

Prehistoric Hunter-Gatherers in the Savage River Uplands, Denali National Park and Preserve

By John Blong

*Took a trip . . . down Savage River Trail.
That trail is a bear. (Davis 1980)*

In retrospect, I should have heeded NPS archaeologist Craig Davis' words when planning our backcountry trip north along the Savage River Trail through the steep-sided Savage canyon in Denali National Park and Preserve (Denali) (*Figure 1*). Our destination was the confluence of the Savage River and Ewe Creek (*Figure 2*), where we camped for one week and excavated three archaeological sites. The trail was difficult, but the chilly wet weather and one-week worth of camping and archaeological excavation equipment on our backs made it even more so. In the end our trip proved worthwhile, and we collected important information on prehistoric hunter-gatherer activity in Denali.

Our research in the Savage River basin is part of an ongoing study investigating how prehistoric hunter-gatherers lived and hunted in the mountainous uplands of the central Alaska Range, from earliest colonization at the end of the last ice age to less than 1,000 years ago. Emerging archaeological evidence suggests that upland landscapes of central Alaska were seasonally important to early humans (*Holmes et al. 2010, Wygal 2010*). When and how humans adapted to this landscape is unknown. Research also suggests prehistoric hunters

Figure 1. Dall sheep on the Savage River Trail.

Photograph courtesy of Heather Smith

Figure 2. (Map) Savage Basin study area in the Alaska Range Ecoregion.

adjusted their hunting technology to target caribou and sheep in the uplands, taking advantage of abundant tool-stone (stone suitable for tool-making) to fashion bifacially worked stone projectile points instead of the osseous inset-microblade projectile points preferred for lowland hunting (*Potter 2011, Wygal 2010*).

Assessing these hypotheses is difficult because the majority of well-documented archaeological sites in central Alaska are located in the lowlands of the Nenana and Tanana river valleys, whereas in the uplands of the central Alaska Range, few prehistoric sites have been fully documented. The Savage River project was part of our effort to improve our knowledge of upland activities. Our research asks: When did humans first begin targeting resources in the uplands, and what was the environmental context of this use? How did the environment and use of upland resources change over time? How did use of upland resources influence stone tool manufacture, especially bifacial projectile versus inset-microblade weapons?

The Savage River basin is within the upland Alaska Range Ecoregion (*Figure 2*), consisting of rugged mountain ridges and valleys and dwarf-scrub vegetation communities (*Nowacki et al. 2001*), and as such is ideal for studying prehistoric hunter-gatherer upland adaptations. In addition, there are significant park management interests in the Savage basin. More than 400,000 visitors visited the park in 2011 (*DENA 2012 Fact Sheet*); the Savage basin is highly impacted by this traffic and an important place for park managers to protect cultural resources. Given both research and management interests, the Savage River uplands project was developed with three

goals in mind: (1) relocate and update Denali records on nine prehistoric archaeological sites in the upper Savage basin near the Park Road; (2) systematically survey the upper Savage basin for unrecorded archaeological sites; and (3) evaluate the condition and significance of three sites at the confluence of the Savage River and Ewe Creek.

History of Archaeological Research in the Savage Basin

A portion of this project retraced the steps of scientists responsible for the earliest archaeological discoveries in the park. In 1961, Dr. Frederick Hadleigh-West conducted the first extensive archaeological excavations (in what was then known as Mt. McKinley National Park) at the Teklanika West and Teklanika East sites. The discovery of prehistoric archaeological materials in close proximity to the Park Road moved the NPS to enlist Dr. H. Morris Morgan and Dr. Adan E. Treganza to undertake the first planned surveys of park archaeological resources in 1963 and 1964. Their efforts resulted in the discovery of 16 archaeological sites, including five located in the upper Savage basin. In 1980, NPS archaeologist Craig Davis revisited sections of Morgan and Treganza's survey routes to update cultural resource records, and located three more sites in the upper Savage basin (*Griffin 1990*).

