

2003 Abstracts
Sheridan, Wyoming

ACROSS THE GREAT DIVIDE: ARCHAEOLOGICAL RECONNAISSANCE IN THE FITZPATRICK WILDERNESS, FREMONT COUNTY, WYOMING

Richard Adams, Office of the Wyoming State Archaeologist

Over the past two summers, archaeologists, students, and volunteers located and recorded 12 cultural resources in the Fitzpatrick Wilderness above 9,800 feet above sea level in the first two years of a cooperative effort by the Office of the Wyoming State Archaeologist and the Shoshone National Forest. Most of the recorded sites contain soapstone artifacts such as bowls, bowl preforms, tubular pipe preforms, or enigmatic artifacts. While chronologically diagnostic artifacts show that the area was used seasonally for many thousand years, soapstone bowls are a relatively recent phenomenon and are associated with the Sheepeater Shoshone. I conclude by comparing and contrasting Wyoming's indigenous soapstone industry with the Gabrielinos of southern California.

MEGAQUARRY (39LA259): THE ON-GOING SAGA OF A LITHIC MATERIAL SOURCE
Cher Burgess, Black Hills National Forest, Spearfish, South Dakota

Legard and Miller initially recorded MegaQuarry in 1983 as a lithic scatter. Subsequently it has been recognized as a lithic material source (i.e., quarry), site boundaries have been expanded, and recent human impacts have occurred. Current investigations (highlighted in the Masters and Baars papers) resulted in recording additional features that may be associated with the MegaQuarry site. These features include a nearby campsite, a water source that might have been available prehistorically and a hearth within the MegaQuarry site boundaries. The new discoveries and other previously recorded area sites have the potential to contribute to the knowledge of the prehistoric use of areas adjacent to lithic source sites.

39LA259: A LITHIC PROCUREMENT SITE IN THE NE BLACK HILLS OF SOUTH DAKOTA

Dewey Baars, former WAS president and volunteer for Black Hills National Forest, Northern Hills District

Site 39LA259 is a high quality chert source in the northeastern Black Hills of South Dakota. Recent surveys have greatly expanded the boundaries of the quarry area. The material from the quarries is in the form of nodules that formed in the dolomite of the Minnelusa Formation. The nodules are fine-grained chert, white to tan to gray in color, some with a pink hue. The quarry area at 39LA259 covers a rectangular area about one half mile by one mile and includes over (?) individual pits. An examination of known prehistoric sites in the Minnelusa Formation may reveal the importance of this formation as a lithic material source for the Black Hills and surrounding area.

SHOOTING A DEAD ANTELOPE: AN EXPERIMENTAL STUDY OF PROJECTILE SIZE AND VARIABILITY OF BREAKAGE

Joe Cheshier, University of Wyoming

During the fall of 2002, an experimental study was undertaken at the University of Wyoming looking at understanding projectile point variability in the archaeological record. The questions the experiment sought to answer were: 1) how does size affect projectile point longevity/durability and 2) why is there variability in the size of recovered projectile points from archaeological sites. Ten 2.5cm points and ten 5cm points were knapped, hafted, and shot by bow into an antelope carcass. The points were fired repeatedly until their penetrative form was compromised by breakage. The 5cm points average 1.1 shots each while the 2.5cm points averaged 1.8 shots each. One variable that emerged as a key factor was thickness-to-length ratio. The 2.5cm points were considerably thicker compared to their length than the 5cm points were and lasted longer before final breakage.

TREASURE CAVE: A PRELIMINARY DISCUSSION OF ITS ARTIFACTS AND SIGNIFICANCE IN OBSIDIAN DISTRIBUTION

Mike Fosha, South Dakota State Archaeologist's Office

During the early 1960s, two individuals observed artifact rich sediments being disturbed in a cave in the northern Black Hills of South Dakota. For the next two years these individuals attempted to salvage the remains from the front of the cave for future study. These artifacts were recently given to the State Archaeological Research Center, Rapid Cit, for curation and analysis. The assemblage is temporally equivalent to the Late Archaic/Early Late Prehistoric Period and is a remarkable collection of wood tools and other organics as well as a large percentage of obsidian cores, debitage and tools.

