in the area held occupations as slaves, laborers, barbers, farmers, and teachers. The African American community built its own church and public school, as segregation was a way of life. In many ways, African Americans served as a model for how the Anglos treated the Chinese. The denial of citizenship rights, the exclusion from court proceedings, and the lynchings directed at Chinese workers and residents were practices that had first been used against African Americans.

Chinese Immigrants and Native Americans

Popular culture regarded Asians as exotic pagans with totally incomprehensible cultural, linguistic, and religious practices. Whether it was food, dress, or social

rituals, the “heathen chinee” and the Japanese “yellow peril” were unambiguously deemed alien and nonwhite. For these reasons they were second to last in the social pecking order at the time. Thousands of Chinese men immigrated to the United States during the late 1840s, coming mainly from Guangdong Province, where a major flood led to a collapse of the regional economy.⁸² They sought a better life and wealth in the gold fields of northern California. For this reason, many Chinese referred to the United States as “Gold Mountain.” The U.S. government and industry viewed this wave of immigration as an asset to the mining sector because many Chinese men were skilled in excavation techniques. By 1860 Chinese immigrants made up nearly 10 percent of California’s population and 25 percent of its labor force, and accounted for 35,000 gainfully employed miners in the state.⁸³ Because of their exceptional excavation skills, Chinese workers were often employed in “the dregs,” where they searched for gold in mines that had already been exhausted by independent white miners. This work was both especially dangerous *and* socially undesirable, as it required doing the risky and dirty work that most white miners would not or could not do.

During the Gold Rush, the California white working class (and some business interests) almost immediately opposed Chinese immigration. The white Anglo and European immigrant majority were organizing a movement whose goal was to maintain California as a “free labor” state.⁸⁴ The driving principle behind this movement was that the white working class could only achieve upward mobility and economic independence in a capitalist society free of slavery. Slavery and other forms of bonded labor were generally associated with nonwhite persons, so a “free labor” movement was also an effort to restrict the influx of people of color into the state.⁸⁵ Because the majority of Chinese immigrants to the Americas were conscripted into indentured servitude or some other form of bonded labor, this movement was directed primarily at them.⁸⁶ Vigilante murders and mob violence by whites were leading factors in driving away many Chinese workers, but other means were equally effective, including the Foreign Miner’s

Tax—a state law passed in 1852 requiring all non-citizen miners to secure a license to mine and to pay a tax of three dollars per month. Chinese immigrants were deemed “nonwhite” by law, thus rendering them ineligible for citizenship.⁸⁷ The anti-Chinese movement of the nineteenth century was punctuated most forcefully by the passage of the Chinese Exclusion Act of 1882, which terminated all Chinese immigration. By this time more than 1,200 Chinese men had died as a result of the illness, overwork, explosions, and avalanches they faced while building the transcontinental railroad, for which work they were paid only two-thirds what their white coworkers made.⁸⁸ The Chinese resisted every one of these discriminatory laws.

Completion of the transcontinental railroad in 1869 enabled Santa Clara County to become the leading fruit producer in the nation, because the railroad allowed growers to access markets for its produce, much of which would otherwise rot on the ground during years of overproduction.⁸⁹ The railroad also brought many Chinese to California, including the Santa Clara Valley, from points east. While there were fewer than ten Chinese residents in the Santa Clara Valley during the first days of the Gold Rush, the number increased significantly when angry white miners drove the Chinese out of the mines. They worked in and operated laundries, restaurants, and prostitution houses in San Jose during this time. Chinese workers were vital to construction of the railroad and to the subsequent growth of Santa Clara’s agriculture because they provided cheap labor in the fields.

At the base of the new social order in the post-1848 era stood the Native American population. The status of Native Americans in the United States was clear: they had no citizenship rights and remained at the bottom of yet another social hierarchy. Whites generally believed them to be an unclean, physically unattractive race with no redeeming qualities in their history or culture. As residents and caretakers of the land that white capitalists and Anglo/European settlers coveted so dearly, they were viewed as obstacles to progress. In other words, there was no place for them in the future of California society. They were