Treganza also targeted the Ewe Creek drainage area as a probable location for prehistoric hunter-gatherer activity based on information provided by Dr. Aldoph Murie, the pioneering naturalist, who observed a mineral outcrop (or lick) frequented by large game. Treganza surveyed the drainage, but found no significant



Photograph courtesy of John Blong

Figure 3. Typical elevated landform in the upper Savage basin covered in our survey. Landforms like this often had exposed archaeological material lying on the surface.

archaeological material, and it was not until 1989 that an NPS survey team located three prehistoric sites along a high terrace overlooking the mineral lick (*Lynch 1996*). This research served as the foundation upon which we built our research project in the Savage basin.

2010 Research

In summer 2010, archaeologists from the Center for the Study of the First Americans at Texas A&M University conducted archaeological survey and excavation in

the Savage River basin. In the upper Savage basin, we located previously recorded sites using coordinates and maps from Denali site files and identified landforms likely to have exposed archaeological material using topographic maps and infrared satellite images (*Figure 3*). Archaeological survey consisted of walking exposed surfaces and flagging artifacts, then recording GPS points and tool manufacturing data for each artifact (*Figures 4-5*). Detailed observations were recorded on the setting, condition, and potential significance of each site. Our 2010

survey located four of nine previously recorded sites and six previously unrecorded sites, and we recorded information on a total of 77 stone artifacts, including 59 pieces of flaking debris and 18 flaked stone cores and tools.

At Ewe Creek we used a total station survey device to record detailed provenience information before collecting surface artifacts at three sites (*Figure 6*). We excavated three 1m² test units to search for buried, datable artifact deposits and evaluate the significance of these sites. Our excavations established that there were two “paleosols”, (dark horizons representing a buried former ground surface), containing flaking debris (*Figure 7*). The lowest paleosol contained stone artifacts buried with charcoal wood dated to 4,150±40 radiocarbon years ago, or approximately 4,680 calendar years ago (cal BP). At the Ewe Creek sites we collected 53 stone artifacts, including 39 pieces of flaking debris and eight tools from surface contexts, and six pieces of flaking debris from subsurface contexts.

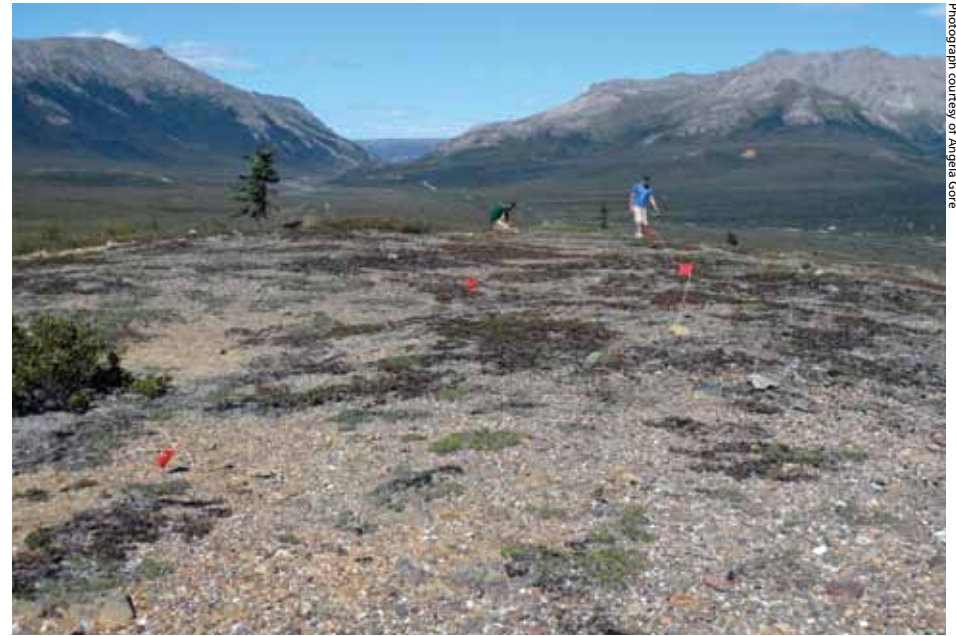
Tool Manufacture

A detailed study of the stone artifacts from the Savage basin indicates that a wide range of stone tool manufacturing activities occurred at these sites, primarily geared towards manufacturing tools from previously prepared stone blanks, as well as re-sharpening existing tools. Stone artifacts from the study area are primarily made of chert, an easily worked stone available from streambeds and gravel bars in the park, indicating that prehistoric hunters were obtaining quality rock from nearby drainages in the basin. The presence of stone projectile points, some of which had fractured upon impact, suggests that hunting was an important activity, but the presence of scraping and cutting tools suggests that carcass and hide processing also may have occurred at these sites (*Figure 8-9*). The small assemblages from the study area suggest short-term occupations: probably hunting camps, where prehistoric toolmakers primarily manufactured bifacially worked stone projectile points.