DATA RECOVERY AT 48NA465

John G. Goss

During spring of 2000, an archaeological monitor of stream realignment construction activities, conducted by Umetco Minerals Corporation, discovered exposed, uncovered deposits of buried Prehistoric features and artifacts on a series of Late Holocene stream terraces on upper East Canyon Creek in the Gas Hills of central Wyoming. Archaeological excavations conducted throughout the summer and fall of 2000 and spring of 2001 resulted in the investigation of four cultural components consisting of: 63 cultural features, 217 stone tools, 11,706 pieces of lithic debitage, two hammerstones, nine small fragments of ceramics (not potsherds), 688+ bone fragment including bison and deer/pronghorn, and a large freshwater mussel valve. Radiocarbon sampling and diagnostic tools provided dates from the Late Archaic and Late Prehistoric cultural periods from approximately 3,120 to 1,120 years B.P. The large sample of features and lithics is a data set that provides insight into Late Archaic cultural adaptations in the eastern Gas Hills region of the Wind River Basin. Analysis of the features indicates the occupants utilized a well-developed roasting pit technology for hot-rock utilization and processing floral and faunal foods. The lithic source study of the wide range of materials recovered from this site explores procurement, mobility, and trade that brought local and exotic goods through this region. Activities at the site include hearth and roasting pit utilization, hunting, butchering, hide processing, plant food processing, hotrock use, lithic tool manufacturing and maintenance, and lithic raw material procurement.

DANGLING LEGS PETROGLYPHS, NATRONA COUNTY WYOMING

Mavis Greer and John Greer

A rockshelter in central Wyoming (48NA3535) contains numerous late period petroglyphs. The main panel is dominated by large rectangular bodied humans. Some are clearly males, all have upraised arms, but none holds a weapon. The back wall continues to be affected by natural erosion. One human's feet were found on a detached block on the shelter floor. This is a prime example of significant rock art sites being lost to nature, but it is also a good example of the amount of data these impacted sites still have to offer.

A CANID FOOT BONE BEAD MANUFACTURING AREA AT SITE 48CA1366

Kerry Lippincott, Consulting Archaeologist, Casper, WY

Beads and/or tubes produced from metacarpals and metatarsals of large dogs or wolves have long been recognized as a trait at Northwestern Plains archaeological excavations. William Mulloy reported their occurrence from Pictograph Cave and George Frison excavated them at the Kobold, Big Goose Creek, and Piney Creek sites. Contract excavations by John Albanese and the Archeology Lab, Augustana College at 48CA1366, a site on coal mining property along the Belle Fourche River south of Gillette, revealed a workshop area exclusively devoted to the manufacturing of these kinds of ornaments. A hearth, stone tools, canid foot bone bead debris, and red ocher were recovered from excavations in a small area of the site. Analysis revealed a possible manufacturing process for these beads. Ceramics from the site indicated possible affiliations to Middle Missouri tradition sites along the Missouri River and radiocarbon dates placed the component between A.D. 1390 and 1440.

PREHISTORIC QUARRIES: A 21ST CENTURY APPROACH

Max Masters, Black Hills State University and Black Hills National Forest, Northern Hills District

A large prehistoric lithic quarry, 39LA259, was recorded in 1983 in the northeastern Black Hills. The quarry has been revisited several times since, but the rudimentary maps prepared during these investigations did not illustrate the actual number of quarry pits or their geographical extent. An extensive effort was made this past year to map all of the quarry pits and associated features using global positions systems (GPS) and geographic information systems (GIS). This presentation will explain the technology used and the problems encountered. The effort resulted in an extension of the site boundaries and improved understanding of this particular quarry.

PALEOINDIAN TO POTTERY: A PREHISTORIC SITE DISTRICT IN SUBLETTE COUNTY, WYOMING

Terri Miner, Current Archaeological Research, Inc., Rock Springs, Wyoming

In the 2000 field season, Current Archaeological Research recorded a group of sites in the Jonah Gas Field near Pinedale, Wyoming, that resulted in the definition of Prehistoric Site District 48SU4000. Encroaching well field development poses a threat of vandalism to rare and significant cultural resources through increased access of the area to the public. The district is

situated around a system of bedrock outcrop ridges that create numerous rock-sheltered areas. The site areas are dense with surface cultural material scatters including five site localities with a prehistoric ceramic presence, two of which contained approximately 500 sherds each. Other rare artifact classes are represented in the site district including two projectile points typed to the Paleoindian Period. A wide range of activities are implied by the broad representation of cultural material and feature types documented thus far that include toolstone procurement, tool manufacture, floral and faunal resource processing, pottery use and possible manufacture, habitation, hunting, trade, communal meeting and ceremonial activities. Test units placed in collapsed rock shelters confirmed the existence of substantial cultural deposits. A significant potential in the site district for preserved Paleoindian deposits, otherwise perishable organic cultural material, possible human interments and data relevant to paleoecological reconstruction is indicated by this initial inventory and limited testing.

