

2008 Abstracts
Rock Springs, Wyoming

Adams, Richard (Office of Wyoming State Archaeologist)

NUTS AND ROOTS: THE STAPLES OF PREHISTORIC CUISINE IN THE GREATER YELLOWSTONE ECOSYSTEM

Prehistoric native peoples of the greater Yellowstone ecosystem of northwest Wyoming remained hunter-gatherers until contact with European culture and never practiced agriculture. Of the many foods important to prehistoric people, I focus on two gathered vegetable staples that were particularly relevant to Late Prehistoric Shoshone Indians. Pine nuts supplied nearly all of the calories in the winter diet of some prehistoric Great Basin Shoshonean Indians. In 1806 by Meriwether Lewis observed Northern Shoshone women digging and processing biscuitroot for the winter. In this presentation, I envision a subsistence system where these two staples, combined with meat, form the basis of a Late Prehistoric Shoshone diet. Combining macro-nutritional composition (carbohydrate, protein, fat, calories) with actualistic and ethnographic data on harvesting practices, I calculate just how long the women of a band of people would spend harvesting these foods to make it through a Wyoming winter.

Eakin, Daniel (Wyoming State Archaeologist's Office)

BIGHORN SHEEP TRAP DOCUMENTATION AND INVESTIGATION DURING 2006 AND 2007.

Discoveries made in burned out forest areas of northwest Wyoming during the 2004 and 2005 field seasons have revived interest in bighorn sheep traps, the Shoshonean groups that made and operated them, and concerns related to long term management objectives for traps and related sites. In response to these concerns, 2006 and 2007 fieldwork assumed a historic preservation orientation whereby trap locations were GPS mapped, photographed and videotaped, with permanent datum markers installed at catch pens and wing termini. In addition, attempts were made to locate several reported drivelines and one reported tree engulfed sheep skull. These actions resulted in the "discovery" of a previously known site where wildfire has exposed a well-preserved bighorn sheep processing area that probably resulted from nearby trapping activities.

Eckerle, William and Sasha Taddie (Western GeoArch Research)

ACCESS TO GAME VS. EDIBLE PLANTS AS A SETTLEMENT DETERMINANT DURING THE EARLY HOLOCENE IN THE GREEN RIVER BASIN: A MACROPHYSICAL CLIMATE MODEL VIEW WITHIN AN ECOLOGICAL SITE FRAMEWORK

Macrophysical climate model data used within an ecological site framework helps predict change in resource structure in the Green River Basin during the Early Holocene. The distribution of forage productivity, a proxy for game availability, as well as the occurrence of 7 edible plant resources are mapped against the locations of 5 Early Holocene archaeological sites. The analysis suggests that during both wetter and drier intervals settlement occurs in locations that have access to both game and edible plant resources. However, when conditions are dry, settlement tends to optimize access to good grazing, presumably to increase encounters with game animals. (POSTER PAPER)

Dudley Gardner (Western Wyoming College)

THE FORMATIVE PERIOD IN THE SOUTHERN WYOMING BASIN; 800 TO 1200BP

The question of how far north maize cultivation extended into the Wyoming Basin is slowly being answered. This paper will look at storage facilities and macrofloral remains from excavations in the southern Wyoming Basin and discuss the formative periods dietary preferences in the region. In this paper we will primarily focus on the plant resources but we will also look at the faunal remains recovered from sites dating to this period.

Greer, John and Mavis Greer (Greer Consulting)

EVALUATING RITUAL USE OF CAVES IN WYOMING AND MONTANA

Ritual cave use on the Northwestern Plains is evidenced by distinctive rock art and artifacts, micro-botanical remains, complete painting of caves, use of special settings, and cave modification. Ritual use consists of shaman activity, personal or group ceremony, and vision questing and is distinct from daily subsistence use or biographic recording. Prehistoric activity in the central and western mountains concentrated especially on rockshelters and enclosed caves, while eastern areas more commonly utilized open bluffs and rockshelters within a general plains environment. All kinds of sites were used for ritual activity, from daylight settings in front of slight overhangs to dark zone settings deep within cavern systems.

Greer, Mavis and John Greer (Greer Consulting)

WEAPONRY IN WYOMING AND MONTANA ROCK ART

Weapons are often shown with humans and animals in Northwestern Plains rock art, and panel context suggests uses related to hunting, warfare, and ceremony. Arrows or spears are most frequently shown and occur by themselves, penetrating humans and animals, or associated with bows. Bows and arrows appear in both hunting and warfare scenes, while lances are usually in more static ceremonial context. Unlike the Southwest and Great Basin, portrayal of the atlatl is rare in Wyoming and Montana, and guns, at the other end of the chronology, are also uncommon. Stylistic variation in weaponry may be more a function of artistic portrayal than changes through time in these weapons, although there is surprising uniformity from northern Montana to southern Wyoming in style. However, clusters of particular kinds of scene content of weapon types may relate to status within a culture as well as cultural indicators.

Hahn, Ardeth (ARCADIS, U.S. Inc.)

NEWLY RECORDED SITES IN THE POWDER RIVER BASIN

During the 2006 and 2007 field seasons, ARCADIS, U.S. Inc. conducted several Class III surveys in the Powder River Basin. The opportunity to survey land on and around the Pumpkin Buttes revealed a variety of new sites, including bison bone beds, stone circles, cairns, a stone wall, and an Agate Basin camp site. Several interesting sites are discussed along with implications for future research in the area.