Photograph courtesy of John Blong

Figure 4. CSFA archaeologists Angela Gore and Tom Jennings scour the exposed ground surface for artifacts in the upper Savage basin.



Photograph courtesy of Angela Gore

Figure 5. CSFA archaeologists John Blong and Tom Jennings collect information on stone artifacts lying on the surface in the upper Savage basin.



Photograph courtesy of Tom Jennings

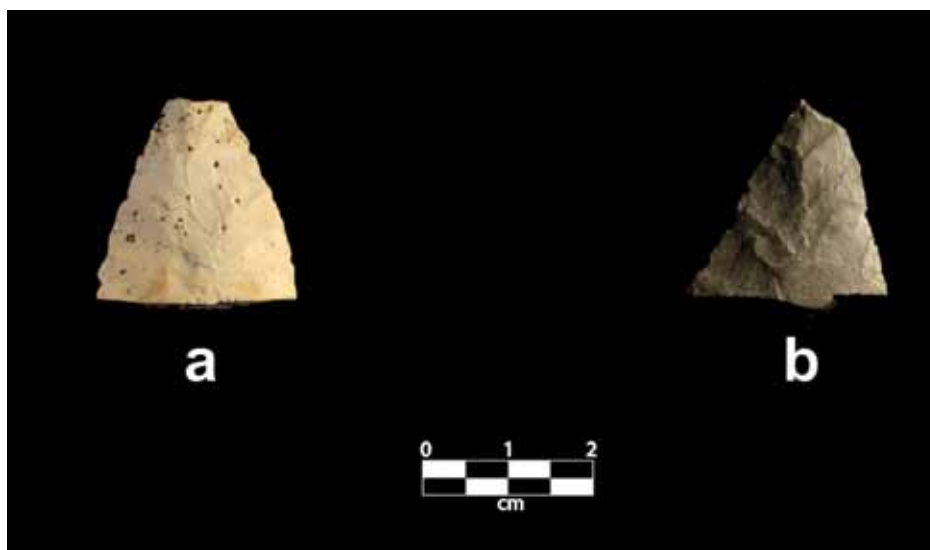
Figure 6. CSFA archaeologists John Blong and Heather Smith collect detailed provenience information on surface artifacts at Ewe Creek.



Photograph courtesy of John Blong

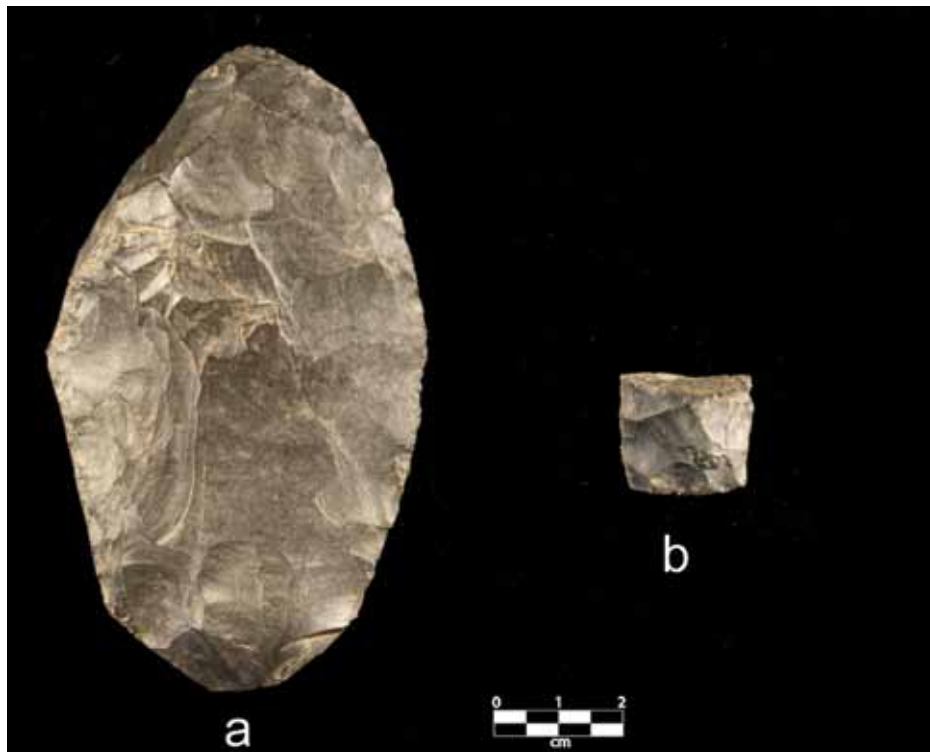
Figure 7. Sediment profile from 1 m² test unit at Ewe Creek showing (a) paleosol containing cultural material, (b) paleosol containing cultural material and charcoal radiocarbon dated to 4,150 ±40 14C BP (4,680 calBP).

