

# UNTRAMMELED BY MAN

## WILDERNESS ARCHAEOLOGY IN WYOMING

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**F**our decades ago, when one of us—Richard Adams—was a wannabe archaeology student enrolled in a Wyoming archaeological field school, an instructor somewhat facetiously defined a site as something George Frison could drive his backhoe to. This instructor's definition ruled out all 15 of Wyoming's officially designated Wilderness Areas, where the use of motorized equipment is prohibited. In northwest Wyoming—sometimes called the greater Yellowstone ecosystem—there are about 5.3 million acres (including Yellowstone and Grand Teton National Parks) of non-motorized wilderness. According to State Historic Preservation Office data, the state of Wyoming averages about 4.2 prehistoric archaeological sites per square mile. This means that there are potentially 34,000 sites in those 5.3 million acres of wilderness that archaeologists can't drive backhoes to.

The definition of wilderness as places “untrammled by man, where man himself is a visitor who does not remain” (Zahniser 1964) was used in the Wilderness Act of 1964. This official definition of wilderness has led to the notion that prehistoric humans neither lived in, nor extensively exploited, wilderness resources and is similar to a sentiment expressed by anthropologist Julian Steward (1938:14), who called the alpine tundra (of the Great Basin mountain ranges) “unimportant to man, except as it supports animal species.” Steward's claim was echoed by Alfred Kroeber, one of North America's first Ph.D. anthropologists, who wrote in 1939 that:

like other elevated divisions, the Rocky Mountains constituted chiefly fringes, hinterlands, or barriers under native settlement. There was no . . . pressure . . . to draw the population into the mountains (Kroeber 1939:187).

This misconception promulgated by two of North America's greatest anthropologists inadvertently turned a generation of archaeologists away from the mountains and toward the lowlands.

The misconception that mountainous areas in western North America were inhabited by the “other” or avoided by prehistoric people is common in anthropological literature (Hughes 2000). This notion that prehistoric humans were mere visitors to the alpine zone (and by extension modern wilderness areas) pervades American public perception and has colored the attitude of federal land managers toward archaeology in wilderness areas. As a result, sometimes proposed archaeological investigations in federally designated Wilderness Areas are challenged by a lack of institutional interest in the “trash” left by prehistoric people who not just visited, but lived in, what are now believed to be “pristine” wildernesses.

Combine the bias against mountains expressed by previous generations of archaeologists with bias against wilderness archaeology among land managers and you have a challenging work environment. Regardless of one's feelings about wilderness, there are still tens of thousands of prehistoric sites above treeline in wilderness areas that still need to be recorded. These sites testify to the importance, utility, and attraction of high altitude terrain.

### The Value of Longitudinal Studies

The example set by the late polymath James Benedict for longitudinal studies of alpine environments and prehistory (e.g., Benedict 1992) is our inspiration. It was only after years of alpine surveys that Wyoming's prehistoric alpine villages were recognized. Not too long ago, alpine villages were known only in the White Mountains in California and the

Toquima Range in Nevada. Now, at least 19 villages (*sensu* Bettinger 1991) have been identified in northwest Wyoming (Stirn 2014).

Over the years, our team, consisting of several students (now professionals), retired professionals, citizen scientists, and treasured collaborators, has found ancient alpine villages (Stirn 2013), recorded soapstone workshops, and increased the number of prehistoric sites in the alpine zone of Wyoming's Wind River Range several hundred-fold.

The keystone of our longitudinal studies is an ongoing (15 years and counting) collaboration with Tory and Meredith Taylor from Dubois, Wyoming. The Taylors, now retired, are backcountry outfitters, archaeologists, authors, hunters, gatherers, beekeepers, horse-packers, health care professionals, conservationists, and epicures. For part of their 35-year-long career, they led heritage tourism expeditions into Wind River and Absaroka Mountain wilderness areas, where their clients learned about the Sheepeater Shoshones.

Heritage tourists are people who travel to an area to find out more about its history and prehistory. Heritage tourism in this country, even narrowly defined, is big business. According to one study, heritage tourism was a \$4 billion industry in Colorado in 2008 (Clarion Associates 2011:34).

Heritage tourists who joined our team for week-long trips generally expressed two main interests: who were the prehistoric people that made a living in the mountains, and how did they make a living in the mountains? We combined hands-on archaeology with evening discussions. During a typical day in the backcountry, heritage tourists helped reconnoiter challenging alpine terrain and record archaeological sites. Often these interested and interesting guests had hidden talents, such as sketching, note-taking, bird identification, plant identification, and, on one memorable trip, mycology. Volunteers, thrilled to be part of a team present at the moment of discovery, asked nonstop questions.