THE CIVIL WAR IN ARCHAEOLOGY

Doug Owsley, Smithsonian Institution

Union and Confederate military burials from the Civil War are still being discovered. This program will explain how archaeological, forensic anthropological, and historical research can help identify military unit, individual identity, and cause of death.

PLAINS WOODLAND PRESENCE IN THE PINE BLUFFS ESCARPMENT

Peterson, Marcia L. and Charles A. Reher, University of Wyoming

Plains Woodland sites are found throughout much of the western Plains, but in the westcentral High Plains these sites seem to demonstrate that this also was by far the most prolific prehistoric occupation. The High Plains Archaeology Project has identified more than 20 Woodland sites in a small portion of southeast Wyoming, and this presentation will focus on 14 Late Plains Woodland manifestations that are scattered along about 12 linear miles of the Pine Bluffs escarpment. Diagnostic artifacts including small, corner-notched projectile points and cord-marked ceramics were used to identify the Late Plains Woodland components. Site types range from large, stratified campsites such as the Pine Bluffs Site (48LA312) and Seven Mile Point (48LA304), to smaller open camps, other lithic/ceramic scatters, and rock shelters. Especially notable are extremely large concentrations of fire cracked rock from extensive use of roasting pits. A series of radiocarbon dates from several sites will be presented, along with discussion of artifact assemblages, settlement patterns, and other relevant research areas. Though the Late Plains Woodland period has been studied in some detail, much remains to be learned regarding their presence on the High Plains.

LIFE ON THE ROAD: A DECADE OF ARCHAEOLOGY ALONG HIGHWAY 24 IN THE BEAR LODGE MOUNTAINS OF WYOMING

Edward Schneider, TRC Mariah Associates Inc.

Beginning in 1992 with a cultural resource inventory of 27 miles along Highway 24 in the Bear Lodge Mountains of Wyoming, TRC Mariah Associates recorded 82 prehistoric and historic sites. Alternating field seasons of test excavations and data recovery has occurred since 1994. Thirty four sites have been tested for NRHP eligibility and project effect and data recovery has

occurred at 16 sites. A suite of radiocarbon dates in the project area document habitation from the Early Archaic through the Late Prehistoric, with an increased use during the Late Archaic. Prehistoric site types identified include a stratified multicomponent rockshelter, numerous open campsites and lithic procurement locations, and a bison butchering site. Lithic material types analysis has provided information on lithic procurement strategies in Bear Lodge Mountains. This presentation summarizes the culture history of the Bear Lodge Mountains based on the data collected over the past ten years.

EXAMINATION OF MID-HOLOCENE CLIMATIC MODELS IN SOUTHWEST WYOMING Britt Starkovich, University of Wyoming

Geoarchaeologists differ on their reconstruction of the mid-Holocene climate of Southwestern Wyoming during the Archaic Period (6,000-4,000 years ago). Specifically, Eckerle argues for much drier conditions associated with the Altithermal, whereas Miller argues for a wetter climate associated with the Neoglacial. An alternate method for addressing climate change, independent of geoarchaeology, would be useful. My paper examines pollen data collected by Cultural Resource Management firms at sites in southwest Wyoming for the presence and frequencies of plants that indicate different environmental conditions. Fluctuations and proportions of indicator species such as *Sarcobatus*, *Artemisia* and *Cheno-ams* depict the nature of the climate during this two thousand-year time period. Each species prefers different growing conditions, with *Sarcobatus* growing in the most xeric environments followed by *Artemisia* and *Cheno-ams*. The frequencies and percentages were compared from site to site and to modern samples collected at each site to provide an independent test of mid-Holocene climatic models.