

**THE FORT HUNTER LIGGETT CULTURAL RESOURCES INVENTORY:
OBJECTIVES AND RESULTS OF ARCHAEOLOGICAL SURVEY
WITHIN THE HISTORIC PRESERVATION PLAN CONTEXT**

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ABSTRACT

During preparation and implementation of a comprehensive Historic Preservation Plan (HPP), BioSystems conducted cultural resources survey of more than 20,000 acres at Fort Hunter Liggett (FHL) in southern Monterey County. The resultant data, added to that compiled during projects in the 1970s and 1980s, expanded the inventory of identified archaeological sites, increased known resource type diversity, and enhanced the sophistication of cultural resources predictive models applied at the installation. This current database aids in resource management during U.S. Army training, equipment experimentation and testing, and ongoing maintenance and infrastructure programs. This paper discusses development of the current FHL cultural resources inventory within the context of the HPP, including how specific HPP provisions have supported this development, and the effect this has had on the inventory.

A fifty mile crow's flight south of Monterey is Fort Hunter Liggett, an approximately 165,000 acre Army installation used for military training and weapons testing, and home to almost five hundred recorded cultural resources. It's an area long known to harbor rich prehistoric and historic sites, but one only sporadically investigated until recently. In the early 1920s and 1930s J.P. Harrington conducted ethnographic research in the region, and during the 1950s Arnold Pilling and P. Holmes generated some of the earliest site records in the area. The last twenty-five years have seen a relative increase in investigations at the Fort: Cabrillo College surveyed portions of the Nacimiento River drainage in the early 1970s (Edwards 1973); Jack Zahniser and Lois Roberts conducted a survey of the larger valleys on the Fort in the late 1970s (Zahniser and Roberts 1980); Michael Swernoff conducted another large survey effort in the early 1980s (Swernoff 1982); followed by 3 smaller surveys during the rest of that decade (Dietz 1985, 1988; McGowan 1991). Since 1990, BioSystems has conducted 9 survey projects (Edwards 1994, 1995; Edwards and Eidsness 1993, 1994; Edwards et al. 1992a, 1992b, Fitzgerald 1995; King 1993; Roper Wickstrom 1993) on the Fort during development and implementation of the Historic Preservation Plan (Eidsness and Jackson 1994).

These projects have produced many acres of survey coverage and a sizable cultural resources inventory. The total surveyed acreage prior to inception of the Historic Preservation Plan (HPP) in 1990 was ca. 25,000 acres; since 1990 an additional 19,700 acres has been surveyed, for a total of 44,700 surveyed acres on the Fort, or about 27% of the installation. The current site inventory of 492 sites includes everything from ornate rock art sites to Mission Period sites to Randolph Hearst's hacienda to sparse chert debitage scatters.

The portion of this body of information predating 1990 and data gathered by BioSystems in 1991, in conjunction with

the Army's mission of military training, weapons testing, and infrastructure maintenance, and its Section 106 compliance requirements, helped shape the Fort Hunter Liggett HPP. More specifically, these data aided in determining the inventory needs of the Fort, and developing an on-going survey strategy within the management framework of the Historic Preservation Plan.

The management framework that was developed contains provisions for two principal types of cultural resources surveys: those conducted in response to a specific project such as a California National Guard training exercise; and general surveys conducted to increase the overall survey coverage, and site inventory, of the Fort.

Project specific surveys address the need for cultural resources clearance for potentially ground-disturbing undertakings. Most often, these surveys are conducted within the Archeological Clearance Program provisions of the HPP (Vol. 1, Section 4.3.3), which require that any unsurveyed areas potentially disturbed during an activity, such as the digging of a defensive position or the drilling of a new well, be surveyed for cultural resources.

General survey at the Fort is prioritized based on the assessed impact risk to cultural resources in each Training Area. The higher the impact risk assessment a Training Area has, the higher its survey priority. Within this scheme, each Training Area is designated as having a Very High, High, Medium, or Low impact risk, depending on the type and intensity of use it receives, and it's archaeological sensitivity. For example, Training Area 15 is heavily utilized by a wide variety of users, including armored vehicles such as tanks, and so has a Very High impact risk assessment, and the highest survey priority. On the other end of the spectrum is Training Area 17, which is only occasionally used for troop training, and therefore has a Low impact risk assessment and a low survey priority. All

Very High risk areas have been surveyed. The light at the end of this prioritized survey tunnel is completing survey of the entire Fort.

Since inception of the HPP process in 1991, new surveys conducted under its authority have nearly doubled the number of surveyed acres on the Fort, consequently expanding the archeological site inventory, and refining knowledge of site type variability and site distribution. With approximately 44,700 acres surveyed to date, the FHL site inventory stands at 492 sites, the latest 7 added during a survey just this last December. This number breaks down into 70 historic sites, 401 prehistoric sites, and 21 sites with both elements.

