

## **THE ARCHAEOLOGY OF DISTURBANCE: A LAND MANAGEMENT-BASED APPROACH TO CULTURAL RESOURCES MANAGEMENT IN CALIFORNIA STATE PARKS**

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*Since California State Parks operates under a mandate to protect the state's cultural resources, archaeological sites in state parks are preserved in place and actively managed through time. Stewardship of each individual site is passed from one archaeologist to another throughout the decades. To be able to fully evaluate the potential effects of future projects, it is vitally important to understand the history of site disturbance. This understanding is achieved through accurate and thorough documentation of archaeological excavation, project-based disturbance, visitor impacts, and natural weathering processes, and by making that information easily available to other cultural resource managers.*

### **STATE PARKS CULTURAL RESOURCE MANAGEMENT**

California State Parks (State Parks) operates under a mandate to protect archaeological and historic sites on State Parks property from damaging or degrading influences, including deterioration. Unlike cultural resource management in the private sector, which is often a “one-time” reconnaissance survey or data recovery mitigation, cultural resource management in State Parks is based on a mindset of long-term land management. Despite a frequent lack of funding, cultural resources specialists within State Parks are tasked with the protection and management of a vast number of important archaeological and historical sites throughout the state of California. These sites, each representing a unique record of human presence, are non-renewable resources facing threats from several fronts.

Damage can be caused by natural forces of erosion and decay, park visitor use, vandalism, and looting. Outside infrastructure demands such as transportation projects, energy leases, or electrical transmission lines, as well as State Parks maintenance and development projects, also have the potential to impact State Parks' cultural sites.

Construction and other development projects on State Parks property are subject to review under the California Environmental Quality Act (CEQA) and Public Resources Code 5024.5. This review process allows archaeologists and historians to assess and consider potential impacts while projects are still in planning stages. Due to this early review, projects can often be redesigned to avoid or lessen impacts to cultural resources. Review also ensures that projects comply with the *Secretary of the Interior's Standards for the Treatment of Historical Properties* by avoiding significant impacts to archaeological and historic sites during construction or implementation.

Cultural staff needs to know what resources are present on State Parks' lands in order to best manage and protect them. To the extent possible (limited by insufficient staffing, time and budget constraints, etc.), State Parks archaeologists conduct regular resource inventory surveys to assess the sites present on State Parks property. When a planned project has the potential to cause impacts, the area of potential effects is usually surveyed and sometimes tested before project work, unless the area has recently been visited.

In addition to recording previously unknown sites, archaeologists regularly visit known sites, especially those at risk from natural or visitor-caused impacts, to monitor their condition. State Parks archaeologists use Archaeological Site Condition Assessment Records (ASCARs) to document site condition over time by visiting sites on a yearly, two-year, or five-year basis. However, many parks lack sufficient cultural staff to conduct regular inventory surveys and site condition field checks. Instead, they

rely on volunteers with the Archaeological Site Stewardship program who routinely visit “at-risk” sites so that impacts can be quickly identified and addressed.

Accurate documentation and sharing of site history information is vital for long-term site management. This is illustrated by three recent case studies encountered during State Parks archaeological work (see Figure 1 for the park locations).

### **CRYSTAL COVE STATE PARK**

In 2013, State Parks’ Southern Service Center was involved with a project to design stabilization measures to protect two prehistoric archaeological sites, CA-ORA-147 and ORA-965, located on coastal bluffs in Crystal Cove State Park. These sites are threatened by coastal erosion, accelerated by heavy visitor use and storm-water runoff from paved park trails. Site ORA-965 had sustained greater erosion impact and was the primary focus of stabilization planning (Collier 2013).

Since the Spanish era, both archaeological sites have been used for livestock grazing, agricultural fields, vehicle parking, camping, and heavy equestrian use. State Parks acquired the land in 1979 and, starting in the 1980s, removed the graded, oil-paved parking lots and implemented several phases of revegetation to reintroduce native coastal sage scrub (California Department of Parks and Recreation 1982).

