

THE CHINESE BUNKHOUSE IN MILLER GULCH: PRELIMINARY RESULTS FROM THE EXCAVATION OF AN OVERSEAS CHINESE SITE AT A SONOMA COAST SAWMILL

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ABSTRACT

Little information is available about Overseas Chinese participation in the coastal redwood lumber industry. A group of Chinese laborers worked at Miller's Sawmill, which was located in present-day Salt Point State Park from 1872 to 1876. Their residence site was identified in the spring of 1998. Students from Santa Rosa Junior College excavated the site in the fall of the same year. The materials recovered offer an archaeological glimpse of this relatively unknown aspect of the Overseas Chinese experience during a very narrow window of time, and open new areas for future study. This paper will review the mill's historical background, describe the results of census research into coastal Chinese lumber crews, present a preliminary assessment of the artifact assemblage, and examine the exploitation of coastal resources by the men who lived at the Chinese bunkhouse.

INTRODUCTION

Field archaeology classes from Santa Rosa Junior College (SRJC), under instructor Tom Origer and in cooperation with California Department of Parks and Recreation archaeologist Breck Parkman, have been involved in assessing historical resources at Salt Point State Park since 1995. Survey and excavation performed on numerous field trips as well as 2 summer field schools have resulted in a growing inventory of historical sites. While parts of a sawmill complex in Miller Gulch had been recorded in 1969, traces of the Chinese laborers known to have worked there remained elusive until the spring of 1998. Heavy rains at that time exposed materials including a sherd of Chinese brown-glazed stoneware below the approximate location of an oblong building depicted on a 1878 map (United States Coast and Geodetic Survey [USCGS] 1878). Intensive survey of the hillside above revealed more Chinese ceramics, glass, and abalone shell, and led to the identification of the site as the residence of the Chinese workers. It was nicknamed the Chinese Bunkhouse, and has since been recorded as CA-SON-2263H. SRJC students

investigated the site in the fall of 1998, performing limited excavations.

HISTORICAL CONTEXT

In 1870, Funke and Wasserman, a San Francisco tannery, purchased the 3300-acre Salt Point Ranch. Their use of the land included production of tanbark, posts, and cord wood, and plans were made to create a town on the coastal terrace to be called Louisville (Porter 1982:13-15; Wackenreuder 1872). A Scottish-born entrepreneur named William R. Miller leased the timber rights for a 1200-acre portion of the ranch in 1872, and set up a sawmill in the steep canyon now called Miller Gulch. He built horse-drawn wooden-rail tramways to transport logs to the mill and finished lumber from the mill to a loading chute a mile and a quarter away at Gerstle Cove (Porter 1982:16-17). There, schooners loaded the lumber for transport to San Francisco. Chinese labor crews provided part of the labor at Miller's and other coastal mills (Lee 1875; United States Bureau of the Census [USBC] 1870, 1880). A nationwide depression in the 1870s caused lumber prices to fall, and by 1876, it was no longer profitable to continue logging in Miller Gulch. Miller

packed up and relocated his mill to Rockport, in northern Mendocino County. Although a hotel, store, butcher shop, carpenter's shop, and blacksmith shop were built at Salt Point (*Sonoma Democrat [SD]* 1875; Wackenreuder 1872), the town of Louisville with its orderly streets never came to be. Today Miller Gulch and the Salt Point Ranch are part of Salt Point State Park.

DOCUMENTARY RESEARCH

No records have been found for Miller's Sawmill, beyond the lease agreement and various newspaper references. Two important pieces of documentation do, however, exist. The first is the United States Coast and Geodetic Survey map surveyed in 1877 and 1878, which shows existing structures with remarkable detail (USCGS 1878). The second is a photograph taken one August day in 1875, when the workers of Miller's Sawmill took the time to pose in front of the mill (Lee 1875). Besides preserving structural details of the mill and rail transport system, the photo gives us a look at the men who worked in Miller Gulch a century and a quarter ago. There is an interesting order to the arrangement of the men in the picture. In the back, framed by the mill, are 11 Euro-American workers and 2 children. On the right, standing in front of the others next to the carload of lumber, is a well-dressed man with a proprietary air about him who may be Miller (no labeled photo of Miller has yet been found). On the left are 14 Chinese laborers. They seem to have assembled themselves in a specific way. One man has placed himself in front of the others. Behind him are 2 groups, 1 standing, and 1 seated on a stack of lumber. In the far background is a man in an apron in front of 2 others.

