

ARCHAEOLOGICAL INVESTIGATIONS AT SITE MRP-1196H: AN HISTORIC GARBAGE DUMP IN YOSEMITE NATIONAL PARK, CALIFORNIA

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ABSTRACT

Site MRP-1196H was the first planned excavation of an historic nature in Yosemite National Park. This site is located within Yosemite National Park in Mariposa County, California. Excavation and monitoring of Locus 1 at MRP-1196H in Yosemite Valley has yielded information concerning early 20th century garbage practices. The identification of these practices was documented through field and preliminary laboratory analysis. The presence of a filled oxbow and river overflow channels, incinerated trash, compacted cans, and the infiltration of possible oil or petroleum type products were some of the conditions documented. This paper will identify these practices through archaeology and literature. A few artifacts from the monitoring collection will also be discussed.

DISCUSSION

First, I would like to address a brief history of Yosemite National Park and the history of archaeology in Yosemite. In 1851, the Mariposa Battalion became the first party of Euro-Americans to enter Yosemite Valley. By 1855, Yosemite Valley was a tourist destination. Visitation was minimal initially, but increased as trails, roads, hotels, stores, campgrounds, and other private services were established. By 1864, Yosemite Valley and the Mariposa Grove were granted to the State of California as a public trust. In 1890, Yosemite National Park was created. At this time, the State Board of Commissioners relinquished management of the park to the U.S. Army. The Army then established a post near Yosemite Creek (Montague 1991). In 1906, the National Park Service was created, and the park was ceded to the federal government. By 1907, the railroad had been completed to El Portal at the park's western boundary. The opening of the All-Year Highway, Route 140, closed the railroad (Tagg 1986).

The history of archaeology in Yosemite

National Park began with the identification and recording of prehistoric sites by archaeologists from U.C. Berkeley in the 1950s and Stanislaus State College in the 1970s (Mundy and Hull 1988). Major emphasis during the past 30 years has been analysis of prehistoric cultures and patterns. It was not until the formulation of a park-wide archaeological research design in 1981 that the study and further examination of historic sites was recommended (Moratto 1981; Carpenter 1981). A revision of this research design that will specifically address historic sites and their archaeological components is presently being formulated.

MRP-1196H is located within the boundaries of the Yosemite Valley Archaeological District, listed on the National Register of Historic Places (Anderson and Morehead 1978), but not listed as a contributing element. Analysis of the site's structure and integrity will allow determination of its eligibility for listing.

The site, an historic garbage dump, included historic ceramics, glass, metal, bone, and a few floral items. The site was first

identified by the National Park Service Western Archaeological Conservation Center (WACC) in 1980. Artifacts collected were later analyzed (Tagg 1986). The site was formally recorded in 1991 by the Yosemite Archaeology Office (1991), and was found to include 4 loci. Excavation, monitoring, and preliminary analysis indicate that Locus 1 was used for dumping refuse in a number of episodes between approximately 1880 and the 1960s. A high percentage of hotelware, household, and automobile items were recovered. The monitoring collection which was organized as a type collection of historic artifacts for the Park includes 567 ceramic, glass, metal, and leather items. This collection can later be used in the analysis of historic artifacts from other sites.

Excavation and removal of artifacts from Locus 1 at MRP-1196H was conducted as part of the comprehensive Merced River Restoration Plan, which seeks to restore the natural processes and dynamics of the river ecosystem.

Erosion of the riverbank and exposed dump materials were posing a threat to human safety and the river system (Fritzke et al. 1991). It was recommended that immediate action be taken to clean up the dump (Johnson 1991).

Research questions to be addressed for this project are limited in scope. Establishment of how long the dump was used, who used the dump, why this location was chosen, why it was discontinued, and what type of recycling practices are evident are the main research objectives. These questions can only be answered after the completion of monitoring and excavation analysis and further review of literature.

Archaeological testing strategies were employed using 50 cm x 50 cm shovel test units and 1 m x 1 m excavation units. A total of 11 shovel test units and 3 excavation units were excavated within Locus 1. Horizontal and vertical boundaries were defined using the results of unit excavation.

Stratigraphy was fairly consistent throughout Locus 1. The top few soil layers were silty and coarse sands with gravels, ev-

idence of a possible dump capping (Zinke and Alexander 1963), and recent river flooding, accumulation, and erosion. The first cultural dump episode identified within the excavation units was metal disposal with its oxidation filtering into the lower strata. The second deposition was the most dense with artifacts, mainly materials that had been burned or incinerated. Many of these materials can be identified as being hotel and concession related. The third deposition was the filtration of possible oil or petroleum type products that had accumulated upon the pre-dump surface. The petroleum type product seems to have been dumped on the second episode of dumping, and filtered down to the pre-dump surface. The undisturbed pre-dump surface was a yellow-brown silty sand with gravels. Samples of the petroleum were unfortunately not collected.