During a severe storm event in 1997, water runoff was accelerated down a newly paved bluff top trail to a gully on the bluff edge within ORA-965, causing severe erosion of shell midden deposits. The site was capped with fill in 1997 (Lindhahl and Hunter 2002). In 2000, a Deferred Maintenance Program project was implemented at ORA-965, led by State Parks archaeologist Larynn Carver. This included revegetation, fencing along walkways to limit off-trail use, capping the site with more fill, and stabilizing the severely eroded gully (Carver 2003).

During a 2013 pedestrian survey of site ORA-965, artifacts were seen diffusely scattered across a wide area. At the center of the site, in an area once noted to be a dense artifact and shell midden deposit, very little cultural material was noted, other than isolated pockets of shell and dark soil (Collier 2013). The widely scattered artifact distribution, noted on previous site records as early as 1980, was likely caused by the decades of agricultural and recreational use of the bluff top (Hood et al. 1980).

The midden deposit noted in previous records, although it was not clearly present on the ground surface, was still visible in exposed bluff edge surfaces during the 2013 survey. As noted in the Carver report, fill had been added twice to that area of the site to protect it from further erosion, and the features were still present subsurface (Carver 2003; Collier 2013).

Since archaeological survey, excavation, and project monitoring for this park had been well documented at the time they occurred and that information was made readily available, we were able to correctly interpret our observations and design a site stabilization plan that was consistent with precedents and procedures outlined in previous assessment work.

### **TOPANGA STATE PARK**

In 2002, the Resource Conservation District of the Santa Monica Mountains started designing a project to restore the Topanga Lagoon by removing fill material to enlarge it. A temporary use permit was granted to a geological testing contractor to perform soil tests using a mechanical auger (Jenkins 2002). State Parks archaeologist Marla Mealey had conducted a records search and inventory survey of the area in 2001 when State Parks acquired Lower Topanga Canyon (Shabel and Mealey 2001). Her research revealed that an archaeological site, LAN-133, had once been recorded within the project area. First documented in 1905, LAN-133 was a large and significant village site, including possible burials, located at the mouth of Topanga Canyon (Bayler 1905).

LAN-133 was revisited in 1977, and the resulting site record update indicates that the site had been completely destroyed (Barclay 1977).



Figure 1. State Parks location map, showing Topanga State Park, Crystal Cove State Park, and Old Town San Diego State Historic Park.

Additional survey as well as subsurface auger testing continued to indicate that the site was gone. A 1985 report stated that the site had been destroyed, and went on to recommend that no more archaeological study or protection of the area was needed (Woodward 1985).

Although no cultural resources were observed there during the survey in 2001 (Shabel and Mealey 2001), conversations with retired archaeologists and local informants made Mealey suspect that the site was still present below a deep layer of fill (Mealey et al. 2011:5).

During monitoring for geotechnical testing in 2002, State Parks archeological monitor Sarah Jenkins observed a layer of shell fragments between 8 and 29 ft. below ground surface (Jenkins 2002). Further systematic testing was conducted at the site in 2003 to determine the extent of the subsurface deposits. An intact layer of dark shell midden material and artifacts was found to be still present, beneath 4 to 26 ft. of fill that had been imported during construction of the Pacific Coast Highway (PCH) in the 1920s, as well as alluvial deposits from the lagoon (Jenkins 2003). A site record update was prepared to document the continuing existence of the site (Mealey et al. 2003).

In 2007, archaeological monitoring of trail construction revealed a deposit of shell midden and prehistoric artifacts on the ground surface, mixed with historic debris, nearby and within the boundaries of LAN-133 (Smith 2009). Mottled soil color, inconsistent stratigraphy, and the history of fill and disturbance related to highway construction and residential development in the area all indicated that this shell midden had been redeposited from another location. While the material could be from LAN-133, it could possibly have come from anywhere along the PCH route between Santa Ynez Canyon and Las Flores Canyon. A separate site record was prepared for this redeposit, and it was assigned the state trinomial of LAN-3759 (Mealey et al. 2011; Smith and Buxton 2007).