Background research revealed that very little is known about the participation of Overseas Chinese in the redwood lumber industry on the north coast. Occasional references to Chinese laborers are found in historical accounts of logging, but substantive information about their daily lives is absent. No investigation of a Chinese site related to coastal redwood logging or milling could be found. The Chinese Bunkhouse may also be the first Overseas Chinese site to be investigated in Sonoma County.

Chinese work crews in other fields, such as railroad construction, usually supplied their own food and had their own cook. They were commonly supplied by a labor broker or contractor, and were managed by a headman or foreman. Employers normally dealt only with the headman, who was usually bilingual enough to act as liaison between labor and management. Payroll was disbursed to him, and he would pay the individual laborers after subtracting food costs (Chinn 1969:44; Chiu 1967:46). References are occasionally found in historical accounts of lumber camps relating Chinese to 2 jobs in particular: as waterslinger and cook (Bear and Houghton 1990:13; Schubert 1997:108, 156). The job of waterslinger involved carrying large cans of water, usually on shoulder poles, and running along with the bull teams as they dragged the huge logs. The skid road in front of the log was lubricated by ladling water as needed. This same technique is used today for irrigation in southeast China (See 1995:364). At times, dirt was flung on the road to slow the logs down. The importance of good food to laborers performing hard physical work made the cook a prominent figure in camp. Whether Chinese or Euro-American, the cook probably enjoyed higher status than his peers.

The sawmill in Miller Gulch existed from 1872 to 1876, between 2 censuses, so it is impossible to connect census data with the laborers there. A census study was made, however, to develop profiles of similar crews of Chinese lumber workers. While the notorious unreliability of aspects of census data is duly noted, it is assumed here that valuable information may still be derived from census study. It is probable that the headman of a given crew was the informant who sat down with the census taker to fill in the forms. Two sets of records were examined: the 1870 manuscript census for Salt Point Township, and the 1880 manuscript census for Ten Mile River Township in Mendocino County (USBC 1870, 1880), where Miller relocated his mill in the winter of 1876-1877. These 2 sets of data form an informational bracket around the crew at Miller Gulch. It is unknown whether the Chinese crew or any other workers moved north with the mill, but it does not seem unreasonable that they might. The Ten Mile River census, then, may actually include some of the men who were at Miller Gulch. Other

Salt Point Township mills were relocating to the north due to the same pressures, and by 1880, lumbering was virtually over in the township.

There were 7 groups of Chinese lumber workers recorded in the 1870 Salt Point census, varying from 6 to 14 men (Table 1). Five of the 7 groups included 1 or more cooks. The 1870 census form recorded value of personal property, and it is interesting to note that group A3 had a combined worth of \$2400.00. Only 1 individual in the other 6 groups had personal estate value noted, a cook in group A2 with \$350.00. Group A3 was the only group to have any members classified as millmen: it was comprised of 10 millmen and 3 lumbermen. The wealth did not just correspond to the occupation of millman, however. Four of the millmen had no estate, while all 3 of the lumbermen in the group did. One of the lumbermen had the largest estate in the group: \$750. It is tempting to suppose that this wealthy lumberman was a headman. The only real conclusion that can be reached is that either the group comprised predominately of mill workers made more money for some reason, or they were more forthcoming with the census enumerator regarding their assets than the other groups.