Keyser, James D. (USFS, retired)

POWDER WASH: HORSES IN WESTERN WYOMING

Horses are a much more common subject in the rock art of Western Wyoming than has been previously known. Examples occur throughout the Bighorn Basin and southwestward into the Green River Basin. Artists responsible for these include Crow, Shoshone, and Ute (and probably others). The site complex at Powder Wash, southeast of Rock Springs on the Wyoming-Colorado border has been the subject of study for 15 years. The most recent investigation suggests that it

originated as a redoubt for Ute horse raiders coming out on the Northern Plains in the last decades of the 1800s. (BANQUET SPEAKER)

Koenig, Orrin (University Of Wyoming) and Adams, Richard (Office of the Wyoming State Archaeologist and University of Wyoming)

INTRA-SITE VARIABILITY AT HIGH RISE VILLAGE

The High Rise Village (HRV), in Wyoming's Wind River Range, is a Late Prehistoric village consisting of collapsed wooden structures, prepared lodge floors, chronologically diagnostic chipped stone tools, modified steatite and groundstone artifacts occurring at 3261 m (10,700 feet) above sea level. This summer we recorded 34 prepared lodge floors and tested four of them. Preliminary analyses of lodge outlines and lodge contents suggest variability in floor plan size, shape and placement, and artifact assemblages. This presentation examines the structural and spatial variability of living floors observed at this unique high altitude site.

Lynch, Elizabeth Marie (University of Wyoming)

ARE YOU WHAT YOU EAT? DIETARY INFERENCES AND DENTAL ADAPTATION OF SMALL BODIED APES FROM THE EARLY AND MIDDLE MIOCENE OF KENYA

Fossil rich formations from the Miocene (23 to 14 Ma) reveal a diverse array of ape-like and monkey-like species. Geologic events and regional climate changes transformed primate habitats in Africa from continuous tropical forests to a patchy woodland environment. These changes likely increased competition for similar resource patches and favored species that exploited a wide range of resources or relied on fallback foods. This trend is seen among small-bodied apes where dental adaptive traits indicate a shift from diets consisting of mainly fruits and hard seeds, to one reliant on leafy matter. Dental microwear analysis shows the foods consumed and tests if these apes ate the foods they were adapted to eat. I examined the microwear from seven species of small-bodied apes from Kenya. Results indicate earlier species consumed a more diverse diet than predicted by their tooth form and that diet shifted gradually.

Mullen, Patrick Orion (University of Wyoming)

THE EFFECTS OF THE YOUNGER DRYAS ON PALEOINDIAN POPULATIONS

The Younger Dryas was one of several brief returns to a colder climate following the last glacial maximum and the only one that people were certainly present in the New World to experience. I have hypothesized that this cold period depressed Paleoindian populations in Wyoming while they flourished in New Mexico and that the opposite was true in the following warm period that ended the Paleoindian era. For my master's thesis, I am testing these hypotheses by evaluating (1) the ratio of Younger Dryas to Early Holocene age sites in the two states to look at changes in demographics, (2) extant paleoclimatic data to determine the extent of climate changes in the study areas, and (3) zooarchaeological evidence of food stress that may have been caused by climate changes and led to a depression in demographic growth. In this presentation, I will present preliminary findings.

Ridenour, Dora I. (University of Wyoming)

NATIONAL HISTORIC LANDMARK STATUS FOR WARDELL (48SU301) THE EVALUATION PROCESS, AND POTENTIAL MEANING TO PUBLIC ARCHAEOLOGY AND EDUCATION

Located in the Green River Basin of southwestern Wyoming on land administered by the Bureau of Land Management, the Wardell Buffalo Trap (48SU301) is a Late Plains Archaic bison kill

site demonstrating the combined use of a box canyon with a man-made corral for entrapping large numbers of bison. Excavation at the Wardell site in the early 1970s uncovered nearly 1,000 years of operations in the corral/kill area and the nearby meat processing area, as well as the earliest evidence of bow and arrow use during communal bison procurement. Due to episodic headcutting of the arroyo system where the Wardell site is found, data recovery ensued in 2005 and site stabilization measures were undertaken in the fall of 2007 to mitigate further erosional site destruction. Currently the site is in process of nomination as a National Historic Landmark. This paper explores the process through which the Wardell site meanders on its route to such a designation. In addition, I propose the following questions: What will Landmark status mean to Public Archaeology and Education? Specifically, what is/are the benefit(s) to site preservation? How will the educational interests of the public be served? Who will have access to the site, and how?

Tratebas, Alice (Bureau of Land Management, Newcastle Field Office)

"ROCK ART IN WYOMING" TRAVELING EXHIBIT

The BLM is preparing a traveling exhibit to showcase the outstanding rock art we have in Wyoming. The exhibit will have 14 panels each geared to answering a common question people ask when viewing rock art, such as "How old is it? Who made it? What is the oldest rock art in Wyoming? What does it mean?" The exhibit panels will be mounted on foam core and set up on artists' easels. The exhibit will be light weight and easy to transport. We encourage schools, museums, and archaeology society chapters to request the exhibit. We also plan to prepare a notebook to accompany the exhibit, which will contain teaching resources, plus references for those wanting more in depth information.