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## EVIDENCE FOUND DATING ONSET OF THE HISTORIC PERIOD ON THE MENDOCINO COAST

Dr. Thomas Layton, Professor of Anthropology at San Jose State University, was excited in 1983 when CDF archaeologist Daniel Foster showed him a well preserved native American habitation site on Three Chop Ridge in the northeast part of Jackson State Forest. He dubbed the site "Three Chop Village," and in 1984 undertook a major excavation project of the several house depressions in an effort to shed light upon the migratory patterns of the native peoples of the central Mendocino Coast, the Mitom Pomo. Dr. Layton is now completing a monograph which will be published this winter, with financial support from CDF. He has generously made available an unpublished draft of his monograph from which much of the information in this article is excerpted.

### Mitom Pomo Archaeological Site

In an area near the present site of Willits, the Mitom Pomo occupied several permanent villages containing a total of about 600 people. Many of these people traditionally traveled to the coast during the summer months to live in seasonal villages and collect seafoods, shells, and furs. This migratory pattern existed for hundreds, if not thousands, of years prior to the nineteenth century.

Three Chop Village's location on a primary travel route midway between the coast and the interior population center of the Mitom Pomo makes it an ideal spot to study interior-to-coast traffic (Layton 1986). Also, because Three Chop Village was believed to be one of the most recently occupied sites known, excavations here promised excellent opportunities to establish an unbroken chain of evidence reaching from the ethnographic present into the remote past. Such information is crucial to the interpretation and understanding of scattered and discontinuous prehistoric archaeological clues.

Excavations at Three Chop Village were begun in the summer of 1984, and within weeks, the work took a surprising turn. Although it had long been known that the mid-nineteenth century--the Gold Rush period in particular--brought irrevocable changes to California's native populations, an unexpected discovery at the dig provided direct evidence linking a specific, datable event to the opening of the historic period on the Mendocino Coast. Discovered among the stone chips, shells, and bone fragments were some odd blue and white chips unlike anything one would expect to find in an aboriginal habitation site.

## Chinese Connection

On the night of July 26, 1850, the square-rigged, two-masted brig "Frolic," a trade vessel from China, wrecked somewhere on the northern coast of California. According to San Francisco's Daily Alta California of August 5, 1850, the Frolic had been bound for San Francisco "with a valuable cargo of Chinese goods." The crew had believed itself to be "50 or 60 miles from the nearest land at the time the reef was discovered." In fact, the reef was less than a mile from shore. The newspaper reported that when the Frolic sank, "six of the crew were lost (and) the remainder landed about 5 or 6 miles from the reef, saving nothing but what they stood in."

The Frolic's captain, E. H. Faucon of Boston, had seen better days. He had previously achieved a certain fame by appearing in Richard Henry Dana's extraordinarily popular book, Two Years Before the Mast. Dana made numerous admiring references to Faucon, who captained both the "Pilgrim" and the "Alert" at various times. According to Dana (1840), Faucon "was a sailor, every inch of him." When Faucon and his officers and three surviving sailors reached San Francisco and reported the shipwreck about a week after the Frolic went down, plans were set in motion to organize an expediton to salvage the "valuable cargo of Chinese goods."

The first known expedition was mounted in late 1850 or early 1851 by Captain Stephen Smith, an early California settler who had a large land grant and sawmill operation at Bodega. He sent Jerome B. Ford to search for the Frolic, and although Ford's diary of the trip has long been lost, his son Jerome Chester Ford wrote the following in a 1933 letter (Bear and Stebbins 1977):

> ...When word came that a ship from China had gone on the rocks...and was a wreck, Smith sent father with a pack horse outfit North to see if he could salvage any of the stuff...The Indians had salvaged a few silk things. The squaws were found wearing silk shawls but nothing to salvage. That part of the venture was a failure.

