

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

Tim Kennedy
Yosemite National Park
P.O. Box 97
El Portal, CA 95318

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, mustero) |
| 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 (<i>in situ</i>) |

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.

REFERENCES CITED

- Anderson, Keith M., and Mary Thul Morehead
1978 National Register of Historic Places Nomination Form, Yosemite Valley Archaeological District. National Park Service, Western Archaeological and Conservation Center, Tucson.
- Carpenter, Scott
1981 Historical Archaeology. In An Archaeological Research Design for Yosemite National Park, by Michael Moratto, Appendix 4, pp. 265-271. Publications in Anthropology No. 19. National Park Service, Western Archaeological and Conservation Center, Tucson.
- Commissioners' Reports
1909 Yosemite National Park. Ms. on file, Yosemite Research Library, Yosemite National Park.
- 1915 Yosemite National Park. Ms. on file, Yosemite Research Library, Yosemite National Park.
- Fritzke, Sue, Louise Johnson, and Tim Kennedy
1991 El Capitan Picnic Area Dumpsite Status Report. Ms. on file, Resources Management Office, Yosemite National Park. [draft]
- Green, Linda Wendel
1987 Historic Resource Study, Yosemite: The Park and Its Resources. 3 vols. National Park Service, Denver.
- Johnson, Louise
1991 El Cap Picnic Area Dump Cleanup, Yosemite National Park Project Proposal Form. Ms. on file, Resources Management Office, Yosemite National Park.
- Military Report
1912 Ms. on file, Yosemite Research Library, Yosemite National Park.
- Montague, Suzanna
1991 Research Design: Data Recovery at the El Capitan Dump Site: Site CA-MRP-1196H in Yosemite Valley, California. Ms. on file, Yosemite Archaeology Office, Yosemite Research Center, Yosemite National Park.
- Moratto, Michael J.
1981 An Archaeological Research Design For Yosemite National Park, California. Publications in Anthropology No. 19. National Park Service, Western Archaeological and Conservation Center, Tucson.
- Mundy, Joseph W.
1987 The 1984 Archaeological Monitoring at the Historic Wawona Hotel Complex. Publications in Anthropology No. 2. Yosemite Archaeology Office, Yosemite Research Center, Yosemite National Park.
- Mundy, Joseph W., and Kathleen Hull
1988 The 1984 and 1985 Yosemite Valley Archaeological Testing Projects. Yosemite Archaeology Office, Yosemite Research Center, Yosemite National Park.
- Munsey, Cecil
1970 The Illustrated Guide to Collecting Bottles. Hawthorn Books, New York.
- Page, Victor W.
1971 Handbook of Early Motorcycles. Post Motor Books, Arcadia, CA.
- Runte, Alfred
1990 Yosemite: The Embattled Wilderness. University of Nebraska Press, Lincoln.

Tagg, Martyn

1986 Analysis of Glass and Ceramics from Two Historic Dumps in Yosemite Valley, Yosemite National Park. In Miscellaneous Historic Period Archaeological Projects in the Western Region, compiled by Martyn D. Tagg, pp. 99-125. Publications in Anthropology No. 37. Western Archaeological and Conservation Center, National Park Service, Tucson.

Tressider, Donald Bertram

1927 The National Parks: A Public Health Problem (with Particular Reference to Yosemite National Park). Unpublished thesis, on file, Yosemite Research Library, Yosemite National Park.

Yosemite Archaeology Office

1991 Archaeological Site Record, CA-MRP-1196H. On file, Yosemite Research Center, Yosemite National Park.

Yosemite Officials, and Mr. Spencer

1928 Minutes, Meeting of National Park Service General Officials of the Yosemite Park and the Curry Company. Ms. on file, Yosemite Research Library, Yosemite National Park.

Zinke, Paul J., and Earl Alexander

1963 The Soil and Vegetation of Yosemite Valley. University of California Wildland Research Center, Berkeley.