Removal of Locus 1 dump debris with heavy machinery proceeded after the archaeological excavation was completed. A pre-dump ground surface or exposure of the oxbow and river overflow channels were uncovered.

A portable conveyor-belt-driven screen-plant and loader was then employed to separate clean soils from dump debris. The screen separated out ceramics, glass, and metal debris from the sands and gravels. The sterile sands and gravels were later used to help revegetate the original surface.

Artifacts were recovered in 3 stages: excavation, monitoring, and screenplant operation (Table 1). At this point, only the monitoring and screenplant collections have been washed and partly analyzed. Excavation materials have been separated by material types but not washed or cataloged. Laboratory processing of the excavation materials will determine the total number of artifacts recovered along with minimum vessel counts. The development of a classification scheme for functional groups for this project will be completed before cataloging, analysis, and final conclusions can be made.

Literature on the history of garbage practices within Yosemite National Park and the decisions of early park managers can be found within the Yosemite Research Li-

Table 1

MRP-1196H Monitoring Collection

Ceramic pitchers with dates (1920s hotelware, see Mundy 1987)
 Ceramic creamers with dates
 Ceramic plate/bowl
 Milk glass - cream jars (Ponds, milkweed, musterol)
 Milk bottles (Golden State Milk Co., Merced Dairy)
 Soda bottles (Shasta, Coke, Welches, Hires)
 Ink bottles (ink well and bottles)
 Champagne/wine bottles (1-2 piece mold, both applied lip)
 Cobalt-blue bottles (Bromoseltzer, Bromo-Caffeine)
 Panel bottles (medicine, 3 in 1 oil)
 Ketchup, mustard, food (latest type of bottles recovered)
 Ceramic insulators (Munsey 1970)
 Glass insulators
 Lantern and light bulb (delicate items)
 Ceramic jug (Munsey 1970)
 License plates (California 1917 and Dealer plate)
 Cutlery
 Pots and pans
 Irons
 Motorcycle frame, with sidecar attachments (field recovery) (Page 1971)
 Motorcycle springs (Page 1971)
 Auto cylinder head and transmission
 Place setting (in situ)

brary. Utilizing a variety of historic park records, including military records, superintendent reports, maintenance and completion reports, maps, photographs, and other documents, a more complete chronology of refuse disposal can be obtained.

Table 2 is a preliminary outline of the history of early garbage practices in Yosemite. The evidence of garbage practices at MRP-1196H can be seen in the filling the oxbow and river overflow channels, the recovery of incinerated or burned materials, crushed cans, and the identification of metal items and possible petroleum type products. The petroleum products were probably used for burning trash and discouraging bears (Runte 1990; Green 1987). Mosquitoes were also controlled by the use of oil spraying

Table 2

Early Garbage Practices in Yosemite National Park

History:
 1851 - Indians removed, Mariposa Battalion
 1855 - 1st tourists
 1864 - State-protected area
 1877 - Organized stageline
 1890 - Became National Park, managed by U.S. Army
 1907 - Railroad completed to El Portal
 1913 - 1st automobiles
 1915 - Motor coaches
 1926 - All-year highway

Garbage:
 1890 - Campers need to be watched
 1893 - Need of regulations for campers and tourists
 1908 - Garbage removal recommended (Commissioners' Report 1909)
 1909 - Pits provided at campgrounds
 1911 - Incinerator for garbage a necessity
 1912 - 1st garbage collection, garbage cans in public camps, garbage hauled to bear-pits where scattered and burned
 1912 - Incinerator soon to be built by War Department (Military Report 1912)
 1915 - All garbage is burned in pits, which is an effective method of disposal and should be continued as long as fallen timber is available for burning (Commissioners' Report 1915)
 1923 - Yosemite National Park Company built a special feeding place for bears near Merced River bank a mile below old Yosemite Lodge (Green 1987)
 1925 - Incinerator constructed
 1926 - Volume of incinerated garbage:
 June- 125 cans/day
 July- 165 cans/day
 1927 - Golden State Milk products in Merced, reuse of milk containers
 1928 - Attempt should be made to clean up existing garbage pits, question of disposal of wet garbage (Yosemite Officials and Mr. Spencer 1928)
 1929 - Camp Curry dump established

(Tressider 1927). Disposal of crankcase oil from the early tour buses was another possible source of petroleum (Runte 1990).

CONCLUSIONS

In conclusion, the evidence of garbage practices is present at MRP-1196H. It was not until recently that it was discovered through archaeology and environmental studies that the dumping of garbage in this area has caused changes in the environment (Fritzke et al. 1991). Environmental studies on site vegetation and soil content have indicated that the dump area had been historically altered. The continuation of Merced River Restoration Project is aimed in restoring the original ecosystem.

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