While Ford may have failed to find anything to salvage from the Frolic, his journey was not in vain, for he did find another kind of treasure: vast forests of virgin redwood timber. Upon hearing Ford's report Captain Smith contacted his partner, San Francisco lumber baron Henry Meiggs, and within a year a mill was constructed at the mouth of

Big River. Soon the bustling lumber seaport of Mendocino grew up around the mill, and sailing schooners were employed to ship the lumber south as fast as it was produced. In just a few years the mill at Mendocino, along with mills at Caspar, Fort Bragg, and Albion, transformed the Mendocino Coast into one of the world's leading lumber producing areas.

## The Frolic

The Frolic was about 90 feet long and and had a cargo capacity of 212 tons. She was owned by Russell and Company of Boston and Canton, China, and from 1845 until 1850 she was used to transport opium from Bombay to Canton and Shanghai (Lubbock 1933). The Frolic was built to be fast and armed for defense against pirates. By 1850, however, faster and more efficient steamships were taking over the opium trade, and the Frolic was converted to the business of shipping cargo to the Gold Rush boomtown of San Francisco. Ironically, it was during her maiden voyage to California that the Frolic wrecked on the Mendocino Coast after making an extremely fast 50 day passage across the Pacific (Layton 1986).

After the initial excitement that prompted the expedition to search for the lost "treasure," interest in the Frolic seems to have abated rather quickly, although over the next few years there were reports of cargo items such as china jars, camphor trunks, and lacquered ware reaching as far inland as Ukiah. When the Kelley family arrived in 1854, they were some of the earliest settlers on the Mendocino Coast. Mrs. Kelley, in her first contact with the Pomo natives, received three bolts of silk from the lost ship (Yonce N. D.). For generations, stories were passed down about "the Indians and the shipwreck," but it wasn't until 1984 that hard evidence existed linking the Pomo to the Frolic.

## The Link

In 1982 JDSF Forester Dana Cole identified and co-registered (with Daniel Foster) a previously undisturbed and unmapped coastal shell midden at Point Cabrillo (Foster and Cole 1983). Identified as site CA-MEN 1914, the midden is located on a bluff where a perennial freshwater stream enters the ocean as a 50-foot waterfall (Figure 1). This site was probably used as a seafood and shell processing area, and possibly as a seasonal habitation site.

Prior to identifying the shell midden, Cole had passed it many times on his way to the beach below. It so happened that the cove below the bluff was a favorite place of his to skindive ever since his neighbor and diving partner, Dale Hartesveldt, had shown him an old shipwreck among the rocks. At the time neither of them knew the identity of the wreck, only that in additon to its barnacle-encrusted cannons and anchor, and its bars of pig-iron ballast that defined the skeleton of the ship, there were numerous bits and pieces of porcelin stoneware that littered the surrounding ocean floor. Hartesveldt had brought up mysterious pieces of copper and many pieces of the stoneware, some with their Chinese identification marks intact, and Cole had also collected pieces of the pottery.

In 1984, when Cole saw identical-looking material being excavated at Three Chop Village, he told the San Jose State crew about the shipwreck below site CA-MEN 1914, 11 miles to the west. The following day a comparison of the sherds from Three Chop Village with those brought up from the shipwreck seemed to confirm their common origin. Almost immediately, Dr. Layton launched an exhaustive investigation into the wrecked ship's past. He soon discovered that the documented facts about the Frolic corresponded neatly with the oral history concerning "the Indians and the shipwreck," and more importantly, with the findings at Three Chop Village. Layton's research has brought him in contact with numerous divers familiar with the wreck, historians, the National Park Service, the University of California's Bancroft Library, the China Trade Museum in Massachusettes, and the Asian Art Museum in San Francisco, among others, and it now seems certain that the Mitom Pomo were the first to scavenge the wreck of the Frolic.