Figure 8. Bifacially worked stone projectile tips recovered at Ewe Creek. Artifact (b) has a breakage pattern typical of a projectile point that fractured upon impact.



Photograph courtesy of John Blong

Figure 9. Stone artifacts recovered from Ewe Creek: (a) stone scraping tool likely used for carcass or hide processing, (b) bifacially worked stone projectile point base.



Photograph courtesy of John Blong

Temporal Span of Uplands Occupation

Archaeologists are most interested in artifacts that have been excavated from buried, datable contexts, because they often represent a discrete time period and therefore have more meaning to our understanding of prehistory. Unfortunately, most of the artifacts analyzed for this project were from surface contexts, and could potentially represent thousands of years of human activity. We recovered two lanceolate projectile point fragments, but this type of projectile point is found in assemblages dating from the Pleistocene through the late Holocene, and is often not useful as a chronological marker (*Holmes et al. 2008*). The buried artifacts from the Ewe Creek sites suggest that hunters occupied the study area as early as 4,680 cal BP, and the surface assemblages probably represent several occupations dating to this time period and younger, indicating that the uplands played an important role in hunter-gatherer lifeways in the middle and late Holocene.

Park Management

We had limited success revisiting previously recorded sites in the upper Savage basin. These sites could have been ephemeral occupations represented by the few artifacts that were collected in the original investigations, or cultural material may have been lost to erosion. A third possibility is that visitors disturbed or collected cultural material at these sites; all five of the unsuccessfully relocated sites are within a 30-minute hike from the Park Road. These results indicate how important it is to document archaeological sites before they are lost. Archaeological survey resulted in the discovery of five previously unrecorded sites, suggesting the future potential for locating additional unrecorded archaeological sites. The Ewe Creek sites are of particular significance because they have buried, datable cultural material in an unique setting adjacent to a mineral lick, and the age of the lowest component is a time not well represented in the prehistory of the region. This project utilized field notes, GPS,

and digital photography to significantly upgrade Denali site record forms and document new sites in the Savage basin, equipping park managers with the information necessary to make cultural resource management decisions.

Summary

Our 2010 field research program in the Savage basin met the three goals outlined in our research design. We successfully updated existing archaeological site records, located unrecorded sites, and excavated and dated artifacts from Ewe Creek, providing park managers with the information necessary to protect important cultural resources.

We also worked towards our two long-term research objectives: documenting prehistoric hunter-gatherer activity in the mountainous uplands of the central Alaska Range, and explaining the factors that influence prehistoric stone-tool manufacture. The data collected during this project suggests that by the middle Holocene, prehistoric people were using the uplands of the Savage basin for short-term hunting needs and collecting tool-stone from nearby drainages to produce bifacially worked projectile points. Future research will continue archaeological survey and excavation in the uplands of the Alaska Range to improve our knowledge of prehistoric use of these landscapes. More information about this project is available (<http://csfa.tamu.edu/>).

Acknowledgements

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