As a result of this detective work in Topanga State Park, archaeologists will now have access to more detailed information pertaining to the site history and past disturbance at LAN-133 and will be able to better protect and manage the area in the future.

### **OLD TOWN SAN DIEGO STATE HISTORIC PARK**

In 2013, Old Town San Diego State Historic Park implemented Phase II of a multiphase accessibility project to upgrade park trails and facilities in compliance with Americans with Disability Act (ADA) requirements. This project took place throughout the park, involving work in almost all of the historic properties of Old Town San Diego. For this project, it was vital to bring together all existing information about the history of excavation, monitoring, and disturbance that have taken place throughout the history of Old Town, especially from the beginning of State Parks ownership in 1968 (California Department of Parks and Recreation 1977). Sources of information included the memories of the district archaeologist, other park staff, and volunteers; old files from past State Parks development projects; historic maps and newspaper articles; as well as many reports from various archaeological investigations and project monitoring.

The 2013 project plans called for the replacement of a drainage pipe running along the edge of a reconstructed blacksmith shop and a nearby wagon shed on the historic Bandini property. The property was the site of an adobe residence built in 1827 by prominent local rancher and politician Juan Bandini. In 1869, Albert Seeley purchased the property and constructed the Cosmopolitan Hotel and Seeley Stables, from which he ran a stagecoach service until 1887. The blacksmith shop, stables, and hotel have all been reconstructed (Helmich and Clark 1991).

When the drain lines were first installed along the blacksmith shop and wagon shed, no as-built drawings were produced after the project's completion. Designs for the 2013 project were based on the original construction plans, which showed the drain line hugging the margins of both buildings (California Department of Parks and Recreation 2008).

District archaeologist Therese Muranaka remembered that a cobble feature had been found during monitoring for the initial drain line installation. Additional testing nearby had exposed other related

cobble features. These features, interpreted as the foundation of a Bandini-era adobe structure, were documented in an unpublished draft report still under review (Wolf and Schaefer 2011). Muranaka contacted the report's author, lead archaeologist Jerry Schaefer at ASM Affiliates, and he kindly shared his draft report and construction monitoring photos.

Initially, the primary concern was the depth at which the cobble feature had been encountered (in order to avoid impacts by digging too deeply within the existing trench). However, it was quickly noted that the trenches shown in plan view maps in the 2011 ASM report, which were described as the drain line trenches, did not follow the route shown on both the original plans and the 2013 project plan drawings.

Monitoring photographs clearly showed that the archaeological plan map was correct, with the drain line placed slightly farther away from the blacksmith shop and running on a diagonal between the corner of the blacksmith shop and wagon shed. When Wolf and Schaefer's (2011) plan view map image was plotted in GIS and overlaid on top of the 2013 project plan, the discrepancies were clear (see Figure 2).

The map and monitoring photos from 2011 were shared with the 2013 project manager and contractor. They had time to make slight changes to the design of other project elements in the area to accommodate the actual location of the drain line. Using the data provided, the contractor was able to precisely re-excavate the previous trench and avoid any further impact to the cobble foundation features.

Without access to Wolf and Schaefer's unpublished report and photographs, the project would have very likely caused unnecessary damage to significant historic features. State Parks project archives and the collective knowledge of park staff were also key elements of site management in this case.

## **CONCLUSION**

Archaeological sites are part of an active natural and human-influenced environment, subject to various changes and disturbances through time. Often, despite historic or recent impacts, these sites have been proven to retain some degree of integrity and potential to provide important data to further our knowledge of the past. It is the responsibility of State Parks to manage and preserve sites on its property so that these sites and the information they contain can be available to future generations. Project review, resource inventory and project-based surveys, and site condition monitoring are important aspects of State Parks' land management approach to cultural resource management.

It is necessary to understand the history of past site disturbances in order to fully evaluate the potential effects of future projects. This understanding is achieved through accurate and thorough documentation of recent and current archaeological excavation, project-based disturbance, visitor impacts, and natural weathering processes, and by making that information easily available to other cultural resource managers.

Information gathering is facilitated by the use of State Parks-wide data archive systems such as the Unit Data File, GIS mapping, active site history research, and a base level of communication and data sharing between archaeologists.