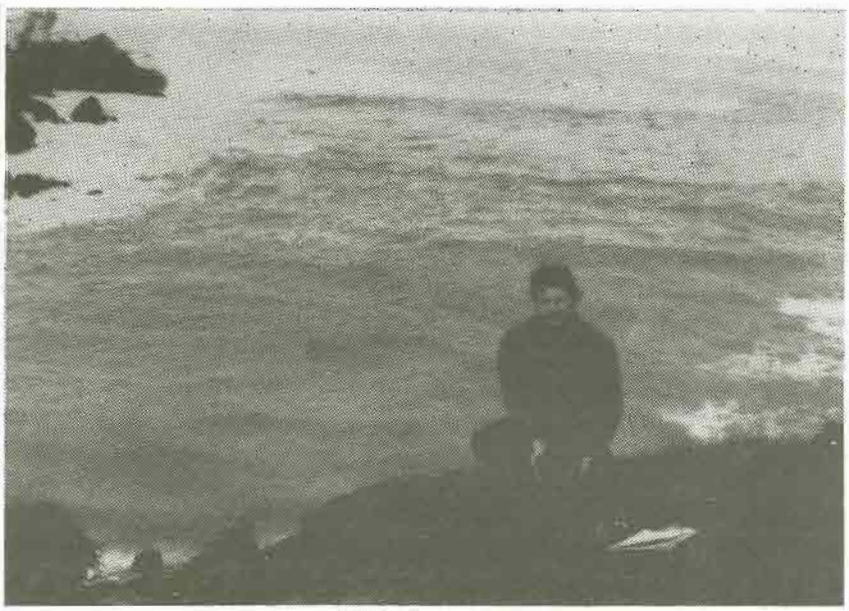

**Figure 1.** View of Site CA-MEN 1914 at Point Cabrillo. Cole displays hoppered mortar near cliff edge. Frolic lies in cove, background, in 15 feet of water. Photo taken in 1982 by Daniel Foster.

Dr. Layton's investigation of the Frolic continues and will be described in future publications. Meanwhile, the National Park Service has nominated the shipwreck for the National Register of Historic Places. Also, the Kelley House Museum in Mendocino currently features an interesting exhibit concerning the Frolic-Pomo connection.

## Epilogue

It will never be known whether or not the Mitom Pomo were inhabiting the site at CA-MEN 1914 on the night the Frolic struck the rocks below. It is likely, however, that scavanging the wreck was their first contact with Old World culture. There is no doubt that at least some of the Frolic's cargo ended up at Three Chop Village, where pieces of china pottery were used in the same way the Pomo used obsidian--to form tools and projectile points, and to make jewelry.

Most significantly, however, the wreck of the Frolic was the event that signalled the beginning of the historic era on the Mendocino Coast.

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## NEW PUBLICATIONS

JDSF forester **Dana Cole** and University of California Associate Professor **John Helms** have co-authored California Forestry Note Number 97, entitled "Railroad Gulch: A Silviucultural Demonstration of Uneven-Aged Management Alternatives".

This publication is a progress report on the long-term research project know as the Railroad Gulch Silvicultural Demonstration (see JDSF Newsletter No 11, June 1983). Funded in 1981 through the state's "Forest Resource Improvement Fund", the project was implemented in 1982-83 with the objective of evaluating alternative silvicultural prescriptions for uneven-aged management in the redwood/Douglas-fir region. This 11-page paper summarizes the general approach and initial findings of the study.

Copies can be ordered by writing JDSF.

We received **Ted Wurm's** new book too late to review for this issue of the JDSF Newsletter. We can tell you, however, that "Mallets on the Mendocino Coast: Caspar Lumber Company Railroads and Steamships" is a beautifully rendered hardbound book with 130 pages and 190 illustrations, many of which have never before been seen in print. A review will appear in JDSF No. 24.

In the meantime, you may want to order the book from Interurban Press, P. O. Box 6444, Glendale, CA 91205. The retail price is $28.95, and the publisher requests that mail orders add $1.50 for postage and handling. California orders are subject to 6% sales tax (more in some areas).

## UPDATE ON JAMES CREEK TILLING TRIALS

Peter Cafferata [1]

Past JDSF newsletters (No. 13 and 17) have reported preliminary results of skid trail tilling in selected units of the James Creek 1983 Timber Sale. Approximately 135 acres of residual old growth redwood and Douglas-fir were tractor logged and 12 percent of the area was occupied by skid trails. While the tractor area was divided into three units, only two were ultimately utilized for the tilling trials. Compartment A was tilled in October of 1984 using a Caterpillar D-6D crawler tractor equipped with a five-tine, 24-inch rock ripper; Compartment C was left untilled. Soil density measurements were made in both units with a nuclear density gauge just prior to tillage. Three readings were taken across each skid trail at a depth of 6 inches. Density measurements were 20 percent higher on the compacted skid trails in both units when compared with undisturbed plots. Mean dry density on the trails was 1.5 $g/cm^3$, versus a mean of 1.2 $g/cm^3$ for the undisturbed controls.