Evenings were spent around a campfire at treeline, and there was a palpable sense of excitement as architects, investment bankers, surgeons, writers, and clergy moonlighting as archaeological volunteers asked challenging questions about wilderness ethics, horsepacking, culture history, prehistoric technology, and what kind of foods prehistoric mountain people ate. Piqued by the prehistoric food questions, we started adding more and more aboriginal foods and prehistoric technology to our repertoire until we were able to create what we imagined were prehistorically correct meals. Our PC meals featured elk, big horn sheep, and bison, paired with soapstone

bowls, sheep horn spoons, stone knives, manos and metates. Enthusiastic responses to our PC meals suggest that prehistoric cuisine did not have to be nasty, short, and tasteless.

### Think Globally, Dig Locally

If you spend money in local communities purchasing food, beverages, other supplies, and services, then those communities are more willing to support your project. For instance, the location of the famously stratified Gatecliff Shelter was revealed to David Hurst Thomas as he conducted ethnographic research (and supported the local economy) at a bar in Nevada.

In our case, the key to our success is a mutually beneficial collaboration with the townspeople of Dubois, Wyoming, through the efforts of the Dubois Museum. We hire local outfitters and cooks, stay in local bed and breakfasts, patronize local groceries, baristas, and restaurants, and enthusiastically support local watering holes; however, our main relationship is with the local museum. For decades, the museum has been a focal point for local participation and an outstanding venue for sharing results. The museum creates displays, produces videos, mobilizes volunteers, and provides speaking venues for team members. The museum is a place to meet locals who share their knowledge of artifacts and sites. The local townspeople are proud of their archaeological resources and appreciate that spending by archaeologists contributes to the economic well-being of their town of 2,500 people. In Dubois, there is a critical mass of local volunteers, local museum support, and an interested public that creates synergy. This synergistic relationship epitomizes citizen science and has attracted archaeologists from all over North America.

### Our Outfitters, Our Selves

Most modern human groups lost the ability to move fast and light across mountainous landscapes hundreds, if not thousands, of years ago. Let's face it—most archaeologists have too much stuff to carry comfortably in a backpack the size of Otzi's. Although there are young, tough graduate students who can carry all the recording gear and food they need to record sites in the wilderness, we older Anthro-Americans suspect that these energetic grads probably eat poorly, sleep uncomfortably, and wish they had brought extra batteries.

The success of our program is totally dependent on the outfitters whose pack animals carry an embarrassing large quantity of our stuff. If the thought of carrying a 70-pound pack and thousands of pin flags uphill thrills you less than it

did 20 years ago, then, by all means, hire an outfitter and mount an expedition using horses, llamas, or pack goats to haul your gear to a remote base camp if you still want to do wilderness archaeology for 10 days at a time.

While notable archeologists (e.g., Larry Todd and Chris Morgan) still conduct backpack-supported archaeology, the rest of us who want to work in the backcountry hire an outfitter. Pack animals will uncomplainingly carry a large canvas wall tent that can make the difference between a miserable week and a productive week of fieldwork when the weather fails to cooperate.

Pack animal-supported backcountry archaeology is not cheap. People assume that, because we do backcountry archaeology, we sport cowboy hats and sit tall in the saddle, but saddle horses are usually twice the price of a pack horse. Budget considerations force us to walk while our gear goes on horses. Frequently, we employ what are called drop trips—that's where outfitters with horses take our gear into a wilderness area and drop it off, then come back and pick it up in a specified amount of time.

Outfitters have specialized knowledge of weather, ground conditions, and wildlife that academic archaeologists might appreciate in a pinch—say, when a grizzly bear sow and cub wander into camp before dawn. Our outfitters, armed with only pots and pans, scared off the grizzlies before the crew awoke. This is what is known in the outfitting business as a full-service trip—a trip where the outfitter takes care of the food, the horses, moving camp, and perimeter defense.

### **Can Optimal Foragers Feed a Crew that Travels on Its Stomach?**

There is no doubt that highly ranked optimal foragers can live for weeks in the backcountry on a limited diet of Power Bars, ramen noodles, and peanut butter carried in backpacks. Because we have horses, we eat fresh items kept cold by pounds of homemade frozen entrees that provide thermal mass. By carefully protecting the food in our bear-resistant panniers from the sun, we can have fresh food for a week. The expectation of a real meal at the end of the day is what we think motivates crews to march across alpine landscapes.

While horses carry 99 percent of our food, we use backcountry excursions as opportunities to explore local foods. We supplement our modern diet with fresh trout, wild mushrooms, currants, roots, insects, and the occasional marmot. We strive to envision a paleo-diet component that is as titillating as it is authentic.