Four groups of Chinese laborers were found in the 1880 census for Ten Mile River Township in Mendocino (Table 2). None of these was described as a lumberman; all were listed as either laborers, millmen, or cooks. It is likely that all of these laborers were in fact working in logging operations, and that this enumerator reserved the more specific term of lumberman for Euro-Americans. Two of these groups were fairly close to William Miller's residence in order of visitation by the census enumerator. This enumerator recorded the actual points of origin for the Chinese he listed, rather than just writing China. The vast majority of Overseas Chinese in California were from Kwangtung Province in southeast China (Chinn 1969:2). It is interesting to note that while 77% of the Ten Mile River crews were from cities in Kwangtung, 11 members of group B1 were listed as being from Peking and 5 in group B2 were from Singapore. The Peking laborers all gave the surname Sing. Also interesting is that 3 out of the 4 groups were mixed in terms of origin.

The census reveals other details. On the forms for both years, there were check boxes for "Cannot Read" and "Cannot Write." Although the language barrier might have affected the enumerators' accuracy in verifying the literacy of Chinese speakers, some individuals did have the boxes checked while others did not. Taking it at face value, 91.5% of the Salt Point men and 73% of the Mendocino men could read and write. Regarding the literacy of the California Chinese, one 19th-century writer who toured the west as a federal employee stated that, "[all] are expert at figures, all read and write in their own tongue" (Rusling 1877:301). The 1880 census also noted marital status, revealing that 16% of the Mendocino men were married. There were no Chinese women recorded in either township. It is likely that the spouses of the married men were at home in China. The literature often refers to Chinese laborers planning to return to China after making their fortunes (Brewer 1930: 251). Many were indeed "sojourners," as were many of the Euro-American immigrants, although this once-common term has gone out of fashion as being somehow derogatory.

By putting these details together, a picture begins to emerge of what the Chinese crew at Miller Gulch may have been like. Fourteen men would have been an average sized group. Most of them were probably in their late twenties, and a couple of them were married. There was likely to have been a headman, who spoke English and handled dealings with the management, and organized the supply of food for the crew. There was probably a cook for the Chinese, and possibly a cook and assistant for the Euro-Americans also. Most of them could read and write. They may have come from more than 1 area, but almost certainly some or most came from Kwangtung Province in southeast China. The ordinary laborers were likely to have made around a dollar a day for working 12 hours (Chiu 1967:46; Nordhoff 1874:173).

The background information also allows some interpretation of the arrangement of the men in the photo. The headman stands in front, with 2 groups of laborers, perhaps separated by occupation or place of origin, behind him, with 3 cooks standing in the background. This somewhat

"factually augmented" crew provides a context for looking at the artifact assemblage from the Chinese Bunkhouse.

EXCAVATIONS AT THE BUNKHOUSE

The excavations at CA-SON-2263H were planned as an "enhanced survey," to generate basic information about the site using students and volunteers with varying levels of experience. The steep slope, heavy duff, and bioturbation, combined with the short period of occupancy, have resulted in a relatively shallow deposit with no apparent stratigraphy. A bronze disk was set in concrete as a permanent datum, and several transect lines were laid out to establish a grid system. Feet and inches were used for measurement. Thirty-eight three-foot square surface scrapes were done first to establish site limits and materials concentrations. Surface artifacts of possible diagnostic or analytic value were collected. Four three-foot square excavation units were then dug in four-inch levels in locations likely to yield materials. Soil from the surface scrapes was screened through quarter-inch mesh and soil from the excavation units through eighth-inch screens, and all was processed with magnets to extract ferrous materials. The depth of the deposit established by the deep units was 8 to 12 inches.

BUNKHOUSE ARTIFACTS

Analysis of the materials recovered is still in the preliminary stages, and the description here is meant to supply an overview of the assemblage.

Faunal Remains

Archaeological evidence from the Bunkhouse indicates that diet was quite varied in typical Chinese fashion. Faunal food remains include beef, fish, bird, deer, pig, and small mammal bones. The bones show both saw cuts and cleaver marks. Previous excavation nearby at CA-SON-488H, identified as the cookhouse area for the non-Chinese workers at the mill, found large quantities of beef bone with few other faunal remains.

Substantial amounts of abalone and mussel shell were also recovered at the Bunkhouse. Dried abalone is mentioned as a food of the Overseas Chinese in inland areas (Nordhoff 1872: 190). Workers at the coastal redwood sawmills had access to ocean resources not enjoyed by inland groups. Chinese use of seaweed is also well documented, and it can be assumed that this resource was also being utilized (Chinn 1969:41; Nordhoff 1872:190; Spier 1958:80).