Historic sites run the chronological gamut from Mission Period adobe ruins to early U.S. Army occupation bivouacs. Prehistoric sites quite obviously comprise the bulk of the known sites at the Fort. They range in complexity from large multi-component sites, to sparse flake scatters. And they're found in all corners of the installation, from the valleys to the Coast Ridge. As might be expected, most prehistoric sites are concentrated in the two major watershed systems on the Fort: the Nacimiento River, and the San Antonio River. These two annual rivers, with the help of some major tributary streams, form two parallel valley systems that cut NW/SE through the center of the Fort.

Within these valley systems gross settlement patterns were suggested by the known site inventory before 1990, and have only been strengthened by the sites recorded since. The most marked difference in settlement patterns exists in prehistoric site density and distribution between the Nacimiento and San Antonio watersheds. The Nacimiento watershed has extremely high site density, and extremely high site type variability, whereas the San Antonio watershed has fewer, more widely-spaced sites, and the sites are generally smaller in size. This difference is especially conspicuous when you compare one of the denser site concentrations in the San Antonio drainage, that in the Milpitas Valley, to almost any area in the Nacimiento drainage. The Milpitas Valley has an approximate site density of 2.5 per km², whereas areas in the Nacimiento drainage have site densities as high as 7.5 per km². An exhaustive analysis of the possible reasons for this disparity has yet to be done, and is far beyond the scope of this paper.

The high site density within the Nacimiento drainage system allows more refined observation of settlement patterns. The pattern observed by Gibson (1983), that of a large, complex "hub" site with satellite sites geared toward resource procurement in its vicinity, seems generally applicable in this area. In areas such as northwestern Stony Valley, Mesa Coyote, and upper El Piojo Valley, one can see a large, extremely complex site like this site in the El Piojo area, in a central location, and a number of smaller, less complex sites in the general geographical area. These smaller sites are usually flake scatters and/or bedrock milling sites, with the occasional small midden deposit, whereas the hub sites often have all of the above with the addition of rock art, rockshelters and housepits. This scenario seems valid for many of the densest regions

within the Nacimiento watershed, but there are still plenty of sites that clearly don't conform to this pattern.

The most dramatic changes recent survey projects have brought about in knowledge of the Fort's site inventory are an increase in the number of previously under-represented site types, an increase in variability within site types, and an expansion of the site location predictive model at the Fort.

The thousands of acres of intensive survey in the valleys since 1990, and the increase in survey coverage in areas outside main valleys, has led to a growth in numbers of site types nearly invisible in the pre-1990 site inventory. This apparent bias in the pre-1990 inventory, which wasn't unknown elsewhere in California, is likely due to two things. First is the fact that previous survey efforts tended to concentrate on valley bottoms. In fact, one can see just by looking at the survey coverage base maps for the Fort that all the larger pre-1990 survey projects used valley margins to define their boundaries. Second, it seems priority was given to recording more complex sites, such as midden deposits, rockshelters, and large bedrock milling stations. The results of post-1990 survey projects highlights this previous bias in that comparatively more low-complexity sites, such as sparse flake scatters and isolated bedrock milling stations, have been located and recorded in the last four years. This increase in low-complexity site type numbers has changed the Fort's site inventory profile to more closely resemble what we might expect there: a fair number of medium to high complexity sites with lots of low complexity sites.

The overall increase in the number of recorded sites at the Fort has also made for greater observed variability within site types, especially those with lower complexity. For instance, there's now a whole spectrum of flake scatters known that ranges from a barely-qualifying-as-a-site 7 flake sparse scatter to a 100+ flake scatter complete with temporally diagnostic artifacts.

Finally, the increased survey coverage, especially in areas outside the major valley systems, has broadened the scope of the predictive model for the Fort by locating sites in areas one never thought a site would be, and not locating sites where expected. Until the recent surveys were conducted, the tacit expectation was that prehistoric sites would be found in well-watered valleys, with the occasional outlier near a spring or along main ridge tops. Recent surveys, especially Fitzgerald's 1994 roads survey (Fitzgerald 1995), showed that the old expectations weren't completely off base, but definitely required modification. Sites such as sparse flake scatters in the western Fort, and midden deposits deep in the Nacimiento River canyon, are now recorded in many of the more remote regions of the installation. In addition, ridge top sites are limited to very few, which is somewhat surprising, as they are more common in other regions, such as the North Coast Ranges. In effect, this has widened perceptions of where sites may and may not occur.

Ultimately, all this cumulative survey coverage, and consequent expansion of the site inventory, will help the overall development of Central Coast archaeology. As work continues

at the Fort, and is viewed in conjunction with other work in the region, such as Terry Jones' work on the Big Sur coast, it

will help fill out the heretofore blank archaeological spot stretching from San Simeon to Big Sur.

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