During August of 1985 we remeasured the established skid trail plots in Compartments A and C. Mean dry densities in both units remained unchanged at 1.5 $g/cm^3$. Therefore, tilling was not effective in fracturing the compacting zone on primary skid trails in Compartment A. Generally a herringbone pattern was set up on the tractor ground, and secondary lateral trails, which averaged less than 20 percent, were more effectively tilled. The experimental design, however, called for the measurement plots to be equally spaced on the primary ridge trails, and these were often on slopes over 50 percent. These trails were simply too steep for effective tilling to occur with the size and type of equipment used. We felt that this size crawler tractor had insufficient power to penetrate the rock rippers to 18 inches on steep skid trails.

This timber sale was planted during the winter of 1984-85. Since the area had an overstory removal (all trees larger than 22 inches DBH were removed), some stocking remained following harvest. Over the entire sale, 66,000 seedlings were planted at a rate of 300 per acre. Species mix was 70 percent redwood, 30 percent Douglas-fir. Seedlings were 2-0 Douglas-fir and 1-0 redwood bare root stock from a private nursery. During November of 1985, seedlings on skid trails in Compartments A and C were sampled for survival and height. Plots of 25 feet in length were established at 175-foot intervals up skid trails in both units. Compartment A had 25 plots; Compartment C had 22 plots. Generally, primary skid trails were again chosen for these measurements. Within each 25-foot reach, all planted seedlings were checked for survival, and heights were measured on living seedlings.

Results of this survey show that 75 percent of the seedlings survived in the tilled unit (A), while 67 percent were alive in the untilled unit (C). Due to a wide range of survival within the various plots, the means were not significantly different ($P = 0.05$).

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In compartment A, 80 percent of the redwood survived, compared to 56 percent of the Douglas-fir. Average heights of the redwood and fir were 19.3 cm (7.6 inches) and 33.2 cm (13.1 inches), respectively. Similarly, in Compartment C, 73 percent of the redwood survived, while 61 percent of the Douglas-fir were alive. Average heights for these redwoods and firs were 19.9 cm (7.8 inches) and 30.0 cm (11.8 inches), respectively. These height differences in the two units are currently not significantly different; remeasurements will be made in 1989.

The survival observed for these James Creek units cannot be considered particularly good. Probable causes for the mortality are numerous. The condition of the Douglas-fir stock was poor, probably due to nursery growing conditions. Refrigerated vans were not used to transport and store seedlings. Deer browse was heavy with over 40 percent of the redwood being affected. Poor planting methods resulted in a loss of approximately 10 percent of the seedlings; J-rooting affected an additional 10 percent. To make matters worse, minimal rain fell for the five weeks following planting.

To summarize what we have learned so far from the James Creek tilling trials, the following points can be made:

1) Rock rippers, while readily available, fail to till to the full depth of compaction.

2) Larger crawler tractors, with sufficient horsepower (200+) are needed to successfully rip steep skid trails.

3) Skid trails with slopes between 30 and 50 percent should be waterbarred when tilled with a rock ripper.

4) Primary skid trails on slopes greater than 50 percent should be considered for exclusion from ripping with rock rippers due to erosion hazard. Emphasis should be placed on ripping lateral secondary trails and less steep primaries.

5) Planting success needs to be upgraded by using the best techniques currently available.

6) Further testing of soil tillage is needed in the Redwood Region. "Winged subsoilers," or rippers with replaceable shoes, should be tested on gentler slopes with deeper soils. This tool has proven to be very effective in fracturing compacted soil in Oregon (Froehlich and Miles 1984). Plans are being made to test a winged subsoiler soon on a 40-acre unit in the Hare Creek drainage.

## LITERATURE CITED

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