### **Backcountry Methodology**

We do it old school, partly because backcountry analog recording techniques worked for George Frison (Frison et al. 1990), Wil Husted (1964), James Benedict (1992), and Bob Bettinger (1991). Consider the following question. Which technology is costlier to carry: paper and pencil or a water-logged GPS? Experience has trained us to use paper, pencils, pens, compasses, and tapes. These analog methods provide valuable backup for digital and video data acquired by devices that seem to have a lemming-like desire to leap to their demise.

By keeping the technology simple, most of our gear is powered by off-the-shelf batteries. We prefer consumer-grade GPS receivers, walkie-talkies, and digital cameras that use replaceable, standard sized batteries to top-of-the-line digital gear using proprietary batteries that require charging during the day. We have wasted too many hours of sunlight waiting for the solar charger to charge the proprietary battery packs of top-shelf technological marvels.

If a picture is worth a thousand words, then 10 minutes of video is priceless. Collaborator Tory Taylor started videotaping the highlights of every trip a decade ago. Even though almost all video cameras use proprietary batteries, the utility of hand-held video cameras is incomparable, and they should be standard equipment on alpine archaeological projects. In the past decade, we have acquired footage of one-of-a-kind discoveries interspersed with moments of sublime weather, animal encounters, and infectious humor. The only downside to video is the amount of time it takes to catalog and edit all the video when you get out of the backcountry.

### **Alpine Archaeology in a Global Context?**

Was it not the hilly flanks of the Taurus and Zagros Mountains along the Fertile Crescent where animal husbandry first began? Mountains, including not so well-watered ones like the Rocky Mountains, have always attracted a small percentage of humans. If prehistoric game animals in the Rocky Mountains moved uphill in the late spring to feed on plants maturing at increasingly higher altitudes as the growing season progressed, then the prehistoric hunters who targeted those animals followed them uphill. This seems to have led to a vertical annual round where Late Prehistoric people in the GYE practiced big horn sheep herd management (as evidenced by two dozen wooden sheep traps) that may qualify as incipient transhumance. Prehistoric sheep hunters following big horn sheep in the mountains were doing the same thing that their kin were doing with bison on the Plains: monitoring and manipulating herd composition.

Gatherers may have insisted on harvesting the dense roots, nutritious greens, and tasty pine nuts that are found by following the seasons all the way to the alpine zone. The prevalence of groundstone in Wind River alpine villages suggests a heavy reliance on plant foods, especially whitebark pine nuts.

### Push vs. Pull: Where Would You Rather Be?

According to the National Oceanic and Atmospheric Administration, 39 percent of the U.S. population lives in a county that abuts the coast. It has probably always been thus.

A much smaller percentage of people have occupied high altitude areas in South America and North America for 11,000 years and in Africa, Asia, and Europe for hundreds of thousands of years. Compared to coastal regions, the mountains have been a less popular, but persistent, part of human settlement.

So it comes down to pull vs. push, doesn't it? Was there a prehistoric demographic high pressure ridge in the Great Basin or on the Plains that pushed people up into the mountains? Given the long-term global popularity of the coasts, it seems to us that any mid-continental demographic pressure would have pushed prehistoric people toward the coasts rather than the mountains.

In North America's GYE, the orographic effect ensures that the mountains receive more annual precipitation than the basins. More moisture means more plant and animal life and probably a better overall return rate than the more xeric basins. On any given prehistoric summer day in the Rocky Mountains, the alpine zone was likely to have been wetter and greener than the lowland basins. Most modern people faced with the choice between spending a summer in the Tetons and a summer in the hot, dusty sage steppe epitomized by the Interstate 80 corridor in southwestern Wyoming wouldn't even think twice about choosing to spend the summer in the mesic rather than the xeric environment.

In the Middle Rocky Mountains, there is an additional attraction. The foothills of the Middle Rockies are frequently uplifted hogbacks of Paleozoic and Mesozoic rocks that contain beds of high quality chert and quartzite. Farther west, obsidian occurs in volcanic extrusions in the center and western periphery of the GYE. Mountains flanked by high quality rocks have prehistoric site densities greater than ranges that lack cherty foothills.

Combine the exhilarating clarity of alpine landscapes with exuberant alpine streams, carpets of edible flowers, and

abundant wildlife, and you can see why mountainous terrain appeals to more than eight million people who choose to visit Yellowstone, Rocky Mountain, and Glacier National Parks every summer. Today's hordes were preceded by small numbers of prehistoric people who also spent summers high up in the mountains. In the summertime, the Rocky Mountains are, and have been since deglaciation, popular destinations because they are generally cooler and wetter than the lowlands. Prehistoric people and modern visitors had a better chance of encountering charismatic (and tasty) wildlife. Best of all, all of us—prehistoric and moderns alike—could make campfires that smelled like juniper and pine rather than sage and greasewood.

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