Ceramics

The Overseas Chinese portion of the ceramic assemblage consists of utilitarian brown-glazed stoneware and lids, porcelaineous stoneware rice bowls, and 1 fragment of an opium pipe bowl. The brown-glazed stoneware makes up the majority of the collection, with 94 sherds representing liquid containers and food jars. A complete unglazed wide-mouthed food jar lid and parts of others, and part of a large flat lid, probably from a barrel jar, were found. The large flat lid may have been used as a cooking vessel, as its exterior surface has numerous very small potlid spall scars. Seven rice bowls were recovered, including 5 examples of the Bamboo pattern, 1 Four Flowers, and 1 unidentified blue on white pattern. The Bamboo pattern was one of the least expensive types of bowls, costing from 2 to 5 cents apiece in the 1870s. The Four Flowers pattern was more costly, at 6.5 to 8.7 cents per bowl (Sando and Felton 1993: 163). Two Bamboo bowl bases are marked with different Chinese characters on the interior bottom centers, perhaps denoting manufacturer or individual potter.

Euro-American ceramics included White Improved Earthenware (Praetzellis 1981: 4-5) tableware, a stoneware beer or ale bottle, and a ball clay pipe stem fragment. Fourteen sherds of White Improved Earthenware were recovered, representing 2 plates, 3 bowls, and a cup. Two English maker's marks are present, 1 dating to 1856 (Praetzellis, Rivers, and Schulz 1983:29 [Mark 90]), and the other in the range of 1867 to 1878 (Praetzellis, Rivers, and Schulz 1983:69 [Mark 208]). The beer bottle is of the typical buff-colored body with cream glaze, and bears a "Murray" maker's mark, as yet undated. Comparing the origins of all of the tableware found, there are 8 Chinese to 6 Euro-American vessels. MNI has

not yet been established for all of the ceramics, but in total number of sherds Chinese ceramics predominate 118 to 27.

Lighting

Several fragments of oil lamp chimneys were collected. A base fragment from a glass oil lamp made by Ripley & Co. resembles the base on a distinctive type of two-handled lamp patented by Ripley in 1868 and 1870 (Thuro 1976: 184-185). A substantial amount of flat window glass was also found, primarily concentrated in the central part of the site. Simple lamps consisting of bowls of peanut oil with wicks placed around the edges were used by the Chinese (McLeod 1948:165), but so far evidence of such devices has not been identified here.

Tools and Nails

One-half of a large circular saw blade was found at the site. It was cut by chiseling for an unknown purpose, but warping possibly due to heat exposure may indicate use as a griddle surface, or perhaps resulted from intentional annealing. A file and a wood-boring auger handle were also collected. A cylindrical rubber object, about 2.5 inches in diameter by 3 inches long, with internal threading at 1 end, may be related to the sawmill. Both ends have been cut with a knife. Neither its original nor its modified purpose is known. Numerous cut nails were found over an area consistent with the long building depicted on the Coast Survey map.

Writing Implements

A slate pencil and a fragment of flat slate were found, as were 3 pieces of graphite. The graphite pieces appear to be some sort of marking crayons, and may have been manufactured by extrusion. They are square in cross section, approximately 0.5 inch per side, and vary from 0.7 to 1.3 inches in length. The ends are worn as if they had been used for writing. Attempts to identify these objects as either Euro-American or Chinese have so far been unsuccessful. They may have been used for marking lumber.

Opium-Related Artifacts

Evidence of opium use is common at 19th-century Overseas Chinese sites. Parts of several

copper-alloy opium cans were recovered. Poorly-preserved fragments of orange and black paper labels still adhere to some of the can pieces. Attempts to translate nearly invisible Chinese characters on 1 of the fragments have been unsuccessful so far.

