

STEP TWO: IDENTIFY HISTORIC PROPERTIES

C: Subsurface Testing During Inventory or Survey

It is generally understood that initial survey and recordation will be based primarily on surface observations. Any excavation of archaeological sites located on federal, tribal or state land without prior approval and necessary permitting is a violation of federal (16 U.S.C. 470ee) or state law (M.C.A. 22-3-432). If the agency (or proponent) intends that the initial identification efforts should result in adequate collection of field information for an Eligibility determination (to be discussed below), procedures for collecting that information should be agreed upon before the inventory begins. If it is felt that partial excavation by a professional archaeologist (often referred to as "testing") will be necessary, consultation regarding the scope and nature of that testing should involve the land owner or land managing agency, tribes, the SHPO, the proponent and consultants. Based on this consultation minimally destructive and necessary testing during inventory may be agreed upon.

Shovel probing, augering, or some other preliminary subsurface testing method may be accepted as a step in intensive inventory. Such probing may be useful in exploring subsurface potential, substantiating surface observations, or used where vegetation obscures the ground surface. SHPO regards shovel testing and augering as being most useful in delineating site boundaries or as a means of evaluating the potential for *soil* deposition. Shovel testing is not generally sufficient to demonstrate the lack of, or presence of, intact cultural deposits. Using natural subsurface exposures - cutbanks, rodent holes, tree tips, etc. to assess subsurface deposits may also be useful but will seldom be more than a



complementary source of information and is seldom adequate as a primary source of information about subsurface potential. When used to assess subsurface potential, natural exposures should be described in detail and mapped (as well as photographed). Similarly, any combination of systematic and intuitive shovel testing should be described in detail, with rationale. Where surface visibility is low, some systematic shovel testing approach such as tests at 30m intervals on survey transects may be recommended but numerous probes should be based on SHPO consultation, not the lack of it and land managing agencies should always be part of that consultation prior to the work.

Extensive testing during survey within sites is not recommended, though some testing is often warranted as an exploratory device within and between features or activity areas and to determine boundaries. All decisions to test or not to test should be justified. Test spoil should be screened, and referenced to a site datum located on the site plan map and on the USGS site location map. In general, SHPO recommends placing a stake with aluminum tag inscribed with a field number at the datum point. However, there are several reasons such a stake may not be desirable, for example, security or owner preference. Investigators should check with property owners and land managing agencies prior to inventory. There are also cases where formal 1x1 m or 50 x 50cm test units are more appropriate than shovel probes during inventory. However, formal test units will usually take place during Eligibility evaluations, after the SHPO and other consulting parties have had a chance to comment on a testing design.

The SHPO recognizes that an appropriate testing proposal will be one that strikes the often-delicate balance between obtaining an accurate assessment of a site's information potential, and the destructive nature of obtaining that

information. The ACHP's Notice of *guidance Recommended Approach for Consultation on Recovery of Significant Information from Archaeological Sites* (Federal Register Vol.64, No. 95, 27085-7) is written primarily for those needing to address adverse effects but is also useful background for the early steps of consultation including testing. In meeting the balance, early consultation among the SHPO, tribes, agencies, proponents and others is necessary to ensure that the fullest range of alternatives remain open for consideration. The ACHP can be consulted or requested to participate at any time by any participant if consultation is not productive (36 CFR 800.2(b)(2),9(a)). Extensive excavation or use of heavy equipment such as backhoes in a testing program without appropriate consultation may render SHPO comment meaningless, and precipitate a need for ACHP participation (for example at 36 CFR 800.9(c)).

Survey Maps

Mapping of site locations on the landscape, well-determined boundaries, and delineation of all features within sites is critical, particularly if avoidance may be proposed. A transit survey may not be warranted for site plan maps during the field inventory, but SHPO does recommend that boundaries and features be flagged and shot in with compass and tape, at a minimum, with reference to a site datum. GPS is also recommended and is now the industry standard for locating the site datum and features. More detailed maps are often required during evaluation. Shape files for all site boundaries, inventory areas and APE are required. They should be submitted with the required digital copy of the report and site forms.

There are times when a site is located near to or on the edge of the APE. We recommend that when access is permitted, the boundaries of such sites be inventoried and mapped both inside and outside the APE to properly record the nature and qualities of the cultural resource. Similarly, there may be times when it will be prudent to record sites lying adjacent to, but seemingly outside, the APE to confirm that the boundaries do not extend into the APE, or more importantly that the qualities and characteristics of the site will not be inadvertently affected. If so the definition of the APE will need to be adjusted accordingly.

Remember: Shapefiles for site boundaries and APE/Inventory areas are required.

Other Survey Guidance

Federal and State land managing agencies may have their own specific requirements for conducting inventory, survey testing and for recording sites. You must learn of these before doing any cultural resource work on public lands. Basic information on standard field survey methods can also be found in the following standard references:

Secretary of the Interior Guidelines and Standards at Federal Register, Part IV 48(2): 44716-44740

ACHP/NPS

1988 *Identification of Historic Properties: A Decision Making Guide for Managers.*

ACHP

1990 *Consulting About Archaeology.*

Davis, Carl and Susan Marvin

1983 *Cultural Resource Inventory Plans: Documenting Inventory Strategies, USFS SCRM#4 Pacific Northwest Region.*

Heizer, Robert and John Graham

1968 *A Guide to Field Methods in Archaeology, National Press.*

Hardesty, Donald

1988 *The Archaeology of Mining and Miners: A View from The Silver State*, edited By William Turnbaugh, Special Pub. Ser. #6, Soc. for Historical Archaeology, Ann Arbor MI.

Hardesty, Donald and Steven Mehls

1989 *Research Design and Study Plan for the Identification and Evaluation of The Cultural Resources of the 493 Acre Bodie Study Area, Mono Co. CA*, Western Cultural Resources Management, Inc. Sparks NV

Judge, W. James and Lynne Sebastian

1988 *Quantifying the Present and Predicting the Past: Theory, Method, and Application of Archaeological Predictive Modeling*. BLM, Denver CO.

National Park Service

1993 Federal Historic Preservation Laws.
Washington, D. C.

National Park Service

1977 *Guidelines for Local Surveys: A Basis for Preservation Planning*. Bulletin # 24.

MT SHPO

1993 *Montana Historical and Architectural Survey Manual*