

Archaeological Catch and Release: Expanding Data Capture for Non-Collection Survey

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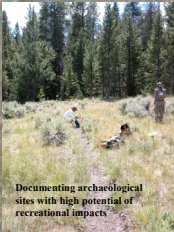
Beginning in 2002, and continuing during the 2003 field season, Colorado State University's Laboratory of Human Paleocology has been conducting archaeological survey in Northwestern Wyoming's Washakie Wilderness (Shoshone National Forest). A central component of this project has been non-collection survey. In addition to the regulatory issues involved in collecting materials from designated wilderness areas, there are several advantages and disadvantages to archaeological non-collection surveys:

ADVANTAGES OF NON-COLLECTION SURVEY

- Non-collection reduces (although does not eliminate) impacts to the archaeological record
- Non-collection allows archaeological survey experiments to be replicated to assess accuracy and precision of our field methods
- Non-collection survey provides baseline data against which impacts to the archaeological record can be reasonably assessed – adaptive management strategies require solid baseline data
- Non-collection survey maintains many contextual associations that even the most extensive documentation can not capture
- The costs and difficulties associated with collections curation are eliminated
- Provides an avenue for educational programs and stewardship efforts which bypass the commonly complaint that "if archaeologists pick up artifacts, why can't I?"

DISADVANTAGES TO NON-COLLECTION SURVEY

- The need to invest greater amounts of field time to artifact documentation
- It can be difficult to conduct reanalysis and comparative artifact studies
- The artifacts are not in secure settings and are prone to possible damage, destruction, or loss



The increase of non-collection survey protocols has both advantages and disadvantages. On the plus side, archaeological survey experiments can be replicated, reevaluated, and changes in site condition can be monitored. On the other hand, the potential loss of information due to limited field time and sometime difficult field conditions often makes one hesitant to leave large numbers of particularly sensitive artifacts (e.g., projectile points) in unsecured site settings. As part of the Greybull River Impact Zone (GRIZ) project, we've begun an in-field documentation program that includes basic metric attributes, descriptive and macroscopic attributes, digital photography, and in 2003, in-field mold-making so that casts of many of the artifacts can be produced for further study and/or display. Taken together these procedures give us the opportunity to "have our artifacts and leave them too."

OVERCOMING THE DISADVANTAGES

We are of the opinion that rather than bemoaning the disadvantages of non-collection, our time can be more productively spent working to develop methodologies to alleviate the adverse aspects of leaving archaeological materials in the field. This poster outlines several of our approaches and seeks to foster discussion on the relative costs and benefits of non-collection survey.

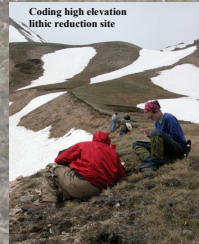
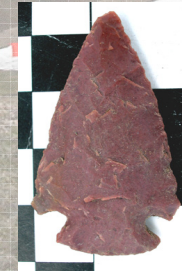
STREAMING IN-FIELD DOCUMENTATION

Provenience

One of the most fundamental attributes of archaeological documentation is provenience. We use a three-tiered system for recording locational information. First, static GPS units are used to set sub-centimeter control points. Second, these points are used for kinematic GPS sub-centimeter survey or for stations for EDM mapping. Finally, each crew member has a handheld WAAS GPS unit used to record basic locational information.

Descriptive Attributes

Building on an in-field coding system initially designed for use on the Nebraska National Forest near the Hudson-Meng bison bonebed, we have developed a descriptive attribute coding system that captures basic information on lithic raw material type, artifact type and condition, dorsal cortex, heat modifications, flake scars, and length, width, and thickness measurements on all artifacts. Complete flakes also have additional technological and platform attributes documented and projectile points also have a series of additional metric attributes recorded. In 2003 these data were entered into excel files in iPAQ PDAs. A total of six iPAQs were used, each with an SD data card for file backup. Two person teams, each equipped with iPAQ, Garmin Kinovs, and digital calipers, operated as semi-autonomous documentation groups. A fully trained team is capable of documenting nearly 200 items per field day.



ISSUES OF COMPARATIVE ANALYSIS



During the 2003 season we began a pilot study to assess the feasibility of extending our ability to conduct comparative studies through a program on in-field mold making and subsequent casting of artifacts. We used a product KNEAD-A-MOLD®. This is two-part silicone putty mold making system, which is easy to transport, cures at room temperatures, is much easier to use than standard liquid mold making materials. Full curing takes about 3.5 hours, but artifacts could be removed from the molds and left in situ after 45 minutes to an hour.



GPS-Integrated PRC-300S Radio



JC003 Late Prehistoric point cluster during mold making

ARTIFACTS, CONTEXT, AND ADAPTIVE MANAGEMENT

Some of the most commonly expressed concerns about non-collection survey are that "if I don't collect it, some [other] SOB will," or as Indiana Jones so eloquently put it "this belongs in a museum!" While we share the concern for the physical safety of archaeological materials expressed by such comments, we also consider them to be a bit misguided for several reasons.

- contemporary archaeology is concerned primarily with context and interpretation rather than in the accumulation of collections artifacts
- all collection is at some level context-destructive and should be undertaken only as a last resort
- cultural resources should receive the same level of protection and management as biological and physical resources

From the perspectives of research methods, conceptual consistency, and policy implications, we are becoming more convinced that collection of archaeological surface materials should be a method of only final recourse to be used when all other options of in situ curation have been exhausted. The negative aspects of non-collection survey can be largely eliminated with a combination of create policy and innovated field methods. The potential long-term benefits of archaeological "catch and release" far outweighs the immediate costs.

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