One base fragment of an opium pipe bowl was found. It is rose-brown in color, and the surface appears polished. It is possibly of the Yixing type manufactured near Shanghai (Wylie and Fike 1993:286). A ball clay stem and the small hinged and perforated metal lid from a covered pipe (see Montgomery Ward & Co. 1894:487) were designed for western-style tobacco use, but, since tobacco was sometimes mixed with opium (Wylie and Fike 1993:256;267), may be opium-related.

Two fragments of a commercially manufactured faceted glass opium lamp chimney of unknown origin were also found. The pieces resemble chimneys of metal-based lamps previously reported on the west coast (Wylie and Fike 1993: 289-291). In addition, the middle section of an embossed soda-type bottle modified to serve as an improvised replacement for an opium lamp chimney was recovered. These have been reported at other sites in the west (Wylie and Fike 1993: 290; LaLande 1982:22-23), as well as being quite common in New Zealand (Ritchie 1986:391). A small tube, fabricated from opium can metal, is probably an improvised opium lamp wick holder like the one pictured in Wegars (1999:7).

Felton (1980:8; Note 1) noted fragments from a "Dr. D. Jayne's Expectorant" bottle, a product manufactured in Philadelphia that contained opium (Fike 1987:118).

Alcohol and Medicine Bottles

Fragments of wine and liquor bottles were found at the site. As mentioned above, a stoneware beer or ale bottle was also recovered. Parts of 2 Dr. Hostetter's Stomach Bitters Bottles were found, with 1 dated to a range of 1860 to 1885 (Fike 1987: 36). Hostetter's was a high alcohol product frequently associated with Overseas Chinese sites (Greenwood 1997: 13). An example from El Paso, Texas, however, had

been re-labeled, indicating that it had been refilled with a Chinese cleaning product (Staski 1993:136). Besides the Hostetter's bottles, other unidentified medicine-type bottles were present. As mentioned above, a "Dr. D. Jayne's Expectorant" bottle was observed on the site in 1980 (Felton 1980:8). One small Chinese medicine bottle (Wegars 1999:8) was the only artifact found connected with traditional Chinese medicine.

Gambling

Three glass gaming pieces, 2 white (*hak chū*) and 1 black (*pak chū*) were found (see Wegars 1999:8). Two Chinese coins were found, 1 dating to the Kang Xi period from 1662 to 1722, and the other to the Qian Long period from 1736 to 1795 (Olsen 1983). A common use of these coins was as a substitute for the glass gaming pieces in the game of fan-tan (McLeod 1948:165). Kang Xi coins were also valued as potent talismans (Olsen 1983:43).

ANALYSIS: SOME PRELIMINARY THOUGHTS

The archaeological remains at CA-SON-2263H are in many ways typical of 19th-century Overseas Chinese labor camp assemblages. Rice bowls, brown-glazed stoneware food and liquid containers, alcohol- and opium-related items, medicine bottles, and gambling paraphernalia all speak of common lifeways shared by many Chinese immigrants as they tried to make their fortunes here in California and elsewhere in the world. The nature of the coastal lumber industry, with the frequent calling of lumber schooners, meant that shipping of goods, Chinese and otherwise, was greatly facilitated at Salt Point and other "doghole" ports.

A Possible Abalone Industry

The coastal environment added another dimension to the camp life of the Bunkhouse laborers. The evidence of ocean foraging by the Bunkhouse laborers to further diversify their diet is interesting by itself, but it is also possible to argue that they were extending their income by producing dried abalone and abalone shell (and probably seaweed) for sale. Abalone harvesting

by Chinese fishermen in central and southern California was a well-recorded industry in the late 19th century (Chinn 1969:40-41; Schwartz 1995). Kaye Tomlin (1986:1-2), a descendant of Fort Ross's George Call, found records of Call shipping out small amounts of abalone, shells, and seaweed for local Chinese road builders in 1880. Additionally, an 1875 newspaper description of products shipped from the Timber Cove chute, also owned by William Miller, contains this statement: "Abalone shells are obtained at low tide in great quantity along the coast, and these are also an article of traffic. They are used in the manufacture of ornaments and jewelry, and bring in the San Francisco market 2 cents per pound, while in the eastern markets they are worth 7 cents per pound" (*SD*, 24 July 1875:1)."