personae non gratae. California's Native peoples were the primary victims of the Gold Rush, suffering forced removal, theft of gold-rich lands, epidemics of new diseases brought with the Anglos, and scores of sanctioned and unofficial massacres of "hostiles." This was genocide in progress. Between 1848 and 1868 the Native American population in the State of California declined from 170,000 to 50,000; in the Santa Clara County area the population dwindled from 4,000 to an estimated 100 persons, chiefly as a result of disease.⁹⁰ An especially noteworthy example of how the genocide of the Ohlones and the ecocide of Santa Clara Valley's natural resources were linked was the case of Chief Lope Inigo (1760–1864). In 1844, Inigo was granted 1,600 acres of land, one of seven grants given to Natives by Mexico after the missions were disbanded. The land was called Rancho Posolmi, a Native American name whose meaning is lost. It was also called Pozitas de las Animas, or Little Wells of the Souls, after a spring that flowed for some years on the property. Chief Inigo was one of the few remaining members of his tribe, and after his death in 1864, whites, who had illegally squatted on his land, took it over. The Holthouse family farmed the land and sold fresh peas under the brand name "Ynigo," with a picture of an Indian Chief on the package. In 1933 the land was "developed" into a Naval Air Base—Moffett Field, in Mountain View. In the 1980s, this base was declared a Superfund site so toxic that the United States Environmental Protection Agency has estimated it would take three hundred years to clean up.

Inigo, an Ohlone man and a member of a nation that suffered from a most brutal genocide, was thus "given" land—which had first been stolen from his people—by the Mexican government. Then, that same land was taken back after his death and used to market produce under his name (without his permission), and finally to house weapons of mass destruction that harmed the soil and drinking water in the area to the point that a superficial cleanup would take centuries. This case represents an egregious but illustrative example of the desecration of both Native Americans and their land throughout each stage of the Santa Clara Valley's history.⁹¹

Impacts on the Natural Environment

As we showed earlier, the South San Francisco Bay Area was a place of great natural beauty. But, like the Spaniards before them, the thousands of miners and capitalists who entered California's gold fields in droves approached the ecosystem with little care:

There was no obvious concern for the environment. Anything that stood in the way of the gold seeker was pushed aside or destroyed, whether a grizzly bear or a mountain. Ruthless exploitation with no thought for tomorrow was the basis for the way of life in gold-rush times.⁹²

This lack of environmental awareness was supported by a strong sense of Manifest Destiny and a Lockean ideology about the American West, which entailed “ignoring all prior Indian land use and property rights.”⁹³ These sentiments were complemented by a religious undergirding that viewed U.S. expansion as a “God-given” right that had been “earned” through the just defeat of Native American nations and of Mexico.⁹⁴ Punctuating the damage wrought since the dawn of the Spanish arrival nearly a century earlier, the Gold Rush reinforced the ideology that natural resources existed only for the colonizers’ personal profit and that indigenous peoples and people of color—particularly immigrants—were expendable means to these economic ends.

The Santa Clara Valley area was pivotal to the success of the Gold Rush mainly because of the New Almaden mine’s location south of El Pueblo de San Jose. Quicksilver was the New Almaden’s export, a substance that is extremely harmful to human health and that compromised the well-being of the workers who extracted, processed, and applied the “quick” to the ore. Quicksilver/mercury is also renowned for destroying fisheries and other key components of entire ecosystems. Not only is it a powerful toxin, but it bioaccumulates throughout the food chain, causing harm to multiple

organisms.⁹⁵ Significant volumes of quicksilver were used and dumped (usually lost) into California rivers during the Gold Rush. In one case, at the North Bloomfield mine, the company working there dumped or lost 3,798 pounds of quicksilver into a river over a two-year period.⁹⁶ The historical origins and contemporary legacy of environmental racism in both the workplace and the communities of the Bay Area are illustrated in the fact that 75 percent of the people who fish the San Francisco Bay for food today are people of color (most of them Laotian, African American, and Vietnamese) and they ingest with their seafood mercury that is a century and a half old, courtesy of the Gold Rush.⁹⁷ Furthermore, the Guadalupe River watershed, the very same river on which El Pueblo de San Jose de Guadalupe was founded in 1777, is today the most mercury-contaminated river basin in the United States.⁹⁸ In addition to quicksilver, various acids were routinely used to separate gold from silver in the mines, and cyanide was used as a quicksilver substitute beginning in 1890.⁹⁹

In the decades after the Gold Rush and prior to the turn of the century, mining companies continued to push throughout California's interior for valuable minerals. Most of this work was becoming heavily capitalized and involved much more expensive technology than before. Unfortunately, this generally meant more "efficient" mining achieved through greater destruction of the landscape. The most egregious example was the growth of hydraulic mining, which involved pumping millions of gallons of water through hoses aimed at mountain sides, removing trees and masses of earth to expose potential veins of gold.¹⁰⁰ This method of extraction "reveals more perfectly than almost any other the hot, sweaty, rip-it-up, what-the-hell enthusiasm and carelessness of those years when men created waterfalls and hooked up pipes and monitors to wash away hills, in the great business of hydraulic mining."¹⁰¹ One observer wrote, "[I]t is impossible to conceive of anything more desolate, more utterly forbidding, than a region which has been subjected to this hydraulic mining treatment."¹⁰²