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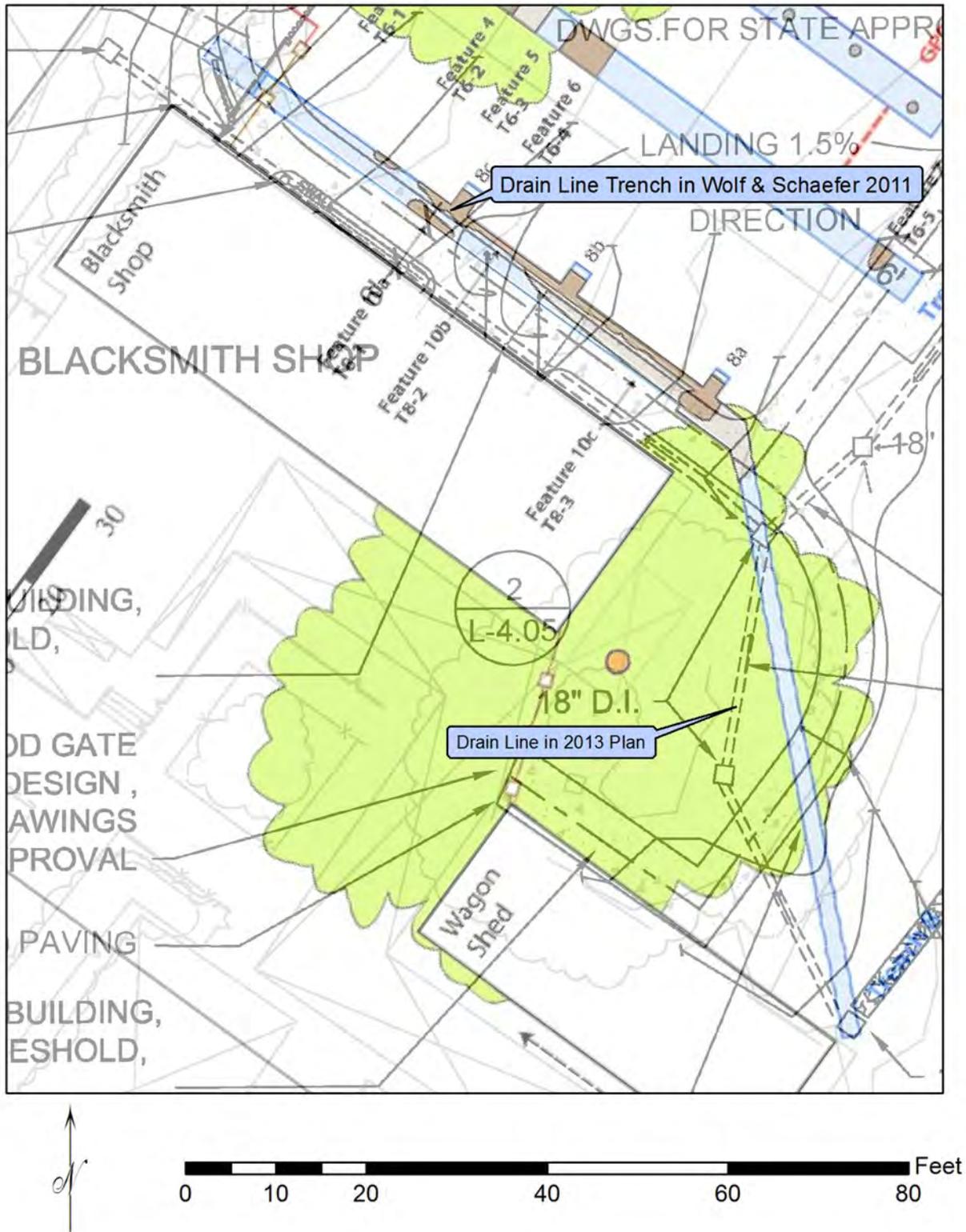


Figure 2. Wolf and Schaefer plan view and 2013 project plans, showing drain line trench.