When would men working 12 hours a day have time to collect abalone? The answer to this ties into another question about the Bunkhouse crew. Lumbering was seasonal work, stopping for the 3 or 4 wet months of winter. What did the men do during the down time? While it is possible that they left the area for the rainy season, some or all may well have spent the winter harvesting abalone and seaweed. The presence of mussel shell may be an indicator of winter residence. There was a ready market for the shells with their boss, William Miller. Dried abalone and seaweed would also find a ready market in San Francisco. Shipping would not have been a problem, with schooners regularly calling at the Salt Point chutes. The combined value of abalone meat and shells shipped from San Francisco in 1879 was \$33,250.00 (Chinn 1969:41). The shells found at the Bunkhouse may just represent some of the discards that did not get sold.

Guanxi and the Chinese Business World

The word *guanxi* describes a Chinese system of social and business networking. University of Hawaii management professor Yadong Luo (1997) has defined it this way: "The Chinese word *guanxi* refers to the concept of drawing on connections in order to secure favors in personal relations. It is an intricate and pervasive relational network, which Chinese cultivate energetically, subtly, and imaginatively. It contains implicit mutual obligation, assurance, and understanding, and governs Chinese attitudes toward long-term social and

business relationships." Dr. Luo also states: "*Guanxi* is one of the major dynamics in the Chinese society_ business behavior revolves around *guanxi*. It has been pervasive in the Chinese business world for the last few centuries."

In other words, Chinese business activities and decisions are governed not simply by the bottom line, but by carefully cultivated social relationships involving "mutual obligation." Chinese merchants developed such relationships not only with fellow Chinese, but also with Euro-Americans (e.g., Farkas 1998:47). Researchers looking at modern Chinese business study *guanxi* and its effects. If laborers, headmen, Chinese merchants, and Euro-American businessmen were linked in *guanxi* networks, then research of the historical and archaeological record pertaining to the Overseas Chinese should also consider the idea.

Chinese work crews were commonly contracted through Chinese merchants. A key aspect of these relationships is that the laborers understood that the merchant/contractor was to have their trade in the purchase of provisions (Fong 1894:524). Thus, the merchant created a block of consumers loyal to his business. Consumer choice, then, was more than a matter of personal taste. The abundance of a certain type of food container on a given site may have had less to do with individual consumer preferences than with strong *guanxi* relationships all the way from Asia to the labor camp. At Miller Gulch, these relationships may have resulted not only in the presence of the laborers themselves, but also in the abundance of Chinese goods on the site and the ability of the laborers to market ocean products back to China.

CONCLUSION

The bunkhouse project offers a look at Chinese laborers working in a unique environment: the redwood coast. The ocean provided access to both natural resources and easy shipping. Further study will look at the physical and social supply mechanisms as well as the possible part-time abalone industry. Viewed in a *guanxi* context, the bunkhouse laborers, cooks

and headman, and the unidentified San Francisco merchant who supplied them, as well as Euro-Americans like William Miller and the shippers who moved the Chinese goods, were all part of a relational web reaching from China to Miller Gulch. Thousands of such interwoven social networks made possible a two-way flow of people, money, goods, and services across the Pacific.

NOTES

1. Since this paper was presented at the 1999 SCA meetings in Sacramento, it has been learned that Bonnie Porter and Larry Felton had visited the site in 1980. Research for another paper led to Felton's field notes containing a reference to the site in Miller Gulch. After examining the mill site farther up the gulch, they observed a scatter of glass and ceramics in the bunkhouse vicinity containing some sherds of Chinese brown-glazed stoneware. The site was not recorded at that time, but the field notes were filed at the State Parks Archaeology Lab (Felton 1980).

2. The author would like to express his appreciation to Tom Origer, Breck Parkman, Janine Loyd, Priscilla Wegars, Roberta Greenwood, Jeffrey McIlwain, and all of the students and volunteers who worked on the Chinese Bunkhouse Project for their assistance, ideas, and encouragement.