Hydraulic and other forms of mining revealed an inescapable environmental

fact: the most valuable natural resource commodities in California—other than gold—were toxic quicksilver, cyanide, and precious, finite water. Used during every step of the gold mining process, water's value as measured by demand rose exponentially as more miners entered the field and the markets for gold

expanded. “Mining and water became synonymous.”¹⁰³ The need for water in the mining process was a ready-made opportunity for corporations to control the gold fields *and* the workers who labored in them. Corporations quickly began acquiring “prior appropriation” rights to water, allowing them the exclusive privilege to exploit certain bodies of water.

Early on, it was clear that the returns from mining were diminishing and a new economy would have to take the place of the old. Business leaders and speculators were turning to California’s “new gold”—wheat. Farmers soon discovered that the sale of wheat produced in the state’s fertile soil was yielding higher profits than gold.¹⁰⁴ Farming was already the occupation of choice for most Californians, especially for the residents of the Santa Clara Valley. During the 1850s, Santa Clara County’s farmers produced more than 40 percent of the state’s wheat, the largest wheat crop in California.¹⁰⁵ However, the mining companies still in operation continued using hydraulics in the highlands and mountains, and this created epic conflicts with farming interests. During the 1870s and 1880s, farmers were angered at the spoiling of their lands by millions of gallons of debris, tailings, and silt from mining operations miles away. Political and military struggles ensued, with the development of Anti-Debris Associations, which were among the first environmental organizations in the United States. These groups were militia-like organizations set up to combat the mining industry and its pollution of farmland.¹⁰⁶ In 1882, a judge handed down a decision against the North Bloomfield Gravel and Mining Company restraining them from dumping debris or tailings in rivers. The industry challenged the ruling, but in 1884, the U.S. Circuit Court in San Francisco issued a perpetual injunction against hydraulic mining—a death blow to the industry and a victory for the farmers and Anti-Debris Associations that ushered in the new agricultural

economy in California.¹⁰⁷

Conclusion

The harms done to California's ecosystems and its less powerful peoples were not inflicted primarily by heartless individual miners eking out a meager existence. The major driver behind the Gold Rush and the damage done to people and the environment was the corporation.¹⁰⁸ Corporate power won out over individual and collective rights for workers and different ethnic groups. Corporations cornered the market on quicksilver and gold, manipulated share prices, cheated investors, and drained smaller companies. They were also chiefly responsible for the untold injuries inflicted upon California's natural environment, its Native peoples, and the miners themselves, many of whom were immigrants and people of color. Ultimately, large corporations were responsible for doing great damage to California's economy as well.¹⁰⁹

The Gold Rush's significance is captured in the exponential increase in ecological disruption committed in the name of building the state's economy, the continued volatility in racial/ethnic relations in communities and workplaces, the rise of the multinational corporation, and the hyper-exploitation of the working class, particularly immigrants and people of color, via their concentration in high-risk, low-wage jobs. Santa Clara County played a central role in this process in that this was the location of the Western Hemisphere's largest quicksilver mine, without which the Gold Rush would not have happened, and this was where the first large gold mining corporation began its operations.

The irony of environmental destruction in the Santa Clara Valley is that sustainable options were always available to the Spanish, Mexican, or Anglo establishments (depending on the historical period in question). For example, the Ohlone's sustainable fishing, farming, and mining practices were proven, but were completely disregarded by their conquerors in favor of overharvesting, overproduction, and depletion and despoiling of marine life, agriculture, and

silver and gold. The Spanish-Mexican practice of building communal *acequias* was also pushed aside in San Jose and elsewhere in favor of the development of corporations that privatized, owned, and sold water. The use of the *fong sei* by Chinese miners is another example. The *fong sei* was a place outside the mining camps where Chinese workers would gather to be at peace in unfettered natural surroundings, such as trees, streams, and unmined earth. This was their way of reaffirming nature's inherent worth and their refusal to spoil at least some of the land, no matter how much gold or other resources might lie within.¹¹⁰ Like the people who practiced these traditions, the Ohlone way of life, the *acequias*, and the *fong sei* were all ignored and trumped by the corporate form of development that viewed natural resources and people of color and immigrants only as a means to a private, profitable end.

In the 1880s, the state of California turned once again toward agriculture, and the Santa Clara Valley's newest economy would, for the second time in a generation, place it at the center of national and international markets for its products.