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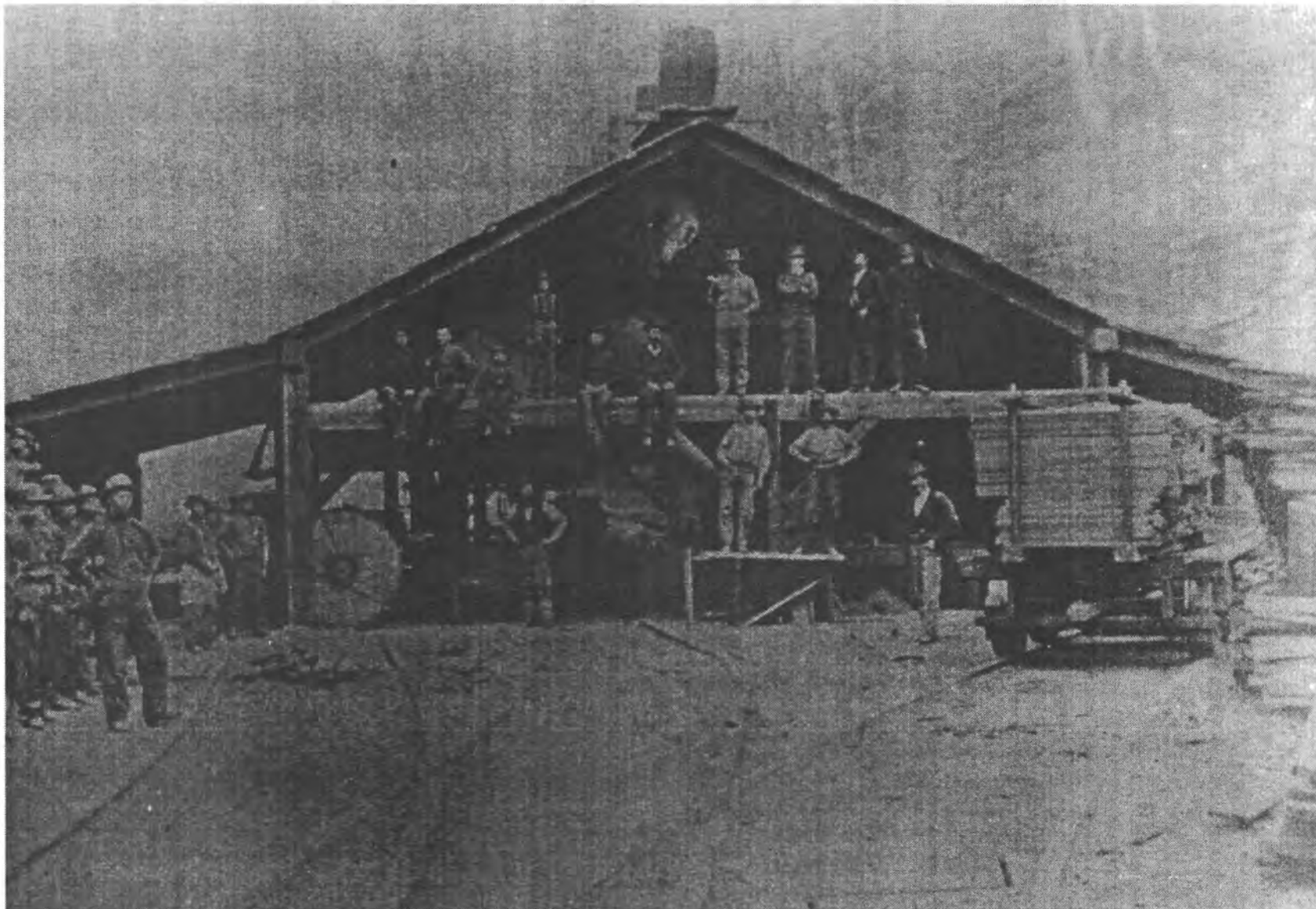


Figure 1. Sonoma County, Millers Mill, August 1885. Photograph in Robert J. Lee Collection, Mendocino County Historical Society.